

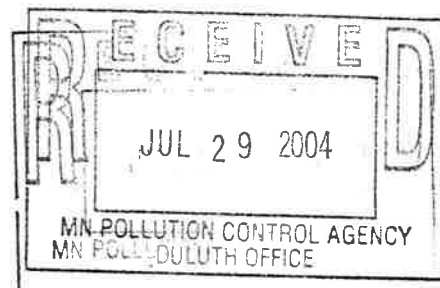
# LEGGETTE, BRASHEARS & GRAHAM, INC.

## PROFESSIONAL GROUND-WATER AND ENVIRONMENTAL ENGINEERING SERVICES

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July 27, 2004

Ms. Barb Gnabasik  
Minnesota Pollution Control Agency  
525 S. Lake Avenue, Suite 400  
Duluth, MN 55802



RE: April 2004 Ground-Water Monitoring Event  
DeZurik/City of Sartell Closed Hazardous  
Waste Lagoon #3 - MND985668342

Dear Ms. Gnabasik:

Leggette, Brashears & Graham, Inc. (LBG) has completed the April 2004 ground-water monitoring and sampling event at the DeZurik Sanitary Landfill. The purpose of this letter is to summarize and submit the data to the Minnesota Pollution Control Agency (MPCA) on behalf of the City of Sartell. These data were obtained and are reported in accordance with the hazardous waste permit dated September 29, 1994.

### Work Completed

On April 27, 2004, LBG collected fluid-level data and ground-water samples from the monitor wells in accordance with the required ground-water monitoring schedule. Figure 1 shows the monitor well locations and Table 1 summarizes the fluid-level measurements and calculated elevations for each well. Figure 1 shows the water-table elevation contours for this monitoring event.

Ground-water samples were collected from the monitor wells on April 27, 2004. Field sampling data sheets are provided in Appendix I. The samples were submitted to Minnesota Valley



Testing Laboratories (MVTL) in New Ulm, Minnesota for analysis of inorganics, nutrients, and trace metals. The laboratory analytical report is provided in Appendix II.

**Problems or Delays and Solutions**

There were no notable problems or delays during the sampling event. All wells were sampled as specified in the monitoring plan.

**Anticipated Work Schedule**

The next monitoring and sampling event is scheduled for October 2004.

**Sampling and Analytical Results**

Figure 1 shows that the indicated ground-water flow direction is generally to the southeast. This is normal for the site. No anomalies in the fluid-level data are apparent.

A summary of the analytical results from the April 2003 event are provided on Table 2. Of the hazardous constituents to which the ground-water protection standards apply (arsenic, barium, cadmium, lead and selenium, Table 3), only arsenic, barium and selenium were detected. Other contaminants that exceeded either a secondary maximum contaminate limit (SMCL), an intervention limit (IL) or a health risk limit (HRL) include total dissolved solids, nitrate, and dissolved boron.

Arsenic was not detected in any of the wells during the April 2004 sampling event.

Barium was detected in all the wells during the April 2004 sampling event. The concentrations of barium are below the regulatory limits and the site-specific calculated Tolerance Limit.

Selenium was detected in P-5R and P-12R during the April 2004 sampling event. Historically, Selenium has been detected only twice in P-5R (April 2002 and April 2003) and four times in P-12R; however, the concentrations remain below the Intervention Limit of 0.011 mg/L.

A site-specific Tolerance Limit for selenium has previously been calculated, but it has been based entirely on the detection limits of the analyses, which are artifacts and not indicative of any real concentrations at the site. Consequently, the calculated Tolerance Limit is of no use in evaluating the current detections of selenium. Because the selenium concentrations do not exceed the Intervention Limit, no further action is warranted at this time.

Total dissolved solids (TDS) were detected above the SMCL of 500 mg/L in P-5R (1,030 mg/L), P-9R (582 mg/L), and P-12R (632 mg/L) during the April 2004 sampling event. With the exception of P-5R, the detected concentrations are within historical ranges for the site.

Nitrate was detected above the IL of 2.5 mg/L in all the wells at the site during the April 2004 sampling event; however, the detected concentrations are within historical ranges for the site. The detected concentrations also remain below the HRL of 10 mg/L.

