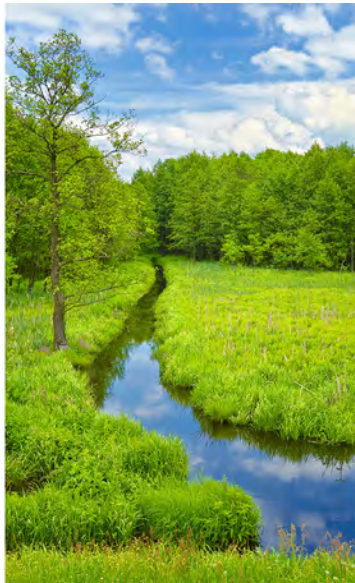




www.CRAworld.com



2013 Annual Monitoring Report

Highway 96 Site
White Bear Township, Minnesota

Conestoga-Rovers & Associates

1801 Old Highway 8 Northwest, Suite 114
St. Paul, Minnesota 55112

March 2014 • 002012 (64)



List of Figures (cont'd)
(Following Text)

Figure 5.6	% Combustible Gas Concentrations - GP5
Figure 5.7	% Combustible Gas Concentrations - GP6
Figure 5.8	MEH Gas Monitoring Locations North Disposal Area

List of Tables
(Following Text)

Table 3.1	2013 Groundwater Elevations
Table 3.2	2013 Average Monthly Groundwater Extraction Rates
Table 3.3	Operation and Maintenance Activity Groundwater Extraction System (January 2013 - December 2013)
Table 4.1	Historical Groundwater Sampling Event Summary
Table 4.2	2013 Groundwater Analytical Data Detections - Monitoring Wells (Perched Groundwater Unit)
Table 4.3	2013 Groundwater Analytical Data Detections - Monitoring Wells (Lower Sand Aquifer)
Table 4.4	2013 Groundwater Analytical Data Detections - Monitoring Wells (St. Peter Sandstone Aquifer)
Table 4.5	2013 Groundwater Analytical Data Detections - Monitoring Wells (Prairie du Chien Aquifer)
Table 4.6	2013 Groundwater Analytical Data Detections - Residential Wells
Table 5.1	Historical MSA Gas Probe Monitoring Results
Table 5.2	LandTec GEM 500 Gas Probe Monitoring Results

TABLE 3.1

**2013 GROUNDWATER ELEVATIONS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>TOC (ft. AMSL)</i>	<i>9/30/2013 WL (ft BTOC)</i>	<i>9/30/2013 (ft. AMSL)</i>
<i>Perched Groundwater Unit</i>			
DEWATERING SUMP * (On)	946.71	26.13	920.58
LW1	938.86	10.80	928.06
LW2	945.66	13.75	931.91
LW3	944.82	15.96	928.86
MW1S	950.65	17.91	932.74
MW4U	939.65	28.54	911.11
MW6S	948.44	18.78	929.66
MW10S	935.94	15.76	920.18
MW11S	936.34	12.85	923.49
P1	941.70	9.41	932.29
P2	946.11	19.49	926.62
P3	947.11	18.69	928.42
P4	948.16	17.48	930.68
<i>Glacial Drift (Lower Sand) Aquifer</i>			
EW1	936.66	42.82	893.84
EW1A	938.67	44.45	894.22
EW1B * (On)	939.99	48.95	891.04
MW1D	951.02	55.47	895.55
MW4S	940.33	42.06	898.27
MW4D	940.48	46.09	894.39
MW6D	948.15	52.20	895.95
MW10D	935.94	34.94	901.00
MW11D	935.40	36.18	899.22
MW12D	940.52	41.25	899.27
MW13D	937.66	39.38	898.28
MW16D	940.70	45.65	895.05
<i>Upper St. Peter Sandstone Aquifer</i>			
EW2 * (On)	938.67	46.37	892.30
MW7B	942.91	46.20	896.71
MW8B	940.91	46.67	894.24
MW10B	936.64	42.37	894.27
MW12B	939.89	45.69	894.20
MW13B	938.34	44.20	894.14
MW16B	940.71	46.10	894.61
MW17A	914.58	22.55	892.03
MW18A	925.39	37.43	887.96
MW19A	913.56	28.60	884.96
MW21A	909.03	23.83	885.20

**2013 GROUNDWATER ELEVATIONS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

Location	TOC (ft. AMSL)	9/30/2013 WL (ft BTOC)	9/30/2013 (ft. AMSL)
<u>Basal St. Peter Sandstone Aquifer</u>			
EW3	913.88	34.40	879.48
MW17B	914.50	30.29	884.21
MW18B	925.24	41.39	883.85
MW19B	913.33	34.66	878.67
MW20B	915.04	35.88	879.16
1 Lily Pond Road #	931.18	38.94	892.24
11 Lily Pond Road #	928.54	43.23	885.31
11 Robb Farm Road #	942.63	50.05	892.58
6 Blue Goose Road #	954.15	66.89	887.26
6 West Shore Road ^	920.20	38.35	881.85
38 East Oaks Road ^	926.25	45.48	880.77
<u>Prairie du Chien Aquifer</u>			
MW17L	914.65	35.40	879.25
MW18L	925.44	49.52	875.92
MW19L	914.18	40.53	873.65

Notes:

TOC - Top of Casing

WL - Water Level

ft. AMSL - Feet Above Mean Sea Level

ft. BTOC - Feet Below Top of Casing

* - Pumping Well

- Dewatering Sump pumping at a rate of approximately 3.2 gpm

- EW1B pumping at a rate of approximately 9.9 gpm

- EW2 pumping at a rate of approximately 9.9 gpm

- Converted Residential Monitoring Well

^ - Active Residential Well

TABLE 3.2

**2013 AVERAGE MONTHLY GROUNDWATER EXTRACTION RATES
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Month</i>	<i>Average Pumping Rate</i>			
	<i>EW1B (gpm)</i>	<i>EW2 (gpm)</i>	<i>Combined* (gpm)</i>	<i>Sump (gpm)</i>
January	10.2	10.1	20.3	1.9
February	10.2	10.3	20.5	2.4
March	10.2	9.4	19.6	2.0
April	9.8	10.0	19.9	2.4
May	9.4 ⁽¹⁾	9.6 ⁽²⁾	19.0	4.3
June	10.0	9.8	19.7	0.8 ⁽³⁾
July	10.0	10.0	20.0	7.9
August	10.0	10.0	20.0	4.8
September	10.0	10.0	19.9	3.2
October	9.9	10.0	20.0	3.5
November	8.2 ⁽⁴⁾	9.0 ⁽⁵⁾	17.2	2.9
December	10.1	9.8	19.9	3.0
Annual Average	9.8	9.8	19.7	3.3

Notes:

* - Combined pumping rate of EW1B and EW2 to be maintained between 13 and 20 gpm, as outlined in CRA's letter to MPCA dated July 9, 2010.

