

**LEGGETTE, BRASHEARS  
& GRAHAM, INC.**

140 E. Hinks Lane, Suite 126  
Sioux Falls, SD 57104  
(605) 334-6000  
(605) 334-1850 (FAX)

**LETTER OF TRANSMITTAL**

DATE:	31-Jan-07	JOB NO.:	0601.D&SHWL
ATTENTION:	Brad Borders		
RE:	DeZurik Hazardous Waste Lagoon #3		
	Sartell, Minnesota		

TO: City of Sartell  
P.O. Box 140  
Sartell, MN 56377  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



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1	1/30/2007		DeZurik Hazardous Waste Lagoon #3 2006 Annual Report & Statistical Analysis

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\_\_\_\_\_

COPY TO: Barb Gnabasik-MPCA  
Dan McGrade-SPX Corporation      SIGNED: Tim Kenyon

**CITY OF SARTELL  
DEZURIK HAZARDOUS  
WASTE LAGOON #3 - MND985668342  
SARTELL, MINNESOTA**

**2006 ANNUAL REPORT & STATISTICAL ANALYSIS  
GROUND-WATER MONITORING DATA**

Prepared for

City of Sartell/DeZurik Hazardous Waste Lagoon #3

January 30, 2007

**LEGGETTE, BRASHEARS & GRAHAM, INC.  
Professional Ground-Water and Environmental Services  
140 East Hinks Lane, Suite 126  
Sioux Falls, South Dakota 57104-5226  
(605) 334-6000**

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**CITY OF SARTELL  
DEZURIK HAZARDOUS WASTE LAGOON #3  
SARTELL, MINNESOTA**

**2006 ANNUAL REPORT & STATISTICAL ANALYSIS  
GROUND-WATER MONITORING DATA**

**INTRODUCTION**

Leggette, Brashears and Graham, Inc. (LBG) has completed the ground-water monitoring and statistical analysis for the DeZurik Hazardous Waste Landfill Lagoon No. 3 located in Sartell, Minnesota. This report was prepared in accordance with the terms of the landfill permit. Ground-water monitoring was performed during two sampling events in 2006. Sampling consisted of collecting ground water samples from four monitoring wells. The samples were analyzed for total metals, dissolved metals and inorganic parameters.

The goal of the ground-water monitoring was to provide information regarding depth and quality of the ground water. The goal of the statistical analysis was to show with statistical assurance that the hazardous waste lagoon is not adversely impacting the ground water and, if the ground water is impacted, to provide information regarding the nature and location of the impacts.

**BACKGROUND**

Background information was obtained from the reissued Part B Permit Application approved by the MPCA in September of 1994. The DeZurik Hazardous Lagoon No. 3 (site) is located in the SW1/4 of Section 16, Township 125 North, Range 28 West within the city limits of the City of Sartell, Minnesota and is approximately 0.2 acres in size (Figure 1 ). Sludges were disposed of from various DeZurik operations in the city. The site was closed in 1987 with a multi-layer 6-foot cover system.

### **Scope of Work**

This report presents the sampling results from the April and October 2006 monitoring events. The 2006 ground-water monitoring results were compared to historical data for the site and to state and federal water quality standards.

This annual report incorporates information that was included in the semiannual report presented to the MPCA in July 2006, and also includes the following information:

- A narrative describing the effects that the site is exerting on surrounding ground-water quality and any changes made to or maintenance needed in the monitoring network;
- A description of sampling dates and procedures;
- Results of appropriate statistical procedures;
- Water level monitoring data and potentiometric maps for each sampling event;
- Calculation of ground-water flow velocities;
- Laboratory analytical reports;
- Graphs showing concentration versus time for target parameters historically detected above background levels in ground water; and
- Summary tables showing laboratory analysis and water elevation data for each well sampled to date.

### **Hydrogeologic Setting**

A detailed description of the geology and hydrogeology of the site is provided in the Part B Permit Application. The information below has been summarized from the application.

The general geology of the area in which the site is located consists of unconsolidated glacial deposits (approximately 80 to 100 feet) that overlie Precambrian granitic bedrock. Previous studies indicated there are three geologic/hydrogeologic units underneath the site that affect ground-water movement and flow. The surficial unit consists of silty fine-grained sands that soil borings indicate are approximately 15 feet thick. Outwash deposits are located below the fine sands and consist of silty sands and gravel. The outwash is considered the upper-most aquifer and is present to 70 to 80 feet below ground surface (bgs). The third layer consists of clayey weathered bedrock occurring at

approximately 90 feet bgs which acts as an aquitard restricting the downward flow of ground water into the bedrock.

## **GROUND-WATER MONITORING**

### **Ground-Water Monitoring Network**

The wells that comprise the monitoring network for the site are shown on Figures 2 and 3. Upgradient well P-13 and downgradient wells P-5R, P-9R, and P-12R were sampled in both events in 2006. Monitoring wells from the City of Sartell Landfill were also sampled during the spring and fall events. Ground-water samples were collected by LBG field personnel according to the methods presented in Appendix I. The spring sampling event was performed on April 11, 2006 and the fall sampling event was performed on October 10/11, 2006. Samples were collected from wells P-13, P-5R, P-9R, P-12R, and from the City of Sartell Landfill wells P-5A, P-6, P-7, P-10, P-11A, and PW-0 and were sent to Minnesota Valley Testing Laboratories (MVTTL) in New Ulm, Minnesota for analysis. Samples from wells P-13, P-5R, P-9R, and P-12R were analyzed for inorganic parameters including dissolved metals. Samples from the City of Sartell Landfill wells were only analyzed for dissolved boron.

Prior to sampling, the general condition of each well was noted on the field sampling data sheets presented in Appendix II. All of the wells were in good condition during both sampling events in 2006.

### **Ground-Water Elevation and Flow Monitoring**

Ground-water elevations were measured in wells P-13, P-5R, P-5A, P-9R, and P-12R on April 11 and October 10, 2006 according to the methods presented in Appendix I. Water level data which includes historical information is summarized in Table 1. Ground-water flow is primarily to the southeast, which is consistent with historical results. Hydrographs of ground-water elevation data are presented on Graph 1. Ground-water potentiometric maps are presented as Figures 2 and 3.

The hydraulic gradient remains consistent for the area. In 1994, for the Part B Permit Application, the average gradient was 0.006 ft/ft. In 1998, the average hydraulic gradient was 0.006 ft/ft. The hydraulic gradients in 2005 were 0.008 ft/ft and 0.006 ft/ft for the spring and fall sampling events, respectively. In 2006, the hydraulic gradients were 0.0035 ft/ft in the spring and 0.004 ft/ft in the fall. These gradients were calculated with elevations and distances from wells P-13 to P-9R.

The average linear ground-water flow rates can be calculated using the following equation and assumptions:

$$V = K * I / n_e$$

Where:

V = ground-water velocity

K = hydraulic conductivity (assumed 0.39 ft/min)

I = hydraulic gradient (ft/ft)

$n_e$  = effective porosity (assumed 25%)

The calculated linear flow rates based on the above equation and assumptions are 7.86 ft/day for the spring sampling event and 8.98 ft/day for the fall sampling event. The spring velocity is lower than the previous spring velocity of 17.97 ft/day, and the fall velocity is also lower than the previous fall velocity of 13.48 ft/day.

### **Ground-Water Quality Monitoring**

Field sampling data sheets for the fall sampling event are presented in Appendix II and the laboratory analytical report is presented in Appendix III. Ground-water quality data for the site was statistically analyzed and compared to various state water quality standards. The pertinent standards are described below.

- Maximum Contaminant Level (MCL) -The MCLs are enforceable standards that apply to public water systems, as established in the National Interim Primary Drinking Water Standards for the United States.



- Secondary Maximum Containment Level (SMCL) -The SMCL applies to public water systems. The standards are established primarily for taste, odor, and aesthetic reasons, not due to adverse health affects.
- Intervention Limits (IL) - The ILs are established for landfills in the State of Minnesota. The ILs apply to ground-water quality at the compliance boundary, generally located 200 feet from the waste boundaries.
- Health Risk Limits (HRLs) -The HRLs are risk-based levels for constituents in ground water. The HRLs are determined by the Minnesota Department of Health and are enforceable under Minnesota Rules 4717.7100 to 4717.7800.

Background concentrations for target contaminants (arsenic, barium, cadmium, lead, and selenium) are established at the upgradient well, P-13. The background data during the spring and fall sampling rounds of 2006 remained consistent with past data (Table 2).

Dissolved boron, manganese, nitrate, total dissolved solids (TDS), and sulfates levels exceeded federal or state water quality standards in the spring and/or fall in at least one monitoring well, as detailed below. A summary of the exceeded parameters is presented in Table 3.

- Concentrations of dissolved boron have remained above the HRL in well P-5R. Concentrations of dissolved boron also exceed the HRL in the City of Sartell Landfill wells PW-0 and P-11A. Detections of dissolved boron were also noted in the City of Sartell Landfill wells P-5A, P-6, P-7 and P-10, however, the detected concentrations are below the HRL. Well P-10 is located upgradient from the closed lagoon. Well P-6 and P-7 are located side-gradient of the closed lagoon. Wells P-5A, P-5R, P-11A, and PW-0 are located downgradient of the closed lagoon. A concentration map showing the fall sampling event results of dissolved boron can be found on Figure 4.
- Concentrations of dissolved manganese have remained below the SMCL in wells P-5R, P-9R, and P-13. The concentrations of dissolved manganese in well P-12R decreased below the SMCL in 2006.

- Concentrations of nitrates have remained above the IL in all the wells in the spring and fall of 2006; however, the concentrations remain below the MCL and HRL.
- Concentrations of TDS have remained above the SMCL in wells P-5R, P-9R, and P-12R. Concentrations of TDS in well P-13 increased above the SMCL during the spring sampling event; however, the concentration fell below the SMCL in the fall sampling event in 2006.
- Concentrations of sulfates have remained below the SCML in wells P-9R, P-12R, and P-13. Concentrations of sulfates in P-5R were above the SMCL in both sampling events in 2006.

### STATISTICAL ANALYSIS

Statistical analysis was performed on the results of the sampling events to determine if detections in downgradient wells (P-5R, P-9R and P-12R) are above background concentrations in the upgradient well (P-13). The statistical analysis was completed in accordance with the Part B Permit reissued in September 1994. The analysis was performed on dissolved concentrations of arsenic, barium, cadmium, lead and selenium. The results are presented in Table 4. Graphs of concentration versus time for barium, cadmium, and selenium are presented on Graphs 2, 3, and 4.

The tolerance interval was calculated for each of the above analytes based on historical levels in upgradient well P-13. The Poisson Distribution was used to estimate the population mean and variance for arsenic, cadmium, lead and selenium. Since more than two detects occurred for barium, the arithmetic mean and standard deviation were used to calculate the tolerance interval for barium. The continued decreasing background concentrations of dissolved barium have lowered the tolerance interval from 163  $\mu\text{g/L}$  in 2003 to 67  $\mu\text{g/L}$  in 2006. The assumed tolerance factor of 2.523 is based on a confidence factor of 95 percent with a typical set of background data (n= 16). The following equation was used to calculate the tolerance:

$$T = U + (k * s) . \text{ Where:}$$

T = Tolerance interval

U = Population mean

k = Tolerance factor

s = Standard deviation

As stated in the correspondence dated September 29, 1998 from DeZurik to the MPCA, even though laboratory detection limits are lower, tolerance levels continue to be calculated assuming the means are equal to the reporting limits identified in the November 1994 Quality Assurance Project Plan (QAPP), as long as the detects are less than the QAPP reporting limits.

Review of the statistical analysis indicates that only concentrations of dissolved barium detected in the downgradient wells exceeded the tolerance limit. As shown on Graph 2, the tolerance limit for barium has decreased significantly since its peak in October 1999. This decrease in the tolerance limit is because the historical high concentrations that were detected during the 1998 and 1999 sampling events are no longer used in the calculations. The exceeding concentrations in wells P-5R and P-9R of the barium tolerance limit are an artifact of the significantly decreased tolerance limit, not the result of increased concentrations.

## **CONCLUSIONS AND RECOMMENDATIONS**

Overall, the monitoring well network is in good condition and correctly placed to monitor potential releases from the site.

The calculated ground-water flow velocities for the spring and fall 2006 sampling events are 7.86 ft/day and 8.98 ft/day, respectively.

In at least one well, an IL, SMCL and/or HRL were exceeded during both the spring and fall sampling events. The SMCL standard of 500 mg/L for TDS was exceeded in P-5R, P-9R, P-12R, and P-13; however, the concentrations remained relatively steady from the 2000 sampling events.

Concentrations of sulfates detected in P-5R exceeded the SMCL. Sulfates was also detected in P-9R, P-12R, and P-13; however, the concentrations were below the SMCL.

Concentrations of dissolved manganese were detected in P-5R, P-9R, and P-12R; however, the concentrations were below the SMCL.

The IL for nitrate was exceeded in P-5R, P-9R, P-12R, and P-13 during the spring and fall sampling events; however, they remain below the HRL and MCL.

Review of the dissolved boron data indicates that the HRL was exceeded in P-5R, PW-0, P-5A, and P-11A. Concentrations of dissolved boron were also detected in wells P-9R, P-12R, P-13, P-6, P-7, and P-10. A water well receptor survey was conducted in July 2006 to determine potential receptors of the dissolved boron. Based on the receptor survey, only well PW-0 indicated potential impacts from the site. PW-0 is already part of the routine monitoring program for the City of Sartell Landfill; therefore, no further action is warranted beyond the routine ground-water monitoring.

Review of the statistical analysis indicates that concentrations of barium exceeded the tolerance limit in the downgradient wells in both sampling events in 2006. The concentrations of barium in P-5R, P-9R, P-12R, and P-13 that exceeded the tolerance limit are an artifact of the significantly decreased tolerance limit, not the result of increased concentrations.

In a letter dated January 12, 2006, the MPCA stated that there is sufficient information to determine that a release of boron has occurred at the site. The MPCA has agreed with the recommendation of continued ground-water monitoring at the site including the City of Sartell wells P-5A, P-6, P-7, P-10, P-11A, and PW-0 for continued monitoring of dissolved boron. No further action beyond routine ground-water monitoring is warranted at this time.

**STANDARD OF CARE**

The recommendations contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions about this report, or need additional information, please contact me at (605) 334-6000.

Very truly yours,  
LEGGETTE, BRASHEARS & GRAHAM, INC.



Melissa Karstens  
Environmental Scientist II

Reviewed by:

PROFESSIONAL GEOLOGIST

I hereby certify that this plan, document, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Geologist under the laws of the State of Minnesota

Print Name: Timothy L. Kenyon

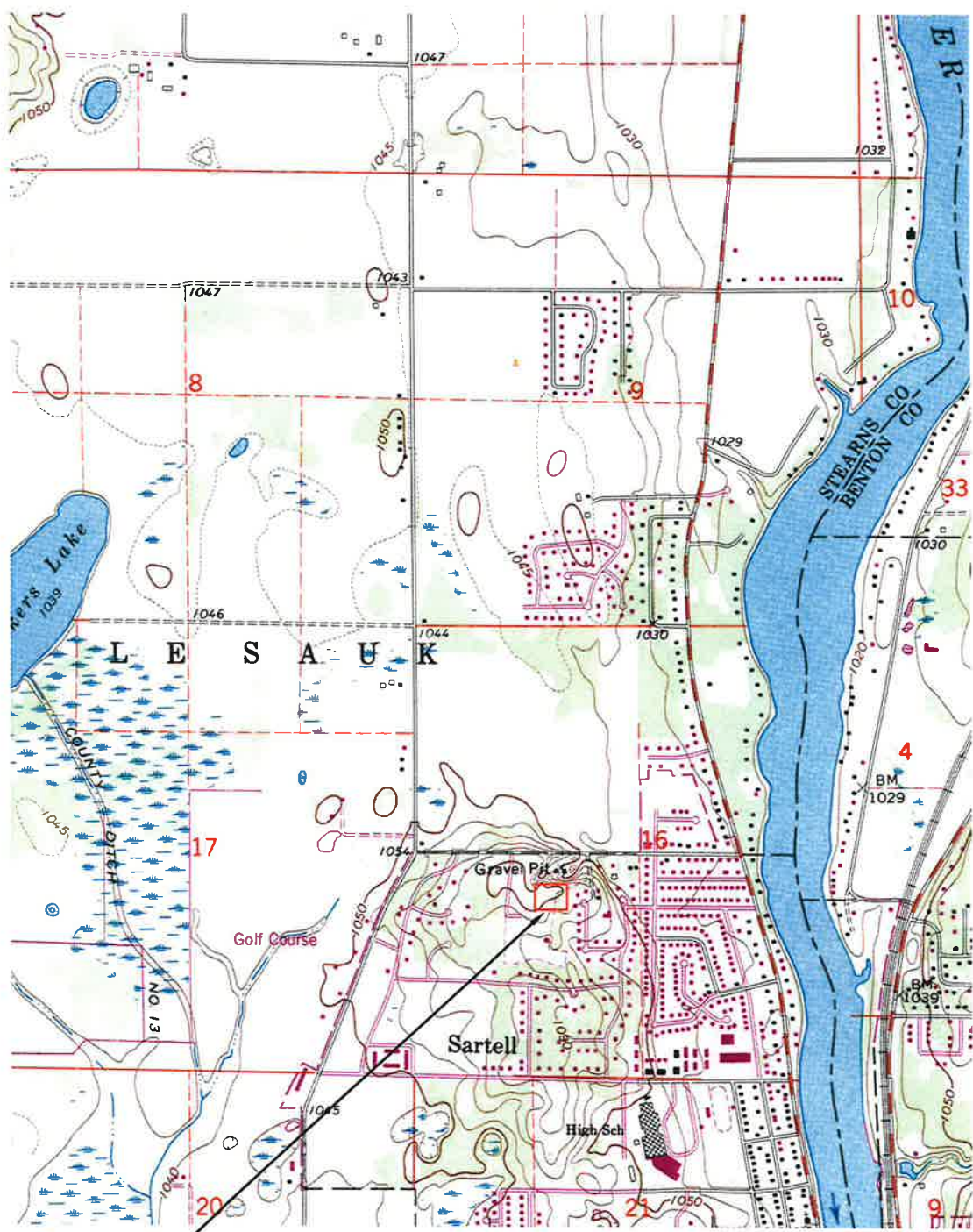
Signature: 

Date: 1-31-07 License # 30512

Tim Kenyon  
Principal  
Minnesota Professional Geologist #30512

TK:kak  
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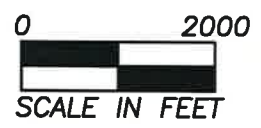
**FIGURES**




