

GZA GeoEnvironmental, Inc.

**CHARBERT, DIVISION OF N.F.A.
PHASE II SITE INVESTIGATION
ALTON, RHODE ISLAND**

**PREPARED FOR:
HINCKLEY, ALLEN, SNYDER LLP
PROVIDENCE, RHODE ISLAND**

**PREPARED BY:
GZA GEOENVIRONMENTAL, INC.
PROVIDENCE, RHODE ISLAND**

**FILE NO. 32795.04
JUNE 2005**



June 2, 2005
File 32795.04-C



Ms. Cynthia Gianfrancesco
Principal Environmental Scientist
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908-5767

Re: Charbert, Division of N.F.A.
Site Investigation Report
Charbert Facility, Richmond, Rhode Island

Dear Ms. Gianfrancesco:

140 Broadway
Providence
Rhode Island
02903
401-421-4140
Fax: 401-751-8613
www.gza.com

On behalf of our client Hinkley, Allen & Snyder LLC, GZA GeoEnvironmental, Inc. (GZA) is pleased to provide you with the attached *Site Investigation Report* (SIR) for the Charbert Facility in Alton, Rhode Island. This SIR was prepared by GZA GeoEnvironmental, Inc. At your request and in accordance with our proposal dated January 20, 2005. The report addresses the applicable requirements of Section 7 of the Remediation Regulations; as well as comments received from RIDEM on earlier interim submissions concerning the level of site characterization and delineation of previously identified areas of concern.

Section 7 of the report provides a summary of our findings and Section 8 outlines the development of remedial actions.

We trust this information will be useful. Please feel free to contact me with any questions or comments.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "S. Andrus".

Stephen Andrus
Project Engineer

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

John P. Hartley
Consultant/Reviewer

A handwritten signature in black ink, appearing to read "E. Summerly".

Edward A. Summerly, P.G.
Associate Principal

EAS:mac

cc: J. Eastman, RIDEM- Office of Waste Management (2 copies)

J:\ENV\32795-04.eas\SIR\COVLETSIR.doc

TABLE OF CONTENTS

	<u>Page</u>
1.00 INTRODUCTION	1
1.10 PROJECT OBJECTIVES	1
2.00 BACKGROUND	2
2.10 SITE DESCRIPTION	2
2.20 ADJOINING PROPERTIES AND AREA LAND USE	3
2.30 CURRENT FACILITY OPERATIONS	4
2.40 PRIOR OWNERSHIP	4
2.50 HISTORICAL OPERATIONS AND USAGE	5
2.60 WASTE DISPOSAL PRACTICES	5
2.61 Wastewater Disposal System	5
2.62 Out of Service Lagoons	6
2.63 Soil Scrapings	6
2.64 Waste Oil	7
2.65 Solid Waste	7
2.66 Historic Waste Disposal	7
2.66.1 Solid Waste Disposal	7
2.66.2 Hazardous Waste Disposal	8
2.66.3 Waste Oil Disposal	8
2.70 HISTORIC WASTE DISPOSAL	8
2.80 SANITARY SEWER SYSTEM	9
2.90 COMPLIANCE HISTORY	9
2.11 STORAGE TANKS	11
2.11.1 Underground Storage Tanks	11
2.11.2 Aboveground Storage Tanks	12
2.12 HAZARDOUS SUBSTANCES ON SITE	12
3.00 ENVIRONMENTAL SETTING	12
3.10 TOPOGRAPHY AND DRAINAGE	12
3.11 Surface Water Runoff	13
3.22 Roof Drainage	13



TABLE OF CONTENTS CON'D

	<u>Page</u>
3.20 SURFACE WATER HYDROLOGY	13
3.21 Surface Water Bodies Within 0.5 Miles Radius	13
3.22 Wetlands	14
3.23 Regional Precipitation, Annual and Monthly Averages	14
3.30 PUBLIC WATER SUPPLIES LOCATED WITHIN 2.0 MILES OF THE SITE	14
3.40 GROUNDWATER CLASSIFICATION/QUALITY	15
4.00 SUBSURFACE INVESTIGATION	15
4.10 GEOPROBE EXPLORATIONS AND MONITORING WELL INSTALLATIONS	16
4.20 SOIL BORINGS AND MONITORING WELL INSTALLATIONS	17
4.30 WELLHEAD SURVEY AND PIEZOMETRIC LEVELS	18
4.40 SOIL SAMPLING	18
4.50 GROUNDWATER SAMPLING	19
4.60 WASTEWATER SAMPLING	21
4.70 TEST PIT EXPLORATIONS	21
4.80 MANAGEMENT OF INVESTIGATION DERIVED WASTE	21
5.00 SUBSURFACE CONDITIONS	22
5.10 SITE GEOLOGY	22
5.20 SUBSURFACE CONDITIONS	22
5.30 DUMP AREAS EVALUATION	24
5.31 Solid Waste Area 1	24
5.32 Solid Waste Area 2	24
5.33 Solid Waste Area 3	25
5.34 Solid Waste Area 4	25
5.40 GROUNDWATER	25
5.41 Groundwater Elevations and Fluctuations	25
5.42 Groundwater Flow Directions	27
5.43 Nested Monitoring Wells	28
5.44 Modified Pump Test	29
6.00 ANALYTICAL TESTING	30
6.10 ANALYTICAL TESTING PROTOCOLS	30
6.20 SOIL ANALYSES	32
6.21 Subsurface Soils	33



TABLE OF CONTENTS CONT'D

	<u>Page</u>
6.21.1 VOCs in Subsurface Soils	33
6.21.2 SVOCs in Subsurface Soils	34
6.21.3 Petroleum Hydrocarbons in Subsurface Soils	34
6.21.4 Polychlorinated Biphenyls (PCBs) and Pesticides	35
6.21.5 Metals in Subsurface Soils	35
6.22 Soil Stockpiles	36
6.22.1 Clayton Group Testing – 2001	36
6.22.2 GZA Testing – 2005	36
6.22.3 Clayton's Holding Pond Sampling – 2001	37
6.30 WATER ANALYSES	37
6.31 Hydropunch Groundwater Analysis	38
6.32 Groundwater Field Screening	38
6.33 VOCs in Groundwater	39
6.33.1 VOC Distribution in Groundwater	40
6.34 SVOCs in Water Samples	
6.35 Petroleum Hydrocarbons in Groundwater	41
6.36 Metals in Groundwater	42
6.37 Water Quality Parameters	43
6.38 Residential Well Results	44
6.39 Underground Injection Control (UIC) Program Testing	45
6.40 Lagoon and Wastewater Testing Results	46
6.41 Cleanup Confirmation Testing of 2005 Oil Release	47
7.00 SUMMARY AND CONCLUSIONS	48
8.00 DEVELOPMENT OF REMEDIAL ALTERNATIVES	51
9.00 CERTIFICATION	56
10.00 LIMITATIONS	57

TABLES

TABLE 1	PRIOR OWNERSHIP
TABLE 2	ABOVE GROUND STORAGE TANKS
TABLE 3	GROUNDWATER DEPTHS AND ELEVATIONS
TABLE 4	SUMMARY SILICONE CONTAINING PRODUCTS MSDS SUMMARY
TABLE 5	SOIL VOC FIELD SCREENING
TABLE 6	ANALYTICAL TESTING SUMMARY
TABLE 7	SUMMARY OF GZA's SOIL TESTING RESULTS





TABLE 8	SUMMARY OF CLAYTON'S ANALYTICAL RESULTS SOIL SAMPLING 2003
TABLE 9	SUMMARY OF CLAYTON'S ANALYTICAL RESULTS – OLD SOIL STOCKPILES AND LAGOON BOTTOM
TABLE 10	SUMMARY OF GZA'S ANALYTICAL RESULTS FOR SOIL STOCKPILES
TABLE 11	SUMMARY OF GZA'S HYDRO PUNCH GROUNDWATER TESTING RESULTS
TABLE 12	LOW FLOW FIELD SCREENING RESULTS
TABLE 13	SUMMARY OF GZA'S GROUNDWATER ANALYTICAL RESULTS
TABLE 14	SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS
TABLE 15	SUMMARY OF RESIDENTIAL WELL RESULTS BY RIDOH/RIDEM
TABLE 16	SUMMARY OF RESIDENTIAL WELL TESTING RESULTS FOR 14, 16 AND 18 RIVER STREET
TABLE 17	STATISTICS SUMMARY OF UIC MONITORING PROGRAM
TABLE 18	SUMMARY OF WASTEWATER ANALYTICAL RESULTS
TABLE 19	OIL PIPELINE CONFIRMATORY SAMPLES
TABLE 20	EVALUATION OF REDUCTIVE DICHLORINATION IN SOURCE AREAS
TABLE 21	BIODEGRADATION ASSESSMENT

FIGURES

FIGURE 1	LOCUS PLAN/ PROPERTY BOUNDARY PLAN
FIGURE 2	EXISTING CONDITIONS/ WETLANDS PLAN
FIGURE 3	EXPLORATION LOCATION PLAN
FIGURE 4	GEOLOGIC CROSS-SECTION – EAST TO WEST SITEWIDE
FIGURE 5	GEOLOGIC CROSS-SECTION - SOUTH TO NORTH SITEWIDE
FIGURE 6	GROUNDWATER CONTOUR PLAN (PUMPING CONDITION)
FIGURE 7	GROUNDWATER CONTOUR PLAN – NON-PUMPING CONDITION
FIGURE 8	GROUNDWATER CONTOUR PLAN – PUMPING CONDITION
FIGURE 9	GROUNDWATER CONTOUR PLAN – PUMPING CONDITIONS
FIGURE 10	CONTAMINANT CONCENTRATIONS – SOILS EXCEEDING METHOD 1 RDEC-I/CDEC LEACHABILITY CRITERIA
FIGURE 11	CONTAMINANT CONCENTRATIONS – GROUNDWATER EXCEEDING – GA/MCL CRITERIA
FIGURE 12	CONTAMINANT CONCENTRATIONS – TETRACHLOROETHENE (PCE) DISTRIBUTION ISOPLETHS
FIGURE 13	CONTAMINANT CONCENTRATIONS – TRICHLOROETHENE (TCE) DISTRIBUTION ISOPLETHS
FIGURE 14	CONTAMINANT CONCENTRATIONS CIS-1,2-DICHLOROETHENE (CIS) DISTRIBUTION ISOPLETHS
FIGURE 15	CONTAMINANT CONCENTRATIONS VINYL CHLORIDE (VC) DISTRIBUTION ISOPLETHS

APPENDICES

APPENDIX A – LIMITATIONS

APPENDIX B – SITE PHOTOGRAPHS

APPENDIX C – LOGS (TEST PIT AND SOIL BORINGS)

APPENDIX D – LABORATORY CERTIFICATES OF ANALYSIS

APPENDIX E – TIME SERIES PLOTS



J:\ENV\32795-04.eas\SIR\TOC-Outline.DOC

1.00 INTRODUCTION



This report presents the results of a Site Investigation conducted by GZA GeoEnvironmental, Inc. (GZA) for Charbert, division of NFA. Corp. (NFA), at property identified as the Charbert Manufacturing Facility (the "Site") located 299 Church Street in Richmond, Rhode Island. The investigation was conducted in response to the RI Department of Environmental Management's (RIDEM) *Letter of Responsibility* and in accordance with our proposal for services dated January 20, 2005. The scope of work was presented to RIDEM in a plan entitled *Site Investigation Work Plan* dated December 22, 2004, (as amended and approved). This report is subject to the Limitations presented in Section 10 and Appendix A.

Our *Site Investigation Work Plan* and this *Site Investigation Report* are based, in part, on information contained in prior environmental studies completed at the Site and on adjacent properties. Although the data previously reported to the RIDEM is not fully presented in this report, it has been used in the formation of our conclusions, recommendations, and the development of remedial alternatives. These former studies include:

- *Interim Site Investigation Report*, dated May 13, 2004, by Clayton Group Services;
- *Sampling and Analysis Plan* dated February 17, 2004 by Clayton Group Services;
- *UIC Issues at Alton Operating/Charbert Facility*, dated March 19, 1997 by Clayton Group Services;
- *Preliminary Site investigation Results*, dated August 6, 1996 by Fuss and O'Neil; and
- *Environmental Audit/Phase I Investigation*, dated August 8, 1991 by Rizzo Associates, Inc.

Additional site information was gained as part of the following Site related projects:

- *Soil Stockpile Evaluation and Reuse Plan* (GZA);
- Residential Well Treatment System Design & Installations (GZA);
- ISDS Replacement Design and Installation (GZA);
- Residential well testing programs (RIDEM, RIDOH and Town of Richmond); and
- Quarterly UIC Monitoring Program (Charbert).

1.10 PROJECT OBJECTIVES

The principle objective of the multi-media *Site Investigation* was to evaluate potential impacts from past and present activities associated with the textile manufacturing process on environmental conditions at the Site. As noted above, a number of studies have been completed and a significant body of environmental information exists for the Site and surrounding area. This data has been reviewed with respect to the requirements for site investigation studies as presented in Section 7 of RIDEM's Rules and Regulations for the

Investigation and Remediation of Hazardous Materials Releases, as amended through February 2004. The objectives of the Phase II Site Investigation Study were to address apparent gaps in the data needed to finalize a *Site Investigation Report* for the facility.

Specific objectives of the investigation where to:



- Evaluate whether historical landfills exist, and if they do, estimate the lateral extent and volume of buried waste;
- Evaluate whether Site soils contain contaminants at concentrations above RIDEM's Method I Direct Exposure Criteria;
- Evaluate whether Site soils contain contaminants at concentrations which represent apparent sources of the observed groundwater impacts;
- Document groundwater quality conditions and groundwater/contaminant migration patterns in the shallow and deep overburden aquifer; and
- Develop and present recommendations for remedial alternatives leading to a final Site remedy.

2.00 BACKGROUND

Significant assessment work that has been completed at the Site, and as summarized above, has led to an understanding of the primary contaminants of concern and areas of potential environmental issues. The following sections briefly describe the physical characteristics of the Site, its current and past usage and the nature of the surrounding area.

2.10 SITE DESCRIPTION

The ±113.9 acre Charbert property (consisting of Plat 11A, Lot 6) is located at the confluence of the Wood and Pawcatuck Rivers, at 299 Church Street, in the Town of Richmond, in an area referred to as the Village of Alton, Rhode Island (see Figure 1, *Site Locus Map* and Figure 2, *Existing Conditions Site Plan*). The North American Datum (NAD) 1983 Rhode Island State Plane coordinates at the approximate center of the property are 129,015 feet north, and 267,645 feet east (latitude 41° 26'14.0" north, longitude 070° 43' 14.0" west). The facility's standard industrial classification (SIC) code is 2259 (Knitting Mills).

The Site, which occupies the western approximately one-third of Plate 11A, Lot 6, has been the location of a textile mill since the mid-1800s. The facility presently conducts dyeing and finishing operations and employs approximately 125 workers running three shifts per day, five to six days per week. Charbert also employs approximately another 50 workers in Peace Dale, Rhode Island, at their knitting facility which supplies fabric to the Alton dyeing operation.



The northwestern portion of the Site is currently developed with twelve inter-connected buildings, forming one, 2-story manufacturing building (see Photo 1). The building was originally constructed in approximately 1860 with various renovations occurring throughout the years; refer to Figure 2, *Existing Conditions/Wetland Plan*. The last building was constructed in 1979. The subsequent additions to the main building have resulted in approximately 107,500 square feet of manufacturing, storage, and office space. In addition to the main manufacturing building, the northern portion of the Site is also developed with an industrial waste pump house, a potable well pump house, a water tower, three water tanks, three bunkered oil storage areas and two outdoor storage areas. There are two paved employee parking areas; one is located immediately east of the manufacturing area and is used for employee and visitor parking. The second employee parking lot is located to the east of the manufacturing building, across River Street.

Outside equipment storage areas are located in the rear parking lot south of the main building and in the northeast corner of the employee parking lot on the east side of River Street. The storage area in the rear parking lot is surrounded by chain link fence and used to store washed, clean drums that dyeing products are shipped in. The drums are routinely returned to the supplier. The storage area in the employee parking lot is used to store clean surplus equipment related to the dyeing and storing of fabrics and surplus metal shelving.

The southern portion of the Site consists of undeveloped wetlands, forested areas, three active waste water treatment lagoons (Lagoons 1, 2, and 3) (see Photo 2), and one currently inactive temporary holding pond. The three active lagoons have an approximate total leaching area of 142,835 square feet (3.29 acres), and the holding pond has an approximate leaching area of 22,600 square feet (0.51 acres).

2.20 ADJOINING PROPERTIES AND AREA LAND USE

The area surrounding the Site is characterized as rural/residential and consists of residential properties and natural undeveloped areas. Private residences are located both north and east of the Site and on the west side of the Wood River. Alton Pond is located to the northwest, across Church Street. The Site is bordered to the east-southeast by the Pawcatuck River and Cedar Swamp and to the west by the Wood River. The confluence of the Wood and Pawcatuck Rivers is located at the southern property boundary of the Site.

According to the Clayton's May 13, 2004, *Interim Site Investigation Report*, the properties adjacent to Charbert are zoned R-3, Residential. Properties permitted in the R-3 zoning consist of single-family dwellings located on a minimum of 3.0 acres of land, or animal or crop farms located on a minimum of 5.0 acres of land. Clayton indicated that in the area of the Site numerous properties were developed on lots less than three acres prior to the R-3 zoning being established by the Town of Richmond, and are grandfathered under the newer R-3 zoning requirements.



2.30 CURRENT FACILITY OPERATIONS

Charbert is a manufacturer of elasticized knitted fabrics including those used in bathing suits and athletic wear. Approximately 4.5 million yards of fabric are dyed and finished at the facility annually. Raw materials used in manufacturing include nylon fiber yarn, Lycra yarn, and cotton and polyester/cotton yarns. In addition to these raw materials, various dyes; acids; non-chlorine based solvents; lubricating, heat transfer and cutting oils; adhesives; silicon based oils; compressed gases; paints; salts; and alkaline cleaners are utilized at the Site

The primary manufacturing operations conducted at Charbert consist of the bleaching, dyeing, packaging, and storing of knitted fabrics for shipment. Fabrics are placed in vats, where they are dyed in a solution of acid, dye, wetting agent, sequestering agent, ammonium sulfate, and either sodium chloride or sodium sulfate salt. Finishing consists of the removal by heating of oils and yarn finishes that may remain on the fabric. These oils are present in the yarns before knitting and lubricate the knitting process. The oils are removed during the "tenting" operation and are collected by a coalescing filtration system that has been installed to remove these oil particles from the air exhaust. Depending on the fabric and the desired finish, fabric may pass through the tenting frames before and/or after the dyeing process. Following the finishing, the cloth is inspected, cut, and packaged for shipping or sent to off-Site storage.

The water Charbert uses in the dyeing operations is currently supplied by two on-Site process water supply wells (shown as EW-3 and EW-4 on Figure 2). These wells, working individually in rotation, pump approximately 250,000 gallons of groundwater per day to two on-site aboveground holding tanks (each holding 24,000 gallons of water), located outside the southeastern portion of the facility building and one aboveground holding tank (20,000 gallons) located outside the western portion of the facility building.

The waste water generated during the fabric dyeing and washing processes is first piped to a pump house located southwest of the existing manufacturing building. The pump house discharges to one of the three infiltration lagoons, which are located in a locked, fenced-in area, between the Wood and Pawcatuck Rivers on the southern portion of the Site (See Figure 2). The waste water lagoons are discussed in Section 2.60.1.

2.40 PRIOR OWNERSHIP

Readily available records at the Town of Richmond, Town Hall were reviewed to assess ownership of the Site. The Site is currently owned by NFA Corp. Prior ownership information is presented in Table 1 and summarized below.

The Site was purchased by Charbert from Richmond Lace Works and private residential owners in various real estate transactions in the 1960s. The homes in the mill village, which were owned by Richmond Lace Works, were not purchased by Charbert, but were

offered for sale to their residents. Charbert presently does not own any homes, but owns 8 lots equaling approximately 200 acres located throughout Alton. By 1991, the Site was consistent with the current ownership and size. NFA purchased Charbert out of bankruptcy in 1991.

2.50 HISTORICAL OPERATIONS AND USAGE



In the 17th century, the Site is believed to have been the location of James Babcock's ore digging and iron manufacturing operation. The mill was powered entirely by water; thus, it is considered likely that the dam on the Wood River was constructed at this time forming Alton Pond.

A fire in December 1898 resulted in the destruction of the original mill building. The mill was rebuilt in 1906, when it was sold to the Alton Manufacturing Company. The Alton Manufacturing Company constructed two buildings that were used to inspect, mend, wash, bleach, dye, and dry lace. In 1927, a severe flood seriously damaged the mill; it took over a year to rebuild and resume operations. The new mill produced cotton and silk laces.

The Site continued to operate as a producer of cotton and silk laces until 1962, when Charbert, Inc. purchased the lace mill. After being purchased, the Site operated as a manufacturer of dyed elasticized fabrics, consistent with the current operations. Charbert performed on-site dry cleaning of fabrics from approximately 1980 through 1987 in the eastern central portion of Building 6 (as shown on Figure 2).

2.60 WASTE DISPOSAL PRACTICES

The following subsections describe the waste handling and disposal practices historically and currently employed at the facility.

2.61 Waste water Disposal System

The waste water generated during the fabric dyeing and washing processes is piped to a pump house located southwest of the existing manufacturing building. Water from the roof drains and water that is collected in the facility's floor drains (located exclusively in the dye house) is also piped to this pump house. Charbert is in the process of removing the roof drain flow from the waste water system (refer to Section 3.12, below). During the installation of a new on-Site sewage treatment system, it was discovered that several floor drains were connected to the septic system. Charbert maintenance personnel were made aware of the condition and are in the process of re-routing the floor drains to the pump house. Charbert intends to complete this work over the summer of 2005.

The pump house utilizes two pumps to discharge the waste water (at a rate of 1,800 gallons per minute) via underground ductile iron piping to one of the three infiltration lagoons. The waste water lagoons fall under the jurisdiction of the RIDEM's Underground Injection Control (UIC) regulations and currently operate under UIC Order of Approval # 1108, dated December 3, 1992. Pursuant to this approval, Charbert conducts quarterly sampling and analysis for volatile organic compounds (VOCs) from six on-site monitoring



wells (MW-1A, MW-2A, MW-3, MW-4A, and MW-5B, and MW-6) located in the vicinity of the lagoons. Additionally, one 24-hour composited sample is collected quarterly from the pump house effluent, which is analyzed for VOCs, total petroleum hydrocarbons (TPH) and total metals (RCRA 8).

The first two primary infiltration lagoons (Lagoons 1 and 2), were constructed circa-1976 and the last primary infiltration lagoon (Lagoon 3) was constructed circa-1978. The three primary infiltration lagoons have a total capacity of approximately 13 million-gallons. The lagoons were built without a clay liner, which allows the water to leach through the sand bottoms. The waste water contains essentially no solids, as such, no sludge collects in the lagoons. The sidewalls of the lagoons were made from surrounding sandy soils, which were excavated from the center of the lagoons. The lagoons had mechanical aeration capabilities installed in the summer of 2004 (see Photo 2 in Appendix B) and receive occasional routine harrowing and less frequent resurfacing to enhance drainage.

2.62 Out of Service Lagoons

Prior to 1976, process water from the Charbert operations was reportedly discharged to a lagoon that is located behind the southwest portion of the mill building designated "Former Lagoon." Overflow from this lagoon was reportedly released to the Wood River, located to the west of the Site. According to the 1991 Rizzo Associates report, the use of this lagoon ceased in 1976 and the waste systems were re-piped to the first two primary lagoons. Charbert continued the discharge of boiler blow down and condensate to the Former Lagoon until approximately 1996, when this was re-piped to discharge to the primary lagoons.

A fourth lagoon, constructed as a temporary holding pond, is located east of the three primary lagoons. The holding pond is not as deep or as large as the other three, and was formerly used as a temporary holding pond for waste water that was removed from a primary lagoon while it was being serviced. The holding pond has also been used to prevent an overflow situation when the three primary lagoons were near maximum capacity. Charbert last used the holding pond in the spring of 2004, after receiving verbal approval from RIDEM.

2.63 Soil Scrapings

To maintain the leaching capabilities of the three active lagoons, Charbert routinely scrapes and resurfaces the bottom of each lagoon approximately every two to three years. The soils removed from the bottom of the lagoons, as the result of the activities, are currently stockpiled to the southeast and north-northeast of the lagoons as shown on Figure 2. Approximately 3,800 cubic yards of dredged soil is currently stockpiled in two areas in the southern portion of the Site from 1998 maintenance activities. Another 3,800 cubic yards of soil is located north of the lagoons from the 2001 and 2004 lagoon dredging.



The soil stockpiles were characterized by laboratory testing under a separate plan entitled *Revised Soil Reuse Characterization Work Plan* submitted to RIDEM by GZA on February 16, 2005. The resulting data and the reuse plan titled *Soil Stockpile Reuse Plan* were submitted to RIDEM on April 13, 2005. This information is summarized in Section 6.22.

2.64 Waste Oil

Charbert generates waste oil through the routine maintenance of the process equipment. Waste oil absorbent materials that are used around the process equipment are also generated. Waste oil is also removed during the “tenting” operation and is collected by a coalescing filtration system that has been installed to remove these oil particles from the air exhaust. The waste oil and spent absorbent materials are stored in 55-gallon drums located within one of two concrete bermed areas outside the southern wall of the manufacturing building (See Figure 2). The waste oil and absorbent material are transported by Safety Kleen Systems, Inc. (Safety Kleen) for off-Site disposal approximately every two months. Additionally, Charbert operates two Safety Kleen parts cleaners, one located in the supply room and one located in the eclipse steam boiler room. Safety Kleen changes the parts cleaners and transports the waste cleaner fluid, which consists of petroleum naphtha and monoethanol amine, for off-Site disposal. Charbert is a Small Quantity Generator (SQG) of hazardous waste and has been assigned the hazardous waste generator number RID001188713 by the USEPA.

2.65 Solid Waste

Currently, non-hazardous solid waste is generated on-Site in the form of general refuse (e.g., paper, plastic packaging, cardboard, etc.) and is stored in one compacting dumpster located on the eastern side of the manufacturing building. The waste is collected and transported to an off-Site disposal facility by Waste Management on an as needed basis. A cardboard recycling dumpster is located near the compacting dumpster on the eastern side of the manufacturing building. A large roll-off metal recycling dumpster is located between the western side of the manufacturing building and the Former Lagoon.

2.66 Historic Waste Disposal

The following subsections describe past waste disposal practices as described by the facility or documented in prior reports.

2.66.1 Solid Waste Disposal

Employee interviews performed by Rizzo Associates revealed that historically, the area that is now the location of Charbert’s waste water lagoons may have served as the town landfill. It is not known if Richmond Lace, the mill operators at the time, used this area for disposal of their wastes also. The local firm who constructed the lagoons stated that no evidence of waste disposal was found during their excavation activities.



The 1991 Rizzo report documents that an area of the Site, at the south end of Myrtle Avenue, had also been used by local residents for disposal of household debris. During the mid- to late-1980s, Charbert removed thirteen truckloads of debris from this area during cleanup efforts.

As part of the current work scope, three historic solid waste dumping areas were identified by GZA and interviews with Charbert personnel identified a fourth area that reportedly contained solid waste, as shown in Figure 3. The areas are as follows:

- Area 1, west of Lagoon 2,
- Area 2, east of the holding pond (see Photo 3),
- Area 3, south of the end of Myrtle Avenue; and
- Areas 4, south of the current gravel burrow area.

Our explorations are documented in Section 4.70 and the findings are discussed in Section 5.30.

2.66.2 Hazardous Waste Disposal

Used tetrachloroethene (PCE), from former on-Site dry-cleaning activities (approximately 1980 to 1988), was reclaimed in an on-Site still, which was located in the vicinity of the dry cleaning equipment (Building 6, See Figure 2). The PCE was recycled to minimize the quantity of material being purchased and disposed. Small quantities of residual PCE containing waste from the dry cleaning equipment and parts degreasing was reportedly discharged to the ground outside the manufacturing building (between Building 12, the Former Lagoon and monitoring well RIZ-13, (see Figure 2).

2.66.3 Waste Oil Disposal

Waste oil has been transported for off-site disposal by Safety Kleen for approximately 10 to 15 years. Prior to this, Western Oil transported the waste oil for off-Site disposal. In the past, waste oil was reportedly discharged to the ground outside the manufacturing building (between Building 12, the Former Lagoon and monitoring well RIZ-13, (see Figure 2 and Photo 4). The practice of discharging the waste oil to the ground ceased circa-1976.

2.70 POTABLE WATER

Potable water for the Facility is supplied in 5-gallon containers by a contracted vendor. A potable water well located near the south loading docks supplies water for the sinks and toilets (see Figure 2). According to Charbert personnel, the potable well has intermittent total coliform bacteria contamination and on one occasion, fecal coliform. The well is also subjected to seasonal nitrate exceedances, usually in the spring. Currently the nitrate levels

are in exceedance of the GA Groundwater Maximum Contaminant Level and a notice prohibiting its use is posted above all sinks. This well is located in the vicinity of a facility restroom that may be contributing to the contamination. The well location is also downgradient from several homes on River Street that use cesspools for septic waste disposal.



2.80 SANITARY SEWER SYSTEM

Since 1992, sanitary waste water (sewage) from the Site's restrooms, wash stations, etc., has been treated by a RIDEM-approved private on-site subsurface sewage disposal system. An application for the repair of the individual sewage disposal system (ISDS) was submitted to RIDEM on September 17, 2004. The application was approved on October 10, 2004 and permit number 9229-1183 was issued. The repairs consist of installing a new septic tank at the facility and constructing a new leach field. The new leach field is located approximately 180-feet to the southwest of the former leach field (see Figure 2) and approximately 280-feet from the nearest residential well, which is located at 18 River Street. The construction, which began in March of 2005, has now been completed.

While installing the new septic tank on April 7, 2005, it was observed that colored water was flowing to the septic tank. GZA and Charbert personnel used florescent dye to locate the source of the colored water. Floor drains on the east end of the dye room were determined to be the source. Charbert personnel are re-piping the floor drains to the industrial waste water pump house. This work is anticipated to be completed in the summer of 2005.

On April 12, 2005, the oil line from the 10,000-gallon fuel oil tanks to the south boiler room was disturbed while installing a new sewer line. The pipeline was stressed causing minor leaks at both ends. The tank valve was immediately shut off and the spill was minimal. GZA personnel responded to the Site to oversee cleanup and collect confirmation samples. The contaminated soil was placed in drums and removed from the property by Marshall Environmental on April 15, 2005. On April 18, 2005, GZA personnel collected confirmatory samples from under each end of the pipeline in the vicinity of the observed leaks and from the backfill on the tank side (south end). The backfill on the south end of the line was from soils stockpiled during excavation while that used on the north end of the line was clean fill from the onsite gravel burrow area (see Figure 2). The results of the sampling are described in Section 6.41

2.90 COMPLIANCE HISTORY

A review of RIDEM records was conducted on November 4, 2004. To assist in the records review, GZA had First Search Technologies Corporation prepare an Environmental Report for the area on September 9, 2004. From this research, prior reports, and interviews with current plant employees, three documented spills were identified as having occurred at the Site between 1975 and 1990. The approximate areas of these reported spills are shown on Figure 2. Each of these areas was evaluated as part of GZA's subsurface investigation as described in Section 4.0, below:



- In 1975 or 1976, more than 1,000-gallons of Bunker C fuel oil reported was spilled during a filling accident of an underground storage tank (UST) in the western facility yard and resulted in a release to the Wood River. The tank was located within 50 feet of the boiler room in Building 12. RIDEM responded to the accident and oversaw cleanup by Charbert personnel.
- In approximately 1985, a pipe failure on a Therminol 55 expansion tank located on the roof of the finishing room (Building 9) resulted in a spill of approximately 250 gallons of the Therminol 55. According to a Material Safety Data Sheet (MSDS), Therminol 55 is a heat transfer fluid that is primarily composed of C₁₄-C₃₀ alkyl derivatives and is essentially non-toxic. The material spilled onto the concrete pad below the tank. Cleanup was performed by Charbert personnel.
- On October 14, 1990, a leak developed in a pump, resulting in a spill of approximately 50 gallons of Therminol 55. The material originated in the furnace room of Building 9 and flowed out through a vent onto a concrete pad and subsequently onto the ground surface in the shipping area. The accident occurred during a period of heavy rain. The Therminol floated on the surface of a large puddle that formed in the shipping area. The oil was skimmed from the surface of the puddle by Charbert personnel. A dike has since been constructed to prevent any future releases of this type (RIDEM Spill #4137).

Other environmental regulatory issues for the Site include the following:

- On February 7, 2002, the western wall of Lagoon No. 2 breached resulting in the release of approximately 800,000 to 900,000 gallons of the waste water to the Wood River. Sand from the breakout was carried by the waste water 200 to 300 feet west from the breakout area toward the Wood River. The breakout was the result of a leaking PVC pipe that discharges waste water into Lagoon No. 3. The leaking pipe was repaired, and the sidewall was reconstructed. On February 18, 2002, RIDEM collected a surface water sample and a field duplicate sample (labeled WR-01 and WR-Dup respectively) from the Wood River. The water samples were submitted to be analyzed for VOCs, dissolved metals and hardness. Laboratory results indicated that no VOCs were detected, and no concentrations of metals exceeded RIDEM's Acute or Chronic Ambient Water Quality Criteria, indicating that the Wood River had not been negatively impacted by the lagoon breakout.

A *Notice of Intent to Enforce* (Case No. C02-0085) was issued to Charbert by RIDEM on April 17, 2002, detailing the required restoration activities to be performed as a result of the lagoon breakout. Based on the inspection along with the review of documents associated with this incident, RIDEM concluded in a letter dated November 15, 2002 that the restoration activities required by the April 17, 2002 NOI had been completed to the satisfaction of RIDEM and that no further action pertaining to the lagoon breakout would be required.



- On August 11, 2004 a *Notice of Violation* (NOV) was issued to Charbert. The NOV listed multiple regulatory and environmental issues as summarized below:

1. Leachate discharge to the Pawcatuck River;
2. Wastewater discharge to an unauthorized lagoon and unauthorized discharge of boiler blowdown to wastewater lagoons;
3. Stockpiling of lagoon scrapings;
4. Unauthorized lagoon construction and other activity in a riverbank wetland;
5. Volatile organic compound contamination of groundwater;
6. Bacterial contamination of drinking area water wells;
7. Opacity monitor equipment violation; and
8. Objectionable odors.

The items listed in this NOV are currently being negotiated between RIDEM and Charbert as part of the Administrative Adjudication process.

2.11 STORAGE TANKS

The following subsections briefly describe the Site's status with respect to underground and aboveground storage tanks.

2.11.1 Underground Storage Tanks

On April 29, 1987, Charbert submitted to RIDEM an application to close USTs (Application No. #15343). The application was for the closure of two 5,000 gallon Number 5/Number 6 fuel oil tanks. During the removal of the 5,000-gallon USTs, an additional smaller tank with unknown contents was unearthed and removed from the Site. The smaller tank was believed to have been used to store waste oil. There was reportedly no evidence of soil or groundwater contamination; however, no confirmatory soil or groundwater samples were taken. The USTs were located in the area that is now the southwest concrete-bermed storage area (see Figure 2 and Photo 1).

According to a previous environmental report prepared by Rizzo in 1991, the following USTs were formerly used at the Site:

- Two 5000-gallon fuel oil tanks storing Number 5 or Number 6 fuel oil; and
- One 1,000-gallon tank reportedly used to store gasoline.

All of these tanks were reportedly located on the northwestern portion of the Site, between the Former Lagoon and the southwest corner of the manufacturing building (see Figure 2). Currently, no USTs are believed to be present at the Site.



2.11.2 Aboveground Storage Tanks (ASTs)

According to previous environmental reports and interviews with current Charbert employees, 15 ASTs are currently present at the Site. The tanks are used to store fuel oil, diesel fuel, waste oil, Cal-Flow AF (synthetic heat transfer fluid that replaced Therminol 55), water (process and fire suppression), and propane. Please refer to Table 2 for a list of each of the ASTs present at the Site, their capacity and location.

2.12 HAZARDOUS SUBSTANCES ON SITE

Under SARA Title III (EPCRA), a Tier II Hazardous Chemical Inventory Report is required for every year a US EPA threshold planning quantity (TPQ) is exceeded. These reports are required to be submitted to the State Emergency Planning Commission, the Local Emergency Planning Committee (LEPC) and the local Fire Department. Charbert had two items that required reporting in 2004; No. 2 fuel oil (CAS-68476-34-6), and hydrogen peroxide 50% (CAS-7722841). A complete inventory is kept of all products used in the manufacturing process and MSDS sheets for all products are readily available at the facility.

3.00 ENVIRONMENTAL SETTING

The following sections provide information concerning the general physiographic and hydrologic conditions in the area of the Site.

3.10 TOPOGRAPHY AND DRAINAGE

The Site is located at the confluence of the Wood and Pawcatuck Rivers. The Wood River flows along the western property boundary from the northwest property corner at Church Street to the southern tip of the Site. The Wood River is dammed north of the Site across Church Street, which forms Alton Pond to the northwest of the property. The elevation of the pond at the dam is approximately 50 feet. The Pawcatuck River flows along the eastern property boundary to the southern tip of the Site, where it converges with the Wood River. Wetland areas associated with the Wood River are located along the western and southwestern property boundaries. Cedar Swamp, a wetland area associated with the Pawcatuck River, is located along the southeastern portion of the Site.

According to an aerial topographical survey conducted by Aerotech International Digital Photogrammetric Mapping dated December 1, 2004, the majority of the Site surface lies at an altitude between approximately 45 feet and 65 feet above the NVGD 29 (National Vertical Geodetic Datum – 1929) formerly referred to as mean sea level (MSL). Overall, the Site is generally flat and slopes slightly to the northwest. Surface elevations slope more steeply down to an elevation of approximately 40 feet along the banks of the Wood and Pawcatuck Rivers on the southern portion of the Site.



3.11 Surface Water Runoff

Stormwater over most of the undeveloped portions of the Site discharges to the ground and ultimately the shallow groundwater table via infiltration in the sandy Site soils. Stormwater runoff on the paved northwest portion of the Site flows to catch basins located in the employee parking lots and the loading dock areas of the Charbert facility. These catch basins are inter-connected and discharge through a 12-inch diameter outfall located on the Wood River south of the main facility.

3.12 Roof Drainage

Roof drains for the facility building and storage areas are divided between two outfalls. Approximately 25% of the roof area drains to the ground and flows overland as sheet flow to the Wood River. The remaining approximately 75% is collected through a system of roof drains and is piped to the industrial waste water pump house and subsequently to the infiltration lagoons. Charbert is in the process of re-routing the roof drain discharges from the waste water handling system. The drains will be connected to the existing storm water control system. This work is ongoing and is expected to be completed by July 2005.

3.20 SURFACE WATER HYDROLOGY

The following subsections discuss area hydrology, surface water bodies and wetlands.

3.21 Surface Water Bodies Within 0.5 Miles Radius

The nearest surface water bodies to the Site are the Wood and Pawcatuck Rivers. Each is located along the boundaries of the Charbert property and flow in a generally southerly direction. The Wood River is dammed north of the Site across Church Street, which forms Alton Pond.

The USGS Water Resources of Rhode Island has a gauging station on the Pawcatuck River located approximately 2.9 miles northeast of the junction of the Pawcatuck and Wood Rivers. On the afternoon of April 11, 2005, the Pawcatuck River was flowing at an estimated volume of 515 cubic feet per minute at an elevation of 47.75 NVGD 29. Typical flows for the Pawcatuck River are between 300 and 350 cubic feet per minute for this time of year. River elevations, as measured by GZA in fall and winter of 2004, in the vicinity of the Site range from 38.0 to 44.86 for the Wood River and 37.5 to 43.18 for the Pawcatuck, with a seasonal variation of approximately 5 to 6 feet.

The Wood and Pawcatuck Rivers (Water Body Identifications RI0008040 and RI0008039 respectively) are designated as Class B surface water bodies. According to RIDEM, Class B surface water bodies are designated for fish and wildlife habitats and secondary contact recreational activities. They shall be suitable for compatible industrial processes and cooling, hydropower, aquaculture uses, navigation, irrigation and other



agricultural uses. Class B surface water bodies shall have good aesthetic value (Water Quality Regulations, Regulation EVM 112-88.97-1, Promulgated August 6, 1997, Amended March 25, 1999 and June 23, 2000).

In addition to the Class B surface water body designations, the Wood and Pawcatuck Rivers are considered Special Resource Protection Waters (SRPWs). SRPWs are high quality surface water bodies identified as having significant ecological or recreational uses, including but not limited to: wildlife refuge or management areas, public drinking water supplies, State and Federal parks, State and Federal designated Estuarine Sanctuary Areas, water bodies containing critical habitats (Appendix D of Water Quality Regulations, Regulation EVM 112-88.97-1, Promulgated August 6, 1997, Amended March 25, 1999 and June 23, 2000).

3.22 Wetlands

The USGS 7.5-Minute Topographic Map Carolina, Rhode Island (1953, photo-revised 1970), which includes the Site, depicts wetlands to the east and south of the Site. Areas of the Site are also located within the 200-foot riverbank wetlands buffer. For the purpose of this investigation, the wetlands and river edges were delineated by Natural Resources Services (NRS) of Harrisville, Rhode Island. The delineation was completed in September of 2004 and included the entire 113.9 acre parcel previously described as Plat 11A, Lot 6. NRS located the wetland and river edge flags with a sub-meter global positioning satellite (GPS) receiver. The wetland flags and associated buffers as provided by NRS are shown on Figure 2.

The Site is currently subject to an enforcement action concerning construction activities within the 200-foot riverbank wetland adjacent to the Pawcatuck River. Refer to Section 2.90 above, final bulleted item.

The Site is currently subject to a notice of violation (NOV) concerning the removal of soil material and filling of a resulting excavation within the 200-foot river bank buffer. Required restoration activities are being addressed in a consent agreement.

3.23 Regional Precipitation, Annual and Monthly Averages

The National Oceanic and Atmospheric Administration (NOAA) collects climatological data at the Green Street, Providence Station, approximately 30 miles northeast of the Site. The average annual precipitation (water equivalent) at the Green Street, Providence station is reported to be 45.53 inches. Normally, the low month for precipitation is July with an average precipitation of 3.18 inches. The normal high month is November, with an average precipitation of 4.43 inches.

3.30 PUBLIC WATER SUPPLIES LOCATED WITHIN 2.0 MILES OF THE SITE

According to a Wellhead Protection Areas Map, dated June 1997, the Site is currently located within a Non-Community Wellhead Protection Area. According to the Wellhead Protection Program, the Town of Richmond depends significantly on private wells as the primary source of drinking water. Wellhead Protection Area Maps do not depict drinking water supply reservoirs in the Town of Richmond, which includes the Village of Alton, or the neighboring Towns of Charlestown and Hopkinton.



In the vicinity of the Site, the average residential lot is approximately 0.5 acres and it is assumed that each lot has one shallow well for a potable water source. Most of the wells observed by GZA have either been dug wells or pushed steel well points. North of the Site, along the east edge of Alton pond, the development is more recent with larger building lots. The development to the west is minimal with a few homes on the west side of the Wood River.

3.40 GROUNDWATER CLASSIFICATION/QUALITY

The Rhode Island Groundwater Protection Act requires the classification of the State's groundwater resources using a four-class system including GAA, GA, GB, and GC. The Site is in the "Lower Wood" groundwater reservoir and is considered a critical recharge area. The northern and eastern portions of the Site are classified as "GAA." The GAA classification is reserved for areas in which the groundwater resources are known or presumed suitable for drinking water use without treatment. The remainder of the Site is classified as GA. Groundwater classified GA are groundwater resources, which like GAA, are known or presumed to be suitable for drinking water use without treatment. Most of the state, approximately 71% (761 square miles), overlies groundwater classified GA.

The State of Rhode Island has classified a portion of the southern area of the Site, including the process waste water leaching lagoons, as "GA Non-attainment." According to the RIDEM's Rules and Regulations for Groundwater Quality, dated August 1996, this classification is "...indicative of areas where the current condition of the groundwater does not meet the standards established for drinking water quality due to contamination associated with specific sources." RIDEM's long-term goal for the groundwater in these areas is restoration to drinking water quality. Where preventive action limits set by RIDEM are exceeded, a response will be required to ensure that the maximum contaminant level is not exceeded.

4.00 SUBSURFACE INVESTIGATION

GZA's subsurface field program was designed to obtain additional information to provide a better understanding of Site conditions and to address certain RIDEM comments on prior studies. GZA's investigations were completed in two stages. The first involved the completion of 4 soil borings and the installation of 4 deep aquifer groundwater monitoring



wells. The second stage was more extensive and included the completion of 27 borings and 20 monitoring well installations. GZA's field-sampling program included the collection of additional environmental samples for laboratory testing. The resultant data has been used to augment that previously collected to support a remedy that addresses regulatory requirements and anticipated Site uses.

The field program involved the completion of Geoprobe soil explorations, soil borings, the installation of groundwater monitoring wells, and the collection of soil, groundwater, and waste water samples for screening and/or laboratory analysis. Logs of the Geoprobos, soil borings and monitoring wells are attached in Appendix C. Figure 3, *Exploration Location Plan*, shows the exploration and sampling locations.

4.10 GEOPROBE EXPLORATIONS AND MONITORING WELL INSTALLATIONS

The objectives of the Geoprobe explorations and monitoring well installation program were:

- To evaluate the lateral extent of contamination in soils across the Site;
- To better characterize the subsurface conditions and soil stratification, particularly within areas of potential concern; and
- Provide a better understanding of groundwater quality conditions across the Site, with a focus on both on-Site and off-Site groundwater migration patterns.

The program involved the completion of 23 Geoprobe explorations conducted between January 9, 2005 and January 14, 2005. New England Geotech, LLC of Jamestown, Rhode Island completed the explorations and well installations. GZA observed, measured and recorded the thickness of soil strata and the presence or absence of containments, prepared logs and obtained samples for chemical screening and laboratory testing.

Three of the Geoprobe explorations were conducted within the facility, within Buildings 4 and 6, (see Photo 6). The remaining 20 Geoprobos were performed with a truck mounted Geoprobe rig (see Photo 7). Geoprobe explorations were advanced to depths ranging from 12 to 25 feet below grade. Continuous soil samples were collected and portions of each were field screened for VOCs with a Foxboro Model TVA 100 combination flame and photoionization detector device (FID/PID); see Table 3 for a summary of the screening results.

Of the 23 Geoprobe explorations, 16 monitoring wells were installed, ranging in depth from 12 to 35 feet. Three of the monitoring wells were 1-inch inner diameter (ID) PVC wells with 10-feet of well screen (0.01-inch slot size) set to span the observed water table to allow for the measurement of groundwater levels (elevations). These wells were installed through a 2-inch casing with no solvents or cements used to secure PVC pipe fittings. The wellheads were completed with 3-inch diameter aluminum road boxes set in cement. Soil samples were collected from the wells using 1.75-inch diameter, 4-foot long polycarbonate liners.



The remaining 13 monitoring wells were 2-inch inner diameters (ID) PVC monitoring wells with 10 to 12 feet of well screen (0.01-inch slot size) set to span the observed water table to allow for the measurement of groundwater levels (elevations). These wells were installed through a 3.25-inch casing with no solvents or cements used to secure PVC pipe fittings. These wellheads were completed with 4-inch diameter aluminum road boxes set in cement or 4-inch diameter 5-foot long steel guard pipes with locking caps set in cement, depending on exact location. Soil samples taken from these wells were collected in 2-inch diameter, 5-foot long polycarbonate liners.

An additional seven Geoprobe were conducted in the field to better delineate areas of observed contamination based on field screening results and observations. Monitoring well locations, shown on Figure 3, were based on previous studies that identified areas of concern and the direction of groundwater flow.

4.20 SOIL BORINGS AND MONITORING WELL INSTALLATIONS

The objective of the soil boring and monitoring well installation program was to provide a better understanding of deeper groundwater quality conditions across the Site, with a focus on on-Site groundwater migration patterns. The first phase of the soil boring and well installation program was completed between July 12, and July 23, 2004 and involved the completion of four borings and the installation of four deeper aquifer groundwater monitoring wells (GZ-1 to GZ-4A). Soil samples were collected at 5-foot intervals and periodic Hydro Punch groundwater samples were taken. New Hampshire Boring of Brockton, Massachusetts completed the explorations.

The second phase of the soil boring and well installation program was completed between January 31, and February 13, 2005 and involved the completion of four borings and the installation of four deeper aquifer groundwater monitoring wells (GZ-5 to GZ-8). Three soil borings and well installations were performed with a truck mounted drill rig, (see Photo 8) and monitoring well GZ-8 was installed inside the facility, Building 4, using a trailer mounted drill rig (see Photo 9). Continuous soil samples were collected using a 2-inch diameter by 24-inch long split-spoon driven with a 140 pound hammer. Samples were field screened for VOCs with the FID/PID; see Table 3 for a summary of the screening results.

The soil borings were advanced to depths ranging from 39 to 86 feet below grade. A 2-inch inner diameter (ID) PVC monitoring well with a 10-foot well screen (0.01-inch slot size) set at the base of each boring just above the glacial till was installed to allow for the measurement of deep aquifer groundwater levels (elevations). No solvents or cements were used to secure PVC pipe fittings. Wellheads were completed with 4-inch diameter 5-foot long steel guard pipes with locking caps set in cement.



4.30 WELLHEAD SURVEY AND PIEZOMETRIC LEVELS

A review of the previous work referenced above suggested that there was a degree of uncertainty regarding the groundwater flow directions at the Site. For example, Rizzo's limited groundwater plan indicated that flow was generally to the southwest, (toward the Wood River). In Clayton's more recent work (with a larger monitoring network), groundwater flow in the northern portion of the Site was reportedly controlled by the process water supply wells. Whereas in the southern portion of the Site, groundwater was described as flowing radially; including to the north being driven by the lagoon water mound and the depression created by the process water supply wells.

To ensure the accuracy of groundwater elevation measurements, in September of 2005, GZA performed an elevation survey of all existing groundwater monitoring wells on-Site; this information is summarized on Table 3. GZA also set nine surface water monitoring datums to monitor surface water elevations at Alton Pond, the Wood River, the Pawcatuck River, the three primary lagoons and the former lagoon adjacent to the mill building. On February 14, 2005, GZA performed an elevation survey of all the newly installed groundwater monitoring wells.

The groundwater elevation readings from March 4 and April 5, 2005, were taken with an ORS oil/water interface probe to measure light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL) that may accumulate in the monitoring wells. No LNAPL or DNAPL were detected in any of the wells.

4.40 SOIL SAMPLING

The first phase of the soil boring and sampling was completed between July 12, and July 23, 2004, (soil borings GZ-1 to GZ-4A). Soil samples were collected continuously for the first 12 feet of each borehole and at five-foot intervals thereafter using a 2-inch ID by 24-inch long stainless-steel split spoon and standard penetration test techniques. Groundwater was encountered at depths between 9 and 14 feet during the drilling program. "Running" or mobile sands were encountered during the advancement of each borehole typically at depths below 25 feet. This occurrence hampered our ability to accurately estimate soil densities and collect representative depth specific soil samples.

Five to six samples were selected from each borehole (17 samples in all) based on field VOC screening results, visual or olfactory evidence and/or location within the borehole (e.g., at the water table, at the base of borehole, etc.). Each soil sample was tested for volatile organics (VOCs) by EPA Method 8260B and semi-volatile organic (SVOCs) by EPA Method 8270C as described in Section 6.

In accordance with the *Site Investigation Work Plan*, continuous soil samples were collected during each soil boring or Geoprobe. The GeoProbe systems utilized a 4 or 5-foot polycarbonate liner tube inside a steel drive pipe (see Photo 10). Full sample tubes were opened and inspected on site for visual and olfactory evidence of contamination. Samples were field screened for VOCs with a Foxboro Model TVA 1000 combination



flame and photoionization detector (FID/PID), see Table 4 for a summary of results. Soil samples were selected for laboratory analysis as specified in the work plan. For each sample, a 40-ml methanol preserved VOA vial and at least one 8-ounce jar with a Teflon-lined lid was collected, labeled and placed in an ice-filled cooler and transported to the laboratory under chain-of-custody. Soils samples analysis consisted of one or more of the following:

- VPH/EPH (Massachusetts DEP Protocol)
- TPH and/or Fingerprint Analysis (EPA Method 8100M)
- Volatile Organic Compounds (EPA Method 8260B)
- Semi-volatile Organic Compounds (EPA Method 8270C),
- Pesticides (EPA Method 8081),
- Polychlorinated Biphenyl's (EPA Method 8082), and
- Total and SPLP Metals (EPA Method 1312 and 6010B/7471A).

The deep aquifer boreholes were sampled with a 24-inch, stainless-steel split-spoon sampler. The split-spoon samples were opened and inspected for visual and olfactory evidence of contamination. Samples were field screened and handled as described above.

4.50 GROUNDWATER SAMPLING

During the first phase of the soil boring and sampling completed between July 12, and July 23, 2004, (soil borings GZ-1 to GZ-4A), point source groundwater sampling and analysis was conducted using the Hydro Punch method. Three to six point-source groundwater samples were collected from each borehole. This effort resulted in the collection and analysis of 18 samples for VOCs and SVOCs. The Hydro Punch consists of a stainless-steel vessel approximately 3 feet in length that is driven into the saturated soil formation using the drill tools. The vessel is fitted with an expendable drive point covering a one-way check valve. The unit is decontaminated and then driven to the desired sample depth. The drill string is then withdrawn approximately 6 inches detaching the drive point and allowing the vessel to fill through the check valve. Once full, the entire assembly is withdrawn from the borehole and the sample is decanted into the required sample containers.

On August 6, 2004, groundwater samples were collected from monitoring wells GZ-1 to GZ-4A utilizing the EPA's *Low Stress (low-flow) Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells* (USEPA SOP #GW-001, July 1996). This EPA-developed methodology is designed to reduce the level of suspended solids entrained in samples as part of the collection process, and therefore, decreases the occurrence of false positive findings of elevated metals concentration associated with the presence of suspended sediments (see Photo 11).