⁽¹⁾ - Routine well rehabilitation of EW1B conducted on May 14, 2013.

⁽²⁾ - Routine well rehabilitation of EW2 conducted on May 13, 2013.

⁽³⁾ - Dewatering sump turned off until pump replacement in July 2013.

⁽⁴⁾ - Routine well rehabilitation of EW1B conducted on November 18, 2013.

⁽⁵⁾ - Routine well rehabilitation of EW2 conducted on November 19, 2013.

TABLE 3.3

**OPERATION AND MAINTENANCE ACTIVITIES
GROUNDWATER EXTRACTION SYSTEM
JANUARY 2013 - DECEMBER 2013
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Date</i>	<i>Location</i>	<i>Event</i>	<i>Remedy</i>	<i>Contractor</i>
3/26/2013	EW2	Pump Protection Adjustment	Adjust pump protection sensitivity.	CRA (M. Richie)
4/25/2013	Dewatering Sump	Routine Maintenance	Remove, clean and reinstall drop out strainer of debris.	CRA (M. Richie)
5/13/2013 - 5/15/2013	EW1B and EW2	Well Rehabilitation	Mechanical Treatment (jet/brush/surge/airlift) of EW1B and EW2 and Chemical Treatment (NuWell acid) of EW2; Clean/inspect/re-install pump in EW1B and EW2.	Stevens Drilling and Environmental Services
5/14/2013	EW1B, EW2 and Dewatering Sump	Routine Maintenance	Replace components of extraction system piping (valves and pipe fittings) for EW1B, EW2, and the Dewatering Sump.	CRA (M. Richie)
5/16/2013	EW2	Routine Maintenance	Remove and replace flow meter.	CRA (M. Richie)
5/31/2013	Dewatering Sump	Troubleshoot Flow Rate/Pump	Troubleshoot pump operation (disconnect motor leads; test to grounded resistance), remove, clean and reinstall drop out strainer of debris, and conduct flow rate tests.	CRA (M. Barnes)
5/31/2013	EW1B	Routine Maintenance	Remove and replace flow meter.	CRA (M. Barnes)

TABLE 3.3

**OPERATION AND MAINTENANCE ACTIVITIES
GROUNDWATER EXTRACTION SYSTEM
JANUARY 2013 - DECEMBER 2013
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Date</i>	<i>Location</i>	<i>Event</i>	<i>Remedy</i>	<i>Contractor</i>
6/20/2013	Dewatering Sump	Pump Broken	Turn off pump because no flow rate is observed during weekly inspection. Pump is broken; schedule replacement.	CRA (M. Barnes)
7/1/2013	Dewatering Sump	Pump Replacement	Replace pump and install pump shroud to protect pump from overheating.	Stevens Drilling and Environmental Services
8/16/2013	Landfill Cap	Landfill Cap Mowing	CRA mowed the landfill cap.	CRA (M. Barnes/ B. Lardy)
11/18/2013 - 11/22/2013	EW1B and EW2	Well Rehabilitation	Mechanical Treatment (jet/brush/surge/airlift) of EW1B and EW2 and Chemical Treatment (NuWell acid) of EW1B; Replace pump in EW1B; Clean/inspect/re-install pump in EW2.	Stevens Drilling and Environmental Services

**HISTORICAL GROUNDWATER SAMPLING EVENT SUMMARY
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Round</i>	<i>Date</i>	<i>Sampled By</i>	<i>Description</i>
1	January 1986	USEPA	Samples from monitoring and residential wells
2	June 1987	CRA	Samples from leachate, monitoring and residential wells
3	January 1988	CRA	Samples from leachate, monitoring and residential wells
4	August 1988	CRA	Samples from leachate, monitoring and residential wells
5	March 1989	CRA	Samples from leachate, monitoring and residential wells
6	July 1989	CRA	Samples from leachate, monitoring and residential wells
7	October 1989	CRA	Samples from leachate, monitoring and residential wells
8	January 1990	CRA	Samples from leachate, monitoring and residential wells
9	May 1990	CRA	Samples from leachate, monitoring and residential wells
10	September 1990	CRA	Samples from leachate, monitoring and residential wells
11	December 1990	CRA	Samples from leachate, monitoring and residential wells
12	March 1991	CRA	Samples from leachate, monitoring and residential wells
13	June 1991	CRA	Samples from leachate, monitoring and residential wells
14	December 1991	CRA	Samples from leachate, monitoring and residential wells
15	May 1992	CRA	Samples from leachate, monitoring and residential wells
16	November 1992	CRA	Samples from leachate, monitoring and residential wells
17	May 1993	CRA	Samples from leachate, monitoring and residential wells
18	October 1993	CRA	Samples from leachate, monitoring and residential wells
19	January 1994	CRA	Samples from residential wells
20	April 1994	CRA	Samples from residential wells
21	May 1994	CRA	Samples from residential wells
22	August 1994	CRA	Samples from leachate and monitoring wells
23	November 1994	CRA	Samples from residential wells
24	December 1994	CRA	Samples from leachate, monitoring and residential wells
25	May 1995	CRA	Samples from leachate, monitoring and residential wells
26	October 1995	CRA	Samples from leachate, monitoring and residential wells
27	May 1996	CRA	Samples from leachate and monitoring wells
28	October 1996	CRA	Samples from leachate, monitoring and residential wells
29	May 1997	CRA	Samples from leachate and monitoring wells
30	October 1997	CRA	Samples from leachate, monitoring and residential wells
31	May 1998	CRA	Samples from leachate and monitoring wells
32	October 1998	CRA	Samples from leachate, monitoring and residential wells
33	October/November 1999	CRA	Samples from compliance point (pilot study), leachate, monitoring and residential wells
34	January/February 2000	CRA	Samples from compliance point wells
35	October 2000	CRA	Samples from leachate, monitoring and residential wells
36	November 2001	CRA	Samples from leachate, monitoring and residential wells
37	October 2002	CRA	Samples from leachate, monitoring and residential wells
38	October 2003	CRA	Samples from leachate, monitoring and residential wells
39	October 2004	CRA	Samples from leachate, monitoring and residential wells
40	January 2005	CRA	Samples from residential wells