APPROXIMATE LOCATION OF SITE

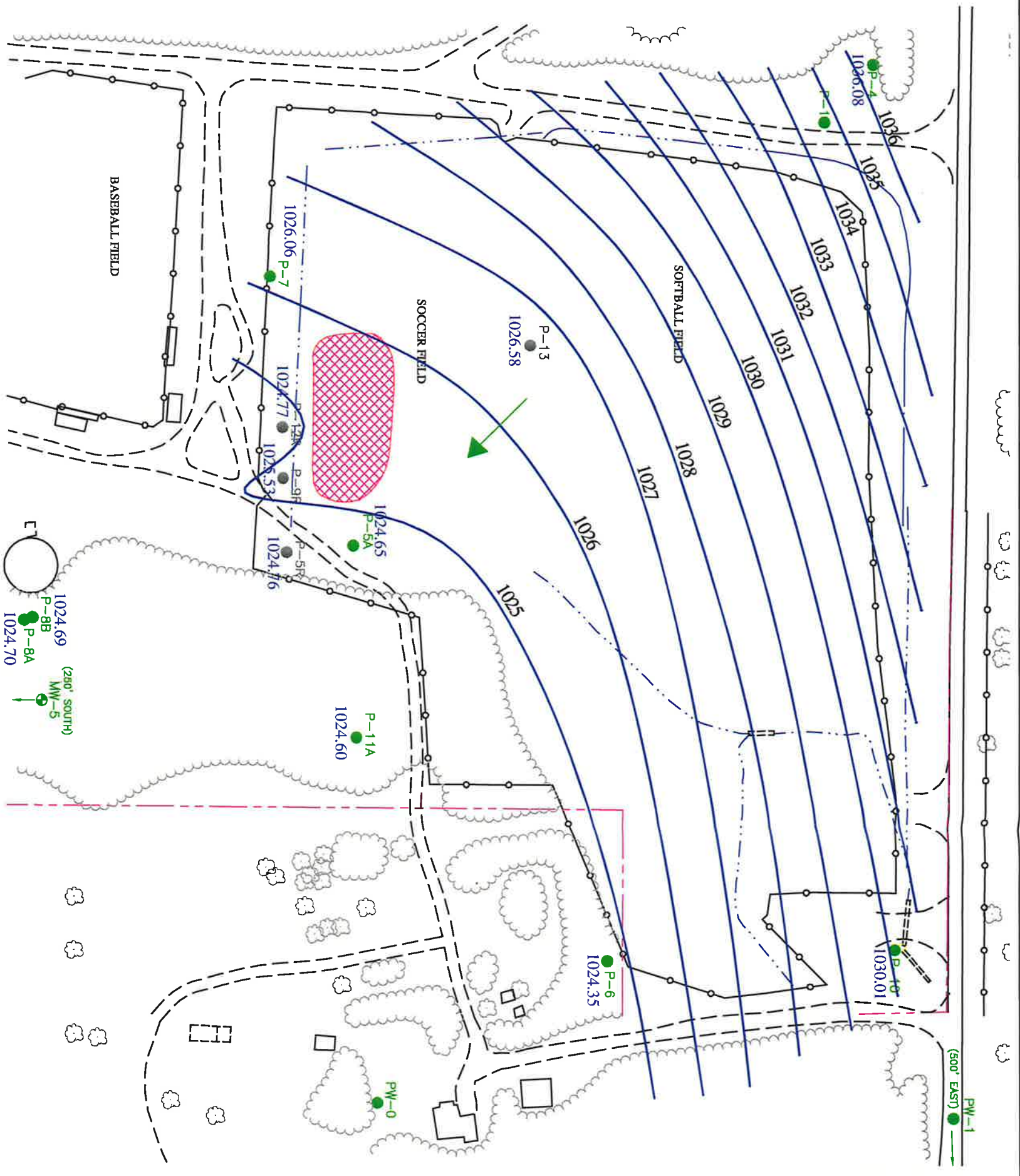


Revisions shown in purple and woodland compiled in cooperation with State of Minnesota agencies from aerial photographs taken 1991 and other sources  
Contours not revised. This information not field checked  
Map edited 1993



DATE	REVISED	 <b>LEGGETTE, BRASHEARS &amp; GRAHAM, INC.</b> Professional Ground-Water and Environmental Services 140 East Hinks Lane, Ste 128 Sioux Falls, South Dakota 57104 (605) 334-8000	DEZURIK HAZARDOUS WASTE LAGOON #3	
			SARTELL, MINNESOTA	
			Site Location Map	
			Source: USGS 7.5 Minute Series; Little Rock Lake Quad	
			FILE: Dez-topo.dwg	DATE: January, 2002
			FIGURE: 1	





**LEGEND**

- PROPERTY BOUNDARIES
- APPROXIMATE LIMITS OF LAGOON
- SARTELL LANDFILL WELL LOCATIONS
- DEZURIK LAGOON WELL LOCATIONS
- FENCE
- ☁ TREES and TREE LINE
- 1024.35 GROUND-WATER ELEVATION
- 1030— GROUND-WATER CONTOUR
- ➔ GROUND-WATER FLOW DIRECTION



DATE	REVISED
7/7/05	M.Karstens

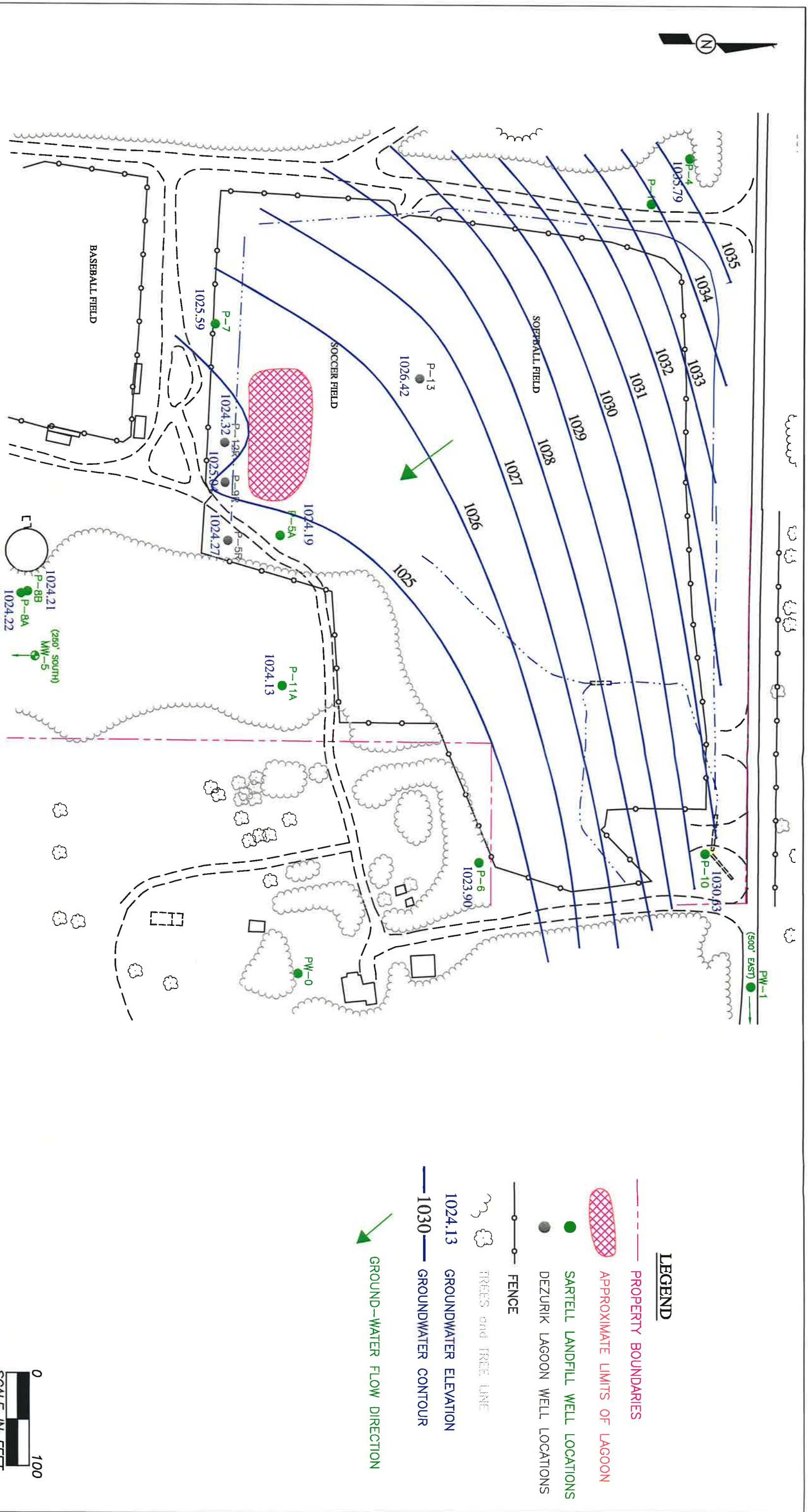
**LEGGETTE, BRASHEARS & GRAHAM, INC.**  
 Professional Ground-Water  
 and Environmental Services  
 140 East Hinks Lane, Suite 126  
 Sioux Falls, South Dakota 57104  
 (605) 334-6000

City of Sartell Landfill & DeZurik Hazardous Waste Lagoon  
 Sartell, Minnesota

GROUND-WATER ELEVATIONS AND INFERRED FLOW DIRECTION (11 APR 06)

FILE: Sar-Dez Site Map.dwg      DATE: July 2001      FIGURE: 2





**LEGEND**

- PROPERTY BOUNDARIES
- APPROXIMATE LIMITS OF LAGOON
- SARTELL LANDFILL WELL LOCATIONS
- DEZURIK LAGOON WELL LOCATIONS
- FENCE
- ☁ TREES and TREE LINE
- 1024.13 GROUNDWATER ELEVATION
- 1030— GROUNDWATER CONTOUR
- GROUND-WATER FLOW DIRECTION



DATE	REVISED
7/7/05	M.Karstens

**LEGGETTE, BRASHBEARS & GRAHAM, INC.**  
 Professional Ground-Water  
 and Environmental Services  
 140 East Hinks Lane, Suite 126  
 Sioux Falls, South Dakota 57104  
 (605) 334-6000

City of Sartell Landfill & DeZurik Hazardous Waste Lagoon  
 Sartell, Minnesota

GROUND-WATER ELEVATIONS AND INFERRED FLOW DIRECTION (10 OCT 06)

FILE: Sar-Dez Site Map.dwg      DATE: July 2001      FIGURE: 3



- LEGEND**
- PROPERTY BOUNDARIES
  - - - APPROXIMATE LIMITS OF LAGOON
  - SARTELL LANDFILL WELL LOCATIONS
  - DEZURIK LAGOON WELL LOCATIONS
  - FENCE
  - ☁ TREES and TREE LINE
  - 0.852 Dissolved Boron (mg/L)



DATE	REVISED
7/7/05	M.Karstens

**LEGGETTE, BRASHEARS & GRAHAM, INC.**  
 Professional Ground-Water  
 and Environmental Services  
 140 East Hinks Lane, Suite 126  
 Sioux Falls, South Dakota 57104  
 (605) 334-6000

City of Sartell Landfill & DeZurik Hazardous Waste Lagoon  
 Sartell, Minnesota

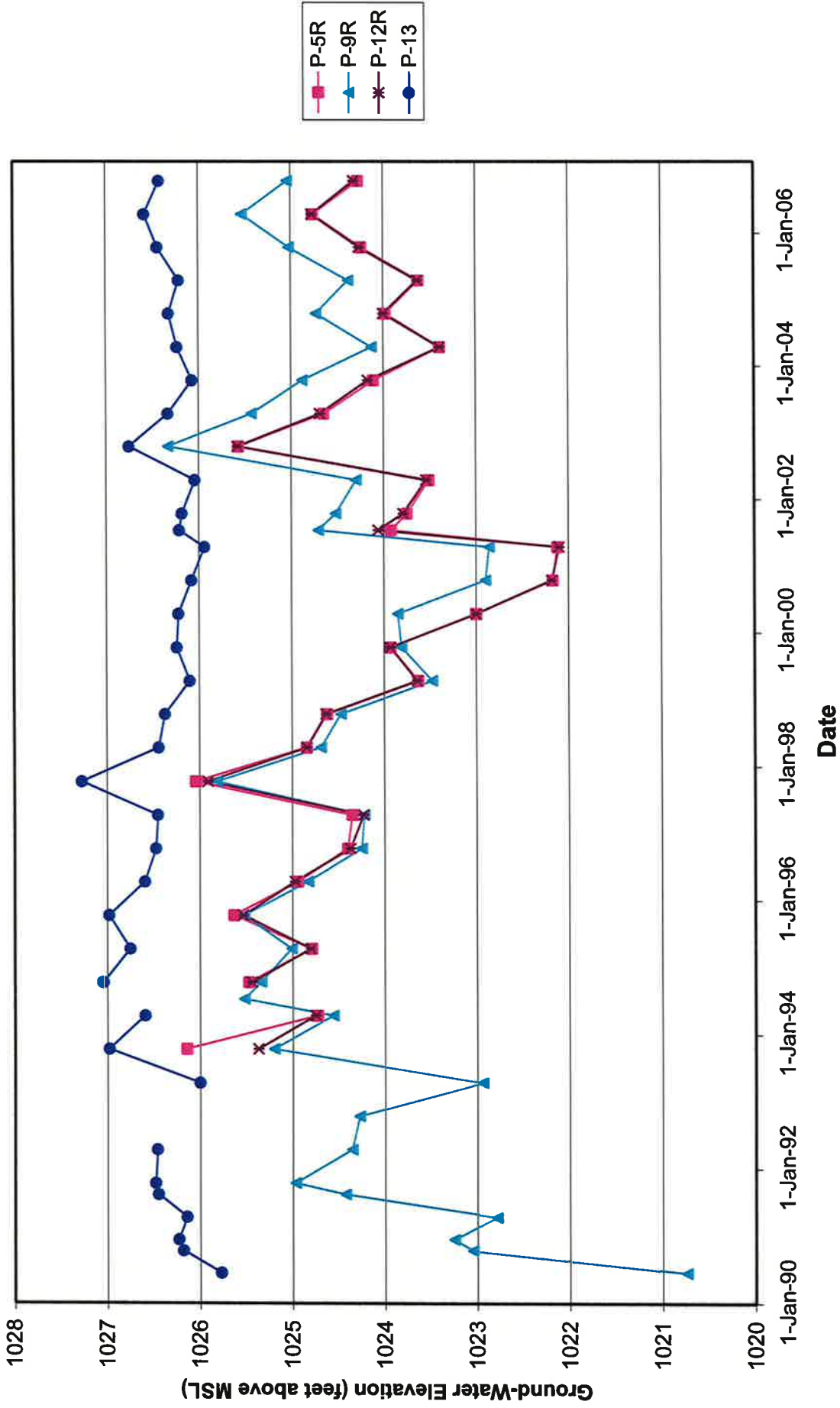
Dissolved Boron Concentrations – October 2006 Sampling Event

FILE: Sar-Dez Site Map.dwg      DATE: July 2001      FIGURE: 4

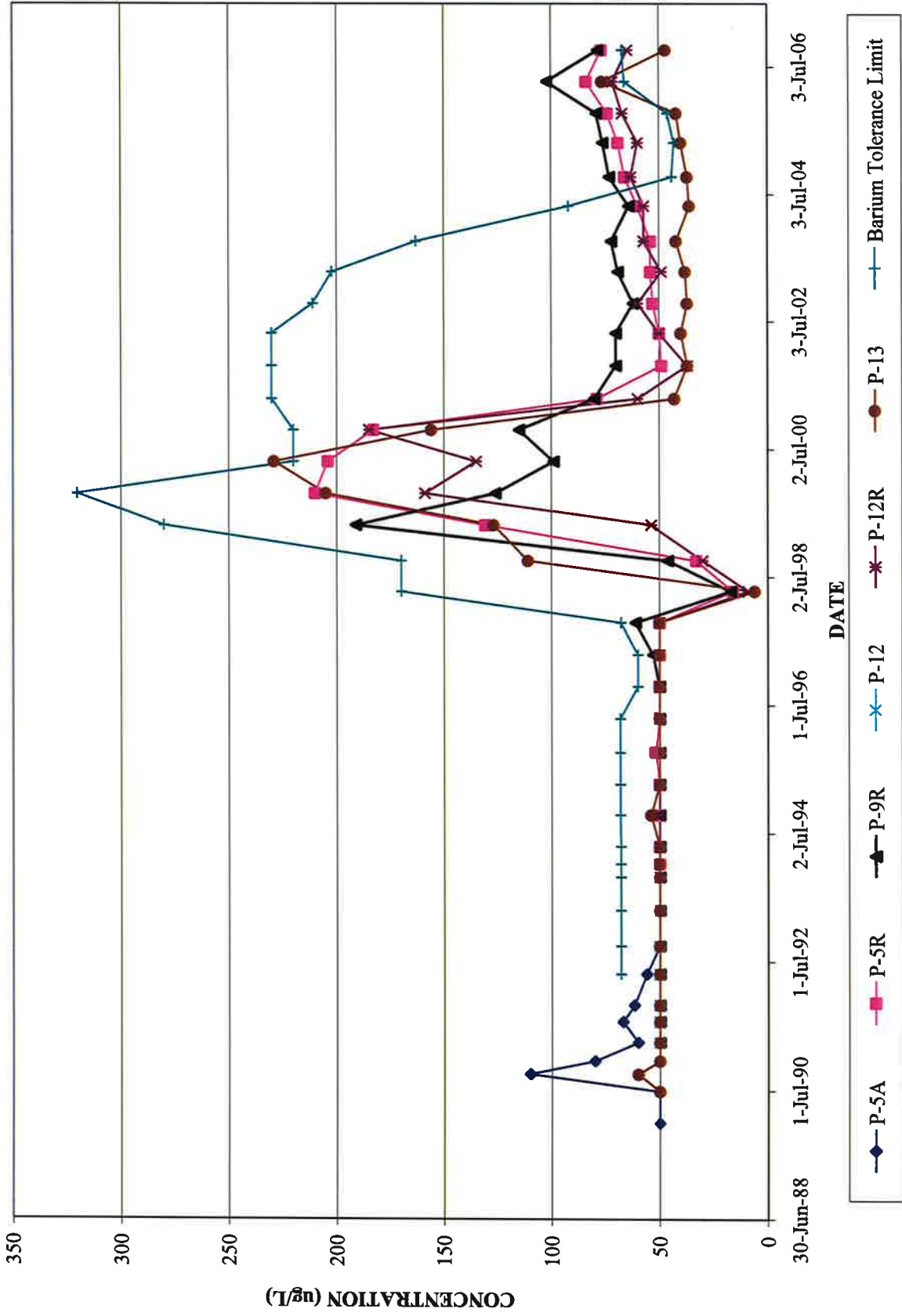
**GRAPHS**



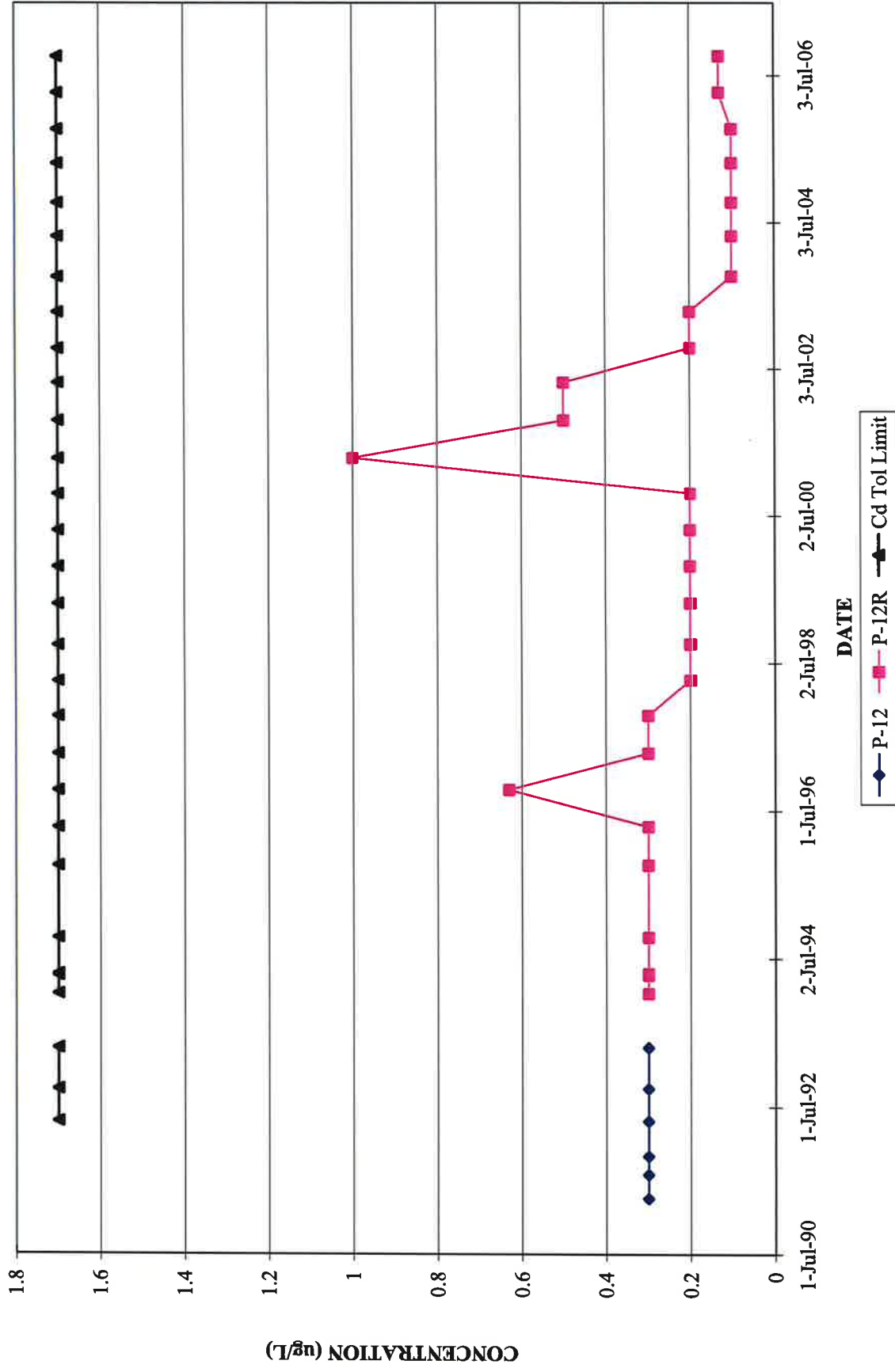
**Graph 1**  
**DeZurik Ground-Water Elevation Data**



