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Letter of Transmittal

To: NYSDEC Date: July 24, 2008

File No.: 444022 (13c)

Subject: Hyde Park Facility, Spring 2008 Annual Groundwater Monitoring Report (NYSDEC Site No. 932036)

Attn: Mr. Michael Hinton

We are sending you x Enclosed __ Under Separate Cover
the following items:

1. Summary Report for the Spring 2008 Groundwater Monitoring Event: Former Carborundum Company, Hyde Park Facility, Town of Niagara, New York, July 2008.

These are transmitted as checked below:

__ For Your Information __ For Your Use __ Approved as Noted

__ As Requested X For Approval X For Review

Remarks: This is the required 2008 annual monitoring report. The raw laboratory data package is available upon request. If you have any questions, please contact William B. Barber of the Atlantic Richfield Company at (216) 271-8038.

Signed: Mark S. Raybuck

Mark S. Raybuck
Project Manager

Copy to: M. Forcucci, NYSDOH
Document Repository (Town of Niagara Town Hall)
William B. Barber, Atlantic Richfield Company
File (444022 No. 13c)

Annual Summary Report

SUMMARY REPORT FOR THE SPRING 2008 GROUNDWATER MONITORING EVENT

Former Carborundum Company, Hyde Park Facility (Site No. 932036)

Town of Niagara, Niagara County, NY

SUBMITTED TO:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF HAZARDOUS WASTE REMEDIATION

SUBMITTED BY:

Atlantic Richfield Company

A BP affiliated company

4850 East 49th Street
Cuyahoga Heights, Ohio 44125

PREPARED BY:

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JULY 2008

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INTRODUCTION

1.1 PURPOSE

This annual report summarizes the groundwater monitoring activities completed at the Former Carborundum Company Hyde Park Facility (Site) in the Town of Niagara, New York (Figure 1.1). Groundwater and sewer sampling was completed between April 22 and April 29, 2008. This report provides the data from the Spring 2008 sampling event and includes a comparison of the recent data against historic sample results.

This work was completed in accordance with the groundwater monitoring work plan (DE&S, 2000a) for Operable Unit 2 (OU2), approved by the New York State Department of Environmental Conservation (NYSDEC), and correspondence from NYSDEC dated September 28, 2005 (NYSDEC 2005), directing BP to continue groundwater monitoring at the Site on an annual basis.

This document describes the methodology and results from the groundwater monitoring event completed in the Spring of 2008 as a continuation of the OU2 groundwater monitoring program. The scope of work for the Spring 2008 groundwater monitoring event included:

- Collection of water level information from overburden and bedrock monitoring wells;
- Purging of overburden and bedrock monitoring wells and collecting field measurements of pH, temperature, conductivity, oxidation/reduction potential (ORP), dissolved oxygen (DO), total dissolved solids (TDS), and turbidity;
- Collection of groundwater samples from monitoring wells for volatile organic compound (VOC) analyses;
- Collection of groundwater samples from selected overburden and bedrock monitoring wells for analysis of natural attenuation parameters; and
- Collection of sewer water samples from the sanitary sewer beneath Rhode Island Avenue, and analysis for VOCs.

Previous rounds of groundwater sampling indicated that the chemicals of concern (COCs) are VOCs that exceeded NYSDEC Class GA Water Quality Regulations/Standards in groundwater, and included the following:

- vinyl chloride
- cis- and trans-1,2-dichloroethene
- trichloroethene
- 1,1-dichloroethane
- benzene

Semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and pesticides were not detected in groundwater samples collected during previous investigations. Metals and inorganic compounds were analyzed during previous investigations and were not found to be COCs. These compounds are not analyzed as part of the ongoing groundwater monitoring program.

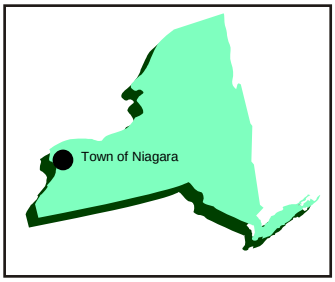
1.2 BACKGROUND

The Site is listed on the NYSDEC list of Inactive Hazardous Waste Disposal Sites, and is currently listed as a Class 2 site. A Site location map is provided as Figure 1.1, and a Site Plan is included as Figure 1.2.

Since 1993, a series of investigations has been completed to identify the extent of soil and groundwater contamination resulting from historical operations. In 2000, the NYSDEC completed a Record of Decision (ROD), which segmented the Site into the following three Operable Units:

- OU1 – On-site soil,
- OU2 – Groundwater beneath the Site, and
- OU3 – Off-site soil east of the Site.

The ROD identified the need for continued groundwater monitoring with semi-annual reporting for a minimum 5-year period. Following their review of the initial 5-year groundwater monitoring summary report (INTERA, 2005a), the NYSDEC requested that groundwater monitoring be continued for another five years, but on an annual basis. This annual groundwater monitoring is conducted on an alternating spring/fall schedule, and includes the collection of groundwater samples for the chemical analysis of VOCs and natural attenuation parameters.



New York

N

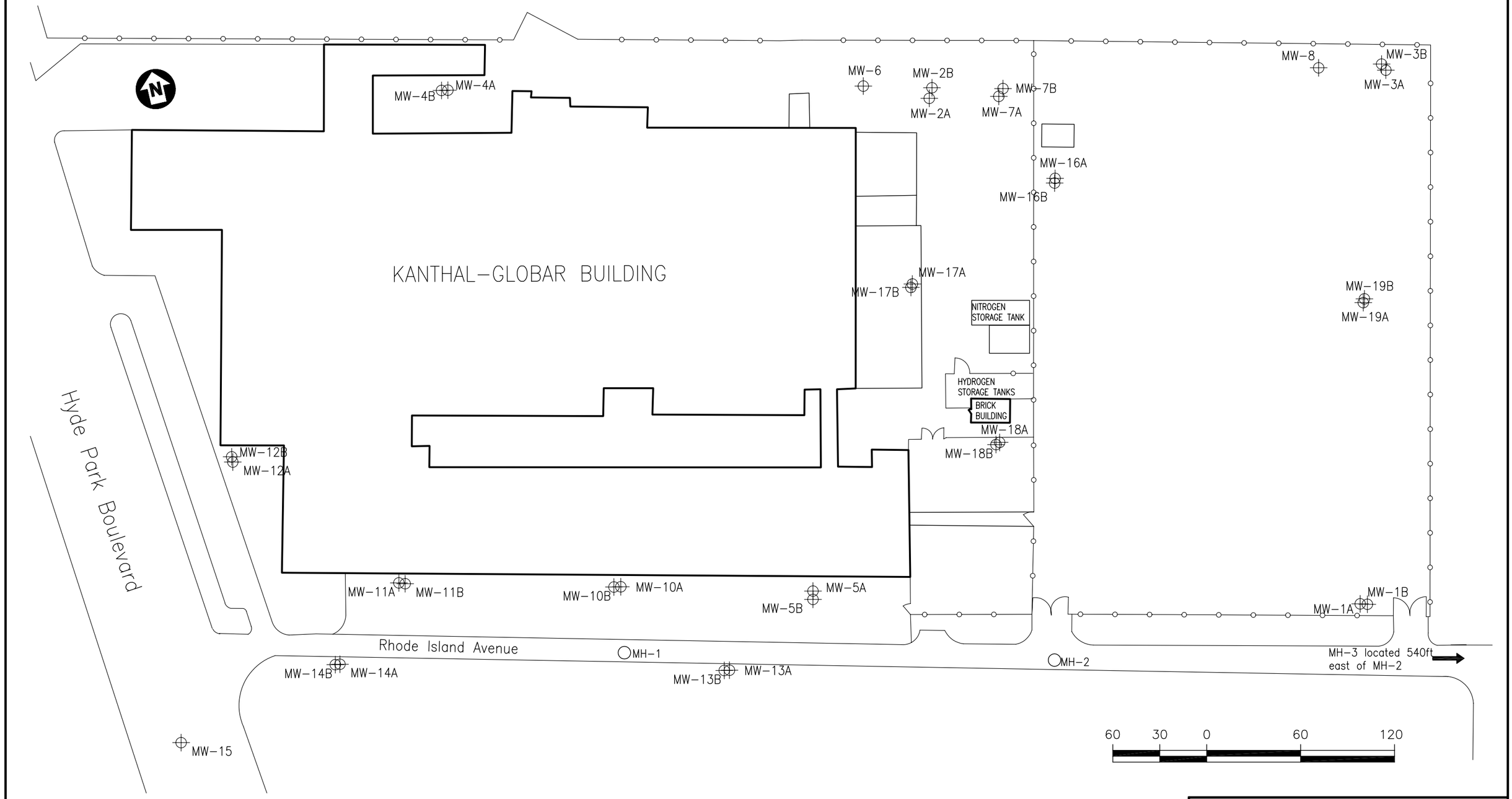
FIGURE 1.1

FORMER CARBORUNDUM CO. ELETRIC
PRODUCTS DIVISION
TOWN OF NIAGARA, NEW YORK

SITE LOCATION MAP

PARSONS
40 La Riviere Dr., Suite 350, Buffalo, NY 14202

P:\442667\CAD\site_location.ppt SOURCE: live.local.com



LEGEND:

MW–5A MW–5B	MONITORING WELL LOCATION (A=OVERBURDEN, B=BEDROCK)
MH–1	MANHOLE / SANITARY SEWER SAMPLE LOCATION

SOURCE: INTERA, 2006

FIGURE 1.2

FORMER CARBORUNDUM COMPANY
ELECTRIC PRODUCTS DIVISION
TOWN OF NIAGARA, NEW YORK

SITE PLAN

PARSONS
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315–451–9560

No XREFs
P:\BUFFS01\PROJECTS\444022\CAD\444022C002

SECTION 2
PROGRAM METHODOLOGY

On-site activities were conducted according to protocols outlined in the Project Safety Plan (Parsons, 2008) and BP's Health, Safety, Security, and Environment (HSSE) requirements. Appropriate job safety analyses were prepared in the field prior to conducting field work, and "authorization to work" forms were filled out daily prior to commencing work.

The groundwater monitoring program included water level monitoring, groundwater sampling from wells, and submission of groundwater samples for analysis of VOCs. Samples from nine monitoring well couplets were also analyzed for natural attenuation parameters. Sewer water sampling was conducted for analysis of VOCs. Quality assurance/quality control (QA/QC) samples, including matrix spike/matrix spike duplicates, field duplicates, and trip blanks, were also submitted for analysis.

2.1 WATER LEVEL MONITORING

Water level monitoring was conducted in monitoring wells on April 21, 2008. Water levels were measured relative to the top of the PVC well casing using an electronic water level tape accurate to 0.01 ft. The depth to water was measured in each well from a surveyed point on the PVC casing. The water levels were then converted to elevations presented as feet above mean sea level (ft AMSL). The groundwater elevations were then used to construct groundwater flow contours, and to calculate vertical and horizontal hydraulic gradients.

2.2 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected from monitoring wells in the network that was established in October 2000 (MW-1 through MW-8 and MW-10 through MW-19). The locations of the monitoring wells are shown on Figure 1.2. Wells were sampled following the methodology outlined in the groundwater monitoring work plan (DE&S, 2000a). Associated QA/QC samples were collected, including four field duplicates, three matrix spike/matrix spike duplicate samples and four trip blanks. A list of wells, dates sampled, sample IDs, and purge volumes is provided in Table 2.1. A copy of the groundwater sampling logs is provided in Appendix D.

During purging, groundwater was monitored for pH, specific conductivity, turbidity, DO, temperature, TDS, and ORP. An aliquot of the groundwater sample was tested in the field for the presence of ferrous iron.

Following collection, the samples were packed in ice and shipped via same-day or overnight delivery to an approved laboratory in accordance with chain-of-custody

procedures. Groundwater sample analyses were performed by Columbia Analytical Services in Rochester, New York. Table 2.2 provides a summary of analytical specifications, including analysis type, sample containers, analytical methods, and other information.

In addition to monitoring concentrations of COCs, several wells were selected for the monitoring of natural attenuation evaluation parameters. The nine well clusters chosen for these additional analyses are located along the groundwater flow path in upgradient, cross-gradient, and downgradient locations and in source areas, as suggested in the *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* (USEPA, 1998). The well couplets selected for natural attenuation monitoring included MW-1, MW-3, MW-4, MW-5, MW-7, MW-10, MW-14, MW-16, MW-17, and MW-18. Analysis for the presence of propene as a natural attenuation parameter was eliminated from the sampling plan following discussions with the NYSDEC.

Purge water and decontamination water were contained and staged in 55-gallon drums for disposal. Following receipt of sample results, the water was disposed of in the sanitary sewer under a permit with the Niagara Falls Water Board.

2.3 SEWER WATER SAMPLING AND ANALYSIS

Sewer water sampling and analysis was conducted from the Town of Niagara sanitary sewer located south of the Site beneath Rhode Island Avenue. The Town of Niagara engineer was notified of the sampling event prior to sample collection. One sewer water sample was collected from a manhole in Rhode Island Avenue east of Panama Street, two blocks east of the eastern site boundary (MH-3). This served as an "upgradient" sampling location. One sewer water sample was also collected from each manhole, located immediately south of the Site on Rhode Island Avenue. One was collected from the manhole located closest to Hyde Park Boulevard (MH-1). A second sample was collected from the manhole east of MH-1 (MH-2). Sewer sampling locations are indicated in Figure 1.2.

Sewer water grab samples were collected by removing manhole covers and lowering clean, wide-mouth glass jars attached to the end of a telescopic pole, into flowing wastewater in the sewer. Grab samples were then transferred to laboratory-prepared sample containers for analysis. Three sewer samples were submitted to the laboratory.

Table 2.1
Summary of Groundwater Sampling
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

Well ID	Date Sampled	Sample ID	Volume Purged (gallons)
MW-1A	23-Apr-08	MW-1A	2 (dry)
MW-1B	23-Apr-08	MW-1B	13.0
MW-2A	28-Apr-08	MW-2A	6.6
MW-2B	28-Apr-08	MW-2B	15.5
MW-3A	24-Apr-08	MW-3A	2 (dry)
MW-3B	25-Apr-08	MW-3B, MW-300B	15.0
MW-4A	29-Apr-08	MW-4A	6
MW-4B	29-Apr-08	MW-4B	13.0
MW-5A	22-Apr-08	MW-5A	5.3
MW-5B	22-Apr-08	MW-5B	14.0
MW-6	29-Apr-08	MW-6	13.0
MW-7A	28-Apr-08	MW-7A	7.0
MW-7B	28-Apr-08	MW-7B	17.0
MW-8	25-Apr-08	MW-8	17.0
MW-10A	22-Apr-08	MW-10A	5.4
MW-10B	22-Apr-08	MW-10B, MW-100B	58.0
MW-11A	22-Apr-08	MW-11A	2.0 (dry)
MW-11B	22-Apr-08	MW-11B	55.4
MW-12A	22-Apr-08	MW-12A, 120A	4.6
MW-12B	21-Apr-08	MW-12B	53.3
MW-13A	23-Apr-08	MW-13AA	4.5
MW-13B	23-Apr-08	MW-13B, MW-130B	14.0
MW-14A	23-Apr-08	MW-14A	1 (dry)
MW-14B	24-Apr-08	MW-14B, 140B	12.0
MW-15	23-Apr-08	MW-15	11.0
MW-16A	25-Apr-08	MW-16A	1.5 (dry)
MW-16B	25-Apr-08	MW-16B	17.0
MW-17A	28-Apr-08	MW-17A	4.0
MW-17B	28-Apr-08	MW-17B	12.5
MW-18A	28-Apr-08	MW-18A	5.5
MW-18B	25-Apr-08	MW-18B	16.0
MW-19A	24-Apr-08	MW-19A	1.5 (dry)
MW-19B	23-Apr-08	MW-19B	14.00
MH-1	25-Apr-08	MH-1	
MH-2	25-Apr-08	MH-2	
MH-3	25-Apr-08	MH-3	

Table 2.2
Summary of Analytical Specifications
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

Sample Type	Container Type	Sample Volume	Preservation Method	Max. Holding Time	Analytical Method
Chemicals of Concern (COCs)					
VOCs	40mL glass vial with septum top	4x40 mL	Hydrochloric acid, Cool 4oC	7days	SW846 Method 8260B
Natural Attenuation Parameters					
Methane, Ethene, Ethane, Propane	40mL glass vial with septum top	2x40 mL	Hydrochloric acid, Cool 4oC	7 days	USEPA RSK175
TOC	40mL glass vial with septum top	2x40 mL	Hydrochloric acid, Cool 4oC	7 days	USEPA 415.1
BOD	1L plastic	1L	None	48 hrs	USEPA 405.1
COD	250 mL plastic	250 mL	Sulfuric acid	28 days	USEPA 410.1
Total Iron	250 mL plastic	250 mL	Nitric acid	6 months	USEPA 6010B
Chloride	500 mL plastic	500 mL	None	28 days	Standard Method 325.2
Nitrate	-	-	-	48 hours	USEPA 353.2
Nitrite	-	-	-	28 days	USEPA 354.1
Sulfate	-	-	-	28 days	USEPA 375.4
Sulfide	250 mL plastic	250 mL	Sodium hydroxide and zinc acetate	7 days	USEPA 376.2

Notes:
- = This parameter was analyzed from the above sample container

SECTION 3
GROUNDWATER MONITORING PROGRAM SUMMARY

3.1 GROUNDWATER ELEVATIONS AND FLOW DIRECTIONS

A summary of the groundwater elevations for water level measurements collected during groundwater sampling events completed over the period from August 1992 through April 2008 is provided in Table 3.1. Table 3.1 also includes well location and top of casing and ground surface elevations for the monitoring wells.

Groundwater in the overburden monitoring wells was measured at depths between 3.0 and 8.5 feet below ground surface (bgs). An overburden groundwater contour map was developed based on the April 21, 2008 water levels (Figure 3.1). As observed in the past, the overburden groundwater flow direction is to the west-southwest, towards Hyde Park Boulevard. The overburden groundwater gradient across the Site is approximately 0.01 feet/foot.

Groundwater in the bedrock monitoring wells was measured at depths between 3.4 and 8.7 feet bgs. A bedrock groundwater potentiometric surface contour map was developed based on the April 21, 2008 water levels (Figure 3.2). Consistent with historical observations, the bedrock groundwater flow direction is generally west towards Hyde Park Boulevard. The bedrock groundwater gradient across the Site is approximately 0.003 feet/foot. The gradients were higher (steeper) in the Spring of 2008 compared to the Fall of 2007.

Table 3.2 lists the vertical hydraulic gradients calculated for the groundwater levels measured on April 21, 2008. Gradients are upward in the southern and central parts of the site and downward along the northern end of the site. Measured gradients are relatively small. Gradients fluctuated from flat or slightly downward to slightly upward at six locations. Gradients were upward at four additional locations in both the Spring 2008 and Fall 2007 sampling events.

3.2 GROUNDWATER SAMPLING RESULTS

Field measurements collected for the Spring 2008 sampling event are provided in Table 3.3. Summaries of COCs and natural attenuation parameter results are included in Table 3.4. The complete analytical data results are included as Appendix A, and Appendix B contains a summary of the COC and natural attenuation parameter results from 1999 to 2008.

3.2.1 VOC Results

Groundwater samples from 33 groundwater monitoring wells (15 overburden, 18 bedrock) were collected and analyzed for the presence of VOCs.

For reporting purposes, the analytical results have been compared to the Class GA Groundwater Standards and Guidance provided in the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1: Ambient Groundwater Quality Standards and Guidance Values and Groundwater Effluent Limitations (NYSDEC, 1998).

The COC results for the 15 overburden groundwater samples were consistent with previous rounds of monitoring. COCs with concentrations exceeding the Class GA criteria were detected in 9 of the overburden well samples. No COCs were detected in samples from wells MW-1A, MW-11A, and MW-13A. The highest COC concentrations were again detected in the sample from well MW-7A, located near the former solvent storage area. The COC concentrations at MW-7A increased to levels similar to the concentrations detected in the Spring 2006 sample. Concentration fluctuations were within the ranges detected in recent rounds. Figure 3.3 shows a summary of the overburden well COC analytical results from the Spring 2008 sampling event, and from several historical events.

The COC results for the 18 bedrock groundwater samples were consistent with results from previous rounds of monitoring. COCs with concentrations exceeding the Class GA criteria were detected in all of the bedrock groundwater samples, with the exception of the sample from MW-1B. The highest concentrations were again observed at MW-17B. Comparisons of the analytical data from Fall 2007 and Spring 2008 indicate that there were concentration fluctuations of some COCs. The fluctuations are within ranges detected in recent sample round results. Figure 3.4 shows a summary of the bedrock well COC analytical results from the Spring 2008 sampling event from and several historical sampling events.

3.2.2 Natural Attenuation Monitoring Results

As part of the ongoing groundwater monitoring program, natural attenuation parameters are sampled during each monitoring event. The results were consistent with previous monitoring events, and continue to indicate that natural attenuation through biotransformation varies from limited to adequate in both the overburden and the bedrock groundwater. In order to assess the prospect of enhancing biotransformation, a pilot test work plan for enhanced *in situ* bioremediation is planned for August 2008. The pilot test work plan was approved by NYSDEC in May 2008.

3.3 SEWER WATER SAMPLING RESULTS

Cis-1,2-dichloroethene was detected in all three sewer samples collected in Fall 2007 and Spring 2008. The analytical results ranged from 0.45ug/L to 0.69ug/L in the Fall of 2007 and from 5.4 ug/L to 6.9 ug/L in the Spring of 2008 samples. Each result was qualified with a J following data validation. A ‘J’ qualifier indicates that the result is below the method detection limit and is considered to be an estimated value. Estimated concentrations of TCE qualified as J values were also detected in each of the three sewer

samples, and vinyl chloride was detected in the upgradient sewer sample (MH-3). Results were comparable to historical data.

3.4 DATA VALIDATION

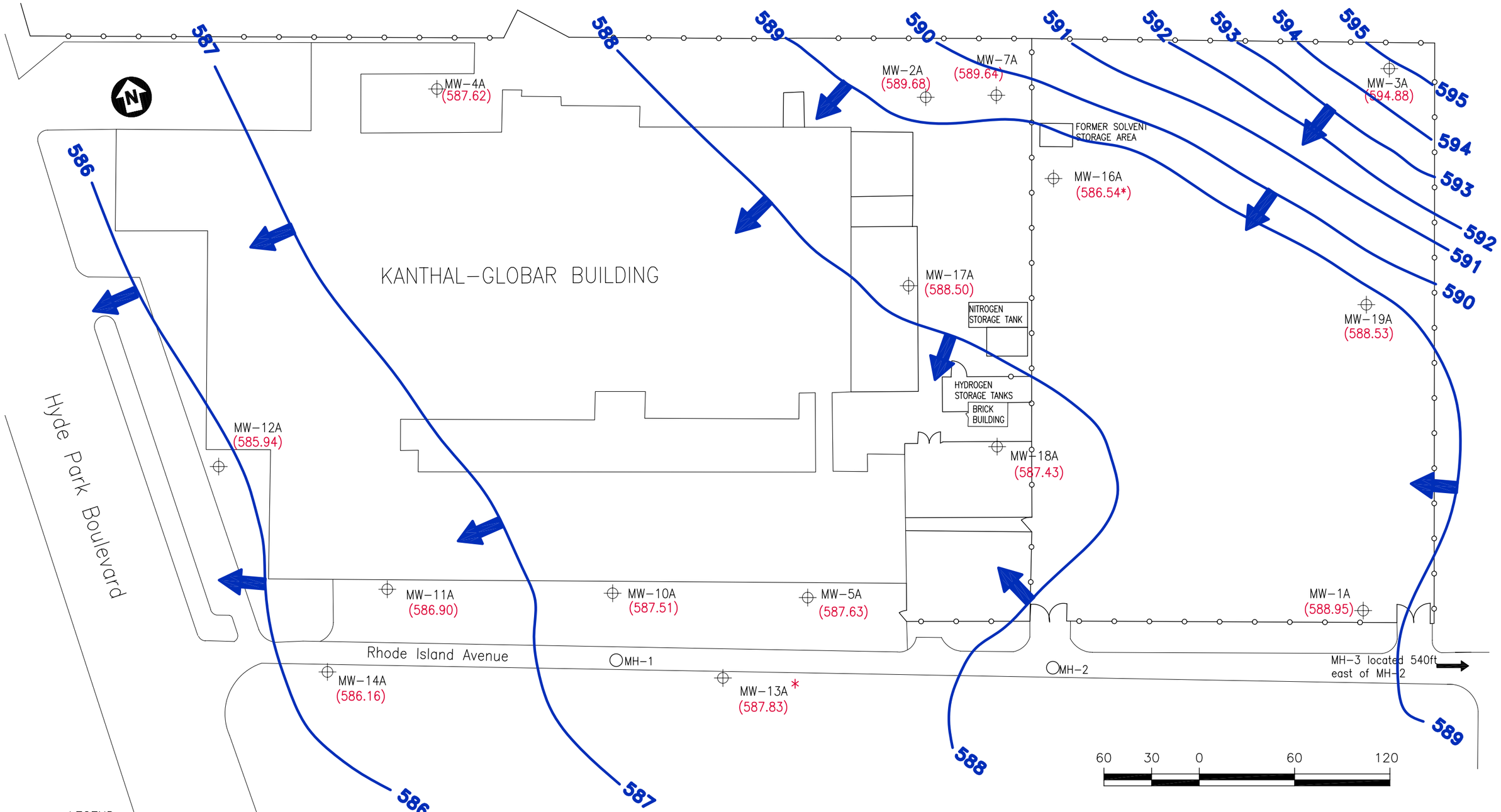
Groundwater samples were collected from the Hyde Park Site in the Town of Niagara, New York from April 21, 2008 through April 29, 2008. Analytical results from these samples were reviewed by Parsons for usability with respect to the following requirements:

- Work Plan,
- NYSDEC Analytical Services Protocol (ASP), and
- USEPA Region II Standard Operating Procedures (SOPs).

The analytical laboratory for this project was Columbia Analytical Services, Inc. This laboratory is approved to conduct project analyses through the New York Department of Health (NYDOH) Environmental Laboratory Approval Program (ELAP).

The data submitted by the laboratory have been reviewed and validated. The analytical data were found to be acceptable in terms of deliverable completeness, accuracy, precision, representativeness, completeness and comparability. Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs and the NYSDEC ASP for organic and inorganic data review.

A copy of the data usability summary report (DUSR) for groundwater samples is included in Appendix C.