**HISTORICAL GROUNDWATER SAMPLING EVENT SUMMARY
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Round</i>	<i>Date</i>	<i>Sampled By</i>	<i>Description</i>
41	February 2005	CRA/MPCA	Samples from residential wells
42	March 2005	CRA/MPCA	Samples from residential wells
43	April 2005	MPCA	Samples from residential wells
44	May 2005	CRA/MPCA	Samples from residential wells
45	June 2005	CRA/MPCA	Samples from residential wells
46	August 2005	CRA/MPCA	Samples from residential wells
47	October 2005	CRA	Samples from select monitoring wells
48	November 2005	CRA/MPCA	Samples from leachate, monitoring and residential wells
49	December 2005	CRA	Samples from select monitoring wells
50	January 2006	CRA	Samples from select monitoring wells
51	February 2006	CRA/MPCA	Samples from residential wells
52	May 2006	CRA/MPCA	Samples from residential wells
53	October 2006	CRA/MPCA	Samples from leachate, monitoring and residential wells
54	November 2006	CRA	Samples from select monitoring wells
55	January 2007	CRA	Samples from select monitoring wells
56	April 2007	CRA/MPCA	Samples from residential wells
57	October 2007	CRA/MPCA	Samples from leachate, monitoring and residential wells
58	April/May 2008	CRA/MPCA	Samples from residential wells
59	September 2008	CRA	Samples from select monitoring wells
60	October/November 2008	CRA/MPCA	Samples from leachate, monitoring and residential wells
61	April 2009	CRA/MPCA	Samples from residential wells
62	October 2009	CRA/MPCA	Samples from leachate, monitoring and residential wells
63	April 2010	CRA/MPCA	Samples from residential wells
64	October 2010	CRA/MPCA	Samples from leachate, monitoring and residential wells
65	April 2011	CRA/MPCA	Samples from residential wells
66	October 2011	CRA/MPCA	Samples from leachate, monitoring and residential wells
67	April/May 2012	CRA/MPCA	Samples from residential wells
68	October 2012	CRA/MPCA	Samples from leachate, monitoring and residential wells
69	May 2013	CRA/MPCA	Samples from residential wells
70	September/October 2013	CRA/MPCA	Samples from leachate, monitoring and residential wells

TABLE 4.2

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(PERCHED GROUNDWATER UNIT)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>Date</i>		<i>Chemical Oxygen Demand mg/L</i>	<i>Chloride mg/L</i>	<i>pH</i>	<i>Solids, Total Suspended mg/L</i>	<i>1,1-Dichloroethane ug/L</i>	<i>1,2-Dichloroethane ug/L</i>	<i>Acetone ug/L</i>	<i>Benzene ug/L</i>	<i>Chloroethane ug/L</i>	<i>cis-1,2-Dichloroethene ug/L</i>	<i>Dichlorodifluoromethane ug/L</i>	<i>Dichlorofluoromethane ug/L</i>
<i>On-Site Monitoring Wells</i>														
DEWATERING SUMP	1/17/13		NA	NA	NA	NA	1.3	0.64 J	< 10	2.5	9	0.61	< 1	< 1
DEWATERING SUMP	4/18/13		NA	NA	NA	NA	0.45 J	0.26 J	< 10	0.91 J	3.4	< 0.5	0.35 J	< 1
DEWATERING SUMP	7/18/13		NA	NA	NA	NA	2.7	0.71 J	< 10	3.5	22	1	< 1	0.55 J
DEWATERING SUMP	10/3/13		35	100	8.01	10	1.3	< 1	5.5	2.7	11	0.75	< 1	< 1
LW2	10/3/13		NA	9.9	NA	NA	RR	RR	RR	RR	RR	RR	RR	RR
LW3	10/3/13		NA	71	NA	NA	0.87 J	< 1	< 10	1.3	0.36 J	< 0.5	4.3	< 1
MW1S	10/2/13		NA	13	NA	NA	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1
MW1S	10/2/13	D	NA	14	NA	NA	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1
MW4U	10/3/13		NA	210	NA	NA	RR	RR	RR	RR	RR	RR	RR	RR

TABLE 4.2

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(PERCHED GROUNDWATER UNIT)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>Date</i>		<i>Ethyl ether</i> ug/L	<i>Ethylbenzene</i> ug/L	<i>Isopropylbenzene</i> ug/L	<i>Methyl isobutyl ketone</i> ug/L	<i>Methylene chloride</i> ug/L	<i>Toluene</i> ug/L	<i>trans-1,2-Dichloroethene</i> ug/L	<i>Trichloroethene</i> ug/L	<i>Vinyl chloride</i> ug/L	<i>Xylenes, Total</i> ug/L	<i>Total VOCs</i> ug/L
<i>On-Site Monitoring Wells</i>													
DEWATERING SUMP	1/17/13		< 2	5.1	0.5 J	< 10	< 1	2.4	0.88	< 1	28	11	61.93
DEWATERING SUMP	4/18/13		< 2	0.91 J	0.5 J	< 10	< 1	0.58 J	0.26 J	< 1	5.6	2.7	15.92
DEWATERING SUMP	7/18/13		< 2	12	0.7 J	< 10	< 1	4.1	1.4	< 1	38	28	114.7
DEWATERING SUMP	10/3/13		< 2	9.2	0.65 J	< 10	< 1	2.1	1.1	< 1	25	18	77.3
LW2	10/3/13		RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR
LW3	10/3/13		0.65 J	< 1	< 1	< 10	< 1	< 1	< 0.5	0.3 J	< 1	< 1	7.78
MW1S	10/2/13		< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	ND
MW1S	10/2/13	D	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	ND
MW4U	10/3/13		RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR

Notes:

D - Duplicate

J - Estimated Result

NA - Not Analyzed

ND - Not Detected

RR - Result Rejected (suspected laboratory reporting error).