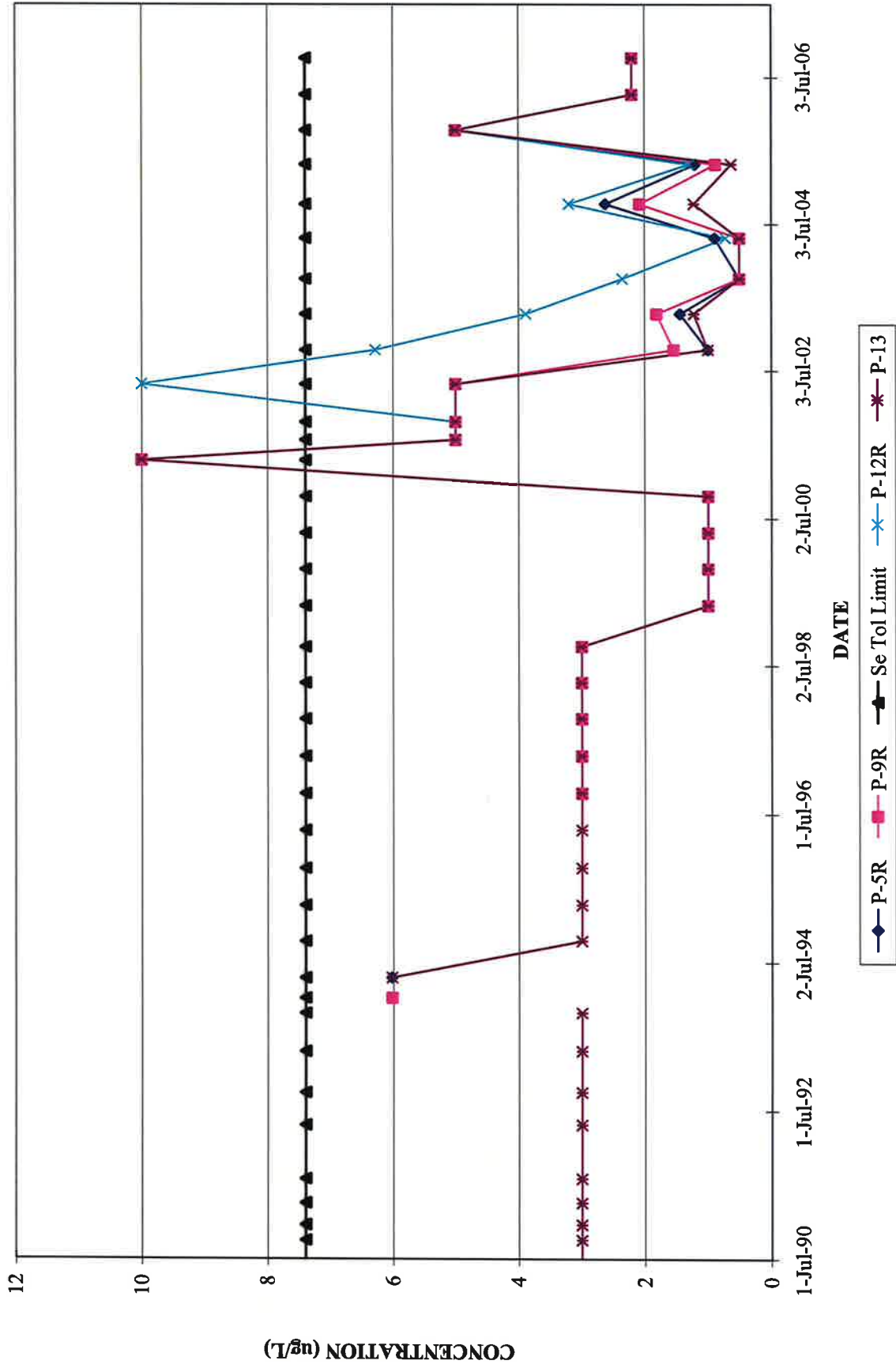
**Graph 2**  
**Historical Concentrations of Dissolved Barium**



### Graph 3 Historical Concentrations of Dissolved Cadmium



**Graph 4**  
**Historical Concentrations of Dissolved Selenium**



**TABLES**



**TABLE 1**

**DEZURIK HAZARDOUS WASTE LAGOON #3  
SARTELL, MINNESOTA**

**Ground-Water Elevation Data**

<b>DATE</b>	<b>P-5R</b>	<b>P-5R</b>	<b>P-9R</b>	<b>P-9R</b>	<b>P-12R</b>	<b>P-12R</b>	<b>P-13</b>	<b>P-13</b>
<b>Elevation</b>		<b>1099.04</b>		<b>1102.98</b>		<b>1101.33</b>		<b>1105.12</b>
4/4/1990								
6/26/1990				1020.74				1025.77
10/2/1990				1023.05				1026.18
12/18/1990				1023.25				1026.23
4/4/1991				1022.79				1026.14
8/1/1991				1024.43				1026.45
10/31/1991				1024.97				1026.48
4/23/1992				1024.36				1026.46
10/21/1992				1024.28				
4/20/1993				1022.94				1026.00
10/27/1993		1026.14		1025.2		1025.37		1026.98
4/20/1994		1024.73		1024.56		1024.75		1026.59
7/11/1994				1025.52				
10/17/1994		1025.47		1025.34		1025.44		1027.04
4/11/1995		1024.79		1025.01		1024.80		1026.75
10/9/1995		1025.63		1025.52		1025.53		1026.98
4/17/1996		1024.94		1024.83		1024.97		1026.59
10/15/1996		1024.40		1024.25		1024.37		1026.47
4/15/1997		1024.35		1024.22		1024.23		1026.45
10/14/1997		1026.04		1025.81		1025.91		1027.27
4/13/1998		1024.84		1024.69		1024.84		1026.44
10/6/1998		1024.62		1024.47		1024.63		1026.37
4/27/1999		1023.63		1023.48		1023.64		1026.10
10/27/1999		1023.93		1023.81		1023.93		1026.24
4/25/2000	76.04	1023.00	79.13	1023.85	78.33	1023.00	78.90	1026.22
10/23/2000	76.87	1022.17	80.08	1022.90	79.15	1022.18	79.04	1026.08
4/18/2001	76.92	1022.12	80.12	1022.86	79.23	1022.10	79.18	1025.94
7/24/2001	75.12	1023.92	78.27	1024.71	77.39	1024.06	78.91	1026.21
10/23/2001	75.29	1023.75	78.46	1024.52	77.54	1023.79	78.94	1026.18
4/29/2002	75.53	1023.51	78.68	1024.30	77.79	1023.54	79.08	1026.04
10/16/2002		1025.57		1026.33		1025.58		1026.75
4/15/2003	74.39	1024.65		1025.43		1024.69		1026.33
10/7/2003	74.93	1024.11	78.1	1024.88	77.16	1024.17	79.05	1026.07
4/27/2004	75.65	1023.39	78.85	1024.13	77.94	1023.39	78.89	1026.23
10/12/2004	75.06	1023.98	78.25	1024.73	77.33	1024.00	78.8	1026.32
4/27/2005	75.42	1023.62	78.6	1024.38	77.7	1023.63	78.91	1026.21
10/12/2005	74.80	1024.24	77.96	1025.02	77.07	1024.26	78.68	1026.44
4/11/2006	74.28	1024.76	77.45	1025.53	76.56	1024.77	78.54	1026.58
10/10/2006	74.77	1024.27	77.94	1025.04	77.01	1024.32	78.70	1026.42

blank = not measured

TABLE 2  
 DEZURIK HAZARDOUS WASTE LAGOON #3  
 SARTELL, MINNESOTA

2006 Water Quality Data Summary

Analyte	Units	MCL (mg/L)	SMCL (mg/L)	IL (mg/L)	HRL (mg/L)	P-5R 11-Apr-06	P-5R 10-Oct-06	Duplicate P-5R 11-Apr-06	Duplicate P-5R 10-Oct-06	P-9R 11-Apr-06	P-9R 10-Oct-06	P-12R 11-Apr-06	P-12R 10-Oct-06	P-13 11-Apr-06	P-13 10-Oct-06	Pump Blank 11-Apr-06	Pump Blank 10-Oct-06
Total Organic Carbon	mg/L					3.18	3.05	3.21	3.06	3.53	1.85	2.99	1.72	1.97	0.953(J)	1.22	<0.22
Chloride	mg/L		250			49.4	51.6	49.6	51.8	49.4	47.4	47.5	50.5	32.9	30.2	22.4	2.45(J)
Specific Conductance	umhos/cm					1320	1240	1320	1280	1040	909	996	903	775	698	548	1.26
Chemical Oxygen Demand	mg/L					5.10	11.3	9.80	11.1	8.00	9.20	3.2(J)	9.7	<1.82	6.7	<1.82	4.6(J)
pH	su		6.5-8.5			7.0	7.0	7.0	7.0	7.1	7.1	7.2	7.3	7.3	7.4	7.8	5.2
Total Phenols	mg/L					<0.0007	0.00601(J)	<0.0007	0.00435(J)	0.00121(J)	0.00708(J)	<0.0007	0.00325(J)	<0.0007	0.00437(J)	<0.000633	<0.0032
Sodium	mg/L					44.7	49.7	44.9	50.0	12.7	12.1	22.5	19.6	5.84	5.63	97.6	0.2(J)
Total Dissolved Solids	mg/L		500			948	966	952	976	708	634	684	622	508	478	350	20
Sulfate	mg/L		250			281	350	288	357	132	113	113	112	51.6	48.6	29.6	2.72(J)
Total Cyanide	mg/L	0.2			0.1	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Fluoride	mg/L	4	2			0.47(J)	0.387(J)	<0.13	0.187(J)	0.137(J)	0.135(J)	<0.13	0.0986(J)	0.13(J)	0.309(J)	1.01	0.361(J)
Nitrate as Nitrogen	mg/L					5.36	4.32	4.83	4.23	4.79	4.70	4.68	5.06	4.52	5	1.3	0.0781(J)
Dissolved Arsenic	mg/L	0.01		0.0125		<0.00042	<0.00042	<0.00042	<0.00042	<0.00042	<0.00042	<0.00042	<0.00042	<0.00042	<0.00042	<0.00042	<0.00042
Dissolved Barium	mg/L	2		0.375	2	0.0837	0.0767	0.0793	0.0775	0.102	0.0782	0.0716	0.0647	0.0764	0.0470	0.00157(J)	<0.003
Dissolved Boron	mg/L				0.6	1.91	2.17	1.92	2.15	<0.058	0.0957(J)	0.087(J)	0.104	0.114	<0.058	<0.058	<0.058
Dissolved Cadmium	mg/L	0.005		0.0125	0.004	<0.00013	<0.00013	<0.00013	<0.00013	0.000273(J)	0.000301(J)	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
Dissolved Calcium	mg/L					186	193	185	191	157	151	147	142	123	118	4.48	0.121(J)
Dissolved Chromium	mg/L	0.1		0.03	0.02	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	0.0028(J)	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027
Dissolved Iron	mg/L					<0.017	<0.032	<0.017	<0.032	<0.017	<0.032	0.196	0.151	<0.017	<0.032	<0.017	<0.032
Dissolved Lead	mg/L	0.015		0.005		<0.00082	<0.00059	<0.00082	<0.00059	<0.00082	<0.00059	<0.00082	<0.00059	<0.00082	<0.00059	<0.00082	<0.00059
Dissolved Magnesium	mg/L					54.7	57.6	54.6	57.4	43.4	42	38.4	37.9	30.7	29.7	1.76	<0.021
Dissolved Manganese	mg/L		0.05		0.1	0.00633(J)	0.00659(J)	0.00637(J)	0.00749(J)	0.032	0.0366	0.0134	0.0106	<0.0013	<0.0013	<0.0013	0.00378(J)
Dissolved Selenium	mg/L	0.05		0.011	0.03	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022
Dissolved Zinc	mg/L		5		2	0.0486	0.0342	0.0373	0.0329	0.0489	0.0294	0.0408	0.0281	0.0507	0.0267	0.161	<0.0029

Blank = not analyzed

Detections are in **BOLD**

(J) - Analyte was detected at a concentration less than the laboratory reporting limit

\* - Except for Dissolved Boron, the data for the City of Sartell wells was not collected as part of the DeZurik Hazardous Waste Lagoon monitoring program, but has been included herein for context.

**TABLE 2**  
**DEZURIK HAZARDOUS WASTE LAGOON #3**  
**SARTELL, MINNESOTA**

2006 Water Quality Data Summary

Analyte	Units	MCL (mg/L)	SMCL (mg/L)	IL (mg/L)	HRL (mg/L)	PW-0*	PW-0*	P-5A*	P-5A*	P-6*	P-6*	P-7*	P-7*	P-10*	P-10*	P-11A*	P-11A*
						11-Apr-06	10-Oct-06	11-Apr-06	10-Oct-06	11-Apr-06	10-Oct-06	11-Apr-06	10-Oct-06	11-Apr-06	11-Oct-06	11-Apr-06	10-Oct-06
Total Organic Carbon	mg/L																
Chloride	mg/L		250			32.4	32.8	35.4	33.5	21.8	21.7	13.4	14.5	6.26	5.58	11.1	10.2
Specific Conductance	umhos/cm					1030	986	1180	1030	657	649	1140	1200	789	842	1960	2030
Chemical Oxygen Demand	mg/L																
pH	su		6.5-8.5			7.3	7.3	7.1	7.1	7.5	7.5	7.4	7.4	7.2	7.4	7.0	6.9
Total Phenols	mg/L																
Sodium	mg/L					34.7	34.3	35.8	39.4	11.9	12.6	117	109	16.7	19.7	70.0	63.7
Total Dissolved Solids	mg/L		500			692	712	953	740	533	420	913	872	508	600	1640	1650
Sulfate	mg/L		250			168	193	159	202	31.3	42	226	342	17.3	31.6	688	749
Total Cyanide	mg/L	0.2			0.1												
Fluoride	mg/L	4	2														
Nitrate as Nitrogen	mg/L																
Dissolved Arsenic	mg/L	0.01		0.0125		<b>0.000512</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>&lt;0.00042</b>	<b>0.000432(J)</b>
Dissolved Barium	mg/L	2		0.375	2												
Dissolved Boron	mg/L				0.6	<b>0.839</b>	<b>0.852</b>	<b>1.21</b>	<b>0.493</b>	<b>&lt;0.058</b>	<b>0.073(J)</b>	<b>0.309</b>	<b>0.222</b>	<b>0.0649</b>	<b>0.117</b>	<b>6.23</b>	<b>5.89</b>
Dissolved Cadmium	mg/L	0.005		0.0125	0.004	<b>&lt;0.00013</b>	<b>0.000176(J)</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>	<b>&lt;0.00013</b>
Dissolved Calcium	mg/L					<b>140</b>	<b>152</b>	<b>171</b>	<b>146</b>	<b>99</b>	<b>97.7</b>	<b>114</b>	<b>126</b>	<b>113</b>	<b>123</b>	<b>268</b>	<b>303</b>
Dissolved Chromium	mg/L	0.1		0.03	0.02	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>0.00296</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>	<b>&lt;0.0027</b>
Dissolved Iron	mg/L		0.3			<b>0.264</b>	<b>0.0855(J)</b>	<b>&lt;0.017</b>	<b>&lt;0.032</b>	<b>0.194</b>	<b>0.34</b>	<b>&lt;0.017</b>	<b>&lt;0.032</b>	<b>&lt;0.017</b>	<b>&lt;0.032</b>	<b>&lt;0.017</b>	<b>&lt;0.032</b>
Dissolved Lead	mg/L	0.015		0.005		<b>&lt;0.00082</b>	<b>&lt;0.00059</b>	<b>&lt;0.00082</b>	<b>&lt;0.00059</b>	<b>&lt;0.00082</b>	<b>&lt;0.00059</b>	<b>&lt;0.00082</b>	<b>&lt;0.00059</b>	<b>&lt;0.00082</b>	<b>&lt;0.00059</b>	<b>&lt;0.00082</b>	<b>&lt;0.00059</b>
Dissolved Magnesium	mg/L					<b>40.9</b>	<b>43.1</b>	<b>53.9</b>	<b>43.2</b>	<b>29.9</b>	<b>30.0</b>	<b>37.5</b>	<b>41.7</b>	<b>29.1</b>	<b>31.0</b>	<b>114</b>	<b>121</b>
Dissolved Manganese	mg/L		0.05			<b>0.0122</b>	<b>0.00456(J)</b>	<b>1.88</b>	<b>1.59</b>	<b>0.229</b>	<b>0.226</b>	<b>&lt;0.0013</b>	<b>&lt;0.0013</b>	<b>0.00617</b>	<b>0.00163(J)</b>	<b>0.0315</b>	<b>0.02</b>
Dissolved Selenium	mg/L	0.05		0.011													
Dissolved Zinc	mg/L		5		2	<b>0.033</b>	<b>0.1</b>	<b>0.0393</b>	<b>0.0329</b>	<b>0.0257</b>	<b>0.0264</b>	<b>0.026</b>	<b>0.0273</b>	<b>&lt;0.0029</b>	<b>0.0347</b>	<b>&lt;0.0029</b>	<b>0.0367</b>

Blank = not analyzed

Detections are in **BOLD**

(J) - Analyte was detected at a concentration less than the laboratory reporting limit

\* - Except for Dissolved Boron, the data for the City of Sartell wells was not collected as part of the DeZurik Hazardous Waste Lagoon monitoring program, but has been included herein for context.