Dissolved boron was only detected above the HRL of 0.6 mg/L in P-5R during the April 2004 sampling event. The detected concentration of 1.49 mg/L is within the historical range for P-5R.

**Recommendations**

No changes to the monitoring program are warranted at this time. The continuation of ground-water monitoring as directed by the MPCA is recommended.

Sincerely,

LEGGETTE, BRASHEARS & GRAHAM, INC.



Melissa Karstens  
Environmental Scientist

Reviewed by:



Tim Kenyon, PG  
Vice President

MK/kak

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cc: Mr. Brad Borders  
Mr. Bob Pogatshnik

**TABLES**

**TABLE 1**  
**Water Elevations**  
**DeZurik Hazardous Waste Lagoon #3**

<b>DATE</b>	<b>P-5A</b>	<b>P-5R</b>	<b>P-9R</b>	<b>P-12</b>	<b>P-12R</b>	<b>P-13</b>
<b>Elevation</b>		<b>1099.04</b>	<b>1102.09</b>		<b>1101.33</b>	<b>1105.12</b>
4/4/1990	1020.83					
6/26/1990	1021.79		1020.74	1021.81		1025.77
10/2/1990	1023.15		1023.05	1023.31		1026.18
12/18/1990	1023.13		1023.25	1023.41		1026.23
4/4/1991	1022.69		1022.79	1022.95		1026.14
7/31/1991	1024.29		1024.43	1024.5		1026.45
10/31/1991	1025.11		1024.97	1025.07		1026.48
4/23/1992	1024.22		1024.36	1024.34		1026.46
10/21/1992	1024.25		1024.28			
4/20/1993	1023.05		1022.94	1023.11		1026
10/27/1993	1025.29	1026.14	1025.2		1025.37	1026.98
4/20/1994	1024.56	1024.73	1024.56		1024.75	1026.59
7/11/1994			1025.52			
10/17/1994	1025.38	1025.47	1025.34		1025.44	1027.04
4/11/1995	1024.50	1024.79	1025.01		1024.80	1026.75
10/9/1995	1025.39	1025.63	1025.52		1025.53	1026.98
4/17/1996	1024.70	1024.94	1024.83		1024.97	1026.59
10/15/1996	1024.26	1024.40	1024.25		1024.37	1026.47
4/15/1997	1024.11	1024.35	1024.22		1024.23	1026.45
10/14/1997	1025.8	1026.04	1025.81		1025.91	1027.27
4/13/1998	1024.67	1024.84	1024.69		1024.84	1026.44
10/6/1998	1024.48	1024.62	1024.47		1024.63	1026.37
4/27/1999		1023.63	1023.48		1023.64	1026.1
10/27/1999		1023.93	1023.81		1023.93	1026.24
4/25/2000		1023.00	1022.96		1023.00	1026.22
10/23/2000		1022.17	1022.01		1022.18	1026.08
4/18/2001		1022.12	1021.97		1022.10	1025.94
7/26/2001		1023.92	1023.82		1024.06	1026.21
10/23/2001		1023.75	1023.63		1023.79	1026.18
4/29/2002		1023.51	1024.30		1023.54	1026.04
10/16/2002		1025.57	1025.44		1025.58	1026.75
4/15/2003		1024.65	1024.54		1024.69	1026.33
10/7/2003		1024.11	1023.99		1024.17	1026.07
4/27/2004		1023.39	1023.24		1023.39	1026.23