TABLE 4.3

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(LOWER SAND AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>SCG ⁽¹⁾ Date</i>	<i>Chemical Oxygen Demand mg/L</i>	<i>Chloride mg/L</i>	<i>pH</i>	<i>Solids, Total Suspended mg/L</i>	<i>1,1-Dichloroethane 70 ug/L</i>	<i>1,2-Dichloroethane 4 ug/L</i>	<i>Acetone 700 ug/L</i>	<i>Benzene 5 ug/L</i>	<i>Chloroethane ug/L</i>	<i>cis-1,2-Dichloroethene 70 ug/L</i>	<i>Dichlorodifluoromethane 1000 ug/L</i>	<i>Dichlorofluoromethane ug/L</i>
<u>On-Site Monitoring Wells</u>													
EW1B	1/17/13	NA	NA	NA	NA	5.8	< 3.3	< 33	< 3.3	4.9	11	2.3 J	1.7 J
EW1B	4/18/13	NA	NA	NA	NA	6.3	< 3.3	< 33	< 3.3	4.8	9.9	3.3	2.3 J
EW1B	7/18/13	NA	NA	NA	NA	5.7	< 2.5	< 25	0.44 J	4.7	9.8	2.9	1.8 J
EW1B	10/3/13	20	44	6.99	18	6.1	< 2.9	< 29	< 2.9	3.2	10	2.6 J	1.6 J
MW1D	10/2/13	NA	33	NA	NA	< 1	< 1	< 10	< 1	< 1	< 0.5	9.4	3.2
MW4S	10/3/13	NA	300	NA	NA	RR	RR	RR	RR	RR	RR	RR	RR
MW4D	10/2/13	NA	390	NA	NA	130	18	< 50	5.6	190	< 2.5	2.2 J	< 5
MW10D	10/2/13	NA	21	NA	NA	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1
MW11D	10/2/13	NA	31	NA	NA	0.64 J	< 1	< 10	< 1	< 1	0.29 J	< 1	< 1
<u>Compliance Monitoring Wells</u>													
MW12D	10/1/13	NA	57	NA	NA	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1
MW13D	10/1/13	NA	73	NA	NA	1.3	< 1	< 10	< 1	< 1	0.67	< 1	< 1
MW16D	10/2/13	NA	47	NA	NA	0.44 J	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1

TABLE 4.3

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(LOWER SAND AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>SCG ⁽¹⁾ Date</i>	<i>Ethyl ether 1000 ug/L</i>	<i>Ethylbenzene 700 ug/L</i>	<i>Isopropylbenzene 300 ug/L</i>	<i>Methyl isobutyl ketone 300 ug/L</i>	<i>Methylene chloride 5 ug/L</i>	<i>Toluene 200 ug/L</i>	<i>trans-1,2-Dichloroethene 100 ug/L</i>	<i>Trichloroethene 5 ug/L</i>	<i>Vinyl chloride 2 ug/L</i>	<i>Xylenes, Total 10000 ug/L</i>	<i>Total VOCs -- ug/L</i>
<u>On-Site Monitoring Wells</u>												
EW1B	1/17/13	< 6.7	< 3.3	< 3.3	< 33	2 J	< 3.3	< 1.7	96	8	< 3.3	131.7
EW1B	4/18/13	< 6.7	< 3.3	< 3.3	< 33	< 3.3	< 3.3	< 1.7	85	7.1	< 3.3	118.7
EW1B	7/18/13	< 5	< 2.5	< 2.5	< 25	1.2 J	< 2.5	< 1.3	97	6.2	< 2.5	129.7
EW1B	10/3/13	< 5.7	< 2.9	< 2.9	< 29	< 2.9	< 2.9	< 1.4	100	5.6	< 2.9	129.1
MW1D	10/2/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	12.6
MW4S	10/3/13	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR
MW4D	10/2/13	< 10	< 5	< 5	< 50	< 6.6	6.8	1.5 J	< 5	12	< 5	366.1
MW10D	10/2/13	< 2	< 1	< 1	2.8 J	< 1	< 1	< 0.5	< 1	< 1	< 1	2.8
MW11D	10/2/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	0.93
<u>Compliance Monitoring Wells</u>												
MW12D	10/1/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	ND
MW13D	10/1/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	1.97
MW16D	10/2/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	0.44

Notes:

⁽¹⁾ - Site Cleanup Goals (SCGs) apply to compliance monitoring wells only.

 Shaded results exceed SCGs, where applicable. ⁽¹⁾

-- - Criterion not established

RR - Result Rejected (suspected laboratory reporting error).

J - Estimated Result

NA - Not Analyzed

ND - Not Detected

TABLE 4.4

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(ST. PETER SANDSTONE AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>SCG ⁽¹⁾ Date</i>	<i>Chemical Oxygen Demand -- mg/L</i>	<i>Chloride -- mg/L</i>	<i>pH</i>	<i>Solids, Total Suspended -- mg/L</i>	<i>1,1-Dichloroethane 70 ug/L</i>	<i>1,2-Dichloroethane 4 ug/L</i>	<i>Acetone 700 ug/L</i>	<i>Benzene 5 ug/L</i>	<i>Chloroethane -- ug/L</i>	<i>cis-1,2-Dichloroethene 70 ug/L</i>	<i>Dichlorodifluoromethane 1000 ug/L</i>	<i>Dichlorofluoromethane -- ug/L</i>
<u>On-Site Monitoring Wells</u>													
EW2	1/17/13	NA	NA	NA	NA	9.3	0.77 J < 10	0.4 J < 10	0.43 J < 10	9.6	4.2	5.8	7
EW2	4/18/13	NA	NA	NA	NA	9.2	0.73 J < 10	0.43 J < 10	0.62 J < 10	8.8	3.7	5.3	7.3
EW2	7/18/13	NA	NA	NA	NA	12	0.92 J < 10	0.62 J < 10	0.47 J < 10	17	6.4	6.5	9.5
EW2	10/3/13	15 J	44	7.22	26	11	0.83 J < 10	3.5 J < 10	0.47 J < 10	11	6.4	4.5	8.1
MW8B	10/2/13	NA	50	NA	NA	10	0.85 J < 10	0.13 J < 10	0.13 J < 10	2.5	2.2	2.3	8.3
<u>Compliance Monitoring Wells</u>													
MW10B	10/2/13	NA	1.9	NA	NA	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1
MW12B	10/1/13	NA	5.6	NA	NA	0.34 J < 1	< 1	< 10	< 1	< 1	< 0.5	< 1	0.44 J
MW12B	10/1/13	D	5.5	NA	NA	0.36 J < 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1
MW13B	10/1/13	NA	33	NA	NA	0.17 J < 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1
MW16B	10/2/13	NA	9.5	NA	NA	< 1	< 1	< 10	< 1	< 1	< 0.5	1.3	0.58 J
<u>Converted Residential Monitoring Wells</u>													
6 Blue Goose Lane	9/30/13	NA	5.5	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1 Lily Pond Road	9/30/13	NA	16.2	NA	NA	7.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	6	1.9
11 Lily Pond Road	9/30/13	NA	3.8	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
11 Robb Farm Road	9/30/13	NA	13.4	NA	NA	0.52	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