LEGEND:

⊕ MW-5A	OVERBURDEN MONITORING WELL LOCATION	586	GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FT)
○ MH-1	MANHOLE / SANITARY SEWER SAMPLE LOCATION	(587.51)	GROUNDWATER ELEVATION (FT-AMSL)
			GROUNDWATER FLOW DIRECTION

* ANOMALOUS POINT NOT USED IN CONTOURING

SOURCE: INTERA, 2006

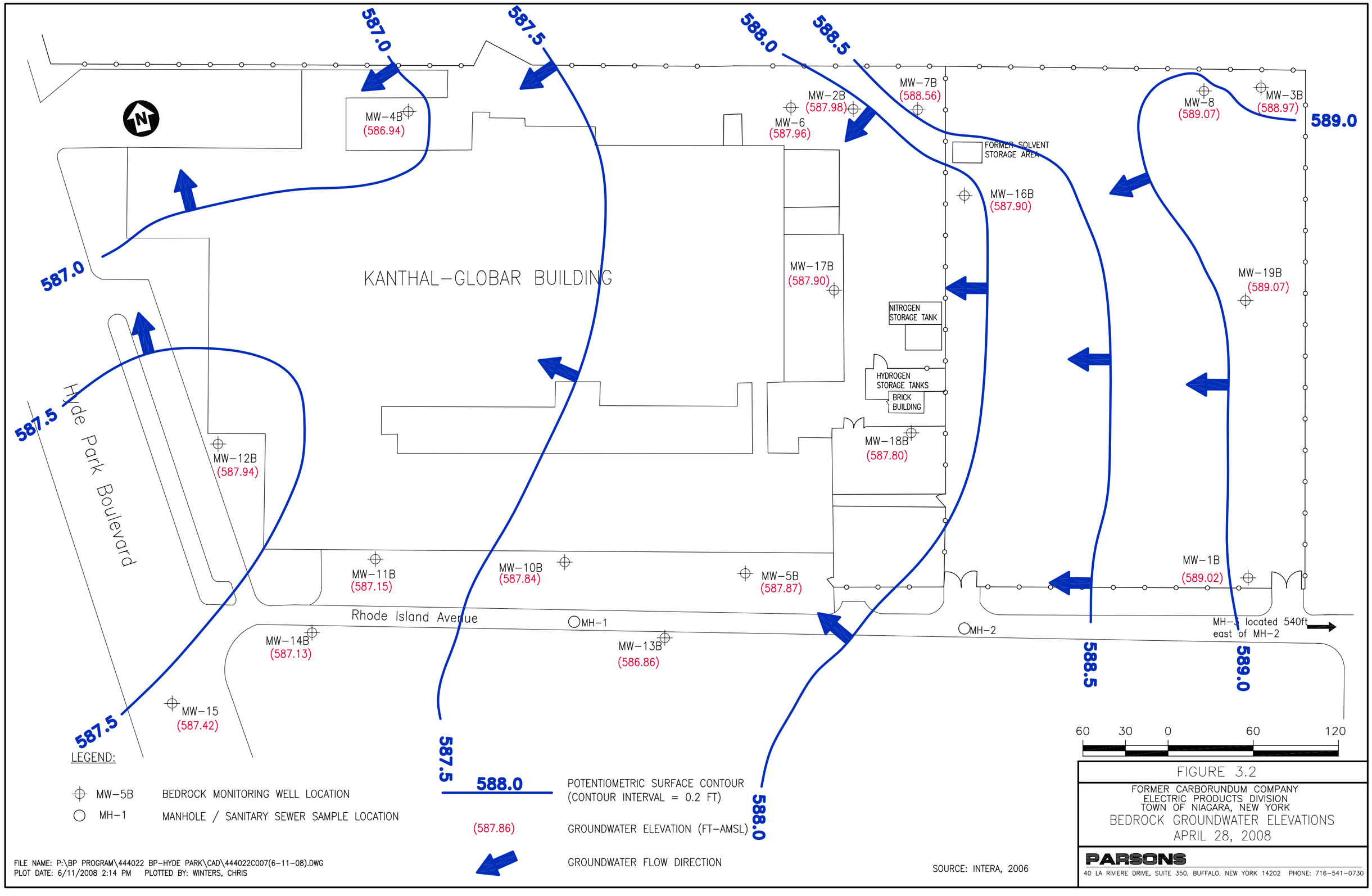
FIGURE 3.1

FORMER CARBORUNDUM COMPANY
ELECTRIC PRODUCTS DIVISION
TOWN OF NIAGARA, NEW YORK

OVERBURDEN GROUNDWATER ELEVATIONS
APRIL 28, 2008

PARSONS
40 LA RIVIERE DRIVE, SUITE 350, BUFFALO. NEW YORK 14202 PHONE: 716-541-0730

FILE NAME: P:\BP PROGRAM\444022 BP-HYDE PARK\CAD\444022C007(6-11-08).DWG
PLOT DATE: 6/11/2008 2:11 PM PLOTTED BY: WINTERS, CHRIS



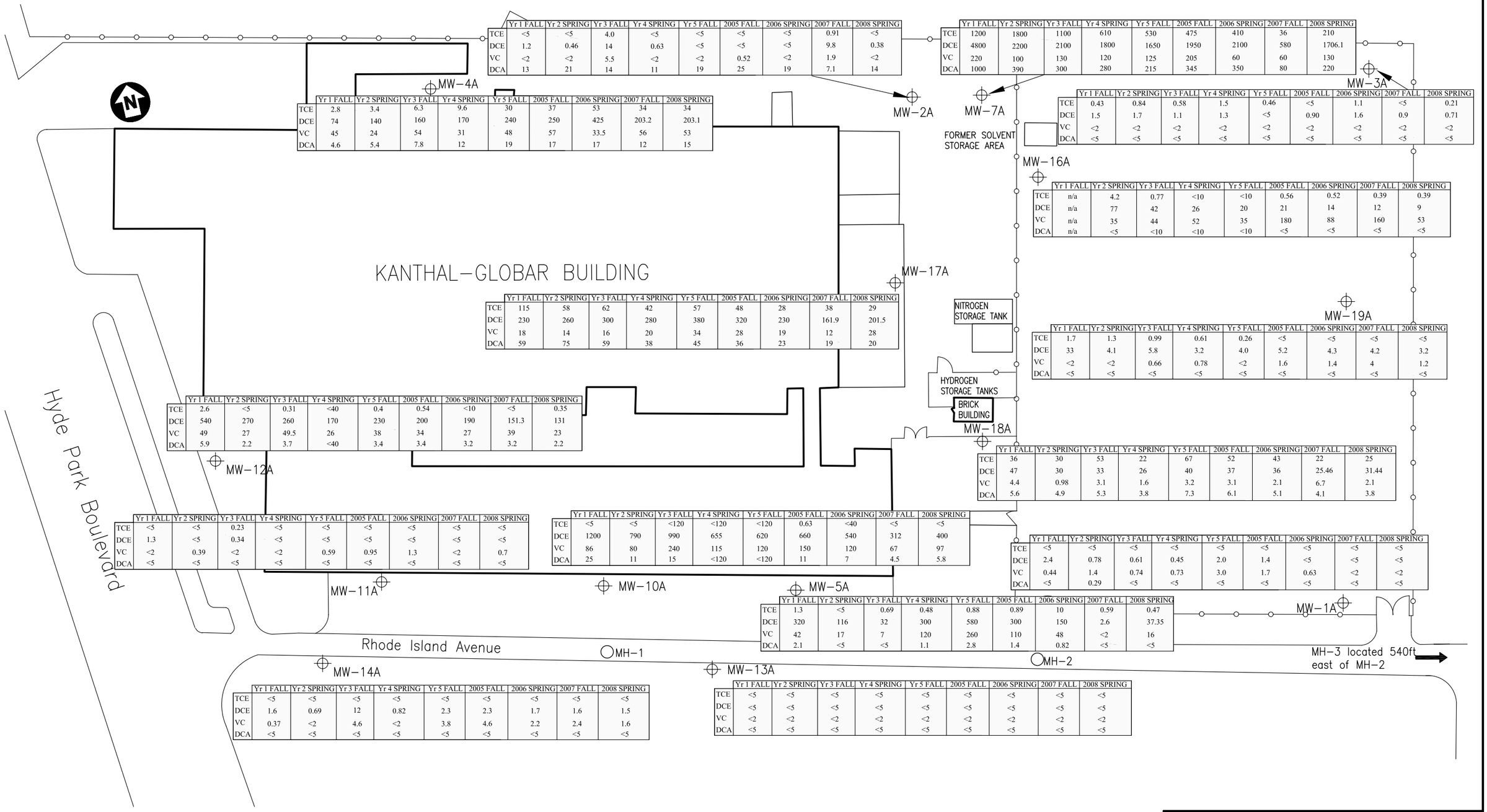
SOURCE: INTERA, 2006

FIGURE 3.2

FORMER CARBORUNDUM COMPANY
ELECTRIC PRODUCTS DIVISION
TOWN OF NIAGARA, NEW YORK
BEDROCK GROUNDWATER ELEVATIONS
APRIL 28, 2008

PARSONS
40 LA RIVIERE DRIVE, SUITE 350, BUFFALO. NEW YORK 14202 PHONE: 716-541-0730

FILE NAME: P:\BP PROGRAM\444022 BP-HYDE PARK\CAD\444022C007(6-11-08).DWG
PLOT DATE: 6/11/2008 2:14 PM PLOTTED BY: WINTERS, CHRIS



	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	4.0	<5	<5	<5	<5	0.91	<5
DCE	1.2	0.46	14	0.63	<5	<5	<5	9.8	0.38
VC	<2	<2	5.5	<2	<2	0.52	<2	1.9	<2
DCA	13	21	14	11	19	25	19	7.1	14

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	1200	1800	1100	610	530	475	410	36	210
DCE	4800	2200	2100	1800	1650	1950	2100	580	1706.1
VC	220	100	130	120	125	205	60	60	130
DCA	1000	390	300	280	215	345	350	80	220

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	2.8	3.4	6.3	9.6	30	37	53	34	34
DCE	74	140	160	170	240	250	425	203.2	203.1
VC	45	24	54	31	48	57	33.5	56	53
DCA	4.6	5.4	7.8	12	19	17	17	12	15

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	0.43	0.84	0.58	1.5	0.46	<5	1.1	<5	0.21
DCE	1.5	1.7	1.1	1.3	<5	0.90	1.6	0.9	0.71
VC	<2	<2	<2	<2	<2	<2	<2	<2	<2
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	n/a	4.2	0.77	<10	<10	0.56	0.52	0.39	0.39
DCE	n/a	77	42	26	20	21	14	12	9
VC	n/a	35	44	52	35	180	88	160	53
DCA	n/a	<5	<10	<10	<10	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	115	58	62	42	57	48	28	38	29
DCE	230	260	300	280	380	320	230	161.9	201.5
VC	18	14	16	20	34	28	19	12	28
DCA	59	75	59	38	45	36	23	19	20

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	1.7	1.3	0.99	0.61	0.26	<5	<5	<5	<5
DCE	33	4.1	5.8	3.2	4.0	5.2	4.3	4.2	3.2
VC	<2	<2	0.66	0.78	<2	1.6	1.4	4	1.2
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	2.6	<5	0.31	<40	0.4	0.54	<10	<5	0.35
DCE	540	270	260	170	230	200	190	151.3	131
VC	49	27	49.5	26	38	34	27	39	23
DCA	5.9	2.2	3.7	<40	3.4	3.4	3.2	3.2	2.2

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	36	30	53	22	67	52	43	22	25
DCE	47	30	33	26	40	37	36	25.46	31.44
VC	4.4	0.98	3.1	1.6	3.2	3.1	2.1	6.7	2.1
DCA	5.6	4.9	5.3	3.8	7.3	6.1	5.1	4.1	3.8

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	0.23	<5	<5	<5	<5	<5	<5
DCE	1.3	<5	0.34	<5	<5	<5	<5	<5	<5
VC	<2	0.39	<2	<2	0.59	0.95	1.3	<2	0.7
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<120	<120	<120	0.63	<40	<5	<5
DCE	1200	790	990	655	620	660	540	312	400
VC	86	80	240	115	120	150	120	67	97
DCA	25	11	15	<120	<120	11	7	4.5	5.8

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<5	<5	<5	<5	<5	<5
DCE	2.4	0.78	0.61	0.45	2.0	1.4	<5	<5	<5
VC	0.44	1.4	0.74	0.73	3.0	1.7	0.63	<2	<2
DCA	<5	0.29	<5	<5	<5	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	1.3	<5	0.69	0.48	0.88	0.89	10	0.59	0.47
DCE	320	116	32	300	580	300	150	2.6	37.35
VC	42	17	7	120	260	110	48	<2	16
DCA	2.1	<5	<5	1.1	2.8	1.4	0.82	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<5	<5	<5	<5	<5	<5
DCE	1.6	0.69	12	0.82	2.3	2.3	1.7	1.6	1.5
VC	0.37	<2	4.6	<2	3.8	4.6	2.2	2.4	1.6
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<5	<5	<5	<5	<5	<5
DCE	<5	<5	<5	<5	<5	<5	<5	<5	<5
VC	<2	<2	<2	<2	<2	<2	<2	<2	<2
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

TCE: trichloroethene
DCE: cis- and trans-1,2-dichloroethene
VC: vinyl chloride
DCA: 1,1-dichloroethane

LEGEND:

- ⊕ MW-5A — MONITORING WELL LOCATION (A=OVERBURDEN, B=BEDROCK)
- ○ MH-1 — MANHOLE / SANITARY SEWER SAMPLE LOCATION

SOURCE: INTERA, 2006

FILE NAME: P:\BP PROGRAM\444022 BP-HYDE PARK\CAD\444022C002(6-11-08).DWG
PLOT DATE: 7/23/2008 7:05 AM PLOTTED BY: WINTERS, CHRIS

FIGURE 3.3

FORMER CARBORUNDUM COMPANY
ELECTRIC PRODUCTS DIVISION
TOWN OF NIAGARA, NEW YORK

COC CONCENTRATIONS IN OVERBURDEN GROUNDWATER (1999-2008)

PARSONS
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<50	<5	<25	<5	<10	<5	<5
DCE	560	360	250	220	220	210	170	130.52	150.39
VC	91	72	72	84	100	130	84	82	100
DCA	0.28	<5	<50	<5	<25	<5	<10	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	0.5	<10	<5	<5	<5	<5	<5	<5
DCE	84	40	35	23	21	18	14	11	10
VC	39	23	44	6.2	36	46	43	31	45
DCA	<5	<5	<10	<5	<5	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<5	<5	<5	<5	<5	<5
DCE	5.55	4.4	3.2	3.0	2.8	3.2	3.1	2.1	2.1
VC	1.9	2.75	2.0	1.9	2.3	1.9	1.9	2.2	2.2
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

MW-6

MW-2B

MW-7B

MW-8

MW-3B

MW-4B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	3.2	0.99	0.58	<5	0.41	0.63	<5	<5	<5
DCE	39	30	18	20	14	17	12	23	12
VC	35	37	25	18	19	17	14	11	13
DCA	3.2	2.5	1.75	1.8	1.6	1.8	1.3	1.4	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	0.44	1.1	<25	<5	<20	<5	<5	<5	<5
DCE	260	64	150	87	85	90	62	48	41
VC	92	15	100	60	81	90	62	59	62
DCA	<5	2	<25	<5	<20	<5	<5	<5	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<5	<5	<5	<5	<5	<5
DCE	4.8	3.5	3.4	2.6	2.1	2.7	2.6	1.8	2.5
VC	2.3	1.8	2.1	1.7	2.6	2.6	2.0	1.8	2.6
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

FORMER SOLVENT STORAGE AREA

MW-16B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	0.97	<5	<25	<50	<50	<5	<20	<5	0.25
DCE	130	140	290	290	250	320	310	210.88	281.4
VC	35	22	89	54	60	75	70	63	86
DCA	<5	<5	<25	<50	<50	<5	<20	<5	0.22

KANTHAL-GLOBAR BUILDING

MW-17B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	22	4.2	20	19	12	11	6.05	4	4.6
DCE	1000	505	710	720	955	985	855	443.4	638.5
VC	69	41	81	92	125	115	69	64	82
DCA	5.4	<5	39	28	26.5	25.5	22	9.3	17

MW-19B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	2.4	1.0	<5	<5	<5	<5	<5	<5	<5
DCE	41	25	8.6	33	1.8	21	52	12	24
VC	6.3	2.2	1.8	5.9	<2	5.3	7.7	3.4	5.8
DCA	<5	<5	<5	<5	<5	<5	<5	<5	<5

NITROGEN STORAGE TANK

HYDROGEN STORAGE TANKS

BRICK BUILDING

MW-18B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	7.7	<5	<50	<5	<17.5	<5	<10	<5	<5
DCE	690	420	290	270	190	170	160	160.9	120.73
VC	90	60	100	140	185	180	170	140	180
DCA	<5	<5	<50	<5	<17.5	<5	<10	<5	<5

Hyde Park Boulevard

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<25	<20	<20	<5	<5	<5	<5
DCE	210	200	160	92	120	150	110	111	141.6
VC	77	86	100	39	96	85	78	76	70
DCA	2.3	<5	1.3	<20	<20	1.8	1.6	1.8	1.6

MW-12B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<50	<25	<5	<10	<5	<5
DCE	590	460	190	230	150	140	120	141	100.77
VC	81	88	79	80	66	80	66.5	80	64
DCA	3.5	<5	0.45	<50	<25	<5	<5	0.39	<5

MW-11B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	68	<6.4	13	4.5	<50	1.25	<20	0.7	0.46
DCE	1800	3200	520	260	260	320	220	221.9	181.3
VC	95	410	84	54	80	115	73	130	76
DCA	1.2	46	<100	<50	<50	0.84	<20	0.71	0.54

MW-10B

MW-5B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	2.6	2.4	1.6	0.99	<25	1.5	0.72	0.76	0.51
DCE	420	140	140	110	110	87	74	61.66	58.5
VC	45	13	54	44	59	58	44	49	57
DCA	1.1	<5	<25	<5	<25	0.65	<5	0.38	<5

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<5	<5	<5	<5	<5	<5
DCE	4.7	1.1	16	1.3	5.4	5.5	1.4	11	1.2
VC	3.8	2	19	1.3	5.1	5.1	1.7	16	1.9
DCA	1.5	1.70	0.62	0.87	<5	0.76	0.96	<5	0.71

MW-1B

Rhode Island Avenue

MH-1

MH-2

MH-3 located 540ft east of MH-2

MW-14B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<50	<25	<5	<5	<10	<5	<5
DCE	300	280	200	170	130	130	130	56.42	120.85
VC	110	50	120	68	99	98	86	49	90
DCA	0.61	<5	<50	<25	<5	<5	<10	0.6	0.41

MW-13B

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	12	7.9	9.1	2.8	1.2	1.4	<10	0.78	0.74
DCE	310	210	160	120	140	110	110	83.1	68.53
VC	40	27	36	90	62	60	44	59	65
DCA	0.91	<5	0.83	0.58	0.56	0.77	<10	0.61	0.48

MW-15

	Yr 1 FALL	Yr 2 SPRING	Yr 3 FALL	Yr 4 SPRING	Yr 5 FALL	2005 FALL	2006 SPRING	2007 FALL	2008 SPRING
TCE	<5	<5	<5	<100	<50	<5	<5	<5	<5
DCE	400	410	340	440	400	340	300	171.5	191.5
VC	120	58	100	110	130	120	97	86	93
DCA	0.95	<5	1.1	<100	<50	2	1.6	0.66	0.58

TCE: trichloroethene
DCE: cis- and trans-1,2-dichloroethene
VC: vinyl chloride
DCA: 1,1-dichloroethane

LEGEND:

MW-5B — MONITORING WELL LOCATION (A=OVERBURDEN, B=BEDROCK)

MH-1 — MANHOLE / SANITARY SEWER SAMPLE LOCATION

SOURCE: INTERA, 2006

FILE NAME: P:\BP PROGRAM\444022 BP-HYDE PARK\CAD\444022C002(6-11-08).DWG
PLOT DATE: 6/16/2008 8:20 AM PLOTTED BY: WINTERS, CHRIS

FIGURE 3.4

FORMER CARBORUNDUM COMPANY
ELECTRIC PRODUCTS DIVISION
TOWN OF NIAGARA, NEW YORK

COC CONCENTRATIONS IN BEDROCK GROUNDWATER (1999-2008)

PARSONS
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

Table 3.1
Groundwater Elevation Summary (1999-2008)
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

Well No.	Easting Coordinates (ft)	Northing Coordinates (ft)	Elevation (ft. amsl)		Static Water Level Elevation (ft. amsl)								
								Year 1		Year 2		Year 3	
			Ground Surface	Top of Monitor Well Casing	24-Aug-92	24-May-96	17-Nov-97	18-Oct-99	8-Nov-00	11-May-01	5-Nov-01	13-May-02	28-Oct-02
MW-1A	2955.6087	5008.2713	595.48	597.56	592.62	590.48	587.89	586.26	585.95	588.35	586.70	589.42	585.81
MW-1B	2960.1041	5008.1236	595.44	597.64	592.64	590.45	587.73	586.52	585.87	588.34	586.76	589.50	585.80
MW-2A	2680.1182	5331.3852	593.70	595.73	593.25	591.13	588.96	587.37	586.45	589.43	587.87	590.55	586.58
MW-2B	2681.7002	5337.9356	593.60	595.80	591.92	589.72	586.89	586.03	585.48	587.72	586.38	588.75	585.43
MW-3A	2969.9762	5353.9117	597.90	599.94	597.37	595.49	594.30	592.20	592.09	594.48	589.75	595.81	587.54
MW-3B	2972.3807	5348.8355	597.70	599.70	592.63	590.47	587.77	586.64	585.80	588.18	586.69	589.30	585.69
MW-4A	2372.5988	5336.5134	591.93	591.60	nm	nm	586.79	585.98	585.24	587.52	586.32	588.55	585.10
MW-4B	2368.6508	5336.5000	591.90	591.49	nm	nm	586.80	585.95	585.23	587.55	586.29	588.54	585.35
MW-5A	2605.9294	5016.5936	596.14	597.91	591.18	589.11	586.60	585.79	585.20	587.31	586.00	588.35	585.21
MW-5B	2605.7558	5011.3162	596.03	597.79	591.48	589.55	586.81	585.93	585.25	587.54	586.24	588.57	585.32
MW-6B	2638.3679	5339.2224	593.10	595.51	592.26	589.67	586.85	586.03	585.44	587.67	586.36	588.69	585.40
MW-7A	2724.6499	5332.6172	593.90	596.59	593.62	590.94	588.68	587.33	586.45	589.21	587.72	590.27	586.35
MW-7B	2725.0999	5337.8887	593.90	596.66	592.59	589.93	587.26	586.40	585.63	587.93	586.59	589.11	585.64
MW-8B	2928.7692	5350.8907	597.50	599.63	592.51	590.38	587.77	586.65	585.94	588.36	586.90	589.52	585.92
MW-10A	2483.0258	5019.0908	594.75	596.87	591.17	588.90	586.51	585.71	585.15	587.20	585.93	588.22	585.16
MW-10B	2478.5765	5019.1388	594.67	596.71	591.71	589.50	586.79	585.93	585.19	587.49	586.21	588.54	585.29
MW-11A	2341.0812	5021.6589	593.53	595.48	589.97	587.85	585.98	585.32	584.85	586.62	585.51	587.61	584.88
MW-11B	2345.1520	5021.2462	593.56	595.57	591.53	589.36	586.41	585.55	585.06	587.03	585.73	587.83	584.91
MW-12A	2235.0446	5098.8980	591.30	590.79	586.33	586.84	585.35	584.82	584.38	585.77	584.90	586.59	584.39
MW-12B	2234.5233	5102.1429	591.30	590.89	588.85	589.25	586.65	585.93	585.21	587.53	586.21	588.56	585.35
MW-13A	2552.3923	4965.9516	595.60	595.18	588.56	589.04	586.51	585.70	585.16	587.30	585.25	588.16	585.17
MW-13B	2549.3819	4965.8826	595.40	594.73	588.62	589.50	586.78	585.90	585.22	587.50	586.22	588.56	585.28
MW-14A	2303.8879	4969.9839	593.42	592.97	585.55	585.87	585.60	585.30	582.91	585.95	585.47	587.56	584.83
MW-14B	2301.0559	4969.7638	593.30	592.85	588.35	589.30	586.72	585.83	585.04	587.08	585.83	587.96	584.94
MW-15B	2202.4948	4920.3288	592.01	591.44	nm	nm	586.22	585.57	585.02	587.13	585.86	588.13	585.04
MW-16A	2760.3762	5280.4861	592.60	591.64	nm	nm	nm	nm	nm	587.40	586.11	587.80	586.23
MW-16B	2760.3365	5277.4639	592.60	592.38	nm	nm	nm	nm	585.70	nm	586.70	nm	585.82
MW-17A	2669.1049	5212.5469	593.45	593.11	nm	nm	nm	nm	586.26	588.27	586.81	589.29	586.02
MW-17B	2668.7040	5210.7102	593.44	592.90	nm	nm	nm	nm	585.58	587.63	586.29	588.65	585.39
MW-18A	2725.1577	5111.5508	594.00	593.78	nm	nm	nm	nm	585.76	587.91	586.94	589.25	586.17
MW-18B	2722.9546	5110.1467	594.00	593.43	nm	nm	nm	nm	585.39	587.67	586.34	588.71	585.42
MW-19A	2957.4556	5200.7298	595.44	594.95	nm	nm	nm	nm	586.38	589.16	582.97	590.36	586.09
MW-19B	2958.1664	5203.1593	595.43	594.65	nm	nm	nm	nm	585.91	588.33	586.87	589.50	585.89
MH-1	2485.3313	4977.0431	na	595.29	nm	nm	nm	nm	583.31	583.35	582.86	nm	583.31
MH-2	2760.1474	4972.2985	na	596.51	nm	nm	nm	nm	583.88	583.91	583.85	nm	583.71
MH-3	3300.8154	4964.0866	na	596.79	nm	nm	nm	nm	585.61	585.73	nm	nm	583.99

Notes: ft amsl - feet above mean sea level
nm - water level not measured

Table 3.1
Groundwater Elevation Summary (1999-2008)
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