blank = not measured

TABLE 2

DEZURIK HAZARDOUS WASTE LAGOON #3  
SARTELL, MINNESOTA

2004 Water Quality Data Summary

Analyte	Units	MCL (mg/L)	SMCL (mg/L)	IL (mg/L)	HRL (mg/L)	P-5R 27-Apr-04	P-9R 27-Apr-04	P-12R 27-Apr-04	P-13 27-Apr-04	Duplicate P-13 27-Apr-04
Total Organic Carbon	mg/L					1.4	2.4	3.4	0.8	1.8
Chloride	mg/L		250			41.5	34.5	45.3	24.9	25.4
Conductivity	umhos/cm					1212	921	997	705	706
Chemical Oxygen Demand	mg/L		6.5-8.5			23	6	34	19	19
pH	su					7.20	7.30	7.40	7.30	7.30
Total Phenols	mg/L					<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	mg/L					36.6	10.3	13.6	4.87	4.73
Total Dissolved Solids	mg/L		500			1030	582	632	456	428
Sulfate	mg/L		250			224	85.9	131	37.9	33.1
Total Cyanide	mg/L	0.2			0.1	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoride	mg/L	4	2			<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate as N	mg/L			2.5	10	5.24	5.21	5.12	5.19	5.17
Dissolved Arsenic	mg/L	0.01		0.0125		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Barium	mg/L	2		0.375	2	0.06	0.064	0.057	0.036	0.035
Dissolved Boron	mg/L				0.6	1.49	<0.1	<0.1	<0.1	<0.1
Dissolved Cadmium	mg/L	0.005		0.0125	0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Calcium	mg/L					170	134	145	110	105
Dissolved Chromium	mg/L	0.1		0.03	0.02	<0.006	<0.006	<0.006	<0.006	<0.006
Dissolved Iron	mg/L		0.3	0.005		<0.01	<0.01	<0.01	<0.01	<0.01
Dissolved Lead	mg/L	0.015				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Magnesium	mg/L					50	38.3	38.3	27.6	26
Dissolved Manganese	mg/L		0.05		0.1	<0.003	0.036	0.016	<0.003	<0.003
Dissolved Selenium	mg/L	0.05		0.011	0.03	0.00089	<0.0005	0.00072	<0.0005	<0.0005
Dissolved Zinc	mg/L		5		2	<0.01	<0.01	<0.01	<0.01	<0.01

Blank = not analyzed  
Detections are in **BOLD**

**TABLE 3**  
**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-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-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-9A-2	10/31/1991	ND	ND	ND	ND	ND
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



**TABLE 3**  
**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	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-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
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-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

**TABLE 3**  
**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	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
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

**TABLE 3**  
**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-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
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

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	44	0.3	3	3
1.732	51.676	0.548	1.732	1.732
2.523	2.523	2.523	2.523	2.523
7.4	170	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.

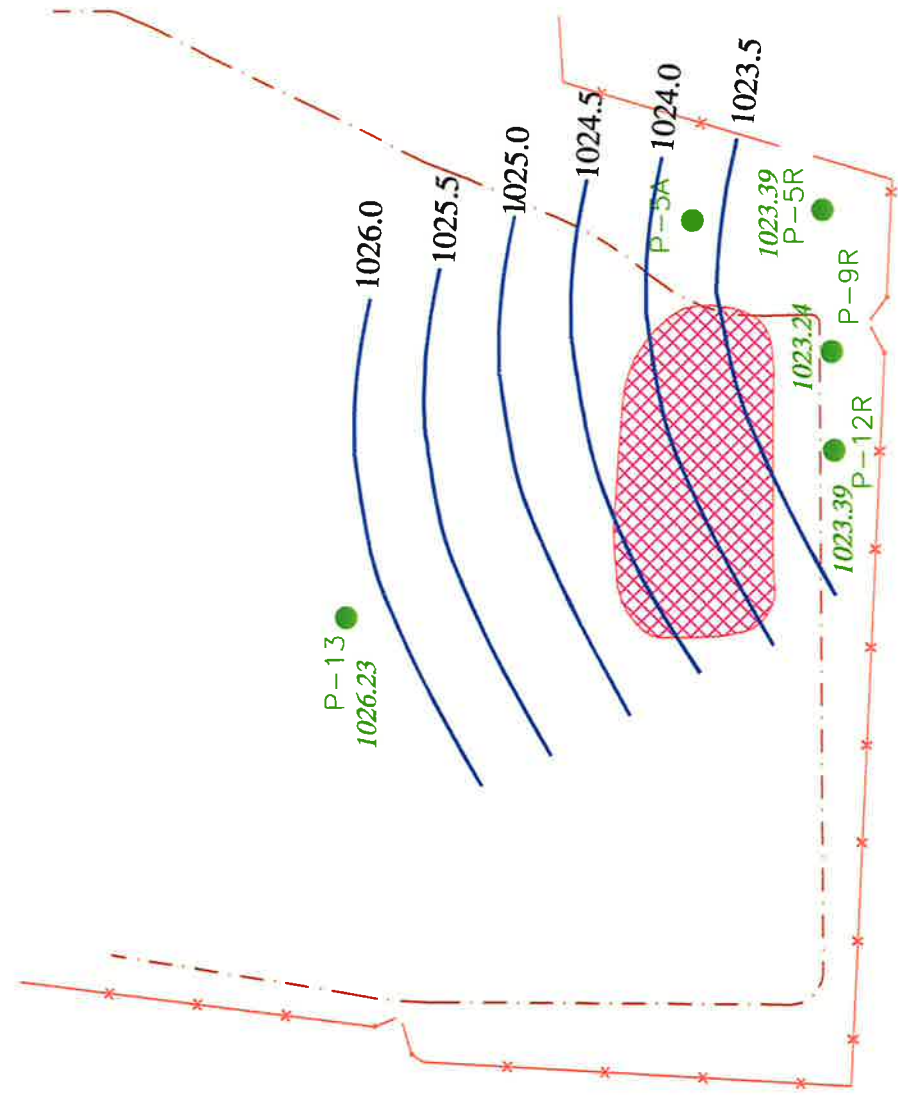
Note: Sample results in bold type exceed MCL and/or HRL