TABLE 4.4

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(ST. PETER SANDSTONE AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>SCG ⁽¹⁾ Date</i>		<i>Chemical Oxygen Demand -- mg/L</i>	<i>Chloride -- mg/L</i>	<i>pH --</i>	<i>Solids, Total Suspended -- mg/L</i>	<i>1,1-Dichloroethane 70 ug/L</i>	<i>1,2-Dichloroethane 4 ug/L</i>	<i>Acetone 700 ug/L</i>	<i>Benzene 5 ug/L</i>	<i>Chloroethane -- ug/L</i>	<i>cis-1,2-Dichloroethene 70 ug/L</i>	<i>Dichlorodifluoromethane 1000 ug/L</i>	<i>Dichlorofluoromethane -- ug/L</i>
<u>Off-Site Monitoring Wells</u>														
EW3	10/1/13		NA	13.6	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
EW3	10/1/13	D	NA	13.5	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW17A	10/1/13		NA	64.8	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW17B	10/1/13		NA	37.4	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW18A	9/30/13		NA	64	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW18A	9/30/13	D	NA	64.3	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW18B	9/30/13		NA	28.1	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW19A	10/1/13		NA	65.2	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW19B	10/1/13		NA	14.8	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW20B	10/1/13		NA	9.6	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW21A	10/1/13		NA	4.8	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

TABLE 4.4

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(ST. PETER SANDSTONE AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>SCG ⁽¹⁾ Date</i>	<i>Ethyl ether 1000 ug/L</i>	<i>Ethylbenzene 700 ug/L</i>	<i>Isopropylbenzene 300 ug/L</i>	<i>Methyl isobutyl ketone 300 ug/L</i>	<i>Methylene chloride 5 ug/L</i>	<i>Toluene 200 ug/L</i>	<i>trans-1,2-Dichloroethene 100 ug/L</i>	<i>Trichloroethene 5 ug/L</i>	<i>Vinyl chloride 2 ug/L</i>	<i>Xylenes, Total 10000 ug/L</i>	<i>Total VOCs - ug/L</i>
<u>On-Site Monitoring Wells</u>												
EW2	1/17/13	< 2	< 1	< 1	< 10	< 1	0.8 J	< 0.5	0.88	4.5	< 1	43.25
EW2	4/18/13	< 2	< 1	< 1	< 10	< 1	0.72 J	< 0.5	1.1	3.7	< 1	40.98
EW2	7/18/13	< 2	< 1	< 1	< 10	< 1	1.3	0.23 J	1.5	5.9	< 1	61.87
EW2	10/3/13	< 2	< 1	< 1	< 10	< 1	1.1	0.22 J	1.4	4.6	< 1	53.12
MW8B	10/2/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	3.5	< 1	29.78
<u>Compliance Monitoring Wells</u>												
MW10B	10/2/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	ND
MW12B	10/1/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	0.78
MW12B	10/1/13 D	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	0.36
MW13B	10/1/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	0.17
MW16B	10/2/13	< 2	< 1	< 1	< 10	< 1	< 1	< 0.5	< 1	< 1	< 1	1.88
<u>Converted Residential Monitoring Wells</u>												
6 Blue Goose Lane	9/30/13	< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
1 Lily Pond Road	9/30/13	< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	15.6
11 Lily Pond Road	9/30/13	< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
11 Robb Farm Road	9/30/13	< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	0.52

TABLE 4.4

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(ST. PETER SANDSTONE AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>SCG ⁽¹⁾</i>		<i>Ethyl ether</i> <i>1000</i> <i>ug/L</i>	<i>Ethylbenzene</i> <i>700</i> <i>ug/L</i>	<i>Isopropylbenzene</i> <i>300</i> <i>ug/L</i>	<i>Methyl isobutyl ketone</i> <i>300</i> <i>ug/L</i>	<i>Methylene chloride</i> <i>5</i> <i>ug/L</i>	<i>Toluene</i> <i>200</i> <i>ug/L</i>	<i>trans-1,2-Dichloroethene</i> <i>100</i> <i>ug/L</i>	<i>Trichloroethene</i> <i>5</i> <i>ug/L</i>	<i>Vinyl chloride</i> <i>2</i> <i>ug/L</i>	<i>Xylenes, Total</i> <i>10000</i> <i>ug/L</i>	<i>Total VOCs</i> <i>--</i> <i>ug/L</i>
<u>Off-Site Monitoring Wells</u>													
EW3	10/1/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
EW3	10/1/13	D	< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW17A	10/1/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW17B	10/1/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	0.35	< 1	0.35
MW18A	9/30/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW18A	9/30/13	D	< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW18B	9/30/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW19A	10/1/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW19B	10/1/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW20B	10/1/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND
MW21A	10/1/13		< 0.5	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.2	< 0.2	< 1	ND

Notes:

⁽¹⁾ - Site Cleanup Goals (SCGs) apply to compliance monitoring wells only.

 Shaded results exceed SCGs, where applicable. ⁽¹⁾

-- - Criterion not established

D - Duplicate Sample

J - Estimated Result

NA - Not Analyzed

ND - Not Detected

TABLE 4.5

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(PRAIRIE DU CHIEN AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>Date</i>		<i>Chemical Oxygen Demand mg/L</i>	<i>Chloride mg/L</i>	<i>pH</i>	<i>Solids, Total Suspended mg/L</i>	<i>1,1-Dichloroethane ug/L</i>	<i>1,2-Dichloroethane ug/L</i>	<i>Acetone ug/L</i>	<i>Benzene ug/L</i>	<i>Chloroethane ug/L</i>	<i>cis-1,2-Dichloroethene ug/L</i>	<i>Dichlorodifluoromethane ug/L</i>	<i>Dichlorofluoromethane ug/L</i>
<u>Off-Site Monitoring Wells</u>														
MW17L	9/30/13		NA	11.7	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW18L	9/30/13		NA	13.9	NA	NA	< 0.5	< 0.5	< 3.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW19L	10/1/13		NA	12.1	NA	NA	< 0.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

TABLE 4.5

**2013 GROUNDWATER ANALYTICAL DATA DETECTIONS - MONITORING WELLS
(PRAIRIE DU CHIEN AQUIFER)
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