Well No.	Easting Coordinates (ft)	Northing Coordinates (ft)	Elevation (ft. amsl)		Static Water Level Elevation (ft. amsl)									
					Year 4		Year 5		Fall 2005	Spring 2006	Fall 2007		Spring 2008	
			Ground Surface	Top of Monitor Well Casing	20-May-03	4-Nov-03	10-May-04	25-Oct-04	31-Oct-05	15-May-05	DTW	29-Oct-07	DTW	21-Apr-08
MW-1A	2955.6087	5008.2713	595.48	597.56	589.57	587.62	589.92	587.52	588.85	588.77	12.62	584.94	**8.61**	588.95
MW-1B	2960.1041	5008.1236	595.44	597.64	589.59	587.63	589.96	587.53	588.85	588.78	12.70	584.94	**8.62**	589.02
MW-2A	2680.1182	5331.3852	593.70	595.73	590.43	588.91	590.84	588.25	589.75	589.84	10.68	585.05	**6.05**	589.68
MW-2B	2681.7002	5337.9356	593.60	595.80	588.80	586.94	588.99	586.94	588.11	587.90	11.26	584.54	7.82	587.98
MW-3A	2969.9762	5353.9117	597.90	599.94	595.48	593.41	596.20	592.62	593.95	595.11	14.57	585.37	5.06	594.88
MW-3B	2972.3807	5348.8355	597.70	599.70	589.33	587.40	589.73	587.46	588.74	588.74	14.68	585.02	10.73	588.97
MW-4A	2372.5988	5336.5134	591.93	591.60	588.65	586.48	588.84	586.83	587.73	587.65	7.22	584.38	3.98	587.62
MW-4B	2368.6508	5336.5000	591.90	591.49	588.64	586.83	588.85	586.81	587.90	587.77	7.02	584.47	4.55	586.94
MW-5A	2605.9294	5016.5936	596.14	597.91	588.38	586.82	588.66	586.49	587.76	587.57	13.50	584.41	10.28	587.63
MW-5B	2605.7558	5011.3162	596.03	597.79	588.64	586.83	588.85	586.77	587.95	587.73	13.35	584.44	9.92	587.87
MW-6B	2638.3679	5339.2224	593.10	595.51	588.75	586.91	588.95	586.90	588.06	587.84	17.02	578.49	7.55	587.96
MW-7A	2724.6499	5332.6172	593.90	596.59	590.24	588.62	590.59	588.17	589.59	589.55	11.61	584.98	6.95	589.64
MW-7B	2725.0999	5337.8887	593.90	596.66	589.13	587.24	589.41	587.29	588.52	588.39	11.80	584.86	8.10	588.56
MW-8B	2928.7692	5350.8907	597.50	599.63	589.62	587.69	589.93	587.69	588.97	588.85	14.50	585.13	**10.56**	**589.07**
MW-10A	2483.0258	5019.0908	594.75	596.87	588.26	586.80	588.52	586.47	587.67	587.45	12.50	584.37	**9.36**	**587.51**
MW-10B	2478.5765	5019.1388	594.67	596.71	588.61	586.83	588.82	586.74	587.94	587.74	12.28	584.43	8.87	587.84
MW-11A	2341.0812	5021.6589	593.53	595.48	587.67	586.33	587.87	586.06	587.18	586.85	11.34	584.14	8.58	586.90
MW-11B	2345.1520	5021.2462	593.56	595.57	587.83	586.42	588.01	586.15	587.30	586.94	11.52	584.05	8.42	587.15
MW-12A	2235.0446	5098.8980	591.30	590.79	586.79	585.64	586.87	585.51	586.48	586.00	7.03	583.76	4.85	585.94
MW-12B	2234.5233	5102.1429	591.30	590.89	588.64	586.82	588.82	586.76	587.97	587.74	6.44	584.45	2.95	587.94
MW-13A	2552.3923	4965.9516	595.60	595.18	588.32	586.91	588.62	586.65	587.52	587.55	7.15	588.03	7.35	587.83
MW-13B	2549.3819	4965.8826	595.40	594.73	588.63	586.99	588.82	586.72	587.94	587.71	10.42	584.31	*6.87*	*587.86*
MW-14A	2303.8879	4969.9839	593.42	592.97	587.43	586.28	586.19	585.29	586.12	586.46	9.25	583.72	*6.81*	*586.16*
MW-14B	2301.0559	4969.7638	593.30	592.85	587.91	586.48	588.13	586.19	587.37	587.08	8.75	584.10	*5.72*	*587.13*
MW-15B	2202.4948	4920.3288	592.01	591.44	588.18	586.68	588.44	586.35	587.61	587.45	7.20	584.24	4.02	587.42
MW-16A	2760.3762	5280.4861	592.60	591.64	587.60	587.28	588.26	588.13	587.72	587.60	4.60	587.04	5.10	586.54
MW-16B	2760.3365	5277.4639	592.60	592.38	589.36	587.43	589.64	587.49	588.76	588.64	7.40	584.98	4.48	587.90
MW-17A	2669.1049	5212.5469	593.45	593.11	589.32	587.76	589.60	587.47	588.80	588.71	8.00	585.11	4.61	588.50
MW-17B	2668.7040	5210.7102	593.44	592.90	588.70	586.90	588.93	586.83	588.08	587.78	8.52	584.38	5.00	587.90
MW-18A	2725.1577	5111.5508	594.00	593.78	589.07	587.94	589.58	587.69	588.69	588.68	7.70	586.08	6.35	587.43
MW-18B	2722.9546	5110.1467	594.00	593.43	588.77	587.00	588.97	586.90	588.07	587.87	8.92	584.51	5.63	587.80
MW-19A	2957.4556	5200.7298	595.44	594.95	589.96	588.58	590.16	589.86	589.68	589.75	6.90	588.05	6.42	588.53
MW-19B	2958.1664	5203.1593	595.43	594.65	589.60	587.63	589.89	587.63	588.92	588.84	9.50	585.15	5.58	589.07
MH-1	2485.3313	4977.0431	na	595.29	583.35	583.35	583.45	583.64	583.58	nm	nm	nm	nm	nm
MH-2	2760.1474	4972.2985	na	596.51	583.98	583.98	584.04	584.14	584.21	nm	nm	nm	nm	nm
MH-3	3300.8154	4964.0866	na	596.79	584.09	584.09	584.16	584.26	584.72	nm	nm	nm	nm	nm

Notes: ft amsl - feet above mean sea level
nm - water level not measured
BOLD - corrected value
Italic value - flush mount flooded

Table 3.2
Vertical Hydraulic Gradients - April 21, 2008
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

Well Cluster	Overburden Well "A" Interval Static Water Elevation (ft. amsl)	Bedrock Well "B" Interval Static Water Elevation (ft. amsl)	Overburden Well Screen Midpoint Elevation (ft. amsl)	Bedrock Well Screen Midpoint Elevation (ft. amsl)	Vertical Gradient (ft/ft)
1	588.95	589.02	577.41	565.11	-0.0057
2	589.68	587.98	578.60	560.40	0.0934
3	594.88	588.97	580.80	557.30	0.2515
4	587.62	586.94	575.42	562.38	0.0521
5	587.63	587.87	578.36	563.58	-0.0162
7	589.64	588.56	577.40	558.00	0.0557
10	587.51	587.84	578.12	562.52	-0.0212
11	586.90	587.15	582.40	563.92	-0.0135
12	585.94	587.94	579.05	565.80	-0.1509
13	587.83	587.86	579.43	564.11	-0.0020
14	586.16	587.13	581.30	567.30	-0.0693
16	586.54	587.90	574.51	557.43	-0.0796
17	588.50	587.90	577.94	563.45	0.0414
18	587.43	587.80	578.50	560.00	-0.0200
19	588.53	589.07	577.45	562.10	-0.0352

Notes:
Positive vertical gradient indicates potential for downward movement.
Negative vertical gradient indicates potential for upward movement.

Table 3.3
Field Measured Parameters
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

Well ID	Sample Date	pH (pH Units)	Conductivity (mS/cm)	Temperature (^{o}C)	Eh (mV)	DO (mg/L)	Turbidity (NTU)
MW-1A	23-Apr-08	7.87	91.60	12.60	-80	8.20	342
MW-1B	23-Apr-08	7.07	0.15	12.40	-101	0.0	84.2
MW-2A	28-Apr-08	7.41	0.16	9.9	-37	9.14	108
MW-2B	28-Apr-08	7.33	0.18	12.00	-280	0.0	116
MW-3A	24-Apr-08	7.15	0.18	10.90	68	2.21	491
MW-3B	25-Apr-08	7.12	0.18	12.00	-157	4.2	77.2
MW-4A	29-Apr-08	7.63	0.14	10.90	-86	0.00	281.0
MW-4B	29-Apr-08	7.39	0.18	12.50	-209	0.0	184.0
MW-5A	22-Apr-08	7.50	0.28	11.80	-5	5.00	> 1000
MW-5B	22-Apr-08	7.01	0.2	13.60	-40	6.5	55
MW-6	29-Apr-08	7.33	0.17	11.90	-284	0.00	70.9
MW-7A	28-Apr-08	7.02	0.14	10.10	-78	1.72	199
MW-7B	28-Apr-08	7.19	0.17	11.90	-149	3.8	107
MW-8	25-Apr-08	7.20	0.50	12.20	-168	0.0	77.0
MW-10A	22-Apr-08	6.96	0.4	12.82	-41	5.20	610
MW-10B	22-Apr-08	7.00	0.15	13.00	-57	0.0	57.8
MW-11A	22-Apr-08	7.14	2.68	57.90	-15	8.02	210
MW-11B	22-Apr-08	7.09	0.17	12.92	-58	0.0	12
MW-12A	22-Apr-08	6.93	0.15	12.40	-19	3.3	-19
MW-12B	21-Apr-08	7.26	0.16	13.30	-61	5.4	37.5
MW-13A	23-Apr-08	6.94	0.30	11.20	-6	0.98	> 1000
MW-13B	23-Apr-08	7.04	0.21	12.50	-64	6.0	133
MW-14A	23-Apr-08	7.06	0.14	14.80	75	7.59	823.0
MW-14B	24-Apr-08	6.98	0.16	11.80	-85	0.0	55.3
MW-15	23-Apr-08	7.14	1.44	55.70			2.6
MW-16A	25-Apr-08	6.96	0.35	10.90	102	1.9	98.8
MW-16B	25-Apr-08	7.10	0.17	12.60	-136	0.0	156
MW-17A	28-Apr-08	7.08	0.48	10.10	-73	0.40	278
MW-17B	28-Apr-08	7.11	0.26	12.40	-86	0.0	265
MW-18A	28-Apr-08	7.29	0.12	10.30	-99	0.0	141
MW-18B	28-Apr-08	7.00	0.16	12.50	-130	0.0	120
MW-19A	24-Apr-08	6.84	0.25	15.60	89	6.14	169
MW-19B	23-Apr-08	7.12	0.16	13.00	-144	0.0	142.0

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Overburden Wells				
		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Sample ID:	MW- 1A	MW- 2A	MW- 3A	MW- 4A	MW- 5A
			Lab Sample Id:	1094782	1095903	1095214	1095905	1094286
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia
			SDG:	R2843467	R2843576	R2843467	R2843576	R2843467
			Matrix:	Water	Water	Water	Water	Water
			Sampled:	4/23/2008	4/28/2008	4/24/2008	4/29/2008	4/22/2008
			Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND		UNITS:					
CHEMICALS OF CONCERN								
	VOLATILES-8260B							
75-01-4	Vinyl chloride	2	ug/L	ND	ND	ND	53	16
156-59-2	cis-1,2-Dichloroethene	5	ug/L	ND	0.38 J	0.71 J	200	37
156-60-5	trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	3.1 J	0.35 J
	Total, 1-2-Dichloroethene	5	ug/L	ND	0.38	0.71	203.1	37.35
79-01-6	Trichloroethene (TCE)	5	ug/L	ND	ND	0.21 J	34	0.47 J
71-43-2	Benzene	1	ug/L	ND	ND	ND	0.38 J	ND
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L	ND	14	ND	15	ND
NATURAL ATTENUATION PARAMETERS								
	HYDROCARBON GASES-RSK 175M							
74-84-0	Ethane	--	ug/L	ND		ND	0.55 J	2
74-85-1	Ethene	--	ug/L	ND		ND	5.6	4.7
74-82-8	Methane	--	ug/L	2.6		12	130	22
74-98-6	Propane	--	ug/L	ND		ND	ND	1.1
	METALS							
7439-89-6	Iron	300	ug/L	1010		7750	1810	71400
	General Chemistry							
NA	Biochemical Oxygen Demand (BOD)	--	mg/L	ND		ND	ND	ND
NA	Chemical Oxygen Demand (COD)	--	mg/L	6.02		6.92	6.62	12.2
16887-00-6	Chloride	250	mg/L	112		ND	117	542
14797-55-8	Nitrate as Nitrogen	10	mg/L	ND		ND	ND	0.613
NA	Nitrate+Nitrite as Nitrogen	10	mg/L	0.0713		ND	0.133	0.421
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L	ND		ND	ND	ND
14808-79-8	Sulfate	250	mg/L	109		292	231	164
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L	1.53		2.89	1.52	1.44
18496-25-8	Sulfide, Total	50 (G)	mg/L	ND		ND	ND	ND

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Overburden Wells				
								Dup of MW-12A
		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Sample ID:	MW- 7A	MW-10A	MW-11A	MW-12A	MW-120A
			Lab Sample Id:	1095901	1094284	1093995	1093993	1093994
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia
			SDG:	R2843576	R2843467	R2843467	R2843467	R2843467
			Matrix:	Water	Water	Water	Water	Water
			Sampled:	4/28/2008	4/22/2008	4/22/1998	4/22/1998	4/22/1998
			Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND		UNITS:					
CHEMICALS OF CONCERN								
	VOLATILES-8260B							
75-01-4	Vinyl chloride	2	ug/L	130	97	0.7 J	23	23
156-59-2	cis-1,2-Dichloroethene	5	ug/L	1700	390	ND	130	130
156-60-5	trans-1,2-Dichloroethene	5	ug/L	6.1 J	10	ND	1 J	1 J
	Total, 1-2-Dichloroethene	5	ug/L	1706.1	400	ND	131	131
79-01-6	Trichloroethene (TCE)	5	ug/L	210	ND	ND	ND	0.35 J
71-43-2	Benzene	1	ug/L	0.88 J	ND	ND	ND	ND
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L	220	5.8	ND	2 J	2.2 J
NATURAL ATTENUATION PARAMETERS								
	HYDROCARBON GASES-RSK 175M							
74-84-0	Ethane	--	ug/L	0.44 J	4.4			
74-85-1	Ethene	--	ug/L	5.3	11			
74-82-8	Methane	--	ug/L	8.6	60			
74-98-6	Propane	--	ug/L	ND	2.7			
	METALS							
7439-89-6	Iron	300	ug/L	3680	32100			
	General Chemistry							
NA	Biochemical Oxygen Demand (BOD)	--	mg/L	ND	ND			
NA	Chemical Oxygen Demand (COD)	--	mg/L	5.42	10.1			
16887-00-6	Chloride	250	mg/L	17.3	884			
14797-55-8	Nitrate as Nitrogen	10	mg/L	ND	ND			
NA	Nitrate+Nitrite as Nitrogen	10	mg/L	0.24	ND			
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L	0.24	ND			
14808-79-8	Sulfate	250	mg/L	210	294			
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L	2.23	2.99			
18496-25-8	Sulfide, Total	50 (G)	mg/L	ND	ND			

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Overburden Wells					
		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Sample ID:	MW-13AA	MW-14A	MW-16A	MW-17A	MW-18A	MW-19A
			Lab Sample Id:	1095908	1094786	1095218	1095492	1095490	1095212
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia	Columbia
			SDG:	R2843576	R2843467	R2843467	R2843576	R2843576	R2843467
			Matrix:	Water	Water	Water	Water	Water	Water
			Sampled:	4/29/2008	4/24/2008	4/25/2008	4/28/2008	4/28/2008	4/24/2008
			Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND		UNITS:						
CHEMICALS OF CONCERN									
	VOLATILES-8260B								
75-01-4	Vinyl chloride	2	ug/L	ND	1.6 J	53	28	2.1 J	1.2 J
156-59-2	cis-1,2-Dichloroethene	5	ug/L	ND	1.5 J	9	200	31	3.2 J
156-60-5	trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	1.5 J	0.44 J	ND
	Total, 1-2-Dichloroethene	5	ug/L	ND	1.5	9	201.5	31.44	3.2
79-01-6	Trichloroethene (TCE)	5	ug/L	ND	ND	0.39 J	29	25	ND
71-43-2	Benzene	1	ug/L	ND	ND	ND	ND	ND	ND
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L	ND	ND	ND	20	3.8 J	ND
NATURAL ATTENUATION PARAMETERS									
	HYDROCARBON GASES-RSK 175M								
74-84-0	Ethane	--	ug/L		0.64 J	ND	ND	ND	
74-85-1	Ethene	--	ug/L		ND	0.62 J	1.5	ND	
74-82-8	Methane	--	ug/L		15	4.5	77	16	
74-98-6	Propane	--	ug/L		ND	ND	ND	ND	
	METALS								
7439-89-6	Iron	300	ug/L		43600	2480	7050	2010	
	General Chemistry								
NA	Biochemical Oxygen Demand (BOD)	--	mg/L		ND	ND	ND	ND	
NA	Chemical Oxygen Demand (COD)	--	mg/L		18.8	20.4	11	ND	
16887-00-6	Chloride	250	mg/L		68	209	1120	79.6	
14797-55-8	Nitrate as Nitrogen	10	mg/L		ND	ND	ND	ND	
NA	Nitrate+Nitrite as Nitrogen	10	mg/L		ND	0.0612	ND	ND	
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L		ND	ND	ND	ND	
14808-79-8	Sulfate	250	mg/L		118	1020	153	133	
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L		5.38	6.5	2.2	1.56	
18496-25-8	Sulfide, Total	50 (G)	mg/L		ND	ND	ND	ND	

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Bedrock Wells				
		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Sample ID:	MW- 1B	MW- 2B	MW- 3B	MW- 4B	MW- 5B
			Lab Sample Id:	1094783	1095902	1095215	1095906	1094285
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia
			SDG:	R2843467	R2843576	R2843467	R2843576	R2843467
			Matrix:	Water	Water	Water	Water	Water
			Sampled:	4/23/2008	4/28/2008	4/25/2008	4/29/2008	4/22/2008
			Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND		UNITS:					
CHEMICALS OF CONCERN								
	VOLATILES-8260B							
75-01-4	Vinyl chloride	2	ug/L	1.9 J	62	2.2	13	57
156-59-2	cis-1,2-Dichloroethene	5	ug/L	1.2 J	41	2.1 J	12	58
156-60-5	trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	0.5 J
	Total, 1-2-Dichloroethene	5	ug/L	1.2	41	2.1	12	58.5
79-01-6	Trichloroethene (TCE)	5	ug/L	ND	ND	ND	ND	0.51 J
71-43-2	Benzene	1	ug/L	ND	ND	ND	ND	ND
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L	0.71 J	ND	ND	ND	ND
NATURAL ATTENUATION PARAMETERS								
	HYDROCARBON GASES-RSK 175M							
74-84-0	Ethane	--	ug/L	ND		0.6 J	0.43 J	0.37 J
74-85-1	Ethene	--	ug/L	ND		ND	0.66 J	0.76 J
74-82-8	Methane	--	ug/L	64		180	260	80
74-98-6	Propane	--	ug/L	ND		ND	ND	ND
	METALS							
7439-89-6	Iron	300	ug/L	1220		ND	1140	760
	General Chemistry							
NA	Biochemical Oxygen Demand (BOD)	--	mg/L	ND		4.17	ND	ND
NA	Chemical Oxygen Demand (COD)	--	mg/L	13		14.1	8.98	9.57
16887-00-6	Chloride	250	mg/L	70		132	152	81
14797-55-8	Nitrate as Nitrogen	10	mg/L	ND		ND	ND	ND
NA	Nitrate+Nitrite as Nitrogen	10	mg/L	ND		ND	ND	ND
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L	ND		ND	ND	ND
14808-79-8	Sulfate	250	mg/L	181		333	247	223
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L	4.06		3.64	3.29	4.49
18496-25-8	Sulfide, Total	50 (G)	mg/L	ND		ND	ND	1.94

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Bedrock Wells				
								Dup of MW-10B
		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Sample ID:	MW- 6	MW- 7B	MW- 8	MW-10B	MW-100B
			Lab Sample Id:	1095904	1095493	1095216	1093998	1093999
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia
			SDG:	R2843576	R2843576	R2843467	R2843467	R2843467
			Matrix:	Water	Water	Water	Water	Water
			Sampled:	4/29/2008	4/28/2008	4/25/2008	4/22/1998	4/22/1998
			Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND		UNITS:					
CHEMICALS OF CONCERN								
	VOLATILES-8260B							
75-01-4	Vinyl chloride	2	ug/L	100	45	2.6	76	80
156-59-2	cis-1,2-Dichloroethene	5	ug/L	150	10	2.5 J	180	190
156-60-5	trans-1,2-Dichloroethene	5	ug/L	0.39 J	ND	ND	1.3 J	1.4 J
	Total, 1-2-Dichloroethene	5	ug/L	150.39	10	2.5	181.3	191.4
79-01-6	Trichloroethene (TCE)	5	ug/L	ND	ND	ND	0.46 J	0.7 J
71-43-2	Benzene	1	ug/L	ND	ND	ND	ND	ND
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L	ND	ND	ND	0.54 J	0.51 J
NATURAL ATTENUATION PARAMETERS								
	HYDROCARBON GASES-RSK 175M							
74-84-0	Ethane	--	ug/L		0.44 J		0.48 J	0.43 J
74-85-1	Ethene	--	ug/L		2.8		1 J	0.95 J
74-82-8	Methane	--	ug/L		230		96	85
74-98-6	Propane	--	ug/L		ND		0.94 J	0.89 J
	METALS							
7439-89-6	Iron	300	ug/L		ND		497	466
	General Chemistry							
NA	Biochemical Oxygen Demand (BOD)	--	mg/L		ND		ND	ND
NA	Chemical Oxygen Demand (COD)	--	mg/L		11.6		12.7	9.86
16887-00-6	Chloride	250	mg/L		130		87.4	84.2
14797-55-8	Nitrate as Nitrogen	10	mg/L		ND		ND	ND
NA	Nitrate+Nitrite as Nitrogen	10	mg/L		ND		ND	ND
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L		ND		ND	ND
14808-79-8	Sulfate	250	mg/L		278		198	207
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L		3.45		4.22	4.42
18496-25-8	Sulfide, Total	50 (G)	mg/L		ND		ND	

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Bedrock Wells				
				Dup of MW-10B				Dup of MW-13B
			Sample ID:	MW-100B - SULFIDE	MW-11B	MW-12B	MW-13B	MW-13OB
			Lab Sample Id:	1094289	1093997	1093992	1094787	1094794
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia
		NYSDEC	SDG:	R2843467	R2843467	R2843467	R2843467	R2843467
		Class GA	Matrix:	Water	Water	Water	Water	Water
		Groundwater	Sampled:	4/23/2008	4/22/1998	4/21/1998	4/24/2008	4/24/2008
		Standards/Guidance	Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND	Values [1]	UNITS:					
CHEMICALS OF CONCERN								
	VOLATILES-8260B							
75-01-4	Vinyl chloride	2	ug/L		64	70	56	65
156-59-2	cis-1,2-Dichloroethene	5	ug/L		100	140	65	68
156-60-5	trans-1,2-Dichloroethene	5	ug/L		0.77 J	1.6 J	0.51 J	0.53 J
	Total, 1-2-Dichloroethene	5	ug/L		100.77	141.6	65.51	68.53
79-01-6	Trichloroethene (TCE)	5	ug/L		ND	ND	0.65 J	0.74 J
71-43-2	Benzene	1	ug/L		ND	ND	ND	ND
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L		ND	1.6 J	0.48 J	ND
NATURAL ATTENUATION PARAMETERS								
	HYDROCARBON GASES-RSK 175M							
74-84-0	Ethane	--	ug/L					
74-85-1	Ethene	--	ug/L					
74-82-8	Methane	--	ug/L					
74-98-6	Propane	--	ug/L					
	METALS							
7439-89-6	Iron	300	ug/L					
	General Chemistry							
NA	Biochemical Oxygen Demand (BOD)	--	mg/L					
NA	Chemical Oxygen Demand (COD)	--	mg/L					
16887-00-6	Chloride	250	mg/L					
14797-55-8	Nitrate as Nitrogen	10	mg/L					
NA	Nitrate+Nitrite as Nitrogen	10	mg/L					
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L					
14808-79-8	Sulfate	250	mg/L					
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L					
18496-25-8	Sulfide, Total	50 (G)	mg/L	ND				

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Bedrock Wells				
					Dup of MW-14B			
		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Sample ID:	MW-14B	MW-14OB	MW-15	MW-16B	MW-17B
			Lab Sample Id:	1094784	1094785	1094287	1095217	1095491
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia
			SDG:	R2843467	R2843467	R2843467	R2843467	R2843576
			Matrix:	Water	Water	Water	Water	Water
			Sampled:	4/24/2008	4/24/2008	4/23/2008	4/25/2008	4/28/2008
			Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND		UNITS:					
CHEMICALS OF CONCERN								
	VOLATILES-8260B							
75-01-4	Vinyl chloride	2	ug/L	90	89	93	86	82
156-59-2	cis-1,2-Dichloroethene	5	ug/L	120	120	190	280	630
156-60-5	trans-1,2-Dichloroethene	5	ug/L	0.81 J	0.85 J	1.5 J	1.4 J	8.5
	Total, 1-2-Dichloroethene	5	ug/L	120.81	120.85	191.5	281.4	638.5
79-01-6	Trichloroethene (TCE)	5	ug/L	ND	ND	ND	0.25 J	4.6 J
71-43-2	Benzene	1	ug/L	ND	ND	ND	0.71 J	0.8 J
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L	0.41 J	ND	0.58 J	0.22 J	17
NATURAL ATTENUATION PARAMETERS								
	HYDROCARBON GASES-RSK 175M							
74-84-0	Ethane	--	ug/L	ND	0.56 J		0.7 J	0.53 J
74-85-1	Ethene	--	ug/L	1.5 J	1.7		3.1	4
74-82-8	Methane	--	ug/L	170	200		220	160
74-98-6	Propane	--	ug/L	ND	0.62 J		ND	ND
	METALS							
7439-89-6	Iron	300	ug/L	183	188		669	2940
	General Chemistry							
NA	Biochemical Oxygen Demand (BOD)	--	mg/L	ND	ND		ND	ND
NA	Chemical Oxygen Demand (COD)	--	mg/L	10.1	9.86		10.1	10.4
16887-00-6	Chloride	250	mg/L	136	136		106	475
14797-55-8	Nitrate as Nitrogen	10	mg/L	ND	ND		ND	ND
NA	Nitrate+Nitrite as Nitrogen	10	mg/L	ND	0.269 J		ND	ND
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L	ND	ND		ND	ND
14808-79-8	Sulfate	250	mg/L	222	254		264	211
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L	2.95	3		3.81	3.06
18496-25-8	Sulfide, Total	50 (G)	mg/L	ND	ND		1.1	ND

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

Table 3.4
Analytical Summary Table
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

				Bedrock Wells		Sewer Samples			
		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Sample ID:	MW-18B	MW-19B	MH-1	MH-2	MH-3	COMP DRUM
			Lab Sample Id:	1095489	1095213	1095220	1095221	1095222	1095909
			Source:	Columbia	Columbia	Columbia	Columbia	Columbia	Columbia
			SDG:	R2843576	R2843467	R2843467	R2843467	R2843467	R2843576
			Matrix:	Water	Water	Water	Water	Water	Water
			Sampled:	4/28/2008	4/24/2008	4/25/2008	4/25/2008	4/25/2008	4/29/2008
			Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND		UNITS:						
CHEMICALS OF CONCERN									
	VOLATILES-8260B								
75-01-4	Vinyl chloride	2	ug/L	180	5.8	ND	ND	0.46 J	16
156-59-2	cis-1,2-Dichloroethene	5	ug/L	120	24	5.8 J	5.4 J	6.9 J	75
156-60-5	trans-1,2-Dichloroethene	5	ug/L	0.73 J	ND	ND	ND	ND	0.57 J
	Total, 1-2-Dichloroethene	5	ug/L	120.73	24	5.8	5.4	6.9	75.57
79-01-6	Trichloroethene (TCE)	5	ug/L	ND	ND	3.5 J	3.6 J	4.4 J	2.5 J
71-43-2	Benzene	1	ug/L	ND	ND	ND	ND	ND	ND
75-34-3	1,1-Dichloroethane (1,1-DCA)	5	ug/L	ND	ND	ND	ND	ND	3.6 J
NATURAL ATTENUATION PARAMETERS									
	HYDROCARBON GASES-RSK 175M								
74-84-0	Ethane	--	ug/L	0.74 J					
74-85-1	Ethene	--	ug/L	2.4					
74-82-8	Methane	--	ug/L	150					
74-98-6	Propane	--	ug/L	ND					
	METALS								
7439-89-6	Iron	300	ug/L	1140					
	General Chemistry								
NA	Biochemical Oxygen Demand (BOD)	--	mg/L	ND					
NA	Chemical Oxygen Demand (COD)	--	mg/L	9.86					
16887-00-6	Chloride	250	mg/L	88.1					
14797-55-8	Nitrate as Nitrogen	10	mg/L	ND					
NA	Nitrate+Nitrite as Nitrogen	10	mg/L	ND					
14797-65-0	Nitrite Nitrogen (calc)	10	mg/L	ND					
14808-79-8	Sulfate	250	mg/L	270					
7440-44-0	Carbon, Total Organic (TOC)	--	mg/L	3.74					
18496-25-8	Sulfide, Total	50 (G)	mg/L	ND					

Notes:
(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).
(2) -- indicates no standard or guidance value is available.
(3) (G) indicates guidance value.
(4) ND indicated compound was not detected.
(5) J indicates an estimated concentration.
(6) Shaded values indicate concentrations exceeding groundwater standard or guidance values.