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.



**LEGEND**

- P-13  
1026.23
- \*— FENCE
- - - APPROXIMATE LIMIT OF LANDFILL WASTE
- ▨ APPROXIMATE LIMIT OF LAGOON
- WATER TABLE CONTOUR (DASHED WHERE INFERRED)



**LEGGETTE, BRASHEARS & GRAHAM, INC.**  
 Professional Ground-Water  
 and Environmental Services  
 1119 East 14th Street  
 Sioux Falls, South Dakota 57104  
 (605) 334-6000



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

GROUND-WATER ELEVATIONS AND INFERRED FLOW DIRECTION (27 APR 04)

DATE	REVISED

**APPENDIX I**  
**Field Sampling Data Sheets**

# CHAIN OF CUSTODY RECORD

PROJECT NAME DEZURIK (NOFILL)		CLIENT NAME DEZURIK		LABORATORY NAME: MVTZ										
SAMPLERS: (Signature)				REMARKS										
SAMPLE NO.	DATE	TIME	CORP	GRAB	SAMPLE LOCATIONS	NO. OF CON-TAINERS	RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME	
							RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME	
	4/27/04	843		✓	P.13	6								
		935		✓	P.5R	6								
		1039		✓	P.9R	6								
		1142		✓	P.12R	6								
				✓	DUPLICATE	6								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">                     DISKED METALS                      PREVALS                      TDC                      (GOV) NO. 3                      CL. PL. 504, T55 PH (cont)                 </div>														
RELINQUISHED BY: (Signature)							RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME	
RELINQUISHED BY: (Signature)							RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME	
RELINQUISHED BY: (Signature)							RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME	
LEGGETTE, BRASHEARS & GRAHAM, INC. ST. PAUL, MINNESOTA 55112 (651) 490-1405							RECEIVED FOR LABORATORY BY: (Signature) 8 PINE TREE DRIVE SUITE 250		REPORT TO: TIM KENYON - L96		REMARKS / BILLING INFORMATION: L96 TIM KENYON 1113 LAST 14th ST. SIOUX FALLS SD 57104 (665) 334-6000			



## GROUND-WATER SAMPLING DATA SHEET

Client Code: 6SARBT	Project Title: DEZURIK LANDFILL LAGOON #3
Job Code: DESHWL	Address: 12TH ST N
Date: 4.27.04	City, State, Zip: SARTELL, MN.