TABLE 3

DEZURIK HAZARDOUS WASTE LAGOON #3  
SARTELL, MINNESOTA

2000 through 2006 Water Quality Data - Exceeded Parameters (in mg/L)

Analyte	Well	MCL	SMCL	IL	HRL	Spring 2000	Fall 2000	Spring 2001	Fall 2001	Spring 2002	Fall 2002	Spring 2003	Fall 2003
Boron	P-5R				0.6	1.18	1.62	2.18	1.01	1.10	0.62	1.18	1.11
	P-9R					<0.1	<0.1	0.15	0.05	0.04	<0.1	<0.1	<0.1
	P-12R					<0.1	<0.1	0.086	0.07	0.04	0.1	<0.1	<0.1
	P-13					<0.1	<0.1	0.07	0.05	0.04	0.1	<0.1	<0.1
	MW-5					NS	NS	NS	NS	NS	NS	NS	NS
	PW-0					NS	NS	NS	NS	NS	NS	NS	NS
	P-4					NS	NS	NS	NS	NS	NS	NS	NS
	P-5A					NS	NS	NS	NS	NS	NS	NS	NS
	P-6					NS	NS	NS	NS	NS	NS	NS	NS
	P-7					NS	NS	NS	NS	NS	NS	NS	NS
	P-8A					NS	NS	NS	NS	NS	NS	NS	NS
	P-8B					NS	NS	NS	NS	NS	NS	NS	NS
	P-10					NS	NS	NS	NS	NS	NS	NS	NS
P-11A					NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	P-5R		0.05		0.1	0.092	0.063	0.024	<0.005	<0.005	<0.003	<0.003	<0.003
	P-9R					0.024	0.036	0.03	0.03	0.01	0.02	0.025	0.02
	P-12R					0.022	0.006	0.057	0.02	0.006	0.078	0.078	0.076
	P-13					0.013	0.014	0.006	0.01	0.006	0.003	0.018	<0.003
Nitrate	P-5R	10		2.5	10	5.57	NS	4.52	5.78	5.8	6.32	5.63	5.3
	P-9R					4.59	NS	5.82	5.74	5.2	6.05	5.81	5.82
	P-12R					4.72	NS	5.05	5.04	5.0	5.11	4.6	6.42
	P-13					5.8	NS	5.46	5.21	5.2	5.23	5.11	5.24
TDS	P-5R		500			717	852	820	710	680	436	280	768
	P-9R					509	625	560	600	520	592	597	589
	P-12R					582	585	520	510	500	1060	482	626
	P-13					413	456	400	430	430	308	334	426
Sulfate	P-5R		250			157	196	254	160	160	237	226	207
	P-9R					67	99	91	107	70	138	115	96.7
	P-12R					96	78	102	82	76	142	121	129
P-13					26	32	58	36	32	110	70.4	50.4	

 - Lowest Standard

**BOLD** - Exceeded Lowest Standard

NS - Not Sampled

\* - Samples were analyzed as Nitrate+Nitrite

TABLE 3

DEZURIK HAZARDOUS WASTE LAGOON #3  
SARTELL, MINNESOTA

2000 through 2006 Water Quality Data - Exceeded Parameters (in mg/L)

Analyte	Well	MCL	SMCL	IL	HRL	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Spring 2006	Fall 2006
Boron	P-5R				0.6	1.79	1.54	1.78	1.75	1.91	2.17
	P-9R					<0.1	<0.1	<0.1	<0.1	<0.058	0.00957
	P-12R					<0.1	<0.1	<0.1	<0.1	0.087	0.104
	P-13					<0.1	<0.1	<0.1	<0.1	0.114	<0.058
	MW-5					NS	<0.1	NS	NS	NS	NS
	PW-0					NS	0.95	0.76	1.04	0.839	0.852
	P-4					NS	<0.1	NS	NS	NS	NS
	P-5A					NS	1.1	0.52	0.74	1.21	0.493
	P-6					NS	<0.1	<0.1	0.16	<0.058	0.073
	P-7					NS	0.24	0.26	0.25	0.309	0.222
	P-8A					NS	<0.1	NS	NS	NS	NS
P-8B					NS	<0.1	NS	NS	NS	NS	
P-10					NS	0.13	<0.1	0.18	0.0649	0.117	
P-11A					NS	6.85	6.28	6.64	6.23	5.89	
Manganese	P-5R		0.05		0.1	<0.003	<0.005	<0.005	0.006	0.00633	0.00659
	P-9R					0.036	0.031	0.052	0.077	0.032	0.0366
	P-12R					0.016	0.064	0.019	0.065	0.0134	0.0106
	P-13					<0.003	<0.005	<0.005	<0.005	<0.0013	<0.0013
Nitrate	P-5R	10		2.5	10	5.24	5.08	5.12*	5.12	5.36	4.32
	P-9R					5.21	4.98	4.76*	5	4.79	4.70
	P-12R					5.12	5.55	5.75*	5.54	4.68	5.06
	P-13					5.19	5.71	5.14*	5.11	4.52	5.00
TDS	P-5R		500			1030	986	912	884	948	966
	P-9R					582	705	607	672	708	634
	P-12R					632	740	617	662	684	622
	P-13					456	534	484	490	508	478
Sulfate	P-5R		250			224	252	243	257	281	350
	P-9R					85.9	117	105	110	132	113
	P-12R					131	127	106	116	113	112
	P-13					37.9	36.5	63.2	37.9	51.6	48.6

█ - Lowest Standard

**BOLD** - Exceeded Lowest Standard

NS - Not Sampled

\* - Samples were analyzed as Nitrate+Nitrite

**TABLE 4**  
**Summary of Analytical and Statistical Analysis Results**  
**DeZurik Hazardous Waste Lagoon No. 3**  
(units = µg/L, dissolved)

WELL NUMBER	DATE	ARSENIC	BARIIUM	CADMIUM	LEAD	SELENIUM
P-5A	12/27/1989	ND	50	ND	ND	ND
P-5A	6/28/1990	ND	ND	0.5	5	ND
P-5A	10/4/1990	ND	110	ND	ND	ND
P-5A	12/18/1990	ND	80	ND	ND	ND
P-5A	4/4/1991	ND	60	0.4	ND	ND
P-5A	8/1/1991	ND	67	ND	ND	ND
P-5A-1	10/31/1991	ND	63	0.32	ND	ND
P-5A-2	10/31/1991	ND	60	0.43	ND	ND
P-5A-3	10/31/1991	ND	62	0.38	ND	ND
P-5A-4	10/31/1991	ND	62	0.55	ND	ND
P-5A	4/23/1992	ND	56	ND	ND	ND
P-5A	9/30/1992	ND	ND	ND	ND	ND
P-5A	4/20/1993	ND	ND	ND	ND	ND
P-5R	10/27/1993	ND	78	1.4	ND	ND
P-5R	1/10/1994	--	ND	--	--	--
P-5R	4/20/1994	ND	ND	ND	ND	<6.02
P-5R	10/17/1994	ND	ND	ND	ND	ND
P-5R	4/11/1995	ND	ND	ND	ND	ND
P-5R	10/11/1995	ND	52	ND	ND	ND
P-5R	4/17/1996	ND	ND	ND	ND	ND
P-5R	10/16/1996	< 3.0	ND	0.36	< 3.0	< 3.0
P-5R	4/17/1997	< 3.0	50	< 0.30	< 3.0	< 3.0
P-5R	10/16/1997	<3.0	ND	<0.30	<3.0	<3.0
P-5R	4/13/1998	<2	16	<0.2	<1	<3
P-5R	10/6/1998	<2	33	<0.2	<1	<3
P-5R	4/27/1999	<2	131	<0.2	<1	<1
P-5R	10/27/1999	<2	210*	<0.2	<1	<1
P-5R	4/24/2000	<2	204	<0.2	<1	<1
P-5R	10/23/2000	<2	183	<0.2	<1	<1
P-5R	4/18/2001	<10	79	<1	<10	10
P-5R Resample	7/26/2001	<5	66	<0.5	<2	<5
P-5R Resample Dup	7/26/2001	<5	71	<0.5	<2	<5
P-5R	10/23/2001	<5	49	<0.5	<2	<5
P-5R	4/29/2002	7	50	<0.5	<2	5
P-5R	10/16/2002	<1	53	<2	<0.5	<1
P-5R	4/15/2003	<1	54	<0.2	<0.5	1.44
P-5R	10/7/2003	<5	54	<0.1	<0.5	<0.5
P-5R	4/27/2004	<0.5	60	<0.1	<0.5	0.89
P-5R	10/12/2004	0.77	66	<0.1	<0.5	2.62
P-5R	4/27/2005	0.66	69	<0.1	<0.5	1.2
P-5R	10/12/2005	0.61	74	<0.1	<0.5	<5
P-5R (DUP)	10/12/2005	0.67	74	<0.1	<0.5	<5
P-5R	4/11/2006	<0.42	83.7	<0.13	<0.82	<2.2
P-5R (DUP)	4/11/2006	<0.42	79.3	<0.13	<0.82	<2.2
P-5R	10/10/2006	<0.42	76.7	<0.13	<0.59	<2.2
P-5R (DUP)	10/10/2006	<0.42	77.5	<0.13	<0.59	<2.2
P-9R	4/4/1991	ND	ND	ND	ND	ND
P-9R	8/1/1991	ND	ND	ND	ND	ND
P-9R-1	10/31/1991	ND	ND	ND	ND	ND
P-94-2	10/31/1991	ND	ND	ND	ND	ND

**TABLE 4**  
**Summary of Analytical and Statistical Analysis Results**  
**DeZurik Hazardous Waste Lagoon No. 3**  
**(units = µg/L, dissolved)**

WELL NUMBER	DATE	ARSENIC	BARIUM	CADMIUM	LEAD	SELENIUM
P-9R-3	10/31/1991	ND	ND	0.3	ND	ND
P-9R-4	10/31/1991	ND	ND	ND	ND	ND
P-9R	4/23/1992	ND	ND	0.19	ND	ND
P-9R	9/30/1992	ND	ND	ND	ND	ND
P-9R	4/20/1993	ND	ND	ND	ND	ND
P-9R	10/27/1993	ND	ND	0.7	ND	ND
P-9R	4/20/1994	ND	ND	ND	ND	<6.02
P-9R	10/17/1994	ND	ND	ND	ND	ND
P-9R	4/11/1995	ND	ND	ND	ND	ND
P-9R	10/10/1995	ND	ND	ND	ND	ND
P-9R	4/17/1996	ND	ND	ND	ND	ND
P-9R	10/16/1996	<3.0	ND	<0.30	<3.0	<3.0
P-9R	4/16/1997	<3.0	53	<0.30	<3.0	<3.0
P-9R	10/15/1997	<3.0	61	1.4	<3.0	<3.0
P-9R	4/10/1998	<2	17	0.7	2	<3
P-9R	10/6/1998	<2	46	<0.2	<1	<3
P-9R	4/27/1999	<2	191	<0.2	1.4	<1
P-9R	10/27/1999	<2	126*	0.35	<1	<1
P-9R	4/25/2000	<2	99	0.26	<1	<1
P-9R	10/23/2000	<2	115	<0.2	<1	<1
P-9R	4/18/2001	<10	80	<1	<10	10
P-9R Resample	7/25/2001	<5	79	<0.5	<2	<5
P-9R	10/23/2001	<5	70	<0.5	<2	<5
P-9R	4/29/2002	10	70	<0.5	<2	<5
P-9R	10/16/2002	<1	62	<0.2	<0.5	1.54
P-9R	4/15/2003	<1	69	<0.2	<0.5	1.81
P-9R	10/7/2003	<0.5	72	<0.1	<0.5	<0.5
P-9R	4/27/2004	<0.5	64	<0.1	<0.5	<0.5
P-9R	10/12/2004	<0.5	73	0.1	<0.5	2.08
P-9R	4/27/2005	0.51	76	0.41	<0.5	0.88
P-9R	10/12/2005	<0.5	79	0.25	<0.5	<5
P-9R	4/11/2006	<0.42	102	0.273	<0.82	<2.2
P-9R	10/10/2006	<0.42	78.2	0.301	<0.59	<2.2
P-12	4/4/1991	ND	ND	ND	ND	ND
P-12	8/1/1991	ND	ND	0.32	ND	ND
P-12-1	10/31/1991	ND	ND	0.31	ND	ND
P-12-2	10/31/1991	ND	ND	0.33	ND	ND
P-12-3	10/31/1991	ND	ND	ND	ND	ND
P-12-4	10/31/1991	ND	ND	ND	ND	ND
P-12	4/23/1992	ND	ND	ND	ND	ND
P-12	9/30/1992	ND	ND	ND	ND	ND
P-12	4/20/1993	ND	ND	ND	ND	ND
P-12R	10/27/1993	ND	ND	13	ND	ND
P-12R	1/10/1994	--	--	ND	--	--
P-12R	4/20/1994	ND	ND	ND	ND	<6.02
P-12R	10/17/1994	ND	ND	ND	ND	ND
P-12R	4/11/1995	ND	ND	ND	ND	ND
P-12R	10/10/1995	ND	ND	ND	5.2	ND
P-12R	4/17/1996	ND	ND	ND	ND	ND
P-12R	10/16/1996	<3.0	ND	0.63	<3.0	<3.0
P-12R	4/17/1997	<3.0	ND	<0.30	<3.0	<3.0



**TABLE 4**  
**Summary of Analytical and Statistical Analysis Results**  
**DeZurik Hazardous Waste Lagoon No. 3**  
**(units = µg/L, dissolved)**

WELL NUMBER	DATE	ARSENIC	BARIUM	CADMIUM	LEAD	SELENIUM
P-12R	10/16/1997	<3.0	ND	<0.30	<3.0	<3.0
P-12R	4/13/1998	<2	9	<0.2	<1	<3
P-12R	10/6/1998	<2	30	<0.2	<1	<3
P-12R	4/27/1999	<2	54	<0.2	<1	<1
P-12R	10/27/1999	<2	159*	<0.2	<1	<1
P-12R	4/25/2000	<2	135	<0.2	1.1	<1
P-12R	10/24/2000	<2	185	<0.2	<1	<1
P-12R	4/18/2001	<10	60	<1	<10	<10
P-12R Resample	7/26/2001	<5	64	<0.5	<2	<5
P-12R	10/23/2001	<5	37	<0.5	<2	<5
P-12R	4/29/2002	9	50	<0.5	<2	10
P-12R	10/16/2002	<1	60	<0.2	<0.5	6.28
P-12R	4/15/2003	<1	49	<0.2	<0.5	3.88
P-12R	10/7/2003	<0.5	57	<0.1	<0.5	2.35
P-12R	4/27/2004	<0.5	57	<0.1	<0.5	0.72
P-12R	10/12/2004	<0.5	63	<0.1	<0.5	3.2
P-12R	4/27/2005	0.59	60	<0.1	<0.5	1.3
P-12R	10/12/2005	<0.5	67	<0.1	<0.5	<5
P-12R	4/11/2006	<0.42	71.6	<0.13	<0.82	<2.2
P-12R	10/10/2006	<0.42	64.7	<0.13	<0.59	<2.2
P-13	6/28/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13A	6/28/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13B	6/28/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13C	6/28/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13	10/4/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13A	10/4/1990	< 3.0	60	< 0.3	< 3.0	< 3.0
P-13B	10/4/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13C	10/4/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13A	12/18/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13B	12/18/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13C	12/18/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13D	12/18/1990	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13	4/4/1991	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13	8/1/1991	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-1	10/31/1991	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-2	10/31/1991	< 3.0	< 50	0.88	< 3.0	< 3.0
P-13-3	10/31/1991	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-4	10/31/1991	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-1	4/23/1992	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-2	4/23/1992	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-3	4/23/1992	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-4	4/23/1992	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13	9/30/1992	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-1	10/8-9/92	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-2	10/8-9/92	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13-3	10/8-9/92	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13A	4/20/1993	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13B	4/20/1993	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13C	4/20/1993	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13D	4/20/1993	< 3.0	< 50	< 0.3	< 3.0	< 3.0
P-13A	10/29/1993	< 3.0	< 50	3.3*	< 3.0	< 3.0



**TABLE 4**  
**Summary of Analytical and Statistical Analysis Results**  
**DeZurik Hazardous Waste Lagoon No. 3**  
**(units = µg/L, dissolved)**

WELL NUMBER	DATE	ARSENIC	BARIUM	CADMIUM	LEAD	SELENIUM
P-13B	10/29/1993	<3.0	<50	5.5*	<3.0	<3.0
P-13C	10/29/1993	<3.0	<50	3.9*	<3.0	<3.0
P-13D	10/29/1993	<3.0	<50	17*	<3.0	<3.0
P-13	4/20/1994	<3.0	<50	<0.3	<3.0	<6.02
P-13A	4/20/1994	<3.0	<50	<0.3	<3.0	<6.02
P-13B	4/20/1994	<3.0	<50	0.31	<3.0	<6.02
P-13C	4/20/1994	<3.0	<50	<0.3	<3.0	<6.02
P-13	10/17/1994	<3.0	54	<0.3	<3.0	<3.0
P-13A	10/18/1994	<3.0	<50	<0.3	<3.0	<3.0
P-13B	10/18/1994	<3.0	<50	<0.3	<3.0	<3.0
P-13C	10/18/1994	<3.0	<50	<0.3	<3.0	<3.0
P-13	4/11/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13A	4/11/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13B	4/11/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13C	4/12/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13	10/11/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13A	10/11/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13B	10/11/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13C	10/11/1995	<3.0	<50	<0.3	<3.0	<3.0
P-13	4/17/1996	<3.0	<50	<0.3	<3.0	<3.0
P-13A	4/17/1996	<3.0	<50	<0.3	<3.0	<3.0
P-13B	4/17/1996	<3.0	<50	<0.3	<3.0	<3.0
P-13C	4/17/1996	<3.0	<50	<0.3	<3.0	<3.0
P-13	10/16/1996	<3.0	<50	<0.30	<3.0	<3.0
P-13A	10/16/1996	<3.0	<50	<0.30	<3.0	<3.0
P-13B	10/17/1996	<3.0	<50	<0.30	<3.0	<3.0
P-13C	10/17/1996	<3.0	<50	<0.30	<3.0	<3.0
P-13	4/16/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13A	4/17/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13B	4/17/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13C	4/17/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13	10/15/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13A	10/16/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13B	10/16/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13C	10/16/1997	<3.0	<50	<0.30	<3.0	<3.0
P-13A	4/9/1998	<2	<6	<0.2	<1	<3
P-13B	4/10/1998	<2	<6	<0.2	<1	<3
P-13C	4/10/1998	2.2	<6	<0.2	<1	<3
P-13D	4/13/1998	<2	<6	<0.2	<1	<3
P-13A	10/5/1998	<2	27	<0.2	<1	<3
P-13B	10/5/1998	<2	101	<0.2	<1	<3
P-13C	10/6/1998	<2	180	<0.2	<1	<3
P-13D	10/6/1998	<2	135	<0.2	<1	<3
P-13A	4/26/1999	<2	66	<0.2	<1	<1
P-13B	4/26/1999	<2	178	<0.2	<1	<1
P-13C	4/27/1999	<2	114	<0.2	<1	<1
P-13D	4/27/1999	<2	151	<0.2	<1	<1
P-13A	10/26/1999	<2	95*	<0.2	<1	<1
P-13B	10/27/1999	<2	300*	<0.2	<1	<1
P-13C	10/27/1999	<2	196*	<0.2	<1	<1
P-13D	10/27/1999	<2	229*	<0.2	<1	<1
P-13A	4/24/2000	<2	156	<0.2	<1	<1
P-13A	10/23/2000	<2	115	<0.2	<1	<1

**TABLE 4**  
**Summary of Analytical and Statistical Analysis Results**  
**DeZurik Hazardous Waste Lagoon No. 3**  
(units = µg/L, dissolved)

WELL NUMBER	DATE	ARSENIC	BARIIUM	CADMIUM	LEAD	SELENIUM
P-13	4/18/2001	<10	43	<1	<10	<10
P-13Dup	4/18/2001	<10	43	<1	<10	<10
P-13 Resample	7/26/2001	<5	42	<0.5	<2	<5
P-13	10/23/2001	<5	38	<0.5	<2	<5
P-13Dup	10/23/2001	<5	37	<0.5	<2	<5
P-13	4/29/2002	10	40	<0.5	<2	<5
P-13Dup	4/29/2002	10	40	<0.5	<2	<5
P-13	10/16/2002	<1	37	<0.2	<0.5	<1
P-13 Dup	10/16/2002	<1	36	<0.2	<0.5	<1
P-13	4/15/2003	<1	38	<0.2	<0.5	1.22
P-13 DUP	4/15/2003	<1	37	<0.2	<0.5	1.23
P-13	10/7/2003	<0.5	42	<0.1	<0.5	<0.5
P-13 DUP	10/7/2003	<0.5	40	<0.1	<0.5	<0.5
P-13	4/27/2004	<0.5	36	<0.1	<0.5	<0.5
P-13 DUP	4/27/2004	<0.5	35	<0.1	<0.5	<0.5
P-13	10/12/2004	0.52	37	<0.1	<0.5	1.22
P-13 Dup	10/12/2004	0.5	37	<0.1	<0.5	1.27
P-13	4/27/2005	0.71	40	<0.1	<0.5	0.63
P-13 Dup	4/27/2005	0.65	42	<0.1	<0.5	0.72
P-13	10/12/2005	<0.5	44	<0.1	<0.5	<5
P-13	4/11/2006	<0.42	76.4	0.415	<0.82	<2.2
P-13	10/10/2006	<0.42	47	<0.13	<0.59	<2.2

Regulatory Limits:

MCL:	50	2000	5	15	50
SMCL:	N/A	N/A	N/A	N/A	N/A
HRL:	N/A	2000	4	N/A	30
IL:	12.5	375	1.25	5	11

Background Detection limit\*\*

Background Mean#

Background Standard deviation#

K<sub>0.95</sub>

Tolerance level\*\*\*

3	50	0.3	3	3
3	42	0.307	3	3
1.732	9.858	0.554	1.732	1.732
2.523	2.523	2.523	2.523	2.523
7.4	67	1.7	7.4	7.4

ND Not detected.

-- Not measured.

# The Poisson Distribution method was used for calculating the mean and standard deviation for background constituents with two or less reported results above the detection limit. For background constituents with three or more results above the detection limit, the arithmetic mean and standard deviation is calculated.

\* Data collected is considered suspect.