SECTION 4
SUMMARY AND CONLUSIONS

The following summary and conclusions were developed for the Spring 2008 groundwater sampling event:

- Overburden groundwater COC concentrations were generally consistent with the previous monitoring program results. Fluctuations in concentration were observed, with some COCs higher than the Fall 2007 results. These results were similar to the Spring 2006 results.
- Bedrock groundwater COC concentrations were also generally consistent with the previous monitoring program results. Fluctuations in concentrations were observed, with some COC concentrations higher than the Fall 2007 data, and similar to the Spring 2006 results.
- In general, there has been a steady decline in COC concentrations in the overburden and bedrock groundwater over the past 8 years.
- Groundwater samples for natural attenuation monitoring have been collected on 13 separate occasions since the initial sampling round in October 2000. The analytical results indicate that concentrations of natural attenuation parameters are relatively consistent. Pilot testing to evaluate enhanced *in situ* bioremediation is planned for 2008.
- Sewer water samples were collected, and COC concentrations were shown to be similar compared to historical data. Consistent with historical results, cis- and trans-1,2-DCE and TCE were detected in the Spring 2008 samples. A low estimated concentration of vinyl chloride was also detected in the upgradient sewer sample (MH-3). The analytical results from the sewer sampling indicate that there is no impact from the Site.
- Groundwater flow directions were found to be consistent with former groundwater monitoring results. Groundwater in the overburden and the bedrock is generally westerly to southwesterly, with some minor variations. The overburden and bedrock groundwater gradients are approximately 0.01 feet/foot (ft/ft) and 0.003 ft/ft, respectively.
- Groundwater elevations for the Spring 2008 sampling event are similar to the Spring of 2006. Fall 2007 elevations were lower in many of the monitoring wells.

SECTION 5
REFERENCES

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APPENDIX A
SPRING 2008 LABORATORY ANALYTICAL DATA

Appendix A
Analytical Results
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

			Overburden Wells				
Analytical Summary Table for Chemicals of Concern		Sample ID:	MW- 1A	MW- 2A	MW- 3A	MW- 4A	MW- 5A
Validated April 2008 Monitoring Event		Lab Sample Id	1094782	1095903	1095214	1095905	1094286
Former Carborundum Company, Hyde Park Facility		Source:	Columbia	Columbia	Columbia	Columbia	Columbia
		SDG:	R2843467	R2843576	R2843467	R2843576	R2843467
		Matrix:	Water	Water	Water	Water	Water
		Sampled:	4/23/2008	4/28/2008	4/24/2008	4/29/2008	4/22/2008
		Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	2 U	2 U	2 U	53	16
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	1.2 J	5 U	5 U	5 U
67-64-1	Acetone	ug/L	1.4 J	1.8 J	20 U	20 U	20 U
75-15-0	Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	5 U	5 U	5 U	3.1 J	0.35 J
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	5 U	0.38 J	0.71 J	200	37
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	1 U	1 U	0.38 J	1 U
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	0.43 J	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	2 J	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	5 U	14	5 U	15	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	2.4 J	5 U	1.6 J	5 U
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	5 U	5 U	0.21 J	34	0.47 J
74-84-0	Ethane	ug/L	1 U		1 U	0.55 J	2
74-85-1	Ethene	ug/L	1 U		1 U	5.6	4.7
74-82-8	Methane	ug/L	2.6		12	130	22
74-98-6	Propane	ug/L	1 U		1 U	1 U	1.1
	METALS						
7439-89-6	Iron	ug/L	1010		7750	1810	71400
	OTHER						
NA	Biochemical Oxygen Demand (BOD)	mg/L	2 U		2 U	2 U	2 U
7440-44-0	Carbon, Total Organic (TOC)	mg/L	1.53		2.89	1.52	1.44
NA	Chemical Oxygen Demand (COD)	mg/L	6.02		6.92	6.62	12.2
16887-00-6	Chloride	mg/L	112		17.5 U	117	542
14797-55-8	Nitrate as Nitrogen	mg/L	0.5 U		0.5 U	0.5 U	0.613
NA	Nitrate+Nitrite as Nitrogen	mg/L	0.0713		0.05 U	0.133	0.421
14797-65-0	Nitrite Nitrogen (calc)	mg/L	0.05 U		0.05 U	0.05 U	0.05 U
14808-79-8	Sulfate	mg/L	109		292	231	164
18496-25-8	Sulfide, Total	mg/L	1 U		1 U	1 U	1 U
12408-02-5	pH	S.U.					
7440-44-0	Dissolved Organic Carbons	mg/L					
NA	Solids, Total Suspended (TSS)	mg/L					

Appendix A
Analytical Results
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

			Overburden Wells				
							Dup of MW-12A
Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility		Sample ID: Lab Sample Id Source: SDG: Matrix: Sampled: Validated:	MW- 7A 1095901 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-10A 1094284 Columbia R2843467 Water 4/22/2008 6/1/2008	MW-11A 1093995 Columbia R2843467 Water 4/22/1998 6/1/2008	MW-12A 1093993 Columbia R2843467 Water 4/22/1998 6/1/2008	MW-120A 1093994 Columbia R2843467 Water 4/22/1998 6/1/2008
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74-87-3	Chloromethane	ug/L	10 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	130	97	0.7 J	23	23
74-83-9	Bromomethane	ug/L	10 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	10 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/L	40 U	20 U	20 U	20 U	20 U
75-15-0	Carbon Disulfide	ug/L	20 U	10 U	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	6.1 J	10	5 U	1 J	1 J
56-23-5	Carbon Tetrachloride	ug/L	10 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	1700	390	5 U	130	130
67-66-3	Chloroform	ug/L	10 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	0.88 J	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L	2 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	10 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	10 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	1.2 J	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	10 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	10 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	20 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	10 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	10 U	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	10 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	10 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	10 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	10 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	1.3 J	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	220	5.8	5 U	2 J	2.2 J
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	24	1.6 J	5 U	0.32 J	0.37 J
78-93-3	2-Butanone (MEK)	ug/L	20 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	20 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	10 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	34	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	2.1 J	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	10 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	10 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	210	5 U	5 U	5 U	0.35 J
74-84-0	Ethane	ug/L	0.44 J	4.4			
74-85-1	Ethene	ug/L	5.3	11			
74-82-8	Methane	ug/L	8.6	60			
74-98-6	Propane	ug/L	1 U	2.7			
	METALS						
7439-89-6	Iron	ug/L	3680	32100			
	OTHER						
NA	Biochemical Oxygen Demand (BOD)	mg/L	2 U	2 U			
7440-44-0	Carbon, Total Organic (TOC)	mg/L	2.23	2.99			
NA	Chemical Oxygen Demand (COD)	mg/L	5.42	10.1			
16887-00-6	Chloride	mg/L	17.3	884			
14797-55-8	Nitrate as Nitrogen	mg/L	0.5 U	0.5 U			
NA	Nitrate+Nitrite as Nitrogen	mg/L	0.24	0.05 U			
14797-65-0	Nitrite Nitrogen (calc)	mg/L	0.24	0.05 U			
14808-79-8	Sulfate	mg/L	210	294			
18496-25-8	Sulfide, Total	mg/L	1 U	1 U			
12408-02-5	pH	S.U.					
7440-44-0	Dissolved Organic Carbons	mg/L					
NA	Solids, Total Suspended (TSS)	mg/L					

Appendix A
Analytical Results
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

			Overburden Wells					
Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility		Sample ID:	MW-13AA	MW-14A	MW-16A	MW-17A	MW-18A	MW-19A
		Lab Sample Id	1095908	1094786	1095218	1095492	1095490	1095212
		Source:	Columbia	Columbia	Columbia	Columbia	Columbia	Columbia
		SDG:	R2843576	R2843467	R2843467	R2843576	R2843576	R2843467
		Matrix:	Water	Water	Water	Water	Water	Water
		Sampled:	4/29/2008	4/24/2008	4/25/2008	4/28/2008	4/28/2008	4/24/2008
		Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	2 U	1.6 J	53	28	2.1 J	1.2 J
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/L	1.4 J	2.4 J	20 U	20 U	20 U	20 U
75-15-0	Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	5 U	5 U	5 U	1.5 J	0.44 J	5 U
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	5 U	1.5 J	9	200	31	3.2 J
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	0.53 J	5 U	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	5 U	5 U	5 U	20	3.8 J	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	5 U	5 U	9.1	0.8 J	5 U
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	0.31 J	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	5 U	5 U	0.39 J	29	25	5 U
74-84-0	Ethane	ug/L		0.64 J	1 U	1 U	1 U	
74-85-1	Ethene	ug/L		1 U	0.62 J	1.5	1 U	
74-82-8	Methane	ug/L		15	4.5	77	16	
74-98-6	Propane	ug/L		1 U	1 U	1 U	1 U	
	METALS							
7439-89-6	Iron	ug/L		43600	2480	7050	2010	
	OTHER							
NA	Biochemical Oxygen Demand (BOD)	mg/L		2 U	2 U	2 U	2 U	
7440-44-0	Carbon, Total Organic (TOC)	mg/L		5.38	6.5	2.2	1.56	
NA	Chemical Oxygen Demand (COD)	mg/L		18.8	20.4	11	5 U	
16887-00-6	Chloride	mg/L		68	209	1120	79.6	
14797-55-8	Nitrate as Nitrogen	mg/L		0.5 U	0.5 U	0.5 U	0.5 U	
NA	Nitrate+Nitrite as Nitrogen	mg/L		0.05 U	0.0612	0.05 U	0.05 U	
14797-65-0	Nitrite Nitrogen (calc)	mg/L		0.05 U	0.05 U	0.05 U	0.05 U	
14808-79-8	Sulfate	mg/L		118	1020	153	133	
18496-25-8	Sulfide, Total	mg/L		1 U	1 U	1 U	1 U	
12408-02-5	pH	S.U.						
7440-44-0	Dissolved Organic Carbons	mg/L						
NA	Solids, Total Suspended (TSS)	mg/L						

Appendix A
Analytical Results
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

			Bedrock Wells				
Analytical Summary Table for Chemicals of Concern		Sample ID:	MW- 1B	MW- 2B	MW- 3B	MW- 4B	MW- 5B
Validated April 2008 Monitoring Event		Lab Sample Id	1094783	1095902	1095215	1095906	1094285
Former Carborundum Company, Hyde Park Facility		Source:	Columbia	Columbia	Columbia	Columbia	Columbia
		SDG:	R2843467	R2843576	R2843467	R2843576	R2843467
		Matrix:	Water	Water	Water	Water	Water
		Sampled:	4/23/2008	4/28/2008	4/25/2008	4/29/2008	4/22/2008
		Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	1.9 J	62	2.2	13	57
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/L	20 U	20 U	20 U	20 U	1.9 J
75-15-0	Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	5 U	5 U	5 U	5 U	0.5 J
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	1.2 J	41	2.1 J	12	58
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L	0.86 J	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	5 U	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	0.32 J	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	0.71 J	5 U	5 U	5 U	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	5 U	5 U	5 U	5 U
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	5 U	5 U	5 U	5 U	0.51 J
74-84-0	Ethane	ug/L	1 U		0.6 J	0.43 J	0.37 J
74-85-1	Ethene	ug/L	1 U		1 U	0.66 J	0.76 J
74-82-8	Methane	ug/L	64		180	260	80
74-98-6	Propane	ug/L	1 U		1 U	1 U	1 U
	METALS						
7439-89-6	Iron	ug/L	1220		100 U	1140	760
	OTHER						
NA	Biochemical Oxygen Demand (BOD)	mg/L	2 U		4.17	2 U	2 U
7440-44-0	Carbon, Total Organic (TOC)	mg/L	4.06		3.64	3.29	4.49
NA	Chemical Oxygen Demand (COD)	mg/L	13		14.1	8.98	9.57
16887-00-6	Chloride	mg/L	70		132	152	81
14797-55-8	Nitrate as Nitrogen	mg/L	0.5 U		0.5 U	0.5 U	0.5 U
NA	Nitrate+Nitrite as Nitrogen	mg/L	0.05 U		0.05 U	0.05 U	0.05 U
14797-65-0	Nitrite Nitrogen (calc)	mg/L	0.05 U		0.05 U	0.05 U	0.05 U
14808-79-8	Sulfate	mg/L	181		333	247	223
18496-25-8	Sulfide, Total	mg/L	1 U		1 U	1 U	1.94
12408-02-5	pH	S.U.					
7440-44-0	Dissolved Organic Carbons	mg/L					
NA	Solids, Total Suspended (TSS)	mg/L					

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			Bedrock Wells				
Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility		Sample ID: Lab Sample Id Source: SDG: Matrix: Sampled: Validated:	MW- 6 1095904 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 7B 1095493 Columbia R2843576 Water 4/28/2008 6/1/2008	MW- 8 1095216 Columbia R2843467 Water 4/25/2008 6/1/2008	MW-10B 1093998 Columbia R2843467 Water 4/22/1998 6/1/2008	MW-100B 1093999 Columbia R2843467 Water 4/22/1998 6/1/2008
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	100	45	2.6	76	80
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
75-15-0	Carbon Disulfide	ug/L	10 U	0.31 J	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	0.39 J	5 U	5 U	1.3 J	1.4 J
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	150	10	2.5 J	180	190
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	5 U	5 U	0.28 J	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	5 U	5 U	5 U	0.54 J	0.51 J
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	5 U	5 U	5 U	5 U
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	5 U	5 U	5 U	0.46 J	0.7 J
74-84-0	Ethane	ug/L		0.44 J		0.48 J	0.43 J
74-85-1	Ethene	ug/L		2.8		1 J	0.95 J
74-82-8	Methane	ug/L		230		96	85
74-98-6	Propane	ug/L		1 U		0.94 J	0.89 J
	METALS						
7439-89-6	Iron	ug/L		100 U		497	466
	OTHER						
NA	Biochemical Oxygen Demand (BOD)	mg/L		2 U		2 U	2 U
7440-44-0	Carbon, Total Organic (TOC)	mg/L		3.45		4.22	4.42
NA	Chemical Oxygen Demand (COD)	mg/L		11.6		12.7	9.86
16887-00-6	Chloride	mg/L		130		87.4	84.2
14797-55-8	Nitrate as Nitrogen	mg/L		0.5 U		0.5 U	0.5 U
NA	Nitrate+Nitrite as Nitrogen	mg/L		0.05 U		0.05 U	0.05 U
14797-65-0	Nitrite Nitrogen (calc)	mg/L		0.05 U		0.05 U	0.05 U
14808-79-8	Sulfate	mg/L		278		198	207
18496-25-8	Sulfide, Total	mg/L		1 U		1 U	
12408-02-5	pH	S.U.					
7440-44-0	Dissolved Organic Carbons	mg/L					
NA	Solids, Total Suspended (TSS)	mg/L					

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			Bedrock Wells				
			Dup of MW-10B	Dup of MW-10B			Dup of MW-13B
Analytical Summary Table for Chemicals of Concern		Sample ID:	MW-100B - SULFIDE	MW-11B	MW-12B	MW-13B	MW-13OB
Validated April 2008 Monitoring Event		Lab Sample Id	1094289	1093997	1093992	1094787	1094794
Former Carborundum Company, Hyde Park Facility		Source:	Columbia	Columbia	Columbia	Columbia	Columbia
		SDG:	R2843467	R2843467	R2843467	R2843467	R2843467
		Matrix:	Water	Water	Water	Water	Water
		Sampled:	4/23/2008	4/22/1998	4/21/1998	4/24/2008	4/24/2008
		Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74-87-3	Chloromethane	ug/L		5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L		64	70	56	65
74-83-9	Bromomethane	ug/L		5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L		5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/L		20 U	20 U	20 U	20 U
75-15-0	Carbon Disulfide	ug/L		10 U	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L		0.77 J	1.6 J	0.51 J	0.53 J
56-23-5	Carbon Tetrachloride	ug/L		5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L		100	140	65	68
67-66-3	Chloroform	ug/L		5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L		1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L		1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L		5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L		5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L		5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L		5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L		5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L		10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L		5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L		5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L		5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L		5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L		5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L		5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L		5 U	1.6 J	0.48 J	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L		5 U	0.31 J	5 U	5 U
78-93-3	2-Butanone (MEK)	ug/L		10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L		10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L		5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L		5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L		5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L		5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L		5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L		5 U	5 U	0.65 J	0.74 J
74-84-0	Ethane	ug/L					
74-85-1	Ethene	ug/L					
74-82-8	Methane	ug/L					
74-98-6	Propane	ug/L					
	METALS						
7439-89-6	Iron	ug/L					
	OTHER						
NA	Biochemical Oxygen Demand (BOD)	mg/L					
7440-44-0	Carbon, Total Organic (TOC)	mg/L					
NA	Chemical Oxygen Demand (COD)	mg/L					
16887-00-6	Chloride	mg/L					
14797-55-8	Nitrate as Nitrogen	mg/L					
NA	Nitrate+Nitrite as Nitrogen	mg/L					
14797-65-0	Nitrite Nitrogen (calc)	mg/L					
14808-79-8	Sulfate	mg/L					
18496-25-8	Sulfide, Total	mg/L	1 U				
12408-02-5	pH	S.U.					
7440-44-0	Dissolved Organic Carbons	mg/L					
NA	Solids, Total Suspended (TSS)	mg/L					

Appendix A
Analytical Results
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

			Bedrock Wells				
				Dup of MW-14B			
Analytical Summary Table for Chemicals of Concern		Sample ID:	MW-14B	MW-14OB	MW-15	MW-16B	MW-17B
Validated April 2008 Monitoring Event		Lab Sample Id	1094784	1094785	1094287	1095217	1095491
Former Carborundum Company, Hyde Park Facility		Source:	Columbia	Columbia	Columbia	Columbia	Columbia
		SDG:	R2843467	R2843467	R2843467	R2843467	R2843576
		Matrix:	Water	Water	Water	Water	Water
		Sampled:	4/24/2008	4/24/2008	4/23/2008	4/25/2008	4/28/2008
		Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	90	89	93	86	82
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	5 U	0.38 J	5 U	5 U
67-64-1	Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
75-15-0	Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	0.81 J	0.85 J	1.5 J	1.4 J	8.5
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	120	120	190	280	630
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	1 U	1 U	0.71 J	0.8 J
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	1 U	0.53 J	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	5 U	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	0.41 J	5 U	0.58 J	0.22 J	17
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	5 U	5 U	0.33 J	5.5
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	5 U	5 U	5 U	0.25 J	4.6 J
74-84-0	Ethane	ug/L	2.5 U	0.56 J		0.7 J	0.53 J
74-85-1	Ethene	ug/L	1.5 J	1.7		3.1	4
74-82-8	Methane	ug/L	170	200		220	160
74-98-6	Propane	ug/L	2.5 U	0.62 J		1 U	1 U
	METALS						
7439-89-6	Iron	ug/L	183	188		669	2940
	OTHER						
NA	Biochemical Oxygen Demand (BOD)	mg/L	2 U	2 U		2 U	2 U
7440-44-0	Carbon, Total Organic (TOC)	mg/L	2.95	3		3.81	3.06
NA	Chemical Oxygen Demand (COD)	mg/L	10.1	9.86		10.1	10.4
16887-00-6	Chloride	mg/L	136	136		106	475
14797-55-8	Nitrate as Nitrogen	mg/L	0.5 U	0.5 U		0.5 U	0.5 U
NA	Nitrate+Nitrite as Nitrogen	mg/L	0.05 UJ	0.269 J		0.05 U	0.05 U
14797-65-0	Nitrite Nitrogen (calc)	mg/L	0.05 U	0.05 U		0.05 U	0.05 U
14808-79-8	Sulfate	mg/L	222	254		264	211
18496-25-8	Sulfide, Total	mg/L	1 U	1 U		1.1	1 U
12408-02-5	pH	S.U.					
7440-44-0	Dissolved Organic Carbons	mg/L					
NA	Solids, Total Suspended (TSS)	mg/L					

Appendix A
Analytical Results
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

			Bedrock Wells		Sewer Samples		
Analytical Summary Table for Chemicals of Concern		Sample ID:	MW-18B	MW-19B	MH-1	MH-2	MH-3
Validated April 2008 Monitoring Event		Lab Sample Id	1095489	1095213	1095220	1095221	1095222
Former Carborundum Company, Hyde Park Facility		Source:	Columbia	Columbia	Columbia	Columbia	Columbia
		SDG:	R2843576	R2843467	R2843467	R2843467	R2843467
		Matrix:	Water	Water	Water	Water	Water
		Sampled:	4/28/2008	4/24/2008	4/25/2008	4/25/2008	4/25/2008
		Validated:	6/1/2008	6/1/2008	6/1/2008	6/1/2008	6/1/2008
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74-87-3	Chloromethane	ug/L	5 U	5 U	25 UJ	25 UJ	0.44 J
75-01-4	Vinyl chloride	ug/L	180	5.8	10 UJ	10 UJ	0.46 J
74-83-9	Bromomethane	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
75-00-3	Chloroethane	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
67-64-1	Acetone	ug/L	1.5 J	20 U	100 UJ	100 UJ	40 UJ
75-15-0	Carbon Disulfide	ug/L	0.3 J	10 U	50 UJ	50 UJ	20 UJ
156-60-5	trans-1,2-Dichloroethene	ug/L	0.73 J	5 U	25 UJ	25 UJ	10 UJ
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
156-59-2	cis-1,2-Dichloroethene	ug/L	120	24	5.8 J	5.4 J	6.9 J
67-66-3	Chloroform	ug/L	5 U	5 U	13 J	7.4 J	12 J
71-43-2	Benzene	ug/L	1 U	1 U	5 UJ	5 UJ	2 UJ
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	5 UJ	5 UJ	2 UJ
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	1.2 J	1.2 J	1.6 J
108-88-3	Toluene	ug/L	5 U	0.31 J	25 UJ	1.2 J	0.76 J
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
591-78-6	2-Hexanone	ug/L	10 U	10 U	50 UJ	50 UJ	20 UJ
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	25 UJ	25 UJ	0.66 J
108-90-7	Chlorobenzene	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
1330-20-7	o-Xylene	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
100-42-5	Styrene	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
75-25-2	Bromoform	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	50 UJ	50 UJ	1.4 J
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	50 UJ	50 UJ	20 UJ
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
100-41-4	Ethylbenzene	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	25 UJ	25 UJ	10 UJ
79-01-6	Trichloroethene (TCE)	ug/L	5 U	5 U	3.5 J	3.6 J	4.4 J
74-84-0	Ethane	ug/L	0.74 J				
74-85-1	Ethene	ug/L	2.4				
74-82-8	Methane	ug/L	150				
74-98-6	Propane	ug/L	1 U				
	METALS						
7439-89-6	Iron	ug/L	1140				
	OTHER						
NA	Biochemical Oxygen Demand (BOD)	mg/L	2 U				
7440-44-0	Carbon, Total Organic (TOC)	mg/L	3.74				
NA	Chemical Oxygen Demand (COD)	mg/L	9.86				
16887-00-6	Chloride	mg/L	88.1				
14797-55-8	Nitrate as Nitrogen	mg/L	0.5 U				
NA	Nitrate+Nitrite as Nitrogen	mg/L	0.05 U				
14797-65-0	Nitrite Nitrogen (calc)	mg/L	0.05 U				
14808-79-8	Sulfate	mg/L	270				
18496-25-8	Sulfide, Total	mg/L	1 U				
12408-02-5	pH	S.U.					
7440-44-0	Dissolved Organic Carbons	mg/L					
NA	Solids, Total Suspended (TSS)	mg/L					

Appendix A
Analytical Results
Spring 2008 Monitoring Event
Former Carborundum Company, Hyde Park Facility

Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility		Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	COMP DRUM 1095909 Columbia R2843576 Water 4/29/2008 6/1/2008	TB - COMP 1095910 Columbia R2843576 Water 4/29/2008 6/1/2008	TB - 4/22/08-1 1093996 Columbia R2843467 Water 4/22/1998 6/1/2008	TB - 4/22/08-2 1094288 Columbia R2843467 Water 4/23/2008 6/1/2008	TB - 4/23/08 1094781 Columbia R2843467 Water 4/23/2008 6/1/2008	TB - 4/25/08 1095219 Columbia R2843467 Water 4/25/2008 6/1/2008	TB - 4/28/08 1095494 Columbia R2843576 Water 4/28/2008 6/1/2008	TB - 4/29/08 1095907 Columbia R2843576 Water 4/29/2008 6/1/2008
CAS NO.	COMPOUND	UNITS:								
	VOLATILES									
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	16	2 U	2 U	2 U	2 U	2 U	2 U	2 U
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/L	1.9 J	20 U	1.8 J	20 U	20 U	1.6 J	20 U	20 U
75-15-0	Carbon Disulfide	ug/L	0.33 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	0.57 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	75	5 U	5 U	5 U	5 U	5 U	5 U	5 U
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	3.6 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U	0.21 J	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	2.5 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U
74-84-0	Ethane	ug/L								
74-85-1	Ethene	ug/L								
74-82-8	Methane	ug/L								
74-98-6	Propane	ug/L								
	METALS									
7439-89-6	Iron	ug/L								
	OTHER									
NA	Biochemical Oxygen Demand (BOD)	mg/L								
7440-44-0	Carbon, Total Organic (TOC)	mg/L								
NA	Chemical Oxygen Demand (COD)	mg/L								
16887-00-6	Chloride	mg/L								
14797-55-8	Nitrate as Nitrogen	mg/L								
NA	Nitrate+Nitrite as Nitrogen	mg/L								
14797-65-0	Nitrite Nitrogen (calc)	mg/L								
14808-79-8	Sulfate	mg/L								
18496-25-8	Sulfide, Total	mg/L								
12408-02-5	pH	S.U.	7.65							
7440-44-0	Dissolved Organic Carbons	mg/L	3.22							
NA	Solids, Total Suspended (TSS)	mg/L	14.6							

APPENDIX B
ANALYTICAL RESULTS (1999 TO 2008)

Table B.1
Laboratory Analytical Results for Vinyl Chloride (ug/L)
1999 through 2008
Former Carborundum Company, Hyde Park Facility