General Data	Stabilization Data					
	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH
Location ID: P-5R						
Key Number: 10G013	4.00	1.0	10.9	93	1210	6.68
Casing Diameter (in): 4"	8.00	2.0	10.9	86	1212	6.70
Well Depth (ft): 81.35 TD TOC	1200	<del>3.0</del>	10.9	82	1221	6.69
Depth to water (ft): 75.65						
Column length (ft): 5.70						
Column volume (gal): 3.72						
Total volume purged (gal): 12.00						

### Miscellaneous

Purge Method:	PVC. BAILER
Sampling Method:	DISP. BAILER
Analysis Requested:	Dissolved metals, CL, FL, NO3, SO4, COD, Cyanide, Phenols, TOC, TDS, pH, Conductivity
Weather Conditions:	OVERCAST, 38°
Sample Description:	SLIGHTLY SILTY, TAN TINT, NO ODOR
Remarks:	

Sampler: CMH	Time Sample Collected: 9:35
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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:

4.27.04

City, State, Zip: SARTELL, MN.

**General Data**

**Stabilization Data**

Location ID:	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH
P-9R	5.00	1.0	10.3	36	874	6.96
Key Number: 10G013	10.00	2.0	10.3	37	893	6.84
Casing Diameter (in): 4"	15.00	3.0	10.3	36	921	6.83
Well Depth (ft): 86.20 TD TOC	20.00	4.0	10.3	36	920	6.83
Depth to water (ft): 78.85						
Column length (ft): 7.35						
Column volume (gal): 4.80						
Total volume purged (gal): 20.00						

**Miscellaneous**

Purge Method: PVC. BAILER

Sampling Method: DISP. BAILER

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

Weather Conditions: OVERCAST, 39°

Sample Description: CLEAR, NO ODD

Remarks:

Sampler: CMH

Time Sample Collected: 1039

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

## GROUND-WATER SAMPLING DATA SHEET

Client Code: <b>6SARBT</b>	Project Title: <b>DEZURIK LANDFILL LAGOON #3</b>
Job Code: <b>DESHWL</b>	Address: <b>12TH ST N</b>
Date: <b>4.27.04</b>	City, State, Zip: <b>SARTELL, MN.</b>

General Data	Stabilization Data					
	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH
Location ID: <b>P-12R</b>						
Key Number: <b>10G013</b>	<b>6.00</b>	<b>1.0</b>	<b>10.1</b>	<b>27</b>	<b>984</b>	<b>7.20</b>
Casing Diameter (in): <b>4"</b>	<b>12.00</b>	<b>2.0</b>	<b>10.2</b>	<b>31</b>	<b>981</b>	<b>6.92</b>
Well Depth (ft): <b>86.80 TD TOC</b>	<b>18.00</b>	<b>3.0</b>	<b>10.2</b>	<b>29</b>	<b>976</b>	<b>6.92</b>
Depth to water (ft): <b>77.94</b>	<b>24.00</b>	<b>4.0</b>	<b>10.2</b>	<b>39</b>	<b>979</b>	<b>6.91</b>
Column length (ft): <b>8.86</b>						
Column volume (gal): <b>5.79</b>						
Total volume purged (gal): <b>24.00</b>						

### Miscellaneous

Purge Method:	<b>PVC. BAILER</b>
Sampling Method:	<b>DISP. BAILER</b>
Analysis Requested:	<b>Dissolved metals, CL, FL, NO3, SO4, COD, Cyanide, Phenols, TOC, TDS, pH, Conductivity</b>
Weather Conditions:	<b>OVERCAST, 40°</b>
Sample Description:	<b>SILTY, TAN / RUST TINT, NO ODOOR</b>
Remarks:	

Sampler: <b>CMH</b>	Time Sample Collected: <b>1142</b>
---------------------	------------------------------------

**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: 4.27.04	City, State, Zip: SARTELL, MN.

General Data	Stabilization Data					
	Volume (gallons)	Well Volume	Temp (C)	ORP (mV)	SC (uS)	pH
Location ID: P-13						
Key Number: 10G013	6.00	1.0	10.7	109	705	6.55
Casing Diameter (in): 4"	11.00	2.0	10.6	85	702	6.83
Well Depth (ft): 86.90 TD TOC	16.00	3.0	10.6	66	702	6.87
Depth to water (ft): 78.89	21.00	4.0	10.5	61	703	6.84
Column length (ft): 8.01						
Column volume (gal): 5.23						
Total volume purged(gal): 21.00						