\*\* In 1998, new analytical equipment allowed the laboratory to obtain lower detection limits than that obtained in previous sampling years. These detection limits are lower than those required in the August 1994 Part B Permit Application for evaluating compliance of wells. Where the reported detection limit is lower than the required detection limit, the required detection limit is used for calculating the tolerance level to maintain continuity in evaluating compliance.

Note: Sample results in bold type exceed MCL and/or HRL

Note: The sample size for background is kept at 16 based on page 15 of August 1994 Part B Permit Application. Use the last 4 quarters of background data.

**APPENDIX I**

**Methodologies**

## METHODOLOGIES

### Monitor-Well Development

The monitor wells are developed by surging with a submersible pump and dedicated polyethylene tubing until the discharge is relatively sediment free.

### Ground-Water Monitoring

Fluid-level elevations are measured to the nearest 0.01 foot using the top of well casing as a reference point with a steel tape, an electronic water-level indicator or an interfacephase probe. Prior to insertion into each monitor well, the measuring device is cleaned with alcohol and rinsed with distilled water. The steel tapes are accurate to approximately  $\pm 0.01$  foot. The electronic water-level indicator manufacturer's reported accuracy is  $\pm 0.04$  foot. The interphase probe has a manufacturer's reported accuracy of approximately  $\pm 0.01$  foot.

### Ground-Water Sampling

The monitor wells are sampled in order from the suspected cleanest to the suspected most contaminated. Wells containing measurable accumulations of free-phase product are not sampled. The sampling procedure is as follows.

- The fluid level in the well is measured to the nearest 0.01 foot as described in the ground-water monitoring section above.
- The well volume is calculated.
- A minimum of three standing well volumes are purged from the well. During purging, the temperature, pH and conductivity of each successive well volume removed is recorded. After 3 successive similar readings are obtained for these parameters, indicating stabilization, the ground-water sample is collected.
- The water is purged with and the sample is collected with dedicated polyethylene tubing and a submersible pump. Samples for volatile analyses are collected first, followed by any other required parameters. A minimum of one field blank is collected per sampling day by pouring distilled water or deionized water into the bailer prior to use in a well as a quality control procedure.
- All data are recorded on field sampling sheets and chain of custody forms. Samples are transported to a laboratory following appropriate documentation, preservation and chain of custody procedures.

### Laboratory Analyses

The soil and/or ground-water samples are placed in clean jars supplied by the laboratory, preserved in an ice-filled cooler and shipped along with a chain of custody form via overnight courier to the laboratory.

**APPENDIX II**  
**Field Sampling Data Sheets - October 10, 2006**

**FLUID-LEVEL DATA SHEET**

DATE: 10.10.06

CLIENT NAME: DEZURIK LANDFILL LAGOON #3

CLIENT CODE: 6SARBT

LOCATION: 12 TH ST N, SARTELL, MN

JOB CODE: DESHWL

WEATHER CONDITIONS: CLEAR, 40°

RECORDED BY: CMH

MEASURING DEVICE: SOLINST

WELL	DEPTH TO HYDROCARBON	DEPTH TO WATER	ELEVATION TOC	ELEVATION WATER	PRODUCT THICKNESS	FLOW THROUGH D.O.
P-5R		74.77				0.2
P-9R		77.94				1.6
P-12R		77.01				3.4
P-13		78.70				2.4

**DAILY ACTIVITY LOG**

7:07 DEPARTURE

8:04 ARRIVAL ON SITE

8:05 FLUID LEVELS P-10, P-4, P-8A, P-8B

8:30 SAMPLING - PUMP BLANK, P-13, P-5R, DUPLICATE, P-9R  
P-12R

11:54 COMPLETE SAMPLING

- SEVERAL WELLS FROM SARTELL LANDFILL WILL BE SAMPLED FOR DISS. BORON TODAY AND TOMMORROW AND REPORTED UNDER DEZURIK.

- ALL SAMPLES COLLECTED THROUGH D.C. PUMP AND DEDICATED TUBING

- TUBING LEFT IN EACH WELL ABOVE WATER TABLE

- PUMP BLANK COLLECTED THROUGH PUMP AND TUBING, ALL PARAMETERS

- DUPLICATE SAMPLE P-5R ALL PARAMETERS

- D.O MEASUREMENT "FLOW THROUGH" IN BUCKET ABOVE GRADE NOT DOWNHOLE

12:20 SARTELL WELLS SAMPLING

## GROUND-WATER SAMPLING DATA SHEET

Client Code: 6SARBT

Project Title: DEZURIK LANDFILL LAGOON #3

Job Code: DESHWL

Address: 12TH ST N

Date: 10.10.06

City, State, Zip: SARTELL, MN.

### General Data

### Stabilization Data

Location ID:	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH	D.O. Flow through
P-5R	4.50	1.0	11.0	101	1414	6.66	0.5
Key Number: 10G013	9.00	2.0	11.1	91	1378	6.65	0.4
Casing Diameter (in): 4"	13.00	3.0	11.1	84	1367	6.68	0.2
Well Depth (ft): 81.35 TD TOC							
Depth to water (ft): 74.77							
Column length (ft): 6.58							
Column volume (gal): 4.30							
Total volume purged (gal): 13.00							

### Miscellaneous

Purge Method: DC PUMP

Sampling Method: DC PUMP

Analysis Requested: Dissolved metals, CL, FL, NO3, SO4, COD, Cyanide, Phenols, TOC, TDS, pH, Conductivity

Weather Conditions: P cloudy, 38°

Sample Description: CLEAR NO OOR

Remarks: DUPLICATE SAMPLE - ALL PARAMETERS

Sampler: CMH

Time Sample Collected: 10:15

**Leggette, Brashears & Graham, Inc.**  
8 Pine Tree Drive, Suite 250  
St. Paul, Minnesota 55112

## GROUND-WATER SAMPLING DATA SHEET

Client Code: 6SARBT	Project Title: DEZURIK LANDFILL LAGOON #3
Job Code: DESHWL	Address: 12TH ST N
Date: 10.10.06	City, State, Zip: SARTELL, MN.

General Data	Stabilization Data						
	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH	D.O. Flow through
Location ID: P-9R							
Key Number: 10G013	5.50	1.0	10.8	68	983	7.01	0.4
Casing Diameter (in): 4"	11.00	2.0	10.9	64	984	6.84	1.1
Well Depth (ft): 86.00 TD TOC	16.50	3.0	10.8	59	986	6.84	1.5
Depth to water (ft): 77.94	22.00	4.0	10.8	57	987	6.80	1.6
Column length (ft): 8.06							
Column volume (gal): 5.26							
Total volume purged(gal): 22.00							

### Miscellaneous

Purge Method:	DC PUMP
Sampling Method:	DC PUMP
Analysis Requested:	Dissolved metals, CL, FL, NO3, SO4, COD, Cyanide, Phenols, TOC, TDS, pH, Conductivity
Weather Conditions:	CLEAR 42°
Sample Description:	CLEAR, NO ODDOR
Remarks:	

Sampler: CMH	Time Sample Collected: 10:59
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Leggette, Brashears & Graham, Inc.  
 8 Pine Tree Drive, Suite 250  
 St. Paul, Minnesota 55112



## GROUND-WATER SAMPLING DATA SHEET

Client Code: 6SARBT	Project Title: DEZURIK LANDFILL LAGOON #3
Job Code: DESHWL	Address: 12TH ST N
Date: 10.10.06	City, State, Zip: SARTELL, MN.

General Data	Stabilization Data						
	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH	D.O. Flow through
Location ID: P-12R							
Key Number: 10G013	6.50	1.0	10.8	73	956	6.90	1.2
Casing Diameter (in): 4"	13.00	2.0	10.7	43	955	6.93	3.1
Well Depth (ft): 86.80 TD TOC	19.50	3.0	10.7	38	955	6.89	3.4
Depth to water (ft): 77.01							
Column length (ft): 9.79							
Column volume (gal): 6.39							
Total volume purged(gal): 19.50							

Miscellaneous	
Purge Method:	DC PUMP
Sampling Method:	DC PUMP
Analysis Requested:	Dissolved metals, CL, FL, NO3, SO4, COD, Cyanide, Phenols, TOC, TDS, pH, Conductivity
Weather Conditions:	P. Cloudy, 43°
Sample Description:	CLEAR NO MOOR
Remarks:	

Sampler: CMH	Time Sample Collected: 11:52
--------------	------------------------------

**Leggette, Brashears & Graham, Inc.**  
 8 Pine Tree Drive, Suite 250  
 St. Paul, Minnesota 55112

## GROUND-WATER SAMPLING DATA SHEET

Client Code: 6SARBT	Project Title: DEZURIK LANDFILL LAGOON #3
Job Code: DESHWL	Address: 12TH ST N
Date: 10.10.06	City, State, Zip: SARTELL, MN.

General Data	Stabilization Data						
	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH	D.O. Flow through
Location ID: P-13							
Key Number: 10G013	5.50	1.0	10.6	63	751	7.10	2.4
Casing Diameter (in): 4"	11.00	2.0	10.7	77	751	7.01	2.6
Well Depth (ft): 86.90 TD TOC	16.50	3.0	10.7	76	754	6.99	2.4
Depth to water (ft): 78.70	21.50	4.0	10.7	74	756	6.97	2.4
Column length (ft): 8.20							
Column volume (gal): 5.35							
Total volume purged(gal): 21.50							

### Miscellaneous

Purge Method:	DC PUMP
Sampling Method:	DC PUMP
Analysis Requested:	Dissolved metals, CL, FL, NO3, SO4, COD, Cyanide, Phenols, TOC, TDS, pH, Conductivity
Weather Conditions:	P. Cloudy, 35°
Sample Description:	CLEAR. NO OOR
Remarks:	PUMP BLANK (EQUIPMENT BLANK) COLLECTED BEFORE THIS WELL ALL PARAMETERS (8.33)

Sampler: CMH	Time Sample Collected: 9:23
--------------	-----------------------------

**Leggette, Brashears & Graham, Inc.**  
 8 Pine Tree Drive, Suite 250  
 St. Paul, Minnesota 55112





# CHAIN OF CUSTODY RECORD

SITE I.D.			LABORATORY									
DEZURIK LANDFILL									TEST AMERICA CEDAR FALLS			
SAMPLERS: (Signature) <i>[Signature]</i>			# OF CONTAINERS						REMARKS			
			PRESERVATIVE									
			UNPRESERVED									
			HNO3									
			NaOH									
			H2SO4									
DATE	TIME	COMP	GRAB	SAMPLE LOCATIONS		# OF CONTAINERS	DISOLVED METALS			DATE/TIME		
							CYANIDE	TIC	COD	CHLORIDE-SULFATE	FLUORIDE	
10-10-06	10:15		✓	P.5R		6	X	X	X	X	X	
	10:59		✓	P.9R		6	X	X	X	X	X	
	11:52		✓	P.12R		6	X	X	X	X	X	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
<i>[Signature]</i>	10/10/06 1700	FDEX 850431746306		
<i>[Signature]</i>				
<i>[Signature]</i>				

REPORT TO: TIM KENYON - L3G

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE/TIME
10/10/06 850431 746306			

NOTES/BILLING INFORMATION:  
\*LEGGETTE BRASHEARS & GRAHAM, INC  
1113 EAST 14th ST.  
SIOUX FALLS SD 57104  
605-334-6000

LABORATORY: TEST AMERICA  
CEDAR FALLS

**APPENDIX III**  
**Laboratory Analytical Reports- October 10/11, 2006**



November 01, 2006

NOV - 6 2006

## Client:

LBG - SIOUX FALLS - LANDFILLS  
140 East Hinks Lane, #126  
Sioux Falls, SD 57104

Work Order: CPJ0580  
Project Name: DeZurik Landfill  
Project Number: [none]

Attn: Tim Kenyon

Date Received: 10/11/06

An executed copy of the chain of custody is also included as an addendum to this report

If you have any questions relating to this analytical report please contact your Laboratory Project Manager at 1-(800)750-2401

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
Pump Blank	CPJ0580-01	10/10/06 08:33
P-13	CPJ0580-02	10/10/06 09:23
Duplicate	CPJ0580-03	10/10/06

EPA 335.3 analysis performed at Lab ID: 047-999-345

Samples were received into laboratory at a temperature of 3 °C.

Most environmental analytical testing methods require a sample temperature of 4 degrees C +/- 2 degrees C for preservation of the sample constituents prior to analysis. If sample temperatures are outside of this temperature range at the time of sample receipt results may be impacted. Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

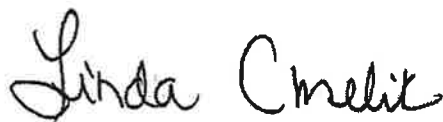
The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted

Minnesota Certification Number: 019-999-319

*Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.*

*TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific sample analyzed.*

Approved By:



TestAmerica - Cedar Falls, IA  
Linda Cmelik  
Project Coordinator

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0580  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MDL	Quan Limit	Dilution Factor	Date Analyzed	Seq/ Analyst	Batch	Method
<b>Sample ID: CPJ0580-01 (Pump Blank - Ground Water)</b>					<b>Sampled: 10/10/06 08:33</b>			<b>Recvd: 10/11/06 09:10</b>		
<b>General Chemistry Parameters</b>										
Chemical Oxygen Demand	4.60	J	mg/L	1.82	5.00	1	10/12/06 14:18	jcf	6100639	SM 5220D
Chloride	2.45	J	mg/L	0.310	5.00	1	10/13/06 10:47	mdk	6100701	SM 4500Cl E
Fluoride	0.361	J	mg/L	0.0650	1.00	1.07	10/20/06 11:06	lbb	6101003	SM 4500F BC
pH	5.2	H3	pH Units	0.1	0.1	1	10/11/06 14:55	lbb	6100593	EPA 150.1
Phenol	<0.00320		mg/L	0.00320	0.0200	0.96	10/18/06 16:06	lbb	6100920	EPA 420.2
Specific conductance	1.26		umhos/cm	0.650	1.00	1	10/11/06 16:00	sas	6100564	SM 2510B
Sulfate	2.72	J	mg/L	1.80	10.0	1	10/30/06 16:36	mdk	6101546	ASTM D516-90
Total Dissolved Solids	20.0		mg/L	9.36	20.0	1	10/12/06 15:00	sas	6100722	SM2540C
Total Organic Carbon	<0.220		mg/L	0.220	1.00	1	10/16/06 16:53	jcf	6100797	SW 9060
Nitrate as N	0.0781	M1,J	mg/L	0.0240	0.100	1	10/11/06 14:10	jcf	6100558	EPA 353.3
<b>Dissolved Metals by SW 846 Series Methods</b>										
Chromium	<0.00270		mg/L	0.00270	0.0200	1	10/18/06 22:37	llw	6100940	SW 6010B
Manganese	0.00378	J	mg/L	0.00130	0.0100	1	10/18/06 22:37	llw	6100940	SW 6010B
Zinc	<0.00290		mg/L	0.00290	0.0200	1	10/18/06 22:37	llw	6100940	SW 6010B
Arsenic	<0.000420		mg/L	0.000420	0.00100	1	10/13/06 16:33	evb	6100724	SW 7060A
Barium	<0.00300		mg/L	0.00300	0.0100	1	10/18/06 22:37	llw	6100940	SW 6010B
Boron	<0.0580		mg/L	0.0580	0.100	1	10/18/06 22:37	llw	6100940	SW 6010B
Cadmium	<0.000130		mg/L	0.000130	0.000500	1	10/12/06 12:19	heh	6100683	SW 7131A
Calcium	0.121	J	mg/L	0.0100	1.00	1	10/18/06 22:37	llw	6100940	SW 6010B
Iron	<0.0320		mg/L	0.0320	0.100	1	10/18/06 22:37	llw	6100940	SW 6010B
Lead	<0.000590		mg/L	0.000590	0.00400	1	10/12/06 18:59	evb	6100664	SW 7421
Magnesium	<0.0210		mg/L	0.0210	1.00	1	10/18/06 22:37	llw	6100940	SW 6010B
Selenium	<0.00220		mg/L	0.00220	0.00500	1	10/11/06 19:54	evb	6100573	SW 7740
Sodium	0.200	J	mg/L	0.0260	1.00	1	10/19/06 15:30	llw	6101098	SW 6010B
<b>General Chemistry Parameters</b>										
Cyanide	<0.0020		mg/L	0.0020	0.0050	1	10/23/06 11:19	SAB	6104062	EPA 335.3
<b>Sample ID: CPJ0580-02 (P-13 - Ground Water)</b>					<b>Sampled: 10/10/06 09:23</b>			<b>Recvd: 10/11/06 09:10</b>		
<b>General Chemistry Parameters</b>										
Chemical Oxygen Demand	6.70		mg/L	1.82	5.00	1	10/12/06 14:18	jcf	6100639	SM 5220D
Chloride	30.2		mg/L	0.310	5.00	1	10/13/06 10:48	mdk	6100701	SM 4500Cl E
Fluoride	0.309	J	mg/L	0.0650	1.00	0.933	10/20/06 11:06	lbb	6101003	SM 4500F BC
pH	7.4	H3	pH Units	0.1	0.1	1	10/11/06 14:55	lbb	6100593	EPA 150.1
Phenol	0.00437	J	mg/L	0.00320	0.0200	0.98	10/18/06 16:07	lbb	6100920	EPA 420.2
Specific conductance	698		umhos/cm	0.650	1.00	1	10/11/06 16:00	sas	6100564	SM 2510B
Sulfate	48.6		mg/L	4.50	25.0	2.5	10/30/06 16:36	mdk	6101546	ASTM D516-90
Total Dissolved Solids	478		mg/L	9.36	20.0	1	10/12/06 15:00	sas	6100722	SM2540C
Total Organic Carbon	0.953	J	mg/L	0.220	1.00	1	10/16/06 17:07	jcf	6100797	SW 9060
Nitrate as N	5.00		mg/L	0.600	2.50	25	10/11/06 14:10	jcf	6100558	EPA 353.3
<b>Dissolved Metals by SW 846 Series Methods</b>										
Chromium	<0.00270		mg/L	0.00270	0.0200	1	10/18/06 22:47	llw	6100940	SW 6010B
Manganese	<0.00130		mg/L	0.00130	0.0100	1	10/18/06 22:47	llw	6100940	SW 6010B
Zinc	0.0267		mg/L	0.00290	0.0200	1	10/18/06 22:47	llw	6100940	SW 6010B
Arsenic	<0.000420		mg/L	0.000420	0.00100	1	10/13/06 16:36	evb	6100724	SW 7060A
Barium	0.0470		mg/L	0.00300	0.0100	1	10/18/06 22:47	llw	6100940	SW 6010B
Boron	<0.0580		mg/L	0.0580	0.100	1	10/18/06 22:47	llw	6100940	SW 6010B
Cadmium	<0.000130		mg/L	0.000130	0.000500	1	10/12/06 12:26	heh	6100683	SW 7131A
Calcium	118	MHA	mg/L	0.0100	1.00	1	10/18/06 22:47	llw	6100940	SW 6010B
Copper	<0.0320		mg/L	0.0320	0.100	1	10/18/06 22:47	llw	6100940	SW 6010B
Lead	<0.000590		mg/L	0.000590	0.00400	1	10/12/06 19:09	evb	6100664	SW 7421