Monitoring Well	Sample Date																
				Round 1		Round 2		Round 3		Round 4		Round 5		Fall 2005	Spring 2006	Fall 2007	Spring 2008
	Aug-92	May-96	Nov-97	Oct-99	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
OVERBURDEN MONITORING WELLS																	
MW-1A	2J	--	<2	<10	0.44 J	1.4J	0.75J	1.1J	0.74J	0.73J	1.0J	0.74 J	3.0	1.7 J	0.63 J	<2	<2
MW-2A	<10	--	<2	<10	<2	<2	<2	<2	5.5	<2	<2	<2	<2	0.52 J	<2.0	1.9 J	<2
MW-3A	<10	--	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2	<2
MW-4A	13	--	32	47	45	24	40D	31	54	31*	46	34	48	57	33.5 D*	56	53
MW-5A	1300	--	14	1J	42	17DJ*	45D	15	7	120D	4.1	67 D	260 D	110 D	48 D	<2	16
MW-7A	--	<1000	11	86	220	100	140D	170J	130J	120DJ	180	170 J	125*	205 D*	60 D	60	130
MW-10A	--	38	65	73	86	80DJ	95D*	160	240	115*	100	110	120	150 D	120	67	97
MW-11A	--	<10	<2	<10	<2	0.39J	<2*	0.34J*	<2	<2	<2 *	0.82 J	0.59 J	0.95 J	1.3 J	<2	0.7 J
MW-12A	--	13	14	16	49	27J	51	34	49.5D*	26	41	33	38 D	34	27	39	23
MW-13A	--	<10	<2	<10	<2	<2J	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2	<2
MW-14A	--	<10	<2	<10	0.37 J	<2J	59D	0.46J	4.6	<2	2.2	2.7	3.8	4.6	2.2	2.4	1.6 J
MW-16A	--	--	--	--	NS	35DJ	48D	39	44	52	120	35	35	180 D	88	160	53
MW-17A	--	--	--	--	18	14	19D	19J	16J	20	27	21*	34	28	19	12	28
MW-18A	--	--	--	--	4.4	0.98J	8.3	2.3	3.1J*	1.6J	4.5 *	1.6 J	3.2 J	3.1	2.1	6.7	2.1 J
MW-19A	--	--	--	--	<2	<2	<2	0.3J	0.66J	0.78J	1.0J	0.69 J	<2	1.6 J	1.4 J	4	1.2 J
BEDROCK MONITORING WELLS																	
MW-1B	<10	--	<2	2J	3.8	2	3	1.4J	19	1.3J	2.6	1.50 J	5.1	5.1	1.7 J	16	1.9 J
MW-2B	66	--	59	46	92	15	60D	70D	100	60D	86	60	81	90	62	59	62
MW-3B	5	--	<2	2J	2.3	1.8J	2.6*	2.45	2.1	1.7J	2	1.90 J	2.6	2.6	2.0	2.2	2.2
MW-4B	26	--	22	23	35	37	27	35	25*	18	23.5 *	20	19	17	14	11	13
MW-5B	75	--	33	61	45	13J	37D	38	54	44D	55	45.5*	59	58	44	49	57
MW-6	--	<100	68	68	91	72	55D	97D	72	84D	96	81	100	130 D	84	82	100
MW-7B	--	<100	23	40	39	23	33D	44D	44	6.2D	42	50	36	46	43	31	45
MW-8	--	<10	<2	2J	1.9 J	2.75*	2.5	2.6	2.0	1.9J	2.5	1.8 J	2.3	1.9 J	1.6 J	1.8 J	2.6
MW-10B	--	120	52	210J	95	410J	100D	45	84	54*	82	1.8 J	80	115 D*	73	130	80
MW-11B	--	<50	56	69	81	88J	85D	80	79D	80	110D	1.8 J	66	80	66.5 D*	80	64
MW-12B	--	16	53	73	77	86J	100D	100	100	39	110	1.8 J	96	85	78	76	70
MW-13B	--	<100	31	35	40	27D	37D	33	36D	90D	81D	1.8 J	62 D	60	44	59	65
MW-14B	--	<50	65	63	110	50DJ	1.5J	48D	120	68	87D	1.8 J	99 D	98 D	86	49	90
MW-15	--	--	68	79	120	58DJ	93D	98	100D	110	100	1.8 J	130	120 D	97 D	86	93
MW-16B	--	--	--	--	35	22	34D	6	89	54	52	1.8 J	60	75	70	63	86
MW-17B	--	--	--	--	69	41D*	76D	94	81	92	100	1.8 J	125*	115 D*	69 D*	64	82
MW-18B	--	--	--	--	90	60	91D	88	100	140D	170	1.8 J	185 D*	180 D	170	140	180
MW-19B	--	--	--	--	6.3	2.2D	4.4	9.7	1.8J	5.9	7.9	1.8 J	<2	5.3	7.7	3.4	5.8
MANHOLES																	
MH-1	--	--	--	--	<2	<2	<2	<2	<10*	<2	<2	<2	<2*	<20*	<10	<2	<2
MH-2	--	--	--	--	<2	<2	<2 J	<2	<10	<2	<2*	<2	<20	<8	<10	<2	<2
MH-3	--	--	--	--	<2	<2*	<2*	<2*	1.2J	<2*	<2	<2*	<20	<8	<10*	<2	0.46 J

Units: ug/L
J indicates an estimated value
D indicates sample was diluted
NS indicates that MW-16B could not be sampled due to insufficient water volume in the well
NYSDEC (1991) (6NYCRR Part 703) Standard for Vinyl Chloride is 2ug/L
* indicates reported concentration is average value of sample and duplicate sample concentrations

Table B.2
Laboratory Analytical Results for Cis- Trans-1,2-Dichloroethene (ug/L)
1999 through 2008
Former Carborundum Company, Hyde Park Facility

Monitoring Well	Sample Date																
				Round 1		Round 2		Round 3		Round 4		Round 5		Fall 2005	Spring 2006	Fall 2007	Spring 2008
	Aug-92	May-96	Nov-97	Oct-99	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
OVERBURDEN MONITORING WELLS																	
MW-1A	14	--	<5	<5	2.4 J	0.78J	0.96J	0.75J	0.61J	0.45J	0.59J	0.80 J	2.0 J	1.4 J	<5	<5	<5
MW-2A	<10	--	<5	<5	1.2 J	0.46J	1.7J	0.28J	14	0.63J	0.38J	<5	<5	<5	<5	9.8	0.38
MW-3A	<10	--	<5	1J	1.5 J	1.7J	1.4J	3J	1.1J	1.3J	0.78J	1.6 J	<5	0.90 J	1.6 J	0.9	0.71
MW-4A	230	--	49	30	74	140	110D	390D	160	170D*	250J	370	240	250 D	425 D*	203.2	203.1
MW-5A	1900	--	110	14	320	116DJ*	220D	110	32	300D	16J	210 D	580 D	300 D	150 D	2.6	37.35
MW-7A	--	1200	5206	2900	4800	2200	3400D	2600	2100	1800D	2000DJ	2200	1650 D*	1950 D*	2100 D	580	1706.1
MW-10A	--	690	1212	1200	1200	790DJ	865D*	950*	990	655*	640J	760	620	660 D	540	312	400
MW-11A	--	<10	<5	<5	1.3 J	<5J	2.67J*	<5*	0.34J	<5	<5J *	<5	<5	<5	<5	<5	<5
MW-12A	--	430	120	130	540	270J	340	510D	260D*	170	200DJ	210 D	230 D	200 D	190	151.3	131
MW-13A	--	<10	<5	<5	<5	<5J	0.26J	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<5
MW-14A	--	<10	<5	<5	1.6 J	0.69J	250D	2J	12	0.82J	4.0J	2.1 J	2.3 J	2.3 J	1.7 J	1.6	1.5
MW-16A	--	--	--	--	NS	77D	81D	47D	42	26	33J	26	20	21	14	12	9
MW-17A	--	--	--	--	230	260	260D	320	300	280	380DJ	350*	380 D	320 D	230	161.9	201.5
MW-18A	--	--	--	--	47	30	33	34	33*	26	29.5J *	33	40	37	36	25.46	31.44
MW-19A	--	--	--	--	33	4.1J	10	4.3J	5.8	3.2J	4.3J	4.0 J	4.0 J	5.2	4.3 J	4.2	3.2
BEDROCK MONITORING WELLS																	
MW-1B	10	--	<5	6	4.7 J	1.1J	11	1.3	16	1.3J	2.2J	1.50 J	5.4	5.5	1.4 J	11	1.2
MW-2B	2300	--	450	325	260	64	140D	110	150	87D	120J	86	85	90	62	48	41
MW-3B	18	--	5	4J	4.8 J	3.5J	1.96J*	3.55J*	3.4J	2.6J	2.7J	3.3 J	2.1 J	2.7 J	2.6 J	1.9	2.1
MW-4B	130	--	45	33	39	30	29	33	18*	20	22J *	25	14	17	12	23	12
MW-5B	520	--	270	530	420	140J	170D	150	140	110D	110J	120*	110	87	74	61.66	58.5
MW-6	--	1000	595	480	560	360	300D	350D	250	220D	220J	230	220 D	210 D	170	130.52	150.39
MW-7B	--	370	110	89	84	40	46D	34	35	23	24J	26	21	18	14	11	10
MW-8	--	<10	6	5	5.55	4.4J*	4.4J	3.8J	3.2J	3.0J	3.4J	2.8 J	2.8 J	3.2 J	3.1 J	2.2	2.5
MW-10B	--	1900	921	2100	1800	3200J	1100D	400	520	260*	320J	300	260	320 D*	220	221.9	191.4
MW-11B	--	390	705	385	590	460J	320D	340D	190D	230	250DJ	280	150	140 D	120 D*	141	100.77
MW-12B	--	250	250	380	210	200J	170D	220	160	92	130J	160 D	120	150 D	110	111	141.6
MW-13B	--	810	410	330	310	210DJ	220D	190	160D	120D	140DJ	130	140 D	110 D	110	83.1	68.53
MW-14B	--	310	765	330	300	280DJ	8.2	130D	200	170	150DJ	170*	130 D	130	130	56.42	120.85
MW-15	--	--	640	460	400	410DJ	390D	440D	340D	440	330DJ	310 D	400 D	340 D	300 D	171.7	191.5
MW-16B	--	--	--	--	130	140	92D	55	290D	290	210DJ	290 D	250	320 D	310	210.88	281.4
MW-17B	--	--	--	--	1000	505D*	740D	840	710	720	820	860	955*	985 D*	855 D*	443.4	638.5
MW-18B	--	--	--	--	690	420	550D	370	290	270D	240J	240	190 D*	170	160	160.9	120.73
MW-19B	--	--	--	--	41	25D	14	66D	8.6	33	24 J	52	1.8 J	21	52	12	24
MANHOLES																	
MH-1	--	--	--	--	4.7 J	6.6	4.4J	<5	4.7J*	5.6	5.8J	2.5 J	3.2 J*	11.1 J*	5.7 J	0.45	5.8
MH-2	--	--	--	--	<5	5.9	7.8 J	<5	4.4J	5.1	5.15J*	2.8 J	<50	8.8 J	5.5 J	<5	5.4
MH-3	--	--	--	--	2 J	9.4*	5.8*	<5*	7.8J	7.5*	6.9J	4.0* J	<50	18 J	9.45 J*	0.69	6.9

Units: ug/L
J indicates an estimated value
D indicates sample was diluted
NS indicates that MW-16B could not be sampled due to insufficient water volume in the well
NYSDEC (1991) (TOGS 1.1.1) Standard for DCE is 5ug/L
* indicates reported concentration is average value of sample and duplicate sample concentrations

Table B.3
Laboratory Analytical Results for Trichloroethene (ug/L)
1999 through 2008
Former Carborundum Company, Hyde Park Facility

Monitoring Well	Sample Date																
				Round 1		Round 2		Round 3		Round 4		Round 5		Fall 2005	Spring 2006	Fall 2007	Spring 2008
	Aug-92	May-96	Nov-97	Oct-99	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
OVERBURDEN MONITORING WELLS																	
MW-1A	<10	--	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<5
MW-2A	<10	--	<5	<5	<5	<5	3.4J	0.61J	4.0J	<5	<5J	<5	<5	<5	<5	0.91 J	<5
MW-3A	4	--	<5	<5	0.43 J	0.84BJ	0.82J	3.6J	0.58J	1.5J	0.75J	1.3 J	0.46 J	<5	1.1 J	<5	0.21 J
MW-4A	3	--	<5	4J	2.8 J	3.4BJ	4DJ	8.1J	6.3J	9.55*	11J	23 J	30 J	37	53 D*	34	34
MW-5A	<200	--	<5	0.8J	1.3 J	<5*	<5D	<25	0.69J	0.48J	0.65J	0.7 J	0.88 J	0.89 J	10	0.59 J	0.47 J
MW-7A	--	8700	1400	170 J	1200	1800	2000D	1400	1100	610D	600J	730	530*	475 D*	410 D	36	210
MW-10A	--	<250	<5	<5	<5	<5	<5*	<185*	<120	<120*	<120J	<120	<120	0.63 J	<40	<5	<5
MW-11A	--	<10	<5	<5	<5	<5	<5*	<5*	0.23J	<5	<5J *	<5	<5	<5	<5	<5	<5
MW-12A	--	<50	<5	<5	2.6 J	<5	<5	1.3J	0.31J*	<40	<25J	0.39 J	0.40 J	0.54 J	<10	<5	0.35 J
MW-13A	--	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<5
MW-14A	--	<10	<5	<5	<5	<5	<5D	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<5
MW-16A	--	--	--	--	NS	4.2DJ	1.9DJ	1.2J	0.77J	<10	<20J	0.70 J	<10	0.56 J	0.52 J	0.39 J	0.39 J
MW-17A	--	--	--	--	115	58	73D	54	62	42J	49J	38* J	57	48	28	38	29
MW-18A	--	--	--	--	36	30	37	40	53*	22D	47.5DJ *	43	67	52	43	22	25
MW-19A	--	--	--	--	1.7 J	1.3J	2.2J	1.1J	0.99J	0.61J	0.52J	0.40 J	0.26 J	<5	<5	<5	<5
BEDROCK MONITORING WELLS																	
MW-1B	<10	--	<5	<5	<5	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<5
MW-2B	670	--	6	5.5	0.44 J	1.1BJ	0.82DJ	<10	<25	<5	<20J	<20	<20	<5	<5	<5	<5
MW-3B	<10	--	<5	<5	<5	<5	2.7J*	<5*	<5	<5	<5J	<5	<5	<5	<5	<5	<5
MW-4B	5	--	<5	0.9J	3.2 J	0.99BJ	3.8J	1.4J	0.585J*	<5	0.73J *	0.35 J	0.41 J	0.63 J	<5	<5	<5
MW-5B	71	--	5	8	2.6 J	2.4BJ	2.6DJ	1.3J	1.6J	0.99J	<25J	1.0* J	<25	1.5 J	0.72 J	0.76 J	0.51 J
MW-6	--	<100	<5	<5	<5	<5	<5D	0.23J	<50	<5	<50J	<50	<25	<5	<10	<5	<5
MW-7B	--	<100	<5	<5	<5	0.5J	<5D	<5	<10	<5	<10J	<10	<5	<5	<5	<5	<5
MW-8	--	<10	<5	<5	<5	<5*	<5	<5	<5	<5	<5J	<5	<5	<5	<5	<5	<5
MW-10B	--	90	28	120	68	<6.4	63D	13J	13J	4.5J*	3.3J	3.0 J	<50	1.25 J*	<20	0.7 J	0.7 J
MW-11B	--	<50	<5	<5	<5	<5	<5	<25	<5	<50	<5	<50	<25	<5	<10 D*	<5	<5
MW-12B	--	18	<5	<5	<5	<5	<5	<50	<25	<20	<20J	<5	<20	<5	<10	<5	<5
MW-13B	--	48	36	22	12	7.9D	12D	7.6J	9.1	2.8J	5J	3.1 J	1.2 J	1.4 J	<10	0.78 J	0.74 J
MW-14B	--	<50	<5	<5	<5	<5	<5	<5	<50	<25	<5J	<5*	<5	<5	<10	<5	<5
MW-15	--	--	<10	<5	<5	<5	<5D	<25	<5	<100	<25J	<25	<50	<5	<5	<5	<5
MW-16B	--	--	--	--	0.97 J	<5	<5D	<10	<25	<50	0.63J	0.65 J	<50	<5	<20	<5	0.25 J
MW-17B	--	--	--	--	22	4.2DJ*	18D	23J	20J	19J	12J	12 J	12 J**	11*	6.05 J*	4 J	4.6 J
MW-18B	--	--	--	--	7.7	<5	<5D	<100	<50	<5	<50J	<50	<17.5*	<5	<10	<5	<5
MW-19B	--	--	--	--	2.4 J	1.0DJ	0.28J	0.35J	<5	<5	<5J	<10	<5	<5	<5	<5	<5
MANHOLES																	
MH-1	--	--	--	--	<5	3.6BJ	0.59J	<5	<25*	5.0	4.5J	3.5 J	1.5 J*	5.3 J*	4.8 J	<5	3.5 J
MH-2	--	--	--	--	<5	3.3BJ	0.82J	<5	<25	5.1	4.2J *	4.3 J	<50	3.1 J	4.6 J	<5	3.6 J
MH-3	--	--	--	--	<5	5.8B*	0.74J*	<5*	1.4J	7.65*	5.7J	5.8*	2.6 J	8.1 J	8.45 J*	<5	4.4 J

Units: ug/L
J indicates an estimated value
B indicates the analyte was found in an associated blank.
D indicates sample was diluted
NS indicates that MW-16B could not be sampled due to insufficient water volume in the well
NYSDEC (1991) (TOGS 1.1.1) Standard for TCE is 5ug/L
* indicates reported concentration is average value of sample and duplicate sample concentrations
** indicates reported concentration of duplicate, sample is non-detect with an MDL of 200 ug/L

Table B.4
Laboratory Analytical Results for Benzene (ug/L)
1999 through 2008
Former Carborundum Company, Hyde Park Facility

Monitoring Well	Sample Date																
				Round 1		Round 2		Round 3		Round 4		Round 5		Fall 2005	Spring 2006	Fall 2007	Spring 2008
	Aug-92	May-96	Nov-97	Oct-99	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
OVERBURDEN MONITORING WELLS																	
MW-1A	<10	--	<0.7	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-2A	<10	--	<0.7	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-3A	<10	--	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-4A	<10	--	<5	<5	<1	<1	<1D	<4	<5	<1*	<10	<10	<10	0.6 J	0.89 J*	0.45 J	0.38 J
MW-5A	<200	--	<0.7	<5	0.24 J	<1*	<1D	<5	<1	<1	<1	<1	0.47 J	<1	<1	<1	<1
MW-7A	--	<1000	4	2J	2.9	<12	<16D	<100	<100	1	<50	<100	<45*	1.4*	<20	<1	0.88 J
MW-10A	--	<250	<0.7	0.6J	0.52 J	<3.2	<4D*	<37.5*	<25	<25*	<25	<25	<25	<1	<8	<1	<1
MW-11A	--	<10	<0.7	<5	<1	<1	<1*	<1*	<1	<1	<1 *	<1	<1	<1	<1	<1	<1
MW-12A	--	<50	<0.7	<5	0.44 J	<1	<1	<1	0.26J*	<8	<5	<1	<1	<1	<2	<1	<1
MW-13A	--	<10	<0.7	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-14A	--	<10	<0.7	<5	<1	<1	<1D	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-16A	--	--	--	--	NS	<1	<1D	<1	<2	<2	<4	<1	<2	<1	<1	<1	<1
MW-17A	--	--	--	--	0.27 J	<1.6	<1D	<10	<10	<10	<10	<10*	<8	<1	<4	<1	<1
MW-18A	--	--	--	--	<1	<1	0.32J	<1	<2*	<1	<1 *	<2	<2	<1	<1	<1	<1
MW-19A	--	--	--	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BEDROCK MONITORING WELLS																	
MW-1B	<10	--	<0.7	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-2B	1J	--	<0.7	<5	0.32 J	<1	<1D	<2	<5	<1	<4	<4	<4	<1	<1	<1	<1
MW-3B	0.6	--	<5	<5	<1	<1	<1*	<1*	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-4B	<10	--	<0.7	<5	0.23 J	0.24BJ	<1	<1	<1*	<1	<1 *	<1	<1	<1	<1	<1	<1
MW-5B	<10	--	<0.7	<5	<1	<1	<1D	<5	<5	<1	<5	<1*	<5	<1	<1	<1	<1
MW-6	--	<100	<0.7	<5	0.39 J	<1.2	<1D	0.27 J	<10	<1	<10	<10	<5	<1	<2	<1	<1
MW-7B	--	<100	<0.7	<5	0.21 J	<1	<1D	<1	<2	<1	<2	<2	<1	<1	<1	<1	<1
MW-8	--	<10	<0.7	<5	<1	<1*	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-10B	--	<250	<0.7	1J	0.25 J	<6.4	<4D	<20	<20	<10*	<10	<10	<10	<1*	<4	<1	<1
MW-11B	--	<50	<0.7	<5	0.39 J	<1.6	<1D	<5	<1	<10	<1	<10	<5	<1	<1*	<1	<1
MW-12B	--	<50	<0.7	<5	0.36 J	<1	<1D	<10	<5	<4	<4	0.32 J	<4	<1	<2	0.24 J	<1
MW-13B	--	<100	<1	<5	<1	<1	<1D	<10	<1	<1	<1	<4	<1	<1	<2	<1	<1
MW-14B	--	<50	<0.7	<5	0.22 J	<1	0.23J	<1	<10	<5	<1	<1*	<1	<1	<2	<1	<1
MW-15	--	--	<1	<5	0.3 J	<1.6	<1.6D	<5	0.26J	<20	<5	<5	<10	<1	<1	<1	<1
MW-16B	--	--	--	--	<1	<1	<1D	<2	<5	<10	<2	0.69 J	<10	0.84 J	<4	0.57 J	0.71 J
MW-17B	--	--	--	--	0.65 J	<3.2*	<3.2D	<40	<25	<25	<25	<25	<32.5*	1.2*	<9*	0.44 J	0.8 J
MW-18B	--	--	--	--	0.4 J	<2	<2D	<20	<10	<1	<10	<10	<3.5*	<1	<2	<1	<1
MW-19B	--	--	--	--	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
MANHOLES																	
MH-1	--	--	--	--	<1.2	<1.2	<1	<1	<5*	<1	<1	<1	<1*	<10*	<5	<1	<1
MH-2	--	--	--	--	<1.2	<1.2	<1 J	<1	<5	<1	<1 *	<1	<10	<4	<5	<1	<1
MH-3	--	--	--	--	<1.2	<1.2*	<1*	<1*	<5	<1*	<1	<1*	<10	<4	<5*	<1	<1

Units: ug/L
J indicates an estimated value
B indicates the analyte was found in an associated blank.
D indicates sample was diluted
NS indicates that MW-16B could not be sampled due to insufficient water volume in the well
NYSDEC (1991) (6NYCRR Part 703) Standard for Benzene is 0.7ug/L
* indicates reported concentration is average value of sample and duplicate sample concentrations

Table B.5
Laboratory Analytical Results for 1,1-Dichloroethane (ug/L)
1999 through 2008
Former Carborundum Company, Hyde Park Facility

Monitoring Well	Sample Date																
				Round 1		Round 2		Round 3		Round 4		Round 5		Fall 2005	Spring 2006	Fall 2007	Spring 2008
	Aug-92	May-96	Nov-97	Oct-99	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
OVERBURDEN MONITORING WELLS																	
MW-1A	2	--	<5	<5	<5 J	0.29J	<5	<5	<5	<5	<5	<5 J	<5	<5	<5	<5	<5
MW-2A	3	--	12	29	13 J	21	19	19	14	11	19	13 J	19	25	19	7.1	14
MW-3A	<10	--	<0.7	<5	<5	<5	<5	<5	<5	<5	<5	<5 J	<5	<5	<5	<5	<5
MW-4A	2	--	<0.7	2J	4.6 J	5.4	6.2D	8.8J	7.8J	12*	15J	23 J	19 J	17	22*	12	15
MW-5A	<200	--	<5	<5	2.1 J	<5*	<5D	<25J	<5	1.1J	<5	0.96 J	2.8 J	1.4 J	0.82 J	<5	<5
MW-7A	--	<100	1500	690	1000	390	510D	430J	300J	280DJ	290	390 J	215 J*	345 D*	350 D	80	220
MW-10A	--	<250	18	22	25	11D	13.5D*	15J*	15J	<120*	10J	11 J	<120	11	7 J	4.5 J	5.8
MW-11A	--	<10	<5	<5	<5	<5	<5*	<5*J	<5	<5	<5 *	<5 J	<5	<5	<5	<5	<5
MW-12A	--	<50	<5	2J	5.9	2.2J	4.2J	3.1 J	3.7J*	<40	3.3J	3.3 J	3.4 J	3.4 J	3.2 J	3.2 J	2.2 J
MW-13A	--	<10	<5	<5	<5	<5	<5	<5J	<5	<5	<5	<5 J	<5	<5	<5	<5	<5
MW-14A	--	<10	<5	<5	<5	<5	<5D	<5	<5	<5	<5	<5 J	<5	<5	<5	<5	<5
MW-16A	--	--	--	--	NS	<5	<5D	<5J	<10	<10	<20	<5 J	<10	<5	<5	<5	<5
MW-17A	--	--	--	--	59	75	75D	66	59	38J	48J	37 J	45	36	23	19	20
MW-18A	--	--	--	--	5.6	4.9J	6	5.5	5.3J*	3.8J	4.95J *	5.2 J	7.3 J	6.1	5.1	4.1 J	3.8 J
MW-19A	--	--	--	--	<5	<5	<5	<5	<5	<5	<5	<5 J	<5	<5	<5	<5	<5
BEDROCK MONITORING WELLS																	
MW-1B	3	--	<5	1J	1.5 J	1.70J	0.91J	1.3J	0.62J	0.87J	1.0J	1.2 J	<5	0.76 J	0.96 J	<5	0.71 J
MW-2B	<10	--	<5	0.5J	<5 J	2	<5	<10	<25	<5	<20	<20 J	<20	<5	<5	<5	<5
MW-3B	<10	--	<0.7	<5	<5	<5	<5*	<5*	<5	<5	<5	<5 J	<5	<5	<5	<5	<5
MW-4B	<10	--	2	3J	3.2 J	2.5J	2.6J	2.8J	1.75J*	1.8J	2.05J *	2.1 J	1.6 J	1.8 J	1.3 J	1.4 J	<5
MW-5B	3	--	<5	1J	1.1 J	<5	<5D	<25J	<25	<5	<25	0.61 J*	<25	0.65 J	<5	0.38 J	<5
MW-6	--	<100	<5	<5	0.28 J	<5	<5D	<5	<50	<5	<50	<50 J	<25	<5	<10	<5	<5
MW-7B	--	<100	<5	<5	<5	<5	<5D	<5	<10	<5	<10	<10 J	<5	<5	<5	<5	<5
MW-8	--	<10	<5	<5	<5	<5*	<5	<5	<5	<5	<5	<5 J	<5	<5	<5	<5	<5
MW-10B	--	<250	<5	3J	1.2 J	46	<5D	<100	<100	<50*	<50	<50 J	<50	0.84 J*	<20	0.69 J	0.54 J
MW-11B	--	<50	<5	0.7J	3.5 J	<5	<5D	1.4 J	0.45J	<50	1.6J	<50 J	<25	<5	<5*	0.39 J	<5
MW-12B	--	<50	<5	2J	2.3 J	<5	<5D	<50	1.3J	<20	1.8J	1.5 J	<20	1.8 J	1.6 J	1.8 J	1.6 J
MW-13B	--	<100	<10	1J	0.91 J	<5	<5D	<50J	0.83J	0.58J	0.68J	<20 J	0.56 J	0.77 J	<10	0.61 J	0.48 J
MW-14B	--	<50	<5	0.8J	0.61 J	<5J	<5	0.62 J	<50	<25	0.38J	0.41 J*	<5	<5	<10	0.6 J	0.41 J
MW-15	--	--	<10	1J	0.95 J	<5	<5D	1.7J	1.1J	<100	<25	<25 J	<50	2 J	1.6 J	0.66 J	0.58 J
MW-16B	--	--	--	--	<5	<5	<5D	<10J	<25	<50	<10	<10 J	<50	<5	<20	<5	0.22 J
MW-17B	--	--	--	--	5.4	<5*	20D	40J	39J	28J	27J	26 J	26.5 J*	25.5*	22 DJ*	9.3	17.0
MW-18B	--	--	--	--	<5	<5	<5D	<100	<50	<5	<50	<50 J	<17.5*	<5	<10	<5	<5
MW-19B	--	--	--	--	<5	<5	<5	<5	<5	<5	<5	<10 J	<5	<5	<5	<5	<5
MANHOLES																	
MH-1	--	--	--	--	<5 J	<5	<5	<5	<25*	<5	<5	<5 J	<5*	<50*	<25	<5	<5
MH-2	--	--	--	--	<5 J	<5	<5 J	<5	<25	<5	<5 *	<5 J	<50	<20	<25	<5	<5
MH-3	--	--	--	--	<5 J	<5 *	<5*	<5*	<25	<5*	<5	<5 J*	<50	<20	<25*	<5	<5