### Miscellaneous

Purge Method:	PVC. BAILER
Sampling Method:	DISP. BAILER
Analysis Requested:	Dissolved metals, CL, FL, NO3, SO4, COD, Cyanide, Phenols, TOC, TDS, pH, Conductivity
Weather Conditions:	OVERCAST 36°
Sample Description:	SLIGHTLY SILTY, TAN TINT, NO ODDOR
Remarks:	DUPLICATE SAMPLE - ALL PARAMETERS

Sampler: CMH	Time Sample Collected: 8:43
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**Leggette, Brashears & Graham, Inc.**  
 8 Pine Tree Drive, Suite 250  
 St. Paul, Minnesota 55112

**APPENDIX II**  
**Laboratory Analytical Report**



# MINNESOTA VALLEY TESTING LABORATORIES, INC.

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MAY 12 2004

Page: 1 of 1

TIM KENYON  
LEGGETTE BRASHEARS & GRAHAM INC  
140 E HINKS LN STE 126  
SIOUX FALLS SD 57104

Report Date: 10 May 04  
Lab Number: 04-A11640  
Work Order #: 12-4156  
Account #: 019464  
Sample Matrix: GROUNDWATER  
Date Sampled: 27 Apr 04 8:43  
Date Received: 28 Apr 04 9:50

Project Name: DEZURIK LANDFILL  
Sample Description: P-13

Temp at Receipt: 5.0C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Specific Conductance	705.0	umhos/cm	0.1	SM 2510B	28 Apr 04 14:41	RBK
pH	7.3	units	1.0	SM 4500 H-B	3 May 04 9:06	AKF
Carbon, Total Organic	0.8	mg/L	0.5	415.1	6 May 04 8:00	WB
Nitrate	5.19	mg/L as N	NA	353.2	5 May 04 17:11	Calculated
Fluoride	< 0.1	mg/L	0.1	SM 18th ED 4500-F C	30 Apr 04 4:26	JD
Sulfate	37.9	mg/L	4.0	375.4	29 Apr 04 14:07	DAP
Chloride	24.9	mg/L	3.0	325.2	30 Apr 04 10:07	DAP
Phenolics, Total	< 5	ug/L	5	420.1	2 May 04 9:49	JD
Cyanide, Total	< 0.02	mg/L	0.02	335.2	30 Apr 04 15:23	JD
Chemical Oxygen Demand	19	mg/L	5	410.4	29 Apr 04 5:31	JD
Solids, Total Dissolved	456	mg/L	1	SM 2540C	29 Apr 04 15:16	RMV
Calcium, Dissolved	110.0	mg/L	1.000	6010	5 May 04 11:28	JGS
Magnesium, Dissolved	27.60	mg/L	1.000	6010	5 May 04 11:28	JGS
Sodium, Dissolved	4.870	mg/L	1.000	6010	5 May 04 11:28	JGS
Barium, Dissolved	0.036	mg/L	0.010	6010	4 May 04 16:08	JGS
Chromium, Dissolved	< 0.006	mg/L	0.006	6010	4 May 04 16:08	JGS
Iron, Dissolved	< 0.01	mg/L	0.01	6010	4 May 04 16:08	JGS
Manganese, Dissolved	< 0.003	mg/L	0.003	6010	4 May 04 16:08	JGS
Zinc, Dissolved	< 0.01	mg/L	0.01	6010	4 May 04 16:08	JGS
Boron, Dissolved	< 0.1	mg/L	0.1	6010	4 May 04 16:08	JGS
Arsenic, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 9:41	TB
Cadmium, Dissolved	< 0.1	ug/L	0.1	200.8	3 May 04 9:41	TB
Lead, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 9:41	TB
Selenium, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 9:41	TB

Approved by:

Michael K. Grob, Inorganic/Microbiology  
Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration  
! = Due to sample quantity + = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Page: 1 of 1

TIM KENYON
LEGGETTE BRASHEARS & GRAHAM INC
140 E HINKS LN STE 126
SIOUX FALLS SD 57104

Report Date: 10 May 04
Lab Number: 04-A11641
Work Order #:12-4156
Account #: 019464
Sample Matrix: GROUNDWATER
Date Sampled: 27 Apr 04 9:35
Date Received: 28 Apr 04 9:50