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0580  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MDL	Quan Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: CPJ0580-02 (P-13 - Ground Water) - cont.</b>					<b>Sampled: 10/10/06 09:23</b>			<b>Recvd: 10/11/06 09:10</b>		
Dissolved Metals by SW 846 Series Methods - cont.										
Magnesium	29.7	MHA	mg/L	0.0210	1.00	1	10/18/06 22:47	llw	6100940	SW 6010B
Selenium	<0.00220		mg/L	0.00220	0.00500	1	10/11/06 19:57	evb	6100573	SW 7740
Sodium	5.63		mg/L	0.0260	1.00	1	10/19/06 15:39	llw	6101098	SW 6010B
General Chemistry Parameters										
Cyanide	<0.0020		mg/L	0.0020	0.0050	1	10/23/06 11:19	SAB	6104062	EPA 335.3
<b>Sample ID: CPJ0580-03 (Duplicate - Ground Water)</b>					<b>Sampled: 10/10/06</b>			<b>Recvd: 10/11/06 09:10</b>		
General Chemistry Parameters										
Chemical Oxygen Demand	11.1		mg/L	1.82	5.00	1	10/12/06 14:18	jcf	6100639	SM 5220D
Chloride	51.8		mg/L	0.310	5.00	1	10/13/06 10:51	mdk	6100701	SM 4500Cl E
Fluoride	0.187	J	mg/L	0.0650	1.00	0.933	10/20/06 11:06	lbb	6101003	SM 4500F BC
pH	7.0	H3	pH Units	0.1	0.1	1	10/11/06 14:55	lbb	6100593	EPA 150.1
Phenol	0.00435	J	mg/L	0.00320	0.0200	1.02	10/18/06 16:07	lbb	6100920	EPA 420.2
Specific conductance	1280		umhos/cm	0.650	1.00	1	10/11/06 16:00	sas	6100564	SM 2510B
Sulfate	357		mg/L	30.0	167	16.7	10/30/06 16:36	mdk	6101546	ASTM D516-90
Total Dissolved Solids	976		mg/L	9.36	20.0	1	10/12/06 15:00	sas	6100722	SM2540C
Total Organic Carbon	3.06		mg/L	0.220	1.00	1	10/16/06 17:22	jcf	6100797	SW 9060
Nitrate as N	4.23		mg/L	0.600	2.50	25	10/11/06 14:10	jcf	6100558	EPA 353.3
Dissolved Metals by SW 846 Series Methods										
Chromium	<0.00270		mg/L	0.00270	0.0200	1	10/18/06 23:12	llw	6100940	SW 6010B
Manganese	0.00749	J	mg/L	0.00130	0.0100	1	10/18/06 23:12	llw	6100940	SW 6010B
Zinc	0.0329		mg/L	0.00290	0.0200	1	10/18/06 23:12	llw	6100940	SW 6010B
Arsenic	<0.000420		mg/L	0.000420	0.00100	1	10/13/06 16:39	evb	6100724	SW 7060A
Barium	0.0775		mg/L	0.00300	0.0100	1	10/18/06 23:12	llw	6100940	SW 6010B
Boron	2.15		mg/L	0.0580	0.100	1	10/18/06 23:12	llw	6100940	SW 6010B
Cadmium	<0.000130		mg/L	0.000130	0.000500	1	10/12/06 12:33	heh	6100683	SW 7131A
Calcium	191		mg/L	0.0100	1.00	1	10/18/06 23:12	llw	6100940	SW 6010B
Iron	<0.0320		mg/L	0.0320	0.100	1	10/18/06 23:12	llw	6100940	SW 6010B
Lead	<0.000590		mg/L	0.000590	0.00400	1	10/12/06 19:12	evb	6100664	SW 7421
Magnesium	57.4		mg/L	0.0210	1.00	1	10/18/06 23:12	llw	6100940	SW 6010B
Selenium	<0.00220		mg/L	0.00220	0.00500	1	10/11/06 20:01	evb	6100573	SW 7740
Sodium	50.0		mg/L	0.0260	1.00	1	10/19/06 16:02	llw	6101098	SW 6010B
General Chemistry Parameters										
Cyanide	<0.0020		mg/L	0.0020	0.0050	1	10/23/06 11:19	SAB	6104062	EPA 335.3

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0580  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Dup Result	% REC	Dup %REC	REC Limits	RPD RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>												
Nitrate as N	6100558		mg/L	0.0240	0.100	<0.0240						
Chemical Oxygen Demand	6100639		mg/L	1.82	5.00	<1.82						
Chloride	6100701		mg/L	0.310	5.00	2.25						J
Total Dissolved Solids	6100722		mg/L	9.36	20.0	10.0						J
Total Organic Carbon	6100797		mg/L	0.220	1.00	<0.220						
Phenol	6100920		mg/L	0.00320	0.0200	<0.00320						
Fluoride	6101003		mg/L	0.0650	1.00	0.207						J
Sulfate	6101546		mg/L	1.80	10.0	<1.80						
<b>Dissolved Metals by SW 846 Series Methods</b>												
Selenium	6100573		mg/L	0.00220	0.00500	<0.00220						
Lead	6100664		mg/L	0.000590	0.00400	<0.000590						
Cadmium	6100683		mg/L	0.0001300	0.000500	<0.0001300						
Arsenic	6100724		mg/L	0.000420	0.00100	<0.000420						
Chromium	6100940		mg/L	0.00270	0.0200	<0.00270						
Manganese	6100940		mg/L	0.000890	0.0100	<0.000890						
Zinc	6100940		mg/L	0.00290	0.0200	<0.00290						
Barium	6100940		mg/L	0.00300	0.0100	<0.00300						
Boron	6100940		mg/L	0.0580	0.100	<0.0580						
Calcium	6100940		mg/L	0.0100	1.00	0.0231						J
Iron	6100940		mg/L	0.0320	0.100	<0.0320						
Magnesium	6100940		mg/L	0.0210	1.00	<0.0210						
Sodium	6101098		mg/L	0.0260	1.00	<0.0260						
<b>General Chemistry Parameters</b>												
Cyanide	6104062		mg/L	0.0020	0.0050	<0.0020						

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0580  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>												
QC Source Sample: CPJ0580-01												
Specific conductance	6100564	1.26	umhos/cm	0.650	1.00	1.210				4	10	
QC Source Sample: CPJ0584-01												
Specific conductance	6100564	2030	umhos/cm	0.650	1.00	2000				1	10	
QC Source Sample: CPJ0539-01												
pH	6100593	5.8	pH Units	0.1	0.1	5.8				0	10	
QC Source Sample: CPJ0580-01												
pH	6100593	5.2	pH Units	0.1	0.1	5.2				0	10	
QC Source Sample: CPJ0582-04												
pH	6100593	7.5	pH Units	0.1	0.1	7.5				0	10	
QC Source Sample: CPJ0555-02												
Total Dissolved Solids	6100722	930	mg/L	9.36	20.0	980				5	20	
QC Source Sample: CPJ0582-02												
Total Dissolved Solids	6100722	872	mg/L	9.36	20.0	882				1	20	
<b>Dissolved Metals by SW 846 Series Methods</b>												
QC Source Sample: CPJ0441-01												
Selenium	6100573	<0.0022	mg/L	0.00220	0.00500	<0.00220					20	
QC Source Sample: CPJ0402-07												
Lead	6100664	<0.00059	mg/L	0.000590	0.00400	<0.000590					20	
QC Source Sample: CPJ0581-02												
Lead	6100664	<0.00059	mg/L	0.000590	0.00400	<0.000590					20	
QC Source Sample: CPJ0580-01												
Cadmium	6100683	<0.00013	mg/L	0.000130	0.000500	<0.000130					20	
QC Source Sample: CPJ0584-01												
Cadmium	6100683	<0.00013	mg/L	0.000130	0.000500	<0.000130					20	
QC Source Sample: CPJ0581-02												
Arsenic	6100724	<0.00042	mg/L	0.000420	0.00100	0.0291					15	
QC Source Sample: CPJ0580-01												
Chromium	6100940	<0.0027	mg/L	0.00270	0.0200	<0.00270					10	
Manganese	6100940	0.00378	mg/L	0.000890	0.0100	0.00361				5	15	J
Zinc	6100940	<0.0029	mg/L	0.00480	0.0200	<0.00480					20	
Barium	6100940	<0.0030	mg/L	0.00300	0.0100	<0.00300					20	
Boron	6100940	<0.058	mg/L	0.0580	0.100	<0.0580					20	
Calcium	6100940	0.121	mg/L	0.0100	1.00	0.111				9	20	J
Iron	6100940	<0.032	mg/L	0.0320	0.100	<0.0320					15	
Magnesium	6100940	<0.021	mg/L	0.0210	1.00	<0.0210					15	
QC Source Sample: CPJ0584-01												
Chromium	6100940	<0.0027	mg/L	0.00270	0.0200	<0.00270					10	
Manganese	6100940	0.0200	mg/L	0.000890	0.0100	0.0207				3	15	
Zinc	6100940	0.0367	mg/L	0.00480	0.0200	0.0357				3	20	
Barium	6100940	0.0207	mg/L	0.00300	0.0100	0.0208				1	20	
Boron	6100940	5.89	mg/L	0.0580	0.100	5.89				0	20	
Calcium	6100940	303	mg/L	0.0100	1.00	306				1	20	
Iron	6100940	<0.032	mg/L	0.0320	0.100	<0.0320					15	
Magnesium	6100940	121	mg/L	0.0210	1.00	121				0	15	
QC Source Sample: CPJ0580-01												
Sodium	6101098	0.200	mg/L	0.0260	1.00	0.224				11	10	J

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0580  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

### LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Dissolved Metals by SW 846 Series Methods</b>												
<b>IC Source Sample: CPJ0584-01</b>												
Sodium	6101098	63.7	mg/L	0.0260	1.00	63.4				1	10	
<b>General Chemistry Parameters</b>												
<b>IC Source Sample: NPJ2602-02</b>												
Cyanide	6104062	0.0164	mg/L	0.0020	0.0050	0.0150				9	50	



LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0580  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Dup Result	% REC	Dup %REC	%REC Limits	RPD RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>												
Nitrate as N	6100558	7.06	mg/L	0.600	2.50	6.81	96		90-110			
Specific conductance	6100564	464.0	umhos/cm	N/A	N/A	442.0	95		85-115			
pH	6100593	7.00	pH Units	N/A	N/A	7.0	100		98-102			
Chemical Oxygen Demand	6100639	250	mg/L	3.64	10.0	251	100		90-110			
Chloride	6100701	99.1	mg/L	0.310	5.00	105	106		90-110			
Total Dissolved Solids	6100722	1000	mg/L	N/A	N/A	996	100		90-110			
Total Organic Carbon	6100797	20.3	mg/L	0.880	4.00	19.1	94		85-110			
Phenol	6100920	0.100	mg/L	0.00320	0.0200	0.108	108		90-110			
Fluoride	6101003	15.0	mg/L	0.0650	1.00	13.6	91		80-110			
Sulfate	6101546	16.6	mg/L	1.80	10.0	18.0	108		85-120			
<b>Dissolved Metals by SW 846 Series Methods</b>												
Selenium	6100573	0.0656	mg/L	0.00220	0.00500	0.0640	98		80-115			
Lead	6100664	0.0439	mg/L	0.000590	0.00400	0.0441	100		85-115			
Cadmium	6100683	0.0268	mg/L	0.0001300	0.000500	0.0258	96		80-120			
Arsenic	6100724	0.0407	mg/L	0.000420	0.00100	0.0415	102		80-120			
Chromium	6100940	2.00	ug/mL	N/A	N/A	1.98	99		85-110			
Manganese	6100940	2.00	ug/mL	N/A	N/A	1.98	99		85-110			
Zinc	6100940	2.00	ug/mL	N/A	N/A	1.99	100		85-110			
Barium	6100940	2.00	ug/mL	N/A	N/A	1.98	99		85-115			
Boron	6100940	2.00	ug/mL	N/A	N/A	2.08	104		85-110			
Calcium	6100940	10.0	ug/mL	N/A	N/A	10.0	100		85-115			
Iron	6100940	10.0	ug/mL	N/A	N/A	9.87	99		85-115			
Magnesium	6100940	10.0	ug/mL	N/A	N/A	10.1	101		85-115			
Sodium	6101098	50.0	ug/mL	N/A	N/A	48.8	98		90-120			
<b>General Chemistry Parameters</b>												
Cyanide	6104062	0.100	ug/mL	N/A	N/A	0.0979	98		90-110			

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
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 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Dup Result	% Result	Dup %REC	% REC	REC Limits	RPD RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>													
<b>QC Source Sample: CPJ0580-01</b>													
Nitrate as N	6100558	0.0781 0.200	mg/L	0.0240	0.100	0.222	0.231	72	76	75-125	4	15	M1
<b>QC Source Sample: CPJ0541-01</b>													
Chemical Oxygen Demand	6100639	8.70 50.0	mg/L	1.82	5.00	60.0	57.0	103	97	75-125	5	20	
<b>QC Source Sample: CPJ0541-04</b>													
Chloride	6100701	8.12 25.0	mg/L	0.310	5.00	32.6	32.5	98	98	90-110	0	20	
<b>QC Source Sample: CPJ0617-04</b>													
Total Organic Carbon	6100797	8.10 5.00	mg/L	0.220	1.00	13.2	14.5	102	128	75-125	9	20	M1
<b>QC Source Sample: CPJ0541-12</b>													
Phenol	6100920	0.00490 0.100	mg/L	0.00320	0.0200	0.106	0.117	101	112	90-110	10	15	M1
<b>QC Source Sample: CPJ0646-01</b>													
Fluoride	6101003	157 25.0	mg/L	0.959	14.8	201	200	176	172	75-125	1	20	M1
<b>QC Source Sample: CPJ0884-07</b>													
Sulfate	6101546	843 667	mg/L	120	667	1450	1470	91	94	75-125	1	15	
<b>General Chemistry Parameters</b>													
<b>QC Source Sample: NPJ1415-03</b>													
Cyanide	6104062	0.000900 0.100	ug/mL	N/A	N/A	0.1036	0.1007	103	100	27-148	3	50	

LBG - SIOUX FALLS - LANDFILLS  
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 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

**OTHER**

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Dup Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Dissolved Metals by SW 846 Series Methods</b>													
QC Source Sample: CPJ0441-02													
Selenium	6100573	0.000939	0.0238	ug/mL	N/A	N/A	0.0217	87		75-125			
QC Source Sample: CPJ0441-01													
Lead	6100664	-0.000431	0.0227	ug/mL	N/A	N/A	0.0224	101		75-125			
QC Source Sample: CPJ0581-03													
Lead	6100664	-0.000495	0.0227	ug/mL	N/A	N/A	0.0232	104		75-125			
QC Source Sample: CPJ0580-02													
Cadmium	6100683	0.000035	0.0011	ug/mL	N/A	N/A	0.00106	92		75-120			
QC Source Sample: CPJ0584-02													
Cadmium	6100683	0.000168	0.0011	ug/mL	N/A	N/A	0.00120	87		75-120			
QC Source Sample: CPJ0581-01													
Arsenic	6100724	0.000015	0.0227	ug/mL	N/A	N/A	0.0266	117		75-125			
QC Source Sample: CPJ0580-02													
Chromium	6100940	-0.000580	0.962	ug/mL	N/A	N/A	0.973	101		85-115			
Manganese	6100940	0.000461	0.962	ug/mL	N/A	N/A	0.974	101		80-120			
Zinc	6100940	0.0267	0.962	ug/mL	N/A	N/A	1.00	101		80-125			
Barium	6100940	0.0470	0.962	ug/mL	N/A	N/A	1.04	103		75-120			
Boron	6100940	0.0392	1.92	ug/mL	N/A	N/A	2.05	105		75-125			
Calcium	6100940	118	1.92	ug/mL	N/A	N/A	116	-104		75-125			MHA
Iron	6100940	0.0120	1.92	ug/mL	N/A	N/A	1.92	99		75-125			
Magnesium	6100940	29.7	1.92	ug/mL	N/A	N/A	30.6	47		75-125			MHA
QC Source Sample: CPJ0584-02													
Chromium	6100940	0.000204	0.962	ug/mL	N/A	N/A	0.963	100		85-115			
Manganese	6100940	0.00456	0.962	ug/mL	N/A	N/A	0.969	100		80-120			
Zinc	6100940	0.100	0.962	ug/mL	N/A	N/A	1.07	101		80-125			
Barium	6100940	0.0694	0.962	ug/mL	N/A	N/A	1.05	102		75-120			
Boron	6100940	0.853	1.92	ug/mL	N/A	N/A	2.76	99		75-125			
Calcium	6100940	152	1.92	ug/mL	N/A	N/A	147	-260		75-125			MHA
Iron	6100940	0.0855	1.92	ug/mL	N/A	N/A	2.00	100		75-125			
Magnesium	6100940	43.1	1.92	ug/mL	N/A	N/A	43.2	5		75-125			MHA
QC Source Sample: CPJ0580-02													
Sodium	6101098	5.63	2.88	ug/mL	N/A	N/A	8.26	91		75-125			
QC Source Sample: CPJ0584-02													
Sodium	6101098	34.3	2.88	ug/mL	N/A	N/A	35.1	28		75-125			MHA

LBG - SIOUX FALLS - LANDFILLS

140 East Hinks Lane, #126

Sioux Falls, SD 57104

Tim Kenyon

Work Order: CPJ0580

Project: DeZurik Landfill

Project Number: [none]

Received: 10/11/06

Reported: 11/01/06 16:07

## CERTIFICATION SUMMARY

### TestAmerica - Cedar Falls, IA

Method	Matrix	Nelac	Minnesota
ASTM D516-90	Water - NonPotable	X	X
EPA 150.1	Water - NonPotable	X	
EPA 335.3	Water - NonPotable	X	
EPA 353.3	Water - NonPotable	X	X
EPA 420.2	Water - NonPotable	X	X
SM 2510B	Water - NonPotable	X	X
SM 4500CI E	Water - NonPotable	X	X
SM 4500F BC	Water - NonPotable	X	
SM 5220D	Water - NonPotable	X	X
SM2540C	Water - NonPotable	X	X
SW 6010B	Water - NonPotable	X	X
SW 7060A	Water - NonPotable	X	X
SW 7131A	Water - NonPotable	X	X
SW 7421	Water - NonPotable	X	X
SW 7740	Water - NonPotable	X	X
SW 9060	Water - NonPotable	X	

### Subcontracted Laboratories

TestAmerica Analytical Testing Corp.- Nashville NELAC Cert #87358, Illinois Cert #001366, Iowa Cert #131, Kansas Cert #E-10229, Minnesota Cert #047-999-345, Wisconsin Cert #998020436

2960 Foster Creighton Dr. - Nashville, TN 37204

Method Performed: EPA 335.3

Samples: CPJ0580-01, CPJ0580-02, CPJ0580-03

*Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.*

*For information concerning certifications of this facility or another TestAmerica facility, please visit our website at [www.TestAmericaInc.com](http://www.TestAmericaInc.com)*

*Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF09-01.*

## DATA QUALIFIERS AND DEFINITIONS

- H3** Sample was received and analyzed past holding time
- J** Analyte detected at a level less than the Reporting Limit(RL) and greater than or equal to the Method Detection Limit(MDL). Concentrations within this range are estimated
- M1** The MS and/or MSD were outside control limits.
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information

## ADDITIONAL COMMENTS

TestAmerica - Cedar Falls, IA  
Linda Cmelik  
Project Coordinator

**CHAIN OF CUSTODY RECORD**

SITE I.D.	SAMPLER(S)					# OF CONTAINERS	PRESERVATIVE	LABORATORY				
	DATE	TIME	COMP	GRAB	SAMPLE LOCATIONS			UNPRESERVED	NaOH	H <sub>2</sub> SO <sub>4</sub>	PH, TDS, Conductivity	LABORATORY
DEZURIK LANDFILL											TEST AMERICA	
<i>[Signature]</i>											CEONAE FALLS	
	10-10-06	8:33	<input checked="checked" type="checkbox"/>	-	PUMP BLANK	6	2	1	1	2		
	↓	9:23	<input checked="checked" type="checkbox"/>	✓	P-13	6	2	1	1	2		
			<input checked="checked" type="checkbox"/>	✓	DUPLICATE	6	2	1	1	2		

RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: 10/10/06 11:00	RECEIVED BY: <i>[Signature]</i>	DATE/TIME: <i>[Blank]</i>	RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: <i>[Blank]</i>	RECEIVED BY: <i>[Signature]</i>
RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: <i>[Blank]</i>	RECEIVED BY: <i>[Signature]</i>	DATE/TIME: <i>[Blank]</i>	REPORT TO: TIM KENYON - LAB		
RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: <i>[Blank]</i>	RECEIVED FOR LABORATORY BY: <i>[Signature]</i>	DATE/TIME: 10/10/06 9:10	NOTES/BILLING INFORMATION: LEGGETTE, BRASHEARS & GRAHAM, INC. 1113 EAST 14th ST. SIOUX FALLS SD 57104 605-334-6000		

## Sample Receipt and Temperature Log Form

Client: LBG Project: DEZURIK Landfill

City: ST PAUL

Date: 10-11-06 Receiver's Initials CH Time (Delivered): 9:10

### Temperature Record

<b>Cooler ID# (If Applicable)</b> <u>JPH-4</u>
<u>3° °C</u> <b>On Ice</b>

### Thermometer:

- IR - 905085 "A"
- IR - 809065 "B"
- CF07-03-T2
- 22126775

### Courier:

<input type="checkbox"/> Airborne	<input type="checkbox"/> Speedy
<input type="checkbox"/> UPS	<input type="checkbox"/> TA Courier
<input type="checkbox"/> Velocity	<input type="checkbox"/> TA Field Svcs
<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> Client
<input type="checkbox"/> DHL	<input type="checkbox"/> Other
<input type="checkbox"/> US Postal	

Temp Blank

Temperature out of compliance

Custody seals present?