Units: ug/L
J indicates an estimated value
D indicates sample was diluted
NS indicates that MW-16B could not be sampled due to insufficient water volume in the well
NYSDEC (1991) (TOGS 1.1.1) Standard for DCA is 5ug/L
* indicates reported concentration is average value of sample and duplicate sample concentrations

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-1A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.3	0.4		0.0
Total Fe (lab measurement)	(mg/L)	nv	<0.05 J	11.7 J	6.3 J	11.8 J	4.16	12.2	9.34 J	1.97 J	5.44	3.69		1.01
Fe+3 (calculated)	(mg/L)	nc	<0.05	11.7	6.3	11.8	4.2	12.0	9.2	1.8	5.1	3.3		
Methane	(ug/L)	23	30	40	36	41	40	19	43	42	34	46		2.6
Ethane	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1
Ethene	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1
Propane	(ug/L)	<1	nv	<1	<1	<1	<1	1.3	<1	<1	<1	<1		<1
Propene	(ug/L)	<1	nv	<1	<1	<1	<1	<1	<1	<1	<1	<1		
TOC	(mg/L)	<4	3.4	2.3	4.1 J	1.6	1.7	2.1	2.4	2.2	2.6	1.5		1.53
BOD	(mg/L)	<2	<2	<2	<2	<2	<2	<2	3.30	30.6	<2	<2		<2
COD	(mg/L)	<5	5.7J	<5 J	7.4 J	22.5 J	<10	<10	12.1	<10	<10	<10		6.02
Chloride	(mg/L)	44.6	43.5	31.7	47.8	37.8	44.7	37.7	49.2	40.3	41.7	40.2		112
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	0.13	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv		0.07
Sulfate	(mg/L)	135	159J	136 J	173	147	173	191	155	156	142	176		109
Sulfide	(mg/L)	31.5	<1	<1	<1	<1	<0.1	0.14	<0.1	<0.10	<0.10	0.13		<0.10

Notes:
J indicates an estimated value
R indicates that data is unusable
nv indicates no value
nc indicates value could not be calculated based on available data
* indicates reported concentration is average value of sample and duplicate sample concentrations
** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-1B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	0.0	0.0	1.2	0.4	0.0	1.0	0.8	0.5	0.8	0.7	0.8	1.6
Total Fe (lab measurement)	(mg/L)	nv	1.1	5 J	1.8 J	4.33 J	1.22	1.21	1.48 J	0.56 J	1.56	1.83	0.45	1.22
Fe+3 (calculated)	(mg/L)	nc	1.1	5.0	0.6	3.9	1.2	0.2	0.7	0.1	0.8	1.1	-0.3	
Methane	(ug/L)	65	34	30	44	91	40	40	54	100	51	50	160	64
Ethane	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.36 J	<1
Ethene	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.97 J	<1
Propane	(ug/L)	<1	nv	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1	<1	<1	<1	<1	<1	<1	nv	
TOC	(mg/L)	6.2	6.6	9.7	6.7 J	6..2	3.8	4.6	2.8	3.8	3.2	3.4	4.2	4.06
BOD	(mg/L)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
COD	(mg/L)	13	13J	37.2 J	16.9 J	17.2 J	10.4	<10	24.9	12.8	<10	<10	<5	13.0
Chloride	(mg/L)	83.1	83.3	74.2	72.1	95.4	73.7	72.1	70.2	82.2	85.3	62.7	97.6	70.0
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	223	297J	268 J	239	304	276	277	240	257	177	238	301	181
Sulfide	(mg/L)	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<1	<1

Notes:
J indicates an estimated value
R indicates that data is unusable
nv indicates no value
nc indicates value could not be calculated based on available data
* indicates reported concentration is average value of sample and duplicate sample concentrations
** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-3A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	nv	0.2
Total Fe (lab measurement)	(mg/L)	nv	<0.05 J	1.9 J	10.7 J	6.47 J	7.94	16.5	13.5 J	9.55 J	8.73	4.45	90.60	7.8
Fe+3 (calculated)	(mg/L)	nc	<0.05	1.4	10.7	6.5	7.9	16.5	13.5	9.6	8.7	4.5	nc	
Methane	(ug/L)	45	4	1.2	4	<1	1.6	1.9	1.7	3.9	18.0	1.1	6.0	12
Ethane	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.54 J	<1
Ethene	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Propane	(ug/L)	<1	nv	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1	<1	<1	<1	<1	<1	<1	nv	
TOC	(mg/L)	2.1	2.9	3.8	5.1 J	2.5	2.4	3.4	2.7	2.1	2.7	2.3	3.2	2.9
BOD	(mg/L)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
COD	(mg/L)	<5	<5	<5 J	<5 J	<5 J	<10	<10	<10	<10	<10	<10	19 J	6.9
Chloride	(mg/L)	17.9	18.7	19.5	20.7	19.9	18.5	21.9	21.6	14.3	23.9	16.5	16.4	<17.5
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.067	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	399	462	444 J	400	512	332	373	345	311	270	327	319	292
Sulfide	(mg/L)	<1	<1	<1	<1	<1	0.73	<0.1	0.12	<0.1	<0.10	<0.10	3.64	<0.10

Notes:
J indicates an estimated value
R indicates that data is unusable
nv indicates no value
nc indicates value could not be calculated based on available data
* indicates reported concentration is average value of sample and duplicate sample concentrations
** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-3B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Fe (lab measurement)	(mg/L)	nv	<0.05 J	0.2* J	1.0* J	2.12	0.422	0.0705	<0.05 J	2.21 J	0.28	0.0838	<0.100	<0.100
Fe+3 (calculated)	(mg/L)	nc	<0.05	0.0	1.0	2.1	0.4	0.1	<0.05	2.2	0.3	0.1	nc	
Methane	(ug/L)	260	90	175*	195*	280 J	130	59	140	150	190	140	220	180
Ethane	(ug/L)	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	0.6 J
Ethene	(ug/L)	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1
Propane	(ug/L)	<	nv	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	nv	
TOC	(mg/L)	3.6	4.6	4*	8.3*J	2.7	2.8	3.3	3.4	3.6	3.4	2.8	3.2	3.64
BOD	(mg/L)	<2	<2	<2	3.3*	7.8	<2	<2.2	<2	<2	<2	3.1	<2	4.2
COD	(mg/L)	11.3	7.4	6* J	37.55*J	53.7 J	<10	<10	20.6	14.1	<10	<10	<5	14.1
Chloride	(mg/L)	93.6	92.5	99.2*	91.75*	110	96.8	116	83.6	114	137	118	134	132
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	288	356	304* J	346*	562	240	394	413	347	240	344	395	333
Sulfide	(mg/L)	<1	<1	<1	1.2*	<1	<0.1	0.29	0.60	<0.1	0.10	0.14	<1	<1

Notes:
J indicates an estimated value
R indicates that data is unusable
nv indicates no value
nc indicates value could not be calculated based on available data
* indicates reported concentration is average value of sample and duplicate sample concentrations
** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-4A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	0.2**	0.0	0.4	nv	0.2	0.2	0.3	0.5	0.6	0.6	0.8	0.3
Total Fe (lab measurement)	(mg/L)	nv	0.1 J	12.1 J	1.9 J	4.23	54.0*	1.67	34.5 J	55.1 J	15.8	63.9 J*	7.0	1.8
Fe+3 (calculated)	(mg/L)	nc	0.1	12.1	1.5	nc	53.8*	1.5	34.2	54.6	15.2	63.6*	6.2	
Methane	(ug/L)	54	44	40	130	87 J	89*	53	110	120	140	105*	130	130
Ethane	(ug/L)	<1	<1	<1	<1	<1 J	<1*	<1	<1	<1	<1	1.25*	0.55 J	0.55 J
Ethene	(ug/L)	3	1.5	1.5	1.8	2.5 J	2.1*	1.3	<1	3.1	3.8	2.3*	5.6	5.6
Propane	(ug/L)	<1	nv	<1	<1	<1 J	<1*	<1	<1	<1	<1	<1*	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1 J	<1*	<1	<1	<1	<1	<1*	nv	
TOC	(mg/L)	2.7	2.4	2.5	3	1.5	<1*	1.8	1.8	1.9	4.5	<1*	1.9	1.52
BOD	(mg/L)	<2	<2	<2	<2 J	<2	<2*	<2	<2	<2	<2	<2*	<2	<2
COD	(mg/L)	<5	<5	<5 J	10.3 J	<5 J	<10*	<10	<10	<10	11.7	10.5*	<5	6.6
Chloride	(mg/L)	100	185	89.3	132	80.1	168*	118	74.2	93.9	93.2	128.5*	106.0	117
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05	<0.05	<0.05	<0.05	<0.05*	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05*	<0.05	<0.05	<0.05	<0.05	<0.05*	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	0.13
Sulfate	(mg/L)	222	318	281 J	322	258	302*	263	305	272	248	269*	242	231
Sulfide	(mg/L)	31.5	<1	<1	<1	<1	<0.5*	<0.1	0.15	<0.1	<0.10	0.13*	<1	<1

Notes:
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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-4B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field	(mg/L)	0.0	0.0	0.0	0.6	nv	0.5	0.5	0.5	0.5	0.4	0.5	0.8	0.4
Total Fe (la	(mg/L)	nv	0.3 J	2 J	1.1 J	1.35*	1.14	1.06 *	0.7 J	0.93 J	0.82	0.786 J	2.49	1.14
Fe+3 (calcul	(mg/L)	nc	0.3	2.0	0.5	nc	0.6	0.6	0.2	0.4	0.4	0.3	1.7	
Methane	(ug/L)	230	150	120	200	220* J	230	140 *	230	190	170	190	200	260
Ethane	(ug/L)	<1	<1	<1	<1	<1* J	<1	<1 *	<1	<1	<1	<1	0.39 J	0.43 J
Ethene	(ug/L)	1	<1	<1	<1	<1* J	<1	<1 *	<1	<1	<1	<1	0.39 J	0.66 J
Propane	(ug/L)	<1	nv	<1	<1	<1* J	<1	<1 *	<1	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1* J	<1	<1 *	<1	<1	<1	<1	nv	
TOC	(mg/L)	<10	3.6	3.2	3.3	2.25*	1.2	2.65 *	2.4	2.6	3.1	<1	3.2	3.29
BOD	(mg/L)	<2	<2	<2	<2 J	<2*	<2	<2 *	<2	<2	<2	<2	<2	<2
COD	(mg/L)	7.4	<5	<5 J	7.7 J	11.1* J	<10	<10 *	16.4	<10	18.1	<10	5.52 J	9.0
Chloride	(mg/L)	167	136	123	133	127.5*	121	143 *	69.4	131	126	142	152	152
Nitrate	(mg/L)	<0.5J	0.076	<0.05	<0.05	<0.05*	<0.05	<0.05 *	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02*	<0.05	<0.05 *	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nit	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	314	502	524 J	402	462*	228	355 *	355	320	252	308	316	333
Sulfide	(mg/L)	<1	<1	<1	<1	<1*	<0.1	<0.1 *	0.11	<0.1	<0.10	<0.10	2.59	<0.10

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-5A		Monitoring Well I.D.		MW-5B	
Parameter	Units	Oct-07	Apr-08	**Parameter**	Units	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.2	0.5	**Fe+2 (field measurement)**	(mg/L)	1	1.0
Total Fe (lab measurement)	(mg/L)	8.32	71.40	**Total Fe (lab measurement)**	(mg/L)	0.709	0.760
Fe+3 (calculated)	(mg/L)	8.1		**Fe+3 (calculated)**	(mg/L)	-0.3	
Methane	(ug/L)	0.74 J	22	**Methane**	(ug/L)	86	80
Ethane	(ug/L)	<1	2.0	**Ethane**	(ug/L)	<1	0.37 J
Ethene	(ug/L)	<1	4.7	**Ethene**	(ug/L)	0.6 J	0.76 J
Propane	(ug/L)	<1	1.1	**Propane**	(ug/L)	<1	<1
Propene	(ug/L)	nv		**Propene**	(ug/L)	nv	
TOC	(mg/L)	1.14	1.44	**TOC**	(mg/L)	4.26	4.49
BOD	(mg/L)	<2	<2	**BOD**	(mg/L)	<2	<2
COD	(mg/L)	<5	12.2	**COD**	(mg/L)	<5	9.6
Chloride	(mg/L)	569	542	**Chloride**	(mg/L)	83.2	81.0
Nitrate	(mg/L)	nv	0.61	**Nitrate**	(mg/L)	nv	<0.05
Nitrite	(mg/L)	nv	<0.05	**Nitrite**	(mg/L)	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	0.75	0.42	**Nitrate+Nitrite as Nitrogen**	(mg/L)	<0.05	<0.05
Sulfate	(mg/L)	172	164	**Sulfate**	(mg/L)	230	223
Sulfide	(mg/L)	<1	<1	**Sulfide**	(mg/L)	<1	1.94

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-7A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.2	0.0	0.0	1.3	0.1	0.2	1.4	2.1	0.9	2.2	2.0	3.6	3.0
Total Fe (lab measurement)	(mg/L)	nv	1.0 J	26.5 J	21.2 J	11.9	8.62	13.6	10.5 J	11.2 J*	81.15 J*	33.9 J	20	3.7
Fe+3 (calculated)	(mg/L)	nc	1.0	26.5	19.9	11.8	8.4	12.2	8.4	10.3	79.0	31.9	16.4	
Methane	(ug/L)	16	7	11	13	8.6 J	4.7	4.2	7.3	10.5*	17*	10	10	8.6
Ethane	(ug/L)	2	1	1.9	2.1	1 J	<1	<1	<1	1.4*	2.55*	1.3	0.95 J	0.44 J
Ethene	(ug/L)	2	2	2.4	5.9	7 J	4.1	3.7	<1	3.75*	4.45*	2.9	8.5	5.3
Propane	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1	<1*	<1*	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1	<1*	<1*	<1	nv	
TOC	(mg/L)	<10	<4	3.6	4.5 J	2	<1	2.1	2.0	1.95*	4.05*	<1	2.74	2.23
BOD	(mg/L)	<2	<2	<2	<2	<2	<2	<2.2	<2	<2*	<2*	<2	<1	<1
COD	(mg/L)	33.2	<5	<5 J	9.3 J	<5 J	<10	<10	14.4	<10*	<10 UJ*	27.4	7.97 J	5.42
Chloride	(mg/L)	56.7	36.2	43.3	37.8	35.7	28.8	36.3	29.5	24.25*	23.85*	21.6	21	17.3
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05*	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05*	<0.05*	<0.05	nv	0.24
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	0.24
Sulfate	(mg/L)	50.4	340	128 J	239	398	249	348	266	246*	241.5*	282	250	210
Sulfide	(mg/L)	3.4	<1	1.8	<1	<1	<0.2	<0.1	<0.1	<0.1*	<0.10*	<0.10	<1	<1

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-7B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	0.0	0.4**	0.0	0.1	0.0	0.0	0.3**	0.0	0.0	0.0	0.0	0.0
Total Fe (lab measurement)	(mg/L)	nv	<0.05 J	0.1 J	0.8 J	0.142	0.606	0.056	<0.05 J	0.056 J	0.05 J	0.05 J	0.177	<0.05
Fe+3 (calculated)	(mg/L)	nc	<0.05	nc	0.8	0.0	0.6	0.1	<0.05	0.1	0.1	0.1	0.2	
Methane	(ug/L)	270	120	230	260	280 J	200	190	190	220	180	150	220	230
Ethane	(ug/L)	<1	<1	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	0.31 J	0.44 J
Ethene	(ug/L)	1	<1	<1	1.5	1.5 J	1.4	<1	<1	1.0	1.3	1.6	1.9	2.8
Propane	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	<1	
Propene	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1	<1	<1	<1	nv	<1
TOC	(mg/L)	3.2	4.6	3.7	6 J	2.7	2.4	3.3	2.9	3.5	3.4	1.5	3.41	3.45
BOD	(mg/L)	<2	<2	<2	<2	<2	<2	<2.2	<2	<2	<2	<2	<2	<2
COD	(mg/L)	<5	5.7	<5 J	14.6 J	<5 J	<10	<10	21.7	<10	<10 UJ	<10	6.58 J	11.6
Chloride	(mg/L)	97.3	88.8	98.9	95.6	117	96.3	140	82.0	118	137	104	157	130
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	0.0758	<0.05
Sulfate	(mg/L)	250	248	272 J	218	388	197	320	251	219	237	233	298	278
Sulfide	(mg/L)	<1	<1	<1	<1	<1	0.11	0.1	0.14	<0.1	<0.10	<0.10	<1	<1

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-10A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	1.0	0.5	1.8	3.1	1.6	0.0	2.8	2.2	2.8	2.1	0.8	3.2	2.8
Total Fe (lab measurement)	(mg/L)	nv	2.8	33.2* J	35.4* J	21.9 J	24.2*	19.0	43.4 J	29.4 J	23.1 J	26.3 J	10.7	32.1
Fe+3 (calculated)	(mg/L)	nc	2.3	31.4	32.3	20.3	24.2*	16.2	41.2	26.6	21.0	25.5	7.5	
Methane	(ug/L)	72	40	40*	63*	37	68*	35	43	40	33	45	19	60
Ethane	(ug/L)	3	2.8	3.2*	2.15*	1.8	3.9*	1.6	2.4	1.5	<1	1.3	0.52 J	4.4
Ethene	(ug/L)	9	7.7	6*	11.5*	7	9.3*	4.6	5.3	6.5	5.4	8.4	4.6	11.0
Propane	(ug/L)	<1	<1	<1	<1	<1	<1*	<1	<1	<1	<1	<1	<1	2.7
Propene	(ug/L)	<1	<1	<1	<1	<1	<1*	<1	<1	<1	<1	<1	nv	
TOC	(mg/L)	<4	<10	2.8*	2.75*	1.6	<1*	1.8	1.7	1.5	2.5	<1	1.93	2.99
BOD	(mg/L)	<2	<2	<2	<2 J	<2	<2*	<2.2	<2	<2	<2	<2	<2	<2
COD	(mg/L)	9.4	6.3	7.2* J	9.7* J	<5 J	<10*	<10	<10	<10	<10 UJ	15.4	8.32 J	10.1
Chloride	(mg/L)	560	558	646*	812*	703	728*	972	1080	1040	1020	916	815	884
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05	0.085	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05*	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	398	254	338*	406*	564	197*	313	325	376	276	305	332	294
Sulfide	(mg/L)	<1	<1	<1	<2	<1	<0.1*	0.26	0.13	<0.1	<0.10	<0.10	<1	<1

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-10B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	0.4	0.9	0.6	1.8**	1.1**	0.6	0.9**	0.5	0.5	0.6	1.2	0.5
Total Fe (lab measurement)	(mg/L)	nv	0.5	1.1 J	2.5 J	1.39 J	0.737	0.66	0.782 J	1.44 J	0.559 J*	0.578 J	0.945	0.497
Fe+3 (calculated)	(mg/L)	nc	0.1	0.2	1.9	nc	nc	0.1	<0.05	0.9	0.1	nc	-0.3	
Methane	(ug/L)	89	50	90	39	83	67	54	77	94	87	75	100	96
Ethane	(ug/L)	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.43 J	0.48
Ethene	(ug/L)	3	<1	2	<1	1.3	<1	<1	<1	<1	<1	<1	1.5	1 J
Propane	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.1	0.94 J
Propene	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	nv	
TOC	(mg/L)	3.4	4.5	4	4.9	4.1	2.7	4.2	5.7	3.8	4.25*	1.9	3.81	4.22
BOD	(mg/L)	<2	<2	<2	<2 J	<2	<2	<4.5	<2	<2	<2*	<2	<2	<2
COD	(mg/L)	<5	<5	5.4 J	15.5 J	<5 J	12.9	<10	<10	<10	17 J*	87.2	<5	12.7
Chloride	(mg/L)	99.8	76.5	104	78.4	119	76.6	84.8	75.8	87.9	88.25*	77.8	226	87.4
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	254	274	301	238	296	193	345	242	231	232.5*	256	236	198
Sulfide	(mg/L)	<1	<1	<1	<1	<1	0.1	<0.1	0.11	<0.1	<0.10*	<0.10	<1	<1

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-14A											
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Apr-08
Fe+2 (field measurement)	(mg/L)	1.3	nv	0.5	1.0	1.0	0.0	0.7	1.5	1.4	1.4	1.4	0.6
Total Fe (lab measurement)	(mg/L)	nv	0.5	2 J	44.4 J	59.3 J	50.4	49.5	39.4 J	49.2 J	63.4	27.3	43.6
Fe+3 (calculated)	(mg/L)	nc	nv	1.5	43.4	58.3	50.4	48.8	37.9	47.8	62.0	25.9	
Methane	(ug/L)	36	10	30	23	22	16	14	45	30	29	22	15
Ethane	(ug/L)	3	<1	2.2	2.2	1.2	1.8	1.5	2.3	1.3	1.4	1.5	0.64 J
Ethene	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Propane	(ug/L)	<1	<1	<1	1.4	<1	<1	<1	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	<1	<1	1.5	<1	<1	<1	<1	<1	<1	<1	
TOC	(mg/L)	<10	<20	3.9	4	3.5	3.2	3.7	2.6	3.3	5.6	3.1	5.4
BOD	(mg/L)	<2	2	<2	<2 J	<2	<2	<2	3.3	<2	<2	<2	<2
COD	(mg/L)	34.2	27.9	11.6 J	16.2 J	14.9 J	<10	13.4	12.4	<10	14.6	25.6	18.8
Chloride	(mg/L)	77.2	105	107	74.3	68.4	84.2	98.6	83.9	75.0	79.5	70.8	68.0
Nitrate	(mg/L)	<0.5J	0.087	<0.05	<0.05	<0.05	<0.05	0.28	0.2	0.14	0.14	0.27	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	0.068	<0.05	<0.05	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05
Sulfate	(mg/L)	38.4	28.4	352	123	184	173	151	182	190	178	176	118
Sulfide	(mg/L)	<1	<1	1.8	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10

Notes:
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nv indicates no value
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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-14B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.5	0.0	0.0	0.5	0.0	0.3**	0.3**	0.5**	0.6**	0.5	0.3	0.0	1.0
Total Fe (lab measurement)	(mg/L)	nv	0.2	148 J	1.1 J	0.792 J	0.134	0.282	0.093 J*	<0.05 J	0.076	0.123	0.470	0.188
Fe+3 (calculated)	(mg/L)	nc	0.2	148.0	0.6	0.8	nc	nc	<0.05	nc	nc	nc	0.5	
Methane	(ug/L)	210	100	80	200	200	130	150	215*	180	180	160	110	200
Ethane	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1*	<1	<1	<1	<1	0.56J
Ethene	(ug/L)	2	<1	<1	1.1	1.4	<1	<1	<1*	<1	1	<1	<1	1.7
Propane	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1*	<1	<1	<1	<1	0.62 J
Propene	(ug/L)	<1	<1	<1	<1	<1	<1	<1	<1*	<1	<1	<1	nv	
TOC	(mg/L)	2.8	4.3	4.6	3.8	2.8	2.5	3.1	1.4*	2.8	3.2	2.2	4.07	3
BOD	(mg/L)	<2	<2	<2	<2 J	<2	<2	<2	3.65*	<2	<2	<2	<2	<2
COD	(mg/L)	8.4	<5	23.1 J	8.7 J	<5 J	10.4	<10	18.0*	<10	11.4	<10	6.58 J	10.1
Chloride	(mg/L)	93.2	89.5	85.5	124	116	110	126	87.5*	121	113	24.6	119	136
Nitrate	(mg/L)	<0.5J	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05*	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	0.269 J
Sulfate	(mg/L)	308	251	151	248	398	391	391	306*	325	252	326	263	254
Sulfide	(mg/L)	<1	<1	1.7	<1	<1	<0.1	0.12	0.18*	0.21	<0.10	<0.10	<1	<1

Notes:
J indicates an estimated value
R indicates that data is unusable
nv indicates no value
nc indicates value could not be calculated based on available data
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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-16A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	Well Dry	nv	1.0	nv	0.0	0.0	0.0	0.0	0.3	0.2	0.0	nv	0.2
Total Fe (lab measurement)	(mg/L)	No Sample	nv	4.9 J	5.8	3.37 J	9.37	12.5	7.61 J	8.26 J	8.16	4.86	2.08	2.48
Fe+3 (calculated)	(mg/L)	Collected	nv	3.9	nc	3.4	9.4	12.5	7.6	8.0	8.0	4.9	nc	
Methane	(ug/L)		6.3	4.3	1.8	3.1	1.6	3.6	1.4	1.9	4.2	2.7	60	4.5
Ethane	(ug/L)		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.87 J	<1
Ethene	(ug/L)		<1	<1	<1	<1	<1	1.6	<1	1.1	3.8	2.2	15	0.62 J
Propane	(ug/L)		nv	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Propene	(ug/L)		nv	<1	<1	<1	<1	<1	<1	<1	<1	<1	nv	
TOC	(mg/L)		8.7	8.4	7.4	6.8	4.7	6.6	4.9	5.9	4.7	4.6	6.93	6.5
BOD	(mg/L)		<2	<2	<2 J	<2	<2	<2	<2	<2	<2	<2	<2	<2
COD	(mg/L)		38.2J	23.5 J	25.3	12.7 J	14.6	<10	16.4	15.4	26.8	<10	23.2 J	20.4
Chloride	(mg/L)		327	334	385	349	367	347	259	308	86.2	289	278	209
Nitrate	(mg/L)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.12	0.076	<0.05	nv	<0.05
Nitrite	(mg/L)		<0.02	<0.02	<0.02 R	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	0.0612
Sulfate	(mg/L)		1250J	1060	955	1060	993	1080	985	1120	41.1	1080	981	1020
Sulfide	(mg/L)		<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	1.2	<0.10

Notes:
J indicates an estimated value
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nv indicates no value
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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-16B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	nv	0.7	0.3	0.0	0.0	0.4	0.4	0.3	nv	0.3	1.0	0.5
Total Fe (lab measurement)	(mg/L)	nv	0.3 J	160 J	6.8	4.65 J	1.92	16.9	0.588 J	1.2 J	3.11	0.76	0.505	0.669
Fe+3 (calculated)	(mg/L)	nc	nv	159.3	6.5	4.7	1.9	16.5	0.2	0.9	nc	0.5	-0.5	
Methane	(ug/L)	132.5	120	110	17	200	150	160	190	200	130	140	190	220
Ethane	(ug/L)	<1	<1	2.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.7 J
Ethene	(ug/L)	<1	<1	<1	<1	2.9	3	2.5	24	3.3	2.2	1.9	3.7	3.1
Propane	(ug/L)	<1	nv	<1	1.2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	1.7	<1	<1	<1	<1	<1	<1	<1	nv	
TOC	(mg/L)	5.6	5.9	8.8	4.3	5.2	3.4	4.2	4.1	3.9	2.8	2.9	3.7	3.81
BOD	(mg/L)	<2	<2	11.2	8.6 J	<2	<2	<2	<2	<2	<2	<2	<2	<2
COD	(mg/L)	10.35	46.1J	135 J	48.2	22.2 J	22.2	49	<10	<10	17.5	22.9	<5	10.1
Chloride	(mg/L)	95.1J	74.2	88.4	62.4	78.1	86.6	90.4	79	83.3	13	88.1	114	106
Nitrate	(mg/L)	<0.5J	0.062	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02 R	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	500.5J	510J	258	170	159	173	267	264	251	90.2	277	269	264
Sulfide	(mg/L)	<1	<1	3.2	<1	<1	<0.1	0.12	0.28	0.11	<0.10	0.13	<1	1.1