The samples were analyzed for VOCs, SVOCs, 13 priority pollutant metals, and general water quality parameters (total coliform bacteria, fecal coliform bacteria, heterotrophic plate count, surfactants, ortho-phosphate, sulfide, sulfate, nitrate and chloride)



In accordance with the *Phase II Site Investigation Work Plan*, 15 of the 20 newly installed monitoring wells as well as, the four wells installed by GZA in 2004 and monitoring well RIZ-6 were sampled. The associated analytical testing program included the following methods:

- VPH/EPH (Massachusetts DEP Protocol)
- TPH Analysis (EPA Method 8100M)
- Volatile Organic Compounds (EPA Method 8260B)
- Semi-volatile organic compounds (EPA Method 8270),
- 13 Priority Pollutant Metals, Iron and Manganese (EPA Method 6010B/7470A)
- Ammonia (SM 4500 –NH₃)
- Nitrate/Nitrite (EPA Method 353.2)
- Total Organic Carbon (EPA Method 415.1)
- Sulfate (EPA Method 4500)
- Methane (RSK 175)

Water levels were recorded prior to sampling using a Slope Indicator water level meter. A variable speed peristaltic pump was utilized to control the rate of purging and limit the drawdown caused by this operation. Dedicated 3/8-inch O.D. polyethylene tubing installed in each of the existing wells was utilized as the intake and discharge tubing for the pumps. Pharmaceutical grade tubing was utilized as the pump head tubing and connected to the intake and discharge tubing by clamps sufficient to prevent the introduction of air into the sample. The discharge portion of the tubing was connected to a flow through cell to enable more efficient field screening. Samples were field screened for stabilization prior to sample collection using a Horiba Model U10 multi-meter. Electrical conductivity, pH, turbidity, dissolved oxygen, salinity, and temperature measurements were recorded periodically until readings from two successive rounds had less than a 10 percent difference. SVOC and metal samples were filled through the pump tubing; however, VOC samples were collected by means of a VOC receptacle (described below) which has been approved by the RIDEM and USEPA for use at other groundwater monitoring sites.

The VOC receptacle consists of a 1-inch OD by 3-foot long Teflon or stainless-steel tube with a Teflon ball-check valve installed at the top and the bottom. The top of the tube is fitted with a stainless steel and Teflon compression fitting which allows for direct attachment to the dedicated tubing. During low flow purging and sampling, the receptacle acts as an extension to the tubing. For VOC sample collection, the receptacle is retrieved from the well, and the VOC sample is decanted directly from the receptacle using a Teflon bottom discharge valve (similar to a disposable bailer). This method allows much more cost effective low flow sampling for VOC and other parameters, limits the potential for cross contamination (compared with non-dedicated submersible pumps such as the Redi Flo-2) and maintains the integrity of the sample.



4.60 WASTE WATER SAMPLING

To evaluate the source of silicone based hydrocarbon present in the lagoons, the material safety data sheets (MSDS) of all products used currently and within the last five years at the facility were searched for silicone based products. Seventeen products with a silicone base were identified as discussed in Section 6.40. GZA was able to obtain samples of six of these raw products from the manufacturers for laboratory total petroleum hydrocarbon fingerprint analysis, Method D3328/EPA 8100M.

Waste water samples were collected from the top and the bottom of the active lagoons (Lagoon 1 and Lagoon 2) and from the waste water pump house on January 14, 2005. A sample of what appeared to be "sheen" on top of Lagoon 1 was also collected on January 11, 2005. The water was analyzed for VOCs, TPH, TPH-fingerprint analysis and SVOCs. The samples were placed in appropriate containers, labeled, placed in an ice-filled cooler, and transported to the laboratory under chain-of-custody. As described in Section 6.40, below, the laboratory was unable to match any single product to the silicone based petroleum hydrocarbons found in the waste water. Either we were not able to identify/obtain samples of the additives responsible for the organo-siloxanes, or the material is entering the water stream directly from the fabrics, many of which are treated with silicone oils during the manufacturing process.

4.70 TEST PIT EXPLORATIONS

Test pit explorations were completed to evaluate the aerial extent and depth of buried waste in the four surficial waste disposal areas described in Section 2.80.1. The program involved the completion of approximately 125 test pits that were advanced by hand on April 18 and 19, 2005. Test pits were advanced through the surficial waste or soil until the native brown sandy subsoil, typical of the Site (see Section 5.20, Photo 12) was encountered. The depths ranged from 0.5 to 1.5 feet below grade. The test pits was distributed as follows:

- 60 test pits were advanced in Area 1,
- 40 test pits were advanced in Area 2,
- 15 test pits were advanced in Area 3,
- 10 test pits were advanced in Area 4.

4.80 MANAGEMENT OF INVESTIGATION DERIVED WASTE

Waste (soil and purge water) derived from the first and second phases of GZA's soil boring program were placed in sealed drums and transported from the Site under non-hazardous waste shipping documentation by Marshall Environmental of Warwick, Rhode Island on November 1, 2004 and on April 15, 2005, respectively. Purge water from monitoring wells GZ-5 and GZ-8 were released on Site; neither well exceeded RIDEM GA groundwater standards.

5.00 SUBSURFACE CONDITIONS

5.10 SITE GEOLOGY

The types and distribution of subsurface soils identified at the Site are generally consistent with the classifications and mapping presented below.



Native soils in the area of the Site have been mapped by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS July 1981) as Merrimac and Windsor sandy loams series and, to a lesser degree, Urban land complex. Merrimac sandy loam consists of nearly level excessively drained soils located on glacial outwash plains and terraces. The hydraulic conductivity is described as typically moderate. Windsor loamy sand also consists of nearly level, excessively drained soils located on terraces, outwash plains, kames and eskers. These soils generally exhibit high permeability. Urban land complex consists of areas that are mainly developed with buildings, paved roads, and parking lots.

According to the State of Rhode Island Bedrock Map (1994 Bedrock Geologic Map of Rhode Island Map Herms, Grant and Murray), the Site is located in the Sterling Igneous Suite of the Hope Valley Subterrane. Bedrock underlying the facility has been mapped as alaskite gneiss, a fine to medium grained granite gneiss. This rock has been described as massive to layered and strongly foliated in nature with no primary porosity or permeability. Groundwater flow is expected to be limited to rock fractures.

Previous studies (ERT, November 1985; Gonthier, et al., 1974; Dickerman and Silva, 1980 Ryan and Kipp, 1984; Ryan et al., 1985 and Dickerman, Trench and Russell, 1990) have indicated that the area is underlain by a bedrock valley filled with glacial outwash deposits, which generally become finer with depth. Geologic mapping and other work conducted by GZA in the area suggests that the Site sits on the western flank of this bedrock valley that deepens to more than 300 feet approximately 2 miles east of the Site. The lower units have been described as glacial till, fine sand and inorganic silt. The glacial till reportedly mantles the bedrock, and is typically less than 20-feet thick. Above the glacial till, a deposit of fine sand and silt has been reported, which increases with thickness approaching the Pawcatuck River and contiguous wetlands. Above the fine sand and silt, is an outwash deposit consisting generally of medium to coarse sands and gravel with trace amounts of silt. The typical thickness of the sand and gravel outwash is reported to range from 30 to 150-feet.

5.20 SUBSURFACE CONDITIONS

The following description of subsurface conditions is based on the explorations completed at the Site by GZA. The descriptions are somewhat generalized; for more detailed information refer to the boring logs in Appendix C and, the Geologic Cross sections presented as Figures 4 and 5.



In general, our subsurface explorations encountered 15 to 85 feet of sand, gravel and silt in multiple soil strata of varying thickness. The typical soil strata we encountered consisted of the following from the ground surface down:

- Dark brown topsoil - <1 foot thick,
- Tan/orange sandy subsoil – generally 1 to 2 feet thick,
- Clean (i.e., less than 10% silt) gravelly fine to coarse sand,
- Clean fine to medium sand
- Silty, fine Sand.
- Orange/brown glacial till that was encountered at depths of 36 to 85 feet below ground surface (bgs).

In the developed northwestern areas of the Site, the topsoil and subsoil have been removed and fill was encountered to depths of 6 to 15 feet below ground surface (see Figure 4). Brick or concrete was encountered in explorations GP-25 and GZ-8, (in the facility area), at approximately 7 feet below ground surface. The area of GZ-6 was filled to an unknown depth when two USTs were removed, (see Section 2.12.1). Traces of old fabric were found at approximately 13 to 15 feet below ground surface at GP-28 south of the "Former Lagoon." Natural soils below the fill layers were classified as loose to dense sands and gravel that generally become finer and siltier with depth until glacial till was encountered.

Although the soils in the facility area generally became siltier with depth, only two very thin low permeability strata (e.g., silt lenses) were observed. These lenses, consisted of layered silt and fine sand, were found at 13 feet bgs in borehole GP-24 and 10 feet bgs in GP-35. These lenses had a thickness of less than 1-inch and appeared to be discontinuous, as they were not noted in several other borings drilled on this area. Dense to very dense till was encountered in this area between 40 and 50 feet below ground surface (elevation minus 21.5 to 26).

In the southern undeveloped areas of the site (see Figure 5), organic topsoil generally less than 1-foot thick underlain by a distinct layer of tan sandy subsoil ranging from 2 to 3-feet thick was encountered. Beneath the subsoil, stratified sands, gravel and silt were encountered. The deeper soils varied in color depending on location and depth, and have a relative density ranging from loose to very dense, but were typically medium dense. In general, the gravelly sands were closer to the ground surface and the fine to medium silty sands are more prevalent with depth. An aquitard consisting of layered silt and fine sand were found at several depths, 18 and 26 feet bgs, in borehole GZ-5. These lenses varied in thickness from less than 1 to more than 2 feet (see Photos 13 and 14). A series of test pits conducted as part of the on-going infiltration system design confirm that the silty lenses are continuous in the area of the lagoons.

Generalized subsurface profiles showing inferred soil conditions are provided on Figures 4 and 5. A review of Figure 4 suggests that sandy soils below the facility are on the order of 50 feet thick and underlain by till at an elevation of +10 feet NGVD. The Till layer appears to drop in elevation to -10 feet NGVD in the southern central portion of the facility and then rise again under the lagoons where only 30 feet of sand soils were observed over



Till that was encountered at elevations +35 feet NGVD in borehole GZ-5. Till also drops in elevations to the east of the facility reaching an observed minimum of -20 feet NGVD in borehole GZ-4A consistent with the USGS's description of a bedrock valley to the east.

The deep aquifer borings were extended to a depth at which refusal (defined as >100 blows of the hammer for less than 6 inches of penetration) of the split-spoon sampler was met, ranging from 36 to 85 feet below ground surface. The soil at this depth was a dense orange mixture of coarse gravel, sand, silt and clay, generally classified as glacial till. Till is a dense, poorly sorted (i.e., gradation generally ranges from silt through boulders) deposit that results from glacial advance over the existing soils and rock. This typically results in a dense soil with relatively low hydraulic conductivity. Bedrock was not encountered during any subsurface explorations.

5.30 DUMP AREAS EVALUATION

The four suspected former dumping areas were evaluated by hand dug test pits. The test pits were advanced until the native tan sandy subsoil was encountered. Each area was identified by solid waste visible at the ground surface. The areas of surface solid waste were, in general, larger than the areas of buried solid waste. No solid waste was found at a depth greater than 1.5-feet below the ground surface; typical depths were 0.5-feet or less.

5.31 Solid Waste Area 1

Area 1 consists of a small depression running roughly north-south on the west side of Lagoons 1 and 2 (see Figure 2) with what appears to be an old road along the east and north edges. The ground surface area is approximately 15,000 square feet, with sporadic scattered solid waste. Approximately 60 test pits were excavated in the area to delineate and evaluate the extent of the solid waste. The embankment leading from the top of the hill to the bottom of the depression had approximately 5,700 square feet which contains solid waste varying in depth from approximately 0.5 to 1.0-feet. The remaining area has sporadic surface solid waste with no buried waste. It is estimated that this area contains approximately 250 cubic yards of buried and surface solid waste.

In general, the solid waste in this area appears to be common household trash circa 1920 to 1940, and ranges from ceramics and glass house wares to old bottles, cans, tin wares, horse harnesses and scrap metal. No evidence of hazardous waste was encountered.

5.32 Solid Waste Area 2

Area 2 consists of a long berm of mixed solid waste and soil, including push piles of solid waste and stumps and an area of surface trash, located to the east of the Temporary Holding Pond (see Figure 2). The area of surface trash is approximately 9,500 square feet and the push piles and berm appear to be from the area cleared to construct the Temporary Holding Pond. Approximately 40 test pits were excavated in the area to delineate and evaluate the extent of the solid waste. The estimated volume of this area is 600 cubic yards and is divided as follows:



- Berm = 250 cubic yards
- Push piles = 100 cubic yards
- Surface trash = 250 cubic yards.

In general, the solid waste in this area appears to be common household trash from circa 1950 to 1970, and ranges from ceramics and glass house wares to bottles, cans, tin ware, miscellaneous car parts, roofing shingles and scrap metal. No evidence of hazardous waste was encountered.

5.33 Solid Waste Area 3

Area 3 is located south of Myrtle Street and is near remnants of an old concrete floor slab. Charbert personnel interviewed do not remember any structure being located on that portion of the property. The area has sporadic surface solid waste consisting of sheet plastic, empty plastic drums, pressure treated wood scraps and piles of mixed soil, concrete block and brick. Approximately 25 test pits were excavated in the area to delineate and evaluate the extent of the solid waste. It is estimated that the surface solid waste in this area is 50 cubic yards of mixed bulky waste and approximately 50 cubic yards of soil and concrete debris for a total of approximately 100 cubic yards. The surface solid waste appears to have been dumped by residents over the last 20 years. No evidence of hazardous waste was encountered. It should be noted that according to the 1991 Rizzo report, Charbert removed 13 truckloads of debris from this area in the 1980s.

5.34 Solid Waste Area 4

Area 4 is located to the south of the current gravel borrow area. GZA personnel observed the area and noted several surficial piles of concrete and brick rubble and some sporadic scrap metal. Concrete (not containing rebar reinforcement) is exempt from the solid waste regulations and the scrap metal is suitable for metals recycling. Approximately 10 test pits were excavated and no subsurface solid waste or evidence of hazardous waste was encountered. It should be noted that maintenance equipment used for the infiltration lagoons (e.g., harrows, pump hoses, etc.) is stored in this area.

5.40 GROUNDWATER

The following subsections describe various aspects from this and the previous groundwater studies completed at the Site. The discussions include groundwater flow directions, gradients and the capture zone created by the pumping action of the process water supply wells. Note that of the 36 groundwater monitoring wells installed by others, 23 were located, surveyed and utilized by GZA.

5.41 Groundwater Elevations and Fluctuations

The groundwater monitoring wells are installed in the unconsolidated sands and gravel present throughout the area. The majority of the monitoring wells were screened across the first encountered water table, with total depths ranging from 12 to 35 feet. In




addition, eight deep aquifer wells extend to a glacial till layer, with total depths ranging from 39 to 88 feet. These wells are typically screened at the bottom using 10 feet of screen and then grouted to the ground surface.

Depth to groundwater, as measured by GZA, ranged from approximately 0.9 to 18 feet bgs across the Site (see Table 3). Seasonal fluctuations in select wells are shown on hydrographs 1 through 4 and ranged from a minimum of 1.4 feet observed in well RIZ-20 (a shallow well northwest of Lagoon #1) to a maximum of 7.3 feet in well RIZ-10 (a shallow well adjacent to Lagoon #2) and averaged 4.1 feet during our eight month monitoring program (September 2004 to April 2005). The following relevant observations can be made from the hydrographs:

- Seasonal high groundwater (within the scope of our monitoring program) occurred in April 2005, with the seasonal low in August 2004.
- Shallow groundwater wells, particularly those in the vicinity of the lagoons, responded less to seasonal changes than did deep wells and those in the facility area suggesting that use of the lagoons has a stabilizing influence on groundwater elevations at the Site (see hydrographs 1 and 2).
- RIZ-10 and MW-2A responded significantly to the renewed use of Lagoon #2 (see hydrograph 2). This fluctuation is attributed to the routine rotation of lagoon use.
- Groundwater in the area of the facility was typically encountered at depths of 3 to 10 feet bgs and fluctuated approximately 4 feet seasonally. The minimum vados zone thickness observed in the exterior source areas was approximately 3 feet in April 2005.
- There is a significant difference (i.e., 5 to 8 feet) in groundwater elevations at collocated shallow and deep clusters across much of the Site (see hydrograph 4). This was most pronounced immediately south of the lagoons (GZ-5/GP-21 cluster) suggesting that a relatively continuous aquitard is present between the completion depths of the shallow and deep wells. In fact, as described in Section 5.2, silt lenses were observed in several explorations in this area at depths of 16 to 26 feet bgs.

Also of note is the fact that collocated shallow/deep wells in the facility area do not show a significance difference in elevations. This lends further support to our observations that no continuous aquitards were present in this area between ground surface and the underlying glacial till. This finding will play an important roll in the evaluation and implementation of remedial alternatives.

5.42 Groundwater Flow Directions



As depicted on Figures 6 through 9, *Groundwater Contour Plans*, the inferred direction of groundwater flow has been revised somewhat from previous estimates developed by other consultants. Figure 6 represents near low groundwater table elevations as observed in the October 5, 2004 monitoring round during active pumping of the process water supply wells and use of Lagoon 1 only. This figure is based on measurements made in the monitoring well network that existed before GZA's Site Investigation field work was conducted, and was used, in part, to select those exploration locations. Figure 7 depicts the December 31, 2004 contours developed measurements taken following a 9-day long plant shutdown during which time the process water extraction wells were inoperative. We believe this figure represents ambient shallow flow conditions from the facility. Figure 8 and 9 are based on measurements made on April 5, 2005 in the current network that consists of 53 monitoring wells, 7 surface water stations and 3 lagoon elevation monitoring points. These figures are based on readings recorded during active pumping and discharge to Lagoons # 1 and # 2. Figure 8 depicts inferred conditions based on readings made in only the shallow wells while Figure 9 is based primarily on deep well elevation readings.

The following observations regarding horizontal and vertical groundwater flows were developed from these inferred contour plans and the hydrographs:

- Groundwater flow direction in the northern portion of the Site is generally westerly toward the Wood River. However, localized groundwater flow in the vicinity of the manufacturing building appears to be southwest, which may be the result of the influence created by use of the on-site process water supply wells (compare Figures 7 and 8) and the Alton Pond Dam.
- In the northern portion of the Site, the inferred horizontal component of groundwater flow is subject to localized variances caused by:
 - The draw-down of over 250,000 gallons per day by on-site process water supply wells EW-3 and EW-4,
 - Localized groundwater mounding caused by Alton Pond and dam located to the northwest across Church Street.
- In the southern portion of the Site, the inferred horizontal component of groundwater flow is radial away from the distinct groundwater mound created by the use of the lagoons. Wastewater from the lagoons is expected to discharge to the subsurface and ultimately follow the prevailing groundwater flow directions. As shown on the figures, there is a significant component of groundwater flow to the north from the lagoons which may account for the observed contamination in residential wells at 14, 16 and 18 River Street. A small component of flow from Lagoon #1 may also travel north and then east and ultimately discharge to the Pawcatuck River south of Myrtle Street.



- The presence of an observed aquitard, as well as withdrawal of water from the process water supply wells, appears to magnify the impact of the lagoons on groundwater elevations measured in shallow wells in this area while limiting the lagoons influence on groundwater elevations within deeper wells as shown on Figure 9.
- Groundwater flow directions in areas east of the Site are expected to flow southwesterly and southerly ultimately discharging to both the Wood and Pawcatuck Rivers.
 - Flows from the Site are not anticipated to impact residential wells in these areas exclusive of these on the south end of the River Street as described above.
- A comparison of contours on Figure 8 and 9 shows that there are some variations in flow directions between the shallow and deep aquifer. These variations consisted of the flow in the area of the production wells and the facility. The upper aquifer continues to flow west toward the Wood River, while the deep aquifer appears to be effected by the productions wells more than the shallow aquifer resulting in a more northerly component of flow in the central portion of the Site.
- Under pumping conditions the horizontal gradients in the shallow aquifer range from 0.012 to 0.02 in the northwestern portion of the Site near the facility. Observed gradients were in the range of 0.04 to 0.06 near the active lagoons due to the mound. During non-pumping conditions, horizontal gradients in the northern portion of the facility are in the range of 0.012 to 0.02 suggesting that the removal of 250,000 gpd does not significantly stress this portion of the aquifer.

5.43 Nested Monitoring Wells

The first phase of the soil boring and well installation program was completed between July 12, and July 23, 2004 and involved the completion of four borings and the installation of four deep aquifer groundwater monitoring wells (GZ-1 to GZ-4A). Groundwater elevation monitoring conducted after this phase has provided an indication that the deep aquifer wells had a piezometric head significantly lower than the shallow wells in the area. Well clusters were established to monitor the piezometric difference between the upper and lower aquifers and consist of eight collocated shallow (15 to 24 feet below ground surface)/deep (40 to 83 feet below ground surface) well clusters. These wells are typically located within 10-feet of each other laterally.

Depending on location, the wells can have a difference in piezometric head varying from less than 1-foot to 10-feet (see hydrograph 4). As noted in Section 5.41, well clusters in the facility area vary less, we believe due to absence of a continuous aquitard in this area (pilot testing during the remedial design phase will be needed to confirm this hypothesis). The variation of groundwater elevation in the clustered wells on the remaining areas of the Site indicates a strong downward gradient between the aquifers. The magnitude of the

vertical gradients on the southern and eastern portions of the Site ranged from 0.45 to 0.08 and reached its maximum in the area of well GZ-5. As noted, the downward gradient is indicative of strata of low permeability soil dividing the aquifers, and the influence of long-term pumping.

5.44 Modified Pump Test



Between December 17, 2003 and January 9, 2004, Clayton performed a modified pump test to evaluate the radius of influence of the three operating process water supply wells. The production wells were allowed to rest for 16 days (during a scheduled facility shutdown) and the ambient (i.e., non-pumping) groundwater levels were established. Upon resumption of operations the production wells (EW-1, EW-3 and EW-4) and select monitoring wells were monitored for a period of 7 days to measure the initial and sustained groundwater drawdown. It should be noted that production well EW-1 has been removed from service since this test was performed. As noted above, the production wells pump in a rotating sequence that changes each time water is called for.

The modified pump test consisted of measuring fluctuations in the groundwater elevation at eight locations across the Site using In-Situ MiniTroll model data loggers. Pump test data collection points included three existing monitoring wells RIZ-3, RIZ-14, and RIZ-21 (labeled for the modified pump test as data collection points PT-7, PT-8, and PT-3, respectively). To enhance data collection for determining the radius of influence of the process water supply wells, Clayton also collected data from temporary wells CB-9 (PT-6) and CB-10 (PT-2), and from pump test temporary wells PT-1, PT-4, and PT-5. Each of these wells is located in the vicinity of the productions wells and is shown on Figure 6.

Groundwater levels recorded by the data loggers indicated that groundwater achieved a maximum elevation on December 27, 2003, eight days after the process water supply wells ceased operation. Following the startup of the process water supply well pumps, groundwater levels recorded by the data loggers reached a maximum water level drawdown of 1.57 feet at location PT-1 on January 5, 2004. PT-1 is installed approximately 50 feet northwest of the Process water supply well No. 1, 100 feet south of Process water supply well No. 3, and 240 feet southeast of Process water supply well No. 4. Based on the groundwater levels recorded, the center of the cone of depression formed by the operating process water supply wells is approximately 80 feet west-southwest of PT-1 (see Figure 6).

Clayton reported that water level measurements recorded by the data loggers indicated the radius of influence of the three active process water supply wells extends approximately 350 feet from the center of the cone of depression. No appreciable draw down was measured beyond 350-foot radius. Based on groundwater levels recorded by the data loggers, it appeared that the center of the cone of depression moves horizontally

between the influences of each process water supply well pump as it operates. As noted, the process water supply wells run in sequence with only one pump operating at a time, based on production needs. Therefore, groundwater is drawn from different process water supply well locations, shifting the center of the cone of depression.



6.00 ANALYTICAL TESTING

As described above, the Site has been the subject of numerous environmental studies beginning in 1991 with the work by Rizzo, followed by a soil gas study conducted by Fuss & O'Neil, and the initial phases of the Site Investigation by the Clayton Group conducted in 2003. GZA completed two phases of Site Investigation studies; the first in the summer of 2004 and the second in the winter of 2004/2005. Quarterly UIC program groundwater and waste water monitoring has also been conducted at the Site by a number of consultants and laboratories from 1994 to the present. Additionally, RIDEM, RIDOH and the Town of Richmond have completed several rounds of residential water supply well testing in the surrounding neighborhoods. Information from each of these studies was review and Table 6 (Analytical Testing Summary) provides a list of the specific testing programs that were incorporated into GZA's development of the *Phase II Site Investigation Work Plan* and this *Site Investigation Report*.

The information on Table 6 is arranged by media, sample date, number of samples analyzed, sample location, type of analysis conducted and performing party. As shown, these studies have lead to the development of an extensive body of environmental quality data for the Site and surrounding area. The following discussion focuses on the more recent work conducted GZA and the Clayton Group specifically for the Site Investigation. However, relevant information from other studies is incorporated as appropriate to:

- Provide a more complete picture of current Site conditions (e.g., soil stockpile testing results); and
- Aid in an understanding of contaminant fate and transport (e.g., residential well testing results).

6.10 ANALYTICAL TESTING PROTOCOLS

The analytical methods utilized by GZA and Clayton were selected to provide suitable sensitivity to allow for comparison of the resulting data to applicable regulatory criteria. Each testing program was documented in a RIDEM approved work plan. The testing programs were consistent with the current Site Remediation program's regulatory requirements and included the following analyte groups.



Parameter (Test Method)	Waste Water (# of Samples)	Stockpiled Soils (# of Samples)	Subsurface Soils (# of Samples)	Residential Drinking Water Wells (# of Wells)	Groundwater Monitoring Wells (# of Wells)
66 VOCs (524.2/8260B)	5	17	68	27	45 (21 GZA, 24 Clayton)
67 SVOCs (525.2/8270C)	5	13	28	8	27
Priority Pollutant Metals (6010B/7470A)	0	15	12	8	8
10 TCLP/SPLP Metals (1312/6010/7470A)	0	15	12	0	NA
TPH (8100/PHC Fingerprint)	6	25	19	8	16
8 PCBs/21 Pesticides (8081/8082)	0	0	7	8	0
Wet Chemistry Parameters (Various Method)	0	0	7	8	15

In many instances, as indicated on the attached tables, the analysis of VOCs and SVOCs included the evaluation of Tentatively Identified Compounds (TICs). A number of additional analyses consisting of: methane, iron, manganese, volatile and extractible petroleum hydrocarbons were also performed on select samples of each media to evaluate specific issues such as the applicability of reductive dehalogenation as a remedial measure or the types of hydrocarbons present in soils and water.

Laboratory testing services for GZA were provided by GZA's Environmental Chemistry Laboratory in Hopkinton, Massachusetts and RI Analytical, Inc. of Warwick, Rhode Island. Clayton used Alpha Analytical of Westborough, Massachusetts and Severn-Trent Laboratories of Colchester, Vermont. Each of these facilities is a RIDOH approved testing laboratory. GZA's laboratory Certificates of Analysis are attached as Appendix D, Clayton's were provided with the previously referenced reports. The laboratory testing results compiled during these investigations are summarized on tables and are discussed below.

To assess potential laboratory induced contamination, the project laboratory prepared and analyzed Trip Blanks, Method Blanks, Laboratory Control Samples and surrogates during each round of testing. Trip Blanks follow the sample containers, and subsequently the collected samples, through the monitoring process and can be used to assess the presence of non-site related contaminants that may be introduced from the environment during the sampling and transportation process (e.g., benzene, toluene, or xylene from automobile exhaust fumes). Method Blanks are used to ensure that no contamination is introduced to the samples during the preparation and analytical process (e.g., methylene chloride and acetone that are common laboratory artifacts).



As presented in Appendix D, no target analytes were detected within the trip blanks. Surrogate recoveries for all VOCs were all within acceptable limits. All SVOC surrogates, except one to two light end compound in the HydroPunch samples from wells GZ-2, GP-20, GP-21, GP-25, RIZ-6, GP-27A, GP-27B, GZ-8, GP-16, GP-17, GZ-4A, and GZ-5 were also with acceptable limits. These low SVOC surrogate recoveries are due to matrix interferences and are not expected to affect overall data usability. Low surrogate recoveries were also observed in the lighter end fractions of the EPH analyses of samples and GP-25 and GP-29. Again, this is not expected to have a significant impact on data usability. Low surrogate recoveries indicate the potential for low bias in the impacted molecular range of the affected target samples.

Throughout the subsequent discussions of analytical results, we have considered and/or assumed the following with respect to the applicability of regulatory criteria:

- the Site is located in a GA or GAA aquifer area and the area immediately surrounding the lagoons is designated as a GA Non-Attainment area (as shown n Figure 1, attached);
- there are private water supply wells located within 500 feet of the Site; and
- the future use of the Site will remain Industrial/Commercial.

Consequently, to evaluate the significance of the analytical data in terms of regulatory requirements, GZA compared the laboratory findings to the following criteria:

Media	Regulation/Guideline	Applicable Criteria
Soil	Remediation Regulations	<ul style="list-style-type: none"> • Industrial/Commercial Direct Exposure Criteria (I-CDEC) • GA-Leachability Criteria
Groundwater	Remediation Regulations <u>Rules and Regulations for Groundwater Quality</u>	<ul style="list-style-type: none"> • GA Groundwater Objectives • Maximum Contaminant Levels

As a point of reference, we have also included RIDEM's Residential Direct Exposure Criteria (RDEC) on the soils tables and the Groundwater Quality Regulation's Preventative Action Limits (PALs) on the groundwater tables and figures.

6.20 SOIL ANALYSES

The following subsections describe the surficial and subsurface soil testing results for the explorations completed by GZA and Clayton at and in vicinity of the Site.



6.21 Subsurface Soils

To evaluate the soil conditions across the Site, GZA completed 8 deep soil borings and 23 shallow Geoprobos. Soil samples were obtained, generally on a continuous basis, from each exploration beginning at the ground surface. This work supplemented the 12 Geoprobos completed by Clayton and 21 borings previously completed by Rizzo. As described above, a portion of each soil sample was field screened for total VOCs (TVOCs) using a photoionization detector and a flame ionization detector (PID/FID). A summary of GZA's field screening results are provided on Table 5.

As shown, TVOC levels based on PID readings ranged from non-detected (ND) up to 1,200 parts per million (ppm), which was recorded in a sample from borehole GZ-7 at a depth of approximately eight feet. Elevated PID readings were generally encountered in shallow soils from borings drilled within suspected contaminant source areas near the main facility building, as shown on Figure 3. FID readings were much more variable and ranged from non-detected (ND) up to 8,000 ppm, which was recorded in a sample from borehole GP-21, located south of Lagoon #3 at a depth of 13 to 15 feet. In areas of suspected VOC contamination near the facility, there was acceptable agreement between the FID and PID. However, the distribution of elevated FID field screening in the southern portion of the Site suggests that there may be methane generated in the vicinity of the lagoons that is not detectable with the PID.

Samples for laboratory analysis were selected based on the PID/FID readings, visual/olfactory observations and to provide general Site coverage. Sixty-eight samples were submitted to the laboratory for the various types of analysis discussed below.

6.21.1 VOCs in Subsurface Soils

As summarized on Tables 7 and 8, 25 of the 66 target VOCs were observed in at least one soil sample collected by GZA or Clayton. The vast majority of detected compounds fall into two categories; chlorinated hydrocarbons such as tetrachloroethene and its breakdown products (i.e., trichloroethene, cis- and trans-1,2-dichloroethene, and vinyl chloride), and petroleum/fuel related compounds such as toluene, xylene, ethylbenzene and related isomers. Exceedances of soil quality criteria were limited to the following:

Parameter	GA Leachability/ I/C-DEC (ppm)	Range of Exceedances (ppm)	Locations of Exceedances
Tetrachloroethene	0.1 / 110	0.13 to 230	GZ-7, GZ-8, GP-24, GP-26, GP-31, CB-1, CB-4, CB-5, CB-9
Trichloroethene	0.2 / 520	0.29 to 10	GZ-7, GZ-8, GP-26, CB-5
cis-1,2-Dichloroethene	1.7 / 10,000	2.7 to 9.2	GZ-8, GP-26, CB-5
Vinyl chloride	0.3 / 3	0.57 to 2.2	GP-26

Note: The observed vadose zone was typically less than 8 feet thick in the area of the facility. However, the GA Leachability standard was applied to soils to a depth of 10 feet to account for seasonal fluctuations.



Figure 10, *Contaminant Concentrations—Soils Exceeding Method 1 Criteria*, illustrates this information in plan view. The figure also presents the locations, concentrations and depths of soils exceeding RIDEM's Residential Direct Exposure Criteria. A review of the figure demonstrates that exceedances are generally limited to areas below and immediately surrounding the facility, in known or suspected release areas.

Most noteworthy, is that contaminant concentrations decreased with increasing depth below ground surface. Samples collected from the outwash soil/till interface do not provide any indication that non-aqueous phase contaminants have migrated to the till or underlying bedrock.

6.21.2 SVOCs in Subsurface Soils

As summarized on Table 7, nine of the 67 target SVOCs were observed in at least one soil sample. The detected compounds were generally polycyclic aromatic hydrocarbons (PAHs) such as naphthalene. The type of PAHs observed are typically associated with heavier petroleum products such as #2 fuel oil/diesel fuel, #4 and #6 heating oils. Exceedances of soil quality standards were limited to the following:

Parameter	GA Leachability/I/C-DEC (ppm)	Range of Exceedances (ppm)	Locations of Exceedances
Naphthalene	0.8 / 10,000	1.2 to 9.8	GZ-3, GP-24, GP-25, GP-26

Note: The observed vadose zone was typically less than 8 feet thick in the area of the facility. However, the GA Leachability standard was applied to soils to a depth of 10 feet to account for seasonal fluctuation.

Figure 10 also shows this information in detail. A review of the figure demonstrates that naphthalene exceedances were limited to southwestern facility yard area in the vicinity of a historic Bunker C oil release. This area was also the suspected location of three former USTs that reportedly contained gasoline and Number 5/6 fuel oil (see Section 2).

6.21.3 Petroleum Hydrocarbons in Subsurface Soils

Total petroleum hydrocarbons (TPH) were observed in 11 of the 19 samples analyzed by EPA Method 8100. Reported concentrations ranged from 31 ppm to 14,000 ppm. Because of prior concerns regarding the accuracy of the Method 8100 test to differentiate between petroleum based hydrocarbons and silicone based lubricants used at the facility, the majority of these samples were also evaluated using Petroleum Hydrocarbon Fingerprint (PHCF) techniques, semi-volatile TICs, and volatile/extractable petroleum hydrocarbon testing. This testing allowed us to differentiate between the various types of oils and resulted in the following findings:



Parameter	GA Leachability/ I/C-DEC (ppm)	Range of Detections (ppm)	Locations of Exceedances
Total Petroleum Hydrocarbons (8100)	500 / 2,500	31 to 14,000	GP-24, GP-25, GP-26, GP-32
Fuel Oil (PHCF) (%)	None Established	None Established	95, 100, 70, 95
Organo-Siloxanes (PHCF & 8270C TICs) (%)	None Established	None Established	5, 0, 30, 5
Uncharacterizable Materials (PHCF & 8270C TICs) (%)	None Established	None Established	0, 0, 0, 0

Note: The observed vadose zone was typically less than 8 feet thick in the area of the facility. However, the GA Leachability standard was applied to soils to a depth of 10 feet to account for seasonal fluctuation.

As shown on Figure 10, the location of fuel oil concentrations in excess of GA Leachability and Industrial/Commercial Direct Exposure Criteria is coincident with the naphthalene exceedances and limited to the southwestern facility yard area in the vicinity of the historic petroleum releases. The fingerprint analysis identified this material as a fuel oil believed to be in the lighter #2 range with the exception of: 1) sample GP-26/5-7 feet that was identified as #2 fuel oil mixed with a heavier oil such as machine/mineral oil or a weathered #4/#6 fuel oil; and 2) sample GP-36/5-6 feet that was identified as weathered #4 fuel oil or a heavier oil such as machine/mineral oil. This finding is somewhat consistent with the historical reports of the contents (i.e., Bunker Oil, Number 5/6 Oil and gasoline) of the USTs believed to have been in this area.

6.21.4 Polychlorinated Biphenyls (PCBs) and Pesticides

As noted above, seven subsurface soils samples were analyzed for PCBs and priority pollutant pesticides. No target PCB or pesticides were detected in any of the samples tested (refer to Table 7).

6.21.5 Metals in Subsurface Soils

Four metals (barium, chromium, nickel and lead) were detected on a total basis in one or more of the 12 samples tested. Each of these metals is naturally occurring in soils and bedrock in Rhode Island. The facility also utilizes pigments containing chromium which are released in small quantities to the lagoons. None of the detected metals concentrations exceeded RIDEM's Residential or Industrial/Commercial Direct Exposure Criteria.

These same soil samples were also submitted for Synthetic Precipitation Leaching Procedure analysis to evaluate metals concentrations with respect to the GA Leachability Criteria. Three of the four metals observed on a total basis (barium, nickel and lead) were also observed in the SPLP testing. None of the detected metals concentrations exceeded RIDEM's GA Leachability criteria. Results are summarized on Table 7.



6.22 Soil Stockpiles

Approximately 7,600 cubic yards (yds³) of soil resulting from maintenance of the three on-site waste water infiltration lagoons in 1998, 2001 and 2004 is stockpiled on site. The stockpiles are located in the central and southern portion of the facility as shown on Figure 2 and labeled “Old Stockpiles (1998)” and “New Stockpiles (2001 – 2004)”. This material is categorized as a tan to gray, fine to coarse gravely Sand with trace Silt, and was created by scraping the bottoms of Lagoons 1 to 3. The soil stockpiles were the subject of several studies completed by the Clayton Group and GZA. The results of these studies are documented in a comprehensive report by GZA entitled *Stockpiled Soil Reuse Plan*, dated April 13, 2005. A brief summary of the findings of that report is provided in the following paragraphs and the results of the associated analytical testing are documented in Tables 9 and 10.

6.22.1 Clayton Testing - 2001

The stockpiled soils generated in 1998 were extensively characterized by Clayton in the summer of 2001. Clayton’s sampling included testing for the 13 Priority Pollutant Metals (total basis), TCLP Metals, TPH, VOCs and SVOC plus TICs.

A summary of the Clayton analytical testing results on the 13 prior samples (designated SP-1 to SP-13) is provided on Table 9, attached. Low levels of four metals and four VOCs were detected in the soil samples; all at concentrations below RIDEM’s Method 1 Residential Direct Exposure Criteria (RDEC) and the GA Leachability Criteria. Unknown hydrocarbons ranged in concentration from 62 milligrams/kilogram (mg/kg) to 2,600 mg/kg. Clayton’s reports indicated that these unknowns were non-petroleum, silicon-based oils. One SVOC was tentatively identified in one of the 13 samples as para-tert-butyl phenol at an estimated concentration of 100 mg/kg. The laboratory (Alpha Analytical) indicated that the confidence on the qualitative identification of this SVOC was poor (i.e., Q value of 72% compared to a typical reporting threshold of 85%). As noted below, further characterization of these soils did not substantiate the presence of para-tert-butyl phenol in the soils.

6.22.2 GZA Testing - 2005

Between January 12 and February 14, 2005 GZA personnel collected a series of 12 samples from the approximately 7,600 yd³ of soil in the “Old Stockpiles” and “New Stockpiles”. Two composite samples were collected from the Old Stockpile and designated SP-12/GZA05 and SP-13/GZA05. Ten samples, consisting of eight individual aliquots (designated SS-1/01 through SS-4/01 and SS-1/04 through SS-4/04) and two composites (COMP 2001 and COMP 2004), were collected from each of the 2001 and 2004 “New Stockpiles”.



The four composite soil samples were tested for the full suite of analytes that were evaluated during the 2001 sampling/analytical program, which consist of: 13 Priority Pollutant Metals, SPLP Metals (substituted for TCLP metals), VOCs, SVOCs plus TICs, and TPH. Additionally, GZA included Extractable Petroleum Hydrocarbons (Massachusetts EPH Method) and Petroleum Hydrocarbon Fingerprint (PHF) using EPA Method 8100M to differentiate between petroleum and non-petroleum fractions as reported by the TPH test. Analysis of each of the eight individual samples focused on those parameters that were previously identified or suspected to be present, in lagoon scrapings. These analytical results are summarized on Table 10.

These samples were non-detected for VOC and the target SVOCs. TPH levels, as reported by Modified Method 8100, ranged from 100 mg/kg to 430 mg/kg, below RIDEM's 500-1,000 mg/kg Method 1 Residential Direct Exposure and GA Leachability criterion. Up to 15 SVOC TICs were reported in each sample and were characterized primarily as organo-siloxanes that contributed to the hydrocarbon content as reported by the TPH tests. No para-tert butyl phenol was observed.

This information in conjunction with the Fingerprint analyses indicates that more than 90% of the material identified by Modified Method 8100 as TPH is actually non-petroleum based silicone compounds. No total or SPLP metals were reported at concentrations at or above RIDEM's Method 1 Residential Direct Exposure Criteria or the GA Leachability Criteria.

6.22.3 Clayton's Holding Pond Sampling - 2001

In response to RIDEM's request of November 2, 2000 to characterize soils in the Holding Pond prior to final closure, Clayton collected and analyzed three soil samples from the base of the excavation for TCLP Metals, TPH and VOCs in the summer of 2001. The results were submitted to RIDEM in an August 3, 2001 letter report. A summary of the results of this testing are also included on Table 9, and reveal that only 120 mg/kg of an unknown, non-petroleum based hydrocarbon was present in one of the three samples.

6.30 WATER ANALYSES

As described above, multiple rounds of groundwater, waste water and residential well water samples have been collected and analyzed between June of 1991 and February 2005. Information from as many as 46 on- and off-site monitoring wells, 27 residential water supply wells, Lagoons 1 and 2 and the waste water pump house is described in the following sections and summarized in the attached tables. Laboratory certificates of analyses for GZA's testing are included in Appendix D; Clayton's have been included in previous reports referenced above.



6.31 Hydropunch Groundwater Analysis

Three to six point-source groundwater samples were collected from each of GZA's initial deep soils boreholes (i.e., GZ-1 through GZ-4A) using the Hydro Punch method. This resulted in the collection and analysis of a total of 18 samples for VOC and SVOC analytical testing (no TIC testing was conducted as part of this screening level assessment). The Hydro Punch consists of a stainless-steel vessel approximately 3 feet in length that is driven into the saturated soil formation using the drill tools. The vessel is fitted with an expendable drive point covering a one-way check valve. The unit is decontaminated and then driven to the desired sample depth. The drill string is then withdrawn approximately 6 inches detaching the drive point and allowing the vessel to fill through the check valve. Once full the entire assembly is withdrawn from the borehole and the sample is decanted into the required sample containers. Test results are presented on Table 11.

A suite of chlorinated compounds generally consisting of PCE and its breakdown products TCE, 1,2-DCE and Vinyl Chloride (VC) was present in one or more groundwater samples from each borehole and represent the most frequently detected contaminants. Petroleum hydrocarbon contamination consisting primarily of benzene, toluene, methyl-t-butylether (MtBE) and associated compounds were also detected in select samples from each borehole at lower concentrations and frequencies.

Table 11 shows that TCE in the sample from borehole GZ-1 a depth of 50 feet (the deepest sample collected) was the only compound that exceeded the drinking water standards (i.e., Federal MCLs or RIDEM GA Groundwater Objectives) for the borehole. No compounds detected in the samples from borehole GZ-2 (located just north of Lagoon #1) or GZ-4A (the off-Site well at 18 River Street) exceeded drinking water standards.

Samples from borehole GZ-3 drilled within a suspected source area for both petroleum and chlorinated compounds between the facility and the Old Lagoon exhibited the highest concentrations of chlorinated compounds. Samples from both the shallow and deep portions of the aquifer reported exceedances of drinking water standards for a number of parameters including: PCE, TCE, 1,2-Dichloroethyne (1,2DCE) and vinyl chloride (VC). Aggregate concentrations of VOCs in the shallowest sample (15 feet) were 0.106 ppm, while aggregate concentrations in the deepest sample (35 feet) totaled 8.133 ppm.

Contrary to the soils testing results, the VOC concentrations observed in the HydroPunch samples increased with increasing depth in samples from boreholes GZ-1, GZ-2 and GZ-3. VOC levels in the samples from borehole GZ-4A reached a maximum aggregate level of 23.2 ppb at a depth of 50 feet and decreased thereafter.

Semi-volatile organics were largely non-detected in groundwater samples from the Hydro Punch sampler except for low levels the fuel oil constituents naphthalene and 2-methylnaphthalene.

6.32 Groundwater Field Screening

As described in Section 4.50, groundwater samples were collected following EPA's Low Flow well purging and sampling protocol. As part of this effort, we screened samples for oxidation reduction potential (ORP), pH, specific conductance, turbidity, dissolved



oxygen (DO) and temperature. The results of the final stabilized readings from GZA's September 2004 and February 2005 monitoring rounds are provided on Table 12. ORP values ranged from -125 electron volts (eV) in the vicinity on Lagoon #3 to 680 eV in deep groundwater beneath the facility. DO values ranged from a low of 0.0 mg/l, which was observed in several well samples taken near the facility building and surrounding the lagoons, to a high of 10.6 mg/l in a sample collected from a well in the southern loading dock area. The distribution of ORP and DO values suggest that there is an anoxic, reducing environment in the area surrounding and to the north of the lagoons, as well as the area to the west-southwest of the facility. These areas are generally coincident with identified areas of lagoon water migration or petroleum contamination. Of note, wells installed immediately below the facility (i.e., GZ-8, GP-27A and GP-27B) have normal ORP and DO levels.

Specific conductance values ranged from 91 micro-Seimens/centimeter ($\mu\text{S}/\text{cm}$) in background well GP-16 to a high of 990 $\mu\text{S}/\text{cm}$ south of Lagoon #3 and are generally indicative of some anthropogenic impact to on-site groundwaters. Acidity levels (pH) were generally near neutral ranging from 5.7 standards units (SU) in background well GP-17 to 7.3 SU in the southern loading dock area. Temperature ranged from 7.1 degrees Celsius ($^{\circ}\text{C}$) to 14.8 $^{\circ}\text{C}$. These values are typical on New England groundwater. Turbidity values ranged from a low of 0 nephelometric turbidity units (NTU) to a high of 349 NTU in the sample from well GZ-4A. After significant purge volumes 13 of the 25 samples collected by GZA still exceeded the target value of 5 NTU established by EPA for Low Flow sampling. As discussed in Section 6.36 below, there were no apparent impacts to the total metals concentrations due to the elevated turbidity levels, which in some instances appeared to be related to pink or purple tints to the groundwater samples.

6.33 VOCs in Groundwater

As summarized on Tables 13 and 14, 23 of the 66 target VOCs were observed in at least one groundwater sample collected by GZA or Clayton. Consistent with the soils testing results, the vast majority of detected compounds fall into two categories; chlorinated hydrocarbons such as tetrachloroethene and its breakdown products (i.e., trichloroethene, cis- and trans-1,2-dichloroethene, and vinyl chloride), and petroleum hydrocarbons such as toluene, xylene, ethylbenzene and related petroleum hydrocarbons. Exceedances of GA Groundwater Criteria were limited to the following:

Parameter	GA Criteria (ppb)	Range of Exceedances (ppb)	Locations of Exceedances
Tetrachloroethene (PCE)	5	5.3 to 1,400	GZ-6, GP-26, GP-27A, RIZ-3, RIZ-5, CB-1, CB-4, CB-5, CB-7, CB-9
Trichloroethene (TCE)	5	8.6 to 670	GZ-1, GZ-7, GP-26, GP-27A, CB-1, CB-9
cis-1,2-Dichloroethene (cis-1,2-DCE)	70	73 to 2,700	GZ-1, GP-25, GP-26, GP-27A, GP-28, RIZ-3, CB-1
Vinyl chloride (VC)	2	2.6 to 850	GZ-3, GP-25, GP-26, GP-27A, GP-28, RZ-3, RIZ-5, CB-1, CB-2, CB-4, CB-9



Figure 11, *Contaminant Concentrations—Groundwater Exceeding GA/MCL Criteria*, shows this information in plan view. The figure also presents the locations and concentrations of samples exceeding RIDEM's Preventative Action Limits (PALs). A review of the figure demonstrates that exceedances are generally limited to shallow groundwater in areas below and immediately surrounding the facility, in known or suspected release areas. This is consistent with the distribution of observed soils contamination. The combined evaluation of the soils analytical results and groundwater monitoring well results provide no indication that dense non-aqueous phase liquids (DNAPLs) are present or have migrated to significant depth within the aquifer.

We compared the monitoring well sampling results to the Hydro Punch point source groundwater analyses. Samples from similar depths within borehole GZ-1 compared very favorably, (i.e., good reproducibility) in both the suite of compounds and their concentrations. We were not able to obtain a Hydro Punch sample from GZ-2 at the well installation depth of 73 to 83 feet due to the presence of running sands (i.e., mobile sands that migrate from the formation up the augers or casing due to differential hydrostatic pressures). The Hydro Punch samples from GZ-3 were significantly more contaminated than the monitoring well sample. This discrepancy may be due to the entrainment of soil particles in the Hydro Punch samples dilution of the monitoring well sample in the 10 foot screened interval, or aquifer heterogeneities. The second round of sampling from the well at GZ-3 has substantiated the earlier findings and also differs significantly from the Hydro Punch results. Relatively poor correlation between the Hydro Punch results and the monitoring wells results was also observed in the samples collected from GZ-4A, again with the Hydro Punch showing slightly higher concentrations of a broader range of contaminants more in line with those observed in on site wells. The second round of samples from GZ-4A again substantiated the first and differed from the collocated HydroPunch samples.

VOC TICs were analyzed during GZA's first round of testing of wells GZ-1 through GZ-4A, as well as Clayton's testing of wells RIZ-1, -3, -14, -18, -19, and RIZ-21. A number of compounds were tentatively identified in several of the samples at estimated concentrations ranging from 0.21 to 150 ppb with a median concentration below 1 ppb. The largest group of compounds reported as TICs is from the organo-siloxane family; however, several other groups were also represented.

6.33.1 VOC Distribution in Groundwater

The distribution of VOCs in groundwater is key to the identification of contaminant source areas, and germane to the evaluation and selection of remedial alternatives. PCE and its breakdown products (TCE, cis-1,2-DCE and VC) have been identified as the primary contaminants of concern in groundwater at the Site. To aid in the evaluation of the distribution of VOCs in groundwater, we developed contaminant concentration contour maps (known as isopleth maps) for these four constituents as shown on Figures 12 through 15.



Each figure shows the same general configuration with the predominant mass of contaminants located in the northwestern Site area in the vicinity of the facility building and the “Former Lagoon.” The inferred distribution of contaminant concentrations suggests that there are two to three source areas. These are:

- The area of the former dry cleaning operation within the facility in the vicinity of exploration GP-27A;
- The area of reported surficial waste disposal outside the southwestern corner of the building in the vicinity of exploration GP-26; and
- An area south of the building between the loading docks in the vicinity of exploration CB-9. This third area may not be a release area, but may be related to southerly groundwater migration from release area #1 caused by the pumping of the extraction wells.

A fourth potential source area identified on the plans lies between the facility and the active lagoons in the vicinity of explorations GZ-1 and GZ-2. PCE, TCE and cis-1,2-DCE were each observed in these wells, which are installed in the deeper portion of the aquifer. We hypothesize that this contamination is related to secondary releases to the lagoons from contaminants that have been drawn into the process water supply wells from the facility area and discharged to the lagoons with the process wastewater.

Review of the UIC program time series plots in Appendix E show that low to moderate levels of PCE and TCE have been detected in the Pump House effluent on a regular basis from 1994 (beginning of the data set we reviewed) to mid-2004. These graphs also confirm that these constituents are sporadically detected in shallow groundwater surrounding the three lagoons. This information supports our hypothesis that these contaminants are being circulated through the aquifer as a result of pumping and lagoon discharge. The UIC data shows that the concentrations of discharged chlorinated contaminants has decreased over time. The change in concentration has resulted in a decrease in contaminant levels around the lagoons and resulted in a small residual area that exceeds GA Groundwater Criteria in the center of the southern facility yard.

6.34 SVOCs in Water Samples

As summarized on Tables 13 and 14, five of the 67 target SVOCs were observed in at least one groundwater sample. The detected compounds consisted of two PAHs (i.e., naphthalene and flourene) and three phthalates. Phthalates are common plasticizers and are also found in the PVC from which each well is constructed. Exceedances of water quality standards were limited to the following:

Parameter	GA Criteria (ppb)	Range of Exceedances (ppb)	Locations of Exceedances
Naphthalene	20	30	CB-1
Bis (2-ethylhexyl)phthalate	6	12	GZ-1



Well CB-1 is located in the western facility yard within the area of identified petroleum contamination. GZ-1 is located in the southern gravel borrow area between the facility and the lagoons.

SVOC TICs were analyzed during GZA's first round of testing of wells GZ-1 through GZ-4A, as well as Clayton's testing of wells RIZ-1, -3, -14, -18, -19, and RIZ-21. Again, a number of compounds were tentatively identified in several of the samples at estimated concentrations ranging from 0.31 to 47 ppb with a median concentration below 10 ppb. The largest group of compounds reported as TICs is from the phenolic family; however, several other groups were also represented including the organo-siloxanes.