Yes

Custody seals intact?

Yes  No

Non-Conformance report started

### Exceptions Noted

<input type="checkbox"/> Sample(s) not received in a cooler.
<input type="checkbox"/> Samples(s) received same day of sampling.
<input type="checkbox"/> Evidence of a chilling process
<input type="checkbox"/> Temperature not taken:

Log-In by:

CW MF EM

OT \_\_\_\_\_



November 01, 2006

NOV - 6 2006

**Client:**

LBG - SIOUX FALLS - LANDFILLS  
140 East Hinks Lane, #126  
Sioux Falls, SD 57104

Work Order: CPJ0581  
Project Name: DeZurik Landfill  
Project Number: [none]

**Attn:** Tim Kenyon**Date Received:** 10/11/06

An executed copy of the chain of custody is also included as an addendum to this report

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

**SAMPLE IDENTIFICATION****LAB NUMBER****COLLECTION DATE AND TIME**

P-5R	CPJ0581-01	10/10/06 10:15
P-9R	CPJ0581-02	10/10/06 10:59
P-12R	CPJ0581-03	10/10/06 11:52

EPA 335.3 analysis performed at Lab ID: 047-999-345

**Samples were received into laboratory at a temperature of 3 °C.**

Most environmental analytical testing methods require a sample temperature of 4 degrees C +/- 2 degrees C for preservation of the sample constituents prior to analysis. If sample temperatures are outside of this temperature range at the time of sample receipt results may be impacted. Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

Minnesota Certification Number: 019-999-319

*Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.*

*TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific sample analyzed.*

**Approved By:**

**TestAmerica - Cedar Falls, IA**  
Linda Cmelik  
Project Coordinator

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0581  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MDL	Quan Limit	Dilution Factor	Date Analyzed	Seq/ Analyst	Batch	Method
<b>Sample ID: CPJ0581-01 (P-5R - Ground Water)</b>							<b>Sampled: 10/10/06 10:15</b>	<b>Recvd: 10/11/06 08:45</b>		
General Chemistry Parameters										
Chemical Oxygen Demand	11.3		mg/L	1.82	5.00	1	10/12/06 14:18	jcf	6100639	SM 5220D
Chloride	51.6		mg/L	0.310	5.00	1	10/13/06 10:52	mdk	6100701	SM 4500CI E
Fluoride	0.387	J	mg/L	0.0650	1.00	1	10/20/06 11:06	lbb	6101003	SM 4500F BC
pH	7.0	H3	pH Units	0.1	0.1	1	10/11/06 14:55	lbb	6100593	EPA 150.1
Phenol	0.00601	J	mg/L	0.00320	0.0200	0.96	10/18/06 16:08	lbb	6100920	EPA 420.2
Specific conductance	1240		umhos/cm	0.650	1.00	1	10/11/06 16:00	sas	6100564	SM 2510B
Sulfate	350		mg/L	30.0	167	16.7	10/30/06 16:36	mdk	6101546	ASTM D516-90
Total Dissolved Solids	966		mg/L	9.36	20.0	1	10/12/06 15:00	sas	6100722	SM2540C
Total Organic Carbon	3.05		mg/L	0.220	1.00	1	10/16/06 17:36	jcf	6100797	SW 9060
Nitrate as N	4.32		mg/L	0.600	2.50	25	10/11/06 14:10	jcf	6100558	EPA 353.3
Dissolved Metals by SW 846 Series Methods										
Chromium	<0.00270		mg/L	0.00270	0.0200	1	10/18/06 23:17	llw	6100940	SW 6010B
Manganese	0.00659	J	mg/L	0.00130	0.0100	1	10/18/06 23:17	llw	6100940	SW 6010B
Zinc	0.0342		mg/L	0.00290	0.0200	1	10/18/06 23:17	llw	6100940	SW 6010B
Arsenic	<0.000420		mg/L	0.000420	0.00100	1	10/13/06 16:43	evb	6100724	SW 7060A
Barium	0.0767		mg/L	0.00300	0.0100	1	10/18/06 23:17	llw	6100940	SW 6010B
Boron	2.17		mg/L	0.0580	0.100	1	10/18/06 23:17	llw	6100940	SW 6010B
Cadmium	<0.000130		mg/L	0.000130	0.000500	1	10/12/06 12:36	heh	6100683	SW 7131A
Calcium	193		mg/L	0.0100	1.00	1	10/18/06 23:17	llw	6100940	SW 6010B
Iron	<0.0320		mg/L	0.0320	0.100	1	10/18/06 23:17	llw	6100940	SW 6010B
Lead	<0.000590		mg/L	0.000590	0.00400	1	10/12/06 19:15	evb	6100664	SW 7421
Magnesium	57.6		mg/L	0.0210	1.00	1	10/18/06 23:17	llw	6100940	SW 6010B
Selenium	<0.00220		mg/L	0.00220	0.00500	1	10/11/06 20:04	evb	6100573	SW 7740
Sodium	49.7		mg/L	0.0260	1.00	1	10/19/06 16:07	llw	6101098	SW 6010B
General Chemistry Parameters										
Cyanide	<0.0020		mg/L	0.0020	0.0050	1	10/23/06 11:19	SAB	6104062	EPA 335.3
<b>Sample ID: CPJ0581-02 (P-9R - Ground Water)</b>							<b>Sampled: 10/10/06 10:59</b>	<b>Recvd: 10/11/06 08:45</b>		
General Chemistry Parameters										
Chemical Oxygen Demand	9.20		mg/L	1.82	5.00	1	10/12/06 14:18	jcf	6100639	SM 5220D
Chloride	47.4		mg/L	0.310	5.00	1	10/13/06 10:53	mdk	6100701	SM 4500CI E
Fluoride	0.135	J	mg/L	0.0585	0.900	0.9	10/20/06 11:06	lbb	6101003	SM 4500F BC
pH	7.1	H3	pH Units	0.1	0.1	1	10/11/06 14:55	lbb	6100593	EPA 150.1
Phenol	0.00708	J	mg/L	0.00320	0.0200	0.96	10/18/06 16:09	lbb	6100920	EPA 420.2
Specific conductance	909		umhos/cm	0.650	1.00	1	10/11/06 16:00	sas	6100564	SM 2510B
Sulfate	113		mg/L	9.00	50.0	5	10/30/06 16:36	mdk	6101546	ASTM D516-90
Total Dissolved Solids	634		mg/L	9.36	20.0	1	10/12/06 15:00	sas	6100722	SM2540C
Total Organic Carbon	1.85		mg/L	0.220	1.00	1	10/16/06 17:51	jcf	6100797	SW 9060
Nitrate as N	4.70		mg/L	0.600	2.50	25	10/11/06 14:10	jcf	6100558	EPA 353.3
Dissolved Metals by SW 846 Series Methods										
Chromium	<0.00270		mg/L	0.00270	0.0200	1	10/18/06 23:22	llw	6100940	SW 6010B
Manganese	0.0366		mg/L	0.00130	0.0100	1	10/18/06 23:22	llw	6100940	SW 6010B
Zinc	0.0294		mg/L	0.00290	0.0200	1	10/18/06 23:22	llw	6100940	SW 6010B
Arsenic	<0.000420		mg/L	0.000420	0.00100	1	10/13/06 16:47	evb	6100724	SW 7060A
Barium	0.0782		mg/L	0.00300	0.0100	1	10/18/06 23:22	llw	6100940	SW 6010B
Boron	0.0957	J	mg/L	0.0580	0.100	1	10/18/06 23:22	llw	6100940	SW 6010B
Cadmium	0.000301	J	mg/L	0.000130	0.000500	1	10/12/06 12:46	heh	6100683	SW 7131A
Calcium	151		mg/L	0.0100	1.00	1	10/18/06 23:22	llw	6100940	SW 6010B
Iron	<0.0320		mg/L	0.0320	0.100	1	10/18/06 23:22	llw	6100940	SW 6010B
Lead	<0.000590		mg/L	0.000590	0.00400	1	10/12/06 19:18	evb	6100664	SW 7421

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0581  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MDL	Quan Limit	Dilution Factor	Date Analyzed	Seq/ Analyst	Batch	Method
<b>Sample ID: CPJ0581-02 (P-9R - Ground Water) - cont.</b>					<b>Sampled: 10/10/06 10:59</b>			<b>Recvd: 10/11/06 08:45</b>		
Dissolved Metals by SW 846 Series Methods - cont.										
Magnesium	42.0		mg/L	0.0210	1.00	1	10/18/06 23:22	llw	6100940	SW 6010B
Selenium	<0.00220		mg/L	0.00220	0.00500	1	10/11/06 20:07	evb	6100573	SW 7740
Iodine	12.1		mg/L	0.0260	1.00	1	10/19/06 16:12	llw	6101098	SW 6010B
General Chemistry Parameters										
Cyanide	<0.0020		mg/L	0.0020	0.0050	1	10/23/06 11:19	SAB	6104062	EPA 335.3
<b>Sample ID: CPJ0581-03 (P-12R - Ground Water)</b>					<b>Sampled: 10/10/06 11:52</b>			<b>Recvd: 10/11/06 08:45</b>		
General Chemistry Parameters										
Chemical Oxygen Demand	9.70		mg/L	1.82	5.00	1	10/12/06 14:18	jcf	6100639	SM 5220D
Chloride	50.5		mg/L	0.310	5.00	1	10/13/06 10:53	mdk	6100701	SM 4500CI E
Fluoride	0.0986	J	mg/L	0.0650	1.00	1.05	10/20/06 11:06	lbb	6101003	SM 4500F BC
pH	7.3	H3	pH Units	0.1	0.1	1	10/11/06 14:55	lbb	6100593	EPA 150.1
Phenol	0.00325	J	mg/L	0.00320	0.0200	0.96	10/18/06 16:10	lbb	6100920	EPA 420.2
Specific conductance	903		umhos/cm	0.650	1.00	1	10/11/06 16:00	sas	6100564	SM 2510B
Sulfate	112		mg/L	10.6	58.8	5.88	10/30/06 16:36	mdk	6101546	ASTM D516-90
Total Dissolved Solids	622		mg/L	9.36	20.0	1	10/12/06 15:00	sas	6100722	SM2540C
Total Organic Carbon	1.72		mg/L	0.220	1.00	1	10/16/06 18:05	jcf	6100797	SW 9060
Nitrate as N	5.06		mg/L	0.600	2.50	25	10/11/06 14:10	jcf	6100558	EPA 353.3
Dissolved Metals by SW 846 Series Methods										
Chromium	<0.00270		mg/L	0.00270	0.0200	1	10/18/06 23:27	llw	6100940	SW 6010B
Manganese	0.0106		mg/L	0.00130	0.0100	1	10/18/06 23:27	llw	6100940	SW 6010B
Zinc	0.0281		mg/L	0.00290	0.0200	1	10/18/06 23:27	llw	6100940	SW 6010B
Arsenic	<0.000420		mg/L	0.000420	0.00100	1	10/13/06 16:54	evb	6100725	SW 7060A
Barium	0.0647		mg/L	0.00300	0.0100	1	10/18/06 23:27	llw	6100940	SW 6010B
Boron	0.104		mg/L	0.0580	0.100	1	10/18/06 23:27	llw	6100940	SW 6010B
Cadmium	<0.000130		mg/L	0.000130	0.000500	1	10/12/06 12:49	heh	6100683	SW 7131A
Calcium	142		mg/L	0.0100	1.00	1	10/18/06 23:27	llw	6100940	SW 6010B
Iron	0.151		mg/L	0.0320	0.100	1	10/18/06 23:27	llw	6100940	SW 6010B
Lead	<0.000590		mg/L	0.000590	0.00400	1	10/12/06 19:25	evb	6100664	SW 7421
Magnesium	37.9		mg/L	0.0210	1.00	1	10/18/06 23:27	llw	6100940	SW 6010B
Selenium	<0.00220		mg/L	0.00220	0.00500	1	10/11/06 20:11	evb	6100573	SW 7740
Sodium	19.6		mg/L	0.0260	1.00	1	10/19/06 16:16	llw	6101098	SW 6010B
General Chemistry Parameters										
Cyanide	<0.0020		mg/L	0.0020	0.0050	1	10/23/06 11:19	SAB	6104062	EPA 335.3

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0581  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Dup Result	% REC	Dup %REC	% REC	RPD Limits	RPD Limit	Q
<b>General Chemistry Parameters</b>												
Nitrate as N	6100558		mg/L	0.0240	0.100	<0.0240						
Chemical Oxygen Demand	6100639		mg/L	1.82	5.00	<1.82						
Chloride	6100701		mg/L	0.310	5.00	2.25						J
Total Dissolved Solids	6100722		mg/L	9.36	20.0	10.0						J
Total Organic Carbon	6100797		mg/L	0.220	1.00	<0.220						
Phenol	6100920		mg/L	0.00320	0.0200	<0.00320						
Fluoride	6101003		mg/L	0.0650	1.00	0.207						J
sulfate	6101546		mg/L	1.80	10.0	<1.80						
<b>Dissolved Metals by SW 846 Series Methods</b>												
Selenium	6100573		mg/L	0.00220	0.00500	<0.00220						
Lead	6100664		mg/L	0.000590	0.00400	<0.000590						
Cadmium	6100683		mg/L	0.000130	0.000500	<0.000130						
Arsenic	6100724		mg/L	0.000420	0.00100	<0.000420						
Arsenic	6100725		mg/L	0.000420	0.00100	<0.000420						
Chromium	6100940		mg/L	0.00270	0.0200	<0.00270						
Manganese	6100940		mg/L	0.000890	0.0100	<0.000890						
Zinc	6100940		mg/L	0.00290	0.0200	<0.00290						
Barium	6100940		mg/L	0.00300	0.0100	<0.00300						
Boron	6100940		mg/L	0.0580	0.100	<0.0580						
Calcium	6100940		mg/L	0.0100	1.00	0.0231						J
Iron	6100940		mg/L	0.0320	0.100	<0.0320						
Magnesium	6100940		mg/L	0.0210	1.00	<0.0210						
Sodium	6101098		mg/L	0.0260	1.00	<0.0260						
<b>General Chemistry Parameters</b>												
Cyanide	6104062		mg/L	0.0020	0.0050	<0.0020						

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## LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>												
QC Source Sample: CPJ0580-01												
Specific conductance	6100564	1.26	umhos/cm	0.650	1.00	1.210				4	10	
QC Source Sample: CPJ0584-01												
Specific conductance	6100564	2030	umhos/cm	0.650	1.00	2000				1	10	
QC Source Sample: CPJ0539-01												
pH	6100593	5.8	pH Units	0.1	0.1	5.8				0	10	
QC Source Sample: CPJ0580-01												
pH	6100593	5.2	pH Units	0.1	0.1	5.2				0	10	
QC Source Sample: CPJ0582-04												
pH	6100593	7.5	pH Units	0.1	0.1	7.5				0	10	
QC Source Sample: CPJ0555-02												
Total Dissolved Solids	6100722	930	mg/L	9.36	20.0	980				5	20	
QC Source Sample: CPJ0582-02												
Total Dissolved Solids	6100722	872	mg/L	9.36	20.0	882				1	20	
<b>Dissolved Metals by SW 846 Series Methods</b>												
QC Source Sample: CPJ0441-01												
Selenium	6100573	<0.0022	mg/L	0.00220	0.00500	<0.00220					20	
QC Source Sample: CPJ0402-07												
Lead	6100664	<0.00059	mg/L	0.000590	0.00400	<0.000590					20	
QC Source Sample: CPJ0581-02												
Lead	6100664	<0.00059	mg/L	0.000590	0.00400	<0.000590					20	
QC Source Sample: CPJ0580-01												
Cadmium	6100683	<0.00013	mg/L	0.0001300	0.000500	<0.0001300					20	
QC Source Sample: CPJ0584-01												
Cadmium	6100683	<0.00013	mg/L	0.0001300	0.000500	<0.0001300					20	
QC Source Sample: CPJ0581-02												
Arsenic	6100724	<0.00042	mg/L	0.0004200	0.00100	0.0291					15	
QC Source Sample: CPJ0581-03												
Arsenic	6100725	<0.00042	mg/L	0.0004200	0.00100	<0.0004200					15	
QC Source Sample: CPJ0580-01												
Chromium	6100940	<0.0027	mg/L	0.00270	0.0200	<0.00270					10	
Manganese	6100940	0.00378	mg/L	0.0008900	0.0100	0.00361				5	15	J
Cobalt	6100940	<0.0029	mg/L	0.00480	0.0200	<0.00480					20	
Barium	6100940	<0.0030	mg/L	0.00300	0.0100	<0.00300					20	
Strontium	6100940	<0.058	mg/L	0.0580	0.100	<0.0580					20	
Calcium	6100940	0.121	mg/L	0.0100	1.00	0.111				9	20	J
Iron	6100940	<0.032	mg/L	0.0320	0.100	<0.0320					15	
Magnesium	6100940	<0.021	mg/L	0.0210	1.00	<0.0210					15	
QC Source Sample: CPJ0584-01												
Chromium	6100940	<0.0027	mg/L	0.00270	0.0200	<0.00270					10	
Manganese	6100940	0.0200	mg/L	0.0008900	0.0100	0.0207				3	15	
Zinc	6100940	0.0367	mg/L	0.00480	0.0200	0.0357				3	20	
Strontium	6100940	0.0207	mg/L	0.00300	0.0100	0.0208				1	20	
Strontium	6100940	5.89	mg/L	0.0580	0.100	5.89				0	20	
Calcium	6100940	303	mg/L	0.0100	1.00	306				1	20	
Strontium	6100940	<0.032	mg/L	0.0320	0.100	<0.0320					15	
Magnesium	6100940	121	mg/L	0.0210	1.00	121				0	15	

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Work Order: CPJ0581  
 Project: DeZurik Landfill  
 Project Number: [none]

Received: 10/11/06  
 Reported: 11/01/06 16:07

## LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Dissolved Metals by SW 846 Series Methods</b>													
QC Source Sample: CPJ0580-01													
Sodium	6101098	0.200		mg/L	0.0260	1.00	0.224				11	10	J
QC Source Sample: CPJ0584-01													
Sodium	6101098	63.7		mg/L	0.0260	1.00	63.4				1	10	
<b>General Chemistry Parameters</b>													
QC Source Sample: NPJ2602-02													
Cyanide	6104062	0.0164		mg/L	0.0020	0.0050	0.0150				9	50	



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## LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Dup Result	% REC	Dup %REC	%REC Limits	RPD RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>												
Nitrate as N	6100558	7.06	mg/L	0.600	2.50	6.81	96		90-110			
Specific conductance	6100564	464.0	umhos/cm	N/A	N/A	442.0	95		85-115			
pH	6100593	7.00	pH Units	N/A	N/A	7.0	100		98-102			
Chemical Oxygen Demand	6100639	250	mg/L	3.64	10.0	251	100		90-110			
Chloride	6100701	99.1	mg/L	0.310	5.00	105	106		90-110			
Total Dissolved Solids	6100722	1000	mg/L	N/A	N/A	996	100		90-110			
Total Organic Carbon	6100797	20.3	mg/L	0.880	4.00	19.1	94		85-110			
Phenol	6100920	0.100	mg/L	0.00320	0.0200	0.108	108		90-110			
Fluoride	6101003	15.0	mg/L	0.0650	1.00	13.6	91		80-110			
Sulfate	6101546	16.6	mg/L	1.80	10.0	18.0	108		85-120			
<b>Dissolved Metals by SW 846 Series Methods</b>												
Selenium	6100573	0.0656	mg/L	0.00220	0.00500	0.0640	98		80-115			
Lead	6100664	0.0439	mg/L	0.000590	0.00400	0.0441	100		85-115			
Cadmium	6100683	0.0268	mg/L	0.0001300	0.000500	0.0258	96		80-120			
Arsenic	6100724	0.0407	mg/L	0.000420	0.00100	0.0415	102		80-120			
Arsenic	6100725	0.0407	mg/L	0.000420	0.00100	0.0415	102		80-120			
Chromium	6100940	2.00	ug/mL	N/A	N/A	1.98	99		85-110			
Manganese	6100940	2.00	ug/mL	N/A	N/A	1.98	99		85-110			
Zinc	6100940	2.00	ug/mL	N/A	N/A	1.99	100		85-110			
Barium	6100940	2.00	ug/mL	N/A	N/A	1.98	99		85-115			
Boron	6100940	2.00	ug/mL	N/A	N/A	2.08	104		85-110			
Calcium	6100940	10.0	ug/mL	N/A	N/A	10.0	100		85-115			
Iron	6100940	10.0	ug/mL	N/A	N/A	9.87	99		85-115			
Magnesium	6100940	10.0	ug/mL	N/A	N/A	10.1	101		85-115			
Sodium	6101098	50.0	ug/mL	N/A	N/A	48.8	98		90-120			
<b>General Chemistry Parameters</b>												
Cyanide	6104062	0.100	ug/mL	N/A	N/A	0.0979	98		90-110			