			<i>Ethyl ether</i> <i>ug/L</i>	<i>Ethylbenzene</i> <i>ug/L</i>	<i>Isopropylbenzene</i> <i>ug/L</i>	<i>Methyl isobutyl ketone</i> <i>ug/L</i>	<i>Methylene chloride</i> <i>ug/L</i>	<i>Toluene</i> <i>ug/L</i>	<i>trans-1,2-Dichloroethene</i> <i>ug/L</i>	<i>Trichloroethene</i> <i>ug/L</i>	<i>Vinyl chloride</i> <i>ug/L</i>	<i>Xylenes, Total</i> <i>ug/L</i>	<i>Total VOCs</i> <i>ug/L</i>				
<i>Location</i>	<i>Date</i>																
<u>Off-Site Monitoring Wells</u>																	
MW17L	9/30/13	<	0.5	<	0.5	<	0.5	2.9	<	0.5	<	0.2	<	1	2.9		
MW18L	9/30/13	<	0.5	<	0.5	<	0.5	<	0.5	<	0.2	<	0.2	<	1	ND	
MW19L	10/1/13	<	0.5	<	0.5	<	0.5	1.6	<	0.5	<	0.2	<	0.2	<	1	1.6

Notes:

NA - Not Analyzed

ND - Not Detected

TABLE 4.6

**2013 GROUNDWATER ANALYTICAL DETECTIONS - RESIDENTIAL WELLS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>MDH HBG Basis Date</i>		<i>-- Chloride -- mg/L</i>	<i>1,1-Dichloroethane 100 RAA ug/L</i>	<i>Acetone 4000 HRL ug/L</i>	<i>cis-1,2-Dichloroethene 50 HRL ug/L</i>	<i>Dichlorodifluoromethane 700 HRL ug/L</i>	<i>-- Dichlorofluoromethane -- ug/L</i>	<i>Toluene 200 HRL ug/L</i>	<i>Vinyl chloride 0.2 HRL ug/L</i>	<i>-- Total VOCs -- ug/L</i>
1 Birch Lane	10/9/13		5.4	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Birch Lane	10/9/13		14.3	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Birch Lane	10/9/13		5.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Birch Lane	10/9/13	D	5.4	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Buffalo Road	5/20/13		33.7	0.20 J	< 2.5	< 0.5	0.68	< 0.5	< 0.5	< 0.2	0.88
1 Buffalo Road	10/9/13		26.6	0.11 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.11
3 Buffalo Road	5/20/13		29.3	0.15 J	< 2.5	< 0.5	0.57	< 0.5	< 0.5	< 0.2	0.72
3 Buffalo Road	10/9/13		34.1	0.20 J	< 2.5	< 0.5	0.6	< 0.5	< 0.5	< 0.2	0.8
2 Cardinal	10/9/13		31.2	0.16 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.16
9 Duck Pass Road	10/7/13		36	0.72	< 2.5	< 0.5	1.2	< 0.5	< 0.5	< 0.2	1.92
11 Duck Pass Road	10/7/13		113	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
13 Duck Pass Road	10/7/13		21.9	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
15 Duck Pass Road	10/10/13		22.1	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
20 Duck Pass Road	10/7/13		39.1	0.54	< 2.5	< 0.5	1.4	0.58	< 0.5	< 0.2	2.52
22 Duck Pass Road	10/7/13		64.9	2.6	< 2.5	< 0.5	4.8	1.6	< 0.5	< 0.2	9
24 Duck Pass Road	10/7/13		6.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
26 Duck Pass Road	10/7/13		28.4	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Eagle Ridge Road	5/22/13		25	0.17 J	< 2.5	< 0.5	0.57	< 0.5	< 0.5	< 0.2	0.74
1 Eagle Ridge Road	10/9/13		16.1	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Eagle Ridge Road	5/22/13		27.8	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Eagle Ridge Road	10/9/13		30.7	0.11 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.11
3 Eagle Ridge Road	10/9/13		37.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Eagle Ridge Road	10/9/13	D	37.8	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND

TABLE 4.6

**2013 GROUNDWATER ANALYTICAL DETECTIONS - RESIDENTIAL WELLS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>MDH HBG Basis Date</i>		<i>-- Chloride -- mg/L</i>	<i>1,1-Dichloroethane 100 RAA ug/L</i>	<i>Acetone 4000 HRL ug/L</i>	<i>cis-1,2-Dichloroethene 50 HRL ug/L</i>	<i>Dichlorodifluoromethane 700 HRL ug/L</i>	<i>-- Dichlorofluoromethane -- ug/L</i>	<i>Toluene 200 HRL ug/L</i>	<i>Vinyl chloride 0.2 HRL ug/L</i>	<i>-- Total VOCs -- ug/L</i>
4 Eagle Ridge Road	5/22/13		25.3	< 0.5	3.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	3.4
4 Eagle Ridge Road	10/9/13		26.3	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
5 Eagle Ridge Road	10/9/13		40.9	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
6 Eagle Ridge Road	5/22/13		56.6	< 0.5	3.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	3.7
6 Eagle Ridge Road	10/9/13		49.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
10 Eagle Ridge Road	10/9/13		13.9	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
32 East Oaks Road	10/7/13		21.1	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
36 East Oaks Road	10/7/13		22.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
38 East Oaks Road	10/7/13		1.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
44 East Oaks Road	5/20/13		10.6 J	< 0.5	3.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	3
44 East Oaks Road	10/7/13		13	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
50 East Oaks Road	5/22/13		33.2	0.16 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.16
50 East Oaks Road	5/22/13	SS	NA	0.15 J	< 20	< 0.2	< 1	< 0.5	< 0.2	0.10 J	0.25
50 East Oaks Road	10/10/13		22.9	0.078 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.078
1 Gadwall	10/7/13		24.3	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Gadwall	10/7/13		30.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Gadwall	10/7/13		29.1	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 Gadwall	10/7/13		30.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 Gadwall	10/7/13	D	30.8	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Heron Lane	10/8/13		23.9	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Heron Lane (New)	2/18/13		NA	0.15 J	< 20	< 0.2	< 1 J	< 0.5	< 0.2	< 0.2	0.15
2 Heron Lane (New)	2/18/13	D	NA	0.11 J	< 20	< 0.2	< 1 J	< 0.5	< 0.2	< 0.2	0.11
2 Heron Lane (New)	5/20/13		13.9 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	0.58	< 0.2	0.58