6.35 Petroleum Hydrocarbons in Groundwater

Total petroleum hydrocarbons were observed in 7 of the 16 samples analyzed by EPA Method 8100M. Reported concentrations ranged from 0.36 ppm to 8.1 ppm. Detects were observed in the facility area, as well as near the lagoons and in the sample from GP-30 located southwest of the end of Myrtle Street. RIDEM does not have a standard for TPH in groundwater. Each of GZA's samples with detectable TPH levels was also analyzed for volatile and/or extractable petroleum hydrocarbons by the Massachusetts VPH/EPH Methods. VPH/EPH results are included on Table 13 and were compared to the Massachusetts GW-1 standards as a point of reference. This comparison indicates that the aromatic fraction of TPH in the samples from well GP-25 and GP-29 and the light end aliphatic fraction of the sample from GP-28 exceeds the Massachusetts standard.

Figure 3 shows that GP-25 and -28 are located in the western facility yard area in the vicinity of historic petroleum releases, while GP-29 is located immediately west of Lagoon #2.

6.36 Metals in Groundwater

Four metals (silver, chromium, nickel and zinc) were detected on a total basis in one or more of the eight samples tested by GZA. Each of these metals is naturally occurring in soils and bedrock in Rhode Island. None of the detected metals concentrations exceeded RIDEM's GA Groundwater Criteria

As noted above, the facility also utilizes pigments containing chromium which are released in small quantities to the lagoons. Clayton's groundwater testing included chromium on a total and dissolved basis, copper and zinc as well as a number of non-priority pollutant metals for which RIDEM has not established groundwater standards. As shown on Table 14, Clayton reported total chromium in each of their 12 geoprobe samples (CB-Series) at concentrations ranging from 0.25 ppm to 19 ppm. All of these concentrations exceed RIDEM's GA Criterion and PAL of 0.1 and 0.05 ppm, respectively. They also collected filtered sample for dissolved chromium analysis concurrently with the total chromium samples. These filtered samples were ND except for two and non-exceeded either the PAL or the GA Criterion. No information is available on the sampling protocol used for this sample collection; however, from the large discrepancy between total



and dissolved levels we believe that the wells were bailed resulting in significant levels of suspended solids. As such, the elevated total chromium levels are likely related to soil born chromium and not representative of groundwater conditions at the facility. This hypothesis is consistent with GZA's later findings which did not identify chromium exceedances in groundwater.

6.37 Water Quality Parameters

GZA and Clayton both tested select monitoring wells for a variety of general water quality indicators some of which have groundwater quality or drinking water quality standards and some of which aid in the evaluation of contaminant fate and transport. Analytes included: ammonia, nitrate, nitrite, total organic carbon, sulfate, sulfide, total coliform bacteria, fecal coliform bacteria, heterotrophic plate count, surfactants, orthophosphate, and chloride. The results are provided on Tables 13 and 14.

Total and/or fecal coliform bacteria were detected in a number of monitoring wells and residential supply wells including: GZ-1, GZ-2, GZ-3, GZ-4, RIZ-1, RIZ-3, RIZ-14, RIZ-18, 16 River Street and 18 River Street. There are no GA Groundwater Criteria for these parameters; however, RIDEM has established a drinking water maximum contaminant limit (MCL) of non-detected for both.

Coliform bacteria are used as water quality indicator organisms, that is, they generally do not cause disease in humans but may indicate the presence of other organisms that do. Total coliform bacteria represents a subgroup of bacteria also naturally present in soil and groundwater, these bacteria are associated with animal or plant sources. Fecal coliform bacteria are only sourced from the intestines or feces of warm blooded animals. The range of concentrations observed (i.e., 2 to 7 most probable number - MPN/100 ml) is low and we believe the bacteria in GZA's monitoring wells were introduced as part of the well material handling and installation process. This opinion is based on several factors: 1) fecal coliform bacteria are not typically mobile for long distances in a soils – typically less than 30 feet; 2) there are no identified sources of fecal coliform within 30 feet of any of these four wells; and 3) nitrate (which would generally be associated with a septage discharge and is more mobile than the bacteria) concentrations are all ND or very low (i.e., 1.1 ppm in well GZ-4A).

Heterotrophic plate count (HPC), a related parameter was also detected in a number of monitoring and drinking water wells at concentrations ranging from 7 colony forming units/milliliter (cfu/ml) to 20,000 cfu/ml. HPC is a count of all visible microbes within the sample and there is no standard for it in groundwater or drinking water.

Ammonia was detected sporadically across the Site at concentrations ranging from 0.2 ppm in the sample from well GZ-1 to 22 ppm in the sample from GP-27A. There is no groundwater standard for ammonia. Nitrate/nitrite was also detected in a number of wells across the Site. Only the sample from well GP-27A, installed within the former dry cleaning area of the facility, exceeded the drinking water standard of 1 ppm (as Nitrate)



and 10 ppm (as Nitrate) with a reported concentration of 17 ppm. This finding in conjunction with the ammonia concentration suggests there may be a septic release in the vicinity of GP-27A.

The United States Environmental Protection Agency (USEPA) has established Secondary Drinking Water Standards for several of the WQPs included in the testing program. These include: foaming agents/surfactants at 0.5 ppm, sulfate at 250 ppm and chloride at 250 ppm. These standards are non-enforceable and based primarily on aesthetic effects. We have included them here as a point of comparison for the detected concentrations. Groundwater samples from on-site wells GZ-1 and GZ-2 each exceeded the secondary standard for surfactants with a concentration of 1.4 ppm in each sample. Neither sulfate nor chloride exceeded the secondary standards although both compounds were detected in one or more wells. Sulfide, the reduced form of sulfate, was also observed at low levels in samples from wells GZ-1 and GZ-2. While these compounds occur naturally in the environment, they are also components of the waste water discharged to the lagoons.

6.38 Residential Well Results

Table 15 provides a summary of testing results for 27 select residential wells located the vicinity of the facility. These samples were collected by the RIDOH, RIDEM, the Town of Richmond, Clayton and GZA; and were analyzed for a broad suite of constituents including: VOC, VOC TICs, SVOCs, SVOC TICs, PCBs, Pesticides, heavy metals, nitrate, sulfate, total coliform bacteria, and fecal coliform bacteria. Based on these testing results, the RIDOH recommended that residents at 5 Myrtle Street not use their water for potable purposes due to elevated levels of MTBE which they did not attribute to Charbert. RIDOH also recommended that residents of 16 River Street not use their water due to the combination of VOCs and SVOCs. Although RIDOH detected total coliform bacteria in the sample from 18 River Street, they attributed its presence to sample contamination from the tap at the time of sampling.

The RIDOH and RIDEM results, in conjunction with current and prior testing on 14, 16 and 18 River Street wells, suggested that Site related contamination has potentially impacted groundwater conditions at these properties. In response to this finding, Charbert tasked GZA to design and install point-of-use water treatment systems for these three homes. Our design work commenced with a more detailed analysis of the specific contaminants and water chemistry in each well as summarized on Table 16. On December 20, 2004 we submitted a design package to RIDEM and RIDOH for review. After addressing minor comments on the design, Culligan Water Company of Rhode Island, in conjunction with GZA, installed treatment systems at each of the three homes on January 26 and 27, 2005. The systems consist of four main components: 1) water softening and iron removal; 2) particulate filtration; 3) carbon absorption to remove organic contaminants; and 4) ultraviolet disinfection to address bacteria either from the aquifer or from the treatment system components (e.g., carbon, ion exchange media).

Post-treatment system sampling is conducted on a quarterly basis. The first round of samples was collected on February 11, 2005 and consisted of VOC, VOC TICs, SVOCs, SVOC TICs, total coliform bacteria and fecal coliform bacteria. The laboratory results are



summarized on Table 16 and show that no target contaminants were detected at concentrations above the method limits shown. As such, the treated water meets EPA's guidelines for drinking water quality for the compounds analyzed.

No volatile TICs were observed in the samples from 14, 16 or 18 River Street; however, between seven and 14 semi-volatile TICs were reported in the treated water samples. Two to three of the compounds in samples from both wells (those flagged B in the attached analytical report) were also detected in the laboratory blanks and are not likely present in the samples. The other TICs were all observed at estimated concentrations at or below 2 ppb (ug/L). The laboratory was able to tentatively identify eight of the TICs as benzoic acid, trimethyl silyl benzoic acid, trimethyl tetradecanoic acid, hexadecanoic acid, trimethyl hexadecanoic acid, octadecanoic acid, trimethyl octadecanoic acid, and trimethylsilanol phosphate. A number of these compounds were common to all these samples. The EPA has not established drinking water criteria for these compounds as most fall into the category of naturally occurring organics, are essentially non-toxic, and are used in a variety of applications including soaps, cosmetics, lubricating oils, and food additives.¹ The remaining compounds in each tap sample were at too low a concentration and/or of poor resolution to assign a tentative name to and were simply reported by the laboratory as an "unknowns." The concentrations of these unknowns ranged from 0.6 to 1 ppb.

Testing conducted by RIDOH, RIDEM and the Town in 24 other wells along River, Church, Myrtle, Poplar and Riverview Streets showed primarily low to moderate levels of MTBE, lower levels of 1,1,1-TCA, chloroform (potentially a breakdown product of 1,1,1-TCA or resulting from the household use of chlorine based cleaning and disinfection products). Based on the types of contaminants, the location of these residents' wells with respect to the facility, and the estimated west/south-westerly direction of groundwater flow, it does not appear that these contaminants are related to releases at the facility.

6.39 Underground Injection Control (UIC) Program Testing

In 1991 Charbert was granted an order of approval (*UIC Order of Approval # 1108*) to dispose process waste water into a series of three lagoons designed for that purpose. The Order of Approval required that Charbert conduct the following monitoring and reporting for the facility:

- Conduct quarterly analytical testing of the pump house effluent and six groundwater monitoring wells placed around the lagoons. Pump house effluent is analyzed for total metals (RCRA 8); VOCs, and TPH. The six monitoring wells, designated MW-1A, MW-2A, MW-3, MW-4A, MW-5B, and MW-6, are analyzed for VOCs.
- Record daily flow rates to the lagoons.
- Document pumping system and monitoring well maintenance activities.

¹ The Characterization of Tentatively Identified Compounds (TICs) in Samples from Public Water Systems in New Jersey, March 2003, New Jersey Department of Environmental Protection – Division of Science, Research & Technology.

- Measure static groundwater elevations at the time of quarterly sampling.

Reports are provided to RIDEM's UIC Division on a quarterly basis and the data were previously summarized in Clayton's earlier SI report. As a result of monitoring well maintenance and construction activities the well network has changed with time. The current well configuration is shown on Figure 3 and Table 3 provides the cross-references for the current designations.



Table 17 provides the descriptive statistics (number of tests, number of detects, min., max., avg., standard deviation, and upper 95% confidence limit) for the UIC program monitoring data for the period from May 1994 to the present (roughly 44 quarters of data were available for review). A total of 16 individual VOCs have been detected in groundwater during that period. The most common constituents include acetone, chlorinated ethenes (PCE, TCE and cis-1,2-DCE), and petroleum/fuel related hydrocarbons (benzene, toluene, xylenes and related compounds). Of the constituents with established groundwater protection standards, only TCE and PCE in samples from monitoring wells MW-1, MW-2A, MW-3, and/or MW-4A exceeded the GA Criteria and the PALs with reported maximum concentrations of 7.1 ppb and 76 ppb, respectively. The majority of these reported exceedances were in samples collected prior to the year 2000.

Time series plots of these contaminants were generated for these parameters/wells and are included in Appendix E. As shown on the graphs, TCE has only been detected in samples from MW-1 on six occasions and PCE detects were limited to three. Except for the one excursion over the MCL, all other detected values have been below the PAL of 2.5 ppb. A similar pattern of limited detections was observed for TCE and PCE concentrations in the samples from MW-2A, MW-3 and MW-4A. We ran statistical tests for trends and outliers on the results from each well. No trends were identified; however, the maximum reported PCE concentrations from well MW-3 and MW-4A were both flagged as outliers (i.e., data not fitting the established pattern of historical results) indicating that they represent an atypical discharge event or possibly laboratory error.

As show on the table and graphs for the Pump House effluent PCE were detected in half of the samples tested (22 of 44) while TCE was detected roughly 15% of the time in the raw waste water. We believe this is because the extraction wells are capturing a portion of the plume from the source areas in the vicinity of the facility. This groundwater is then put through the industrial processes where a portion of the chlorinated contamination is conserved and then discharged to the lagoons. Based on a review of the inferred groundwater flow contours, a portion of the water discharged to the lagoons is likely also re-circulated back to the extraction wells via groundwater migration.

6.40 Lagoon and Wastewater Testing Results

GZA collected and analyzed six samples of waste water from the lagoons and pump house wet well. One sample was taken from near the surface and one from near the base of each of Lagoons #1 and #2 to evaluate the potential for stratification of contaminants within the water column. Note, Lagoon #3 was dry at the time of sample



collection. An additional sample was taken of a surficial sheen on Lagoon #1 that had an oily appearance. The final sample was taken from the pump house wet well to evaluate the chemistry of the raw effluent water.

These samples were analyzed for VOCs, SVOCs and/or TPH; the results are summarized on Table 18. VOCs were non-detected in all samples. Only two SVOC were detected (1,2-dichlorobenzene [a common deodorizer/disinfectant and bis (2-ethylhexyl) phthalate [a plastizer and common component of plastics]) in one or more of the samples tested. No stratification of contaminants was apparent in any of the analyses conducted. Although not directly applicable, we compared the results to RIDEM's GA Groundwater Criteria and PALs. This comparison indicated that the observed concentrations of 1,2-dichlorobenzene (i.e., 13 ppb) is well below the GA Criterion of 600 ppb. Bis (2-ethylhexyl) phthalate concentrations ranged from 10 to 13 ppb compared to a GA Criterion of 6 ppb.

TPH reported via EPA Method 8100M was observed in all samples at concentrations ranging from 12 to 35 ppm. Further testing revealed that the material reported as TPH consisted primarily of non-petroleum organo-siloxanes. This is consistent with the findings of other TPH testing on soils and groundwater from the lagoon area.

In an effort to identify the source(s) of the observed silicone constituents, GZA reviewed approximately 300 Material Data Safety Sheets (MSDSs) for materials currently or historically (within the past five years) used at the facility. We developed a short list of 17 silicone containing compounds use in Charbert's manufacturing process, see Table 4. Of these 11 are no longer used at the facility. We worked with facility personnel and manufacturers of the products to obtain small samples for fingerprint testing. Ultimately we were able to obtain samples of 6 of the products, one of which are still in use. The fingerprinting of these 6 samples did not match the fingerprint of the organo-siloxanes from the lagoons, soils or groundwater samples collected by GZA from the facility. It is possible that the source of the organo-siloxanes are the fabrics.

6.41 Cleanup Confirmation Testing of 2005 Oil Release

As described in Section 2.90, above, a small release of #2 Fuel Oil occurred in the facility yard area during the installation of a new sewer line. Visually contaminated soils were removed and drummed by facility personnel at the time of the release. On April 18, 2005 GZA collected 6 cleanup confirmation samples from the excavation. Table 19 shows that the oil contamination on the north end of the line had been successfully removed. The southern end of the line, near the oil tanks, has total petroleum hydrocarbon levels above the RIDEM Method 1 Industrial/Commercial Direct Exposure and GA-Leachability Criteria below the oil line.

7.00 SUMMARY AND CONCLUSIONS



This *Site Investigation* conducted at the Charbert Manufacturing Facility was performed to address the requirement for site investigation studies as presented in Section 7 of RIDEM's Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, as amended through February 2004. The purpose of the investigation was to compile Site characterization information, further delineate previously identified areas of environmental concern, and provide a preliminary assessment of viable remedial alternatives. This study served to supplement the findings of previous Site assessments conducted by Clayton, Fuss and O'Neil and Rizzo.

The investigation involved several stages of Site reconnaissance; interviews with facility personnel regarding waste handling and disposal practices; a review of Federal, State and local records regarding environmental conditions at the Site and surrounding area; the completion of an extensive subsurface investigation program including test pits, boreholes Geoprobos and well installations; the collection, screening and/or laboratory testing of soil, groundwater, residential well water, surface water, and waste water; and an eight month piezometric monitoring program that included 53 monitoring wells, 7 surface water stations and 3 lagoon water elevation monitoring points. The investigation also incorporated information from several previous studies that also involved the collection, screening and/or laboratory testing of soils, groundwater, soil gas, residential well water and waste water.

We believe that this represents the conclusion of the site characterization work required to develop an appropriate remediation plan.

Based on our evaluation of the project data, the following key conclusions have been developed.

- The ±113.9 acre Charbert property consists of Plat 11A, Lot 6 and is located in a rural area in the Town of Richmond at the confluence of the Wood and Pawcatuck Rivers.
- The Site which occupies the western approximately one-third of Plate 11A, Lot 6, has been the location of a textile mill since the mid-1800s.
- Groundwater at the Site is present at depths of approximately 4 to 18 feet below ground surface. Groundwater flow in the northern portion of the Site is generally westerly toward the Wood River with localized diversion of flow in the vicinity of the manufacturing building to the southwest, likely resulting from the influence of the on-site process water supply wells. Groundwater flow in the southern portion of the Site is observed to be radial from the three infiltration lagoons subsequently flowing both east and west toward the Pawcatuck and Wood Rivers.



- The property has been assigned the groundwater classification GA/GAA which is consistent with the surrounding area. The area of the Site immediately surrounding the lagoons is a designated non-attainment area.
- Strong downward vertical groundwater gradients were observed on the southern and eastern portions of the Site. These are likely due to the combined effect of low permeability soil strata between the shallow and deeper overburden aquifers, discharge from the lagoons to the shallow aquifer, and pumping of the process water supply wells. Vertical gradients were not observed in the immediate vicinity of the facility.

Soils at the Site are characterized as loose to dense sands with intermittent silt and gravel lenses. The sands generally become finer with increasing depth and overlie a dense to very dense Glacial Till layer that is believed to mantel the granitic bedrock present throughout the area. Glacial till was encountered at depth ranging from 36 to 88 feet below the ground surface. Bedrock was not encountered in our subsurface explorations.

- Four suspected former dumping areas were identified based on interviews with facility personnel and our Site reconnaissance. Each area was evaluated by hand dug test pits. The areas were characterized by a thin veneer of solid waste (typically consisting of household trash, ceramics and glass, house wares to old bottles, cans, tin wares and scrap metal) visible at the ground surface. No solid waste was found at a depth greater than 1.5-feet below the ground surface; typical depths were 0.5-feet or less. No evidence of hazardous waste was encountered.
 - Area 1, located to the west of Lagoons 1 and 2, is estimated to contain approximately 250 cubic yards of buried and surficial solid waste.
 - Area 2 consists of a long berm of mixed solid waste and soil located to the east of the Temporary Holding Pond. The estimated volume of solid waste in this area is about 600 cubic yards.
 - Area 3 is located south of Myrtle Street and is near remnants of an old concrete floor slab. The area has sporadic surface solid waste consisting of sheet plastic, empty plastic drums, pressure treated wood scraps and piles of mixed soil, concrete block and brick. It is estimated that this area contains 50 cubic yards of surficial solid waste. It should be noted that according to the 1991 Rizzo report, Charbert removed 13 truckloads of debris from this area in the 1980s.
 - Area 4 is located to the south of the current gravel borrow area. GZA personnel observed the area and noted several surficial piles of concrete and brick rubble and some sporadic scrap metal.

Areas 1 and 2 are located partially within the 200 foot Riverbank wetland buffers of the Wood and Pawcatuck Rivers, respectively.



- Laboratory testing of soils included SPLP Metals, VOCs, TPH/VPH/EPH, TPH Fingerprint Analysis, SVOCs, Pesticides and Polychlorinated Biphenyls provided only limited Method 1 exceedances. That is, only chlorinated compounds (PCE, TCE, Cis-1,2-DCE and vinyl chloride) and petroleum related compounds (naphthalene and total petroleum hydrocarbons) were detected above the Residential and Industrial/Commercial Direct Exposure Criteria. The exceedances all occurred near the manufacturing facility and the maintenance area yard on the west-southwest side of the building.
 - Most noteworthy is that contaminant concentrations in soils decreased with increasing depth below ground surface. Samples collected from the outwash soil/till interface do not provide any indication that non-aqueous phase contaminants have migrated to the till or underlying bedrock.

- Several rounds of groundwater monitoring were completed at the Site, resulting in the collection and laboratory testing of both existing and newly installed wells. The focus on the most current round of monitoring was to more fully characterize the suite of contaminants present at the Site and assess changes in the quality of groundwater with depth. We believe the current program achieved both goals.
 - The associated analytical testing program included the following analysis:
 - TPH/VPH/EPH (Massachusetts DEP Protocol)
 - Volatile Organic Compounds (EPA Method 8260B)
 - Semi-volatile organic compounds (EPA Method 8270),
 - 13 Priority Pollutant Metals, Iron and Manganese (EPA Method 6010B/7470A)
 - Ammonia (SM 4500 –NH₃)
 - Nitrate/Nitrite (EPA Method 353.2)
 - Total Organic Carbon (EPA Method 415.1)
 - Sulfate (EPA Method 4500)
 - Methane (RSK 175)

The resultant data, when compared to RIDEM's GA Groundwater Criteria indicate that groundwater exceedances were limited to the following:

Analyte	GA/MCL (mg/L)	No. of Exceedances	Location of Exceedances	Range of Exceedances (mg/L)
Cis-1,2-Dichloroethene	0.070	9	GP-25, 26, 27A, 28; GZ-1; RIZ-3, 5; CB-1, 4	0.050 to 2.7
Tetrachloroethene	0.005	14	GP-26, 27A; GZ-3, 6; RIZ-3, 5,13; CB-1, 2, 4, 5, 6, 7, 9	0.003 to 1.2
Trichloroethene	0.005	10	GP-26, 27A, 28; GZ-1, 2, 3, 7; RIZ-5; CB-1, 9	.003 to .670
Vinyl Chloride	0.002	13	GP-25, 26, 27A, 28;	0.0014 to 0.850



			GZ-1, 3; RIZ-3, 5; CB-1, 2, 4, 6, 9	
Chromium (Total)	0.1	10	CB-1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	0.25 to 19
Bis(2-Ethylhexyl)Phthalate	0.006	1	GZ-1	0.012
Naphthalene	0.02	1	CB-1	0.03
Total Coliform (MPN/100ml)	ND	4	GZ-1, 2, 3, 4A	6 to 90
Fecal Coliform (MPN/100ml)	ND	4	GZ-1, 2, 3, 4A	2 to 13

As noted above in Section 6.36, we don't believe that the total chromium results are representative of Site conditions and likely represent contamination from sampling method induced silts.

The exceedances are generally limited to shallow groundwater in areas below and immediately surrounding the facility, in known or suspected release areas. This is consistent with the distribution of observed soils contamination.

- The combined evaluation of the soils analytical results and groundwater monitoring well results provide no indication that dense or light non-aqueous phase liquids are present or have migrated to significant depth within the aquifer. In fact, groundwater from the deepest wells installed within the identified source meets RIDEM's GA Groundwater Objectives.
- Residential well testing results from samples collected at 14, 16 and 18 River Street suggested that site related contamination has potentially impacted groundwater conditions at these properties. In response to this finding, Charbert installed point-of-use water treatment systems for these three homes on January 26 and 27, 2005. Quarterly water quality testing indicates that the treated water meets drinking water quality standards for all target compounds.
- Testing conducted by RIDOH, RIDEM and the Town in 24 other residential water supply wells along River, Church, Myrtle, Poplar and Riverview Streets showed primarily low to moderate levels of MTBE, lower levels of 1,1,1-TCA, chloroform (potentially a breakdown product of 1,1,1-TCA or resulting from the household use of chlorine based cleaning and disinfection products). Based on the types of contaminants, the location of these residents' wells with respect to the facility, and the estimated west/south-westerly direction of groundwater flow, it does not appear that these contaminants are related to past releases at the facility.

8.00 DEVELOPMENT OF REMEDIAL ALTERNATIVES

As summarized above, soil and groundwater at several locations at the Site contain hazardous materials (primarily chlorinated hydrocarbons and petroleum hydrocarbons) that represent Method 1 exceedances as defined by the Remediation Regulations. The sources of the contamination have generally been identified and delineated. No active releases

were identified; however, residual contamination in soils in the vicinity of the facility buildings continues to act as a source of ongoing groundwater contamination. Additionally, use of the lagoons for the disposal of untreated process wastewater serves to add non-target volatile organic and semi-volatile organic contaminants to the aquifer, as well as circulating (and containing) chlorinated hydrocarbons from the facility area to the southern portion of the Site.



Using the format established by Section 7.04 of the Remediation Regulations, we have evaluated three remedial alternatives for the Site to address the observed regulatory exceedances and conditions of non-compliance.

1. The first remedial alternative considered is “no further action” at the Site. The “no further action” alternative assumes that there will be no restrictions on future development or use of the Site. The presence of soils that exceed RIDEM’s Residential and Industrial/Commercial Direct Exposure Criteria as well as the GA Leachability Criteria, and groundwater with contaminant concentrations that exceed the GA Groundwater Objectives/MCLs does not support the viability of this alternative. As such, the “no further action” is not considered protective of human health and the environment.
2. The second alternative involves the establishment of institutional controls to: (1) prohibit any future residential development of the Site; and (2) prohibit the use of groundwater at the Site for potable supply. Such controls could be established in the form of an Environmental Land Use Restriction (ELUR) as outlined in Section 8.09 of the Remediation Regulations. Since some soils also exceed the Industrial/Commercial Direct Exposure and GA Leachability Criteria, limiting the property to industrial/commercial development will not provide full regulatory compliance. This option also fails to address restoration of Site groundwater to GA/GAA standards consistent with its classification. As such, an ELUR alone is not considered a viable remedial alternative; however, it is considered an appropriate component of a more comprehensive Site-wide remedy.
3. The third, and recommended alternative, involves a combination of remedial measures and addresses the requirements of applicable regulatory programs. The remedial measures consist of: a) treatment of chlorinated aliphatic hydrocarbons (CAHs) and petroleum hydrocarbon source areas in the vicinity of the facility through soil vapor extraction and air sparging, and/or enhanced reductive dehalogenation; b) reduction of risk to residents from the consumption of contaminated groundwater at 14, 16 and 18 River Street through the installation of point-of-use water treatment systems (completed); c) source elimination of contaminant discharge to the on-Site lagoons through the installation of a wastewater treatment facility, subject to the ability to obtain suitable permitting; d) management of residual groundwater contamination through groundwater containment and monitored natural attenuation; and e) implementation of an Environmental Land Use Restriction. Each of these remedial measures is described in greater detail below.



- A. Testing suggests that residual CAH contamination is present below the buildings and between the facility and the "Former Lagoon." This contamination is believed to exist both above and below the water table which has been observed to fluctuate approximately 4 feet in this area on a seasonal basis. We recommend that these ongoing source areas be addressed through the use of either Soil Vapor Extraction (SVE) coupled with a shallow Groundwater Sparging system, or reductive dehalogenation (RD) enhanced through the injection of an organic carbon source.

SVE/Sparge is a proven and cost effective technology for addressing both the CAHs and petroleum hydrocarbons that have been detected at the site. The shallow depths of contamination and highly pervious soils support the use of SVE/Sparge. However, two Site specific issues may complicate or negate its implementation. These are: 1) the observed presence of interbedded silts and fine sands that may disrupt or redirect air flow into undesirable areas such as the adjacent residential areas and limit vapor recovery; and 2) the shallow water table in part of the source area which may limit the systems operation during periods of seasonal high water.

A pilot study using helium as a conservative tracer will be needed to demonstrate the feasibility of SVE/Sparge at the Site and provide the necessary full scale system design parameters.

Note, that the presence of elevated levels of fuel oils (resulting in TPH exceedances in Site soils in an approximately 100 foot by 100 foot area west of the buildings) may necessitate the removal of a limited amount of soil that may not be amenable to vapor extraction or biological treatment. SVE/Sparge will likely address the naphthalene exceedances in soils resulting from the petroleum hydrocarbons. However, the heavier fuel oil constituents will remain under this option but pose no significant risk to human health or the environment.

If the pilot study suggests that SVE/Sparge is not applicable to all or a portion of the source areas then enhanced reductive dehalogenation (ERD) will be evaluated. The Site data indicated that the presence of fuel hydrocarbons within and/or immediately downgradient of the CAH source areas have fortuitously provided a source of biologically-available organic carbon that has stimulated reductive dechlorination of PCE, the primary "parent" contaminant, to degrade rapidly to TCE, cis-1,2-DCE and VC. This reaction typically results in the accumulation of the less oxidized daughter products (cis-1,2-DCE and VC) which are generally less susceptible to reductive dehalogenation. This is depicted on Table 20. To further evaluate the applicability of this technology to the Site, we completed a biodegradation assessment as describe by EPA in their *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater*². The results of this evaluation are shown on Table 21 and indicate that the Site is generally a favorable candidate for this technology.

² Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater, USEPA Office of Research and Development, September 1998.



Site data also suggest that RD reactions have proceeded as far as they are likely too given the currently available levels of total organic carbon in groundwater which are very low. A number of considerations will need to be addressed to evaluate the applicability of this technology to the Site including:

- TOC and total oxygen demand (TOD) in source area soils/groundwater.
- Biologically available iron (Fe+3) in source area soils to stimulate native soil bacteria to mineralize VC.
- Ethene/ethane and possibly chloride concentrations in groundwater around source areas as indicators of final stage of CAH degradation.
- Gather additional ORP, nitrate and sulfate results in source area groundwater.
- Evaluate potential sources of ammonia and nitrate below building and the nitrates potential impact on ERD implementation.
- Assess the potential impact of chemical injections on the quality of process supply water and potential impacts to area drinking water supply wells.

Contaminant isopleth maps suggest that contaminated groundwater is discharging from these identified source areas to the Wood River.

- B. Charbert installed a point-of-use water treatment system at each of three homes (14, 16 and 18 River Street) on January 26 and 27, 2005. The systems consist of four main components: 1) water softening and iron removal; 2) particulate filtration; 3) carbon absorption to remove organic contaminants; and 4) ultraviolet disinfection to address bacteria either from the aquifer or from the treatment system components (e.g., carbon, ion exchange media). Post-treatment system sampling consisting of VOC, VOC TICs, SVOCs, SVOC TICs, total coliform bacteria and fecal coliform bacteria is conducted on a quarterly basis. Charbert will continue to maintain these potable water treatment systems on the groundwater supply wells until the combination of remedial actions described above restores groundwater in the area of the supply wells to GA/GAA quality.
- C. Maintain the current process water pumping which results in hydraulic containment and capture of a portion of the chlorinated contaminant plume. Install a process wastewater treatment system to address target and non-target compounds being discharged to the lagoons and then area groundwater. If and when new wells are required place them in advantageous positions with respect to plume migration as long as water quality and quantity needs can be met for production needs.
- D. Implement a groundwater quality and flow direction monitoring program incorporating existing monitoring wells installed as part of the SIR. The sampling program will incorporate the use of EPA's Low-Flow well purging and sampling protocols. The analytical program will include the organic contaminants of concern (COCs) identified as VOCs and SVOCs as well as select indicator constituents for the remedial systems installed. Existing wells that will not be included in the long-

term monitoring program should be decommissioned in accordance with the well closure requirements of the Groundwater Regulations. The groundwater monitoring program will be used to track the effectiveness of the active remedial measures and will include certain scheduled milestones (i.e., 2 to 5 year reviews) at which time the frequency and duration of the sampling can be evaluated.



- E. Remove the estimated 900 cubic yards of solid waste from Dump Areas 1 through 3 and take it off-Site for disposal at an appropriately licensed solid waste management facility. (Area 4 appears to consist primarily of recyclable or exempt materials - e.g., concrete). Visually inspect and field screen (using a PID) the soils at the base of the solid waste excavations and collect samples as needed for cleanup confirmation analysis. Restore the excavated areas within wetland buffers in kind with the adjacent wetlands. This work will be done in conjunction with the restoration of the Temporary Holding Pond in accordance with a RIDEM approved wetlands restoration plan. Disturbed areas outside of wetlands will be stabilized to prevent erosion and sedimentation.
- F. To protect the long-term effectiveness of the remedy, establish an Environmental Land Usage Restriction for the property. The ELUR will serve to:
- restrict the property's use from any residential activity;
 - prohibit the use of groundwater at the Site for drinking water;
 - require RIDEM notification should soil excavation be planned in source areas and implement of a soils management plan for this work;
 - provide for long-term maintenance, monitoring and other measures necessary to assure the integrity of the remedial action;
 - require prior notice to the RIDEM of the owner's intent to convey any interest in the property; and
 - grant RIDEM the right to enter the property for inspections and monitoring compliance with the remedial actions.
 - conduct annual inspections of the facility to assure that remedial alternatives remain in effect. These inspections will be performed by an appropriately qualified environmental professional. A report documenting the findings of the inspections will be provided to RIDEM following each inspection.

9.00 CERTIFICATION

To address Section 7.05 of the Remediation Regulations, the following certifications of completeness are provided.



GZA certifies to the best of its knowledge that this Site Investigation Report is complete and accurate.

A handwritten signature in black ink, appearing to read "Edward A. Summerly".

Edward A. Summerly, P.G.
Associate Principal
GZA GeoEnvironmental, Inc.

Mr. Emil Bernstein, representative for owner of the property, certifies to the best of his knowledge that this Site Investigation Report is a complete and accurate representation of the site and contains all known facts concerning the release of hazardous substances at the site.

A handwritten signature in black ink, appearing to read "Emil Bernstein".

Emil Bernstein
Executive Vice President
NFA Corp.

10.00 LIMITATIONS

GZA's work was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. This report is also subject to the limitations contained in Appendix A.



GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the environmental site investigation. No other warranty, express or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil or other latent condition beyond that observed by GZA during its site investigation.

This study and report have been prepared on behalf of and for the exclusive use of the Charbert, Division of NFA Corp. solely for use in an environmental investigation of the Site.

TABLES

TABLE 1**PRIOR OWNERSHIP**

*Charbert Phase II Site Investigation
Alton, Rhode Island*

Date	Deed Book/ Page	Parcel Plat/Lot	Grantor	Grantee
May 31, 1999	125/576	11A/ Lot 6	Alton Realty Corporation	N. F. A. Corporation
December 18, 1991	78/959	11A/ Lots 6, 14, 18, 24 and 42	Charbert, Inc	Alton Realty Corporation
October 22, 1968	28A/538	11A/ Lots 9-30 and 9-36	William C. and Gladys O. Higby	Charbert, Inc
June 18, 1968	28A/349	11A/ Lot 9-36	Victor J and Lucy J. Cassidy	Charbert, Inc
December 3, 1963	26/172	11A/ Lot 9-36	Richmond Lace Works	William C. and Gladys O. Higby
September 11, 1962	25/379	11A/ Lot 6	Richmond Lace Works	Charbert, Inc
June 1, 1908	Unknown	General Site Area	Wood River Mills Corporation	Richmond Lace Works
July 1, 1885	Unknown	General Site Area	Unknown	Wood River Mills Corporation

TABLE 2

ABOVE GROUND STORAGE TANKS

*Charbert Phase II Site Investigation
Alton, Rhode Island*

Quantity/ Description/ Location	Capacity (Gallons)	Material Stored	Secondary Containment/ Monitoring	Status
Two Steel Fuel Oil Tanks/ South of Main Facility	10,000 each	No. 2 Fuel Oil	Concrete Containment Dike/ Visual	In-Use
One Fire Suppression Tower/ Southwest of Main Facility	100,000	Water	Not Applicable/ Visual	In-Use
Two Fiberglass Process Water Tanks/ Southern Loading Dock Area	24,000 each	Process Water	Not Applicable/ Visual	In-Use
One Stainless-Steel Process Water Tank/ Maintenance Area	20,000	Process Water	Not Applicable/ Visual	In-Use
One Propane Tank for Boiler Ignition/ Maintenance Area	100	Liquid Propane	Not Applicable/ Visual	In-Use
One Propane Tank for Filling on-site Forklift Propane Canisters/ Maintenance Area	500	Liquid Propane	Not Applicable/ Visual	In-Use
One Steel Temporary Holding Tank/Southwest Hazardous Materials Storage Area	1,500	Cal-Flo AF Heat Transfer Oil	Concrete Containment Dike/ Visual	In-Use
One Steel Temporary Holding Tank/Southwest Hazardous Materials Storage Area	3,500	Cal-Flo AF Heat Transfer Oil	Concrete Containment Dike/ Visual	In-Use
One Elevated Steel Expansion Tank/South Boiler Room Area	600	Cal-Flo AF Heat Transfer Oil	Concrete Containment Dike/ Visual	In-Use
One Steel Storage Tank/Southwest Hazardous Materials Storage Area	275	Diesel Fuel	Concrete Containment Dike/ Visual	In-Use
One Steel Storage Tank/Fire Suppression Pump House	150	Diesel Fuel	Concrete Containment Dike/ Visual	In-Use
One Propane Tank for KONUS Heaters/ Maintenance Area	100	Liquid Propane	Not Applicable/ Visual	In-Use

TABLE 2

ABOVE GROUND STORAGE TANKS

*Charbert Phase II Site Investigation
Alton, Rhode Island*

One Steel Holding Tank/Southeast Hazardous Materials Area	500	Waste Oil From Fume Eliminator	Concrete Containment Dike/ Visual	In-Use
---	-----	--------------------------------	-----------------------------------	--------

TABLE 3

GROUNDWATER DEPTHS AND ELEVATIONS

Charlebert Facility S/R
Alton, Rhode Island

WELL ID	DEPTH/SCREEN	GZA DATUM ^(b)	GZA DATUM ELEV. (MSL)	GROUNDWATER SURFACE WATER MEASUREMENTS												WELL ID										
				8/4/04	8/12/04	9/3/04	10/4/04	11/3/04	12/3/04	12/22/04	12/31/04	2/14/05	3/4/05	4/5/05												
				DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.							
RIZ-1	15/10		50.24	7.37	42.87	7.63	42.61	6.57	43.67	7.45	42.79	5.85	44.50	6.01	44.23	5.62	44.62	5.81	44.43	6.09	44.16	3.45	46.79	RIZ-1		
RIZ-3	15/10	TOC	48.64	8.63	39.81	8.67	39.97	7.66	40.98	8.52	40.12	6.46	42.18	6.94	41.70	6.22	42.42	6.85	41.79	7.31	41.33	4.20	44.44	RIZ-3		
RIZ-5	15/10	TPVC	46.59		6.38	40.20	6.02	40.86	6.73	39.85	4.47	42.11	3.38	41.20	4.97	41.61	5.18	41.40	5.53	41.05	2.95	44.23	RIZ-5			
RIZ-6	15/10	TPVC	46.31					4.78	41.53	2.72	43.59	3.65	42.66	3.36	42.95	3.45	42.95	3.77	42.54	3.85	42.54	0.85	48.46	RIZ-6		
RIZ-7	15/10	TPVC	47.02					7.87	39.15	7.52	39.50	5.09	41.93	4.93	41.74	4.24	41.24	5.92	41.10	6.31	40.71	3.06	43.96	RIZ-7		
RIZ-10	32/10	TPVC	64.45	20.46	43.99	20.26	44.19	19.76	44.69	19.72	46.73	18.59	44.82	16.00	47.45	16.14	48.31	14.79	49.06	14.79	49.66	13.15	51.30	RIZ-10		
RIZ-11	35/10	CANT END																							RIZ-11	
RIZ-12	35/10	CANT END																							RIZ-12	
RIZ-13	24/10	TPVC	46.56	7.08	39.48	7.39	39.17	7.09	39.47	6.01	40.55	6.81	39.75	4.66	41.90	4.17	41.77	5.58	40.98	6.00	40.56	2.98	43.58	RIZ-13		
RIZ-14	19/10	TPVC	62.61	14.27	48.34	14.28	48.33	14.04	48.57	13.27	49.34	13.65	48.96	13.24	49.37	13.07	49.54	13.12	49.49	13.08	49.53	12.32	50.29	RIZ-14		
RIZ-15	19/10	TPVC	62.51	11.85	50.66	11.75	50.76	11.60	50.91	10.60	51.81	11.42	51.08	11.15	51.36	11.32	51.19	11.50	51.01	11.48	51.03	11.51	51.00	10.87	51.84	RIZ-15
RIZ-18	19/3/10	TPVC	65.94	17.00	48.94	17.26	48.68	17.22	48.72	16.62	49.32	16.77	49.17	16.52	49.42	15.99	49.95	16.17	49.77	16.12	49.02	15.89	50.05	15.20	50.74	RIZ-18
RIZ-19	20/10	TPVC	63.85	15.20	48.65	15.25	48.60	15.14	48.71	14.35	49.50	14.62	49.23	14.32	49.57	13.91	49.94	14.03	49.82	14.05	49.79	13.92	49.93	13.18	50.67	RIZ-19
RIZ-20	19/25/10	TPVC	60.79	12.64	48.15	12.33	48.46	11.47	49.32	11.88	48.81	11.62	49.17	11.79	49.00	11.86	48.93	11.82	48.87	11.92	48.87	11.92	48.87	11.23	49.56	RIZ-20
RIZ-21	19/10	TPVC	62.85	13.50	39.35	13.50	39.35	13.40	39.46	11.72	41.13	12.58	40.27	10.54	42.31	11.48	41.37	10.52	42.33	11.30	41.55	11.77	41.08	8.68	44.17	RIZ-21
MW-2A	20/10	TPVC	63.59		39.35			9.95	53.64	9.39	54.20	9.03	54.56	8.29	55.30	8.37	55.22	4.21	59.38	7.23	56.56	7.26	56.33	7.11	56.48	MW-2A
MW-4A	15/10	TPVC	55.43					6.51	51.92	5.67	52.76	6.28	52.15	5.88	52.55	6.11	52.32	5.20	52.23	6.15	52.28	6.20	52.23	5.68	52.75	MW-4A
GP-15	20/10	TPVC	60.87																							GP-15
GP-16	17/10	TPVC	55.59																							GP-16
GP-17	37/10	TPVC	73.88																							GP-17
GP-18	25/10	TPVC	59.11																							GP-18
GP-19	22/10	TPVC	62.09																							GP-19
GP-20	22/10	TPVC	61.65																							GP-20
GP-21	44/10	TPVC	64.62																							GP-21
GP-22	44/10	TPVC	64.62																							GP-22
GP-25	15/12	TPVC	49.23																							GP-25
GP-26	16/12	TPVC	49.23																							GP-26
GP-27A	20/10	TPVC	52.16																							GP-27A
GP-27B	34/10	TPVC	52.21																							GP-27B
GP-28	15/12	TPVC	46.69																							GP-28
GP-29	22/10	TPVC	66.90																							GP-29
GP-30	37/10	TPVC	63.16																							GP-30
GP-34	12/8	TPVC	46.83																							GP-34
PT-1	15/10	TPVC	51.77	12.34	39.43	11.43	40.34	11.51	40.26	10.25	41.52	11.06	40.71	8.93	42.84	10.02	41.75	9.15	42.62	9.78	41.99	10.33	41.44	7.12	44.65	PT-1
PT-2	15/10	TPVC	53.20	14.51	38.69	13.25	39.95	13.29	39.91	12.05	41.15	12.82	40.36	10.93	42.27	11.57	41.63	11.02	42.18	8.02	40.10	8.64	39.48	5.20	42.92	PT-2
PT-4	15/10	TPVC	48.12					9.46	38.66	8.20	39.92	9.03	39.09	9.92	38.20	8.36	39.76	6.92	41.20	8.02	40.10	8.64	39.48	5.20	42.92	PT-4
PT-5	15/10	TPVC	47.10	7.64	39.46			8.02	39.08	6.72	40.38	7.62	39.48	5.52	41.58	5.93	41.17	4.87	42.23	5.88	41.22	6.34	40.76	2.85	44.25	PT-5
CB-5	15/10	TPVC	51.88					12.68	39.20	11.34	40.54	12.64	39.24	9.97	41.91	10.81	41.07	10.12	41.76	10.55	41.33	11.00	40.86	7.86	44.02	CB-5
CB-6	15/10	TPVC	50.38					8.33	39.11	7.22	40.22	7.96	39.48	5.49	41.95	6.55	40.89	6.10	41.34	9.28	41.10	9.69	40.69	6.44	43.94	CB-6
CB-9	15/10	TPVC	49.35	8.31	40.26			9.01	39.56	7.79	40.78	8.67	39.90	6.57	42.00	6.98	41.59	6.21	42.36	7.78	41.57	8.23	41.12	4.99	44.36	CB-9
CB-12	15/10	TPVC	61.33					6.60	54.73	5.13	56.20	6.91	54.42	6.69	54.64	7.04	54.29	7.33	54.00	7.20	54.13	7.34	53.99	7.12	54.21	CB-12

TABLE 3

GROUNDWATER DEPTHS AND ELEVATIONS

Charlebert Facility S/R
Alton, Rhode Island

WELL ID	DEPTH/SCREEN	GZA DATUM (b)	GZA DATUM ELEV. (MSL)	GROUNDWATER SURFACE WATER MEASUREMENTS												WELL ID																		
				8/4/04	8/12/04	9/3/04	10/4/04	11/3/04	12/3/04	12/22/04	12/31/04	2/14/05	3/4/05	4/5/05																				
				DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.	DEPTH	ELEV.															
GZ-1	54/10	TOC	56.47	16.90	39.57	16.18	40.29	16.16	40.31	14.96	41.51	15.50	40.97	13.83	42.64	14.83	41.84	13.92	42.55	11.85	44.62	GZ-1												
GZ-2	83/10	TPVC	61.45	19.92	41.53	19.73	41.72	19.63	41.82	18.54	42.91	18.93	42.52	17.72	43.73	17.73	43.72	17.47	43.98	17.79	43.86	17.88	43.57	GZ-2										
GZ-3	40/10	TPVC	49.74	8.24	39.84	9.20	38.88	9.35	39.79	8.24	40.90	8.98	40.16	6.82	42.32	7.34	41.60	6.96	42.18	16.24	42.77	16.46	42.53	GZ-3										
GZ-4A	47/10	TPVC	59.01	18.49	40.52	18.05	40.96	18.00	41.01	16.82	42.19	17.59	41.42	16.03	42.86	16.30	42.71	15.73	43.28	16.24	42.77	16.46	42.53	GZ-4A										
GZ-4B	47/10	TPVC	58.32																	16.24	42.77	16.46	42.53	GZ-4B										
GZ-5	44/10	TPVC	58.32																	16.24	42.77	16.46	42.53	GZ-5										
GZ-6	43/10	TPVC	49.78																	16.24	42.77	16.46	42.53	GZ-6										
GZ-7	43/10	TPVC	52.17																	16.24	42.77	16.46	42.53	GZ-7										
GZ-8	51/10	TPVC	52.17																	16.24	42.77	16.46	42.53	GZ-8										
PD-1	WOOD RIVER	DRILL HOLE	53.53																	3.95	49.68	3.96	49.57	3.34	50.19	PD-1								
PD-2	WOOD RIVER	DRILL HOLE	54.43																	3.95	49.68	3.96	49.57	3.34	50.19	PD-2								
SW-1	WOOD RIVER	Nut on Bolt	44.36																	14.20	42.27	14.43	42.04	11.85	44.62	SW-1								
SW-2	PAWCATUCK RIVER	TOP OF REBAR	42.33																	14.20	42.27	14.43	42.04	11.85	44.62	SW-2								
SW-3	WOOD RIVER	TOP OF REBAR	39.83																	14.20	42.27	14.43	42.04	11.85	44.62	SW-3								
SW-4	PAWCATUCK RIVER	TOP OF REBAR	40.43																	14.20	42.27	14.43	42.04	11.85	44.62	SW-4								
SW-5	PAWCATUCK RIVER	TOP OF REBAR	43.10																	14.20	42.27	14.43	42.04	11.85	44.62	SW-5								
SW-6	PAWCATUCK RIVER	TOP OF REBAR	41.95																	14.20	42.27	14.43	42.04	11.85	44.62	SW-6								
LW-5A		TOP OF REBAR	41.95																	14.20	42.27	14.43	42.04	11.85	44.62	LW-5A								
LW-5B		TOP OF REBAR	41.95																	14.20	42.27	14.43	42.04	11.85	44.62	LW-5B								
LAGOON 1		LW 2 Stake 1	54.72																	14.20	42.27	14.43	42.04	11.85	44.62	LAGOON 1								
LAGOON 2		LW 3 Stake 2	55.33																	14.20	42.27	14.43	42.04	11.85	44.62	LAGOON 2								
LAGOON 3		TOP OF REBAR	66.50																	14.20	42.27	14.43	42.04	11.85	44.62	LAGOON 3								
LW-1		TOP OF REBAR	66.50																	14.20	42.27	14.43	42.04	11.85	44.62	LW-1								
LW-2		TOP OF REBAR	66.96																	14.20	42.27	14.43	42.04	11.85	44.62	LW-2								
EW-1	34/10	TOC	51.58																	9.63	41.95	10.42	41.16	8.47	43.11	9.24	42.34	8.55	43.03	9.07	42.51	9.46	42.12	EW-1
EW-2	34/10	TOC	52.68																	9.63	41.95	10.42	41.16	8.47	43.11	9.24	42.34	8.55	43.03	9.07	42.51	9.46	42.12	EW-2
EW-3	35/10	TOC	46.88																	9.63	41.95	10.42	41.16	8.47	43.11	9.24	42.34	8.55	43.03	9.07	42.51	9.46	42.12	EW-3
EW-4	40/10	TOC	40.10																	9.63	41.95	10.42	41.16	8.47	43.11	9.24	42.34	8.55	43.03	9.07	42.51	9.46	42.12	EW-4
OEW-2	49/UK	TOC	60.46																	9.63	41.95	10.42	41.16	8.47	43.11	9.24	42.34	8.55	43.03	9.07	42.51	9.46	42.12	OEW-2
18 River SI	23/UK	TOC	63.16																	9.63	41.95	10.42	41.16	8.47	43.11	9.24	42.34	8.55	43.03	9.07	42.51	9.46	42.12	18 River SI

1. Flush indicates flush mounted roadbox, steel indicates 2 foot (guard) pipe.
 2. TOC indicates Top of Casing, TPVC indicates Top of PVC Pipe.
 3. SW indicates Surface Water.
 4. EW indicates Extraction Well.
 5. LW indicates Lagoon Water.
 6. PD indicates Pond Water.
 7. UK indicates Unknown.
 8. NC indicates No Casing.
 9. MW indicates Monitoring Well (UIC).
 10. P1 indicates Pump Test.
 11. CB indicates Clayton Boring.
 12. OEW indicates Old Extraction Well.