Project Name: DEZURIK LANDFILL
Sample Description: P-5R

Temp at Receipt: 5.0C

Table with columns: As Received Result, Method RL, Method Reference, Date Analyzed, Analyst. Rows include Specific Conductance, pH, Carbon, Total Organic, Nitrate, Fluoride, Sulfate, Chloride, Phenolics, Total, Cyanide, Total, Chemical Oxygen Demand, Solids, Total Dissolved, Calcium, Dissolved, Magnesium, Dissolved, Sodium, Dissolved, Barium, Dissolved, Chromium, Dissolved, Iron, Dissolved, Manganese, Dissolved, Zinc, Dissolved, Boron, Dissolved, Arsenic, Dissolved, Cadmium, Dissolved, Lead, Dissolved, Selenium, Dissolved.

Approved by: [Signature]
Michael K. Grob, Inorganic/Microbiology
Laboratory Manager New Ulm, MN

RL = Reporting Limit
Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

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SUPPLEMENT TO FINAL REPORT 05-17-04

TIM KENYON
LEGGETTE BRASHEARS & GRAHAM INC
140 E HINKS LN STE 126
SIOUX FALLS SD 57104

Report Date: 17 May 04
Lab Number: 04-A11642
Work Order #:12-4156
Account #: 019464
Sample Matrix: GROUNDWATER
Date Sampled: 27 Apr 04 10:39
Date Received: 28 Apr 04 9:50

Project Name: DEZURIK LANDFILL
Sample Description: P-9R

Temp at Receipt: 5.0C

Table with columns: As Received Result, Method RL, Method Reference, Date Analyzed, Analyst. Rows include Specific Conductance, pH, Carbon, Total Organic, Nitrate, Fluoride, Sulfate, Chloride, Phenolics, Total, Cyanide, Total, Chemical Oxygen Demand, Solids, Total Dissolved, Calcium, Dissolved, Magnesium, Dissolved, Sodium, Dissolved, Barium, Dissolved, Chromium, Dissolved, Iron, Dissolved, Manganese, Dissolved, Zinc, Dissolved, Boron, Dissolved, Arsenic, Dissolved, Cadmium, Dissolved, Lead, Dissolved, Selenium, Dissolved.

Approved by: [Signature]
Michael K. Grob, Inorganic/Microbiology
Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

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Page: 1 of 1

TIM KENYON  
LEGGETTE BRASHEARS & GRAHAM INC  
140 E HINKS LN STE 126  
SIOUX FALLS SD 57104

Report Date: 10 May 04  
Lab Number: 04-A11643  
Work Order #: 12-4156  
Account #: 019464  
Sample Matrix: GROUNDWATER  
Date Sampled: 27 Apr 04 11:42  
Date Received: 28 Apr 04 9:50

Project Name: DEZURIK LANDFILL  
Sample Description: P-12R

Temp at Receipt: 5.0C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Specific Conductance	997.0	umhos/cm	0.1	SM 2510B	28 Apr 04 14:41	RBK
pH	7.4	units	1.0	SM 4500 H-B	3 May 04 9:06	AKF
Carbon, Total Organic	3.4	mg/L	0.5	415.1	6 May 04 8:00	WB
Nitrate	5.12	mg/L as N	NA	353.2	5 May 04 17:11	Calculated
Fluoride	< 0.1	mg/L	0.1	SM 18th ED 4500-F C	30 Apr 04 4:26	JD
Sulfate	131	mg/L	4.0	375.4	29 Apr 04 14:08	DAP
Chloride	45.3	mg/L	3.0	325.2	30 Apr 04 10:08	DAP
Phenolics, Total	< 5	ug/L	5	420.1	2 May 04 9:49	JD
Cyanide, Total	< 0.02	mg/L	0.02	335.2	30 Apr 04 15:23	JD
Chemical Oxygen Demand	34	mg/L	5	410.4	29 Apr 04 5:31	JD
Solids, Total Dissolved	632	mg/L	1	SM 2540C	29 Apr 04 15:16	RMV
Calcium, Dissolved	145.0	mg/L	1.000	6010	5 May 04 11:28	JGS
Magnesium, Dissolved	38.30	mg/L	1.000	6010	5 May 04 11:28	JGS
Sodium, Dissolved	13.60	mg/L	1.000	6010	5 May 04 11:28	JGS
Barium, Dissolved	0.057	mg/L	0.010	6010	4 May 04 16:08	JGS
Chromium, Dissolved	< 0.006	mg/L	0.006	6010	4 May 04 16:08	JGS
Iron, Dissolved	< 0.01	mg/L	0.01	6010	4 May 04 16:08	JGS
Manganese, Dissolved	0.016	mg/L	0.003	6010	4 May 04 16:08	JGS
Zinc, Dissolved	< 0.01	mg/L	0.01	6010	4 May 04 16:08	JGS
Boron, Dissolved	< 0.1	mg/L	0.1	6010	4 May 04 16:08	JGS
Arsenic, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 10:35	TB
Cadmium, Dissolved	< 0.1	ug/L	0.1	200.8	3 May 04 10:35	TB
Lead, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 10:35	TB
Selenium, Dissolved	0.72	ug/L	0.50	200.8	3 May 04 10:35	TB