Notes:
J indicates an estimated value
R indicates that data is unusable
nv indicates no value
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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-17A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.6	2.5**	1.2	2.0	3.2	1.8	2.0	3.4	2.8	3.6	3.0	3.5	3.8
Total Fe (lab measurement)	(mg/L)	nv	1.7 J	142 J	39.6 J	52.4	14.6	8.25	16.8 J*	32.2 J	11.5	15.4 J	11.9	7.05
Fe+3 (calculated)	(mg/L)	nc	1.7	140.8	37.6	49.2	12.8	6.3	13.4	29.4	7.9	12.4	8.4	
Methane	(ug/L)	61	78	100	120	98 J	78	52	62*	81	57	49	60	77
Ethane	(ug/L)	4	7.1	3.1	2.6	4 J	<1	<1	<1*	<1	<1	<1	<1	<1
Ethene	(ug/L)	1	<1	<1	1.3	4.2 J	1.1	<1	<1*	<1	<1	<1	0.42 J	1.5
Propane	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1*	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1*	<1	<1	<1	nv	
TOC	(mg/L)	4.3	<20	3.9	3	2.5	<1	1.9	1.8*	2.1	2.8	<1	2.51	2.2
BOD	(mg/L)	<2	<2	<2	<2 J	<2	<2	<2	<2*	<2	<2	<2	<2	<2
COD	(mg/L)	19.6	30J	44.8 J	13.9 J	17.6 J	<10	<10	12.6*	<10	10.8	<10	11.4 J	11
Chloride	(mg/L)	612J	640	845	982	1090	924	1270	1000*	1010	1080	1120	1400	1120
Nitrate	(mg/L)	<0.5J	0.052	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05*	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	76.9J	220J	156	202	274	159	252	227*	196	181	182	134	153
Sulfide	(mg/L)	<1	<1	1.7	<1	<1	<0.1	<0.1	<0.1*	<0.1	<0.10	<0.10	<1	<1

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-17B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	May-08
Fe+2 (field measurement)	(mg/L)	0.0	0.0	0.3	1.4	--	1.9	1.2	1.4	1.0	1.0	1.0	1.2	1.2
Total Fe (lab measurement)	(mg/L)	nv	0.1 J	71.1 J	11.2 J	89.4	5.16	4.61	2.82 J	3.76 J	2.89	6.00 J*	2.92	2.94
Fe+3 (calculated)	(mg/L)	nc	0.1	70.8	9.8	--	3.3	3.4	1.4	2.8	1.9	5.0*	1.7	
Methane	(ug/L)	96	93	70	180	160 J	150	110	150	150	140	203*	180	160
Ethane	(ug/L)	5	7.8	<1	4.6	6.7 J	<1	<1	<1	<1	<1	<1*	0.66 J	0.53 J
Ethene	(ug/L)	1	<1	<1	2.9	3.5 J	5.4	2.7	<1	5.3	4.7	3.2*	2.8	4
Propane	(ug/L)	<1	nv	<1	1.1	<1 J	<1	<1	<1	<1	<1	<1*	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1 J	<1	<1	<1	<1	1.5	<1*	nv	
TOC	(mg/L)	4.8	<10	4.1	4	3.9	1.8	2.8	3.3	3.2	3.5	1.0*	3.31	3.06
BOD	(mg/L)	<2	<2	4.6	<2 J	4.9	<2	<2	<2	<2	<2	<2*	<2	<2
COD	(mg/L)	24.3	13.6J	84.2 J	27 J	61.2 J	<10	<10	<10	<10	13.6	21.9*	9.7 J	10.4
Chloride	(mg/L)	124J	107	495	461	445	359	412	241	381	477	434*	431	475
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05*	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05*	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	56.2J	244J	110	196	340	91.8	371	252	226	221	252*	209	211
Sulfide	(mg/L)	<1	<1	2.6	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.10	0.10*	<1	<1

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-18A												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.0	0.0	0.0	1.5	1.2	0.0	0.9	0.8	1.0	1.2	1.4	1.6	1.2
Total Fe (lab measurement)	(mg/L)	nv	1.0 J	35.7 J	18.6 J	24.75* J	17.7	18.55 *	11.2 J	7.7 J	8.98	9.26 J	5.48	2.01
Fe+3 (calculated)	(mg/L)	nc	1.0	35.7	17.1	11.2	17.7	17.7	10.4	6.7	7.8	7.9	3.9	
Methane	(ug/L)	35	27	30	32	15.5*	22	18 *	22	15	24	23	17	16
Ethane	(ug/L)	7	5.6	3.9	1.6	<1*	<1	1.75 *	<1	<1	<1	<1	0.38 J	<1
Ethene	(ug/L)	<1	<1	<1	<1	<1*	<1	<1 *	<1	<1	<1	<1	<1	<1
Propane	(ug/L)	<1	nv	<1	<1	<1*	<1	1.0 *	<1	<1	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1*	<1	<1 *	<1	<1	<1	<1	nv	
TOC	(mg/L)	2.8	<1	2.4	2.6	1.85*	1.3	2.15 *	<1	2.0	2.1	<1	1.79	1.56
BOD	(mg/L)	<2	<2	<2	<2 J	<2*	<2	<2.1 *	2.8	<2	<2	<2	<2	<2
COD	(mg/L)	12	6.7J	<5 J	<5 J	10.5* J	<10	11.9 *	<10	<10	13.3	<10	<5	<5
Chloride	(mg/L)	58.6J	40.2	45.4	48.2	69.4*	46.8	68.1 *	57.6	58.4	72.7	69.9	74.2	79.6
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05*	<0.05	<0.05 *	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02*	<0.05	<0.05 *	<0.05	<0.05	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	130J	590J	125	136	166.5*	173	167 *	139	156	147	135	125	133
Sulfide	(mg/L)	<1	<1	<1	<1	<1*	<0.1	<0.1 *	0.1	<0.1	<0.10	<0.10	<1	<1

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** Field measurement exceeded lab value

Table B.6
Laboratory Analytical Results for Natural Attenuation Parameters
Former Carborundum Company, Hyde Park Facility (1999 through 2008)

Monitoring Well I.D.		MW-18B												
Parameter	Units	Oct-00	May-01	Nov-01	May-02	Oct-02	May-03	Nov-03	May-04	Oct-04	Nov-05	May-06	Oct-07	Apr-08
Fe+2 (field measurement)	(mg/L)	0.6	0.0	0.5	0.9	1.8	0.3	0.6	0.8	0.5	0.7	0.7	1.0	1.0
Total Fe (lab measurement)	(mg/L)	nv	0.8 J	1.4 J	1.1 J	8.22 J	1.02	1.98	0.854 J	1.615 J*	0.933	0.815 J	1.26	1.14
Fe+3 (calculated)	(mg/L)	nc	0.8	0.9	0.2	6.4	0.7	1.4	0.1	1.1	0.2	0.1	0.3	
Methane	(ug/L)	120	40	40	94	100	110	74	35	120*	100	89	120	150
Ethane	(ug/L)	3	<1	<1	<1	4.5	<1	3.3	<1	<1*	<1	<1	<1	0.74 J
Ethene	(ug/L)	13	<1	<1	<1	<1	<1	<1	<1	1.05*	<1	1.2	2.1	2.4
Propane	(ug/L)	<1	nv	<1	<1	<1	<1	1.2	<1	<1*	<1	<1	<1	<1
Propene	(ug/L)	<1	nv	<1	<1	<1	<1	<1	<1	<1*	<1	<1	nv	
TOC	(mg/L)	4.5	5.6	4.5	5.4	5.6	3.2	5.2	2.4	4.0*	4.1	1.8	4.09	3.74
BOD	(mg/L)	<2	<2	<2	2.3 J	<2	<2	2.6	<2	<2*	<2	<2	<2	<2
COD	(mg/L)	12	15.9J	<5 J	29.6 J	22.2 J	15.6	<10	15.4	<10*	12.7	17.4	<5	9.86
Chloride	(mg/L)	103J	90.5	69.7	76.8	72.4	78.6	83	79	80.5*	91.5	80	80.9	88.1
Nitrate	(mg/L)	<0.5J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05*	<0.05	<0.05	nv	<0.05
Nitrite	(mg/L)	na	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05*	<0.05	<0.05	nv	<0.05
Nitrate+Nitrite as Nitrogen	(mg/L)	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	<0.05	<0.05
Sulfate	(mg/L)	279J	348J	292	165	348	230	349	253	255*	278	233	261	270
Sulfide	(mg/L)	<1	<1	<1	<1	<1	0.13	<0.1	<0.1	<0.1*	<0.10	<0.10	<1	<1

Notes:
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nv indicates no value
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* indicates reported concentration is average value of sample and duplicate sample concentrations
** Field measurement exceeded lab value

APPENDIX C
DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT

HYDE PARK FACILITY

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MAY 2008

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SECTION 1

DATA USABILITY SUMMARY

Groundwater, sewer, and drum samples were collected from the Hyde Park site in Niagara Falls, New York from April 21, 2008 through April 29, 2008. Analytical results from these samples were reviewed by Parsons for usability with respect to the following requirements:

- Work Plan,
- NYSDEC Analytical Services Protocol (ASP), and
- USEPA Region II Standard Operating Procedures (SOPs).

The analytical laboratory for this project was Columbia Analytical Services, Inc. (CAS). This laboratory is approved to conduct project analyses through the New York Department of Health (NYDOH) Environmental Laboratory Approval Program (ELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 28 days on average for the Hyde Park samples. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a COC record, and received at the laboratory within one to two days of sampling. All samples were received intact and in good condition at CAS.

1.3 LABORATORY ANALYTICAL METHODS

The groundwater samples collected from the Hyde Park site were analyzed for volatile organic compounds (VOCs) including propane, methane, ethane, and ethene, iron, chloride, nitrate, nitrite, nitrate/nitrite, sulfate, sulfide, biochemical oxygen demand (BOD), chemical oxygen demand (COD), and/or total organic carbon (TOC); the sewer samples collected from the site were analyzed for VOCs only; and one drum sample was analyzed for pH, total suspended solids (TSS), and dissolved organic carbon (DOC). Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, and comparability (PARCC) are discussed for each analytical method in Section 2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given,

"UJ" - estimated and not detected at the value given,

"J" - estimated at the value given,

"N" - presumptive evidence at the value given, and

"R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis Including Methane, Propane, Ethane, and Ethene

The groundwater and sewer samples collected from the Hyde Park site were analyzed for VOCs using the USEPA SW-846 8260B analytical method. In addition, certain groundwater samples were analyzed for methane, propane, ethane, and ethene using the modified USEPA approved RSK-175 analytical method. Certain reported results for the VOC samples were considered estimated due to noncompliant sample holding times. Therefore, the reported VOC and methane, propane, ethane, and ethene analytical results were 100% complete (i.e., usable) based upon the groundwater and sewer data presented. PARCC requirements were met.

1.3.2 Iron Analysis

Certain groundwater samples collected from the Hyde Park site were analyzed for iron using the USEPA SW-846 6010B analytical method. The reported iron results did not require qualification resulting from data validation. Therefore, the reported iron analytical results were 100% complete (i.e., usable) based upon the groundwater data presented. PARCC requirements were met.

1.3.3 Other Parameters

Certain groundwater samples and one drum sample collected from the Hyde Park site were analyzed for chloride, nitrite, nitrate, nitrate/nitrite, sulfate, sulfide, BOD, COD, TOC, pH, TSS, and/or DOC using the USEPA 300.0, 353.2, 300.0, 353.2, 300.0, 376.1, 405.1, 410.4, 415.1, 150.1, 160.2, and 415.1 analytical methods, respectively. Holding times, laboratory blanks, matrix spike/matrix spike duplicate, laboratory duplicate precision, laboratory control samples, instrument calibrations, quantitation limits, sample result identification, and field duplicate precision were reviewed for compliance. The reported results for these parameters did not require qualification resulting from data validation with the exception of the reported results for nitrate/nitrite for sample MW-14B (nondetect) and its field duplicate sample MW-140B (0.269 mg/L). As a result of poor field duplicate precision, these nitrate/nitrite results were considered estimated with the positive result qualified “J” and nondetected results qualified “UJ” for these samples. In addition, the positive chloride result for sample MW-3A was considered not detected and qualified “U” due to laboratory blank contamination affecting this sample. Therefore, the reported analytical results for the wet chemistry parameters were 100% complete (i.e., usable) based upon the groundwater data presented. PARCC requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 GROUNDWATER, SEWER, AND DRUM SAMPLES

Data review has been completed for data packages generated by CAS containing groundwater, sewer, and drum samples collected from the Hyde Park site. The specific samples contained in these data packages, the analyses performed, and a usability summary are presented in Table 2.1-1. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data are presented in Attachment A.

Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs and the NYSDEC ASP for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.1.1 Volatiles Including Methane, Propane, Ethane, and Ethene

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip blank contamination
- Instrument performance
- Initial and continuing calibrations
- Internal standard responses
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times and blank contamination.

Holding Times

All analytical holding times were compliant for all samples with the exception of the samples MH-1, MH-2, and MH-3 which exceeded the 12-day verified time of sample receipt

(VTSR) holding time requirement by 2 days. Therefore, the results for these samples were considered estimated, possibly biased low, with positive results qualified "J" and nondetected results qualified "UJ".

Blank Contamination

The field QC trip blank TRIP BLANK 4/22/08 associated with samples received on 4/22/08 contained acetone at a concentration of 1.8 µg/L; the field QC trip blank TRIP BLANK 4/25/08 associated with samples received on 4/25/08 contained acetone and methylene chloride at concentrations of 1.6 and 0.21 µg/L, respectively; the laboratory blank 1101238 associated with samples MW-3B and MW-8 contained acetone and methylene chloride at concentrations of 0.86 and 0.21 µg/L, respectively; and the laboratory blank 1101242 associated with samples MH-1, MH-2, and MH-3 contained acetone at a concentration of 0.86 µg/L. Therefore, results less than validation action concentrations for these compounds associated with these samples were considered not detected and qualified "U".

Usability

All volatile groundwater and sewer sample results including methane, propane, ethane, and ethene were considered usable following data review.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The volatile groundwater and sewer data presented were 100% (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A.

It was noted that sewer samples MH-1, MH-2, and MH-3 diluted and analyzed due to sample foaming. Therefore, quantitation limits for these samples were elevated.

2.1.2 Iron

The following items were reviewed for compliancy in the iron analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration, and preparation blank contamination
- Initial and continuing calibration verifications
- Interference check sample recoveries
- Matrix spike recoveries
- Laboratory duplicate precision
- Field duplicate precision
- Laboratory control sample recoveries

- Serial dilutions
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols.

Usability

All iron sample results were considered usable following data review.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The iron data presented were 100% complete (i.e., usable). The validated groundwater laboratory data are tabulated and presented in Attachment A.

TABLE 2.1-1

SUMMARY OF SAMPLE ANALYSES AND USABILITY HYDE PARK – GROUNDWATER, SEWER, AND DRUM

SAMPLE ID	MATRIX	SAMPLE DATE	VOCs	METHANE, PROPANE, ETHANE, ETHENE	IRON	OTHER
MW-12B	WATER	4/21/08	OK			
MW-12A	WATER	4/22/08	OK			
MW-120A	WATER	4/22/08	OK			
MW-11A	WATER	4/22/08	OK			
MW-11B	WATER	4/22/08	OK			
MW-10B	WATER	4/22/08	OK	OK	OK	OK
MW-100B	WATER	4/22/08	OK	OK	OK	OK
TRIP BLANK	WATER	4/22/08	OK			
MW-10A	WATER	4/22/08	OK	OK	OK	OK
MW-5B	WATER	4/22/08	OK	OK	OK	OK
MW-5A	WATER	4/22/08	OK	OK	OK	OK
MW-100B	WATER	4/23/08				OK
TRIP BLANK	WATER	4/23/08	OK			
MW-15	WATER	4/23/08	OK			
TRIP BLANK	WATER	4/23/08	OK			
MW-1A	WATER	4/23/08	OK	OK	OK	OK
MW-1B	WATER	4/23/08	OK	OK	OK	OK
MW-14B	WATER	4/24/08	OK	OK	OK	OK
MW-140B	WATER	4/24/08	OK	OK	OK	OK
MW-14A	WATER	4/24/08	OK	OK	OK	OK
MW-13B	WATER	4/24/08	OK			
MW-130B	WATER	4/24/08	OK			
MW-19A	WATER	4/24/08	OK			
MW-19B	WATER	4/24/08	OK			
MW-3A	WATER	4/24/08	OK	OK	OK	OK
MW-3B	WATER	4/25/08	OK	OK	OK	OK
MW-8	WATER	4/25/08	OK			
TRIP BLANK	WATER	4/25/08	OK			
MW-16B	WATER	4/25/08	OK	OK	OK	OK
MW-16A	WATER	4/25/08	OK	OK	OK	OK
MH-1	WATER	4/25/08	OK			

TABLE 2.1-1 - CONTINUED

SUMMARY OF SAMPLE ANALYSES AND USABILITY
HYDE PARK – GROUNDWATER, SEWER, AND DRUM

SAMPLE ID	MATRIX	SAMPLE DATE	VOCs	METHANE, PROPANE, ETHANE, ETHENE	IRON	OTHER
MH-2	WATER	4/25/08	OK			
MH-3	WATER	4/25/08	OK			
MW-18B	WATER	4/28/08	OK	OK	OK	OK
MW-18A	WATER	4/28/08	OK	OK	OK	OK
MW-17A	WATER	4/28/08	OK	OK	OK	OK
MW-17B	WATER	4/28/08	OK	OK	OK	OK
MW-7B	WATER	4/28/08	OK	OK	OK	OK
TRIP BLANK	WATER	4/28/08	OK			
MW-7A	WATER	4/28/08	OK	OK	OK	OK
MW-2A	WATER	4/28/08	OK			
MW-2B	WATER	4/28/08	OK			
MW-6	WATER	4/29/08	OK			
MW-4A	WATER	4/29/08	OK	OK	OK	OK
MW-4B	WATER	4/29/08	OK	OK	OK	OK
MW-13AA	WATER	4/29/08	OK			
TRIP BLANK	WATER	4/29/08	OK			
COMP DRUM	WATER	4/29/08	OK			OK
TRIP BLANK	WATER	4/29/08	OK			
	TOTAL SAMPLES		48	22	22	24

NOTES: OK - Sample analysis considered valid and usable.

ATTACHMENT A

VALIDATED LABORATORY DATA

Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility SDG: R2843576		Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	COMP DRUM 1095909 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 2A 1095903 Columbia R2843576 Water 4/28/2008 6/1/2008	MW- 2B 1095902 Columbia R2843576 Water 4/28/2008 6/1/2008	MW- 4A 1095905 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 4B 1095906 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 6 1095904 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 7A 1095901 Columbia R2843576 Water 4/28/2008 6/1/2008	MW- 7B 1095493 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-13AA 1095908 Columbia R2843576 Water 4/29/2008 6/1/2008
CAS NO.	COMPOUND	UNITS:									
	VOLATILES										
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	16	2 U	62	53	13	100	130	45	2 U
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	1.2 J	5 U	5 U	5 U	5 U	10 U	5 U	5 U
67-64-1	Acetone	ug/L	1.9 J	1.8 J	20 U	20 U	20 U	20 U	40 U	20 U	1.4 J
75-15-0	Carbon Disulfide	ug/L	0.33 J	10 U	10 U	10 U	10 U	10 U	20 U	0.31 J	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	0.57 J	5 U	5 U	3.1 J	5 U	0.39 J	6.1 J	5 U	5 U
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	75	0.38 J	41	200	12	150	1700	10	5 U
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	1 U	1 U	0.38 J	1 U	1 U	0.88 J	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
108-88-3	Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	1.2 J	5 U	0.53 J
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	2 J	5 U	5 U	5 U	5 U	1.3 J	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	3.6 J	14	5 U	15	5 U	5 U	220	5 U	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	5 U	2.4 J	5 U	1.6 J	5 U	5 U	24	5 U	5 U
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	34	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	2.1 J	5 U	0.31 J
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	2.5 J	5 U	5 U	34	5 U	5 U	210	5 U	5 U
74-84-0	Ethane	ug/L				0.55 J	0.43 J		0.44 J	0.44 J	
74-85-1	Ethene	ug/L				5.6	0.66 J		5.3	2.8	
74-82-8	Methane	ug/L				130	260		8.6	230	
74-98-6	Propane	ug/L				1 U	1 U		1 U	1 U	
	METALS										
7439-89-6	Iron	ug/L				1810	1140		3680	100 U	

Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility SDG: R2843576		Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	COMP DRUM 1095909 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 2A 1095903 Columbia R2843576 Water 4/28/2008 6/1/2008	MW- 2B 1095902 Columbia R2843576 Water 4/28/2008 6/1/2008	MW- 4A 1095905 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 4B 1095906 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 6 1095904 Columbia R2843576 Water 4/29/2008 6/1/2008	MW- 7A 1095901 Columbia R2843576 Water 4/28/2008 6/1/2008	MW- 7B 1095493 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-13AA 1095908 Columbia R2843576 Water 4/29/2008 6/1/2008
CAS NO.	COMPOUND	UNITS:									
	OTHER										
NA	Biochemical Oxygen Demand (BOD)	mg/L				2 U	2 U		2 U	2 U	
7440-44-0	Carbon, Total Organic (TOC)	mg/L				1.52	3.29		2.23	3.45	
NA	Chemical Oxygen Demand (COD)	mg/L				6.62	8.98		5.42	11.6	
16887-00-6	Chloride	mg/L				117	152		17.3	130	
14797-55-8	Nitrate as Nitrogen	mg/L				0.5 U	0.5 U		0.5 U	0.5 U	
NA	Nitrate+Nitrite as Nitrogen	mg/L				0.133	0.05 U		0.24	0.05 U	
14797-65-0	Nitrite Nitrogen (calc)	mg/L				0.05 U	0.05 U		0.24	0.05 U	
14808-79-8	Sulfate	mg/L				231	247		210	278	
18496-25-8	Sulfide, Total	mg/L				1 U	1 U		1 U	1 U	
12408-02-5	pH	S.U.	7.65								
7440-44-0	Dissolved Organic Carbons	mg/L	3.22								
NA	Solids, Total Suspended (TSS)	mg/L	14.6								

Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility SDG: R2843576		Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-17A 1095492 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-17B 1095491 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-18A 1095490 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-18B 1095489 Columbia R2843576 Water 4/28/2008 6/1/2008	TB - 4/28/08 1095494 Columbia R2843576 Water 4/28/2008 6/1/2008	TB - 4/29/08 1095907 Columbia R2843576 Water 4/29/2008 6/1/2008	TB - COMP 1095910 Columbia R2843576 Water 4/29/2008 6/1/2008
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
74-87-3	Chloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl chloride	ug/L	28	82	2.1 J	180	2 U	2 U	2 U
74-83-9	Bromomethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/L	20 U	20 U	20 U	1.5 J	20 U	20 U	20 U
75-15-0	Carbon Disulfide	ug/L	10 U	10 U	10 U	0.3 J	10 U	10 U	10 U
156-60-5	trans-1,2-Dichloroethene	ug/L	1.5 J	8.5	0.44 J	0.73 J	5 U	5 U	5 U
56-23-5	Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/L	200	630	31	120	5 U	5 U	5 U
67-66-3	Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/L	1 U	0.8 J	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
591-78-6	2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
124-48-1	Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1330-20-7	o-Xylene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
71-55-6	1,1,1-Trichloroethane (TCA)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/L	20	17	3.8 J	5 U	5 U	5 U	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/L	9.1	5.5	0.8 J	5 U	5 U	5 U	5 U
78-93-3	2-Butanone (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/L	29	4.6 J	25	5 U	5 U	5 U	5 U
74-84-0	Ethane	ug/L	1 U	0.53 J	1 U	0.74 J			
74-85-1	Ethene	ug/L	1.5	4	1 U	2.4			
74-82-8	Methane	ug/L	77	160	16	150			
74-98-6	Propane	ug/L	1 U	1 U	1 U	1 U			
	METALS								
7439-89-6	Iron	ug/L	7050	2940	2010	1140			

Analytical Summary Table for Chemicals of Concern Validated April 2008 Monitoring Event Former Carborundum Company, Hyde Park Facility SDG: R2843576		Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-17A 1095492 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-17B 1095491 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-18A 1095490 Columbia R2843576 Water 4/28/2008 6/1/2008	MW-18B 1095489 Columbia R2843576 Water 4/28/2008 6/1/2008	TB - 4/28/08 1095494 Columbia R2843576 Water 4/28/2008 6/1/2008	TB - 4/29/08 1095907 Columbia R2843576 Water 4/29/2008 6/1/2008	TB - COMP 1095910 Columbia R2843576 Water 4/29/2008 6/1/2008
CAS NO.	COMPOUND	UNITS:							
	OTHER								
NA	Biochemical Oxygen Demand (BOD)	mg/L	2 U	2 U	2 U	2 U			
7440-44-0	Carbon, Total Organic (TOC)	mg/L	2.2	3.06	1.56	3.74			
NA	Chemical Oxygen Demand (COD)	mg/L	11	10.4	5 U	9.86			
16887-00-6	Chloride	mg/L	1120	475	79.6	88.1			
14797-55-8	Nitrate as Nitrogen	mg/L	0.5 U	0.5 U	0.5 U	0.5 U			
NA	Nitrate+Nitrite as Nitrogen	mg/L	0.05 U	0.05 U	0.05 U	0.05 U			
14797-65-0	Nitrite Nitrogen (calc)	mg/L	0.05 U	0.05 U	0.05 U	0.05 U			
14808-79-8	Sulfate	mg/L	153	211	133	270			
18496-25-8	Sulfide, Total	mg/L	1 U	1 U	1 U	1 U			
12408-02-5	pH	S.U.							
7440-44-0	Dissolved Organic Carbons	mg/L							
NA	Solids, Total Suspended (TSS)	mg/L							

APPENDIX D
GROUNDWATER SAMPLING LOGS (SPRING 2008)

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-12B* Well Diameter: 4 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

Method: Waterra pump Date/Time: 4/21/2008@1535

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

30.3 -2.95 x0.65= 17.78 x3=53.3 gal

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1535		0.5 gal	1.00	7.04			1.47	59.00			Horriba meter not working
			5.00	7.19		0.95	1.46				
			8.00	7.20		0.83	1.46	57.20			
			13.00	7.27		0.82	1.49	59.70			
			21.00	7.24		0.65	1.46	58.00			
			29.00	7.25		0.65	1.45	58.30			
			39.00	7.20		0.19	1.46	58.60			
			48.00	7.25		0.18	1.46	57.80			
4-25@1130			2.00	7.26	5.35	37.50	1.64	13.3 c	1.10	-61	DO falling