TABLE 4

SILICONE CONTAINING PRODUCTS MSDS SUMMARY

*Charbert Phase II Site Investigation
Alton, Rhode Island*

PRODUCT NAME	DESCRIPTION/CAS NO.	FINGERPRINT COMPLETED (Y/N)
DEFOAMER LMX	Reacted low-silicone defoamer	
ECCOSOFT 225	Non-ioni silicone emulsion	Yes
FLEXOFT 24	Reacted elastomeric silicone microemulsion	
FLUFTONE	Modified Silicone Softener	
SILKSOFT ULTRA	Amino Functional Silicone	
SIPSOFT 801	Silicone Emulsion	
VISCOFT 345C 0322/CSE	Silicone (Polymer)	Yes
ULTRATEX ESB	Silicone Emulsion	
ULTRATEX REL	Amino Modified Silicone - Polyether Copolymer Mixture	
ULTRATEX SW	Water-based Silicone Emulsion	
UVITEX NEW LIQ/NFW	Distyryl Biphenyl Derivative	Yes
UVITEX EBII/EBF	Phenyl Styryl Derivative	Yes
TINUVIN HR/AR	Antioxidant for Textiles	Yes
FREETEX NC OPTICAL BRIGHTNER	Distyryl Biphenyl Derivative	
ECCOWHITE NYLON FW/FW-5	Distyryl Biphenyl Derivative	Yes
NYLOSET A	Phenol Sulphonic Acid Polymer	
SPANSCOUR GR		

TABLE 5

SOIL VOC FIELD SCREENING

*Charbert Phase II Site Investigation
Alton, Rhode Island*

LOCATION	DEPTH Feet	PID ppm	FID ppm	NOTES Field Screening with TVA-1000 FID/PID
GZ-1	0-2	ND	ND	
	2-4	ND	ND	
	4-6	ND	ND	
	6-8	ND	ND	
	8-10	ND	ND	
	10-12	ND	ND	
	25-27	ND	ND	
	30-32	ND	ND	
	35-37	ND	ND	
	40-42	ND	ND	
	45-47	ND	ND	
	50-52	ND	ND	
	55-55.3	ND	ND	
GZ-2	0-2	ND	ND	
	2-4	ND	ND	
	4-6	ND	ND	
	6-8	ND	ND	
	8-10	ND	ND	
	15-17	ND	ND	
	20-22	ND	ND	
	25-27	ND	ND	
	30-32	ND	ND	
	35-37	ND	ND	
	40-42	ND	ND	
	45-47	ND	ND	
	50-52	ND	ND	
	55-57	ND	ND	
	60-62	ND	ND	
	65-67	ND	ND	
80-82	ND	ND		
84-86	ND	ND		
GZ-3	0-2	ND	ND	
	2-4	ND	ND	
	4-6	15	NR	
	6-8	40	NR	
	8-10	50	NR	
	15-17	3	40	
	20-22	ND	NR	
	25-27	ND	NR	
	30-32	ND	NR	
	35-37	24	NR	
	40-41.5	ND	NR	
GZ-4A	0-2	ND	34	
	2-4	ND	22	
	4-6	ND	24	
	6-8	ND	26	
	8-10	ND	31	
	15-17	ND	18	
	20-22	ND	24	
25-27	ND	28		

TABLE 5

SOIL VOC FIELD SCREENING

*Charbert Phase II Site Investigation
Alton, Rhode Island*

LOCATION	DEPTH Feet	PID ppm	FID ppm	NOTES Field Screening with TVA-1000 FID/PID
GZ-4A (cont)	30-32	ND	ND	
	35-37	ND	36	
	40-42	ND	36	
	45-47	ND	41	
	50-52	ND	26	
	55-57	ND	17	
	60-62	ND	20	
	65-67	ND	29	
	70-72	ND	38	
	80-80.5	ND	30	
GZ-5	0-2	0.5	1	
	2-4	0.5	1	
	4-6	1.5	7	VOC Sample for Analysis
	6-7	ND	3	
	7-8	ND	1.5	
	8-10	2	8	
	10-12	5	800	
	12-13	0.66	70	
	13-14	0.5	700	Chemical Odor
	14-16	1	2500	
	16-18	ND	3500	
	18-20	ND	3000	
	20-22	ND	1000	
	22-24	ND	2400	
	24-26			No Recovery
	26-28			No Recovery
	28-30	ND	ND	
	30-32	ND	ND	
	32-34	ND	ND	
	35.5	ND	ND	Till
GZ-6	1	22	2	PID Reading Higher Than FID
	2	31	2	Calibration and Zero
	3-4	20	2	Gasses Checked Several Times
	5-6	7	3	VOC Sample for Analysis
	7-8	36	5	VOC Sample for Analysis
	8-10	22	8	
	10-12	51	15	VOC Sample for Analysis
	12-14	10	33	
	16-18	12	42	
	22-24	15	34	
	24-26	7	38	
	26-28	6	16	
	28-30	5	20	
	30-32	15	22	
	32-34	8	18	
	34-36	4	12	
	36-38	3	10	
	38-40	53	38	VOC Sample for Analysis
	40-42	5	21	
	44-45	25	14	VOC Sample for Analysis

TABLE 5

SOIL VOC FIELD SCREENING

*Charbert Phase II Site Investigation
Alton, Rhode Island*

LOCATION	DEPTH Feet	PID ppm	FID ppm	NOTES Field Screening with TVA-1000 FID/PID
GZ-7	5-6	800	120	VOC Sample for Analysis
	7	480	600	Petroleum Odor
	8	1200	1500	Petroleum Odor
	10	500	200	Petroleum Odor
	11	50	52	
	13	19	700	
	14-16	40	110	
	16-18	35	120	
	18-20	40	120	Recalibrated
	20-22	12	70	
	23-24	20	130	
	25-26	8	54	
	27-28	10	63	
	28-30	12	60	
	30-32	10	56	
	32-33	12	70	
	33-34	5	45	
	34-35	60	180	
	36-37.5	280	500	VOC Sample for Analysis
	37.5-38	18	38	
	38-40	5	13	
	40-42	3	6	
	42-43	6	20	VOC Sample for Analysis
	43-44	2	3	Till
GZ-8	0.5-2	8	12	
	3-4	8	8	
	4-6			No Recovery
	6-7	48	60	
	7-7.5	1200	2300	
	7.5-8	1000	1550	VOC Sample for Analysis
	8-10	20	50	VOC Sample for Analysis
	10-12	6	9	
	12-14	3	4	
	14-16	4	8	
	16-18	2	3	Checked Calibration/Zero Gasses
	18-20	ND	ND	
	20-22	3	4	
	22-24	ND	ND	
	24-26	ND	ND	
	26-28	3	4	
	28-30	ND	ND	
	32-34	2	3	
	34-36	ND	ND	No Recovery
	36-38	4	ND	FID refused to light, PID working
	38-40	14		satisfactory
	40-42	8		
	42-44	12		
	46-48	6		
	48-49	9		
	49-50	13		
	50-52	12		Till

TABLE 5

SOIL VOC FIELD SCREENING

*Charbert Phase II Site Investigation
Alton, Rhode Island*

LOCATION	DEPTH Feet	PID ppm	FID ppm	NOTES Field Screening with TVA-1000 FID/PID
GP-15	5	ND	ND	
	10	ND	ND	
	15	ND	ND	
	20	ND	ND	
GP-16	2	ND	ND	
	10	ND	ND	
GP-17	2	4.2	ND	
	5	1.2	0.57	
	10	6.31	ND	
	15	1.12	ND	
	20	ND	ND	
	25	ND	ND	
GP-18	4	0.75	1.75	
	8	ND	ND	Chemical Odor
	14	12	80	
	20	25	1200	Below GW Table
GP-19	0-2	0.53	0.58	
	7	ND	0.51	
	9	ND	ND	VOC Sample for Analysis
	13	23	600	VOC Sample for Analysis
	20	ND	6000	Below GW Table
GP-20	3	ND	ND	
	6-7	22	80	VOC Sample for Analysis
	8-9.5	ND	3.72	
	10	3.9	5	
	11	0.75	60	
	15	ND	300	Chemical Odor
GP-21	1	23	70	
	2	27	140	
	9	14	18	Chemical Odor, VOC Sample for Analysis
	13-15	23	8000	Below GW Table
	18-20	28	7000	Below GW Table
GP-22	2-3	7.55	0.12	VOC Sample for Analysis
	7-9	3.25	ND	
GP-23	0.5	1.2	ND	
	3	6.21	ND	VOC Sample for Analysis
	7-9	20.5	1.1	
	11	0.8	ND	VOC Sample for Analysis
	15	ND	ND	

TABLE 5

SOIL VOC FIELD SCREENING

*Charbert Phase II Site Investigation
Alton, Rhode Island*

LOCATION	DEPTH Feet	PID ppm	FID ppm	NOTES Field Screening with TVA-1000 FID/PID
GP-24	1	21	26	
	3-4	22	22	
	6-7	147	255	Petroleum Odor, VOC Sample for Analysis
	8-9	220	430	VOC Sample for Analysis
	14-15	60	300	VOC Sample for Analysis
GP-25	0.5	0.02	0.09	
	3	0.18	0.25	VOC Sample for Analysis
	6-8	200	500	Petroleum Odor, VOC Sample for Analysis
	11-14	800	280	VOC Sample for Analysis
GP-26	1-2	112	75	
	5-7	580	540	Petroleum Odor, VOC Sample for Analysis
	7-8	140	600	VOC Sample for Analysis
GP-27A	3-4	ND	17	
	6-7	ND	140	
	7-8	600	350	
	10	128	70	
	11.5	150	15	
	12	23	3000	
	12-13	65	60	
	13-14	46	40	
	14	80	5	VOC Sample for Analysis
GP-27B	4-8	26	247	
	8-9	10	400	VOC Sample for Analysis
	9-10	32	2.5	
	10-12	20	4	
	13	2	12	
	14	2	4	
	15	2	3	
	16	2	5	
	Hole	22	180	Inserted Probe 0.5 Feet
GP-28	2	ND	ND	
	5	ND	ND	VOC Sample for Analysis
	11-13	0.85	42.5	
GP-29	1	ND	ND	
	3-4	ND	ND	
	8	ND	ND	
	9-10	ND	ND	
	14-15	ND	0.6	VOC Sample for Analysis
	15-16	ND	0.52	Chemical Odor
	16-17	ND	180	
	19-20	600	7000	Below GW Table, VOC Sample for Analysis
23-24	ND	500	Below GW Table	

TABLE 5

SOIL VOC FIELD SCREENING

*Charbert Phase II Site Investigation
Alton, Rhode Island*

LOCATION	DEPTH Feet	PID ppm	FID ppm	NOTES
				Field Screening with TVA-1000 FID/PID
GP-30	5	ND	ND	
	10	ND	ND	VOC Sample for Analysis
	15	ND	ND	Chemical Odor
	20	300	1700	
GP-31	6	8000	30	Cleaned PID Bulb, recalibrated PID/FID
	7.5	7500	0.5	VOC Sample for Analysis
GP-32	1	12	7	
	3-4	15	10	
	6-7	180	385	Petroleum Odor, TPH Sample for Analysis
	8-9	150	350	
	10-11	87	137	
	14-15	53	135	
GP-33	2-3	35	ND	
	4-7	60	1.14	Petroleum Odor, TPH Sample for Analysis
	7-8	55	ND	FID Readings Appeared Low,
	9-10	85	2.7	Recalibrated and Checked
	12-13	126	1.31	Zero Gasses
	15-16	70	2	Petroleum Odor
GP-34	2-3	1	ND	
	5-6	1	ND	
	7-8	1	1.5	TPH Sample for Analysis
	9-10	1	2	
	11-12	1	1	
GP-35	0-1	ND	ND	
	2-3	ND	ND	
	4-6	2	2.4	PH Sample for Analysis
	6-7	1.5	0.5	
	8	ND	ND	
	9-10	ND	ND	
GP-36	0-2	ND	1	
	2-3	ND	ND	
	5-6	ND	0.25	Petroleum Odor, TPH Sample for Analysis
	7-8	10	7.8	
	10	12	75	Petroleum Odor
	11-12	6	65	

Notes:

- 1) A Thermo Electron corporation Model TVA 1000 volatile organic compound dual detector with a flame ionization device (FID) and a 106 electron volt photoionization device (PID) was used for field screening. Results are reported in parts per million.
- 2) ND indicates not detected at a concentration above the instrument detection limits of 0.5 ppm for the PID and 0.5 for the FID.

TABLE 6

ANALYTICAL TESTING SUMMARY

*Charbert Phase II Site Investigation
Alton, Rhode Island*

Media Type	Sample Date	Number of Samples	Location ID	Type of Analysis	Performing Party
GW	2/18/2005	1	GP-16	ORP, VOC, SVOC, PP-13 Metals, TPH, VPH, Ammonia, Nitrate/Nitrite	GZA
GW	2/18/2005	1	GP-17	VOC, SVOC, TPH	GZA
GW	February, 2005	6	GP-20, GP-21, GZ-1, GZ-2 GZ-4A, GZ-5	ORP, VOC, SVOC, PP-13 Metals, Ammonia, Nitrate/Nitrite	GZA
GW	February, 2005	4	GP-22, GP-25, GP-28, GP-30	ORP, VOC, SVOC, TPH, VPH, EPH	GZA
GW	February, 2005	9	GP-26, GP-27A, GP-27B, GP-29 RIZ-6, GZ-3, GZ-6, GZ-7, GZ-8	ORP, VOC, SVOC, TPH, VPH, EPH, Dis. Iron Manganese, TOC, Sulfate, Ammonia, Nitrate/Nitrite, methane	GZA
GW	8/6/2004	4	GZ-1 to GZ-4A	VOCS, SVOCS	GZA
GW	7/12/2004	4	GZ-1 to GZ-4A via HYDRO PUNCH	VOCS, SVOCS	GZA
GW	7/13/2004	4	GZ-1 to GZ-4A	PP13 METALS, WQP FIELD SCREENING	GZA
GW	12/15/2003	12	CB 1- 12 (GEOPROBE) 9-1", 3-2"	VOCS, METALS	Clayton
GW	11/12/2003	8	RIZ-1, -3, -14, -18, -19, -21 16 and 18 River Street	VOCS, METALS WQP	Clayton
GW	7/22/2003	9	RIZ-1, -3, -5, -13, -18, -21 MW4A, MW 5A	VOCS, TPH	Clayton
GW	Quarterly UIC Testing	6	MW-1 to MW-6 (UIC 1-6) 3/10/1994 to Present	VOCS, SVOCS, OTHERS See Clayton report	GZA, ESS Charbert, Others
GW	6/12/1991	13	RIZ-1 to RIZ-13 (2" wells)	VOCS, TPH, PP13 METALS, PCBS CR VI, barium, sulfide, phenols nitrate, foaming agents, H ₂ S, Cyanide, Ammonia, Nitrate	RIZZO

TABLE 6

ANALYTICAL TESTING SUMMARY

*Charbert Phase II Site Investigation
Alton, Rhode Island*

Media Type	Sample Date	Number of Samples	Location ID	Type of Analysis	Performing Party
GW	6/13/1991	13	RIZ-1 to RIZ-13	GW Elevations	RIZZO
GW	6/13/1991	13	RIZ-1 to RIZ-21	VOCs, TPH, PP13 METALS, phenols, radionuclides	RIZZO
GW	12/20/1996	6	MW-1 to MW -6	PCE	Clayton
Soil	1/21/2005	5	GP-19, GP-20, GP-21, GP-28, GP-29	SPLP Metals, TPH, EPH,	GZA
Soil	1/21/2005	4	GP-22, GP-23	SPLP Metals, TPH, EPH, VOC, SVOC, PCB	GZA
Soil	1/21/2005	9	GP-24, GP-25, GP-26	SPLP Metals, TPH, EPH, VPH, Pesticides	GZA
Soil	2/21/2005	10	GP-27A, GP-27B, GZ-5 GP-30, GP-31, GZ-7, GZ-8	VOC, SVOC, PCB VOC	GZA
Soil	1/21/2005	5	GP-32 to GP-36	TPH	GZA
Soil	7/12/2004	5	GZ04-1	VOCS, SVOCS	GZA
Soil	12/15/2003	12	CB-1 to CB-12	VOCS	Clayton
Soil	UK	6	RIZ-2, -3, -4, -10, -8	TPH, VOC Phenol, Sulfide	Clayton
Soil	7/24/2003	6	UK	Soil determinations by CPT	Clayton
Soil	8/1/1996	15	SG-1 to SG-15	Gas analysis for VOC 8010	Fuss and O'Neill
Soil	8/2/1996	3	GP-3, GP-13, GP-14	VOCS	Fuss and O'Neill
Soil	5/29/1991	5	RIZ-2, -3, -4, -5, -7	VOCS, TPH, PP13 METALS, PCBs CR VI, barium, sulfide, phenols	GZA
Ind. Waste Water	1/14/2005	4	Lagoon 1, Lagoon 2 Pump House	VOC, SVOC, TPH,	GZA
Ind. Waste Water	1/11/2005	1	Lagoon 1 Sheen		GZA

TABLE 6

ANALYTICAL TESTING SUMMARY

*Charbert Phase II Site Investigation
Alton, Rhode Island*

Media Type	Sample Date	Number of Samples	Location ID	Type of Analysis	Performing Party
Ind. Waste Water	3/15/2004	1	Pump house	8260, TPH 200 Series Total Metals	GZA
Ind. Waste Water	Quarterly UIC Testing	1	Pump House 3/10/1994 to Present	VOC, TPH, RCRA-8 Metals	GZA, ESS Charbert, Others
Asbestos	pre 1991		Asbestos survey		Rizzo
Stock Piles	3/7/2005	10	2001 and 2004 Soil Stockpile	VOV, SVOC, EPH,TPH, SPLP METALS, PP-13 METALS	GZA
Stock Piles	1/14/2005	2	1998 Soil Stockpile	VOC, SVOC, TPH	GZA
Stock Piles	6/6/2001	12	Existing Stock Piles shown on Clayton Figure 9	VOC, SVOC, TPH, PP 13 Metals Leachable metals	Clayton
Stock Piles	8/10/2001	1	Existing Stock Piles shown on Clayton Figure 9	to determine UK Hydrocarbon	Clayton
Lagoon 4	6/4/2001	3	discrete bottom soil samples	UK	Clayton
Industrial Products	January, 2005	6	Various Facility Chemicals	Fingerprint	GZA

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GZ-1/S-5 8-10 ft.	GZ-1/S-8 30-32 ft.	GZ-1/S-10 40-42 ft.	GZ-1/S-12 50-52 ft.	GZ-1/S-13 55-57 ft.	GZ-2/S-2 2-4 ft.	GZ-2/S-5 8-10 ft.	GZ-2/S-6 15-17 ft.	GZ-2/S-8 25-27 ft.	
		GA LEACH	RDEC	I/CDEC	7/12/2004		7/13/2004		7/13/2004		7/14/2004		7/14/2004	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
ORGANOCHLORINE PESTICIDES														
alpha-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
gamma-BHC (Lindane)	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
beta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Heptachlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
delta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Aldrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Hepachlor Epoxide	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endosulfan I	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
4,4'-DDE	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Dieldrin	mg/kg (ppm)	---	0.04	0.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
4,4'-DDD	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endosulfan II	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
4,4'-DDT	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endrin Aldehyde	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endosulfan Sulfate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Methoxychlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endrin Ketone	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Toxaphene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
gamma-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	
alpha-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	
VOLATILE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 Standards														
C5-C8 Aliphatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	
C9-C12 Aliphatics	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	
C9-C10 Aromatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	
EXTRACTABLE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 Standards														
Unadjusted C11-C22 Aromatic	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
C9-C18 Aliphatic Fraction	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	
C19-C36 Aliphatic Fraction	mg/kg (ppm)	2,500	2,500	2,500	NT	NT	NT	NT	NT	NT	NT	NT	NT	
C11-C22 Aromatic Fraction	mg/kg (ppm)	200	200	200	NT	NT	NT	NT	NT	NT	NT	NT	NT	
TOTAL PETROLEUM HYDROCARBON														
Hydrocarbon Content	mg/kg (ppm)	500-1000	500-1,000	2,500	NT	NT	NT	NT	NT	NT	NT	NT	NT	
PETROLEUM HYDROCARBON FINGERPRINT														
Fuel Oil					NT	NT	NT	NT	NT	NT	NT	NT	NT	
Uncharacterizable Material														
Organo-siloxanes (see definition)														
TOTAL METALS														
Antimony	mg/kg (ppm)	---	10	820	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Barium	mg/kg (ppm)	---	5,500	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Beryllium	mg/kg (ppm)	---	0.4	1.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Cadmium	mg/kg (ppm)	---	39	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Chromium	mg/kg (ppm)	---	390	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Mercury	mg/kg (ppm)	---	23	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Nickel	mg/kg (ppm)	---	1,000	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Lead	mg/kg (ppm)	---	150	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Selenium	mg/kg (ppm)	---	390	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Thallium	mg/kg (ppm)	---	5.5	140	NT	NT	NT	NT	NT	NT	NT	NT	NT	
SPLP - METALS														
Antimony	mg/L (ppm)	0.05	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Barium	mg/L (ppm)	23	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Beryllium	mg/L (ppm)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Cadmium	mg/L (ppm)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Chromium	mg/L (ppm)	1.1	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Mercury	mg/L (ppm)	0.02	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Nickel	mg/L (ppm)	1	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Lead	mg/L (ppm)	0.04	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Selenium	mg/L (ppm)	0.6	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Thallium	mg/L (ppm)	0.005	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	
PERCENT SOLID	%													

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GZ-2/S-9 30-32 ft.	GZ-2/S-12 45-47 ft.	GZ-3/S-4 6-8 ft.	GZ-3/S-6 15-17 ft.	GZ-3/S-7 20-22 ft.	GZ-3/S-8 25-27 ft.	GZ-3/S-10 35-37 ft.	GZ-4A/S-3 4-6 ft.	GZ-4A/S-5 8-10 ft.	GZ-4A/S-6 15-17 ft.
		GA LEACH	RDEC	I/CDEC	7/14/2004	7/14/2004	7/19/2004	7/19/2004	7/19/2004	7/19/2004	7/19/2004	7/21/2004	7/21/2004	7/21/2004
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
ORGANOCHLORINE PESTICIDES														
alpha-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-BHC (Lindane)	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
beta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
delta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aldrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hepatchlor Epoxide	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dieldrin	mg/kg (ppm)	---	0.04	0.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDD	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDT	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Aldehyde	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan Sulfate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methoxychlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Ketone	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Toxaphene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alpha-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
VOLATILE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 SU														
C5-C8 Aliphatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C12 Aliphatics	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C10 Aromatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
EXTRACTABLE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW														
Unadjusted C11-C22 Aromatic	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C18 Aliphatic Fraction	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C19-C36 Aliphatic Fraction	mg/kg (ppm)	2,500	2,500	2,500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatic Fraction	mg/kg (ppm)	200	200	200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TOTAL PETROLEUM HYDROCARBON														
Hydrocarbon Content	mg/kg (ppm)	500-1000	500-1,000	2,500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PETROLEUM HYDROCARBON FINGERPRINT														
Fuel Oil					NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Uncharacterizable Material														
Organo-siloxanes (see definition)														
TOTAL METALS														
Antimony	mg/kg (ppm)	---	10	820	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/kg (ppm)	---	5,500	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/kg (ppm)	---	0.4	1.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/kg (ppm)	---	39	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/kg (ppm)	---	390	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/kg (ppm)	---	23	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/kg (ppm)	---	1,000	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/kg (ppm)	---	150	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/kg (ppm)	---	390	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/kg (ppm)	---	5.5	140	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SPLP - METALS														
Antimony	mg/L (ppm)	0.05	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/L (ppm)	23	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/L (ppm)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/L (ppm)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/L (ppm)	1.1	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/L (ppm)	0.02	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/L (ppm)	1	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/L (ppm)	0.04	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/L (ppm)	0.6	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/L (ppm)	0.005	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PERCENT SOLID	%													

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GZ-4A/S-9	GZ-4A/S-12	GZ-4A/S-16	GZ-5/S-6	GZ-6/S-21	GZ-6/S-23	GZ-7/S-1	GZ-7/S-22	GZ-7/S-25	GZ-8/S-5	GZ-8/S-6
		GA LEACH	RDEC	I/CDEC	30-32 ft.	45-47 ft.	65-67 ft.	10-12 ft.	38-40 ft. (BGWT)	44-45 ft. (BGWT)	5-6 ft.	36-37.5 ft.	43-44 ft. (BGWT)	7-7.5 ft.	7.5-8 ft. (BGWT)
					7/22/2004	7/22/2004	7/22/2004	2/3/2005	2/2/2005	2/2/2005	1/31/2005	1/31/2005	1/31/2005	2/13/2005	2/13/2005
			Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	Result Limit	
ORGANOCHLORINE PESTICIDES															
alpha-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-BHC (Lindane)	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
beta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
delta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aldrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hepachlor Epoxide	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dieldrin	mg/kg (ppm)	---	0.04	0.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDD	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDT	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Aldehyde	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan Sulfate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methoxychlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Ketone	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Toxaphene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alpha-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
VOLATILE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 St															
C5-C8 Aliphatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C12 Aliphatics	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C10 Aromatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
EXTRACTABLE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 St															
Unadjusted C11-C22 Aromatic	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C18 Aliphatic Fraction	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C19-C36 Aliphatic Fraction	mg/kg (ppm)	2,500	2,500	2,500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatic Fraction	mg/kg (ppm)	200	200	200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TOTAL PETROLEUM HYDROCARBON															
Hydrocarbon Content	mg/kg (ppm)	500-1000	500-1,000	2,500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PETROLEUM HYDROCARBON FINGERPRINT															
Fuel Oil					NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Uncharacterizable Material															
Organo-siloxanes (see definition)															
TOTAL METALS															
Antimony	mg/kg (ppm)	---	10	820	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/kg (ppm)	---	5,500	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/kg (ppm)	---	0.4	1.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/kg (ppm)	---	39	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/kg (ppm)	---	390	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/kg (ppm)	---	23	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/kg (ppm)	---	1,000	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/kg (ppm)	---	150	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/kg (ppm)	---	390	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/kg (ppm)	---	5.5	140	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SPLP - METALS															
Antimony	mg/L (ppm)	0.05	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/L (ppm)	23	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/L (ppm)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/L (ppm)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/L (ppm)	1.1	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/L (ppm)	0.02	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/L (ppm)	1	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/L (ppm)	0.04	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/L (ppm)	0.6	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/L (ppm)	0.005	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PERCENT SOLID															
	%														

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GP-19/S-3 8-9 ft.		GP-19/S-4 13-14 ft. (BGWT)		GP-20/S-3 8-9.5ft		GP-21/S-3 8-9 ft.		GP-21/S-4 13-15 ft. (BGWT)		GP-22/S-1 2-5 ft.		GP-22/S-2 7-9 ft.		GP-23/S-2 3-4 ft.		GP-23/S-4 7-9 ft. (BGWT)		GP-24/S-3 6-7 ft.	
		GA LEACH	RDEC	I/CDEC	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																								
Dichlorodifluoromethane	mg/kg (ppm)	---	---	---	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
Chloromethane	mg/kg (ppm)	---	---	---	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
Vinyl Chloride	mg/kg (ppm)	0.3	0.02	3	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Bromomethane	mg/kg (ppm)	---	0.8	2,900	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
Chloroethane	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Trichlorofluoromethane	mg/kg (ppm)	---	---	---	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
Diethylether	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Acetone	mg/kg (ppm)	---	7,800	10,000	< 0.700	< 0.850	< 0.800	< 0.750	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT
1,1-Dichloroethene	mg/kg (ppm)	0.7	0.2	9.5	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Dichloromethane	mg/kg (ppm)	---	45	760	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Methyl-Tert-Butyl-Ether	mg/kg (ppm)	0.9	390	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
trans-1,2-Dichloroethene	mg/kg (ppm)	3.3	1,100	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
1,1-Dichloroethane	mg/kg (ppm)	---	920	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
2-Butanone (MEK)	mg/kg (ppm)	---	10,000	10,000	< 0.700	< 0.850	< 0.800	< 0.750	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT	< 0.700	NT
2,2-Dichloropropane	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
cis-1,2-Dichloroethene	mg/kg (ppm)	1.7	630	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Chloroform	mg/kg (ppm)	---	1.2	940	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Bromochloromethane	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Tetrahydrofuran	mg/kg (ppm)	---	---	---	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
1,1,1-Trichloroethane	mg/kg (ppm)	11	540	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
1,1-Dichloropropene	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Carbon Tetrachloride	mg/kg (ppm)	0.4	1.5	44	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
1,2-Dichloroethane	mg/kg (ppm)	0.1	0.9	63	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Benzene	mg/kg (ppm)	0.2	2.5	200	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Trichloroethene	mg/kg (ppm)	0.2	13	520	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
1,2-Dichloropropane	mg/kg (ppm)	0.1	1.9	84	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Bromodichloromethane	mg/kg (ppm)	---	10	92	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Dibromomethane	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
4-Methyl-2-Pentanone	mg/kg (ppm)	---	---	---	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
cis-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Toluene	mg/kg (ppm)	32	190	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
trans-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
1,1,2-Trichloroethane	mg/kg (ppm)	0.1	3.6	100	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
2-Hexanone (MIBK)	mg/kg (ppm)	---	1,200	10,000	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
1,3-Dichloropropane	mg/kg (ppm)	---	---	---	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Tetrachloroethene	mg/kg (ppm)	0.1	12	110	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Dibromochloromethane	mg/kg (ppm)	---	7.6	68	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
1,2-Dibromoethane (EDB)	mg/kg (ppm)	0.0005	0.01	0.07	< 0.140	< 0.170	< 0.160	< 0.150	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT	< 0.140	NT
Chlorobenzene	mg/kg (ppm)	3.2	210	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	---	2.2	220	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT	< 0.070	NT
Ethylbenzene	mg/kg (ppm)	27	71	10,000	< 0.070	< 0.085	< 0.080	< 0.075	< 0.070	NT	< 0.070	NT	< 0.070	NT	<									

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GP-19/S-3 8-9 ft.		GP-19/S-4 13-14 ft. (BGWT)		GP-20/S-3 8-9.5ft		GP-21/S-3 8-9 ft.		GP-21/S-4 13-15 ft. (BGWT)		GP-22/S-1 2-5 ft.		GP-22/S-2 7-9 ft.		GP-23/S-2 3-4 ft.		GP-23/S-4 7-9 ft. (BGWT)		GP-24/S-3 6-7 ft.	
		GA LEACH	RDEC	I/CDEC	1/11/2005		1/11/2005		1/11/2005		1/11/2005		1/11/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
ORGANOCHLORINE PESTICIDES																								
alpha-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-BHC (Lindane)	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
beta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
delta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aldrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor Epoxide	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dieldrin	mg/kg (ppm)	---	0.04	0.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDD	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDT	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Aldehyde	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan Sulfate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methoxychlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Ketone	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Toxaphene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alpha-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
VOLATILE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 Site																								
C5-C8 Aliphatics	mg/kg (ppm)	100	100	100	< 0.5	< 0.5	NT	< 0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C12 Aliphatics	mg/kg (ppm)	1,000	1,000	1,000	< 0.5	< 0.5	NT	< 0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C10 Aromatics	mg/kg (ppm)	100	100	100	< 0.5	< 0.5	NT	< 0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
EXTRACTABLE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 Site																								
Unadjusted C11-C22 Aromatic	mg/kg (ppm)	---	---	---	< 5.0	< 5.0	NT	48*	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1000*	50
C9-C18 Aliphatic Fraction	mg/kg (ppm)	1,000	1,000	1,000	< 5.0	< 5.0	NT	< 5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	3,200	50
C19-C36 Aliphatic Fraction	mg/kg (ppm)	2,500	2,500	2,500	< 5.0	< 5.0	NT	6.5	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1,100	50
C11-C22 Aromatic Fraction	mg/kg (ppm)	200	200	200	< 5.0	< 5.0	NT	48*	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1,000*	50
TOTAL PETROLEUM HYDROCARBON																								
Hydrocarbon Content	mg/kg (ppm)	500-1000	500-1,000	2,500	< 10	< 10	31*	20	88	10	NT	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	7000*	200
PETROLEUM HYDROCARBON FINGERPRINT																								
Fuel Oil					NT	NT		50%	80%		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	95%
Uncharacterizable Material								50%	20%															5%
Organo-siloxanes (see definition)																								
TOTAL METALS																								
Antimony	mg/kg (ppm)	---	10	820	< 2.35	NT	< 2.64	< 2.38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/kg (ppm)	---	5,500	10,000	3.59	0.471	NT	18.2	0.529	4.19	0.475	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/kg (ppm)	---	0.4	1.3	< 0.471	NT	< 0.529	< 0.475	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/kg (ppm)	---	39	1,000	< 0.471	NT	< 0.529	< 0.475	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/kg (ppm)	---	390	10,000	0.518	0.471	NT	8.47	0.529	2.45	0.475	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/kg (ppm)	---	23	610	< 0.0285	NT	< 0.0317	< 0.0246	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/kg (ppm)	---	1,000	10,000	< 0.941	NT	4.37	1.06	< 0.951	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/kg (ppm)	---	150	500	< 0.941	NT	5.34	1.06	< 0.951	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/kg (ppm)	---	390	10,000	< 2.35	NT	< 2.64	< 2.38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/kg (ppm)	---	5.5	140	< 2.35	NT	< 2.64	< 2.38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SPLP - METALS																								
Antimony	mg/L (ppm)	0.05	---	---	< 0.020	NT	< 0.020	< 0.020	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/L (ppm)	23	---	---	0.0064	0.0050	NT	0.0454	0.0050	0.0136	0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/L (ppm)	0.03	---	---	< 0.0050	NT	< 0.0050	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/L (ppm)	0.03	---	---	< 0.0050	NT	< 0.0050	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/L (ppm)	1.1	---	---	< 0.0050	NT	< 0.0050	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/L (ppm)	0.02	---	---	< 0.0005	NT	< 0.0005	< 0.0005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/L (ppm)	1	---	---	< 0.010	NT	< 0.010	< 0.010	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/L (ppm)	0.04	---	---	< 0.010	NT	0.013	0.010	< 0.010	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/L (ppm)	0.6	---	---	< 0.025	NT	< 0.025	< 0.025	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/L (ppm)	0.005	---	---	< 0.015	NT	< 0.015	< 0.015	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PERCENT SOLID		%																						
					93.8	81.4	81.2	95.6	86.5	87.3	85.4	85.0	85.5	90.2										

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GP-24/S-4 8-9 ft. (BGWT)		GP-24/S-5 14-15 ft. (BGWT)		GP-25/S-2 3 ft.		GP-25/S-3 6-8 ft. (BGWT)		GP-25/S-4 11-14 ft. (BGWT)		GP-26/S-3 5-7 ft.		GP-26/S-4 7-8 ft. (BGWT)		GP-27A/S-8 15 ft. (BGWT)		GP-27B/S-2 9 ft. (BGWT)		GP-28/S-2 2 ft. (BGWT)		
		GA LEACH	RDEC	I/CEC	1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/9/2005		1/9/2005		1/12/2005		
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result
VOLATILE ORGANICS																									
Dichlorodifluoromethane	mg/kg (ppm)	---	---	---	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
Chloromethane	mg/kg (ppm)	---	---	---	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
Vinyl Chloride	mg/kg (ppm)	0.3	0.02	3	< 0.070	< 0.070	NT	NT	< 0.080	0.10	0.075	0.57	0.095	2.2	0.075	< 0.080	< 0.110	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110
Bromomethane	mg/kg (ppm)	---	0.8	2,900	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
Chloroethane	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Trichlorofluoromethane	mg/kg (ppm)	---	---	---	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
Diethylether	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Acetone	mg/kg (ppm)	---	7,800	10,000	< 0.700	< 0.700	NT	NT	< 0.800	< 0.750	< 0.950	< 0.750	< 0.80	2.0	1.10	< 0.700	< 0.700	< 0.800	< 1.100	NT	NT	< 0.700	< 0.700		
1,1-Dichloroethene	mg/kg (ppm)	0.7	0.2	9.5	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Dichloromethane	mg/kg (ppm)	---	45	760	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Methyl-Tert-Butyl-Ether	mg/kg (ppm)	0.9	390	10,000	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
trans-1,2-Dichloroethene	mg/kg (ppm)	3.3	1,100	10,000	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	0.15	0.095	0.19	0.075	< 0.080	< 0.110	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
1,1-Dichloroethane	mg/kg (ppm)	---	920	10,000	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
2-Butanone (MEK)	mg/kg (ppm)	---	10,000	10,000	< 0.700	< 0.700	NT	NT	< 0.800	< 0.750	< 0.950	< 0.750	< 0.800	< 1.100	NT	NT	< 0.700	< 0.700	< 0.800	< 1.100	NT	NT	< 0.700	< 0.700	
2,2-Dichloropropane	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
cis-1,2-Dichloroethene	mg/kg (ppm)	1.7	630	10,000	0.065J	0.070	< 0.070	NT	0.73	0.080	0.20	0.075	7.4	0.095	9.2	0.075	< 0.080	< 0.110	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Chloroform	mg/kg (ppm)	---	1.2	940	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Bromochloromethane	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Tetrahydrofuran	mg/kg (ppm)	---	---	---	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
1,1,1-Trichloroethane	mg/kg (ppm)	11	540	10,000	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
1,1-Dichloropropene	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Carbon Tetrachloride	mg/kg (ppm)	0.4	1.5	44	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
1,2-Dichloroethane	mg/kg (ppm)	0.1	0.9	63	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Benzene	mg/kg (ppm)	0.2	2.5	200	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Trichloroethene	mg/kg (ppm)	0.2	13	520	0.20	0.070	< 0.070	NT	0.050J	0.080	< 0.075	10	0.095	0.37	0.075	< 0.080	< 0.110	< 0.20	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110
1,2-Dichloropropane	mg/kg (ppm)	0.1	1.9	84	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Bromodichloromethane	mg/kg (ppm)	---	10	92	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Dibromomethane	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
4-Methyl-2-Pentanone	mg/kg (ppm)	---	---	---	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
cis-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Toluene	mg/kg (ppm)	32	190	10,000	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	0.041J	0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110
trans-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
1,1,2-Trichloroethane	mg/kg (ppm)	0.1	3.6	100	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
2-Hexanone (MIBK)	mg/kg (ppm)	---	1,200	10,000	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
1,3-Dichloropropane	mg/kg (ppm)	---	---	---	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Tetrachloroethene	mg/kg (ppm)	0.1	12	110	0.13	0.070	< 0.070	NT	0.058J	0.080	< 0.075	160	0.095	2.3	0.075	1.0	0.080	< 0.110	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
Dibromochloromethane	mg/kg (ppm)	---	7.6	68	< 0.070	< 0.070	NT	NT	< 0.080	< 0.075	< 0.095	< 0.075	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
1,2-Dibromoethane (EDB)	mg/kg (ppm)	0.0005	0.01	0.07	< 0.140	< 0.140	NT	NT	< 0.160	< 0.150	< 0.190	< 0.150	< 0.160	< 0.210	NT	NT	< 0.140	< 0.140	< 0.160	< 0.210	NT	NT	< 0.160	< 0.210	
Chlorobenzene	mg/kg (ppm)	3.2	210	10,000	< 0.070	< 0.070	NT	NT	0.50	0.080	< 0.075	< 0.095	< 0.080	< 0.110	NT	NT	< 0.070	< 0.070	< 0.080	< 0.110	NT	NT	< 0.080	< 0.110	
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	---	2.2	220	< 0.070	< 0.070	NT																		

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GP-24/S-4 8-9 ft. (BGWT)		GP-24/S-5 14-15 ft. (BGWT)		GP-25/S-2 3 ft.		GP-25/S-3 6-8 ft. (BGWT)		GP-25/S-4 11-14 ft. (BGWT)		GP-26/S-3 5-7 ft.		GP-26/S-4 7-8 ft. (BGWT)		GP-27A/S-8 15 ft. (BGWT)		GP-27B/S-2 9 ft. (BGWT)		GP-28/S-2 2 ft. (BGWT)	
		GA LEACH	RDEC	I/CDEC	1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/12/2005		1/9/2005		1/9/2005		1/12/2005	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
ORGANOCHLORINE PESTICIDES																								
alpha-BHC	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-BHC (Lindane)	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
beta-BHC	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
delta-BHC	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aldrin	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor Epoxide	mg/kg (ppm)	---	---	---	< 0.050	NT	< 0.010	< 0.050	NT	< 0.038	NT	< 0.038	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I	mg/kg (ppm)	---	---	---	< 0.050	NT	< 0.010	< 0.050	NT	< 0.038	NT	< 0.038	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE	mg/kg (ppm)	---	---	---	< 0.070	NT	< 0.014	< 0.070	NT	< 0.053	NT	< 0.053	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dieldrin	mg/kg (ppm)	---	0.04	0.4	< 0.050	NT	< 0.010	< 0.050	NT	< 0.038	NT	< 0.038	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin	mg/kg (ppm)	---	---	---	< 0.050	NT	< 0.010	< 0.050	NT	< 0.038	NT	< 0.038	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDD	mg/kg (ppm)	---	---	---	< 0.070	NT	< 0.014	< 0.070	NT	< 0.053	NT	< 0.053	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDT	mg/kg (ppm)	---	---	---	< 0.060	NT	< 0.012	< 0.060	NT	< 0.045	NT	< 0.045	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Aldehyde	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan Sulfate	mg/kg (ppm)	---	---	---	< 0.050	NT	< 0.010	< 0.050	NT	< 0.038	NT	< 0.038	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methoxychlor	mg/kg (ppm)	---	---	---	< 0.050	NT	< 0.010	< 0.050	NT	< 0.038	NT	< 0.038	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Ketone	mg/kg (ppm)	---	---	---	< 0.040	NT	< 0.008	< 0.040	NT	< 0.030	NT	< 0.030	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Toxaphene	mg/kg (ppm)	---	---	---	< 0.500	NT	< 0.100	< 0.500	NT	< 0.380	NT	< 0.380	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	< 0.060	NT	< 0.012	< 0.060	NT	< 0.045	NT	< 0.045	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alpha-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	< 0.060	NT	< 0.012	< 0.060	NT	< 0.045	NT	< 0.045	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
VOLATILE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 Sts																								
C5-C8 Aliphatics	mg/kg (ppm)	100	100	100	11	2.5	NT	NT	15	2.5	NT	75	2.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C12 Aliphatics	mg/kg (ppm)	1,000	1,000	1,000	94	2.5	NT	NT	150	2.5	NT	100	2.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C10 Aromatics	mg/kg (ppm)	100	100	100	61	2.5	NT	NT	110	2.5	NT	63	2.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
EXTRACTABLE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW																								
Unadjusted C11-C22 Aromatic	mg/kg (ppm)	---	---	---	1500*	50	NT	NT	2600	50	190	10	470*	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C18 Aliphatic Fraction	mg/kg (ppm)	1,000	1,000	1,000	4,900	50	NT	NT	6,300	50	360	10	460	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C19-C36 Aliphatic Fraction	mg/kg (ppm)	2,500	2,500	2,500	1,400	50	NT	NT	2,000	50	140	10	550	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatic Fraction	mg/kg (ppm)	200	200	200	1,500*	50	NT	NT	2,600	50	190	10	470*	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TOTAL PETROLEUM HYDROCARBON																								
Hydrocarbon Content	mg/kg (ppm)	500-1000	500-1,000	2,500	12000*	400	NT	NT	14000	400	1000	20	2200*	20	110	20	NT	NT	NT	NT	NT	NT	NT	NT
PETROLEUM HYDROCARBON FINGERPRINT																								
Fuel Oil					95%		NT	NT	100%		95%	70%	100%		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Uncharacterizable Material											5%													
Organo-siloxanes (see definition)					5%						5%	30%												
TOTAL METALS																								
Antimony	mg/kg (ppm)	---	10	820	< 2.36	NT	< 2.82	< 2.63	NT	< 1.90	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 2.27	
Barium	mg/kg (ppm)	---	5,500	10,000	5.46	0.472	NT	29.3	0.564	7.15	0.381	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	22.2	0.453	
Beryllium	mg/kg (ppm)	---	0.4	1.3	< 0.472	NT	< 0.564	< 0.526	NT	< 0.381	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.453		
Cadmium	mg/kg (ppm)	---	39	1,000	< 0.472	NT	< 0.564	< 0.526	NT	< 0.381	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.453		
Chromium	mg/kg (ppm)	---	390	10,000	2.34	0.472	NT	15.4	0.564	7.40	0.381	NT	NT	NT	NT	NT	NT	NT	NT	NT	5.18	0.453		
Mercury	mg/kg (ppm)	---	23	610	< 0.0223	NT	< 0.0315	< 0.0317	NT	< 0.0332	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.0292		
Nickel	mg/kg (ppm)	---	1,000	10,000	1.25	0.943	NT	2.69	1.13	1.43	1.05	NT	2.70	0.762	NT	NT	NT	NT	NT	NT	NT	4.39	0.906	
Lead	mg/kg (ppm)	---	150	500	1.74	0.943	NT	21.1	1.13	1.11	1.05	NT	3.06	0.762	NT	NT	NT	NT	NT	NT	NT	3.33	0.906	
Selenium	mg/kg (ppm)	---	390	10,000	< 2.36	NT	< 2.82	< 2.63	NT	< 1.90	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 2.27		
Thallium	mg/kg (ppm)	---	5.5	140	< 2.36	NT	< 2.82	< 2.63	NT	< 1.90	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 2.27		
SPLP - METALS																								
Antimony	mg/L (ppm)	0.05	---	---	< 0.020	NT	< 0.020	< 0.020	NT	< 0.020	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.020		
Barium	mg/L (ppm)	23	---	---	0.0485	0.0050	NT	0.0175	0.0050	0.0309	0.0050	NT	0.0444	0.0050	NT	NT	NT	NT	NT	NT	NT	0.0408	0.0050	
Beryllium	mg/L (ppm)	0.03	---	---	< 0.0050	NT	< 0.0050	< 0.0050	NT	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.0050		
Cadmium	mg/L (ppm)	0.03	---	---	< 0.0050	NT	< 0.0050	< 0.0050	NT	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.0050		
Chromium	mg/L (ppm)	1.1	---	---	< 0.0050	NT	< 0.0050	< 0.0050	NT	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.0050		
Mercury	mg/L (ppm)	0.02	---	---	< 0.0005	NT	< 0.0005	< 0.0005	NT	< 0.0005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.0005		
Nickel	mg/L (ppm)	1	---	---	< 0.010	NT	< 0.010	< 0.010	NT	< 0.010	NT	0.012	0.010	NT	NT	NT	NT	NT	NT	NT	NT	< 0.010		
Lead	mg/L (ppm)	0.04	---	---	< 0.010	NT	< 0.010	< 0.010	NT	< 0.010	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.018	0.010	
Selenium	mg/L (ppm)	0.6	---	---	< 0.025	NT	< 0.025	< 0.025	NT	< 0.025	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.025		
Thallium	mg/L (ppm)	0.005	---	---	< 0.015	NT	< 0.015	< 0.015	NT	< 0.015	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 0.015		
PERCENT SOLID	%				88.5	85.7	83.1	85.6	82.6	89.0														

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GP-28/S-2 5-10 ft. (BGWT)	GP-29/S-5 14-15 ft.	GP-29/S-8 19-20 ft. (BGWT)	GP-30/S-2 10 ft.	GP-31/S-1 4 ft.	GP-32/S-3 7ft.	GP-33/S-2 9-10 ft.	GP-34/S-3 7-8 ft. (BGWT)	GP-35/S-3 4-6 ft.	GP-36/S-3 5-6 ft.
		GA LEACH	RDEC	I/CDEC										
		Result	Limit	Result										
1,2-Dichlorobenzene	mg/kg (ppm)	41	510	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
bis(2-Chloroisopropyl)Ether	mg/kg (ppm)	---	9.1	82	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Nitrosodi-n-Propylamine	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hexachloroethane	mg/kg (ppm)	---	46	410	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nitrobenzene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Isophorone	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
bis(2-Chloroethoxy)Methane	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trichlorobenzene	mg/kg (ppm)	140	96	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	mg/kg (ppm)	0.8	54	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Chloroaniline	mg/kg (ppm)	---	310	8,200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hexachlorobutadiene	mg/kg (ppm)	---	8.2	73	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	mg/kg (ppm)	---	123	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hexachlorocyclopentadiene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Chloronaphthalene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Nitroaniline	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dimethylphthalate	mg/kg (ppm)	---	1,900	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	mg/kg (ppm)	---	23	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,6-Dinitrotoluene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
3-Nitroaniline	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthene	mg/kg (ppm)	---	43	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenzofuran	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4-Dinitrotoluene	mg/kg (ppm)	---	0.9	8.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Diethylphthalate	mg/kg (ppm)	---	340	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	mg/kg (ppm)	---	28	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Chlorophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Nitroaniline	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Nitrosodiphenylamine	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Bromophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hexachlorobenzene	mg/kg (ppm)	---	0.4	3.6	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	mg/kg (ppm)	---	40	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Anthracene	mg/kg (ppm)	---	35	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbazole	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
di-n-Butylphthalate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	mg/kg (ppm)	---	20	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	mg/kg (ppm)	---	13	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Butylbenzylphthalate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] Anthracene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
3,3'-Dichlorobenzidine	mg/kg (ppm)	---	1.4	13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	mg/kg (ppm)	---	0.4	780	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
bis(2-Ethylhexyl)Phthalate	mg/kg (ppm)	120	46	410	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
di-n-Octylphthalate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [b] Fluoranthene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [k] Fluoranthene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] Pyrene	mg/kg (ppm)	240	0.4	0.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Indeno [1,2,3-cd] Pyrene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenzo [a,h] Anthracene	mg/kg (ppm)	---	0.4	0.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [g,h,i] Perylene	mg/kg (ppm)	---	0.8	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TARGET PAHs														
Naphthalene (Diesel PAH)	mg/kg (ppm)	0.8	54	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
2-Methylnaphthalene	mg/kg (ppm)	---	123	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Acenaphthylene (Diesel PAH)	mg/kg (ppm)	---	23	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Acenaphthene (Diesel PAH)	mg/kg (ppm)	---	43	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Fluorene	mg/kg (ppm)	---	28	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Phenanthrene (Diesel PAH)	mg/kg (ppm)	---	40	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Anthracene	mg/kg (ppm)	---	35	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Fluoranthene	mg/kg (ppm)	---	20	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Pyrene	mg/kg (ppm)	---	13	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Benzo [a] Anthracene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Chrysene	mg/kg (ppm)	---	0.4	780	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Benzo [b] Fluoranthene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Benzo [k] Fluoranthene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Benzo [a] Pyrene	mg/kg (ppm)	240	0.4	0.8	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Indeno [1,2,3-cd] Pyrene	mg/kg (ppm)	---	0.9	7.8	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Dibenzo [a,h] Anthracene	mg/kg (ppm)	---	0.4	0.8	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
Benzo [g,h,i] Perylene	mg/kg (ppm)	---	0.8	10,000	NT	NT	NT	NT	NT	< 3.0	NT	NT	NT	NT
SVOC TENTATIVELY IDENTIFIED COMPOUNDS														
Tridecane	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetradecane	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hexadecane	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptadecane	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1-methyl-2-pyrrolidinone	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown compound	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
dimethyl naphthalene isomer	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C15 alkane isomer	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C16 alkane isomer	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C16 alkane isomer	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C14 alkyl PAH	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C4 alkyl benzene isomer	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
POLYCHLORINATED BIPHENYLS														
Aroclor 1268	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1262	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1260	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1254	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1248	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1242/1016	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1232	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aroclor 1221	mg/kg (ppm)	10	10	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

TABLE 7

SUMMARY OF GZA's SOIL TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETER	UNITS	RIDEM SOIL STANDARDS			GP-28/S-2 5-10 ft. (BGWT)	GP-29/S-5 14-15 ft.	GP-29/S-8 19-20 ft. (BGWT)	GP-30/S-2 10 ft.	GP-31/S-1 4 ft.	GP-32/S-3 7ft.	GP-33/S-2 9-10 ft.	GP-34/S-3 7-8 ft. (BGWT)	GP-35/S-3 4-6 ft.	GP-36/S-3 5-6 ft.
		GA LEACH	RDEC	I/CDEC										
		Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result
ORGANOCHLORINE PESTICIDES														
alpha-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-BHC (Lindane)	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
beta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
delta-BHC	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Aldrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hepatchlor Epoxide	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dieldrin	mg/kg (ppm)	---	0.04	0.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDD	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDT	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Aldehyde	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan Sulfate	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methoxychlor	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin Ketone	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Toxaphene	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
gamma-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alpha-Chlordane	mg/kg (ppm)	1.4	0.5	4.4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
VOLATILE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW-1 St														
C5-C8 Aliphatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C12 Aliphatics	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9-C10 Aromatics	mg/kg (ppm)	100	100	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
EXTRACTABLE PETROLEUM HYDROCARBONS Massachusetts S-1 & GW														
Unadjusted C11-C22 Aromatic	mg/kg (ppm)	---	---	---	NT	NT	NT	NT	NT	2100*	50	NT	NT	NT
C9-C18 Aliphatic Fraction	mg/kg (ppm)	1,000	1,000	1,000	NT	NT	NT	NT	NT	4,600	50	NT	NT	69
C19-C36 Aliphatic Fraction	mg/kg (ppm)	2,500	2,500	2,500	NT	NT	NT	NT	NT	1300	50	NT	NT	77
C11-C22 Aromatic Fraction	mg/kg (ppm)	200	200	200	NT	NT	NT	NT	NT	2,100*	50	NT	NT	67
TOTAL PETROLEUM HYDROCARBON														
Hydrocarbon Content	mg/kg (ppm)	500-1000	500-1,000	2,500	< 20	< 20	NT	NT	NT	12000*	400	150*	20	< 20
PETROLEUM HYDROCARBON FINGERPRINT														
Fuel Oil					NT	NT	NT	NT	NT	95%		NT	NT	90%
Uncharacterizable Material										10%				
Organo-siloxanes (see definition)										5%		90%		10%
TOTAL METALS														
Antimony	mg/kg (ppm)	---	10	820	NT	< 2.46	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/kg (ppm)	---	5,500	10,000	NT	6.03	0.492	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/kg (ppm)	---	0.4	1.3	NT	< 0.492	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/kg (ppm)	---	39	1,000	NT	< 0.492	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/kg (ppm)	---	390	10,000	NT	0.531	0.492	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/kg (ppm)	---	23	610	NT	< 0.0293	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/kg (ppm)	---	1,000	10,000	NT	< 0.983	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/kg (ppm)	---	150	500	NT	< 0.983	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/kg (ppm)	---	390	10,000	NT	< 2.46	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/kg (ppm)	---	5.5	140	NT	< 2.46	NT	NT	NT	NT	NT	NT	NT	NT
SPLP - METALS														
Antimony	mg/L (ppm)	0.05	---	---	NT	< 0.020	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/L (ppm)	23	---	---	NT	0.0381	0.0050	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/L (ppm)	0.03	---	---	NT	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/L (ppm)	0.03	---	---	NT	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/L (ppm)	1.1	---	---	NT	< 0.0050	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/L (ppm)	0.02	---	---	NT	< 0.0005	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/L (ppm)	1	---	---	NT	< 0.010	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/L (ppm)	0.04	---	---	NT	< 0.010	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/L (ppm)	0.6	---	---	NT	< 0.025	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/L (ppm)	0.005	---	---	NT	< 0.015	NT	NT	NT	NT	NT	NT	NT	NT
PERCENT SOLID	%				89.9	94.9	86.6	85.5	87.7	93.1	91.5	83.0	89.1	93.0

Notes:

1. Organo-siloxanes may contain Carbon, Hydrogen, Silicon, and Oxygen
2. * Contributions to "Hydrocarbon Content" from non-petroleum based semi-volatile compounds. This is confirmed by TICs included in EPA Method 8270
3. (BGWT) = Below Groundwater Table
4. Cells shaded Yellow have results above the method detection limit for the individual parameter
5. Cells shaded Green have results above the RIDEM GA Leachability standards
6. Cells shaded Peach have results above the Residential Direct Exposure Criteria standard
7. Cells shaded Blue have results above the (Commercial/Industrial) Direct Exposure Criteria standards

TABLE 8

SUMMARY OF CLAYTON'S ANALYTICAL RESULTS - SOIL SAMPLING, DECEMBER 2003

Charbert Phase II Site Investigation
Alton, Rhode Island

SAMPLE IDENTIFICATION		CB-1 (3-4') 12/15/2003	CB-1 (7-8') 12/15/2003	CB-2 (7-8') 12/15/2003	CB-2 (12-13') 12/15/2003	CB-3 (8.5') 12/16/2003	CB-4 (5-6') 12/15/2003	CB-4 (14-15') 12/15/2003	Residential Direct Exposure Criteria	Commercial/ Industrial Direct Exposure Criteria
Volatile Organics by EPA 8260 (ug/kg)										
Sample Depth (Feet Below Ground Surface)	Sample Date									
Test Method Compound										
Tetrachloroethene		<120	6,900	<100	<100	<100	2,500	<100	12,000	110,000
Toluene		<180	<160	<150	<150	<150	<140	<150	190,000	10,000,000
trans-1,2-Dichloroethene		<180	<160	<150	<150	<150	<140	<150	1,100,000	10,000,000
Trichloroethene		<120	<110	<100	<100	<100	100	<100	13,000	520,000
cis-1,2-Dichloroethene		<120	<110	<100	640	<100	<95	<100	630,000	10,000,000
SAMPLE IDENTIFICATION										
Sample Depth (Feet Below Ground Surface)	Sample Date									
Test Method Compound										
Volatile Organics by EPA 8260 (ug/kg)										
Tetrachloroethene		720	<110	<100	<110	<110	<120	2,500	12,000	110,000
Toluene		250	<160	<160	<170	<170	<180	<160	190,000	10,000,000
trans-1,2-Dichloroethene		300	<160	<160	<170	<170	<180	<160	1,100,000	10,000,000
Trichloroethene		1,200	<110	<100	<110	<110	<120	170	13,000	520,000
cis-1,2-Dichloroethene		2,700	<110	<100	<110	<110	<120	<110	630,000	10,000,000
SAMPLE IDENTIFICATION										
Sample Depth (Feet Below Ground Surface)	Sample Date									
Test Method Compound										
Volatile Organics by EPA 8260 (ug/kg)										
Tetrachloroethene		<120	<95	<140	<110	<110	12,000	110,000	12,000	110,000
Toluene		<180	<140	<210	<170	<160	190,000	10,000,000	190,000	10,000,000
trans-1,2-Dichloroethene		<180	<140	<210	<170	<160	1,100,000	10,000,000	1,100,000	10,000,000
Trichloroethene		<120	<95	<140	<110	<110	13,000	520,000	13,000	520,000
cis-1,2-Dichloroethene		<120	<95	<140	<110	<110	630,000	10,000,000	630,000	10,000,000

Notes:
u/g/kg - micrograms per kilogram
CB-13 (5-6') is a field duplicate sample for CB-12 (8.5')

TABLE 9

SUMMARY OF CLAYTON'S ANALYTICAL RESULTS-OLD SOIL STOCKPILES AND LAGOON BOTTOM

Charbert Phase II Site Investigation
Alton, Rhode Island

1998 SOIL STOCKPILE AND HOLDING POND #4 ANALYTICAL RESULTS									
PARAMETERS	RIDEM SOILS CRITERIA RDEC/GA LEACH.	STOCKPILE AREA 1 (SP-1,2,3,4,5,6,7,13)			STOCKPILE AREA 2 (SP-8,9,10,11,12)			LAGOON #4 (L-1,2,3)	
		Min.	Avg.	Max	Min.	Avg.	Max	Min., Avg., Max	
TOTAL METALS (mg/kg)									
Total Arsenic	7	0.43	0.44	0.47	0.42	0.45	0.48	ND	
Total Chromium	1,400	0.43	0.44	0.47	6.8	8.4	10	ND	
Total Copper	3,100	3.7	5	6.7	1.7	2.16	2.9	ND	
Total Zinc	6,000	14	18	28	8	9.14	11	ND	
ICLIP METALS (mg/kg)	Various		ND			ND		ND	
TOTAL PETROLEUM HYDROCARBONS (mg/kg)									
Unknown Hydrocarbon	500 / 500	62	1,025	2,600	440	516	560	120	
VOCs (ug/kg)									
Acetone	7,800,000 / NE	9.6	11.9	13	8.8	10.4	12	ND	
Toluene	190,000 / 32,000		1.2			ND		ND	
Tetrachloroethene	12,000 / 100		ND			2.1		ND	
IDENTIFIED CHEMICALS (mg/kg)									
Para-Tertiary-Butyl Phenol*	NE / NE		100			NT		NT	
SVOCs (mg/kg)									
1,2-Dichlorobenzene	510 / 41		0.0042			0.0044		ND	

Notes:

- 1.) Soils sampled by Clayton Group Services on June 4, 6, and August 10, 2001 at the Charbert Facility 299 Church Street, Alton, Rhode Island.
 - 2.) EPA Method 6010 was used for Total Metals analysis of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc.
 - 3.) EPA Method 8100 was used for Total Petroleum Hydrocarbon analysis.
 - 4.) EPA Method 8260 was used for Volatile Organic Compound analysis.
- NE = None Established
 ND = Not Detected
 NT = Not Tested
 * = Para-Tertiary-Butyl Phenol was only analyzed for in sample SP-13.
 RDEC = Residential Direct Exposure Criteria established by the Rhode Island Department of Environmental Management.
 GA LEACH = GA Leachability Criteria established by the Rhode Island Department of Environmental Management.