TABLE 4.6

**2013 GROUNDWATER ANALYTICAL DETECTIONS - RESIDENTIAL WELLS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>MDH HBG Basis Date</i>		<i>-- Chloride -- mg/L</i>	<i>1,1-Dichloroethane 100 RAA ug/L</i>	<i>Acetone 4000 HRL ug/L</i>	<i>cis-1,2-Dichloroethene 50 HRL ug/L</i>	<i>Dichlorodifluoromethane 700 HRL ug/L</i>	<i>-- Dichlorofluoromethane -- ug/L</i>	<i>Toluene 200 HRL ug/L</i>	<i>Vinyl chloride 0.2 HRL ug/L</i>	<i>-- Total VOCs -- ug/L</i>
2 Heron Lane (New)	10/8/13		16.9	0.15 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.15
3 Heron Lane	5/20/13		38 J	< 0.5	4.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	4.2
3 Heron Lane	10/8/13		39.6	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
5 Heron Lane	5/20/13		44.4 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
5 Heron Lane	10/8/13		49.7	< 0.5	< 3.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Hummingbird Hill	5/22/13		26.3	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Hummingbird Hill	5/22/13	D	26.3	< 0.5	7.1 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	7.1
1 Hummingbird Hill	5/22/13	SS	NA	0.09 J	< 20	< 0.2	< 1	< 0.5	< 0.2	0.06 J	0.15
1 Hummingbird Hill	5/22/13	SSD	NA	0.11 J	< 20	< 0.2	< 1	< 0.5	< 0.2	0.06 J	0.17
1 Hummingbird Hill	10/10/13		23.8	0.087 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.087
1 Hummingbird Hill	10/10/13	D	23.9	0.087 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.087
3 Mallard Lane	10/7/13		14.5 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
5 Mallard Lane	10/7/13		3.7 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
6 Mallard Lane	10/7/13		3 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
7 Mallard Lane	10/7/13		6	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Poplar Lane	10/10/13		4.6 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Poplar Lane	10/10/13		22 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 Poplar Lane	10/10/13		1.2 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
6 Poplar Lane	10/10/13		21.5 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
8 Poplar Lane	5/20/13		30.9 J	< 0.5	3.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	3.6
8 Poplar Lane	10/10/13		33.8 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
10 Poplar Lane	5/20/13		13.1 J	< 0.5	3.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	3.1
10 Poplar Lane	10/10/13		15.2 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND

TABLE 4.6

**2013 GROUNDWATER ANALYTICAL DETECTIONS - RESIDENTIAL WELLS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>MDH HBG Basis Date</i>		<i>-- Chloride -- mg/L</i>	<i>1,1-Dichloroethane 100 RAA ug/L</i>	<i>Acetone 4000 HRL ug/L</i>	<i>cis-1,2-Dichloroethene 50 HRL ug/L</i>	<i>Dichlorodifluoromethane 700 HRL ug/L</i>	<i>-- Dichlorofluoromethane -- ug/L</i>	<i>Toluene 200 HRL ug/L</i>	<i>Vinyl chloride 0.2 HRL ug/L</i>	<i>-- Total VOCs -- ug/L</i>
3 Quail Lane	5/20/13		20.4	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Quail Lane	10/7/13		17.7	J < 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Robb Farm Road	10/7/13		1	J < 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Robb Farm Road	10/7/13	D	1	J < 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Robb Farm Road	10/10/13		12.6	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
35 Robb Farm Road	10/8/13		50.9	< 0.5	< 2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
35 Robb Farm Road	10/8/13	D	50.4	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
37 Robb Farm Road	10/8/13		6.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
43 Robb Farm Road	10/10/13		30.1	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
43 Robb Farm Road	10/10/13	D	30.4	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
44 Robb Farm Road	10/8/13		26.8	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
45 Robb Farm Road	10/10/13		22.4	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Ski Lane	5/20/13		14.5	J < 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 Ski Lane	10/9/13		20	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 Ski Lane	5/20/13		31.6	J < 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 Ski Lane	10/9/13		37	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
6 Ski Lane	5/20/13		29.8	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
6 Ski Lane	10/9/13		28.7	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
8 Ski Lane	10/9/13		18.9	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
10 Ski Lane	5/20/13		33.2	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
10 Ski Lane	10/9/13		26.4	0.075 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.075
12 Ski Lane	5/20/13		26.5	< 0.5	2.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	2.8
12 Ski Lane	5/20/13	D	26.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND

TABLE 4.6

**2013 GROUNDWATER ANALYTICAL DETECTIONS - RESIDENTIAL WELLS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>MDH HBG Basis Date</i>		<i>-- Chloride -- mg/L</i>	<i>1,1-Dichloroethane 100 RAA ug/L</i>	<i>Acetone 4000 HRL ug/L</i>	<i>cis-1,2-Dichloroethene 50 HRL ug/L</i>	<i>Dichlorodifluoromethane 700 HRL ug/L</i>	<i>-- Dichlorofluoromethane -- ug/L</i>	<i>Toluene 200 HRL ug/L</i>	<i>Vinyl chloride 0.2 HRL ug/L</i>	<i>-- Total VOCs -- ug/L</i>
12 Ski Lane	10/9/13		15	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
14 Ski Lane	10/9/13		33.1	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
16 Ski Lane	5/20/13		25	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
16 Ski Lane	10/9/13		37.3	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Thompson Lane	5/22/13		284	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 Thompson Lane	10/8/13		20.9	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Thompson Lane	5/21/13		7.3 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 Thompson Lane	10/9/13		7.7	< 0.5	< 4.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 Thompson Lane	5/20/13		114	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 Thompson Lane	10/9/13		116	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
1 West Shore Road	10/10/13		42.1	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
2 West Shore Road	10/10/13		44.2	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 West Shore Road	10/10/13		5.6 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
3 West Shore Road	10/10/13	D	5.8	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
4 West Shore Road	10/10/13		54	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
5 West Shore Road	10/10/13		7.3 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
6 West Shore Road	10/10/13		4.3 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
8 West Shore Road	5/22/13		9.8	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
8 West Shore Road	5/22/13	SS	NA	< 0.2	< 20	< 0.2	< 1.0	< 0.5	< 0.2	< 0.2	ND
8 West Shore Road	10/10/13		9.5	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
9 West Shore Road	5/20/13		6.4 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
9 West Shore Road	10/10/13		11.6 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
10 West Shore Road	5/20/13		25.9 J	0.12 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.12