Sampling Data

Method: *waterra* Date/Time: *4/21/08 @ 1645* Total Volume of Water purged: 53.3 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.27	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	1.48		
Turbidity (NTU)	0.15		
DO (mg/L)			
Temp.(°C)	57.80		
TDS (g/L)			
ORP (mv)			

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-12A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

Method: Waterra Date/Time: 4/22/2008

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
14.6 -4.85 x.16= 1.5x3=4.6 gal

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
	4.85	.33 gal	1.00	6.83		17.00	1.31	54.60			
			2.50	6.92		13.00	1.31	53.70			
			3.50	6.94		13.00	1.30	53.40			
			4.50	6.94		14.00		53.60			
4/25 @1050			1.00	6.93	3.33	30.00	0.15	12.42	1.00	-19	DO Falling

Sampling Data

Method: *Waterra* Date/Time: *4/22/08 @ 0900* Total Volume of Water purged: 4.5 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	6.94	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	1.30		
Turbidity (NTU)	14.00		
DO (mg/L)			
Temp.(°C)	53.60		
TDS (g/L)			
ORP (mv)			

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-11A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

Method: Waterra Date/Time: 4/22/2008

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
15.5 -8.58 x.16= .96x3= 2.88 gal

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
			1.00	7.11		250.00	2.92	52.60			
			2.00	7.12		160.00	2.96	52.70			Well went dry after 2 Gal

Sampling Data

Method: *waterra* Date/Time: *4/22/08 @ 0945* Total Volume of Water purged: 2 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH		Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)			
Turbidity (NTU)			
DO (mg/L)			
Temp.(°C)			
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	
ORP (mv)			

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-11B* Well Diameter: 4 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
36.83-8.42 x.65=18.47 x3=55.4

Method: Waterra Date/Time: 4/22/08 @0930

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
			9.00	7.30		19.00	1.48	57.00			
			18.00	7.19		8.90	1.46	56.90			
			27.00	7.17		3.50	1.44	57.10			
			36.00	7.14		2.30	1.46	57.60			
			50.00	7.20		1.70	1.46	58.00			
4/25/08 @1235				7.09	0.00	12.20	0.17	12.92	1.10	-58	

Sampling Data

Method: *Waterra* Date/Time: *4/22/08 @1035* Total Volume of Water purged: 55.4 Gal

Field Parameters

HORRIBA	
pH	7.21
Spec. Cond.(mS/cm)	1.46
Turbidity (NTU)	1.60
DO (mg/L)	
Temp.(°C)	58.20
TDS (g/L)	
ORP (mv)	

HACH TEST KITS	
Ferrous Iron (mg/L)	

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260

Comments: MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-15* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

Method: Waterra Date/Time: 4/23/08 @0930

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
26.8-4.02 x.16= 3.65 x3=11 Gal

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
0935			1.00	7.09		99.90	1.37	58.90			
0942			3.00	7.11		26.20	1.43	55.70			
945			5.00	7.13		9.48	1.45	55.40			
950			8.00	7.14		4.03	1.45	55.40			

Sampling Data

Method: *Waterra* Date/Time: *4/23/08 @ 1010* Total Volume of Water purged: 11 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.14	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	1.44		
Turbidity (NTU)	2.58		
DO (mg/L)			
Temp.(°C)	55.70		
TDS (g/L)			
ORP (mv)			

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-13B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? No

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Method: Date/Time:

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1115			3.00	6.99	4.88	731.00	0.21	12.20	1.30	-56	
1125			6.00	7.00	3.01	274.00	0.22	12.40	1.40	-66	
1135			10.00	7.01	4.71	178.00	0.21	12.40	1.30	-64	

Sampling Data

Method: *Waterra* Date/Time: *4/23/08@ 1130* Total Volume of Water purged: 14 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.04	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	0.21		
Turbidity (NTU)	133.00		
DO (mg/L)	6.00		
Temp.(°C)	12.50		
TDS (g/L)	1.30		
ORP (mv)	-64.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-13A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

Method: Waterra Date/Time: 4/23/08 @ 1300

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
16.66-7.35 x.16= 1.5x3= 4.5 Gal

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1305			1.00	7.19	3.72	786.00	0.37	10.80	2.40	112	
1313			2.00	6.93	1.80	> 1000	0.38	10.90	2.40	8	
1320			3.00	6.94	1.14	> 1000	0.32	1.11	2.10	-11	

Sampling Data

Method: *Waterra* Date/Time: *4/23/08 @ 1330* Total Volume of Water purged: 4.5 Gal

Field Parameters

HORRIBA	
pH	6.94
Spec. Cond.(mS/cm)	0.30
Turbidity (NTU)	> 1000
DO (mg/L)	0.98
Temp.(°C)	11.20
TDS (g/L)	1.90
ORP (mv)	-6.00

HACH TEST KITS	
Ferrous Iron (mg/L)	

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-19A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
19.09-6.42 x.16= 2x3=6 Gal

Method: Waterra Date/Time: 4/24/08 @ 1355

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1400			1.00	6.83	4.85	154.00	0.22	11.90	1.40	128	Well went dry after 1.5 Gal

Sampling Data

Method: *Waterra* Date/Time: *4/2408 @ 1435* Total Volume of Water purged: 1.5 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	6.84	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	0.25		
Turbidity (NTU)	165.00		
DO (mg/L)	6.14		
Temp.(°C)	15.60		
TDS (g/L)	1.60		
ORP (mv)	89.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-19B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
33.90-5.58 x.16=4.5 x3=13.5 Gal

Method: Waterra Date/Time: 4/24/08 @1430

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1435			2.00	7.21	0.43	238.00	0.15	12.80	1.00	-91	
1442			5.00	6.96	0.00	199.00	0.16	12.80	1.00	-113	
1447			8.00	7.01	0.00	257.00	0.16	13.00	1.00	-130	
1452			11.00	7.10	0.00	161.00	0.16	13.00	1.00	-141	

Sampling Data

Method: *Waterra* Date/Time: *4/24/08 @ 1515* Total Volume of Water purged: 14 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.12	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	0.156		
Turbidity (NTU)	142.00		
DO (mg/L)	0.00		
Temp.(°C)	13.00		
TDS (g/L)	1.00		
ORP (mv)	-144.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-8* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
43.1-7.55 x.16=5.7 x3=17 Gal

Method: Waterra Date/Time: 4/25/08 @1025

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1033			3.00	7.17	0.00	88.40	0.179	11.90	1.10	-120	
1045			5.00	7.03	0.00	86.20	0.183	12.00	1.20	-135	
1055			9.00	7.00	0.00	78.10	0.185	12.00	1.20	-143	
1100			11.00	7.05	0.00	86.30	0.185	12.00	1.20	-149	
1110			15.00	7.11	0.00	83.70	0.185		1.20	-159	
						77.00	0.185				

Sampling Data

Method: *Waterra* Date/Time: *4/25/08 @ 1110* Total Volume of Water purged: 17 Gal

Field Parameters

HORRIBA	
pH	7.20
Spec. Cond.(mS/cm)	0.50
Turbidity (NTU)	77.00
DO (mg/L)	0.00
Temp.(°C)	12.20
TDS (g/L)	1.10
ORP (mv)	-168.00

HACH TEST KITS	
Ferrous Iron (mg/L)	

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-2A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
19.65-6.05 x.16=2.2 Gal x3=6.6

Method: Waterra Date/Time: 4/28/08 @1440

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1445			1.00	7.41	4.00	439.00	0.160	9.50	1.00	-162	
1453			2.00	7.32	2.44	672.00	0.161	9.50	1.00	-137	
1505			3.00	7.24	6.70	353.00	0.161	9.70	1.00	-78	well slow to recharge, pumping
1513			4.00	7.30	8.33	203.00	0.162	9.90	1.00	-48	air along with water
1520			5.00	7.38	8.90	138.00	0.162	10.00	1.00	-35	

Sampling Data

Method: *Waterra* Date/Time: *4/28/08 @ 1530* Total Volume of Water purged: 6.6 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.41	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	0.16		
Turbidity (NTU)	108.00		
DO (mg/L)	9.14		
Temp.(°C)	9.90		
TDS (g/L)	1.00		
ORP (mv)	-37.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-2B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
40.22-7.82 x.16=5.2 x3=15.6 Gal

Method: Waterra Date/Time: 4/28/08 @1405

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1413			3.00	7.36	0.00	165.00	0.18	11.80	1.20	-249	
1419			6.00	7.34	0.00	154.00	0.18	11.80	1.20	-255	
1426			9.00	7.33	0.00	137.00	0.18	11.90	1.10	-268	
1432			12.00	7.34	0.00	118.00	0.18	12.00	1.10	-277	

Sampling Data

Method: *Waterra* Date/Time: *4/28/08 @ 1450* Total Volume of Water purged: 15.6 Gal

Field Parameters

HORRIBA	
pH	7.33
Spec. Cond.(mS/cm)	0.18
Turbidity (NTU)	116.00
DO (mg/L)	0.00
Temp.(°C)	12.00
TDS (g/L)	1.10
ORP (mv)	-280.00

HACH TEST KITS	
Ferrous Iron (mg/L)	

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

NON-MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-6* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? NO

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
43.1-7.55 x.16=5.7 x3=17 Gal

Method: Waterra Date/Time: 4/29/08 @ 0830

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
830			3.00	7.30	0.00	84.60	0.18	11.70	1.10	-240	
834			6.00	7.32	0.00	70.20	0.17	11.80	1.10	-256	
840			10.00	7.32	0.00	80.00	0.17	11.90	1.10	-268	
844			13.00	7.32	0.00	74.40	0.17	11.90	1.10	-277	

Sampling Data

Method: *Waterra* Date/Time: *4/29/08 @ 0900* Total Volume of Water purged: 17 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.33	Ferrous Iron (mg/L)	
Spec. Cond.(mS/cm)	0.17		
Turbidity (NTU)	70.90		
DO (mg/L)	0.00		
Temp.(°C)	11.90		
TDS (g/L)	1.10		
ORP (mv)	-284.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-12B* Well Diameter: 4 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? yes

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
38.60-8.87 x.65=19.36 x3=58 Gal

Method: Waterra Date/Time: 4/22/08 @ 1030

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
			10.00	7.14		4.96	1.32	62.00			
			20.00	7.11		1.47	1.31	58.40			
			30.00	7.05		0.95	1.31	57.90			
			40.00	7.15		2.53	1.31	60.50			
			50.00	7.04		1.33	1.32	58.30			
4/23/08 @ 1300				7.00	7.00	57.80	0.15	13.00	1.00	-57	DO falling

Sampling Data

Method: *Waterra* Date/Time: *4/22/08 @ 1215* Total Volume of Water purged: 58 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.05	Ferrous Iron (mg/L)	0.50
Spec. Cond.(mS/cm)	1.31		
Turbidity (NTU)	0.43		
DO (mg/L)			
Temp.(°C)	58.00		
TDS (g/L)			
ORP (mv)			

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-10A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
20.58-9.36 x.16 =1.8 x3=5.4

Method: Waterra Date/Time: 4/22/08 @1330

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
			1.00	7.04		210.00	3.78	62.90			
			3.00	7.07		150.00	3.64	57.40			
			5.00	7.07		150.00	365.00	56.30			
4/23/08 @ 1310			1.00	6.96	5.20	610.00	0.42	12.89	2.70	-41	DO Falling

Sampling Data

Method: *Waterra* Date/Time: *4/22/08 @ 1345* Total Volume of Water purged: 5.4 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.06	Ferrous Iron (mg/L)	2.80
Spec. Cond.(mS/cm)	3.60		
Turbidity (NTU)	153.00		
DO (mg/L)			
Temp.(°C)	55.80		
TDS (g/L)			
ORP (mv)			

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-5B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
39.14-9.92 x.16=4.62 x3=14

Method: Waterra Date/Time: 4/22/2008

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
			2.00	7.20		18.30	1.30	62.80			
			5.00	7.14		4.60	1.30	58.60			
			9.00	7.06		2.36	1.30	58.60			
4/23/08 @ 1330			1.00	7.01	6.45	54.80	0.15	13.60	1.00	-40	

Sampling Data

Method: *Waterra* Date/Time: *4/22/08 @ 1450* Total Volume of Water purged: 14 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.07	Ferrous Iron (mg/L)	1.00
Spec. Cond.(mS/cm)	1.30		
Turbidity (NTU)	1.64		
DO (mg/L)			
Temp.(°C)	58.70		
TDS (g/L)			
ORP (mv)			

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-5A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
21.20-10.28 x.16=1.75 x3=5.28

Method: waterra Date/Time: 4/22/08 @ 1500

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
			3.00	7.76		211.00	2.52	59.40			
			4.00								
4/23/08 @ 1350			7.50	5.00	> 1000	0.28	11.80	1.80	-5.00		

Sampling Data

Method: *Waterra* Date/Time: *4/22/08 @ 1520* Total Volume of Water purged: 5.5 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.67	Ferrous Iron (mg/L)	0.50
Spec. Cond.(mS/cm)	2.41		
Turbidity (NTU)	> 1000		
DO (mg/L)			
Temp.(°C)	57.60		
TDS (g/L)			
ORP (mv)			

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-1A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? Yes

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
21.28-8.61 x.16=2.03 x3=6.1 Gal

Method: Waterra Date/Time: 4/23/08 @1400

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1403			1.00	11.98	10.80	158.00	0.21	10.70	1.40	-28	
1410			2.00	11.81	10.32	311.00	0.20	12.90	1.30	-9	well went dry after 2 Gal

Sampling Data

Method: *Waterra* Date/Time: *4/23/08 @ 1440* Total Volume of Water purged: 2 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.87	Ferrous Iron (mg/L)	N/A
Spec. Cond.(mS/cm)	91.60		
Turbidity (NTU)	342.00		
DO (mg/L)	8.20		
Temp.(°C)	12.60		
TDS (g/L)	0.59		
ORP (mv)	-80.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-1B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
36.24-8.62 x.16=4.42 x3=13.25

Method: Waterra Date/Time: 4/23/08 @ 1505

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1510			2.00	7.15	0.00	88.00	0.15	12.30	0.90	-111	
1515			5.00	7.15	0.00	89.90	0.15	12.40	0.90	-107	
1523			9.00	7.09	0.00	86.20	0.15	12.40	0.90	-102	

Sampling Data

Method: *Waterra* Date/Time: *4/23/08 @1550* Total Volume of Water purged: 13.25

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.07	Ferrous Iron (mg/L)	1.60
Spec. Cond.(mS/cm)	0.15		
Turbidity (NTU)	84.20		
DO (mg/L)	0.00		
Temp.(°C)	12.40		
TDS (g/L)	0.90		
ORP (mv)	-101.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *Mw14B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? Yes

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
31.42-572 x.16=4.1 x3=12.3 Gal

Method: Waterra Date/Time: 4/24/08 @ 0900

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
900			2.00	7.13	0.00	95.50	0.16	11.80	1.00	-68	
903			4.00	7.03	0.00	85.70	0.16	11.80	1.00	-70	
905			6.00	6.93	0.00	66.80	0.16	11.90	1.01	-70	
907			8.00	6.98	0.00	38.20	0.16	11.90	1.00	-75	
909			10.00	6.98	0.00	60.40	0.16	11.80	1.00	-80	

Sampling Data

Method: *Waterra* Date/Time: *4/24/08 @ 0930* Total Volume of Water purged: 12

Field Parameters

HORRIBA		HACH TEST KITS	
pH	6.98	Ferrous Iron (mg/L)	1.00
Spec. Cond.(mS/cm)	0.16		
Turbidity (NTU)	55.30		
DO (mg/L)	0.00		
Temp.(°C)	11.80		
TDS (g/L)	1.00		
ORP (mv)	-85.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-14A* Well Diameter: 2 Inches

Samplers: *DJL,EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
13.92-6.81 x.16=1.14 x3=3.4 Gal

Method: Waterra Date/Time: 4/23/08 @ 1015

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
			0.05	7.08	7.61	903.00	0.14	11.20	0.90	42	well went dry after 1 Gal

Sampling Data

Method: *Waterra* Date/Time: *4/23/08 @ 1030* Total Volume of Water purged: 1

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.06	Ferrous Iron (mg/L)	0.60
Spec. Cond.(mS/cm)	0.14		
Turbidity (NTU)	823.00		
DO (mg/L)	7.59		
Temp.(°C)	14.80		
TDS (g/L)	0.90		
ORP (mv)	75.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-3A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
21.45-5.06 x.16=2.6 x3=7.9

Method: Waterra Date/Time: 4/24/08 @ 1505

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1510			2.00	7.11	0.00	257.00	0.18	9.40	1.20	-23	well went dry after 2 Gal

Sampling Data

Method: *Waterra* Date/Time: *4/24/08 2 1545* Total Volume of Water purged: 2

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.15	Ferrous Iron (mg/L)	0.20
Spec. Cond.(mS/cm)	0.18		
Turbidity (NTU)	491.00		
DO (mg/L)	2.21		
Temp.(°C)	10.90		
TDS (g/L)	1.10		
ORP (mv)	68.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-3B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
43-10.73 x.16=5.16 x3=15.5

Method: Waterra Date/Time: 4/25/08 @ 0950

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
955			3.00	7.07	9.44	783.00	0.177	11.80	1.10	-100	
958			5.00	7.08	8.85	88.10	0.180	11.80	1.20	-118	
1001			8.00	7.08	7.90	87.20	0.182	11.90	1.20	-137	
1005			12.00	7.10	4.12	77.20	0.183	11.90	1.20	-151	

Sampling Data

Method: *Waterra* Date/Time: *4/25/08 @ 1015* Total Volume of Water purged: 15.5

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.12	Ferrous Iron (mg/L)	0.00
Spec. Cond.(mS/cm)	0.18		
Turbidity (NTU)	77.20		
DO (mg/L)	4.17		
Temp.(°C)	12.00		
TDS (g/L)	1.20		
ORP (mv)	-157.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-16B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
39.32-4.48 x.16=5.6 x3=16.7

Method: Waterra Date/Time: 4/25/08 @ 1110

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1110			3.00	7.14	0.45	464.00	0.17	12.40	1.10	-117	
1120			6.00	7.08	0.00	220.00	0.17	12.50	1.10	-121	
1124			9.00	7.01	0.00	215.00	0.17	12.60	1.10	-123	
1128			12.00	6.99	0.00	170.00	0.17	12.60	1.10	-124	

Sampling Data

Method: *Waterra* Date/Time: *4/25/08 @ 1150* Total Volume of Water purged: 16.7

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.10	Ferrous Iron (mg/L)	0.50
Spec. Cond.(mS/cm)	0.17		
Turbidity (NTU)	156.00		
DO (mg/L)	0.00		
Temp.(°C)	12.60		
TDS (g/L)	1.10		
ORP (mv)	-136.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-16A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
19.03-5.1 x.16=2.23 x3=6.7 Gal

Method: Waterra Date/Time: 4/25/08 @ 1230

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1235			1.00	0.96	1.86	98.80	0.35	10.90	2.20	102	well went dry after 1.5 Gal

Sampling Data

Method: *Waterra* Date/Time: *4/25/08 @ 1310* Total Volume of Water purged: 1.5

Field Parameters

HORRIBA		HACH TEST KITS	
pH		Ferrous Iron (mg/L)	0.20
Spec. Cond.(mS/cm)			
Turbidity (NTU)			
DO (mg/L)			
Temp.(°C)			
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	
ORP (mv)			

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-18B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
38.10-5.63 x.16=5.2 x3=15.6 Gal

Method: Waterra Date/Time: 4/25/08 2 0830

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
835			3.00	7.51	0.00	134.00	0.16	12.20	1.00	-85	
846			6.00	7.10	0.00	105.00	0.16	12.00	1.00	-104	
850			9.00	7.11	0.00	125.00	0.16	12.40	1.00	-123	
900			12.00	7.11	0.00	119.00	0.16	12.50	1.00	-120	

Sampling Data

Method: Date/Time: Total Volume of Water purged: 16 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.00	Ferrous Iron (mg/L)	1.00
Spec. Cond.(mS/cm)	0.16		
Turbidity (NTU)	120.00		
DO (mg/L)	0.00		
Temp.(°C)	12.50		
TDS (g/L)	1.00		
ORP (mv)	-130.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-18A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
17.85-6.35 x.16=1.8 x3=5.4 Gal

Method: Waterra Date/Time: 4/28/08 @ 0930

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
935			1.00	7.44	1.43	232.00	0.12	10.10	0.70	-27	
942			2.00	7.37	0.00	172.00	0.12	10.20	0.70	-82	
952			3.00	7.36	0.00	167.00	0.12	10.20	0.70	-95	

Sampling Data

Method: *Waterra* Date/Time: *4/28/08 @ 1000* Total Volume of Water purged: 5.5 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.29	Ferrous Iron (mg/L)	1.20
Spec. Cond.(mS/cm)	0.12		
Turbidity (NTU)	141.00		
DO (mg/L)	0.00		
Temp.(°C)	10.30		
TDS (g/L)	0.70		
ORP (mv)	-99.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-17A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
12.10-4.61 x.16=1.2 x3=3.6 Gal

Method: Waterra Date/Time: 4/28/08 @ 1105

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1110			1.00	7.11	2.60	> 1000	0.45	9.90	2.80	-73	
1120			2.00	7.05	6.40	392.00	0.47	10.00	3.00	-62	
1130			3.00	7.06	0.85	309.00	0.48	10.10	3.10	-68	

Sampling Data

Method: *Waterra* Date/Time: *4/28/08 @ 1135* Total Volume of Water purged: 4 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.08	Ferrous Iron (mg/L)	3.80
Spec. Cond.(mS/cm)	0.48		
Turbidity (NTU)	2.78		
DO (mg/L)	0.40		
Temp.(°C)	10.10		
TDS (g/L)	3.10		
ORP (mv)	-73.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-17B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
31.2-5.00 x.16=4.2 x3=12.6

Method: Waterra Date/Time: 4/28/08 @ 1035

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1039			2.00	7.15	0.00	333.00	0.23	12.30	1.50	-58	
1043			5.00	7.12	0.00	277.00	0.25	12.40	1.60	-70	
1046			8.00	7.13	0.00	157.00	0.26	12.40	1.70	-81	

Sampling Data

Method: *Wattera* Date/Time: *4/28/08 @ 1110* Total Volume of Water purged: 12.6

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.11	Ferrous Iron (mg/L)	1.20
Spec. Cond.(mS/cm)	0.26		
Turbidity (NTU)	265.00		
DO (mg/L)	0.00		
Temp.(°C)	12.40		
TDS (g/L)	1.70		
ORP (mv)	-86.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	Bottle	Pres.	Method
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW7A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
21.38-6.95 x.16=2.3 x3=7 Gal

Method: Waterra Date/Time: 4/28/08 @ 1325

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1330			2.00	7.22	3.35	454.00	0.14	10.10	0.90	-104	
1336			4.00	7.16	3.19	371.00	0.14	10.10	0.90	-92	

Sampling Data

Method: *Waterra* Date/Time: *4/28/08 @1410* Total Volume of Water purged: 7 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.02	Ferrous Iron (mg/L)	3.00
Spec. Cond.(mS/cm)	0.14		
Turbidity (NTU)	199.00		
DO (mg/L)	1.72		
Temp.(°C)	10.10		
TDS (g/L)	0.90		
ORP (mv)	-78.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-7b* Well Diameter: 2 Inches

Samplers: *DJL , EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
43.3-8.1 x.16=5.6 x3=16.9 Gal

Method: Waterra Date/Time: 4/28/08 @ 1240

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1246			3.00	7.22	1.46	111.00	0.176	11.70	1.10	-129	
1253			6.00	7.20	2.50	108.00	0.179	11.80	1.10	-136	
1255			9.00	7.22	0.55	108.00	0.174	11.90	1.10	-143	
1303			12.00	7.19	0.10	108.00	0.173	11.90	1.10	-146	
1308			15.00	7.23	0.00	105.00	0.172	11.90	1.10	-149	
1311			17.00	7.19	3.79	107.00	0.172	11.90	1.10	-149	

Sampling Data

Method: *Waterra* Date/Time: *4/28/08 @ 1340* Total Volume of Water purged: 17 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.19	Ferrous Iron (mg/L)	0.00
Spec. Cond.(mS/cm)	0.17		
Turbidity (NTU)	107.00		
DO (mg/L)	3.79		
Temp.(°C)	11.90		
TDS (g/L)	1.10		
ORP (mv)	-149.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-4A* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
14.6-3.98 x.16=1.7 x3=5.1 Gal

Method: Waterra Date/Time: 4/29/08 @ 0906

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
912			1.00	7.80	1.47	706.00	0.14	10.20	0.90	-65	
917			2.00	7.78	0.56	727.00	0.14	10.50	0.90	-71	
922			3.00	7.74	0.47	455.00	0.14	10.60	0.90	-75	
927			4.00	7.68	0.39	350.00	0.14	10.80	0.90	-81	

Sampling Data

Method: *Waterra* Date/Time: *4/29/08 @ 0940* Total Volume of Water purged: 6 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.63	Ferrous Iron (mg/L)	0.30
Spec. Cond.(mS/cm)	0.14		
Turbidity (NTU)	281.00		
DO (mg/L)	0.00		
Temp.(°C)	10.90		
TDS (g/L)	0.90		
ORP (mv)	-86.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS

MNA SAMPLE LOCATION

WELL SAMPLING RECORD

Site Name: *Hyde Park Facility* Well ID: *MW-4B* Well Diameter: 2 Inches

Samplers: *DJL, EPS* Monitored Natural Attenuation Sample Set (Y/N)? YES

Purging Data

WATER VOLUME CALCULATION
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot
31.42-5.72 x.16=4.1 x3=12.3 Gal

Method: Waterra Date/Time: 4/28/08 @ 1000

Time	DTW	Pump Rate	Vol.	pH	DO	Turbidity	Spec. Cond.	Temp.	TDS	ORP	Comments
24 hr.	ft.	ml/min.	gal.		mg/L	NTU	mS/cm	°C	g/L	mv	
1000			2.00	7.38	0.00	223.00	0.175	12.40	1.10	-181	
1003			6.00	7.38	0.00	208.00	0.175	12.50	1.10	-197	
1005			9.00	7.39	0.00	187.00	0.175	12.50	1.10	-203	

Sampling Data

Method: *Waterra* Date/Time: *4/29/08 @ 1045* Total Volume of Water purged: 13 Gal

Field Parameters

HORRIBA		HACH TEST KITS	
pH	7.39	Ferrous Iron (mg/L)	0.40
Spec. Cond.(mS/cm)	0.18		
Turbidity (NTU)	184.00		
DO (mg/L)	0.00		
Temp.(°C)	12.50		
TDS (g/L)	1.10		
ORP (mv)	-209.00		

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET			
Parameter	**Bottle**	**Pres.**	**Method**
Select VOCs	3-40mL	HCl	EPA 8260
MEEP	3-40mL	HCl	SW3810 modified
TOC	1-100mL glass	HCL	SW9060
BOD	1 - Liter plastic	none	lab specified
COD	1-250mL plastic	Sulfuric acid	lab specified
Metals - Total iron	1-500 mL plastic	Nitric acid	lab specified
Choride	1-250mL plastic	none	lab specified
Nitrate/Nitrite	1-250mL plastic	Sulfuric acid	lab specified
Sulfate	1-250mL plastic	none	lab specified
Sulfide	1-250mL plastic	Sodium hydroxide	lab specified

Comments:

MEEP - Methane, ethane, ethene, propane.

PARSONS