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure			SP-12 COMP.		SP-13 COMP.		COMP. 2001		COMP. 2004	
		Criteria			1/12/2005-GZA 2005		1/12/2005-GZA 2005		03/14/2005		03/14/2005	
		GA LEACH	RDEC	I/CDEC	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
VOLATILE ORGANICS												
Dichlorodifluoromethane	mg/kg (ppm)	---	---	---	<	0.140	<	0.140	<	0.140	<	0.140
Chloromethane	mg/kg (ppm)	---	---	---	<	0.140	<	0.140	<	0.140	<	0.140
Vinyl Chloride	mg/kg (ppm)	0.3	0.02	3	<	0.070	<	0.070	<	0.070	<	0.070
Bromomethane	mg/kg (ppm)	---	0.8	2,900	<	0.140	<	0.140	<	0.140	<	0.140
Chloroethane	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Trichlorofluoromethane	mg/kg (ppm)	---	---	---	<	0.140	<	0.140	<	0.140	<	0.140
Diethylether	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Acetone	mg/kg (ppm)	---	7,800	10,000	<	0.700	<	0.700	<	0.700	<	0.700
1,1-Dichloroethene	mg/kg (ppm)	0.7	0.2	9.5	<	0.070	<	0.070	<	0.070	<	0.070
Dichloromethane (MethyleneChloride)	mg/kg (ppm)	---	45	760	<	0.070	<	0.070	<	0.070	<	0.070
Methyl-Tert-Butyl-Ether	mg/kg (ppm)	0.9	390	10,000	<	0.070	<	0.070	<	0.070	<	0.070
trans-1,2-Dichloroethene	mg/kg (ppm)	3.3	1,100	10,000	<	0.070	<	0.070	<	0.070	<	0.070
1,1-Dichloroethane	mg/kg (ppm)	---	920	10,000	<	0.070	<	0.070	<	0.070	<	0.070
2-Butanone (MEK)	mg/kg (ppm)	---	10,000	10,000	<	0.700	<	0.700	<	0.700	<	0.700
2,2-Dichloropropane	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
cis-1,2-Dichloroethene	mg/kg (ppm)	1.7	630	10,000	<	0.070	<	0.070	<	0.070	<	0.070
Chloroform	mg/kg (ppm)	---	1.2	940	<	0.070	<	0.070	<	0.070	<	0.070
Bromochloromethane	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Tetrahydrofuran	mg/kg (ppm)	---	---	---	<	0.140	<	0.140	NT		NT	
1,1,1-Trichloroethane	mg/kg (ppm)	11	540	10,000	<	0.070	<	0.070	<	0.070	<	0.070
1,1-Dichloropropene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Carbon Tetrachloride	mg/kg (ppm)	0.4	1.5	44	<	0.070	<	0.070	<	0.070	<	0.070
1,2-Dichloroethane	mg/kg (ppm)	0.1	0.9	63	<	0.070	<	0.070	<	0.070	<	0.070
Benzene	mg/kg (ppm)	0.2	2.5	200	<	0.070	<	0.070	<	0.070	<	0.070
Trichloroethene	mg/kg (ppm)	0.2	13	520	<	0.070	<	0.070	<	0.070	<	0.070
1,2-Dichloropropane	mg/kg (ppm)	0.1	1.9	84	<	0.070	<	0.070	<	0.070	<	0.070
Bromodichloromethane	mg/kg (ppm)	---	10	92	<	0.070	<	0.070	<	0.070	<	0.070
Dibromomethane	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
4-Methyl-2-Pentanone	mg/kg (ppm)	---	---	---	<	0.140	<	0.140	<	0.140	<	0.140
cis-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Toluene	mg/kg (ppm)	32	190	10,000	<	0.070	<	0.070	<	0.070	<	0.070
trans-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
1,1,2-Trichloroethane	mg/kg (ppm)	0.1	3.6	100	<	0.070	<	0.070	<	0.070	<	0.070
2-Hexanone (MIBK)	mg/kg (ppm)	---	1,200	10,000	<	0.140	<	0.140	<	0.140	<	0.140
1,3-Dichloropropane	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Tetrachloroethene	mg/kg (ppm)	0.1	12	110	<	0.070	<	0.070	<	0.070	<	0.070
Dibromochloromethane	mg/kg (ppm)	---	7.6	68	<	0.070	<	0.070	<	0.070	<	0.070
1,2-Dibromoethane (EDB)	mg/kg (ppm)	---	---	---	<	0.140	<	0.140	<	0.140	<	0.140
Chlorobenzene	mg/kg (ppm)	3.2	210	10,000	<	0.070	<	0.070	<	0.070	<	0.070
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	---	2.2	220	<	0.070	<	0.070	<	0.070	<	0.070
Ethylbenzene	mg/kg (ppm)	27	71	10,000	<	0.070	<	0.070	<	0.070	<	0.070
m&p-Xylene	mg/kg (ppm)	---	110	10,000	<	0.070	<	0.070	<	0.070	<	0.070
o-Xylene	mg/kg (ppm)	---	110	10,000	<	0.070	<	0.070	<	0.070	<	0.070
Styrene	mg/kg (ppm)	2.9	13	190	<	0.070	<	0.070	<	0.070	<	0.070
Bromoform	mg/kg (ppm)	---	81	720	<	0.140	<	0.140	<	0.140	<	0.140
Isopropylbenzene	mg/kg (ppm)	---	27	10,000	<	0.070	<	0.070	<	0.070	<	0.070
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	---	1.3	29	<	0.070	<	0.070	<	0.070	<	0.070
1,2,3-Trichloropropane	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Bromobenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
n-Propylbenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
2-Chlorotoluene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
1,3,5-Trimethylbenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
4-Chlorotoluene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
tert-Butylbenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
1,2,4-Trimethylbenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
sec-Butylbenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
p-Isopropyltoluene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
1,3-Dichlorobenzene	mg/kg (ppm)	---	430	10,000	<	0.070	<	0.070	<	0.070	<	0.070
1,4-Dichlorobenzene	mg/kg (ppm)	---	27	240	<	0.070	<	0.070	<	0.070	<	0.070
n-Butylbenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
1,2-Dichlorobenzene	mg/kg (ppm)	---	510	10,000	<	0.070	<	0.070	<	0.070	<	0.070
1,2-Dibromo-3-Chloropropane	mg/kg (ppm)	---	0.5	4.1	<	0.350	<	0.350	<	0.350	<	0.350
1,2,4-Trichlorobenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Hexachlorobutadiene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
Naphthalene	mg/kg (ppm)	---	54	10,000	<	0.070	<	0.070	<	0.070	<	0.070
1,2,3-Trichlorobenzene	mg/kg (ppm)	---	---	---	<	0.070	<	0.070	<	0.070	<	0.070
SEMI-VOLATILE ORGANICS												
Phenol	mg/kg (ppm)	---	6,000	10,000	<	0.33	<	0.33	<	0.33	<	0.33
2-Chlorophenol	mg/kg (ppm)	---	50	10,000	<	0.33	<	0.33	<	0.33	<	0.33
2-Methylphenol	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
3&4-Methylphenol	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
2-Nitrophenol	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
2,4-Dimethylphenol	mg/kg (ppm)	---	1,400	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Benzoic Acid	mg/kg (ppm)	---	---	---	<	3.3	<	3.3	<	3.3	<	3.3
2,4-Dichlorophenol	mg/kg (ppm)	---	30	6,100	<	0.33	<	0.33	<	0.33	<	0.33
4-Chloro-3-Methylphenol	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66
2,4,6-Trichlorophenol	mg/kg (ppm)	---	58	520	<	0.33	<	0.33	<	0.33	<	0.33
2,4,5-Trichlorophenol	mg/kg (ppm)	---	330	10,000	<	0.33	<	0.33	<	0.33	<	0.33

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure Criteria			SP-12 COMP. 1/12/2005-GZA 2005		SP-13 COMP. 1/12/2005-GZA 2005		COMP. 2001 03/14/2005		COMP. 2004 03/14/2005	
		GA LEACH	RDEC	I/CDEC	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
2,4-Dinitrophenol	mg/kg (ppm)	---	160	4,100	<	3.3	<	3.3	<	3.3	<	3.3
4-Nitrophenol	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	<	1.7
4,6-Dinitro-2-Methylphenol	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	<	1.7
Pentachlorophenol	mg/kg (ppm)	7.1	5.3	48	<	1.7	<	1.7	<	1.7	<	1.7
n-Nitrosodimethylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Chloroethyl)Ether	mg/kg (ppm)	---	0.6	5.2	<	0.33	<	0.33	<	0.33	<	0.33
1,3-Dichlorobenzene	mg/kg (ppm)	41	430	10,000	<	0.33	<	0.33	<	0.33	<	0.33
1,4-Dichlorobenzene	mg/kg (ppm)	41	27	240	<	0.33	<	0.33	<	0.33	<	0.33
Benzyl Alcohol	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66
1,2-Dichlorobenzene	mg/kg (ppm)	41	510	10,000	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Chloroisopropyl)Ether	mg/kg (ppm)	---	9.1	82	<	0.33	<	0.33	<	0.33	<	0.33
n-Nitrosodi-n-Propylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
Hexachloroethane	mg/kg (ppm)	---	46	410	<	0.33	<	0.33	<	0.33	<	0.33
Nitrobenzene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
Isophorone	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Chloroethoxy)Methane	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
1,2,4-Trichlorobenzene	mg/kg (ppm)	140	96	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Naphthalene	mg/kg (ppm)	0.8	54	10,000	<	0.33	<	0.33	<	0.33	<	0.33
4-Chloroaniline	mg/kg (ppm)	---	310	8,200	<	0.66	<	0.66	<	0.66	<	0.66
Hexachlorobutadiene	mg/kg (ppm)	---	8.2	73	<	0.33	<	0.33	<	0.33	<	0.33
2-Methylnaphthalene	mg/kg (ppm)	---	123	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Hexachlorocyclopentadiene	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	<	1.7
2-Chloronaphthalene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
2-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66
Dimethylphthalate	mg/kg (ppm)	---	1,900	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Acenaphthylene	mg/kg (ppm)	---	23	10,000	<	0.33	<	0.33	<	0.33	<	0.33
2,6-Dinitrotoluene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
3-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66
Acenaphthene	mg/kg (ppm)	---	43	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Dibenzofuran	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
2,4-Dinitrotoluene	mg/kg (ppm)	---	0.9	8.4	<	0.33	<	0.33	<	0.33	<	0.33
Diethylphthalate	mg/kg (ppm)	---	340	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Fluorene	mg/kg (ppm)	---	28	10,000	<	0.33	<	0.33	<	0.33	<	0.33
4-Chlorophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
4-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66
n-Nitrosodiphenylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
4-Bromophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
Hexachlorobenzene	mg/kg (ppm)	---	0.4	3.6	<	0.33	<	0.33	<	0.33	<	0.33
Phenanthrene	mg/kg (ppm)	---	40	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Anthracene	mg/kg (ppm)	---	35	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Carbazole	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
di-n-Butylphthalate	mg/kg (ppm)	---	---	---	<	0.5	<	0.5	<	0.5	<	0.5
Fluoranthene	mg/kg (ppm)	---	20	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Pyrene	mg/kg (ppm)	---	13	10,000	<	0.33	<	0.33	<	0.33	<	0.33
Butylbenzylphthalate	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [a] Anthracene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	<	0.33
3,3'-Dichlorobenzidine	mg/kg (ppm)	---	1.4	13	<	0.66	<	0.66	<	0.66	<	0.66
Chrysene	mg/kg (ppm)	---	0.4	780	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Ethylhexyl)Phthalate	mg/kg (ppm)	---	46	410	<	0.33	<	0.33	<	0.33	<	0.33
di-n-Octylphthalate	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [b] Fluoranthene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [k] Fluoranthene	mg/kg (ppm)	---	0.9	78	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [a] Pyrene	mg/kg (ppm)	240	0.4	0.8	<	0.33	<	0.33	<	0.33	<	0.33
Indeno [1,2,3-cd] Pyrene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	<	0.33
Dibenzo [a,h] Anthracene	mg/kg (ppm)	---	0.4	0.8	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [g,h,i] Perylene	mg/kg (ppm)	---	0.8	10,000	<	0.33	<	0.33	<	0.33	<	0.33
PRIORITY POLLUTANT METALS												
Beryllium	mg/kg (ppm)	---	0.4	1.3	NT		NT		<	0.487	<	0.517
Silver	mg/kg (ppm)	---	200	10,000	NT		NT		<	0.487	<	0.517
Arsenic	mg/kg (ppm)	---	7	7	NT		NT		<	0.973	<	1.03
Cadmium	mg/kg (ppm)	---	39	1,000	NT		NT		<	0.487	<	0.517
Chromium (as VI)	mg/kg (ppm)	---	390	10,000	NT		NT		7.27	0.487	8.19	0.517
Copper	mg/kg (ppm)	---	3,100	10,000	NT		NT		2.00	1.46	2.47	1.55
Mercury	mg/kg (ppm)	---	23	610	NT		NT		<	0.0275	<	0.0294
Nickel	mg/kg (ppm)	---	6,000	10,000	NT		NT		<	0.973	<	1.03
Lead	mg/kg (ppm)	---	150	500	NT		NT		1.68	0.973	1.60	1.03
Antimony	mg/kg (ppm)	---	10	820	NT		NT		<	2.43	<	2.59
Selenium	mg/kg (ppm)	---	290	6,000	NT		NT		<	2.43	<	2.59
Thallium	mg/kg (ppm)	---	5.5	140	NT		NT		<	2.43	<	2.59
Zinc	mg/kg (ppm)	---	6,000	10,000	NT		NT		12.4	0.973	12.5	1.03
SPLP - METALS												
Silver	mg/l (ppb)	---	---	---	NT		NT		<	10	<	10
Arsenic	mg/l (ppb)	---	---	---	NT		NT		<	10	<	10
Barium	mg/l (ppb)	23	---	---	NT		NT		NT		NT	
Beryllium	mg/l (ppb)	0.03	---	---	NT		NT		<	5.0	<	5.0
Cadmium	mg/l (ppb)	0.03	---	---	NT		NT		<	5.0	<	5.0
Chromium	mg/l (ppb)	1.1	---	---	NT		NT		0.0085	5.0	0.0082	5.0
Copper	mg/l (ppb)	---	---	---	NT		NT		0.052	20	0.031	20
Mercury	mg/l (ppb)	0.02	---	---	NT		NT		<	0.50	<	0.50
Nickel	mg/l (ppb)	1	---	---	NT		NT		<	20	<	20
Lead	mg/l (ppb)	0.04	---	---	NT		NT		<	10	0.013	10
Antimony	mg/l (ppb)	0.05	---	---	NT		NT		<	25	<	25
Selenium	mg/l (ppb)	0.6	---	---	NT		NT		<	25	<	25
Thallium	mg/l (ppb)	0.005	---	---	NT		NT		<	25	<	25
Zinc	mg/l (ppb)	---	---	---	NT		NT		0.074	20	0.079	20

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure Criteria			SP-12 COMP. 1/12/2005-GZA 2005		SP-13 COMP. 1/12/2005-GZA 2005		COMP. 2001 03/14/2005		COMP. 2004 03/14/2005	
		GA LEACH	RDEC	I/CDEC	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
EXTRACTABLE PETROLEUM HYDROCARBONS												
C9-C18 Aliphatic Fraction	mg/kg (ppm)	---	---	---	7.4	5.0	<	5.0	<	5.0	5.6	5.0
C19-C36 Aliphatic Fraction	mg/kg (ppm)	---	---	---	29	5.0	33	5.0	23	5.0	37	5.0
C11-C22 Aromatic Fraction	mg/kg (ppm)	---	---	---	55*	5.0	43*	5.0	100	5.0	130	5.0
VOLATILE PETROLEUM HYDROCARBONS												
C5-C8 Aliphatics	mg/kg (ppm)	---	---	---	<	1.0	<	1.0	NT		NT	
C9-C12 Aliphatics	mg/kg (ppm)	---	---	---	<	0.5	<	0.5	NT		NT	
C9-C10 Aromatics	mg/kg (ppm)	---	---	---	<	0.5	<	0.5	NT		NT	
TOTAL PETROLEUM HYDROCARBONS (TPH)												
Hydrocarbon Content	mg/kg (ppm)	---	500-1,000	2,500	220*	20	170*	20	280*	10	350*	10
FINGERPRINT RESULTS												
Fuel Oil		---	---	---								
Uncharacterizable Material		---	---	---	10%		10%		10%		10%	
Organo-siloxanes (see definition)		---	---	---	90%		90%		90%		10%	
PERCENT SOLID	%				94.8		93.7		93.7		94.5	

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure Criteria			SS-1/01		SS-2/01		SS-3/01		SS-4/01		SS-1/04	
		GA LEACH	RDEC	I/CDEC	03/14/2005		03/14/2005		03/14/2005		03/14/2005		03/14/2005	
					Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
VOLATILE ORGANICS														
Dichlorodifluoromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Chloromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Vinyl Chloride	mg/kg (ppm)	0.3	0.02	3	NT		NT		NT		NT		NT	
Bromomethane	mg/kg (ppm)	---	0.8	2,900	NT		NT		NT		NT		NT	
Chloroethane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Trichlorofluoromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Diethylether	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Acetone	mg/kg (ppm)	---	7,800	10,000	NT		NT		NT		NT		NT	
1,1-Dichloroethene	mg/kg (ppm)	0.7	0.2	9.5	NT		NT		NT		NT		NT	
Dichloromethane (MethyleneChloride)	mg/kg (ppm)	---	45	760	NT		NT		NT		NT		NT	
Methyl-Tert-Butyl-Ether	mg/kg (ppm)	0.9	390	10,000	NT		NT		NT		NT		NT	
trans-1,2-Dichloroethene	mg/kg (ppm)	3.3	1,100	10,000	NT		NT		NT		NT		NT	
1,1-Dichloroethane	mg/kg (ppm)	---	920	10,000	NT		NT		NT		NT		NT	
2-Butanone (MEK)	mg/kg (ppm)	---	10,000	10,000	NT		NT		NT		NT		NT	
2,2-Dichloropropane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
cis-1,2-Dichloroethene	mg/kg (ppm)	1.7	630	10,000	NT		NT		NT		NT		NT	
Chloroform	mg/kg (ppm)	---	1.2	940	NT		NT		NT		NT		NT	
Bromochloromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Tetrahydrofuran	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
1,1,1-Trichloroethane	mg/kg (ppm)	11	540	10,000	NT		NT		NT		NT		NT	
1,1-Dichloropropene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Carbon Tetrachloride	mg/kg (ppm)	0.4	1.5	44	NT		NT		NT		NT		NT	
1,2-Dichloroethane	mg/kg (ppm)	0.1	0.9	63	NT		NT		NT		NT		NT	
Benzene	mg/kg (ppm)	0.2	2.5	200	NT		NT		NT		NT		NT	
Trichloroethene	mg/kg (ppm)	0.2	13	520	NT		NT		NT		NT		NT	
1,2-Dichloropropane	mg/kg (ppm)	0.1	1.9	84	NT		NT		NT		NT		NT	
Bromodichloromethane	mg/kg (ppm)	---	10	92	NT		NT		NT		NT		NT	
Dibromomethane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
4-Methyl-2-Pentanone	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
cis-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Toluene	mg/kg (ppm)	32	190	10,000	NT		NT		NT		NT		NT	
trans-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
1,1,2-Trichloroethane	mg/kg (ppm)	0.1	3.6	100	NT		NT		NT		NT		NT	
2-Hexanone (MIBK)	mg/kg (ppm)	---	1,200	10,000	NT		NT		NT		NT		NT	
1,3-Dichloropropane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Tetrachloroethene	mg/kg (ppm)	0.1	12	110	NT		NT		NT		NT		NT	
Dibromochloromethane	mg/kg (ppm)	---	7.6	68	NT		NT		NT		NT		NT	
1,2-Dibromoethane (EDB)	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Chlorobenzene	mg/kg (ppm)	3.2	210	10,000	NT		NT		NT		NT		NT	
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	---	2.2	220	NT		NT		NT		NT		NT	
Ethylbenzene	mg/kg (ppm)	27	71	10,000	NT		NT		NT		NT		NT	
m&p-Xylene	mg/kg (ppm)	---	110	10,000	NT		NT		NT		NT		NT	
o-Xylene	mg/kg (ppm)	---	110	10,000	NT		NT		NT		NT		NT	
Styrene	mg/kg (ppm)	2.9	13	190	NT		NT		NT		NT		NT	
Bromoform	mg/kg (ppm)	---	81	720	NT		NT		NT		NT		NT	
Isopropylbenzene	mg/kg (ppm)	---	27	10,000	NT		NT		NT		NT		NT	
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	---	1.3	29	NT		NT		NT		NT		NT	
1,2,3-Trichloropropane	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Bromobenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
n-Propylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
2-Chlorotoluene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
1,3,5-Trimethylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
4-Chlorotoluene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
tert-Butylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
1,2,4-Trimethylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
sec-Butylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
p-Isopropyltoluene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
1,3-Dichlorobenzene	mg/kg (ppm)	---	430	10,000	NT		NT		NT		NT		NT	
1,4-Dichlorobenzene	mg/kg (ppm)	---	27	240	NT		NT		NT		NT		NT	
n-Butylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
1,2-Dichlorobenzene	mg/kg (ppm)	---	510	10,000	NT		NT		NT		NT		NT	
1,2-Dibromo-3-Chloropropane	mg/kg (ppm)	---	0.5	4.1	NT		NT		NT		NT		NT	
1,2,4-Trichlorobenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Hexachlorobutadiene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
Naphthalene	mg/kg (ppm)	---	54	10,000	NT		NT		NT		NT		NT	
1,2,3-Trichlorobenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
SEMI-VOLATILE ORGANICS														
Phenol	mg/kg (ppm)	---	6,000	10,000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	mg/kg (ppm)	---	50	10,000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	mg/kg (ppm)	---	---	---	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	mg/kg (ppm)	---	---	---	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitrophenol	mg/kg (ppm)	---	---	---	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	mg/kg (ppm)	---	1,400	10,000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzoic Acid	mg/kg (ppm)	---	---	---	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
2,4-Dichlorophenol	mg/kg (ppm)	---	30	6,100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-Methylphenol	mg/kg (ppm)	---	---	---	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66
2,4,6-Trichlorophenol	mg/kg (ppm)	---	58	520	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	mg/kg (ppm)	---	330	10,000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure Criteria			SS-1/01		SS-2/01		SS-3/01		SS-4/01		SS-1/04	
		GA LEACH	RDEC	I/CDEC	03/14/2005		03/14/2005		03/14/2005		03/14/2005		03/14/2005	
					Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
2,4-Dinitrophenol	mg/kg (ppm)	---	160	4,100	<	3.3	<	3.3	<	3.3	<	3.3	<	3.3
4-Nitrophenol	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	<	1.7	<	1.7
4,6-Dinitro-2-Methylphenol	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	<	1.7	<	1.7
Pentachlorophenol	mg/kg (ppm)	7.1	5.3	48	<	1.7	<	1.7	<	1.7	<	1.7	<	1.7
n-Nitrosodimethylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Chloroethyl)Ether	mg/kg (ppm)	---	0.6	5.2	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
1,3-Dichlorobenzene	mg/kg (ppm)	41	430	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
1,4-Dichlorobenzene	mg/kg (ppm)	41	27	240	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Benzyl Alcohol	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66	<	0.66
1,2-Dichlorobenzene	mg/kg (ppm)	41	510	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Chloroisopropyl)Ether	mg/kg (ppm)	---	9.1	82	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
n-Nitrosodi-n-Propylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Hexachloroethane	mg/kg (ppm)	---	46	410	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Nitrobenzene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Isophorone	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Chloroethoxy)Methane	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
1,2,4-Trichlorobenzene	mg/kg (ppm)	140	96	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Naphthalene	mg/kg (ppm)	0.8	54	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
4-Chloroaniline	mg/kg (ppm)	---	310	8,200	<	0.66	<	0.66	<	0.66	<	0.66	<	0.66
Hexachlorobutadiene	mg/kg (ppm)	---	8.2	73	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
2-Methylnaphthalene	mg/kg (ppm)	---	123	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Hexachlorocyclopentadiene	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	<	1.7	<	1.7
2-Chloronaphthalene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
2-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66	<	0.66
Dimethylphthalate	mg/kg (ppm)	---	1,900	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Acenaphthylene	mg/kg (ppm)	---	23	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
2,6-Dinitrotoluene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
3-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66	<	0.66
Acenaphthene	mg/kg (ppm)	---	43	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Dibenzofuran	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
2,4-Dinitrotoluene	mg/kg (ppm)	---	0.9	8.4	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Diethylphthalate	mg/kg (ppm)	---	340	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Fluorene	mg/kg (ppm)	---	28	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
4-Chlorophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
4-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	<	0.66	<	0.66
n-Nitrosodiphenylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
4-Bromophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Hexachlorobenzene	mg/kg (ppm)	---	0.4	3.6	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Phenanthrene	mg/kg (ppm)	---	40	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Anthracene	mg/kg (ppm)	---	35	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Carbazole	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
di-n-Butylphthalate	mg/kg (ppm)	---	---	---	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Fluoranthene	mg/kg (ppm)	---	20	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Pyrene	mg/kg (ppm)	---	13	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Butylbenzylphthalate	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [a] Anthracene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
3,3'-Dichlorobenzidine	mg/kg (ppm)	---	1.4	13	<	0.66	<	0.66	<	0.66	<	0.66	<	0.66
Chrysene	mg/kg (ppm)	---	0.4	780	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
bis(2-Ethylhexyl)Phthalate	mg/kg (ppm)	---	46	410	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
di-n-Octylphthalate	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [b] Fluoranthene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [k] Fluoranthene	mg/kg (ppm)	---	0.9	78	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [a] Pyrene	mg/kg (ppm)	240	0.4	0.8	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Indeno [1,2,3-cd] Pyrene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Dibenzo [a,h] Anthracene	mg/kg (ppm)	---	0.4	0.8	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
Benzo [g,h,i] Perylene	mg/kg (ppm)	---	0.8	10,000	<	0.33	<	0.33	<	0.33	<	0.33	<	0.33
PRIORITY POLLUTANT METALS														
Beryllium	mg/kg (ppm)	---	0.4	1.3	NT		NT		NT		NT		NT	
Silver	mg/kg (ppm)	---	200	10,000	NT		NT		NT		NT		NT	
Arsenic	mg/kg (ppm)	---	7	7	NT		NT		NT		NT		NT	
Cadmium	mg/kg (ppm)	---	39	1,000	NT		NT		NT		NT		NT	
Chromium (as VI)	mg/kg (ppm)	---	390	10,000	NT		NT		NT		NT		NT	
Copper	mg/kg (ppm)	---	3,100	10,000	NT		NT		NT		NT		NT	
Mercury	mg/kg (ppm)	---	23	610	NT		NT		NT		NT		NT	
Nickel	mg/kg (ppm)	---	6,000	10,000	NT		NT		NT		NT		NT	
Lead	mg/kg (ppm)	---	150	500	NT		NT		NT		NT		NT	
Antimony	mg/kg (ppm)	---	10	820	NT		NT		NT		NT		NT	
Selenium	mg/kg (ppm)	---	290	6,000	NT		NT		NT		NT		NT	
Thallium	mg/kg (ppm)	---	5.5	140	NT		NT		NT		NT		NT	
Zinc	mg/kg (ppm)	---	6,000	10,000	NT		NT		NT		NT		NT	
SPLP - METALS														
Silver	mg/l (ppb)	---	---	---	NT		NT		NT		NT		NT	
Arsenic	mg/l (ppb)	---	---	---	NT		NT		NT		NT		NT	
Barium	mg/l (ppb)	23	---	---	NT		NT		NT		NT		NT	
Beryllium	mg/l (ppb)	0.03	---	---	NT		NT		NT		NT		NT	
Cadmium	mg/l (ppb)	0.03	---	---	NT		NT		NT		NT		NT	
Chromium	mg/l (ppb)	1.1	---	---	NT		NT		NT		NT		NT	
Copper	mg/l (ppb)	---	---	---	NT		NT		NT		NT		NT	
Mercury	mg/l (ppb)	0.02	---	---	NT		NT		NT		NT		NT	
Nickel	mg/l (ppb)	1	---	---	NT		NT		NT		NT		NT	
Lead	mg/l (ppb)	0.04	---	---	NT		NT		NT		NT		NT	
Antimony	mg/l (ppb)	0.05	---	---	NT		NT		NT		NT		NT	
Selenium	mg/l (ppb)	0.6	---	---	NT		NT		NT		NT		NT	
Thallium	mg/l (ppb)	0.005	---	---	NT		NT		NT		NT		NT	
Zinc	mg/l (ppb)	---	---	---	NT		NT		NT		NT		NT	

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure Criteria			SS-1/01		SS-2/01		SS-3/01		SS-4/01		SS-1/04	
		GA LEACH	RDEC	I/CDEC	03/14/2005		03/14/2005		03/14/2005		03/14/2005		03/14/2005	
					Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
EXTRACTABLE PETROLEUM HYDROCARBONS														
C9-C18 Aliphatic Fraction	mg/kg (ppm)	---	---	---	<	5.0	6.0	5.0	6.0	5.0	<	5.0	8.9	5.0
C19-C36 Aliphatic Fraction	mg/kg (ppm)	---	---	---	18	5.0	23	5.0	32	5.0	35	5.0	45	5.0
C11-C22 Aromatic Fraction	mg/kg (ppm)	---	---	---	100	5.0	46	5.0	210	5.0	110	5.0	150	5.0
VOLATILE PETROLEUM HYDROCARBONS														
C5-C8 Aliphatics	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
C9-C12 Aliphatics	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
C9-C10 Aromatics	mg/kg (ppm)	---	---	---	NT		NT		NT		NT		NT	
TOTAL PETROLEUM HYDROCARBONS (TPH)														
Hydrocarbon Content	mg/kg (ppm)	---	500-1,000	2,500	160*	20	100*	20	430*	20	240*	20	290*	20
FINGERPRINT RESULTS														
Fuel Oil		---	---	---										
Uncharacterizable Material		---	---	---	10%				10%		10%		10%	
Organo-siloxanes (see definition)		---	---	---	90%				90%		90%		90%	
PERCENT SOLID	%				95.7		95.7		95.1		96.2		95.3	

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure			SS-2/04		SS-3/04		SS-4/04		TRIP BLANK	
		Criteria			03/14/2005		03/14/2005		03/14/2005		03/14/2005	
		GA LEACH	RDEC	I/CEC	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
VOLATILE ORGANICS												
Dichlorodifluoromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.140
Chloromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.140
Vinyl Chloride	mg/kg (ppm)	0.3	0.02	3	NT		NT		NT		<	0.070
Bromomethane	mg/kg (ppm)	---	0.8	2,900	NT		NT		NT		<	0.140
Chloroethane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Trichlorofluoromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.140
Diethylether	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Acetone	mg/kg (ppm)	---	7,800	10,000	NT		NT		NT		<	0.700
1,1-Dichloroethene	mg/kg (ppm)	0.7	0.2	9.5	NT		NT		NT		<	0.070
Dichloromethane (MethyleneChloride)	mg/kg (ppm)	---	45	760	NT		NT		NT		<	0.070
Methyl-Tert-Butyl-Ether	mg/kg (ppm)	0.9	390	10,000	NT		NT		NT		<	0.070
trans-1,2-Dichloroethene	mg/kg (ppm)	3.3	1,100	10,000	NT		NT		NT		<	0.070
1,1-Dichloroethane	mg/kg (ppm)	---	920	10,000	NT		NT		NT		<	0.070
2-Butanone (MEK)	mg/kg (ppm)	---	10,000	10,000	NT		NT		NT		<	0.700
2,2-Dichloropropane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
cis-1,2-Dichloroethene	mg/kg (ppm)	1.7	630	10,000	NT		NT		NT		<	0.070
Chloroform	mg/kg (ppm)	---	1.2	940	NT		NT		NT		<	0.070
Bromochloromethane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Tetrahydrofuran	mg/kg (ppm)	---	---	---	NT		NT		NT			NT
1,1,1-Trichloroethane	mg/kg (ppm)	11	540	10,000	NT		NT		NT		<	0.070
1,1-Dichloropropene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Carbon Tetrachloride	mg/kg (ppm)	0.4	1.5	44	NT		NT		NT		<	0.070
1,2-Dichloroethane	mg/kg (ppm)	0.1	0.9	63	NT		NT		NT		<	0.070
Benzene	mg/kg (ppm)	0.2	2.5	200	NT		NT		NT		<	0.070
Trichloroethene	mg/kg (ppm)	0.2	13	520	NT		NT		NT		<	0.070
1,2-Dichloropropane	mg/kg (ppm)	0.1	1.9	84	NT		NT		NT		<	0.070
Bromodichloromethane	mg/kg (ppm)	---	10	92	NT		NT		NT		<	0.070
Dibromomethane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
4-Methyl-2-Pentanone	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.140
cis-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Toluene	mg/kg (ppm)	32	190	10,000	NT		NT		NT		<	0.070
trans-1,3-Dichloropropene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
1,1,2-Trichloroethane	mg/kg (ppm)	0.1	3.6	100	NT		NT		NT		<	0.070
2-Hexanone (MIBK)	mg/kg (ppm)	---	1,200	10,000	NT		NT		NT		<	0.140
1,3-Dichloropropane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Tetrachloroethene	mg/kg (ppm)	0.1	12	110	NT		NT		NT		<	0.070
Dibromochloromethane	mg/kg (ppm)	---	7.6	68	NT		NT		NT		<	0.070
1,2-Dibromoethane (EDB)	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.140
Chlorobenzene	mg/kg (ppm)	3.2	210	10,000	NT		NT		NT		<	0.070
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	---	2.2	220	NT		NT		NT		<	0.070
Ethylbenzene	mg/kg (ppm)	27	71	10,000	NT		NT		NT		<	0.070
m&p-Xylene	mg/kg (ppm)	---	110	10,000	NT		NT		NT		<	0.070
o-Xylene	mg/kg (ppm)	---	110	10,000	NT		NT		NT		<	0.070
Styrene	mg/kg (ppm)	2.9	13	190	NT		NT		NT		<	0.070
Bromoform	mg/kg (ppm)	---	81	720	NT		NT		NT		<	0.140
Isopropylbenzene	mg/kg (ppm)	---	27	10,000	NT		NT		NT		<	0.070
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	---	1.3	29	NT		NT		NT		<	0.070
1,2,3-Trichloropropane	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Bromobenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
n-Propylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
2-Chlorotoluene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
1,3,5-Trimethylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
4-Chlorotoluene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
tert-Butylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
1,2,4-Trimethylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
sec-Butylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
p-Isopropyltoluene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
1,3-Dichlorobenzene	mg/kg (ppm)	---	430	10,000	NT		NT		NT		<	0.070
1,4-Dichlorobenzene	mg/kg (ppm)	---	27	240	NT		NT		NT		<	0.070
n-Butylbenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
1,2-Dichlorobenzene	mg/kg (ppm)	---	510	10,000	NT		NT		NT		<	0.070
1,2-Dibromo-3-Chloropropane	mg/kg (ppm)	---	0.5	4.1	NT		NT		NT		<	0.350
1,2,4-Trichlorobenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Hexachlorobutadiene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
Naphthalene	mg/kg (ppm)	---	54	10,000	NT		NT		NT		<	0.070
1,2,3-Trichlorobenzene	mg/kg (ppm)	---	---	---	NT		NT		NT		<	0.070
SEMI-VOLATILE ORGANICS												
Phenol	mg/kg (ppm)	---	6,000	10,000	<	0.33	<	0.33	<	0.33		NT
2-Chlorophenol	mg/kg (ppm)	---	50	10,000	<	0.33	<	0.33	<	0.33		NT
2-Methylphenol	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33		NT
3&4-Methylphenol	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33		NT
2-Nitrophenol	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33		NT
2,4-Dimethylphenol	mg/kg (ppm)	---	1,400	10,000	<	0.33	<	0.33	<	0.33		NT
Benzoic Acid	mg/kg (ppm)	---	---	---	<	3.3	<	3.3	<	3.3		NT
2,4-Dichlorophenol	mg/kg (ppm)	---	30	6,100	<	0.33	<	0.33	<	0.33		NT
4-Chloro-3-Methylphenol	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66		NT
2,4,6-Trichlorophenol	mg/kg (ppm)	---	58	520	<	0.33	<	0.33	<	0.33		NT
2,4,5-Trichlorophenol	mg/kg (ppm)	---	330	10,000	<	0.33	<	0.33	<	0.33		NT

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure			SS-2/04		SS-3/04		SS-4/04		TRIP BLANK	
		Criteria			03/14/2005		03/14/2005		03/14/2005		03/14/2005	
		GA LEACH	RDEC	ICDEC	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
2,4-Dinitrophenol	mg/kg (ppm)	---	160	4,100	<	3.3	<	3.3	<	3.3	NT	NT
4-Nitrophenol	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	NT	NT
4,6-Dinitro-2-Methylphenol	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	NT	NT
Pentachlorophenol	mg/kg (ppm)	7.1	5.3	48	<	1.7	<	1.7	<	1.7	NT	NT
n-Nitrosodimethylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
bis(2-Chloroethyl)Ether	mg/kg (ppm)	---	0.6	5.2	<	0.33	<	0.33	<	0.33	NT	NT
1,3-Dichlorobenzene	mg/kg (ppm)	41	430	10,000	<	0.33	<	0.33	<	0.33	NT	NT
1,4-Dichlorobenzene	mg/kg (ppm)	41	27	240	<	0.33	<	0.33	<	0.33	NT	NT
Benzyl Alcohol	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	NT	NT
1,2-Dichlorobenzene	mg/kg (ppm)	41	510	10,000	<	0.33	<	0.33	<	0.33	NT	NT
bis(2-Chloroisopropyl)Ether	mg/kg (ppm)	---	9.1	82	<	0.33	<	0.33	<	0.33	NT	NT
n-Nitrosodi-n-Propylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
Hexachloroethane	mg/kg (ppm)	---	46	410	<	0.33	<	0.33	<	0.33	NT	NT
Nitrobenzene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
Isophorone	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
bis(2-Chloroethoxy)Methane	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
1,2,4-Trichlorobenzene	mg/kg (ppm)	140	96	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Naphthalene	mg/kg (ppm)	0.8	54	10,000	<	0.33	<	0.33	<	0.33	NT	NT
4-Chloroaniline	mg/kg (ppm)	---	310	8,200	<	0.66	<	0.66	<	0.66	NT	NT
Hexachlorobutadiene	mg/kg (ppm)	---	8.2	73	<	0.33	<	0.33	<	0.33	NT	NT
2-Methylnaphthalene	mg/kg (ppm)	---	123	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Hexachlorocyclopentadiene	mg/kg (ppm)	---	---	---	<	1.7	<	1.7	<	1.7	NT	NT
2-Chloronaphthalene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
2-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	NT	NT
Dimethylphthalate	mg/kg (ppm)	---	1,900	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Acenaphthylene	mg/kg (ppm)	---	23	10,000	<	0.33	<	0.33	<	0.33	NT	NT
2,6-Dinitrotoluene	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
3-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	NT	NT
Acenaphthene	mg/kg (ppm)	---	43	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Dibenzofuran	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
2,4-Dinitrotoluene	mg/kg (ppm)	---	0.9	8.4	<	0.33	<	0.33	<	0.33	NT	NT
Diethylphthalate	mg/kg (ppm)	---	340	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Fluorene	mg/kg (ppm)	---	28	10,000	<	0.33	<	0.33	<	0.33	NT	NT
4-Chlorophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
4-Nitroaniline	mg/kg (ppm)	---	---	---	<	0.66	<	0.66	<	0.66	NT	NT
n-Nitrosodiphenylamine	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
4-Bromophenyl Phenyl Ether	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
Hexachlorobenzene	mg/kg (ppm)	---	0.4	3.6	<	0.33	<	0.33	<	0.33	NT	NT
Phenanthrene	mg/kg (ppm)	---	40	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Anthracene	mg/kg (ppm)	---	35	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Carbazole	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
di-n-Butylphthalate	mg/kg (ppm)	---	---	---	<	0.5	<	0.5	<	0.5	NT	NT
Fluoranthene	mg/kg (ppm)	---	20	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Pyrene	mg/kg (ppm)	---	13	10,000	<	0.33	<	0.33	<	0.33	NT	NT
Butylbenzylphthalate	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
Benzo [a] Anthracene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	NT	NT
3,3'-Dichlorobenzidine	mg/kg (ppm)	---	1.4	13	<	0.66	<	0.66	<	0.66	NT	NT
Chrysene	mg/kg (ppm)	---	0.4	780	<	0.33	<	0.33	<	0.33	NT	NT
bis(2-Ethylhexyl)Phthalate	mg/kg (ppm)	---	46	410	<	0.33	<	0.33	<	0.33	NT	NT
di-n-Octylphthalate	mg/kg (ppm)	---	---	---	<	0.33	<	0.33	<	0.33	NT	NT
Benzo [b] Fluoranthene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	NT	NT
Benzo [k] Fluoranthene	mg/kg (ppm)	---	0.9	78	<	0.33	<	0.33	<	0.33	NT	NT
Benzo [a] Pyrene	mg/kg (ppm)	240	0.4	0.8	<	0.33	<	0.33	<	0.33	NT	NT
Indeno [1,2,3-cd] Pyrene	mg/kg (ppm)	---	0.9	7.8	<	0.33	<	0.33	<	0.33	NT	NT
Dibenzo [a,h] Anthracene	mg/kg (ppm)	---	0.4	0.8	<	0.33	<	0.33	<	0.33	NT	NT
Benzo [g,h,i] Perylene	mg/kg (ppm)	---	0.8	10,000	<	0.33	<	0.33	<	0.33	NT	NT
PRIORITY POLLUTANT METALS												
Beryllium	mg/kg (ppm)	---	0.4	1.3	NT	NT	NT	NT	NT	NT	NT	NT
Silver	mg/kg (ppm)	---	200	10,000	NT	NT	NT	NT	NT	NT	NT	NT
Arsenic	mg/kg (ppm)	---	7	7	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/kg (ppm)	---	39	1,000	NT	NT	NT	NT	NT	NT	NT	NT
Chromium (as VI)	mg/kg (ppm)	---	390	10,000	NT	NT	NT	NT	NT	NT	NT	NT
Copper	mg/kg (ppm)	---	3,100	10,000	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/kg (ppm)	---	23	610	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/kg (ppm)	---	6,000	10,000	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/kg (ppm)	---	150	500	NT	NT	NT	NT	NT	NT	NT	NT
Antimony	mg/kg (ppm)	---	10	820	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/kg (ppm)	---	290	6,000	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/kg (ppm)	---	5.5	140	NT	NT	NT	NT	NT	NT	NT	NT
Zinc	mg/kg (ppm)	---	6,000	10,000	NT	NT	NT	NT	NT	NT	NT	NT
SPLP - METALS												
Silver	mg/l (ppb)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Arsenic	mg/l (ppb)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Barium	mg/l (ppb)	23	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	mg/l (ppb)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	mg/l (ppb)	0.03	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	mg/l (ppb)	1.1	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Copper	mg/l (ppb)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	mg/l (ppb)	0.02	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	mg/l (ppb)	1	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Lead	mg/l (ppb)	0.04	---	---	<	10	16	10	<	10	NT	NT
Antimony	mg/l (ppb)	0.05	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	mg/l (ppb)	0.6	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	mg/l (ppb)	0.005	---	---	NT	NT	NT	NT	NT	NT	NT	NT
Zinc	mg/l (ppb)	---	---	---	NT	NT	NT	NT	NT	NT	NT	NT

TABLE 10

SUMMARY OF GZA's ANALYTICAL RESULTS FOR SOIL STOCKPILES

Charbert Phase II Site Investigation
Alton, Rhode Island

Parameters	Units	RIDEM Direct Exposure Criteria			SS-2/04		SS-3/04		SS-4/04		TRIP BLANK	
		GA LEACH	RDEC	I/CDEC	03/14/2005		03/14/2005		03/14/2005		03/14/2005	
					Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
EXTRACTABLE PETROLEUM HYDROCARBONS												
C9-C18 Aliphatic Fraction	mg/kg (ppm)	---	---	---	5.6	5.0	22	5.0	6.7	5.0	NT	
C19-C36 Aliphatic Fraction	mg/kg (ppm)	---	---	---	31	5.0	87	5.0	40	5.0	NT	
C11-C22 Aromatic Fraction	mg/kg (ppm)	---	---	---	120	5.0	180	5.0	120	5.0	NT	
VOLATILE PETROLEUM HYDROCARBONS												
C5-C8 Aliphatics	mg/kg (ppm)	---	---	---	NT		NT		NT		NT	
C9-C12 Aliphatics	mg/kg (ppm)	---	---	---	NT		NT		NT		NT	
C9-C10 Aromatics	mg/kg (ppm)	---	---	---	NT		NT		NT		NT	
TOTAL PETROLEUM HYDROCARBONS (TPH)												
Hydrocarbon Content	mg/kg (ppm)	---	500-1,000	2,500	280*	20	270*	20	220*	20	NT	
FINGERPRINT RESULTS												
Fuel Oil		---	---	---								
Uncharacterizable Material		---	---	---	10%		10%		10%			
Organo-siloxanes (see definition)		---	---	---	90%		90%		90%			
PERCENT SOLID	%				96.5		94.9		96.1			

*Greater than 90% of TPH value reported by Modified Method 8,100 was estimated to be non-petroleum organo-siloxanes by EPA Method 8270 combined with petroleum hydrocarbon fingerprint.