Approved by:

Michael K. Grob, Inorganic/Microbiology  
Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix  
! = Due to sample quantity

# = Due to sample concentration  
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Page: 1 of 1

TIM KENYON  
LEGGETTE BRASHEARS & GRAHAM INC  
140 E HINKS LN STE 126  
SIOUX FALLS SD 57104


Report Date: 10 May 04  
Lab Number: 04-A11644  
Work Order #: 12-4156  
Account #: 019464  
Sample Matrix: GROUNDWATER  
Date Sampled: 27 Apr 04  
Date Received: 28 Apr 04 9:50

Project Name: DEZURIK LANDFILL  
Sample Description: DUPLICATE

Temp at Receipt: 5.0C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Specific Conductance	706.0	umhos/cm	0.1	SM 2510B	28 Apr 04 14:41	RBK
pH	7.3	units	1.0	SM 4500 H-B	3 May 04 9:06	AKF
Carbon, Total Organic	1.8	mg/L	0.5	415.1	5 May 04 8:30	WB
Nitrate	5.17	mg/L as N	NA	353.2	5 May 04 17:11	Calculated
Fluoride	< 0.1	mg/L	0.1	SM 18th ED 4500-F C	30 Apr 04 4:26	JD
Sulfate	33.1	mg/L	4.0	375.4	29 Apr 04 14:08	DAP
Chloride	25.4	mg/L	3.0	325.2	30 Apr 04 10:08	DAP
Phenolics, Total	< 5	ug/L	5	420.1	2 May 04 9:49	JD
Cyanide, Total	< 0.02	mg/L	0.02	335.2	30 Apr 04 15:23	JD
Chemical Oxygen Demand	19	mg/L	5	410.4	29 Apr 04 5:31	JD
Solids, Total Dissolved	428	mg/L	1	SM 2540C	29 Apr 04 15:16	RMV
Calcium, Dissolved	105.0	mg/L	1.000	6010	5 May 04 11:28	JGS
Magnesium, Dissolved	26.00	mg/L	1.000	6010	5 May 04 11:28	JGS
Sodium, Dissolved	4.730	mg/L	1.000	6010	5 May 04 11:28	JGS
Barium, Dissolved	0.035	mg/L	0.010	6010	4 May 04 16:08	JGS
Chromium, Dissolved	< 0.006	mg/L	0.006	6010	4 May 04 16:08	JGS
Iron, Dissolved	< 0.01	mg/L	0.01	6010	4 May 04 16:08	JGS
Manganese, Dissolved	< 0.003	mg/L	0.003	6010	4 May 04 16:08	JGS
Zinc, Dissolved	< 0.01	mg/L	0.01	6010	4 May 04 16:08	JGS
Boron, Dissolved	< 0.1	mg/L	0.1	6010	4 May 04 16:08	JGS
Arsenic, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 10:35	TB
Cadmium, Dissolved	< 0.1	ug/L	0.1	200.8	3 May 04 10:35	TB
Lead, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 10:35	TB
Selenium, Dissolved	< 0.5	ug/L	0.5	200.8	3 May 04 10:35	TB

Approved by:

  
Michael K. Grob, Inorganic/Microbiology  
Laboratory Manager New Ulm, MN

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

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