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## MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	REC Limits	RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>													
<b>QC Source Sample: CPJ0580-01</b>													
Nitrate as N	6100558	0.0781 0.200	mg/L	0.0240	0.100	0.222	0.231	72	76	75-125	4	15	M1
<b>QC Source Sample: CPJ0541-01</b>													
Chemical Oxygen Demand	6100639	8.70 50.0	mg/L	1.82	5.00	60.0	57.0	103	97	75-125	5	20	
<b>QC Source Sample: CPJ0541-04</b>													
Chloride	6100701	8.12 25.0	mg/L	0.310	5.00	32.6	32.5	98	98	90-110	0	20	
<b>QC Source Sample: CPJ0617-04</b>													
Total Organic Carbon	6100797	8.10 5.00	mg/L	0.220	1.00	13.2	14.5	102	128	75-125	9	20	M1
<b>QC Source Sample: CPJ0541-12</b>													
Phenol	6100920	0.00490 0.100	mg/L	0.00320	0.0200	0.106	0.117	101	112	90-110	10	15	M1
<b>QC Source Sample: CPJ0646-01</b>													
Fluoride	6101003	157 25.0	mg/L	0.959	14.8	201	200	176	172	75-125	1	20	M1
<b>QC Source Sample: CPJ0884-07</b>													
Sulfate	6101546	843 667	mg/L	120	667	1450	1470	91	94	75-125	1	15	
<b>General Chemistry Parameters</b>													
<b>QC Source Sample: NPJ1415-03</b>													
Cyanide	6104062	0.000900 0.100	ug/mL	N/A	N/A	0.1036	0.1007	103	100	27-148	3	50	

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### OTHER

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Dissolved Metals by SW 846 Series Methods</b>													
QC Source Sample: CPJ0441-02													
Selenium	6100573	0.000939 0.0238	ug/mL	N/A	N/A	0.0217		87		75-125			
QC Source Sample: CPJ0441-01													
Lead	6100664	-0.000431 0.0227	ug/mL	N/A	N/A	0.0224		101		75-125			
QC Source Sample: CPJ0581-03													
Lead	6100664	-0.000495 0.0227	ug/mL	N/A	N/A	0.0232		104		75-125			
QC Source Sample: CPJ0580-02													
Cadmium	6100683	0.000035; 0.0011 9	ug/mL	N/A	N/A	0.00106		92		75-120			
QC Source Sample: CPJ0584-02													
Cadmium	6100683	0.000168 0.0011 9	ug/mL	N/A	N/A	0.00120		87		75-120			
QC Source Sample: CPJ0581-01													
Arsenic	6100724	0.000015; 0.0227	ug/mL	N/A	N/A	0.0266		117		75-125			
QC Source Sample: CPJ0582-01													
Arsenic	6100725	<0.00042 0.0227	ug/mL	N/A	N/A	0.0276		122		75-125			
QC Source Sample: CPJ0580-02													
Chromium	6100940	-0.000580 0.962	ug/mL	N/A	N/A	0.973		101		85-115			
Manganese	6100940	0.000461 0.962	ug/mL	N/A	N/A	0.974		101		80-120			
Zinc	6100940	0.0267 0.962	ug/mL	N/A	N/A	1.00		101		80-125			
Barium	6100940	0.0470 0.962	ug/mL	N/A	N/A	1.04		103		75-120			
Boron	6100940	0.0392 1.92	ug/mL	N/A	N/A	2.05		105		75-125			
Calcium	6100940	118 1.92	ug/mL	N/A	N/A	116		-104		75-125			MHA
Iron	6100940	0.0120 1.92	ug/mL	N/A	N/A	1.92		99		75-125			MHA
Magnesium	6100940	29.7 1.92	ug/mL	N/A	N/A	30.6		47		75-125			MHA
QC Source Sample: CPJ0584-02													
Chromium	6100940	0.000204 0.962	ug/mL	N/A	N/A	0.963		100		85-115			
Manganese	6100940	0.00456 0.962	ug/mL	N/A	N/A	0.969		100		80-120			
Zinc	6100940	0.100 0.962	ug/mL	N/A	N/A	1.07		101		80-125			
Barium	6100940	0.0694 0.962	ug/mL	N/A	N/A	1.05		102		75-120			
Boron	6100940	0.853 1.92	ug/mL	N/A	N/A	2.76		99		75-125			
Calcium	6100940	152 1.92	ug/mL	N/A	N/A	147		-260		75-125			MHA
Iron	6100940	0.0855 1.92	ug/mL	N/A	N/A	2.00		100		75-125			MHA
Magnesium	6100940	43.1 1.92	ug/mL	N/A	N/A	43.2		5		75-125			MHA
QC Source Sample: CPJ0580-02													
Sodium	6101098	5.63 2.88	ug/mL	N/A	N/A	8.26		91		75-125			
QC Source Sample: CPJ0584-02													
Sodium	6101098	34.3 2.88	ug/mL	N/A	N/A	35.1		28		75-125			MHA

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Project Number: [none]

Received: 10/11/06  
Reported: 11/01/06 16:07

## CERTIFICATION SUMMARY

### TestAmerica - Cedar Falls, IA

Method	Matrix	Nelac	Minnesota
ASTM D516-90	Water - NonPotable	X	X
EPA 150.1	Water - NonPotable	X	
EPA 335.3	Water - NonPotable	X	
EPA 353.3	Water - NonPotable	X	X
EPA 420.2	Water - NonPotable	X	X
SM 2510B	Water - NonPotable	X	X
SM 4500CI E	Water - NonPotable	X	X
SM 4500F BC	Water - NonPotable	X	
SM 5220D	Water - NonPotable	X	X
SM2540C	Water - NonPotable	X	X
SW 6010B	Water - NonPotable	X	X
SW 7060A	Water - NonPotable	X	X
SW 7131A	Water - NonPotable	X	X
SW 7421	Water - NonPotable	X	X
SW 7740	Water - NonPotable	X	X
SW 9060	Water - NonPotable	X	

### Subcontracted Laboratories

TestAmerica Analytical Testing Corp.- Nashville NELAC Cert #87358, Illinois Cert #001366, Iowa Cert #131, Kansas Cert #E-10229, Minnesota Cert 047-999-345, Wisconsin Cert #998020436  
2960 Foster Creighton Dr. - Nashville, TN 37204

Method Performed: EPA 335.3

Samples: CPJ0581-01, CPJ0581-02, CPJ0581-03

*Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.*

*For information concerning certifications of this facility or another TestAmerica facility, please visit our website at [www.TestAmericaInc.com](http://www.TestAmericaInc.com)*

*Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF09-01.*

## DATA QUALIFIERS AND DEFINITIONS

- H3** Sample was received and analyzed past holding time  
**J** Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated  
**M1** The MS and/or MSD were outside control limits.  
**MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information

## ADDITIONAL COMMENTS

TestAmerica - Cedar Falls, IA  
Linda Cmelik  
Project Coordinator

## Sample Receipt and Temperature Log Form

Client: LBG Project: DEZURIK Landfill

City: ST PAUL

Date: 10-11-06 Receiver's Initials CH Time (Delivered): 9:10

### Temperature Record

Cooler ID# (If Applicable)  
857  
3° C **On Ice**

### Thermometer:

- IR - 905085 "A"
- IR - 809065 "B"
- CF07-03-T2
- 22126775

### Courier:

<input type="checkbox"/> Airborne	<input type="checkbox"/> Speedy
<input type="checkbox"/> UPS	<input type="checkbox"/> TA Courier
<input type="checkbox"/> Velocity	<input type="checkbox"/> TA Field Sys
<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> Client
<input type="checkbox"/> DHL	
<input type="checkbox"/> US Postal	<input type="checkbox"/> Other

Temp Blank

Temperature out of compliance

Custody seals present?

Yes

Custody seals intact?

Yes  No

Non-Conformance report started

### Exceptions Noted

<input type="checkbox"/> Sample(s) not received in a cooler.
<input type="checkbox"/> Samples(s) received same day of sampling.
<input type="checkbox"/> Evidence of a chilling process
<input type="checkbox"/> Temperature not taken:

Log-In by:

CW MF **EM**

OT \_\_\_\_\_

\*Refer to SOP CF01-01 for Temperature Criteria

CHAIN OF CUSTODY RECORD

SITE I.D.

DEZURIK LANDFILL

SAMPLERS: (Signature)

*CMF* CRAIG HEGNA

PRESERVATIVE

# OF CONTAINERS

UNPRESERVED  
HNO3  
NaOH  
H2SO4

DATE

TIME

COMP

GRAB

SAMPLE LOCATIONS

10-10-06 10:15 ✓ P-5R

↓ 10:59 ✓ P-9R

↓ 11:52 ✓ P-12R

6 2 1 1 2

6 2 1 1 2

6 2 1 1 2

LABORATORY  
TEST AMERICA  
CEDAR FALLS  
PH, TDS, CONDUCTIVITY  
FLUORIDE  
SULFATE / AMPHATE  
CHLORIDE  
COB  
TOC  
CYANIDE  
PHENOL METALS  
DISSOLVED METALS

REMARKS

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

REPORT TO:

TIM KEMPAS - LBS

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED FOR LABORATORY BY:  
(Signature)

DATE/TIME

NOTES/BILLING INFORMATION:

PEP GC  
850431 746.306

10/11/06 9:10

*Edna M. Mullins*

X-LEGGETTE BRASHEARS & GRAHAM, INC.  
1113 EAST 14th ST.  
SIOUX FALLS SD 57104  
605-334-6000

LEGGETTE, BRASHEARS & GRAHAM, INC.

8 Pine Tree Drive, Suite 250  
St. Paul, MN 55112  
(651) 490-1405





October 19, 2006

OCT 23 2006

## Client:

LBG - SIOUX FALLS - LANDFILLS  
140 East Hinks Lane, #126  
Sioux Falls, SD 57104

Work Order: CPJ0682  
Project Name: DeZurik Landfill  
Project Number: DeZurik Landfill

Attn: Tim Kenyon

Date Received: 10/12/06

An executed copy of the chain of custody is also included as an addendum to this report

If you have any questions relating to this analytical report please contact your Laboratory Project Manager at 1-(800)750-2401

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
P-7	CPJ0682-01	10/10/06 12:47
P-5A	CPJ0682-02	10/10/06 13:25
P-11A	CPJ0682-03	10/10/06 14:11
PW-0	CPJ0682-04	10/10/06 15:00
P-6	CPJ0682-05	10/10/06 15:16
P-10	CPJ0682-06	10/11/06 09:10

Samples were received into laboratory at a temperature of 0 °C.

Most environmental analytical testing methods require a sample temperature of 4 degrees C +/- 2 degrees C for preservation of the sample constituents prior to analysis. If sample temperatures are outside of this temperature range at the time of sample receipt results may be impacted. Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

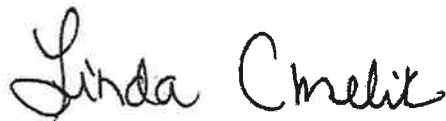
The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

Minnesota Certification Number: 019-999-319

*Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.*

*TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific sample analyzed.*

Approved By:



TestAmerica - Cedar Falls, IA  
Linda Cmelik  
Project Coordinator

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0682  
 Project: DeZurik Landfill  
 Project Number: DeZurik Landfill

Received: 10/12/06  
 Reported: 10/19/06 16:36

## ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MDL	Quan Limit	Dilution Factor	Date Analyzed	Seq/ Analyst	Batch	Method
<b>Sample ID: CPJ0682-01 (P-7 - Ground Water)</b>					<b>Sampled: 10/10/06 12:47</b>			<b>Recvd: 10/12/06 09:25</b>		
Dissolved Metals by SW 846 Series Methods										
Boron	0.222		mg/L	0.0580	0.100	1	10/19/06 00:34	llw	6100940	SW 6010B
<b>Sample ID: CPJ0682-02 (P-5A - Ground Water)</b>					<b>Sampled: 10/10/06 13:25</b>			<b>Recvd: 10/12/06 09:25</b>		
Dissolved Metals by SW 846 Series Methods										
Boron	0.493		mg/L	0.0580	0.100	1	10/19/06 00:39	llw	6100940	SW 6010B
<b>Sample ID: CPJ0682-03 (P-11A - Ground Water)</b>					<b>Sampled: 10/10/06 14:11</b>			<b>Recvd: 10/12/06 09:25</b>		
Dissolved Metals by SW 846 Series Methods										
Boron	5.89		mg/L	0.0580	0.100	1	10/19/06 00:44	llw	6100940	SW 6010B
<b>Sample ID: CPJ0682-04 (PW-0 - Ground Water)</b>					<b>Sampled: 10/10/06 15:00</b>			<b>Recvd: 10/12/06 09:25</b>		
Dissolved Metals by SW 846 Series Methods										
Boron	0.852		mg/L	0.0580	0.100	1	10/19/06 00:49	llw	6100940	SW 6010B
<b>Sample ID: CPJ0682-05 (P-6 - Ground Water)</b>					<b>Sampled: 10/10/06 15:16</b>			<b>Recvd: 10/12/06 09:25</b>		
Dissolved Metals by SW 846 Series Methods										
Boron	0.0730	J	mg/L	0.0580	0.100	1	10/19/06 00:54	llw	6100940	SW 6010B
<b>Sample ID: CPJ0682-06 (P-10 - Ground Water)</b>					<b>Sampled: 10/11/06 09:10</b>			<b>Recvd: 10/12/06 09:25</b>		
Dissolved Metals by SW 846 Series Methods										
Boron	0.117		mg/L	0.0580	0.100	1	10/19/06 00:59	llw	6100940	SW 6010B

LBG - SIOUX FALLS - LANDFILLS  
140 East Hinks Lane, #126  
Sioux Falls, SD 57104  
Tim Kenyon

Work Order: CPJ0682  
Project: DeZurik Landfill  
Project Number: DeZurik Landfill

Received: 10/12/06  
Reported: 10/19/06 16:36

## LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC	RPD Limits	RPD Limit	Q
Dissolved Metals by SW 846 Series Methods													
Boron	6100940		mg/L	0.0580	0.100	<0.0580							

LBG - SIOUX FALLS - LANDFILLS  
140 East Hinks Lane, #126  
Sioux Falls, SD 57104  
Tim Kenyon

Work Order: CPJ0682  
Project: DeZurik Landfill  
Project Number: DeZurik Landfill

Received: 10/12/06  
Reported: 10/19/06 16:36

## LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
Dissolved Metals by SW 846 Series Methods												
QC Source Sample: CPJ0580-01												
Boron	6100940	<0.058	mg/L	0.0580	0.100	<0.0580					20	
QC Source Sample: CPJ0584-01												
Boron	6100940	5.89	mg/L	0.0580	0.100	5.89				0	20	

LBG - SIOUX FALLS - LANDFILLS  
140 East Hinks Lane, #126  
Sioux Falls, SD 57104  
Tim Kenyon

Work Order: CPJ0682  
Project: DeZurik Landfill  
Project Number: DeZurik Landfill

Received: 10/12/06  
Reported: 10/19/06 16:36

### LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Dup Result	% REC	Dup %REC	REC Limits	RPD RPD	RPD Limit	Q
Dissolved Metals by SW 846 Series Methods												
Boron	6100940	2.00	ug/mL	N/A	N/A	2.08	104		85-110			

LBG - SIOUX FALLS - LANDFILLS  
 140 East Hinks Lane, #126  
 Sioux Falls, SD 57104  
 Tim Kenyon

Work Order: CPJ0682  
 Project: DeZurik Landfill  
 Project Number: DeZurik Landfill

Received: 10/12/06  
 Reported: 10/19/06 16:36

**OTHER**

Analyte	Seq/ Batch	Source Spike Result Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	REC Limits	RPD RPD	RPD Limit	Q
<b>Dissolved Metals by SW 846 Series Methods</b>													
<b>QC Source Sample: CPJ0580-02</b>													
Boron	6100940	0.0392 1.92	ug/mL	N/A	N/A	2.05		105		75-125			
<b>QC Source Sample: CPJ0584-02</b>													
Boron	6100940	0.853 1.92	ug/mL	N/A	N/A	2.76		99		75-125			



LBG - SIOUX FALLS - LANDFILLS  
140 East Hinks Lane, #126  
Sioux Falls, SD 57104  
Tim Kenyon

Work Order: CPJ0682  
Project: DeZurik Landfill  
Project Number: DeZurik Landfill

Received: 10/12/06  
Reported: 10/19/06 16:36

### CERTIFICATION SUMMARY

TestAmerica - Cedar Falls, IA

Method	Matrix	Nelac	Minnesota
SW 6010B	Water - NonPotable	X	X

*Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.*

*For information concerning certifications of this facility or another TestAmerica facility, please visit our website at [www.TestAmericaInc.com](http://www.TestAmericaInc.com)*

*Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF09-01.*

### DATA QUALIFIERS AND DEFINITIONS

Analyte detected at a level less than the Reporting Limit(RL) and greater than or equal to the Method Detection Limit(MDL). Concentrations within this range are estimated

### ADDITIONAL COMMENTS

CHAIN OF CUSTODY RECORD

SITE I.D.

DEZURIK LANDFILL

SAMPLERS: (Signature)

*[Handwritten Signature]*

CRAIG HEGNA

PRESERVATIVE

UNPRESERVED

H2O3

# OF CONTAINERS

SAMPLE LOCATIONS

DATE

TIME

COMP

GRAB

10-10-06

12:47

✓

P-7

1

13:25

✓

P-5A

1

14:11

✓

P-11A

1

15:00

✓

PW-O

1

15:16

✓

P-6

1

10-11-06

9:10

✓

P-10

1

DISCLOSED BORON

LABORATORY

TEST AMERICA  
CEDAR FALLS

REMARKS

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELIQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

REPORT TO:

TIM KENYON x 436

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED FOR LABORATORY BY: (Signature)

DATE/TIME

NOTES/BILLING INFORMATION:

FEDEX 84570464 3480

LEGGETTE, BRASHEARS & GRAHAM, INC.  
8 Pine Tree Drive, Suite 250  
St. Paul, MN 55112  
(651) 490-1405

LEGGETTE, BRASHEARS & GRAHAM, INC.  
1113 EAST 14th ST.  
SIOUX FALLS SD 57104  
605-334-6000

## Sample Receipt and Temperature Log Form

Client: Dzurik Landfill Project: \_\_\_\_\_

City: \_\_\_\_\_

Date: 10-12-06 Receiver's Initials NR Time (Delivered): 9:25

### Temperature Record

<b>Cooler ID#</b> (If Applicable) <u>Peer</u>
<u>0</u> ° C / <u>On Ice</u>

### Thermometer:

- IR - 905085 "A"
- IR - 809065 "B"
- CF07-03-T2
- 22126775

### Courier:

<input type="checkbox"/> Airborne	<input type="checkbox"/> Speedy
<input checked="" type="checkbox"/> UPS	<input type="checkbox"/> TA Courier
<input type="checkbox"/> Velocity	<input type="checkbox"/> TA Field Svs
<input type="checkbox"/> FedEx	<input type="checkbox"/> Client
<input type="checkbox"/> DHL	
<input type="checkbox"/> US Postal	<input type="checkbox"/> Other

Temp Blank

Temperature out of compliance

Custody seals present?

Yes

Custody seals intact?

Yes  No

Non-Conformance report started

### Exceptions Noted

Sample(s) not received in a cooler.

Samples(s) received same day of sampling.

Evidence of a chilling process

Temperature not taken:  
\_\_\_\_\_

Log-In by:

CW MF EM

OT \_\_\_\_\_