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	GZ04-1 13 Feet 07/12/2004		GZ04-1 32 Feet 07/12/2004		GZ04-1 40 Feet 07/12/2004		GZ04-1 50 Feet 07/13/2004		DECON BLK 07/14/2004		GZ04-2 17 feet 07/14/2004		GZ04-2 27 Feet 07/14/2004	
			Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS:																
Dichlorodifluoromethane	ug/L (ppb)	---	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chloromethane	ug/L (ppb)	---	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Vinyl Chloride	ug/L (ppb)	2	<	1.0	<	1.0	1.0	<	1.0	<	1.0	<	1.0	<	1.0	1.0
Bromomethane	ug/L (ppb)	---	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chloroethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Trichlorofluoromethane	ug/L (ppb)	---	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Diethylether	ug/L (ppb)	---	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0
Acetone	ug/L (ppb)	---	<	25	<	25	<	25	<	25	<	25	<	25	<	25
1,1-Dichloroethene	ug/L (ppb)	7	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dichloromethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Methyl-Tert-Butyl-Ether	ug/L (ppb)	40	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,2-Dichloroethene	ug/L (ppb)	100	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloroethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Butanone	ug/L (ppb)	---	<	25	<	25	<	25	<	25	<	25	<	25	<	25
2,2-Dichloropropane	ug/L (ppb)	0.2	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
cis-1,2-Dichloroethane	ug/L (ppb)	70	<	1.0	1.1	1.0	13	1.0	62	1.0	1.0	1.0	<	1.0	<	1.0
Chloroform	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromochloromethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrahydrofuran	ug/L (ppb)	---	<	10	<	10	<	10	<	10	<	10	<	10	<	10
1,1,1-Trichloroethane	ug/L (ppb)	200	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloropropene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Carbon Tetrachloride	ug/L (ppb)	5	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloroethane	ug/L (ppb)	5	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Benzene	ug/L (ppb)	5	<	1.1	1.0	1.0	2.3	1.0	11	1.0	1.0	1.0	<	1.0	<	1.0
Trichloroethene	ug/L (ppb)	5	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloropropane	ug/L (ppb)	5	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromodichloromethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromomethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
4-Methyl-2-Pentanone	ug/L (ppb)	---	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
cis-1,3-Dichloropropene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Toluene	ug/L (ppb)	1000	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,3-Dichloropropene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2-Trichloroethane	ug/L (ppb)	5	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Hexanone	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3-Dichloropropane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrachloroethene	ug/L (ppb)	5	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromochloromethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromoethane (EDB)	ug/L (ppb)	---	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chlorobenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,1,2-Tetrachloroethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Ethylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
m&p-Xylene	ug/L (ppb)	10000	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
o-Xylene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Styrene	ug/L (ppb)	100	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromoform	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Isopropylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,3-Trichloropropane	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromobenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	GZ04-1 13 Feet 07/12/2004		GZ04-1 32 Feet 07/12/2004		GZ04-1 40 Feet 07/12/2004		GZ04-1 50 Feet 07/13/2004		DECON BLK 07/14/2004		GZ04-2 17 feet 07/14/2004		GZ04-2 27 Feet 07/14/2004		
			Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS CONT'D																	
n-Propylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
2-Chlorotoluene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
1,3,5-Trimethylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
4-Chlorotoluene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
tert-Butylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
1,2,4-Trimethylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
sec-Butylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
p-Isopropyltoluene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
1,3-Dichlorobenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
1,4-Dichlorobenzene	ug/L (ppb)	---	1.0	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
n-Butylbenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
1,2-Dichlorobenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
1,2-Dibromo-3-Chloropropane	ug/L (ppb)	---	<	5.0	<	5.0	<	5.0	<	5.0	<	<	<	<	<	<	5.0
1,2,4-Trichlorobenzene	ug/L (ppb)	---	<	1.0	<	1.0	1.7	1.0	<	5.0	<	<	<	<	<	<	1.0
Hexachlorobutadiene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
Naphthalene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
1,2,3-Trichlorobenzene	ug/L (ppb)	---	<	1.0	<	1.0	<	1.0	<	1.0	<	<	<	<	<	<	1.0
SEMI-VOLATILE ORGANICS																	
ACID FRACTION:																	
Phenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
2-Chlorophenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
2-Methylphenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
3&4-Methylphenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
2-Nitrophenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
2,4-Dimethylphenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
Benzoic Acid	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
2,4-Dichlorophenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
4-Chloro-3-Methylphenol	ug/L	---	<	20	<	20	<	20	<	20	<	<	<	<	<	<	20
2,4,6-Trichlorophenol	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
2,4,5-Trichlorophenol	ug/L	---	<	100	<	100	<	100	<	100	<	<	<	<	<	<	100
2,4-Dinitrophenol	ug/L	---	<	50	<	50	<	50	<	50	<	<	<	<	<	<	50
4-Nitrophenol	ug/L	---	<	50	<	50	<	50	<	50	<	<	<	<	<	<	50
4,6-Dinitro-2-Methylphenol	ug/L	---	<	50	<	50	<	50	<	50	<	<	<	<	<	<	50
Pentachlorophenol	ug/L	1	<	50	<	50	<	50	<	50	<	<	<	<	<	<	50
BASE-NEUTRAL FRACTION:																	
n-Nitrosodimethylamine	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
bis(2-Chloroethyl)Ether	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
1,3-Dichlorobenzene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
1,4-Dichlorobenzene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
Benzyl Alcohol	ug/L	---	<	20	<	20	<	20	<	20	<	<	<	<	<	<	20
1,2-Dichlorobenzene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
bis(2-Chloroisopropyl)Ether	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
n-Nitrosodi-n-Propylamine	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
Hexachloroethane	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
Nitrobenzene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10
Isophorone	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<	10

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	GZ04-1 13 Feet 07/12/2004		GZ04-1 32 Feet 07/12/2004		GZ04-1 40 Feet 07/12/2004		GZ04-1 50 Feet 07/13/2004		DECON BLK 07/14/2004		GZ04-2 17 feet 07/14/2004		GZ04-2 27 Feet 07/14/2004	
			Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION CONT'D:																
bis(2-Chloroethoxy)Methane	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	<
1,2,4-Trichlorobenzene	ug/L	70	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Naphthalene	ug/L	20	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
4-Chloroaniline	ug/L	---	<	20	<	20	<	20	<	20	<	<	<	<	<	20
Hexachlorobutadiene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
2-Methylnaphthalene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Hexachlorocyclopentadiene	ug/L	---	<	50	<	50	<	50	<	50	<	<	<	<	<	50
2-Chloronaphthalene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
2-Nitroaniline	ug/L	---	<	50	<	50	<	50	<	50	<	<	<	<	<	50
Dimethylphthalate	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Acenaphthylene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
2,6-Dinitrotoluene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
3-Nitroaniline	ug/L	---	<	50	<	50	<	50	<	50	<	<	<	<	<	50
Acenaphthene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Dibenzofuran	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
2,4-Dinitrotoluene	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Diethylphthalate	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Fluorene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
4-Chlorophenyl Phenyl Ether	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
4-Nitroaniline	ug/L	---	<	20	<	20	<	20	<	20	<	<	<	<	<	20
n-Nitrosodiphenylamine	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
4-Bromophenyl Phenyl Ether	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Hexachlorobenzene	ug/L	1	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Phenanthrene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Anthracene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Carbazole	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
di-n-Butylphthalate	ug/L	---	<	15	<	15	<	15	<	15	<	<	<	<	<	15
Fluoranthene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Pyrene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Butylbenzylphthalate	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Benzo [a] Anthracene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
3,3'-Dichlorobenzidine	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Chrysene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
bis(2-Ethylhexyl)Phthalate	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
di-n-Octylphthalate	ug/L	---	<	10	<	10	<	10	<	10	<	<	<	<	<	10
Benzo [b] Fluoranthene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Benzo [k] Fluoranthene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Benzo [a] Pyrene	ug/L	0.2	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Indeno [1,2,3-cd] Pyrene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Dibenzo [a,h] Anthracene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0
Benzo [g,h,i] Perylene	ug/L	---	<	2.0	<	2.0	<	2.0	<	2.0	<	<	<	<	<	2.0

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	GZ04-2 35 Feet 07/14/2004		GZ04-2 41 Feet 07/14/2004		GZ04-2 57 Feet 07/14/2004		GZ04-3 15 Feet 07/19/2004		GZ04-3 25 Feet 07/19/2004		GZ04-3 35 Feet 07/20/2004		TBLK-072004 Trip Blank 07/20/2004	
		Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS:															
Dichlorodifluoromethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chloromethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Vinyl Chloride	ug/L (ppb)	<	1.0	<	1.0	5.7	1.0	<	1.0	<	1.0	180	1.0	<	1.0
Bromomethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Trichlorofluoromethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Diethylether	ug/L (ppb)	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0
Acetone	ug/L (ppb)	<	25	<	25	<	25	<	25	<	25	<	25	<	25
1,1-Dichloroethene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dichloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Methyl-Tert-Butyl-Ether	ug/L (ppb)	<	1.0	1.4	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,2-Dichloroethene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Butanone	ug/L (ppb)	<	25	<	25	<	25	<	25	<	25	<	25	<	25
2,2-Dichloropropane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
cis-1,2-Dichloroethene	ug/L (ppb)	<	1.0	1.0	3.3	1.0	1.0	65	1.0	1.0	1.0	2700	1.0	<	1.0
Chloroform	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromochloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrahydrofuran	ug/L (ppb)	<	10	<	10	<	10	<	10	<	10	<	10	<	10
1,1,1-Trichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Carbon Tetrachloride	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Benzene	ug/L (ppb)	<	1.0	1.0	3.3	1.0	1.0	9.1	1.0	1.0	3000	1.0	1.0	<	1.0
Trichloroethene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloropropane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromodichloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromomethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
4-Methyl-2-Pentanone	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
cis-1,3-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Toluene	ug/L (ppb)	<	1.0	1.0	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,3-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2-Trichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Hexanone	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
1,3-Dichloropropane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrachloroethene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromochloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromoethane (EDB)	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,1,2-Tetrachloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Ethylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
m&p-Xylene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
o-Xylene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Styrene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromoform	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Isopropylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,3-Trichloropropane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	GZ04-2 35 Feet 07/14/2004		GZ04-2 41 Feet 07/14/2004		GZ04-2 57 Feet 07/14/2004		GZ04-3 15 Feet 07/19/2004		GZ04-3 25 Feet 07/19/2004		GZ04-3 35 Feet 07/20/2004		TBLK-072004 Trip Blank 07/20/2004	
		Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS CONT'D															
n-Propylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Chlorotoluene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3,5-Trimethylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	2.8	1.0	<	1.0	<	1.0	<	1.0
4-Chlorotoluene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
tert-Butylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,4-Trimethylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	8.1	1.0	1.2	1.0	1.6	1.0	<	1.0
sec-Butylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
p-Isopropyltoluene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3-Dichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,4-Dichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
n-Butylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromo-3-Chloropropane	ug/L (ppb)	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0
1,2,4-Trichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Hexachlorobutadiene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Naphthalene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	5.5	1.0	1.2	1.0	<	1.0	<	1.0
1,2,3-Trichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
SEMI-VOLATILE ORGANICS															
ACID FRACTION:															
Phenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
2-Chlorophenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
2-Methylphenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
3&4-Methylphenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
2-Nitrophenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
2,4-Dimethylphenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
Benzoic Acid	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
2,4-Dichlorophenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
4-Chloro-3-Methylphenol	ug/L	<	20	<	20	NT	NT	<	20	<	20	<	20	<	20
2,4,6-Trichlorophenol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
2,4,5-Trichlorophenol	ug/L	<	100	<	100	NT	NT	<	100	<	100	<	100	<	100
2,4-Dinitrophenol	ug/L	<	50	<	50	NT	NT	<	50	<	50	<	50	<	50
4-Nitrophenol	ug/L	<	50	<	50	NT	NT	<	50	<	50	<	50	<	50
4,6-Dinitro-2-Methylphenol	ug/L	<	50	<	50	NT	NT	<	50	<	50	<	50	<	50
Pentachlorophenol	ug/L	<	50	<	50	NT	NT	<	50	<	50	<	50	<	50
BASE-NEUTRAL FRACTION:															
n-Nitrosodimethylamine	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
bis(2-Chloroethyl)Ether	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
1,3-Dichlorobenzene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
1,4-Dichlorobenzene	ug/L	<	20	<	20	NT	NT	<	20	<	20	<	20	<	20
Benzyl Alcohol	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
1,2-Dichlorobenzene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
bis(2-Chloroisopropyl)Ether	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
n-Nitrosodi-n-Propylamine	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
Hexachloroethane	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
Nitrobenzene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10
Isophorone	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	<	10

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	GZ04-2 35 Feet 07/14/2004		GZ04-2 41 Feet 07/14/2004		GZ04-2 57 Feet 07/14/2004		GZ04-3 15 Feet 07/19/2004		GZ04-3 25 Feet 07/19/2004		GZ04-3 35 Feet 07/20/2004		TBLK-072004 Trip Blank 07/20/2004	
		Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION CONT'D:															
Bis(2-Chloroethoxy)Methane	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
1,2,4-Trichlorobenzene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Naphthalene	ug/L	<	2.0	<	2.0	NT	NT	2.4	2.0	<	2.0	<	2.0	NA	NA
4-Chloroaniline	ug/L	<	20	<	20	NT	NT	<	20	<	20	<	20	NA	NA
Hexachlorobutadiene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
2-Methylnaphthalene	ug/L	<	2.0	<	2.0	NT	NT	2.0	2.0	<	2.0	<	2.0	NA	NA
Hexachlorocyclopentadiene	ug/L	<	50	<	50	NT	NT	2.0	50	<	50	<	50	NA	NA
2-Chloronaphthalene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
2-Nitroaniline	ug/L	<	50	<	50	NT	NT	<	50	<	50	<	50	NA	NA
Dimethylphthalate	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Acenaphthylene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
2,6-Dinitrotoluene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
3-Nitroaniline	ug/L	<	50	<	50	NT	NT	<	50	<	50	<	50	NA	NA
Acenaphthene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Dibenzofuran	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
2,4-Dinitrotoluene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Diethylphthalate	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Fluorene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
4-Chlorophenyl Phenyl Ether	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
4-Nitroaniline	ug/L	<	20	<	20	NT	NT	<	20	<	20	<	20	NA	NA
n-Nitrosodiphenylamine	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
4-Bromophenyl Phenyl Ether	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Hexachlorobenzene	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Phenanthrene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Anthracene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Carbazole	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
di-n-Butylphthalate	ug/L	<	15	<	15	NT	NT	<	15	<	15	<	15	NA	NA
Fluoranthene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Pyrene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Butylbenzylphthalate	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Benzo [a] Anthracene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
3,3'-Dichlorobenzidine	ug/L	<	20	<	20	NT	NT	<	20	<	20	<	20	NA	NA
Chrysene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
bis(2-Ethylhexyl)Phthalate	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
di-n-Octylphthalate	ug/L	<	10	<	10	NT	NT	<	10	<	10	<	10	NA	NA
Benzo [b] Fluoranthene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Benzo [k] Fluoranthene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Benzo [a] Pyrene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Indeno [1,2,3-cd] Pyrene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Dibenzo [a,h] Anthracene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA
Benzo [g,h,i] Perylene	ug/L	<	2.0	<	2.0	NT	NT	<	2.0	<	2.0	<	2.0	NA	NA

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	GZ04-4A 22 Feet 07/21/2004		GZ04-4A 30 Feet 07/21/2004		GZ04-4A 40 feet 07/22/2004		GZ04-4A 50 Feet 07/22/2004		GZ04-4A 60 Feet 07/22/2004		GZ04-4A 70 Feet 07/22/2004		TBLK 072204 Trip Blank 07/22/2004		TRIP BLANK Trip Blank 07/13/2004	
		Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS:																	
Dichlorodifluoromethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chloromethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Vinyl Chloride	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromomethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Trichlorofluoromethane	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Diethylether	ug/L (ppb)	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0
Acetone	ug/L (ppb)	<	25	<	25	<	25	<	25	<	25	<	25	<	25	<	25
1,1-Dichloroethane	ug/L (ppb)	<	1.0	<	1.0	1.4	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dichloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Methyl-Tert-Butyl-Ether	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,2-Dichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	3.1	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Butanone	ug/L (ppb)	<	25	<	25	<	25	<	25	<	25	<	25	<	25	<	25
1,1-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2,2-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
cis-1,2-Dichloroethane	ug/L (ppb)	<	1.0	5.8	1.0	3.1	1.0	6.2	1.0	9.9	1.0	4.9	1.0	<	1.0	<	1.0
Chloroform	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromochloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrahydrofuran	ug/L (ppb)	<	10	<	10	<	10	<	10	<	10	<	10	<	10	<	10
1,1,1-Trichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Carbon Tetrachloride	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Benzene	ug/L (ppb)	<	1.0	2.4	1.0	1.1	1.0	2.1	1.0	1.1	1.0	1.7	1.0	<	1.0	<	1.0
Trichloroethene	ug/L (ppb)	<	1.0	1.7	1.0	1.3	1.0	2.8	1.0	2.8	1.0	1.2	1.0	<	1.0	<	1.0
1,2-Dichloropropane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromodichloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromomethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
4-Methyl-2-Pentanone	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
cis-1,3-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Toluene	ug/L (ppb)	2.0	1.0	<	1.0	1.1	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,3-Dichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2-Trichloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Hexanone	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
1,3-Dichloropropane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrachloroethene	ug/L (ppb)	<	1.0	<	1.0	1.4	1.0	2.4	1.0	1.0	1.3	1.0	<	1.0	<	1.0	1.0
Dibromochloromethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromoethane (EDB)	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Chlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2-Tetrachloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Ethylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
m&p-Xylene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
o-Xylene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Styrene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromolorm	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Isopropylbenzene	ug/L (ppb)	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,3-Trichloropropene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	GZ04-4A 22 Feet 07/21/2004		GZ04-4A 30 Feet 07/21/2004		GZ04-4A 40 feet 07/22/2004		GZ04-4A 50 Feet 07/22/2004		GZ04-4A 60 Feet 07/22/2004		GZ04-4A 70 Feet 07/22/2004		TRIP BLANK Trip Blank 07/13/2004	
		Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS CONT'D															
n-Propylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Chloroluene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3,5-Trimethylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
4-Chloroluene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
tert-Butylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,4-Trimethylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
sec-Butylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
p-Isopropyltoluene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3-Dichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,4-Dichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
n-Butylbenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromo-3-Chloropropane	ug/L (ppb)	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0
1,2,4-Trichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Hexachlorobutadiene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Naphthalene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,3-Trichlorobenzene	ug/L (ppb)	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
SEMI-VOLATILE ORGANICS															
ACID FRACTION:															
Phenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
2-Chlorophenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
2-Methylphenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
3&4-Methylphenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
2-Nitrophenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
2,4-Dimethylphenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
Benzoic Acid	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
2,4-Dichlorophenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
4-Chloro-3-Methylphenol	ug/L	<	20	<	20	<	20	<	20	<	20	<	20	<	20
2,4,6-Trichlorophenol	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
2,4,5-Trichlorophenol	ug/L	<	100	<	100	<	100	<	100	<	100	<	100	<	100
2,4-Dinitrophenol	ug/L	<	50	<	50	<	50	<	50	<	50	<	50	<	50
4-Nitrophenol	ug/L	<	50	<	50	<	50	<	50	<	50	<	50	<	50
4,6-Dinitro-2-Methylphenol	ug/L	<	50	<	50	<	50	<	50	<	50	<	50	<	50
Pentachlorophenol	ug/L	<	50	<	50	<	50	<	50	<	50	<	50	<	50
BASE-NEUTRAL FRACTION:															
n-Nitrosodimethylamine	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
bis(2-Chloroethyl)Ether	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
1,3-Dichlorobenzene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
1,4-Dichlorobenzene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
Benzyl Alcohol	ug/L	<	20	<	20	<	20	<	20	<	20	<	20	<	20
1,2-Dichlorobenzene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
bis(2-Chloroisopropyl)Ether	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
n-Nitrosodi-n-Propylamine	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
Hexachloroethane	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
Nitrobenzene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10
isophorone	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	10

TABLE 11

SUMMARY OF GZA's HYDRO PUNCH GROUNDWATER TESTING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	GZ04-4A 22 Feet 07/21/2004		GZ04-4A 30 Feet 07/21/2004		GZ04-4A 40 feet 07/22/2004		GZ04-4A 50 Feet 07/22/2004		GZ04-4A 60 Feet 07/22/2004		GZ04-4A 70 Feet 07/22/2004		TBLK 072204 Trip Blank 07/22/2004		TRIP BLANK Trip Blank 07/13/2004	
		Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION CONT'D:																	
Bis(2-Chloroethoxy)Methane	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
1,2,4-Trichlorobenzene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Naphthalene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
4-Chloroaniline	ug/L	<	20	<	20	<	20	<	20	<	20	<	20	<	NA	<	NA
Hexachlorobutadiene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
2-Methylnaphthalene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Hexachlorocyclopentadiene	ug/L	<	50	<	50	<	50	<	50	<	50	<	50	<	NA	<	NA
2-Chloronaphthalene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
2-Nitroaniline	ug/L	<	50	<	50	<	50	<	50	<	50	<	50	<	NA	<	NA
Dimethylphthalate	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Acenaphthylene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
2,6-Dinitrotoluene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
3-Nitroaniline	ug/L	<	50	<	50	<	50	<	50	<	50	<	50	<	NA	<	NA
Acenaphthene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Dibenzofuran	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
2,4-Dinitrotoluene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Diethylphthalate	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Fluorene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
4-Chlorophenyl Phenyl Ether	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
4-Nitroaniline	ug/L	<	20	<	20	<	20	<	20	<	20	<	20	<	NA	<	NA
n-Nitrosodiphenylamine	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
4-Bromophenyl Phenyl Ether	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Hexachlorobenzene	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Phenanthrene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Anthracene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Carbazole	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
di-n-Butylphthalate	ug/L	<	15	<	15	<	15	<	15	<	15	<	15	<	NA	<	NA
Pyrene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Butylbenzylphthalate	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Benzo [a] Anthracene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
3,3'-Dichlorobenzidine	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Chrysene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Bis(2-Ethylhexyl)Phthalate	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
di-n-Octylphthalate	ug/L	<	10	<	10	<	10	<	10	<	10	<	10	<	NA	<	NA
Benzo [b] Fluoranthene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Benzo [k] Fluoranthene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Benzo [a] Pyrene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Indeno [1,2,3-cd] Pyrene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Dibenzo [a,h] Anthracene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA
Benzo [g,h,i] Perylene	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	NA	<	NA

Note: Highlighted results indicated a detected parameter.
Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

TABLE 12

LOW FLOW FIELD SCREENING RESULTS

Charbert Phase II Site Investigation
Alton, Rhode Island

LOCATION	Sample Date	ORP (eV)	pH (SU)	COND (mS/cm)	TURB (NTU)	DO (mg/L)	TEMP (°C)	NOTES:
GP-16	2/17/2005	575	6.3	0.091	3	3.6	7.3	Field Screening with Horiba Model U-10
GP-17	2/17/2005	601	5.7	0.14	2	7.8	10.4	
GP-20	2/15/2005	-66	6.4	0.735	7	0.3	14.8	Lagoons Influence Color of Groundwater
GP-21	2/15/2005	-75	6.5	0.524	17	0.1	10.6	Lagoons Influence Color of Groundwater
GP-22	2/15/2005	92	7.3	0.449	16	10.6	7.1	Reflective, Fine Silt in sample
GP-25	2/15/2005	-41	6.1	0.648	53	0.4	13.3	Foamy Water, Bubbly
GP-26	2/16/2005	15	6.2	0.672	3	0.1	11.0	
GP-27A	2/17/2005	370	6.6	0.98	1	3.0	18.0	
GP-27B	2/17/2005	106	6.0	0.143	1	1.1	15.1	
GP-28	2/15/2005	-71	6.3	0.449	261	0.0	6.9	Reflective, Fine Silt in sample
GP-29	2/15/2005	-80	6.7	0.727	14	1.8	11.0	Lagoons Influence Color of Groundwater
GP-30	2/15/2005	-82	6.6	0.535	4	0.0	12.1	
GZ-1	8/6/2004		6.6	0.553	103	1.5	13.3	
GZ-1	2/15/2005	-40	7.0	0.541	2	0.1	12.5	
GZ-2	8/6/2004		6.6	0.590	140	3.8	14.4	
GZ-2	2/15/2005	-110	6.7	0.595	4	0.3	13.6	
GZ-3	8/6/2004		6.3	0.182	101	1.9	13.5	
GZ-3	2/16/2005	-30	6.3	0.168	50	0.0	13.4	Reflective, Fine Silt in sample
GZ-4A	8/6/2005		6.7	0.157	196	2.8	14.8	
GZ-4A	2/18/2005	602	6.4	0.148	349	4.6	10.7	High Turbidity Remained after 6 hours pumping
GZ-5	2/24/2005	-125	6.6	0.99	8	0.0	12.7	Lagoons Influence Color of Groundwater
GZ-6	2/16/2005	-117	5.9	0.118	0	0.3	13.5	
GZ-7	2/16/2005	-115	6.4	0.175	1	0.4	12.3	
GZ-8	2/17/2005	680	6.2	0.102	2	5.6	13.5	
RIZ-6	2/16/2005	-48	6.2	0.154	3	0.0	10.6	

Notes:

- 1) Readings recored by GZA personnel using a Horiba Model U10 water quality meter.
- 2) Measurements recorded as part of "Low Flow" sample collection. Readings represent final stabilized values.

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-1				RIZ-3			
		GA	PAL	7/22/2003		11/12/2003		7/22/2003		11/12/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
Volatile Organic Compounds EPA 8260B											
1,1,1-Trichloroethane	ug/l	200	100	NT	NT	ND	NA	NT	NT	ND	NA
1,1-Dichloroethane	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
1,1-Dichloroethene	ug/l	7	4	NT	NT	ND	NA	NT	NT	ND	NA
1,4-Dichlorobenzene	ug/l	75	38	NT	NT	ND	NA	NT	NT	ND	NA
1,2,4-Trimethylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Acetone	ug/l			ND	5	ND	NA	ND	10	ND	NA
Benzene	ug/l	5	3	NT	NT	ND	NA	NT	NT	ND	NA
Chloroform	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
cis-1,2-Dichloroethene	ug/l	70	35	ND	0.5	ND	NA	630	1	37	NA
Diethyl ether	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Diethylphthalate	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Dimethylphthalate	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Ethylbenzene	ug/l	700	350	ND	0.5	NT	NT	ND	1	NT	NT
Fluorene	ug/l			NT	NT	ND	NA	NT	NT	0.85	NA
Isopropylbenzene	ug/l			ND	0.5	NT	NT	ND	1	NT	NT
Methyl tert butyl ether	ug/l	40	20	NT	NT	ND	NA	NT	NT	ND	NA
Naphthalene	ug/l	20	10	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
n-Propylbenzene	ug/l			ND	0.5	NT	NT	ND	1	NT	NT
o-Xylene	ug/l	10,000	5,000	ND	0.5	ND	NA	ND	1	0.35	NA
p/m-Xylene	ug/l	10,000	5,000	ND	0.5	NT	NT	ND	1	NT	NT
p-Isopropyltoluene	ug/l			ND	0.5	NT	NT	ND	1	NT	NT
sec-Butylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene	ug/l	5	3	ND	0.5	ND	NA	29	1	3.5	NA
Toluene	ug/l	1,000	500	ND	0.75	ND	NA	ND	1.5	ND	NA
Total Xylenes	ug/l	10,000	5,000	ND	1	NT	NT	ND	2	NT	NT
trans-1,2-Dichloroethene	ug/l	100	50	ND	0.75	ND	NA	6.2	6.2	0.6	NA
Trichloroethene	ug/l	5	3	ND	0.5	ND	NA	4.6	4.6	1	NA
Vinyl chloride	ug/l	2	1	ND	1	ND	NA	86	2	15	NA
Tentatively Identified Volatile Organic Compounds											
Fluorotrimethyl silane	ug/l			NT	NT	ND	NA	NT	NT	150	NA
Dimethyl sulfide	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Isopropanol or ethoxy propane	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Methoxytrimethyl silane	ug/l			NT	NT	ND	NA	NT	NT	1.2	NA
Trimethyl silanol	ug/l			NT	NT	ND	NA	NT	NT	20	NA
Pyridine	ug/l			NT	NT	ND	NA	NT	NT	2.1	NA
Unknown Chlorinated compound	ug/l			NT	NT	ND	NA	NT	NT	0.54	NA
Unknown oxygenated compound	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Silicone	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
1H-Benzotriazole	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C7-,C8-,orC9-alcohol and/or ether	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C6H14O	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C4-benzene isomer	ug/l			NT	NT	ND	NA	NT	NT	0.59	NA
Isomer of RT 19.0	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C3-benzene isomer	ug/l			NT	NT	ND	NA	NT	NT	0.98	NA
Unknown oxygenated compound	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C4-benzene isomer + indan	ug/l			NT	NT	ND	NA	NT	NT	0.8	NA
Methyl indan isomer	ug/l			NT	NT	ND	NA	NT	NT	0.51	NA
Unknown HC + silicone1	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Dimethyl indan isomer1	ug/l			NT	NT	ND	NA	NT	NT	0.47	NA
Unknown HC + silicone2	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C4-benzene isomer + methyl indan isomer	ug/l			NT	NT	ND	NA	NT	NT	1.5	NA
3-methyl-substituted 2-ketone	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C5-benzene + Dimethyl indan isomer	ug/l			NT	NT	ND	NA	NT	NT	1.9	NA
Dimethyl indan isomer2	ug/l			NT	NT	ND	NA	NT	NT	1.2	NA
Unknown HC + silicone3	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Unknown HC + silicone4	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Unknown alkane	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C5-benzene + methyl tetrahydronaphthalene isomer	ug/l			NT	NT	ND	NA	NT	NT	0.5	NA
Homolog of RT 21.5	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Dimethyl indan isomer3	ug/l			NT	NT	ND	NA	NT	NT	0.79	NA
Dimethyl indan isomer4	ug/l			NT	NT	ND	NA	NT	NT	0.56	NA
C5-benzene isomer + dimethyl indan isomer	ug/l			NT	NT	ND	NA	NT	NT	0.45	NA
Methyl tetrahydronaphthalene isomer	ug/l			NT	NT	ND	NA	NT	NT	0.5	NA
SEMI-VOLATILE ORGANICS											
ACID FRACTION:											
2,4,5-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4,6-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dimethylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3&4-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4,6-Dinitro-2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloro-3-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzoic Acid	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pentachlorophenol	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Phenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-1				RIZ-3			
		GA	PAL	7/22/2003		11/12/2003		7/22/2003		11/12/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION:											
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	ND	NA	ND	NA	ND	NA	ND	NA
1,2-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,3-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,6-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chloronaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylnaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3,3'-Dichlorobenzidine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Bromophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chlorophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Pyrene	ug/L (ppb)	0.2	0.1	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [b] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [g,h,i] Perylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [k] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzyl Alcohol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)Methane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroisopropyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)Phthalate	ug/L (ppb)	6	3	ND	NA	ND	NA	ND	NA	ND	NA
Butylbenzylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Carbazole	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Chrysene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzo [a,h] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzofuran	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Diethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dimethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Butylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Octylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluorene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobenzene	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobutadiene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorocyclopentadiene	ug/L (ppb)	50	25	ND	NA	ND	NA	ND	NA	ND	NA
Hexachloroethane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Indeno [1,2,3-cd] Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Isophorone	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Naphthalene	ug/L (ppb)	20	10	ND	NA	ND	NA	ND	NA	ND	NA
Nitrobenzene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodimethylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodi-n-Propylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodiphenylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Phenanthrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Tentatively Identified Semi-Volatile Organic Compounds											
C4-benzene isomer + methyl indane isomer	ug/l			NT	NT	ND	NA	NT	NT	1.4	NA
2-cyclopentylcyclopentanone	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
phthalic anhydride (unstable in water)	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
2,4,7,9-tetramethyl-5-decyne-4,7-diol	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C2 naphthalene isomer	ug/l			NT	NT	ND	NA	NT	NT	1.2	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
dichlorobenzoic acid isomer	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C1 biphenyl or propenyl naphthalene	ug/l			NT	NT	ND	NA	NT	NT	1.4	NA
2-hydroxy-1,4-naphthalenedione	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
substituted cyclic hydrocarbon	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C8 phenol	ug/l			NT	NT	ND	NA	NT	NT	47	NA
benzophenone	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C8 or C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	8.1	NA
diphenylmethanol	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	6.2	NA
C8 or C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	18	NA
C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	40	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-1				RIZ-3			
		GA	PAL	7/22/2003		11/12/2003		7/22/2003		11/12/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	26	NA
C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	13	NA
C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	20	NA
C7 phenol	ug/l			NT	NT	0.63	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	36	NA
C9 phenol	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C2 biphenyl	ug/l			NT	NT	ND	NA	NT	NT	1.5	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
methyl silicone derivative	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
phenyl phenoxy ethanol	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	ND	NA	NT	NT	3.7	NA
phenyl ethyl ethoxy amine (MW 225)	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
phenoxy ethoxy toluene (MW 228) + RT 5.83	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
alkyl ethoxy ethanol	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	ND	NA	NT	NT	1.7	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	ND	NA	NT	NT	2.5	NA
methyl silicone derivative	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	ND	NA	NT	NT	1.4	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	0.6	NA	NT	NT	ND	NA
propoxy ethoxy compound	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
C2OH28O2 (natural product)	ug/l			NT	NT	0.31	NA	NT	NT	ND	NA
alkyl ethoxy ethanol	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	ND	NA	NT	NT	1.4	NA
propoxy ethoxy compound	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
butylidene-bis-[(tertiary butyl)-methyl] phenol	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
alkyl ethoxy ethanol	ug/l			NT	NT	0.32	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
unknown alkane	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
possible silicone derivative	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
homolog of RT 10.70	ug/l			NT	NT	ND	NA	NT	NT	1.9	NA
unknown	ug/l			NT	NT	ND	NA	NT	NT	ND	NA
Metals											
Aluminum	ug/l			NT	NT	95.6	NA	NT	NT	1,520	NA
Calcium	ug/l			NT	NT	11,300	NA	NT	NT	31,500	NA
Chromium	ug/l	100	50	NT	NT	ND	NA	NT	NT	1.6	NA
Copper	ug/l	1,300	650	NT	NT	ND	NA	NT	NT	10.5	NA
Iron	ug/l			NT	NT	104	NA	NT	NT	345	NA
Magnesium	ug/l			NT	NT	1,430	NA	NT	NT	2,690	NA
Manganese	ug/l			NT	NT	19.5	NA	NT	NT	252	NA
Potassium	ug/l			NT	NT	2400	NA	NT	NT	4290	NA
Sodium	ug/l			NT	NT	61,600	NA	NT	NT	63,000	NA
Zinc	ug/l			NT	NT	49.4	NA	NT	NT	77.8	NA
Total and Dissolved Chromium EPA 6010B											
Chromium, Total	mg/L	0.1	0.05	ND	0.01	NT	NT	0.05	0.01	NT	NT
Chromium, Dissolved	mg/L	0.1	0.05	ND	0.01	NT	NT	ND	0.01	NT	NT
Water Quality Parameters											
Chloride	mg/L			NT	NT	91	NA	NT	NT	41.9	NA
Nitrate	mg/L	10	5	NT	NT	5.2	NA	NT	NT	8.2	NA
Sulfate	mg/L			NT	NT	12.6	NA	NT	NT	60.7	NA
Ortho-phosphate	mg/L			NT	NT	ND	NA	NT	NT	0.86	NA
Sulfide	ug/l			NT	NT	ND	NA	NT	NT	0.069	NA
Methylene Blue Activated Substances	mg/L			NT	NT	ND	NA	NT	NT	0.23	NA
Total Coliform	col/100 ml	ND	NA	NT	NT	15	NA	NT	NT	3	NA
Fecal Coliform	col/100 ml	ND	NA	NT	NT	15	NA	NT	NT	ND	NA
Heterotrophic Plate Count (HPC)	CFU			NT	NT	360	NA	NT	NT	>5,700	NA
Total Petroleum Hydrocarbons EPA 8100M											
Unknown Hydrocarbon	mg/L			NT				3.3			

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-5		RIZ-13		RIZ-14		RIZ-18			
		GA	PAL	7/22/2003		7/22/2003		11/12/2003		7/22/2003		11/12/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
Volatile Organic Compounds EPA 8260B													
1,1,1-Trichloroethane	ug/l	200	100	NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
1,1-Dichloroethane	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
1,1-Dichloroethene	ug/l	7	4	NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
1,4-Dichlorobenzene	ug/l	75	38	NT	NT	NT	NT	0.36	NA	NT	NT	ND	NA
1,2,4-Trimethylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acetone	ug/l			ND	5	ND	5	5.1	NA	ND	5	ND	NA
Benzene	ug/l	5	3	NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Chloroform	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
cis-1,2-Dichloroethene	ug/l	70	35	55	0.5	3.5	0.5	ND	NA	ND	0.5	ND	NA
Diethyl ether	ug/l			NT	NT	NT	NT	0.24	NA	NT	NT	ND	NA
Diethylphthalate	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Dimethylphthalate	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Ethylbenzene	ug/l	700	350	1.6	0.5	ND	0.5	NT	NA	ND	0.5	NT	NT
Fluorene	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Isopropylbenzene	ug/l			0.61	0.5	ND	0.5	NT	NT	ND	0.5	NT	NT
Methyl tert butyl ether	ug/l	40	20	NT	NT	NT	NT	0.2	NA	NT	NT	ND	NA
Naphthalene	ug/l	20	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Propylbenzene	ug/l			0.74	0.5	ND	0.5	NT	NA	ND	0.5	NT	NT
o-Xylene	ug/l	10,000	5,000	2.2	0.5	ND	0.5	ND	NA	ND	0.5	ND	NA
p/m-Xylene	ug/l	10,000	5,000	1.0	0.5	ND	0.5	NT	NT	ND	0.5	NT	NT
p-Isopropyltoluene	ug/l			ND	0.5	ND	0.5	NT	NT	ND	0.5	NT	NT
sec-Butylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene	ug/l	5	3	24	0.5	3.0	0.5	0.28	NA	ND	0.5	ND	NA
Toluene	ug/l	1,000	500	ND	0.75	ND	0.75	ND	NA	ND	0.75	ND	NA
Total Xylenes	ug/l	10,000	5,000	3.2	1	ND	1	NT	NT	ND	1	NT	NT
trans-1,2-Dichloroethene	ug/l	100	50	1.6	0.75	ND	0.75	ND	NA	ND	0.75	ND	NA
Trichloroethene	ug/l	5	3	5.0	0.5	0.6	0.6	ND	NA	ND	0.5	ND	NA
Vinyl chloride	ug/l	2	1	86	1	ND	1	ND	NA	ND	1	ND	NA
Tentatively Identified Volatile Organic Compounds													
Fluorotrimethyl silane	ug/l			NT	NT	NT	NT	1.4	NA	NT	NT	ND	NA
Dimethyl sulfide	ug/l			NT	NT	NT	NT	1.5	NA	NT	NT	ND	NA
Isopropanol or ethoxy propane	ug/l			NT	NT	NT	NT	0.5	NA	NT	NT	ND	NA
Methoxytrimethyl silane	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Trimethyl silanol	ug/l			NT	NT	NT	NT	6	NA	NT	NT	ND	NA
Pyridine	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Unknown Chlorinated compound	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Silicone	ug/l			NT	NT	NT	NT	0.24	NA	NT	NT	ND	NA
Unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
1H-Benzotriazole	ug/l			NT	NT	NT	NT	0.32	NA	NT	NT	ND	NA
C7-, C8-, or C9-alcohol and/or ether	ug/l			NT	NT	NT	NT	0.59	NA	NT	NT	ND	NA
C6H14O	ug/l			NT	NT	NT	NT	0.34	NA	NT	NT	ND	NA
C4-benzene isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Isomer of RT 19.0	ug/l			NT	NT	NT	NT	1.1	NA	NT	NT	ND	NA
C3-benzene isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	0.39	NA	NT	NT	ND	NA
C4-benzene isomer + indan	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Methyl indan isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Unknown HC + silicone1	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Dimethyl indan isomer1	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Unknown HC + silicone2	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C4-benzene isomer + methyl indan isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
3-methyl-substituted 2-ketone	ug/l			NT	NT	NT	NT	0.26	NA	NT	NT	ND	NA
C5-benzene + Dimethyl indan isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Dimethyl indan isomer2	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Unknown HC + silicone3	ug/l			NT	NT	NT	NT	0.57	NA	NT	NT	ND	NA
Unknown HC + silicone4	ug/l			NT	NT	NT	NT	0.21	NA	NT	NT	ND	NA
Unknown alkane	ug/l			NT	NT	NT	NT	0.86	NA	NT	NT	ND	NA
C5-benzene + methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Homolog of RT 21.5	ug/l			NT	NT	NT	NT	0.63	NA	NT	NT	ND	NA
Dimethyl indan isomer3	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Dimethyl indan isomer4	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C5-benzene isomer + dimethyl indan isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
SEMI-VOLATILE ORGANICS													
ACID FRACTION:													
2,4,5-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4,6-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dimethylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Chlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
3&4-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4,6-Dinitro-2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloro-3-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzoic Acid	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Pentachlorophenol	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Phenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-5		RIZ-13		RIZ-14		RIZ-18			
		GA	PAL	7/22/2003		7/22/2003		11/12/2003		7/22/2003		11/12/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION:													
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
1,2-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
1,3-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,6-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Chloronaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylnaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
3,3'-Dichlorobenzidine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
3-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Bromophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Chlorophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Pyrene	ug/L (ppb)	0.2	0.1	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [b] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [g,h,i] Perylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [k] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzyl Alcohol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)Methane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroisopropyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)Phthalate	ug/L (ppb)	6	3	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Butylbenzylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Carbazole	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Chrysene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzo [a,h] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzofuran	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Diethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Dimethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Butylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Octylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Fluorene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobenzene	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobutadiene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorocyclopentadiene	ug/L (ppb)	50	25	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachloroethane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Indeno [1,2,3-cd] Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Isophorone	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Naphthalene	ug/L (ppb)	20	10	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Nitrobenzene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodimethylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodi-n-Propylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodiphenylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Phenanthrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Tentatively Identified Semi-Volatile Organic Compounds													
C4-benzene isomer + methyl indane isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
2-cyclopentylcyclopentanone	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
phthalic anhydride (unstable in water)	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	4.1	NA	NT	NT	ND	NA
2,4,7,9-tetramethyl-5-decyne-4,7-diol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C2 naphthalene isomer	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	4.6	NA	NT	NT	ND	NA
dichlorobenzoic acid isomer	ug/l			NT	NT	NT	NT	9.5	NA	NT	NT	ND	NA
C1 biphenyl or propenyl naphthalene	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
2-hydroxy-1,4-naphthalenedione	ug/l			NT	NT	NT	NT	3.7	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	4.1	NA	NT	NT	ND	NA
substituted cyclic hydrocarbon	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C8 phenol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
benzophenone	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C8 or C9 phenol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
diphenylmethanol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	NT	NT	3.2	NA	NT	NT	ND	NA
C8 or C9 phenol	ug/l			NT	NT	NT	NT	5.3	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	NT	NT	9.9	NA	NT	NT	ND	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-5		RIZ-13		RIZ-14		RIZ-18			
		GA	PAL	7/22/2003		7/22/2003		11/12/2003		7/22/2003		11/12/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
C9 phenol	ug/l			NT	NT	NT	NT	9	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	NT	NT	8.1	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	NT	NT	10	NA	NT	NT	ND	NA
C7 phenol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	NT	NT	9.1	NA	NT	NT	ND	NA
C9 phenol	ug/l			NT	NT	NT	NT	5.5	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C2 biphenyl	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
methyl silicone derivative	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
phenyl phenoxy ethanol	ug/l			NT	NT	NT	NT	28	NA	NT	NT	ND	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
phenyl ethyl ethoxy amine (MW 225)	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
phenoxy ethoxy toluene (MW 228) + RT 5.83	ug/l			NT	NT	NT	NT	9.1	NA	NT	NT	ND	NA
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	8	NA	NT	NT	ND	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
methyl silicone derivative	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	2.4	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
C2OH28O2 (natural product)	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	15	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	2	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
butylidene-bis-[(tertiary butyl)-methyl] phenol	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	1.7	NA
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	9.4	NA	NT	NT	ND	NA
silicone derivative	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown alkane	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	0.77	NA
possible silicone derivative	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
homolog of RT 10.70	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
unknown	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Metals													
Aluminum	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	57	NA
Calcium	ug/l			NT	NT	NT	NT	732	NA	NT	NT	2,200	NA
Chromium	ug/l	100	50	NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Copper	ug/l	1,300	650	NT	NT	NT	NT	13	NA	NT	NT	ND	NA
Iron	ug/l			NT	NT	NT	NT	3,410	NA	NT	NT	43	NA
Magnesium	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Manganese	ug/l			NT	NT	NT	NT	191	NA	NT	NT	10	NA
Potassium	ug/l			NT	NT	NT	NT	1,300	NA	NT	NT	ND	NA
Sodium	ug/l			NT	NT	NT	NT	60,800	NA	NT	NT	2,300	NA
Zinc	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Total and Dissolved Chromium EPA 6010B													
Chromium, Total	mg/L	0.1	0.05	0.01	0.01	ND	0.01	NT	NT	ND	0.01	NT	NT
Chromium, Dissolved	mg/L	0.1	0.05	ND	0.01	ND	0.01	NT	NT	ND	0.01	NT	NT
Water Quality Parameters													
Chloride	mg/L			NT	NT	NT	NT	42	NA	NT	NT	3	NA
Nitrate	mg/L	10	5	NT	NT	NT	NT	5	NA	NT	NT	ND	NA
Sulfate	mg/L			NT	NT	NT	NT	35	NA	NT	NT	3	NA
Ortho-phosphate	mg/L			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Sulfide	ug/l			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Methylene Blue Activated Substances	mg/L			NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Total Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Fecal Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	ND	NA	NT	NT	ND	NA
Heterotrophic Plate Count (HPC)	CFU			NT	NT	NT	NT	>5700	NA	NT	NT	28	NA
Total Petroleum Hydrocarbons EPA 8100M													
Unknown Hydrocarbon	mg/L			NT		NT				NT			

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-19		RIZ-21				MW-4A	
		GA	PAL	11/12/2003		7/22/2003		11/12/2003		7/22/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
Volatile Organic Compounds EPA 8260B											
1,1,1-Trichloroethane	ug/l	200	100	ND	NA	NT	NT	ND	NA	NT	NT
1,1-Dichloroethane	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
1,1-Dichloroethene	ug/l	7	4	ND	NA	NT	NT	ND	NA	NT	NT
1,4-Dichlorobenzene	ug/l	75	38	ND	NA	NT	NT	ND	NA	NT	NT
1,2,4-Trimethylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Acetone	ug/l			ND	NA	ND	5	ND	NA	56	5
Benzene	ug/l	5	3	ND	NA	NT	NT	ND	NA	NT	NT
Chloroform	ug/l			ND	NA	NT	NT	0.25	NA	NT	NT
cis-1,2-Dichloroethene	ug/l	70	35	ND	NA	ND	0.5	ND	NA	ND	0.5
Diethyl ether	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Diethylphthalate	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Dimethylphthalate	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Ethylbenzene	ug/l	700	350	NT	NT	ND	0.5	NT	NT	ND	0.5
Fluorene	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Isopropylbenzene	ug/l			NT	NT	ND	0.5	NT	NT	ND	0.5
Methyl tert butyl ether	ug/l	40	20	ND	NA	NT	NT	0.53	NA	NT	NT
Naphthalene	ug/l	20	10	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
n-Propylbenzene	ug/l			NT	NT	ND	0.5	NT	NT	ND	0.5
o-Xylene	ug/l	10,000	5,000	ND	NA	ND	0.5	ND	NA	ND	0.5
p/m-Xylene	ug/l	10,000	5,000	NT	NT	ND	0.5	NT	NT	ND	0.5
p-Isopropyltoluene	ug/l			NT	NT	ND	0.5	NT	NT	14	0.5
sec-Butylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene	ug/l	5	3	ND	NA	ND	0.5	ND	NA	0.68	0.5
Toluene	ug/l	1,000	500	ND	NA	ND	0.75	ND	NA	2.9	0.75
Total Xylenes	ug/l	10,000	5,000	NT	NT	ND	1	NT	NT	ND	1
trans-1,2-Dichloroethene	ug/l	100	50	ND	NA	ND	0.75	ND	NA	ND	0.75
Trichloroethene	ug/l	5	3	ND	NA	ND	0.5	ND	NA	ND	0.5
Vinyl chloride	ug/l	2	1	ND	NA	ND	1	ND	NA	ND	1
Tentatively Identified Volatile Organic Compounds											
Fluorotrimethyl silane	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Dimethyl sulfide	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Isopropanol or ethoxy propane	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Methoxytrimethyl silane	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Trimethyl silanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Pyridine	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown Chlorinated compound	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown oxygenated compound	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Silicone	ug/l			ND	NA	NT	NT	0.25	NA	NT	NT
Unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
1H-Benzotriazole	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C7-, C8-, or C9-alcohol and/or ether	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C6H14O	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C4-benzene isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Isomer of RT 19.0	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C3-benzene isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown oxygenated compound	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C4-benzene isomer + indan	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Methyl indan isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown HC + silicone1	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Dimethyl indan isomer1	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown HC + silicone2	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C4-benzene isomer + methyl indan isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
3-methyl-substituted 2-ketone	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C5-benzene + Dimethyl indan isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Dimethyl indan isomer2	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown HC + silicone3	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown HC + silicone4	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Unknown alkane	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C5-benzene + methyl tetrahydronaphthalene isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Homolog of RT 21.5	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Dimethyl indan isomer3	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Dimethyl indan isomer4	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C5-benzene isomer + dimethyl indan isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Methyl tetrahydronaphthalene isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
SEMI-VOLATILE ORGANICS											
ACID FRACTION:											
2,4,5-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4,6-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dimethylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3&4-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4,6-Dinitro-2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloro-3-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzoic Acid	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pentachlorophenol	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Phenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-19		RIZ-21				MW-4A	
		GA	PAL	11/12/2003		7/22/2003		11/12/2003		7/22/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION:											
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	ND	NA	ND	NA	ND	NA	ND	NA
1,2-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,3-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,6-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chloronaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylnaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3,3'-Dichlorobenzidine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Bromophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chlorophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Pyrene	ug/L (ppb)	0.2	0.1	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [b] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [g,h,i] Perylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [k] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzyl Alcohol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)Methane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroisopropyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)Phthalate	ug/L (ppb)	6	3	ND	NA	ND	NA	ND	NA	ND	NA
Butylbenzylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Carbazole	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Chrysene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzo [a,h] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzofuran	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Diethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dimethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Butylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Octylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluorene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobenzene	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobutadiene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorocyclopentadiene	ug/L (ppb)	50	25	ND	NA	ND	NA	ND	NA	ND	NA
Hexachloroethane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Indeno [1,2,3-cd] Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Isophorone	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Naphthalene	ug/L (ppb)	20	10	ND	NA	ND	NA	ND	NA	ND	NA
Nitrobenzene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodimethylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodi-n-Propylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodiphenylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Phenanthrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Tentatively Identified Semi-Volatile Organic Compounds											
C4-benzene isomer + methyl indane isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
2-cyclopentylcyclopentanone	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
phthalic anhydride (unstable in water)	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
2,4,7,9-tetramethyl-5-decyne-4,7-diol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C2 naphthalene isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
dichlorobenzoic acid isomer	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C1 biphenyl or propenyl naphthalene	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
2-hydroxy-1,4-naphthalenedione	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
substituted cyclic hydrocarbon	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C8 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
benzophenone	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C8 or C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
diphenylmethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C8 or C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		RIZ-19		RIZ-21				MW-4A	
		GA	PAL	11/12/2003		7/22/2003		11/12/2003		7/22/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C7 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C9 phenol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C2 biphenyl	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
methyl silicone derivative	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
phenyl phenoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
phenyl ethyl ethoxy amine (MW 225)	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
phenoxy ethoxy toluene (MW 228) + RT 5.83	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
alkyl ethoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
methyl silicone derivative	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
silicone derivative	ug/l			0.28	NA	NT	NT	ND	NA	NT	NT
propoxy ethoxy compound	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
C2OH28O2 (natural product)	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
alkyl ethoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
silicone derivative	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
propoxy ethoxy compound	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
silicone derivative	ug/l			0.52	NA	NT	NT	ND	NA	NT	NT
butylidene-bis-[(tertiary butyl)-methyl] phenol	ug/l			1	NA	NT	NT	0.99	NA	NT	NT
alkyl ethoxy ethanol	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
silicone derivative	ug/l			0.7	NA	NT	NT	ND	NA	NT	NT
unknown alkane	ug/l			ND	NA	NT	NT	0.7	NA	NT	NT
possible silicone derivative	ug/l			1.9	NA	NT	NT	1.3	NA	NT	NT
homolog of RT 10.70	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
unknown	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Metals											
Aluminum	ug/l			ND	NA	NT	NT	33	NA	NT	NT
Calcium	ug/l			1,310	NA	NT	NT	6,080	NA	NT	NT
Chromium	ug/l	100	50	ND	NA	NT	NT	ND	NA	NT	NT
Copper	ug/l	1,300	650	ND	NA	NT	NT	ND	NA	NT	NT
Iron	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Magnesium	ug/l			ND	NA	NT	NT	1,410	NA	NT	NT
Manganese	ug/l			8	NA	NT	NT	9	NA	NT	NT
Potassium	ug/l			ND	NA	NT	NT	1,440	NA	NT	NT
Sodium	ug/l			2,850	NA	NT	NT	10,800	NA	NT	NT
Zinc	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Total and Dissolved Chromium EPA 6010B											
Chromium, Total	mg/L	0.1	0.05	NT	NT	ND	0.01	NT	NT	0.08	0.01
Chromium, Dissolved	mg/L	0.1	0.05	NT	NT	ND	0.01	NT	NT	0.07	0.01
Water Quality Parameters											
Chloride	mg/L			4	NA	NT	NT	17	NA	NT	NT
Nitrate	mg/L	10	5	1	NA	NT	NT	3	NA	NT	NT
Sulfate	mg/L			3	NA	NT	NT	11	NA	NT	NT
Ortho-phosphate	mg/L			ND	NA	NT	NT	ND	NA	NT	NT
Sulfide	ug/l			ND	NA	NT	NT	ND	NA	NT	NT
Methylene Blue Activated Substances	mg/L			ND	NA	NT	NT	ND	NA	NT	NT
Total Coliform	col/100 ml	ND	NA	ND	NA	NT	NT	ND	NA	NT	NT
Fecal Coliform	col/100 ml	ND	NA	ND	NA	NT	NT	ND	NA	NT	NT
Heterotrophic Plate Count (HPC)	CFU			7	NA	NT	NT	125	NA	NT	NT
Total Petroleum Hydrocarbons EPA 8100M											
Unknown Hydrocarbon	mg/L					NT				NT	

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		MW-5A		CB-1		CB-2		CB-3	
		GA	PAL	7/22/2003		12/15/2003		12/15/2003		12/16/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
Volatile Organic Compounds EPA 8260B											
1,1,1-Trichloroethane	ug/l	200	100	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethene	ug/l	7	4	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene	ug/l	75	38	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	ug/l			NT	NT	72	25	ND	2.5	ND	2.5
Acetone	ug/l			ND	5	ND	50	ND	5	ND	5
Benzene	ug/l	5	3	NT	NT	NT	NT	NT	NT	NT	NT
Chloroform	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethene	ug/l	70	35	ND	0.5	460	5	22	0.5	ND	0.5
Diethyl ether	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Diethylphthalate	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethylphthalate	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Ethylbenzene	ug/l	700	350	ND	0.5	NT	NT	NT	NT	NT	NT
Fluorene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Isopropylbenzene	ug/l			ND	0.5	NT	NT	NT	NT	NT	NT
Methyl tert butyl ether	ug/l	40	20	NT	NT	ND	10	ND	<1.0	ND	1
Naphthalene	ug/l	20	10	NT	NT	30	25	ND	<2.5	ND	2.5
n-Butylbenzene	ug/l			NT	NT	22	5	ND	<0.50	ND	0.5
n-Propylbenzene	ug/l			ND	0.5	5.4	5	ND	<0.50	ND	0.5
o-Xylene	ug/l	10,000	5,000	ND	0.5	8.4	5	ND	<0.50	ND	0.5
p/m-Xylene	ug/l	10,000	5,000	ND	0.5	5.3	5	ND	<0.50	ND	0.5
p-Isopropyltoluene	ug/l			ND	0.5	10	5	ND	<0.50	ND	0.5
sec-Butylbenzene	ug/l			NT	NT	5.4	5	ND	<0.50	ND	0.5
Tetrachloroethene	ug/l	5	3	ND	0.5	110	5	3.1	0.5	ND	0.5
Toluene	ug/l	1,000	500	ND	0.75	ND	7.5	ND	<0.75	ND	0.75
Total Xylenes	ug/l	10,000	5,000	ND	1	13.7	10	ND	<1.0	ND	1
trans-1,2-Dichloroethene	ug/l	100	50	ND	0.75	ND	7.5	ND	<0.75	ND	0.75
Trichloroethene	ug/l	5	3	ND	0.5	44	5	2.5	0.5	ND	0.5
Vinyl chloride	ug/l	2	1	ND	1	260	10	10	1	ND	1
Tentatively Identified Volatile Organic Compounds											
Fluorotrimethyl silane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl sulfide	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Isopropanol or ethoxy propane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methoxytrimethyl silane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Trimethyl silanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Pyridine	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown Chlorinated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Silicone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
1H-Benzotriazole	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C7-,C8-,orC9-alcohol and/or ether	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C6H14O	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Isomer of RT 19.0	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C3-benzene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer + indan	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone1	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer1	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone2	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer + methyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
3-methyl-substituted 2-ketone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene + Dimethyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer2	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone3	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone4	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown alkane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene + methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Homolog of RT 21.5	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer3	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer4	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene isomer + dimethyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
SEMI-VOLATILE ORGANICS											
ACID FRACTION:											
2,4,5-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4,6-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dimethylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3&4-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4,6-Dinitro-2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloro-3-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzoic Acid	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pentachlorophenol	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Phenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		MW-5A		CB-1		CB-2		CB-3	
		GA	PAL	7/22/2003		12/15/2003		12/15/2003		12/16/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION:											
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	ND	NA	ND	NA	ND	NA	ND	NA
1,2-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,3-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,6-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chloronaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylnaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3,3'-Dichlorobenzidine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Bromophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chlorophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Pyrene	ug/L (ppb)	0.2	0.1	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [b] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [g,h,i] Perylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [k] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzyl Alcohol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)Methane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroisopropyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)Phthalate	ug/L (ppb)	6	3	ND	NA	ND	NA	ND	NA	ND	NA
Butylbenzylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Carbazole	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Chrysene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzo [a,h] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzofuran	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Diethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dimethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Butylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Octylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluorene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobenzene	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobutadiene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorocyclopentadiene	ug/L (ppb)	50	25	ND	NA	ND	NA	ND	NA	ND	NA
Hexachloroethane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Indeno [1,2,3-cd] Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Isophorone	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Naphthalene	ug/L (ppb)	20	10	ND	NA	ND	NA	ND	NA	ND	NA
Nitrobenzene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodimethylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodi-n-Propylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodiphenylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Phenanthrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Tentatively Identified Semi-Volatile Organic Compounds											
C4-benzene isomer + methyl indane isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
2-cyclopentylcyclopentanone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phthalic anhydride (unstable in water)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
2,4,7,9-tetramethyl-5-decyne-4,7-diol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C2 naphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
dichlorobenzoic acid isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C1 biphenyl or properylnaphthalene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
2-hydroxy-1,4-naphthalenedione	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
substituted cyclic hydrocarbon	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C8 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
benzophenone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C8 or C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
diphenylmethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C8 or C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		MW-5A		CB-1		CB-2		CB-3	
		GA	PAL	7/22/2003		12/15/2003		12/15/2003		12/16/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C7 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C2 biphenyl	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
methyl silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phenyl phenoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phenyl ethyl ethoxy amine (MW 225)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phenoxy ethoxy toluene (MW 228) + RT 5.83	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
methyl silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C2OH28O2 (natural product)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
butylidene-bis-[(tertiary butyl)-methyl] phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown alkane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
possible silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
homolog of RT 10.70	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Metals											
Aluminum	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Calcium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Chromium	ug/l	100	50	NT	NT	NT	NT	NT	NT	NT	NT
Copper	ug/l	1,300	650	NT	NT	NT	NT	NT	NT	NT	NT
Iron	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Magnesium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Manganese	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Potassium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Sodium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Zinc	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Total and Dissolved Chromium EPA 6010B											
Chromium, Total	mg/L	0.1	0.05	ND	0.01	19	0.01	0.78	0.01	2.6	0.01
Chromium, Dissolved	mg/L	0.1	0.05	ND	0.01	0.06	0.01	ND	0.01	ND	0.01
Water Quality Parameters											
Chloride	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Nitrate	mg/L	10	5	NT	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Ortho-phosphate	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Sulfide	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methylene Blue Activated Substances	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Total Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	NT	NT	NT	NT
Fecal Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	NT	NT	NT	NT
Heterotrophic Plate Count (HPC)	CFU			NT	NT	NT	NT	NT	NT	NT	NT
Total Petroleum Hydrocarbons EPA 8100M											
Unknown Hydrocarbon	mg/L			NT		NT		NT		NT	

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		CB-4		CB-5		CB-6		CB-7	
		GA	PAL	12/15/2003		12/16/2003		12/16/2003		12/15/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
Volatile Organic Compounds EPA 8260B											
1,1,1-Trichloroethane	ug/l	200	100	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethene	ug/l	7	4	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene	ug/l	75	38	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	ug/l			ND	2.5	ND	2.5	ND	2.5	ND	5
Acetone	ug/l			8.4	5	ND	5	ND	5	ND	10
Benzene	ug/l	5	3	NT	NT	NT	NT	NT	NT	NT	NT
Chloroform	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethene	ug/l	70	35	50	0.5	22	0.5	14	0.5	ND	1
Diethyl ether	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Diethylphthalate	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethylphthalate	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Ethylbenzene	ug/l	700	350	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Isopropylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methyl tert butyl ether	ug/l	40	20	ND	1	ND	1	ND	1	ND	2
Naphthalene	ug/l	20	10	ND	2.5	ND	2.5	ND	2.5	ND	5
n-Butylbenzene	ug/l			ND	0.5	ND	0.5	ND	0.5	ND	1
n-Propylbenzene	ug/l			ND	0.5	ND	0.5	ND	0.5	ND	1
o-Xylene	ug/l	10,000	5,000	ND	0.5	ND	0.5	ND	0.5	ND	1
p/m-Xylene	ug/l	10,000	5,000	ND	0.5	ND	0.5	ND	0.5	ND	1
p-Isopropyltoluene	ug/l			ND	0.5	ND	0.5	ND	0.5	ND	1
sec-Butylbenzene	ug/l			ND	0.5	ND	0.5	ND	0.5	ND	1
Tetrachloroethene	ug/l	5	3	12	0.5	5.3	0.5	3.8	0.5	100	1
Toluene	ug/l	1,000	500	ND	0.75	ND	0.75	ND	0.75	ND	1.5
Total Xylenes	ug/l	10,000	5,000	ND	1	ND	1	ND	1	ND	2
trans-1,2-Dichloroethene	ug/l	100	50	1.5	0.75	ND	0.75	ND	0.75	ND	1.5
Trichloroethene	ug/l	5	3	1.4	0.5	2.0	0.5	1.2	0.5	2.1	1
Vinyl chloride	ug/l	2	1	28	1	ND	1	1.4	1	ND	2
Tentatively Identified Volatile Organic Compounds											
Fluorotrimethyl silane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl sulfide	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Isopropanol or ethoxy propane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methoxytrimethyl silane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Trimethyl silanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Pyridine	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown Chlorinated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Silicone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
1H-Benzotriazole	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C7-, C8-, or C9-alcohol and/or ether	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C6H14O	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Isomer of RT 19.0	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C3-benzene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer + indan	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone1	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer1	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone2	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer + methyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
3-methyl-substituted 2-ketone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene + Dimethyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer2	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone3	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone4	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Unknown alkane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene + methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Homolog of RT 21.5	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer3	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer4	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene isomer + dimethyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
SEMI-VOLATILE ORGANICS											
ACID FRACTION:											
2,4,5-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4,6-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dimethylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3&4-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4,6-Dinitro-2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloro-3-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzoic Acid	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pentachlorophenol	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Phenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		CB-4		CB-5		CB-6		CB-7	
		GA	PAL	12/15/2003		12/16/2003		12/16/2003		12/15/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION:											
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	ND	NA	ND	NA	ND	NA	ND	NA
1,2-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,3-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2,6-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Chloronaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylnaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3,3'-Dichlorobenzidine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
3-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Bromophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Chlorophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Pyrene	ug/L (ppb)	0.2	0.1	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [b] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [g,h,i] Perylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [k] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Benzyl Alcohol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)Methane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroisopropyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)Phthalate	ug/L (ppb)	6	3	ND	NA	ND	NA	ND	NA	ND	NA
Butylbenzylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Carbazole	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Chrysene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzo [a,h] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzofuran	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Diethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Dimethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Butylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Octylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Fluorene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobenzene	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobutadiene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorocyclopentadiene	ug/L (ppb)	50	25	ND	NA	ND	NA	ND	NA	ND	NA
Hexachloroethane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Indeno [1,2,3-cd] Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Isophorone	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Naphthalene	ug/L (ppb)	20	10	ND	NA	ND	NA	ND	NA	ND	NA
Nitrobenzene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodimethylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodi-n-Propylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodiphenylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Phenanthrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA
Tentatively Identified Semi-Volatile Organic Compounds											
C4-benzene isomer + methyl indane isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
2-cyclopentylcyclopentanone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phthalic anhydride (unstable in water)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
2,4,7,9-tetramethyl-5-decyne-4,7-diol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C2 naphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
dichlorobenzoic acid isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C1 biphenyl or propenyl naphthalene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
2-hydroxy-1,4-naphthalenedione	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
substituted cyclic hydrocarbon	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C8 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
benzophenone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C8 or C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
diphenylmethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C8 or C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		CB-4		CB-5		CB-6		CB-7	
		GA	PAL	12/15/2003		12/16/2003		12/16/2003		12/15/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C7 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C2 biphenyl	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
methyl silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phenyl phenoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phenyl ethyl ethoxy amine (MW 225)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
phenoxy ethoxy toluene (MW 228) + RT 5.83	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
methyl silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
C2OH28O2 (natural product)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
butylidene-bis-[(tertiary butyl)-methyl] phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown alkane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
possible silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
homolog of RT 10.70	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Metals											
Aluminum	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Calcium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Chromium	ug/l	100	50	NT	NT	NT	NT	NT	NT	NT	NT
Copper	ug/l	1,300	650	NT	NT	NT	NT	NT	NT	NT	NT
Iron	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Magnesium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Manganese	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Potassium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Sodium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Zinc	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Total and Dissolved Chromium EPA 6010B											
Chromium, Total	mg/L	0.1	0.05	0.8	0.01	0.9	0.01	0.68	0.01	0.54	0.01
Chromium, Dissolved	mg/L	0.1	0.05	ND	0.01	ND	0.01	ND	0.01	ND	0.01
Water Quality Parameters											
Chloride	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Nitrate	mg/L	10	5	NT	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Ortho-phosphate	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Sulfide	ug/l			NT	NT	NT	NT	NT	NT	NT	NT
Methylene Blue Activated Substances	mg/L			NT	NT	NT	NT	NT	NT	NT	NT
Total Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	NT	NT	NT	NT
Fecal Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	NT	NT	NT	NT
Heterotrophic Plate Count (HPC)	CFU			NT	NT	NT	NT	NT	NT	NT	NT
Total Petroleum Hydrocarbons EPA 8100M											
Unknown Hydrocarbon	mg/L			NT		NT		NT		NT	

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		CB-8		CB-9		CB-10		CB-11		CB-12	
		GA	PAL	12/15/2003		12/15/2003		12/16/2003		12/16/2003		12/16/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
Volatile Organic Compounds EPA 8260B													
1,1,1-Trichloroethane	ug/l	200	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethene	ug/l	7	4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene	ug/l	75	38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	ug/l			ND	2.5	ND	5	ND	2.5	ND	2.5	ND	2.5
Acetone	ug/l			ND	5	ND	10	ND	5	ND	5	ND	5
Benzene	ug/l	5	3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chloroform	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethene	ug/l	70	35	ND	0.5	19	1	ND	0.5	ND	0.5	ND	0.5
Diethyl ether	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Diethylphthalate	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dimethylphthalate	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethylbenzene	ug/l	700	350	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Isopropylbenzene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methyl tert butyl ether	ug/l	40	20	1.6	1.6	5.1	1.5	ND	1	1.4	1	ND	1
Naphthalene	ug/l	20	10	ND	2.5	ND	5	ND	2.5	ND	2.5	ND	2.5
n-Butylbenzene	ug/l			ND	0.5	ND	1	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	ug/l			ND	0.5	ND	1	ND	0.5	ND	0.5	ND	0.5
o-Xylene	ug/l	10,000	5,000	ND	<0.50	ND	1	ND	0.5	ND	0.5	ND	0.5
p/m-Xylene	ug/l	10,000	5,000	ND	<0.50	ND	1	ND	0.5	ND	0.5	ND	0.5
p-Isopropyltoluene	ug/l			ND	0.5	ND	1	ND	0.5	ND	0.5	9.9	0.5
sec-Butylbenzene	ug/l			ND	0.5	ND	1	ND	0.5	ND	0.5	ND	0.5
Tetrachloroethene	ug/l			0.67	0.5	90	1	ND	0.5	ND	0.5	ND	0.5
Toluene	ug/l	1,000	500	ND	0.75	ND	1.5	ND	0.75	ND	0.75	4.9	0.75
Total Xylenes	ug/l	10,000	5,000	ND	1	ND	2	ND	1	ND	1	ND	1
trans-1,2-Dichloroethene	ug/l	100	50	ND	0.75	ND	1.5	ND	0.75	ND	0.75	ND	0.75
Trichloroethene	ug/l	5	3	ND	0.5	8.4	1	ND	0.5	ND	0.5	ND	0.5
Vinyl chloride	ug/l	2	1	28	1	3.2	2	ND	1	ND	1	ND	1
Tentatively Identified Volatile Organic Compounds													
Fluorotrimethyl silane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl sulfide	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Isopropanol or ethoxy propane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methoxytrimethyl silane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Trimethyl silanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyridine	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown Chlorinated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Silicone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1H-Benzotriazole	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C7-,C8-,orC9-alcohol and/or ether	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C6H14O	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Isomer of RT 19.0	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C3-benzene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown oxygenated compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer + indan	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone1	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer1	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone2	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C4-benzene isomer + methyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
3-methyl-substituted 2-ketone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene + Dimethyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer2	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone3	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown HC + silicone4	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Unknown alkane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene + methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Homolog of RT 21.5	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer3	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dimethyl indan isomer4	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C5-benzene isomer + dimethyl indan isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methyl tetrahydronaphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SEMI-VOLATILE ORGANICS													
ACID FRACTION:													
2,4,5-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4,6-Trichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dichlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dimethylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Chlorophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
3&4-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4,6-Dinitro-2-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloro-3-Methylphenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitrophenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzoic Acid	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Pentachlorophenol	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Phenol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		CB-8		CB-9		CB-10		CB-11		CB-12	
		GA	PAL	12/15/2003		12/15/2003		12/16/2003		12/16/2003		12/16/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
BASE-NEUTRAL FRACTION:													
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
1,2-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
1,3-Dichlorobenzene	ug/L (ppb)	600	300	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,4-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2,6-Dinitrotoluene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Chloronaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Methylnaphthalene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
2-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
3,3'-Dichlorobenzidine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
3-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Bromophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Chloroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Chlorophenyl Phenyl Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
4-Nitroaniline	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Acenaphthylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [a] Pyrene	ug/L (ppb)	0.2	0.1	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [b] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [g,h,i] Perylene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzo [k] Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Benzyl Alcohol	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)Methane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroethyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Chloroisopropyl)Ether	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)Phthalate	ug/L (ppb)	6	3	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Butylbenzylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Carbazole	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Chrysene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzo [a,h] Anthracene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Dibenzofuran	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Diethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Dimethylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Butylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
di-n-Octylphthalate	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Fluoranthene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Fluorene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobenzene	ug/L (ppb)	1	0.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorobutadiene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachlorocyclopentadiene	ug/L (ppb)	50	25	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Hexachloroethane	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Indeno [1,2,3-cd] Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Isophorone	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Naphthalene	ug/L (ppb)	20	10	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Nitrobenzene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodimethylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodi-n-Propylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
n-Nitrosodiphenylamine	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Phenanthrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Pyrene	ug/L (ppb)	---	---	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA
Tentatively Identified Semi-Volatile Organic Compounds													
C4-benzene isomer + methyl indane isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-cyclopentylcyclopentanone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
phthalic anhydride (unstable in water)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4,7,9-tetramethyl-5-decyne-4,7-diol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C2 naphthalene isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
dichlorobenzoic acid isomer	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C1 biphenyl or propemyl naphthalene	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-hydroxy-1,4-naphthalenedione	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
substituted cyclic hydrocarbon	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C8 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
benzophenone	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C8 or C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
diphenylmethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C8 or C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

TABLE 14

SUMMARY OF CLAYTON'S GROUNDWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM		CB-8		CB-9		CB-10		CB-11		CB-12	
		GA	PAL	12/15/2003		12/15/2003		12/16/2003		12/16/2003		12/16/2003	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C7 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C9 phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C2 biphenyl	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
methyl silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
phenyl phenoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
phenyl ethyl ethoxy amine (MW 225)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
phenoxy ethoxy toluene (MW 228) + RT 5.83	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
methyl silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alkyl phenoxy ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C2OH28O2 (natural product)	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
propoxy ethoxy compound	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
butylidene-bis-[(tertiary butyl)-methyl] phenol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
alkyl ethoxy ethanol	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown alkane	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
possible silicone derivative	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
homolog of RT 10.70	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
unknown	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Metals													
Aluminum	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Calcium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	ug/l	100	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Copper	ug/l	1,300	650	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Iron	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Manganese	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Potassium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Sodium	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Zinc	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total and Dissolved Chromium EPA 6010B													
Chromium, Total	mg/L	0.1	0.05	0.41	0.01	0.33	0.01	0.25	0.01	0.34	0.01	0.39	0.01
Chromium, Dissolved	mg/L	0.1	0.05	ND	0.01	ND	0.01	ND	0.01	ND	0.01	0.01	0.01
Water Quality Parameters													
Chloride	mg/L			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nitrate	mg/L	10	5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/L			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ortho-phosphate	mg/L			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Sulfide	ug/l			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylene Blue Activated Substances	mg/L			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fecal Coliform	col/100 ml	ND	NA	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heterotrophic Plate Count (HPC)	CFU			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Petroleum Hydrocarbons EPA 8100M													
Unknown Hydrocarbon	mg/L			NT		NT		NT		NT		NT	

Notes:

1. Cells shaded yellow have results above the method detection limit.
2. Cells shaded orange are above RIDEM GA Groundwater Criteria.
3. Cells shaded green are above RIDEM Preventative Action Limit.

TABLE 1

SUMMARY OF PREVIOUS RESIDENTIAL WELL TESTING RESULTS BY RIDOH/RIDEM

*Charbert Facility
Richmond, Rhode Island*

Volatile Organic Compounds	RIDEM GA Criteria/ FEDERAL MCLs	18 River		16 River		14 River	
		6/10/2003	11/18/2003	6/10/2003	11/18/2003	6/10/2003	11/18/2003
Methyl Tertiary-Butyl Ether (MTBE)	40	ND	ND	ND	ND	6.8	ND
1,1,1-Trichloroethane	200	ND	ND	ND	5.3	ND	4.8
1,1-Dichloroethane	---	ND	ND	ND	0.8	ND	0.6
Tetrachloroethene (PCE)	5	ND	ND	ND	0.8	ND	0.8
Benzene	5	ND	ND	ND	1.1	ND	ND
Cis-1,2-Dichloroethene (Cis-1,2-DCE)	70	ND	ND	ND	2.7	ND	ND
Trichloroethane (TCE)	200	ND	ND	ND	0.6	ND	ND
Chloroform	---	ND	5.6	ND	ND	ND	ND
Semi-Volatile Organic Compounds		6/10/2003	11/18/2003	6/10/2003	11/18/2003	6/10/2003	11/18/2003
Di (2-ethyl hexyl) phthalate	6	ND	ND	ND	2.7	ND	ND
PCB's / Pest.		6/10/2003	11/18/2003	6/10/2003	11/18/2003	6/10/2003	11/18/2003
		ND	ND	ND	ND	ND	ND
Metals		6/10/2003	11/18/2003	6/10/2003	11/18/2003	6/10/2003	11/18/2003
Aluminum	---	0.25	NT	ND	NT	ND	NT
Antimony	6	ND	NT	ND	NT	ND	NT
Arsenic	5	ND	NT	ND	NT	ND	NT
Barium	200	0.030	NT	ND	NT	ND	NT
Beryllium	4	ND	NT	ND	NT	ND	NT
Cadium	5	ND	NT	ND	NT	ND	NT
Calcium	---	4.6	NT	4.0	NT	7.3	NT
Chromium	100	ND	NT	ND	NT	ND	NT
Cobalt	---	ND	NT	ND	NT	ND	NT
Copper	---	0.012	NT	ND	NT	0.025	NT
Iron	---	4.6	NT	8.3	NT	0.12	NT
Lead	15	ND	NT	ND	NT	0.0047	NT

Highlighted results indicate a detected parameter.

Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

TABLE 1

SUMMARY OF PREVIOUS RESIDENTIAL WELL TESTING RESULTS BY RIDOH/RIDEM

*Charbert Facility
Richmond, Rhode Island*

METALS (Cont)	RIDEM GA Criteria/ FEDERAL MCLs	18 River		16 River		14 River	
		6/10/2003	11/18/2003	6/10/2003	11/18/2003	6/10/2003	11/18/2003
Magnesium	mg/L	0.59	NT	0.86	NT	1.4	NT
Manganese	mg/L	1.2	NT	0.46	NT	ND	NT
Nickel	mg/L	ND	NT	ND	NT	ND	NT
Postassium	mg/L	ND	NT	2.3	NT	3.4	NT
Selenium	mg/L	ND	NT	ND	NT	ND	NT
Silver	mg/L	ND	NT	ND	NT	ND	NT
Sodium	mg/L	16	NT	24	NT	9.9	NT
Thallium	mg/L	ND	NT	ND	NT	ND	NT
Vanadium	mg/L	ND	NT	ND	NT	ND	NT
Zinc	mg/L	0.026	NT	ND	NT	0.64	NT
Mercury by Cold Vapor by EPA 245.2	mg/L	ND	NT	ND	NT	ND	NT
Water Quality Parameters		6/10/2003	11/18/2003	6/10/2003	11/18/2003	6/10/2003	11/18/2003
Nitrate As N	10	ND	0.45	ND	ND	ND	2.24
Sulfate	---	ND	2.39	ND	10.5	ND	21.5
Coliforms		6/10/2003	11/18/2003	6/10/2003	11/18/2003	6/10/2003	11/18/2003
Total Coliform	per 100ml	ND	Present	ND	Absent	ND	Absent
Fecal Coliform	---	ND	Absent	ND	Absent	ND	Absent

Highlighted results indicate a detected parameter.

Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

TABLE 16
SUMMARY OF RESIDENTIAL WELL TESTING RESULTS FOR 14, 16, AND 18 RIVER STREET

Charbert Phase II Site Investigation
Allon, Rhode Island

PARAMETERS	UNITS	14 River			16 River			18 River			GZA	GZA		
		RIDEM 6/10/2003	RIDEM 11/18/2003	GZA 2/11/2005	RIDEM 6/10/2003	Clayton 11/12/2003	RIDEM 11/18/2003	Richmond 8/11/2004	GZA 11/5/2004	RIDEM 11/18/2003			Clayton 11/12/2003	RIDEM 11/18/2003
Volatile Organic Compounds														
Methyl Tertiary-Butyl Ether (MTBE)	ug/L	6.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ug/L	ND	4.8	3.7	ND	ND	5.3	ND	13	ND	ND	ND	ND	ND
1,1-Dichloroethane	ug/L	ND	ND	ND	ND	0.2	ND	0.41	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ug/L	ND	0.6	0.5	ND	0.36	0.8	0.95	2.2	ND	ND	ND	ND	ND
Acetone	ug/L	ND	ND	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/L	ND	ND	ND	ND	0.98	1.1	ND	1	ND	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	ug/L	ND	ND	ND	ND	ND	1.7	ND	ND	ND	ND	0.52	ND	ND
Cis-1,2-Dichloroethene (Cis-1,2-DCE)	ug/L	ND	ND	0.73	ND	2.2	2.7	3.1	4.6	ND	ND	ND	ND	ND
Chloroform	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.6	0.4	0.96	ND
2-Chlorotoluene	ug/L	ND	ND	ND	ND	ND	ND	ND	0.53	ND	ND	ND	ND	ND
D-N-Butylphthalate	ug/L	ND	ND	ND	ND	ND	ND	4.2	ND	ND	ND	4.9	ND	ND
Tetrachloroethene (PCE)	ug/L	ND	0.8	0.53	ND	0.24	0.8	ND	2.3	ND	ND	ND	ND	ND
Trichloroethene (TCE)	ug/L	ND	ND	ND	ND	0.45	0.6	ND	0.73	ND	ND	ND	ND	ND
Tentatively Identified Compounds														
Volatile TICs	ug/L	NT	NT	ND	NT	16.35	NT	NT	1.3	ND	NT	5.93	NT	4.6
Semi-Volatile Organic Compounds														
Dl (2-ethyl hexyl) phthalate	ug/L	ND	ND	ND	ND	1.4	2.7	0.11	ND	ND	ND	0.06	ND	ND
Dimethyl phthalate	ug/L	ND	ND	ND	ND	0.53	ND	0.81	ND	ND	ND	ND	ND	ND
Tentatively Identified Compounds														
Semi-Volatile TICs	ug/L	4.2	NT	15.6	41.3	147.48	NT	NT	23	83.1	106.06	NT	328	42
PCBs / Pest.														
		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT
Methylene Blue Activated Substances														
	ug/L	NT	NT	NT	NT	0.19	NT	NT	NT	NT	NT	NT	NT	NT
Metals														
Aluminum	mg/L	ND	NT	NT	ND	ND	NT	ND	NT	0.25	ND	ND	ND	NT
Antimony	mg/L	ND	NT	NT	ND	ND	NT	ND	NT	ND	ND	ND	ND	NT
Arsenic	mg/L	?	NT	NT	ND	NT	NT	ND	NT	ND	ND	ND	ND	NT
Barium	mg/L	ND	NT	NT	ND	NT	NT	ND	NT	0.030	ND	ND	ND	NT
Beryllium	mg/L	ND	NT	NT	ND	NT	NT	ND	NT	ND	ND	ND	ND	NT
Cadmium	mg/L	ND	NT	NT	ND	NT	NT	ND	NT	ND	ND	ND	ND	NT
Calcium	mg/L	7.3	NT	NT	4.0	4.62	NT	ND	4.6	3.78	4.6	ND	ND	NT
Chromium	mg/L	0.1	NT	NT	NT	NT	NT	ND	NT	ND	ND	ND	ND	NT
Cobalt	mg/L	ND	NT	NT	ND	NT	NT	ND	NT	ND	ND	ND	ND	NT
Copper	mg/L	0.025	NT	NT	ND	NT	NT	ND	0.012	0.0031	0.012	0.025	0.025	NT
Iron (Total)	mg/L	0.12	NT	1.05	8.3	4.44	NT	2.43	4.6	0.913	4.6	0.913	3.69	NT
Iron (Ferrous)	mg/L	0.01	NT	0.01	1.48	NT	NT	1.48	NT	NT	NT	NT	0.02	NT
Lead	mg/L	0.0047	NT	NT	ND	NT	NT	ND	NT	ND	ND	ND	NT	NT

TABLE 16
SUMMARY OF RESIDENTIAL WELL TESTING RESULTS FOR 14, 16, AND 18 RIVER STREET

Charbert Phase II Site Investigation
Allon, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	14 River			16 River			18 River			GZA 2/11/2005	GZA 11/5/2004	Richmond 8/11/2004	GZA 11/5/2004	GZA 2/11/2005				
			RIDEM 6/10/2003	RIDEM 11/18/2003	GZA 11/5/2004	RIDEM 6/10/2003	Clayton 11/12/2003	RIDEM 11/18/2003	Richmond 8/11/2004	GZA 11/5/2004	RIDEM 6/10/2003						Clayton 11/12/2003	RIDEM 11/18/2003	Richmond 8/11/2004	GZA 11/5/2004
Volatile Organic Compounds																				
Magnesium	mg/L	--	1.4	NT	1.5	NT	0.86	0.846	NT	NT	NT	2	0.361	NT	0.59	0.464	NT	ND	0.88	NT
Manganese	mg/L	--	ND	NT	0.101	NT	0.46	0.972	NT	NT	NT	0.361	0.907	NT	1.2	0.531	NT	ND	0.907	NT
Nickel	mg/L	0.1	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	NT	NT	ND	ND	NT	ND	NT	NT
Posassium	mg/L	--	3.4	NT	NT	NT	2.3	1.18	NT	NT	NT	NT	NT	NT	ND	ND	NT	ND	NT	NT
Selenium	mg/L	0	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	NT	NT	ND	ND	NT	ND	NT	NT
Silver	mg/L	0.05	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	NT	NT	ND	ND	NT	ND	NT	NT
Sodium	mg/L	--	9.9	NT	NT	NT	24	24.4	NT	NT	NT	NT	NT	NT	16	10.2	NT	ND	NT	NT
Thallium	mg/L	0.002	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	NT	NT	ND	ND	NT	ND	NT	NT
Vanadium	mg/L	--	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	NT	NT	ND	ND	NT	ND	NT	NT
Zinc	mg/L	--	0.64	NT	NT	NT	ND	ND	NT	NT	NT	NT	NT	NT	0.026	0.026	NT	ND	NT	NT
Mercury by Cold Vapor by EPA.245.2	mg/L	?	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	NT	NT	ND	ND	NT	ND	NT	NT
Water Quality Parameters																				
Nitrate As N	mg/L	10	ND	2.24	2.1	NT	ND	ND	ND	ND	ND	1.1	1.1	NT	ND	0.67	0.45	ND	1	NT
pH	SU	--	NT	NT	5.7	NT	NT	NR	NR	NR	NR	6.1	6.1	NT	NT	NR	NR	NT	6.6	NT
Hardness	mg/L	--	NT	NT	25	NT	NT	NT	NT	NT	NT	28	28	NT	NT	NT	NT	NT	17	NT
Total Organic carbon	mg/L	--	NT	NT	1.2	NT	NT	NT	NT	NT	NT	4.4	4.4	NT	NT	NT	NT	NT	9	NT
Calcium	mg/L	--	NT	NT	7.4	NT	NT	NT	NT	NT	NT	8	8	NT	NT	NT	NT	NT	5.2	NT
Chloride	mg/L	--	ND	NT	NT	NT	ND	15.5	15.5	15.5	15.5	ND	ND	NT	ND	5.7	5.7	ND	5.2	NT
Sulfate	mg/L	--	ND	21.5	NT	NT	ND	7.8	7.8	10.5	10.5	NT	NT	NT	ND	3.2	2.39	ND	NT	NT
Coliforms																				
Total Coliform	mg/L	--	Absent	Absent	Absent	Absent	Absent	Present, 2	Present, 2	Absent	Absent	Absent	Absent	Absent	Absent	Present, TMTC	Present	Absent	Present	Absent
Fecal Coliform	mg/L	ND	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Present, TMTC	Absent	Absent	Absent	Absent

Notes:
1. Highlighted results indicate a detected parameter.
2. Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

TABLE 17

STATISTICS - SUMMARY OF UIC PROGRAM MONITORING

Charbert Phase II Site Investigation
Alton, Rhode Island

Location PARAMETER	GP-29 UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD (PALs)
Acetone	ug/l	2/15/2005	1	1	140	140	140	140		NA
Location PARAMETER	GP-30 UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
Acetone	ug/l	2/15/2005	1	1	54	54	54	54		NA
sec-Butylbenzene	ug/l	2/15/2005	1	1	1.1	1.1	1.1	1.1		NA
Toluene	ug/l	2/15/2005	1	1	5.9	5.9	5.9	5.9		1,000
Location PARAMETER	MW-1 UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
1,3,5-Trimethylbenzene	ug/l	6/23/1995	1	1	1.5	1.5	1.5	1.5		NA
4-Chlorotoluene	ug/l	6/23/1995	1	1	5.1	5.1	5.1	5.1		NA
Acetone	ug/l	05/25/1994-12/16/2004	40	26	20	400	94.19	86.85	100.92	NA
Carbon Disulfide	ug/l	03/27/1996-03/17/1999	40	2	5.2	18	9.67	11.6	9.05	NA
cis-1,2-Dichloroethene	ug/l	03/10/1994-09/12/2000	22	9	1	23	3.3	2.5	7.04	70
Tetrachloroethene	ug/l	05/25/1994-12/30/1998	40	3	2	5.1	2.86	2.3	1.71	5
Toluene	ug/l	03/10/1994-06/28/2004	40	25	1.38	370	1.758	14	1.81	1,000
Trichloroethene	ug/l	03/27/1996-06/12/2001	40	7	1	6.1	2.08	2.3	1.73	5
Location PARAMETER	MW-1A UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
Acetone	ug/l	3/15/2005	1	1	160	160	160	160		NA
Methyl Isobutyl Ketone	ug/l	3/15/2005	1	1	13	13	13	13		NA
Location PARAMETER	MW-2A UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
Acetone	ug/l	12/14/1995-03/15/2005	40	24	16	1000	88.84	74.1	202.15	NA
Benzene	ug/l	6/28/2004	9	1	1.3	1.3	1.3	1.3		5
Carbon Disulfide	ug/l	12/17/1998-12/16/2004	39	5	1.07	6.1	1.92	1.63	2.09	NA
cis-1,2-Dichloroethene	ug/l	12/01/1994-12/12/2000	21	4	1.2	5.4	2.18	2	1.96	70
Methyl Isobutyl Ketone	ug/l	3/15/2005	9	1	13	13	13	13		NA
p-Isopropyltoluene	ug/l	09/17/2004-03/15/2005	3	3	4	8.9	5.77	5.4	2.52	NA
Tetrachloroethene	ug/l	12/14/1995-03/18/1997	40	3	1.7	6.9	2.86	2	2.92	5
Toluene	ug/l	07/26/1994-12/09/2002	40	22	1.12	59	5.82	3.92	16.04	1,000
Trichloroethene	ug/l	03/27/1996-12/17/1998	40	3	1.7	7.1	4.02	5.4	2.76	5

TABLE 17

STATISTICS - SUMMARY OF UIC PROGRAM MONITORING

Charbert Phase II Site Investigation
Alton, Rhode Island

Location PARAMETER	MW-3 UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
1,2,4-Trimethylbenzene	ug/l	02/23/1995-06/23/1995	9	2	1.5	19	5.34	10.25	12.37	NA
1,3,5-Trimethylbenzene	ug/l	6/23/1995	9	1	7.9	7.9	7.9	7.9		NA
4-Chlorotoluene	ug/l	6/23/1995	9	1	1.4	1.4	1.4	1.4		NA
Acetone	ug/l	12/14/1995-09/09/2003	43	11	12	170	42.04	50.9	48.93	NA
cis-1,2-Dichloroethene	ug/l	06/23/1995-09/19/2001	25	6	2.2	4.3	2.91	2.95	0.76	70
p-Isopropyltoluene	ug/l	3/15/2005	3	1	1	1	1	1		NA
Tetrachloroethene	ug/l	12/30/1998-09/28/1999	43	3	1	76	4.37	1.1	43.27	5
Toluene	ug/l	09/30/1996-09/09/2002	43	7	1.1	6.1	2.09	1.8	1.76	1,000
Trichloroethene	ug/l	6/26/2000	43	1	1.1	1.1	1.1	1.1		5

Location PARAMETER	MW-4A UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
1,2,4-Trimethylbenzene	ug/l	05/25/1994-07/26/1994	7	2	1.2	1.8	1.47	1.5	0.42	NA
Benzene	ug/l	05/25/1994-06/28/2004	18	4	1	1.3	1.12	1.1	0.13	5
Carbon Disulfide	ug/l	09/09/2002-12/16/2004	17	2	1	2.43	1.56	1.72	1.01	NA
cis-1,2-Dichloroethene	ug/l	03/10/1994-12/07/2001	17	5	1	5.1	2.54	3.1	1.52	70
p-Isopropyltoluene	ug/l	09/17/2004-12/16/2004	3	2	4.4	8.8	6.22	6.6	3.11	NA
Tetrachloroethene	ug/l	12/30/1998	18	1	14	14	14	14		5
Toluene	ug/l	09/19/2001-12/16/2004	18	11	1.2	3.11	1.84	1.88	0.62	1,000
Total Xylenes	ug/l	12/1/1994	17	1	1.3	1.3	1.3	1.3		10,000
Trichloroethene	ug/l	12/01/1994-09/19/2001	18	2	1.1	1.5	1.28	1.3	0.28	5

Location PARAMETER	MW-5A UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
Acetone	ug/l	12/17/1998-06/26/2000	38	2	20	200	63.25	110	127.28	NA
Tetrachloroethene	ug/l	05/25/1994-03/27/2001	38	3	1.9	5	2.95	2.7	1.61	5

Location PARAMETER	MW-5B UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
Acetone	ug/l	3/15/2005	1	1	120	120	120	120		NA
p-Isopropyltoluene	ug/l	3/15/2005	1	1	1	1	1	1		NA
Toluene	ug/l	3/15/2005	1	1	6	6	6	6		1,000

TABLE 17

STATISTICS - SUMMARY OF UIC PROGRAM MONITORING

Charbert Phase II Site Investigation
Alton, Rhode Island

Location	MW-6	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
PARAMETER	UNITS									
1,1,1-Trichloroethane	ug/l	12/13/1995	44	1	3	3	3	3		200
1,2,4-Trimethylbenzene	ug/l	02/23/1995-06/23/1995	10	2	1.7	2.2	1.93	1.95	0.35	NA
Acetone	ug/l	12/19/1997-09/17/2004	43	7	10	150	27.85	22.5	46.51	NA
Benzene	ug/l	6/28/2004	10	1	1	1	1	1		5
cis-1,2-Dichloroethene	ug/l	02/23/1995-12/07/2001	27	7	1	7.9	3.45	4.5	2.54	70
Toluene	ug/l	12/13/1995-09/09/2003	44	10	1.1	31	2.7	1.85	9.16	1,000
Trichloroethene	ug/l	6/26/2000	44	1	1.1	1.1	1.1	1.1		5
Pump House										
PARAMETER	UNITS	PERIOD OF DATA	N	# OF DET.	MIN.	MAX	MEAN	MEDIAN	SD	STANDARD
1,1,1-Trichloroethane	ug/l	8/9/2004	9	1	0.42	0.42	0.42	0.42		200
1,1-Dichloroethane	ug/l	8/9/2004	2	1	0.12	0.12	0.12	0.12		NA
1,1-Dichloroethene	ug/l	8/9/2004	9	1	0.13	0.13	0.13	0.13		7
1,2,4-Trimethylbenzene	ug/l	07/24/1994-12/02/1994	4	2	3.1	4.1	3.57	3.6	0.71	NA
1,3,5-Trimethylbenzene	ug/l	7/24/1994	4	1	3.2	3.2	3.2	3.2		NA
4-Chlorotoluene	ug/l	07/24/1994-12/02/1994	4	2	2.1	2.5	2.29	2.3	0.28	NA
Acetone	ug/l	02/18/1994-12/17/2004	44	15	24	1900	174.5	266	462.84	NA
Barium	ug/l	02/17/1994-12/17/2004	44	21	0.03	320	28.97	40	63.73	2,000
Benzene	ug/l	6/23/2004	9	1	1.4	1.4	1.4	1.4		5
Chloroform	ug/l	8/9/2004	9	1	0.24	0.24	0.24	0.24		NA
Chromium	ug/l	02/17/1994-12/17/2004	44	33	0.25	1100	144.93	200	701.65	100
cis-1,2-Dichloroethene	ug/l	02/18/1994-06/23/2004	24	10	1	10	2.77	1.81	3.97	70
Tetrachloroethene	ug/l	02/18/1994-06/23/2004	44	22	1.5	84	15.29	16.5	25.73	5
Toluene	ug/l	6/17/2003	9	1	1.4	1.4	1.4	1.4		1,000
TPH	ug/l	02/17/1994-12/17/2004	44	31	14.6	232000	6126.27	6550	55837.07	NA
Trichloroethene	ug/l	02/18/1994-03/12/2002	43	7	1.2	5.4	2.03	1.6	1.52	5

Notes:

1. Cells shaded yellow and bold have results above the method detection limit.

TABLE 18

SUMMARY OF WASTEWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM STANDARDS		Lagoon 1 SHEEN		Lagoon 1 TOP		Lagoon 1 BOTTOM		Lagoon 2 TOP		Lagoon 2 BOTTOM		Pump House	
		GA	PALs	8/6/2004		2/15/2005		08/06/2004		2/15/2005		08/06/2004		2/16/2005	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS															
1,1,1,2-Tetrachloroethane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,1-Trichloroethane	ug/L (ppb)	200	100	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2-Trichloroethane	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloroethane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloroethene	ug/L (ppb)	7	3.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloropropene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,3-Trichlorobenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,3-Trichloropropane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,4-Trimethylbenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromo-3-Chloropropane	ug/L (ppb)	0.2	0.1	NT	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0
1,2-Dibromoethane (EDB)	ug/L (ppb)	0.05	0.025	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
1,2-Dichlorobenzene	ug/L (ppb)	600	300	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloroethane	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloropropane	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3,5-Trimethylbenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3-Dichlorobenzene	ug/L (ppb)	600	300	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3-Dichloropropane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2,2-Dichloropropane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Butanone	ug/L (ppb)	---	---	NT	25	<	25	<	25	<	25	<	25	<	25
2-Chlorotoluene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Hexanone	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
4-Chlorotoluene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
4-Methyl-2-Pentanone	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Acetone	ug/L (ppb)	---	---	NT	25	<	25	<	25	<	25	<	25	<	25
Benzene	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromobenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromochloromethane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromodichloromethane	ug/L (ppb)	100	50	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromoform	ug/L (ppb)	100	50	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Bromomethane	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Carbon Tetrachloride	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Chlorobenzene	ug/L (ppb)	100	50	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Chloroethane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Chloroform	ug/L (ppb)	100	50	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Chloromethane	ug/L (ppb)	5	2.5	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
cis-1,2-Dichloroethene	ug/L (ppb)	70	35	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
cis-1,3-Dichloropropene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromochloromethane	ug/L (ppb)	100	50	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromomethane	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dichlorodifluoromethane	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Dichloromethane	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Diethylether	ug/L (ppb)	---	---	NT	5.0	<	5.0	<	5.0	<	5.0	<	5.0	<	5.0
Ethylbenzene	ug/L (ppb)	700	350	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Hexachlorobutadiene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Isopropylbenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
m&p-Xylene	ug/L (ppb)	10000	5000	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Methyl-Tert-Butyl-Ether	ug/L (ppb)	40	20	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Naphthalene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
n-Butylbenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
N-Propylbenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
o-Xylene	ug/L (ppb)	10000	5000	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
p-Isopropyltoluene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
sec-Butylbenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Styrene	ug/L (ppb)	100	50	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
tert-Butylbenzene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrachloroethene	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrahydrofuran	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Toluene	ug/L (ppb)	1000	500	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,2-Dichloroethene	ug/L (ppb)	100	50	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,3-Dichloropropene	ug/L (ppb)	---	---	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Trichloroethene	ug/L (ppb)	5	2.5	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Trichlorofluoromethane	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Vinyl Chloride	ug/L (ppb)	2	1	NT	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
SEMI-VOLATILE ORGANICS															
ACID FRACTION:															
2,4,5-Trichlorophenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2,4,6-Trichlorophenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2,4-Dichlorophenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2,4-Dimethylphenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2,4-Dinitrophenol	ug/L (ppb)	---	---	NT	100	<	100	<	100	<	100	<	100	<	100

TABLE 18

SUMMARY OF WASTEWATER ANALYTICAL RESULTS

Charbet Phase II Site Investigation
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM STANDARDS		Lagoon 1 SHEEN		Lagoon 1 TOP		Lagoon 1 BOTTOM		Lagoon 2 TOP		Lagoon 2 BOTTOM		Pump House	
		GA	PALs	8/6/2004		2/15/2005		08/06/2004		2/15/2005		08/06/2004		2/16/2005	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
2-Chlorophenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2-Methylphenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2-Nitrophenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
3&4-Methylphenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
4,6-Dinitro-2-Methylphenol	ug/L (ppb)	---	---	NT	50	<	50	<	50	<	50	<	50	<	50
4-Chloro-3-Methylphenol	ug/L (ppb)	---	---	NT	20	<	20	<	20	<	20	<	20	<	20
4-Nitrophenol	ug/L (ppb)	---	---	NT	50	<	50	<	50	<	50	<	50	<	50
Benzoic Acid	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Pentachlorophenol	ug/L (ppb)	1	0.5	NT	50	<	50	<	50	<	50	<	50	<	50
Phenol	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
BASE-NEUTRAL FRACTION:															
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	NT	10	<	10	<	10	<	10	<	10	<	10
1,2-Dichlorobenzene	ug/L (ppb)	600	300	NT	10	13	10	<	10	<	10	<	10	<	10
1,3-Dichlorobenzene	ug/L (ppb)	600	300	NT	10	<	10	<	10	<	10	<	10	<	10
1,4-Dichlorobenzene	ug/L (ppb)	75	37.5	NT	10	<	10	<	10	<	10	<	10	<	10
2,4-Dinitrotoluene	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2,6-Dinitrotoluene	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2-Chloronaphthalene	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
2-Methylnaphthalene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
2-Nitroaniline	ug/L (ppb)	---	---	NT	50	<	50	<	50	<	50	<	50	<	50
3,3'-Dichlorobenzidine	ug/L (ppb)	---	---	NT	20	<	20	<	20	<	20	<	20	<	20
3-Nitroaniline	ug/L (ppb)	---	---	NT	50	<	50	<	50	<	50	<	50	<	50
4-Bromophenyl Phenyl Ether	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
4-Chloroaniline	ug/L (ppb)	---	---	NT	20	<	20	<	20	<	20	<	20	<	20
4-Chlorophenyl Phenyl Ether	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
4-Nitroaniline	ug/L (ppb)	---	---	NT	20	<	20	<	20	<	20	<	20	<	20
Acenaphthene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Acenaphthylene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Anthracene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Benzo [a] Anthracene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Benzo [a] Pyrene	ug/L (ppb)	0.2	0.1	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Benzo [b] Fluoranthene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Benzo [g,h,i] Perylene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Benzo [k] Fluoranthene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Benzyl Alcohol	ug/L (ppb)	---	---	NT	20	<	20	<	20	<	20	<	20	<	20
bis(2-Chloroethoxy)Methane	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
bis(2-Chloroethyl)Ether	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
bis(2-Chloroisopropyl)Ether	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
bis(2-Ethylhexyl)Phthalate	ug/L (ppb)	6	3	NT	10	<	10	<	10	<	10	10	10	13	10
Butylbenzylphthalate	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Carbazole	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Chrysene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Dibenzo [a,h] Anthracene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Dibenzofuran	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Diethylphthalate	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Dimethylphthalate	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
di-n-Butylphthalate	ug/L (ppb)	---	---	NT	15	<	15	<	15	<	15	<	15	<	15
di-n-Octylphthalate	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Fluoranthene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Fluorene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Hexachlorobenzene	ug/L (ppb)	1	0.5	NT	10	<	10	<	10	<	10	<	10	<	10
Hexachlorobutadiene	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Hexachlorocyclopentadiene	ug/L (ppb)	50	25	NT	50	<	50	<	50	<	50	<	50	<	50
Hexachloroethane	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Indeno [1,2,3-cd] Pyrene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Isophorone	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Naphthalene	ug/L (ppb)	20	10	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Nitrobenzene	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
n-Nitrosodimethylamine	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
n-Nitrosodi-n-Propylamine	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
n-Nitrosodiphenylamine	ug/L (ppb)	---	---	NT	10	<	10	<	10	<	10	<	10	<	10
Phenanthrene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Pyrene	ug/L (ppb)	---	---	NT	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
TOTAL PETROLEUM HYDROCARBONS															
Hydrocarbon Content	ug/L (ppb)	---	---	12,000*	250	15,000*	250	20,000*	250	13,000*	250	15,000*	250	35,000*	250
Notes:															
* Contributions to "Hydrocarbon Content" from non-petroleum based semi-volatile compounds. This is confirmed by TICs included in EPA Method 8270 analyses.															
1. Cells shaded yellow have results above the method detection limit.															
2. The limit of 100 ppb applies to total Trihalomethanes (bromoform, bromodichloromethane, chloroform and chlorodibromomethane).															

TABLE 19

OIL PIPELINE CONFIRMATORY SAMPLES

Charbert Site Investigation
Alton, Rhode Island

ANALYSIS	UNITS	S-1		S-2		S-3		S-4		S-5	
		0.5 ft. Below Pipe 3 ft. BGS	0.5 ft. Below Pipe 5 ft. BGS	Backfill at S-2 2 ft. BGS	Backfill at S-2 4 ft. BGS	Backfill at S-2 1 ft. BGS	Backfill at S-2 4 ft. BGS	Backfill at S-2 1 ft. BGS			
TOTAL PETROLEUM HYDROCARBON	mg/kg (ppm)	170	6800	870	220	130	220	130	10	10	10
PERCENT SOLID	%	92.9	90.7	92	91.8	92.9	91.8	92.9			

RIDEM Method 1 Residential TPH Direct Exposure Criteria	mg/kg (ppm)	500	RIDEM Method 1 GA TPH Leachability Criteria	mg/kg (ppm)	500
RIDEM Method 1 Residential TPH Direct Exposure Criteria W/ Approval	mg/kg (ppm)	1000	RIDEM Method 1 GA TPH Leachability Criteria W/ Approval	mg/kg (ppm)	1000
RIDEM Method 1 Industrial/Commercial TPH Direct Exposure Criteria	mg/kg (ppm)	2500	RIDEM Method 1 GB TPH Leachability Criteria	mg/kg (ppm)	2500

Notes:

- 1. BGS means Below Ground Surface

TABLE 20
EVALUATION OF REDUCTIVE DECHLORINATION IN SOURCE AREA WELLS

Charbert Phase II Site Investigation
Alton, Rhode Island

Sampling Round	Sampling Date	Parent C/Ms (ug/l)		Total Parents (ug/l)	Daughter C/Ms (ug/l)		Total Daughters (ug/l)	Total C/Ms (ug/l)	Parent Ratio (Mass %)	Parent Ratio (Molar %)	INDICATOR PARAMETER DATA						COMMENTS
		0.005	0.002		0.005	0.002					DO (mg/l)	ORP (mV)	NITRATE (mg/l)	SULFATE (mg/l)	TOC (mg/l)	TPH (mg/l)	
GP-25	02/05	0.005	0.002	3.46E+06	0.005	0.002	3.46E+06	3.46E+06	100%	100%	0.4	-15	ND/65	0.59	0.97	0.73	Estimate From USFA Area
GP-26	02/05	0.005	0.002	8.44E+06	0.005	0.002	8.44E+06	4.42E+05	40.9%	22.0%	0.4	-15	ND/65	0.59	0.97	0.73	Estimate From USFA Area
GP-27A	02/05	0.005	0.002	1.44E+06	0.005	0.002	1.44E+06	1.92E+05	11.0%	6.3%	0.4	-15	ND/65	0.59	0.97	0.73	Estimate From USFA Area
GP-28	02/05	0.005	0.002	3.01E+06	0.005	0.002	3.01E+06	6.02E+05	1.7%	0.5%	0	-71	NT	0.18	1.8	0.36	Interior Downgradient Area
GZ-3	08/04	0.0038	0.0018	2.29E+06	0.0038	0.0018	2.29E+06	1.78E+07	27.3%	14.8%	1.9	-30	ND/65	0.49	ND/60.01	ND/60.25	Deep Esterior USFA Downgradient
GZ-1	08/04	0.0022	0.0012	1.32E+06	0.0022	0.0012	1.32E+06	8.75E+07	2.6%	1.5%	1.5	-40	ND/60.01	0.04	NT	NT	Deep Downgradient of Lagoons
GZ-2	02/05	0.0012	0.0005	7.25E+06	0.0012	0.0005	7.25E+06	3.99E+07	3.6%	2.2%	0.3	-110	ND/60.01	ND/60.005	NT	NT	Deep Downgradient of Lagoons

TABLE 21**BIODEGRADATION ASSESSMENT**

*Charbert Phase II Site Investigation
Alton, Rhode Island*

ANALYTE	CONCENTRATION IN SOURCE AREA (GP-26)	POINTS AWARDED
Dissolved Oxygen	0.1 mg/L	3
Nitrate	< 5 mg/L	2
Iron (II)	6.11 mg/L	3
Sulfate	0.590 mg/L	2
Methane	< 0.01 mg/L	0
ORP	15 mV	1
Chloride	NT	0
PCE (released)	1.4 mg/L	0
TCE (no know release)	0.670 mg/L	2
cis-1,2-DCE (no know release)	1.9 mg/L	2
VC (no know release)	0.850 mg/L	2
TOTAL SCORE		17

Note: A score of 15 to 20 provides adequate evidence of anaerobic biodegradation of chlorinated organics under existing conditions.

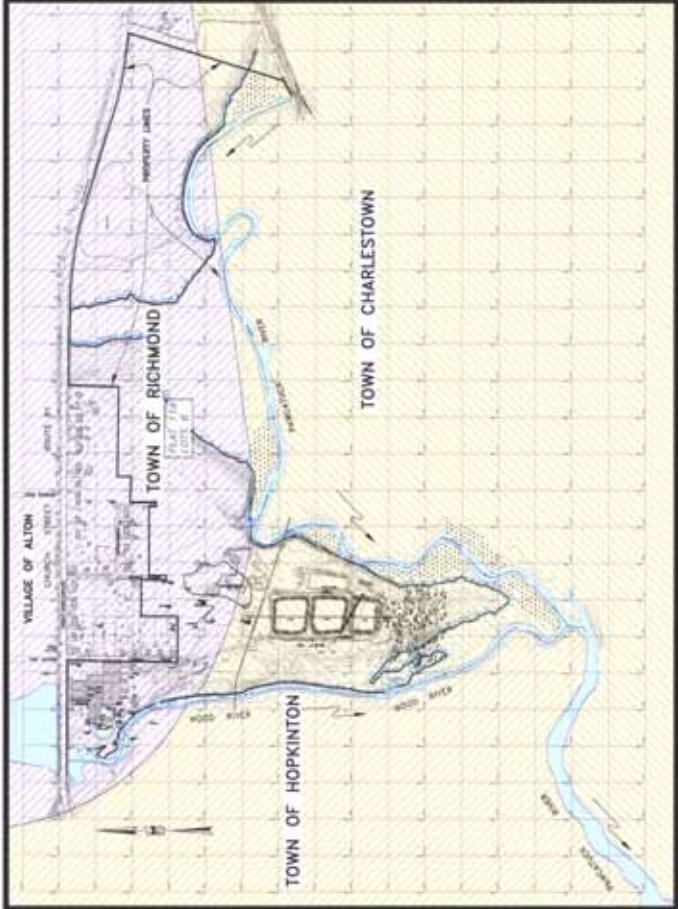
FIGURES

CHARBERT, A DIVISION OF NFA CORP.

299 CHURCH STREET - ALTON VILLAGE
 RICHMOND, RHODE ISLAND

Index of Drawings

FIGURE NUMBER	SHEET TITLE
1	LOCUS PLAN/PROPERTY BOUNDARY PLAN
2	EXISTING CONDITIONS/WETLAND PLAN
3	EXPLORATION LOCATION PLAN
4	GEOLOGIC CROSS-SECTION (EAST TO WEST SITEWIDE)
5	GEOLOGIC CROSS-SECTION (SOUTH TO NORTH SITEWIDE)
6	GROUNDWATER CONTOUR PLAN (PUMPING CONDITION)
7	GROUNDWATER CONTOUR PLAN (NON-PUMPING CONDITION)
8	GROUNDWATER CONTOUR PLAN (PUMPING CONDITION)
9	GROUNDWATER CONTOUR PLAN (PUMPING CONDITION)
10	GROUNDWATER CONTOUR PLAN (PUMPING CONDITION)
11	CONTAMINANT CONCENTRATIONS (GOLDS EXCEEDING METHOD 1 RDCG-CEEC-GA LEACHABILITY CRITERIA)
12	CONTAMINANT CONCENTRATIONS (GROUNDWATER EXCEEDING GAMA CRITERIA)
13	CONTAMINANT CONCENTRATIONS (TETRACHLORETHENE (PCE) DISTRIBUTION ISOPLETHS)
14	CONTAMINANT CONCENTRATIONS (TRICHLOROETHANE (TCE) DISTRIBUTION ISOPLETHS)
15	CONTAMINANT CONCENTRATIONS (DCE-1,2-DICHLOROETHANE (DCE) DISTRIBUTION ISOPLETHS)
16	CONTAMINANT CONCENTRATIONS (VINYL CHLORIDE (VC) DISTRIBUTION ISOPLETHS)



LOCUS PLAN/PROPERTY BOUNDARY PLAN
 (GRAPHIC SCALE IN FEET 1"=400')

LEGEND:

PROPERTY BOUNDARY (DASHED LINE)
 WETLAND (HATCHED AREA)
 GAA GROUNDWATER (DIAGONAL HATCH)
 GA GROUNDWATER (DOTTED HATCH)
 EDGE OF WETLAND (WAVE LINE)



GZA
 GeoEnvironmental, Inc.
 140 Broadway, Providence, RI 02903
 (401) 421-4100 Fax: (401) 751-8613

SITE INVESTIGATION REPORT

SUBMITTAL DATE: MAY 31, 2005
 GZA Project No. 32795.04

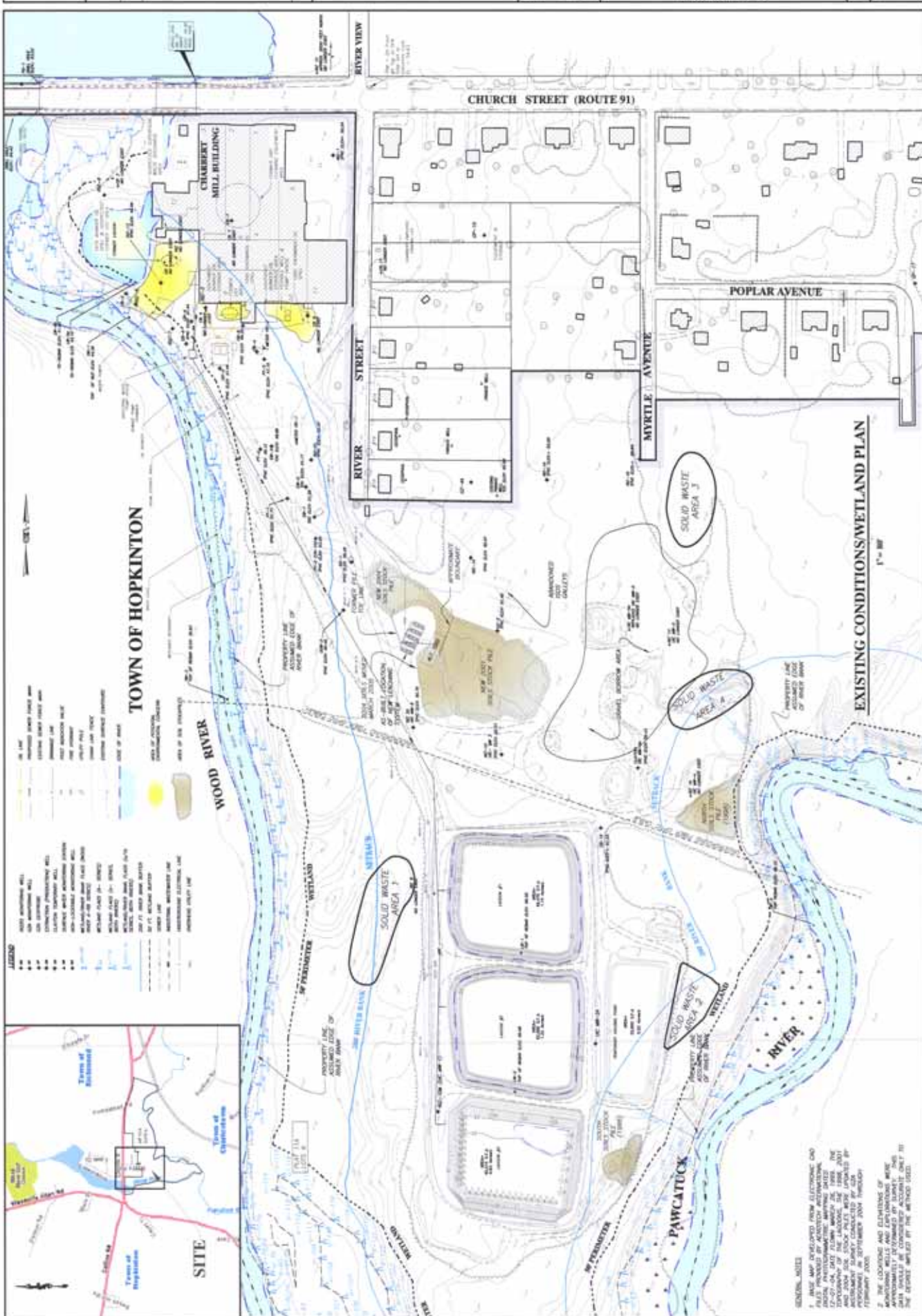
REV	DESCRIPTION	BY	DATE
1	REVISED LOCATION OF 1988 SOL STOCKPILES (GRAVEY LOCATIONS)	CBM	02/15/04
2	ADOPTED 1988 SOL STOCKPILES UNPAVED SITE PALM	SMA	11/09/04
3	REVISED LOCATION OF 1988 SOL STOCKPILES (GRAVEY LOCATIONS)	CBM	02/15/04

GZA
 Geotechnical, Inc.
 10000
 10000
 10000

DATE: MAY, 2009
 SCALE: AS NOTED
 DRAWN BY: WJG/DB
 CHECKED BY: EAS
 PROJECT NO: SMA

CHARRERT
A DIVISION OF NEA CORP.
 299 CHURCH STREET ATON, HOOR ISLAND 03031
**EXISTING CONDITIONS/
 WETLAND PLAN**

PROJECT NO:
 32795.04
 FIGURE NO:
2



EXISTING CONDITIONS/WETLAND PLAN
 1" = 80'

GENERAL NOTES
 1. THIS PLAN DEVELOPED FROM ELECTRONIC CAD DATA PROVIDED BY THE CLIENT. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED. THE CLIENT HAS REPRESENTED AND WARRANTED THAT THE DATA IS TRUE AND CORRECT AND THAT THE DATA IS NOT BEING USED FOR ANY OTHER PURPOSE.
 2. THE LOCATION AND ELEVATIONS OF ALL SOL STOCKPILES AND SOL STOCKPILE AREAS SHOWN ON THIS PLAN WERE DETERMINED BY THE CLIENT AND ARE NOT NEARLY AS ACCURATE AS THE DATA PROVIDED BY THE CLIENT.
 FEBRUARY 2009

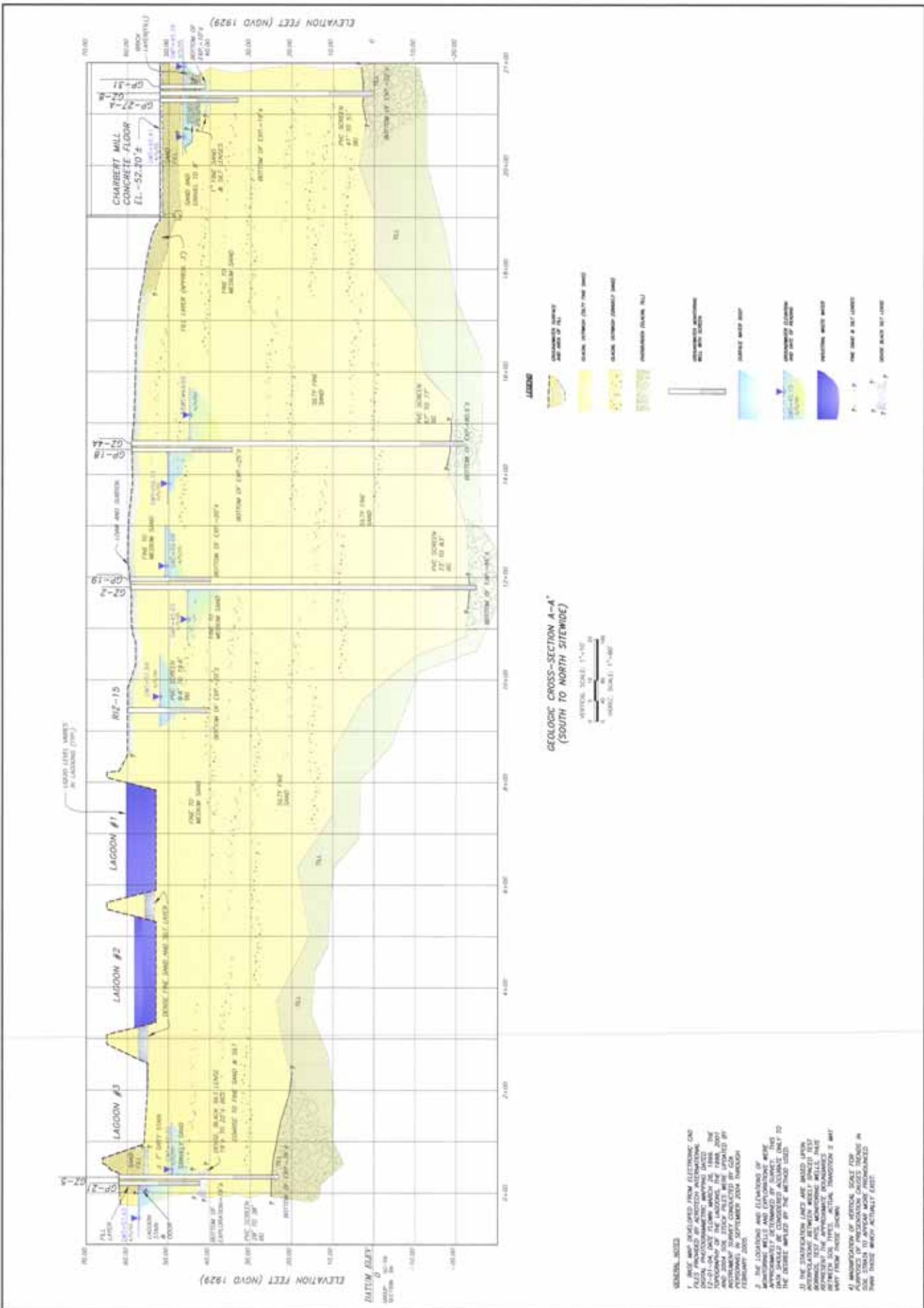
REV	DESCRIPTION	BY	DATE
1	UPDATED SITE PLAN	SMA	10/12/04
2	ADDED 1998 SOIL STOCKPILES	SMA	11/09/04
3	REVISED LOCATION OF 1998 SOIL STOCKPILES (SUBMITTED LOCATIONS)	CRB	02/19/05



GEOLOGIC CROSS-SECTION B-B'
(WEST TO EAST FACILITY AREA)



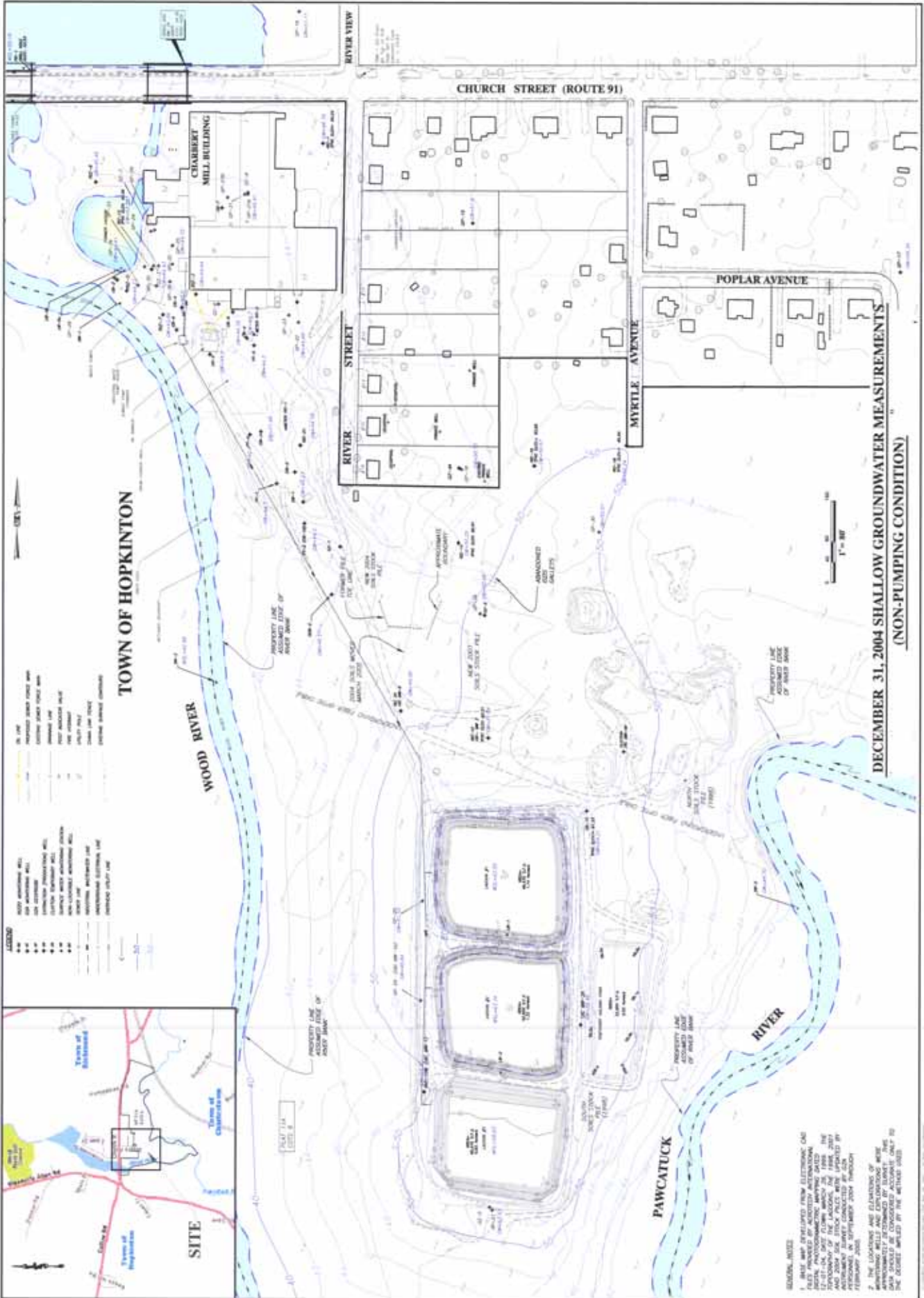
- GENERAL NOTES**
1. THIS MAP DERIVED FROM ELECTRONIC CAD FILES PROVIDED BY THE CLIENT. THE CLIENT HAS REVIEWED AND APPROVED THIS MAP FOR ACCURACY AND COMPLETENESS. THE DATE OF THE LAST REVIEW WAS 04/12/05. THE DATE OF THE LAST UPDATE WAS 04/12/05. THE DATE OF THE LAST REVIEW WAS 04/12/05. THE DATE OF THE LAST UPDATE WAS 04/12/05. THE DATE OF THE LAST REVIEW WAS 04/12/05. THE DATE OF THE LAST UPDATE WAS 04/12/05.
 2. THE LOCATION AND ELEVATIONS OF MONITORING WELLS AND EXHIBITIONS WERE OBTAINED FROM FIELD NOTES AND DATA SHEETS AS PROVIDED TO GZA BY THE CLIENT. THE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE STATED BY THE METHOD USED.
 3. THE DATUM FOR ALL ELEVATIONS IS MEAN SEA LEVEL. THE DATUM FOR ALL HORIZONTAL COORDINATES IS NAD 83. THE DATUM FOR ALL VERTICAL COORDINATES IS NAVD 83. THE DATUM FOR ALL HORIZONTAL COORDINATES IS NAD 83. THE DATUM FOR ALL VERTICAL COORDINATES IS NAVD 83.
 4. MONITORING OF WATER TABLE FOR PURPOSES OF POLLUTION GAUGES SHOULD BE DONE IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:
 - a. THE WELLS SHOULD BE INSTALLED IN AREAS THAT ARE NOT SUBJECT TO FLOODING OR OTHER DISTURBANCES THAT WOULD AFFECT THE WATER TABLE.
 - b. THE WELLS SHOULD BE INSTALLED IN AREAS THAT ARE NOT SUBJECT TO FLOODING OR OTHER DISTURBANCES THAT WOULD AFFECT THE WATER TABLE.
 - c. THE WELLS SHOULD BE INSTALLED IN AREAS THAT ARE NOT SUBJECT TO FLOODING OR OTHER DISTURBANCES THAT WOULD AFFECT THE WATER TABLE.



GENERAL NOTES

1. SOILS DATA PROVIDED FROM ELECTRONIC AND PAPER FILES PROVIDED BY AEGION INTERNATIONAL. DATA WAS OBTAINED FROM THE 1998 SOIL STOCKPILE SURVEY CONDUCTED BY GZA IN FEBRUARY 2005.
2. THE LOCATION AND ELEVATIONS OF MONITORING WELLS AND EXPLORATORY WELLS WERE DETERMINED BY SURVEY. THE LOCATION AND ELEVATION OF MONITORING WELLS WERE DETERMINED BY THE METHOD USED.
3. THE COLLECTION LOGS ARE BASED UPON INTERPOLATIONS BETWEEN WELLS. THERE ARE NO MONITORING WELLS IN THE AREA BETWEEN SON TINES ACTUAL MONITORING POINTS FROM THESE SOILS.
4. INTERPOLATION OF HORIZONTAL SCALE FOR MONITORING WELLS IS BASED UPON THE HORIZONTAL SCALE SHOWN TO APPEAR MOST PROPORTIONAL FROM THESE WELLS ACTUALLY LINED.

CHARRBERT A DIVISION OF NFA CORP. 299 CHURCH STREET ALTON, MISSOURI 64602 (NON-PUMPING CONDITION)		PROJECT NO. 32-795-02	FIGURE NO. 7
PROJ. NO. SNA DATE: DEC. 2004 SCALE: AS NOTED DRAWN BY: NDU REV'D BY: EAS CHECK BY: EAS	 GZA Geotechnical, Inc. 1001 North Lincoln, Suite 100, St. Louis, MO 63104	REV# DESCRIPTION BY DATE 1 UPDATED SITE PLAN SNA 11/20/04 2 ADDED 1998 SOL STOCKPILES SNA 11/20/04 3 REVERSED LOCATION OF 1998 SOL STOCKPILES (BASED ON SOI) CHB 02/18/05	



DECEMBER 31, 2004 SHALLOW GROUNDWATER MEASUREMENTS
(NON-PUMPING CONDITION)

GENERAL NOTES

1. THIS MAP DEVELOPED FROM ELECTRONIC CAD FILES AND PHOTOGRAMMETRIC MAPPING DATA. PHOTOGRAMMETRIC MAPPING GATED TO THE 1998 SOL STOCKPILES AND 2004 SOL STOCKPILES WITH SPREADSHEET AND 2004 SOL STOCK PILES WITH SPREADSHEET ATTACHED IN SEPTEMBER 2004 THROUGH FEBRUARY 2005.
2. THE LOCATIONS AND ELEVATIONS OF MEASUREMENTS AND PROPERTY LINES ASSUMED TO BE THE SAME AS SHOWN IN THE 1998 SOL STOCK PILES AND 2004 SOL STOCK PILES.

REV#	DESCRIPTION	BY	DATE
1	UPDATED SITE PLAN	SMA	10/27/04
2	ADDED 1998 SOIL STOCKPILES	SMA	11/29/04
3	REVISED LOCATION OF 1998 SOIL STOCKPILES (IMPROVED LOCATIONS)	CRB	02/19/06

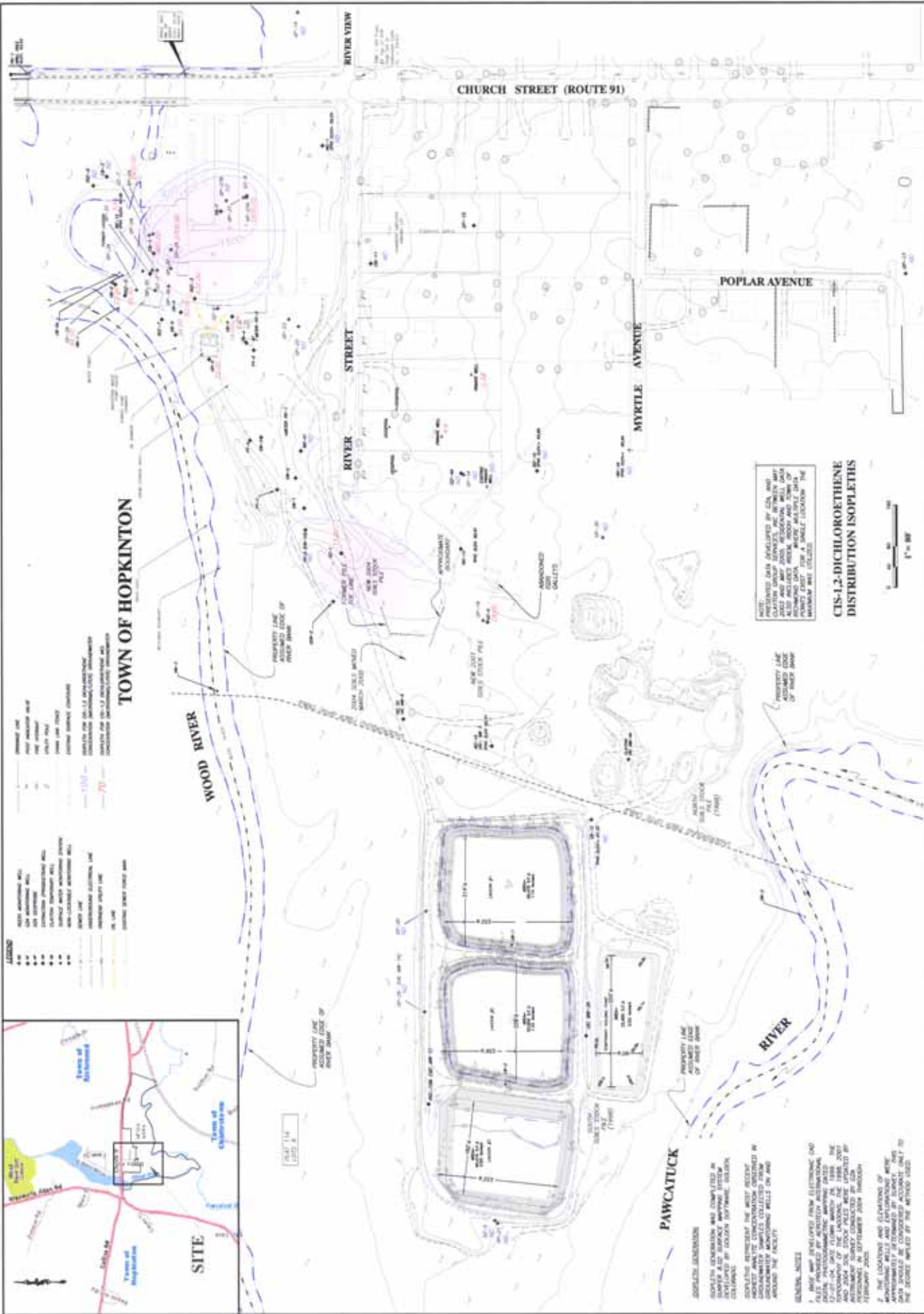


 GZA GeoEnvironmental, Inc.
 1000 North 17th Street, Suite 100
 Fort Collins, CO 80524
 TEL: 970.221.1100 FAX: 970.221.1101
 WWW.GZACORP.COM

PROJ. NO. 04-001
 DATE: MAY, 2005
 SCALE: AS NOTED
 DRAWN BY: CRB
 CHECKED BY: EAS
 IN CHARGE: KLS
 PROJECT: 299 CHURCH STREET ALTON, BRIDGE ISLAND 0202

CHARRERT
A DIVISION OF NFA CORP.
299 CHURCH STREET ALTON, BRIDGE ISLAND 0202
CIS-1,2-DICHLOROETHENE
DISTRIBUTION INFERRED SHALLOW
ISOPLETHS

PROJECT NO.
 32795.04
 FIGURE NO.
14



SCALE: 1" = 100'

MONITORING DATA ENCLOSED BY GZA AND CHARRERT GROUP SERVICES ARE INTENTIVE BUT NOT GUARANTEED. GZA AND CHARRERT GROUP SERVICES ALSO ACCEPT NO LIABILITY FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THESE MONITORING DATA.

CIS-1,2-DICHLOROETHENE
DISTRIBUTION ISOPLETHS

PAWCATUCK

GENERAL NOTES

1. THIS MAP DEVELOPED FROM ELECTRONIC DATA PROVIDED BY ANITONCO INDUSTRIES, INC. (ANITONCO) AND IS BASED ON DATA PROVIDED BY ANITONCO. ANITONCO HAS CONDUCTED MONITORING AND ANALYSIS OF THIS FACILITY AND HAS PROVIDED THIS DATA TO GZA AND CHARRERT GROUP SERVICES. GZA AND CHARRERT GROUP SERVICES HAVE CONDUCTED VISUAL INSPECTIONS OF THE MONITORING WELLS AND DATA PROVIDED BY ANITONCO. GZA AND CHARRERT GROUP SERVICES HAVE CONDUCTED VISUAL INSPECTIONS OF THE MONITORING WELLS AND DATA PROVIDED BY ANITONCO. GZA AND CHARRERT GROUP SERVICES HAVE CONDUCTED VISUAL INSPECTIONS OF THE MONITORING WELLS AND DATA PROVIDED BY ANITONCO.
2. THE LOCATION AND ELEVATION OF MONITORING WELLS AND DATA PROVIDED BY ANITONCO IS BASED ON DATA PROVIDED BY ANITONCO. GZA AND CHARRERT GROUP SERVICES HAVE CONDUCTED VISUAL INSPECTIONS OF THE MONITORING WELLS AND DATA PROVIDED BY ANITONCO. GZA AND CHARRERT GROUP SERVICES HAVE CONDUCTED VISUAL INSPECTIONS OF THE MONITORING WELLS AND DATA PROVIDED BY ANITONCO.

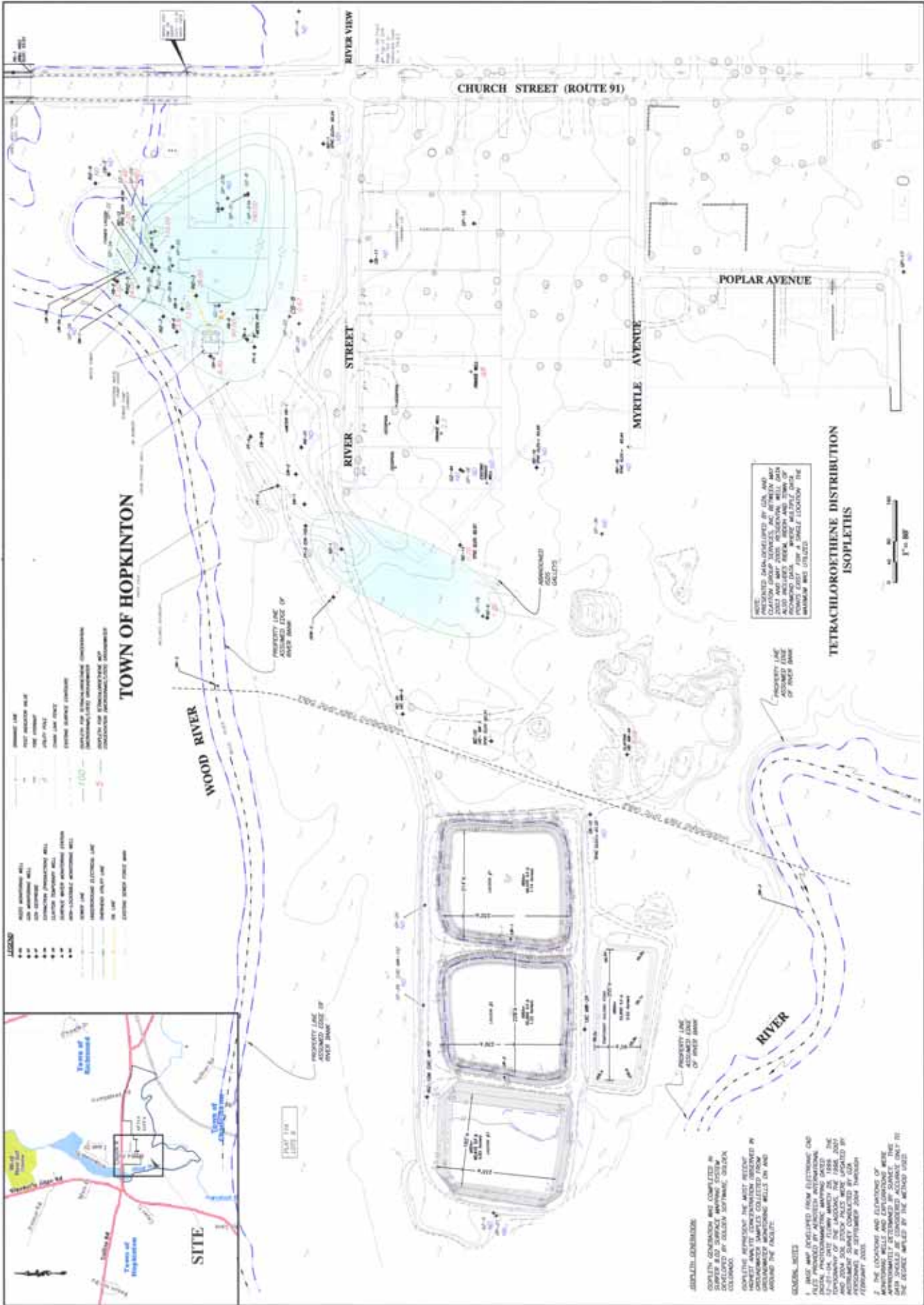
REV#	DESCRIPTION	BY	DATE
1	UPDATED SITE PLAN	SMA	12/12/24
2	ADDED 1998 SOIL STOCKPILES	SMA	11/09/24
3	REVISED LOCATION OF 1998 SOIL STOCKPILES (SURVEYED LOCATIONS)	CRS	02/18/25

GZA
 Geoenvironmental, Inc.
 1000 North Lincoln Street, Suite 200
 Chicago, IL 60610
 TEL: 773.291.2000
 FAX: 773.291.2001
 WWW.GZA.COM

PROJ. NO. SMA
 CHD. BY: EKS
 DRA. BY: CRG
 SCALE: AS NOTED
 DATE: MAY, 2005

CHARBERT
A DIVISION OF NFA CORP.
299 CHURCH STREET ALTON, RHODE ISLAND 02802
TETRACHLOROETHENE DISTRIBUTION
INFERRED SHALLOW ISOPLETHS

PROJECT NO. 32795-04
 FIGURE NO. 12



NOTE: PRESENTED DATA DERIVED BY GZA AND NFA CORP. FROM DATA OBTAINED FROM MONITORING WELLS 1001 AND 1002, AND FROM 1998 AND 2004 SOIL STOCKPILE DATA. THIS DATA WAS USED TO DEVELOP THE ISOPLETHS. THE ISOPLETHS DO NOT REPRESENT THE ACTUAL DISTRIBUTION OF TETRACHLOROETHENE IN THE GROUND. THE ISOPLETHS ARE ONLY A GENERAL INDICATION OF THE DISTRIBUTION OF TETRACHLOROETHENE IN THE GROUND.

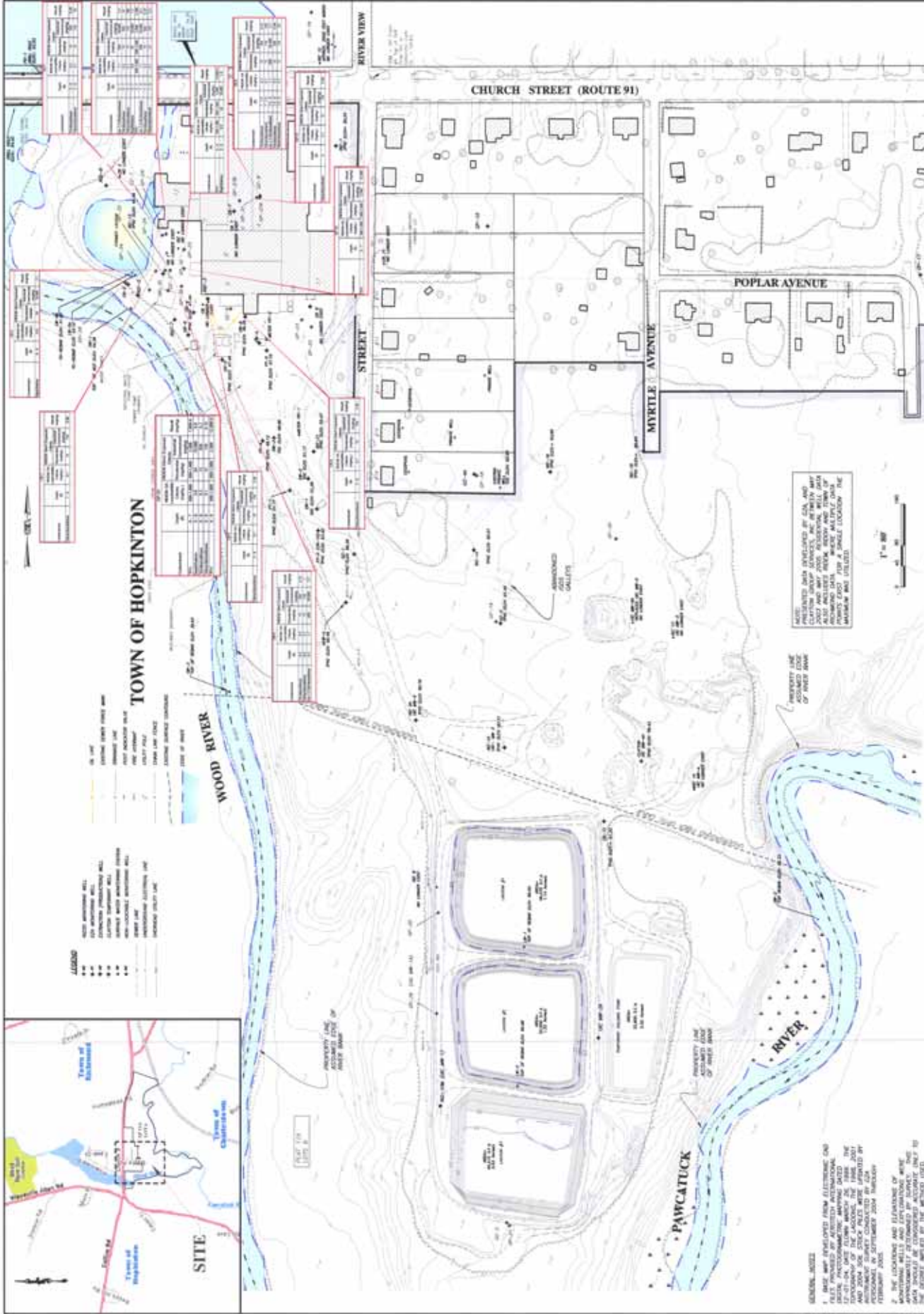
GENERAL NOTES

1. THIS MAP IS DERIVED FROM ELECTRONIC CAD DATA. PHOTOGRAPHIC MAPPING DATA, PHOTOGRAMMETRIC MAPPING DATA, AND DATA FROM MONITORING WELLS 1001 AND 1002, AND FROM 1998 AND 2004 SOIL STOCKPILE DATA WERE USED TO DEVELOP THIS MAP. THE DATA WAS OBTAINED FROM MONITORING WELLS 1001 AND 1002, AND FROM 1998 AND 2004 SOIL STOCKPILE DATA WERE OBTAINED BY GZA AND NFA CORP. IN SEPTEMBER 2004 THROUGH FEBRUARY 2005.
2. THE LOCATIONS AND DEPTHS OF MONITORING WELLS 1001 AND 1002, AND THE DEPTHS OF STOCKPILES 1001 AND 1002, ARE APPROXIMATELY LOCATED AS SHOWN ON THIS MAP. THE DATA SHOULD BE CONSIDERED AS APPROXIMATE. THE DATA SHOULD BE CONSIDERED AS APPROXIMATE. THE DATA SHOULD BE CONSIDERED AS APPROXIMATE.

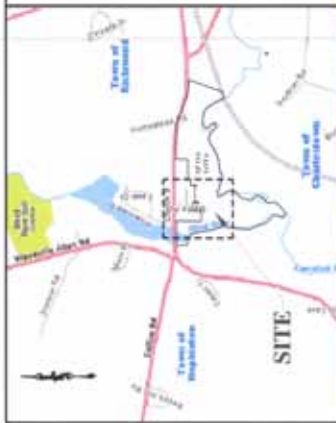
DATE: MAY, 2005
 SCALE: AS NOTED
 DRAWN BY: CRG
 CHECKED BY: EKS
 PROJECT NO. SMA
 CHD. BY: EKS
 DRA. BY: CRG



REV#	DESCRIPTION	BY	DATE
1	UPDATED SITE PLAN	SMA	10/17/04
2	ADDED 1998 SOIL STOCKPILES	SMA	11/09/04
3	REVISED LOCATION OF 1998 SOIL STOCKPILES (SURVEY LOCATIONS)	DM	02/15/05



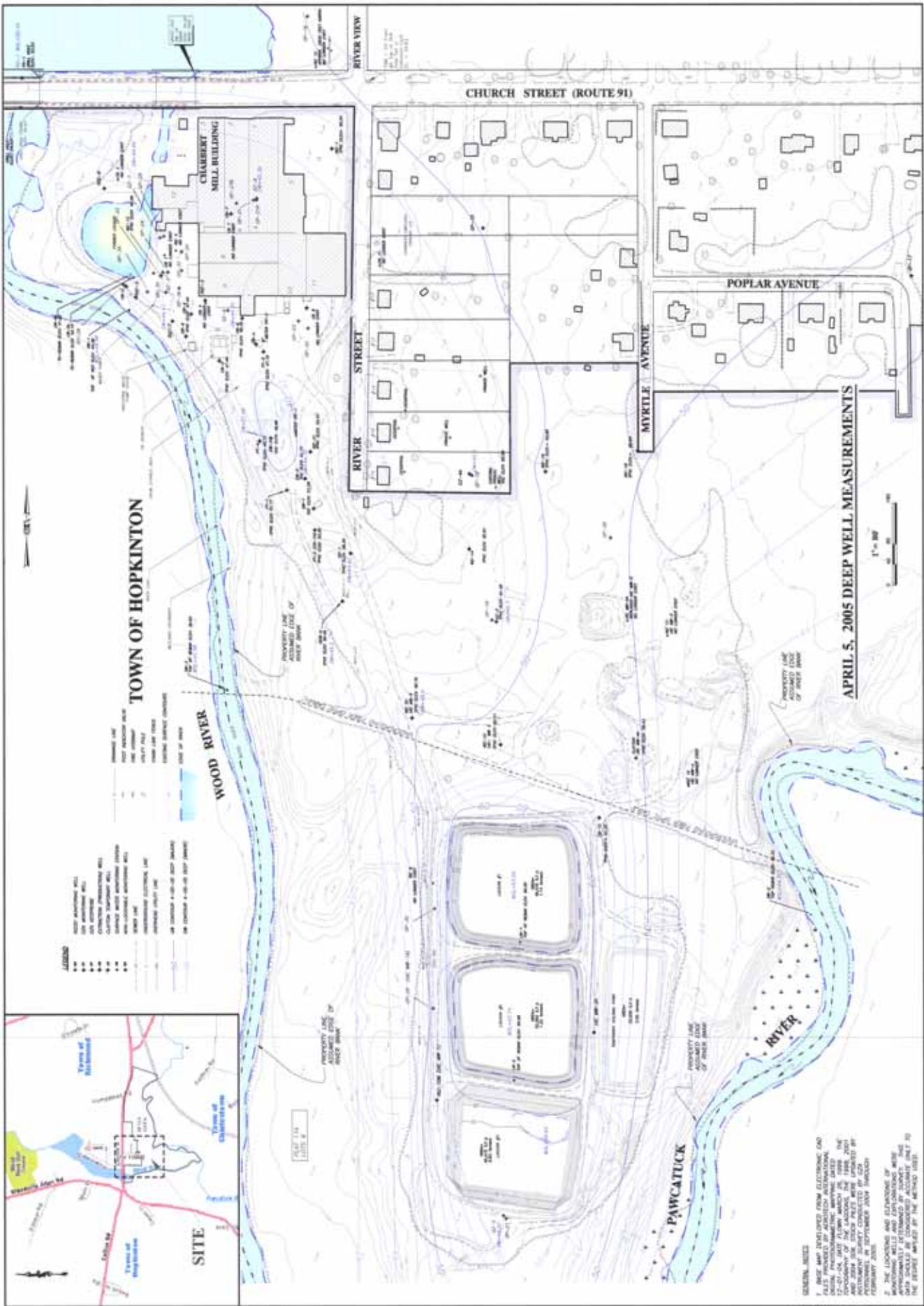
NOTE: DATA DEVELOPED BY GZA AND CONTAINED HEREIN IS BASED ON FIELD DATA COLLECTED ON 04/15/05. THIS DATA IS PRELIMINARY AND SUBJECT TO CHANGE. THE RESULTS OF THIS DATA SHOULD NOT BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF GZA.



GENERAL NOTES:
1. THIS SITE PLAN WAS PREPARED FROM AERIAL PHOTOGRAPHS AND FIELD SURVEYS CONDUCTED BY GZA. THE DATA IS PRELIMINARY AND SUBJECT TO CHANGE. THE RESULTS OF THIS DATA SHOULD NOT BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF GZA.
2. THE LOCATION AND DEPTH OF ALL SOIL SAMPLING LOCATIONS WERE APPROXIMATELY DETERMINED BY SURVEY. THE RESULTS OF THIS DATA SHOULD NOT BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF GZA.

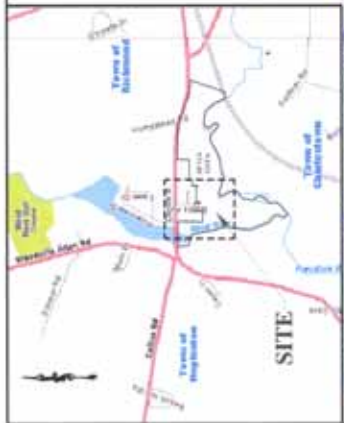


REV#	DESCRIPTION
1	UPDATED SITE PLAN
2	ACCEPTED 1998 SOL STOCKPLES
3	REVISED LOCATION OF 1998 SOL STOCKPLES (SUNNY-102 LOCATIONS)
CR#	DATE
02/18/04	
04/12/04	



APRIL 5, 2005 DEEP WELL MEASUREMENTS

- LEGEND**
- 10' DEEP WATER WELLS
 - 20' DEEP WATER WELLS
 - 30' DEEP WATER WELLS
 - 40' DEEP WATER WELLS
 - 50' DEEP WATER WELLS
 - 60' DEEP WATER WELLS
 - 70' DEEP WATER WELLS
 - 80' DEEP WATER WELLS
 - 90' DEEP WATER WELLS
 - 100' DEEP WATER WELLS
 - 110' DEEP WATER WELLS
 - 120' DEEP WATER WELLS
 - 130' DEEP WATER WELLS
 - 140' DEEP WATER WELLS
 - 150' DEEP WATER WELLS
 - 160' DEEP WATER WELLS
 - 170' DEEP WATER WELLS
 - 180' DEEP WATER WELLS
 - 190' DEEP WATER WELLS
 - 200' DEEP WATER WELLS
 - 210' DEEP WATER WELLS
 - 220' DEEP WATER WELLS
 - 230' DEEP WATER WELLS
 - 240' DEEP WATER WELLS
 - 250' DEEP WATER WELLS
 - 260' DEEP WATER WELLS
 - 270' DEEP WATER WELLS
 - 280' DEEP WATER WELLS
 - 290' DEEP WATER WELLS
 - 300' DEEP WATER WELLS
 - 310' DEEP WATER WELLS
 - 320' DEEP WATER WELLS
 - 330' DEEP WATER WELLS
 - 340' DEEP WATER WELLS
 - 350' DEEP WATER WELLS
 - 360' DEEP WATER WELLS
 - 370' DEEP WATER WELLS
 - 380' DEEP WATER WELLS
 - 390' DEEP WATER WELLS
 - 400' DEEP WATER WELLS
 - 410' DEEP WATER WELLS
 - 420' DEEP WATER WELLS
 - 430' DEEP WATER WELLS
 - 440' DEEP WATER WELLS
 - 450' DEEP WATER WELLS
 - 460' DEEP WATER WELLS
 - 470' DEEP WATER WELLS
 - 480' DEEP WATER WELLS
 - 490' DEEP WATER WELLS
 - 500' DEEP WATER WELLS
 - 510' DEEP WATER WELLS
 - 520' DEEP WATER WELLS
 - 530' DEEP WATER WELLS
 - 540' DEEP WATER WELLS
 - 550' DEEP WATER WELLS
 - 560' DEEP WATER WELLS
 - 570' DEEP WATER WELLS
 - 580' DEEP WATER WELLS
 - 590' DEEP WATER WELLS
 - 600' DEEP WATER WELLS
 - 610' DEEP WATER WELLS
 - 620' DEEP WATER WELLS
 - 630' DEEP WATER WELLS
 - 640' DEEP WATER WELLS
 - 650' DEEP WATER WELLS
 - 660' DEEP WATER WELLS
 - 670' DEEP WATER WELLS
 - 680' DEEP WATER WELLS
 - 690' DEEP WATER WELLS
 - 700' DEEP WATER WELLS
 - 710' DEEP WATER WELLS
 - 720' DEEP WATER WELLS
 - 730' DEEP WATER WELLS
 - 740' DEEP WATER WELLS
 - 750' DEEP WATER WELLS
 - 760' DEEP WATER WELLS
 - 770' DEEP WATER WELLS
 - 780' DEEP WATER WELLS
 - 790' DEEP WATER WELLS
 - 800' DEEP WATER WELLS
 - 810' DEEP WATER WELLS
 - 820' DEEP WATER WELLS
 - 830' DEEP WATER WELLS
 - 840' DEEP WATER WELLS
 - 850' DEEP WATER WELLS
 - 860' DEEP WATER WELLS
 - 870' DEEP WATER WELLS
 - 880' DEEP WATER WELLS
 - 890' DEEP WATER WELLS
 - 900' DEEP WATER WELLS
 - 910' DEEP WATER WELLS
 - 920' DEEP WATER WELLS
 - 930' DEEP WATER WELLS
 - 940' DEEP WATER WELLS
 - 950' DEEP WATER WELLS
 - 960' DEEP WATER WELLS
 - 970' DEEP WATER WELLS
 - 980' DEEP WATER WELLS
 - 990' DEEP WATER WELLS
 - 1000' DEEP WATER WELLS

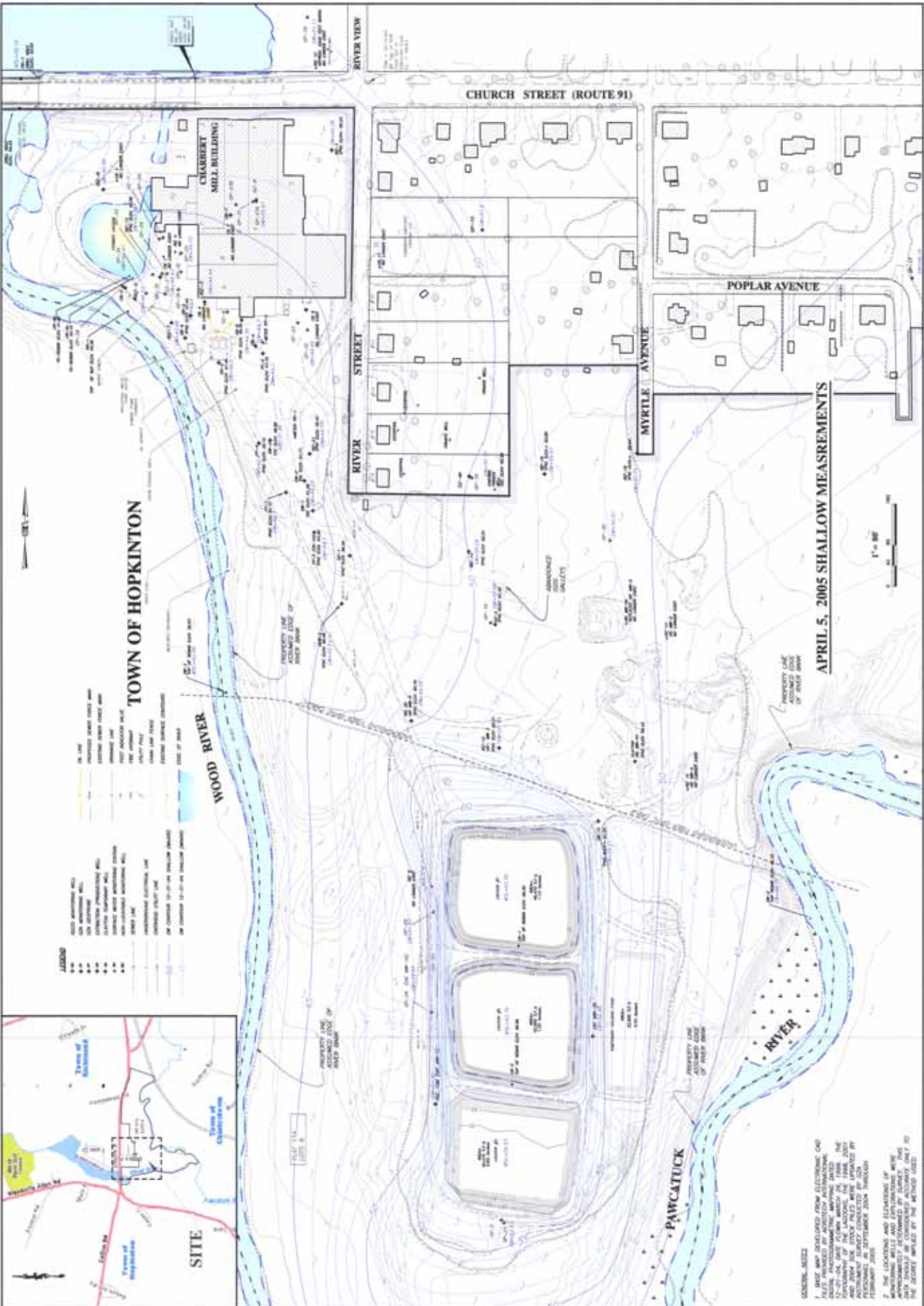


GENERAL NOTES

1. THIS MAP IS DERIVED FROM ELECTRONIC CAD FILES PROVIDED BY ADRINCO INTERNATIONAL, 12-01-04, AND TOWN PLAN 05, 1998. THE ACCURACY OF THE DATA FOR THE YEAR 2001 MEASUREMENTS IS NOT GUARANTEED BY GZA. MEASUREMENTS WERE CONDUCTED BY GZA FROM SEPTEMBER 2001 THROUGH FEBRUARY 2002.
2. THE LOCATIONS AND DEPTHS OF THE MONITORING WELLS AND DATA LOGGING WELLS SHOWN ON THIS MAP WERE DETERMINED BY GZA AND SHOULD BE VERIFIED BY THE USER. THE DEPTHS LISTED BY THE USER SHOULD BE THE DEPTHS LISTED BY THE METHOD USED.



REV#	DESCRIPTION	BY	DATE
1	UPDATED SITE PLAN	SMA	11/27/04
2	ADDED 1998 SOIL STOCKPILES	SMA	11/29/04
3	REVISED LOCATION OF 1998 SOIL STOCKPILES (SHEETED LOCATIONS)	CMS	02/19/05



APRIL 5, 2005 SHALLOW MEASUREMENTS



GENERAL NOTES

1. THIS MAP DEVELOPED FROM ELECTRONIC CAD FILES PROVIDED BY ADVISEE AUTHORITY. THE 12-27-04 DATE FLOWS MARCH 25, 2004, THE 12-27-04 DATE FLOWS MARCH 25, 2004, THE 12-27-04 DATE FLOWS MARCH 25, 2004, AND ONLY THE STOCKPILES WERE LAYERED BY ADVISEE AUTHORITY. THE SURVEY CONDUCTED BY ADVISEE AUTHORITY ON SEPTEMBER 2004 THROUGH FEBRUARY 2005.
2. THE LOCATIONS AND DEPTHS OF PUMPING WELLS AND OBSERVATION WELLS SHOWN ON THIS MAP ARE THE PROPERTY OF ADVISEE AUTHORITY AND SHALL BE CONSIDERED AS ACCURATE ONLY BY THE ADVISEE AUTHORITY AT THE METHOD SITED.