TABLE 4.6

**2013 GROUNDWATER ANALYTICAL DETECTIONS - RESIDENTIAL WELLS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Location</i>	<i>MDH HBG Basis Date</i>		<i>-- Chloride mg/L</i>	<i>1,1-Dichloroethane 100 RAA ug/L</i>	<i>Acetone 4000 HRL ug/L</i>	<i>cis-1,2-Dichloroethene 50 HRL ug/L</i>	<i>Dichlorodifluoromethane 700 HRL ug/L</i>	<i>Dichlorofluoromethane -- ug/L</i>	<i>Toluene 200 HRL ug/L</i>	<i>Vinyl chloride 0.2 HRL ug/L</i>	<i>-- Total VOCs -- ug/L</i>
10 West Shore Road	5/20/13	D	25.8 J	0.12 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.12
10 West Shore Road	10/10/13		24.6 J	0.11 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.11
11 West Shore Road	5/21/13		22.6 J	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	2.6
11 West Shore Road	10/10/13		5.9 J	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	ND
15 West Shore Road	5/20/13		30.9 J	0.16 J	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	0.16
15 West Shore Road	10/10/13		38.6 J	0.27 J	< 2.5	0.17 J	< 0.5	< 0.5	< 0.5	0.10 J	0.54

Notes:

MDH HBG - Health Based Guidance (HBG) established by the Minnesota Department of Health (MDH).

(Note: if multiple guidance values are available, the lowest value is used for screening purposes.)

HRL -Health Risk Limit (promulgated)

RAA - Risk Assessment Advice.

-- - Not Established

D - Duplicate

J - Estimated

NA - Not Analyzed

ND - Not Detected

SS - Split Sample (MPCA/MDH)

TABLE 5.1

**HISTORICAL MSA GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>Pressure (in. w.c.)</i>	<i>% Combustible Gas</i>	
			<i>w/charcoal</i>	<i>w/o charcoal</i>
GP1	5/19/1995	NM	10.0	NM
	6/29/1995	0.0	35.0	25.0
	9/6/1995	0.0	NM	16.0
	11/16/1995	NM	11.0	9.0
	5/20/1996	0.0	50.0	50.0
	8/9/1996	0.0	NM	32.0
	10/11/1996	0.0	25.0	32.0
	6/6/1997	0.0	30.0	34.0
	9/18/1997	0.0	70.0	71.0
	11/25/1997	NM	54.0	54.0
	5/18/1998	0.0	54.0	56.0
	9/23/1998	0.0	48.0	58.0
	10/26/1998	0.0	68.0	58.0
	4/8/1999	0.0	24.0	36.0
	7/16/1999	0.0	16.0	12.0
	11/2/1999	0.0	1.1	4.6
	6/30/2000	0.0 ⁽¹⁾	56.0	44.0
	9/21/2000	0.0 ⁽¹⁾	0.0	0.0
	1/5/2001	0.2 ⁽¹⁾	57.0	54.0
GP2	5/19/1995	NM	45.0	NM
	6/29/1995	0.0	42.0	30.0
	9/6/1995	0.0	NM	48.0
	11/16/1995	NM	50.0	50.0
	5/20/1996	0.0	32.0	40.0
	8/9/1996	0.0	NM	24.0
	10/11/1996	0.0	13.0	20.0
	6/6/1997	0.0	17.0	24.0
	9/18/1997	0.0	54.0	70.0
	11/25/1997	NM	25.0	34.0
	5/18/1998	0.0	29.0	35.0
	9/23/1998	0.0	4.4	2.6
	10/26/1998	0.0	3.8	22.0
	4/8/1999	0.0	0.0	0.0
	7/16/1999	0.0	15.0	16.0
	11/2/1999	0.0	2.0	3.6
	6/30/2000	0.4 ⁽¹⁾	12.0	8.0
	9/21/2000	0.0 ⁽¹⁾	5.0	9.0
	1/5/2001	0.0 ⁽¹⁾	32.0	32.0

TABLE 5.1

**HISTORICAL MSA GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>Pressure (in. w.c.)</i>	<i>% Combustible Gas</i>	
			<i>w/charcoal</i>	<i>w/o charcoal</i>
GP3	5/19/1995	NM	76.0	NM
	6/29/1995	0.0	70.0	70.0
	9/6/1995	0.0	NM	78.0
	11/16/1995	NM	72.0	72.0
	5/20/1996	0.0	82.0	82.0
	8/9/1996	0.0	NM	85.0
	10/11/1996	0.0	75.0	75.0
	6/6/1997	0.0	8.0	14.0
	9/18/1997	0.0	90.0	90.0
	11/25/1997	NM	93.0	93.0
	5/18/1998	0.0	80.0	84.0
	9/23/1998	0.0	78.0	90.0
	10/26/1998	0.0	88.0	88.0
	4/8/1999	0.0	100*	110*
	7/16/1999	0.0	0.0	0.0
	11/2/1999	0.0	9.0	11.0
	6/30/2000	0.1 ⁽¹⁾	23.0	22.0
	9/21/2000	0.0 ⁽¹⁾	0.0	0.0
	1/5/2001	0.1 ⁽¹⁾	38.0	36.0
GP4	5/19/1995	NM	79.0	NM
	6/29/1995	>5	54.0	40.0
	9/6/1995	>5	NM	72.0
	11/16/1995	NM	80.0	82.0
	5/20/1996	1.0	40.0	40.0
	8/9/1996	0.0	NM	28.0
	10/11/1996	0.0	72.0	74.0
	6/6/1997	0.0	0.3	0.8
	9/18/1997	0.0	63.0	78.0
	11/25/1997	NM	83.0	85.0
	5/18/1998	0.0	30.0	44.0
	9/23/1998	0.0	26.0	26.0
	10/26/1998	0.0	44.0	40.0
	4/8/1999	0.0	8.0	0.0
	7/16/1999	0.0	0.0	0.0
	11/2/1999	0.0	0.3	0.9
	6/30/2000	0.0 ⁽¹⁾	0.0	0.0
	9/21/2000	0.1 ⁽¹⁾	0.0	0.0
	1/5/2001	0.0 ⁽¹⁾	52.0	56.0

TABLE 5.1

**HISTORICAL MSA GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>Pressure (in. w.c.)</i>	<i>% Combustible Gas</i>	
			<i>w/charcoal</i>	<i>w/o charcoal</i>
GP5	5/19/1995	NM	82.0	NM
	6/29/1995	0.0	80.0	80.0
	9/6/1995	0.0	NM	88.0
	11/16/1995	NM	80.0	80.0
	5/20/1996	0.0	82.0	82.0
	8/9/1996	0.0	NM	29.0
	10/11/1996	0.0	46.0	46.0
	6/6/1997	0.0	16.0	28.0
	9/18/1997	0.0	33.0	34.0
	11/25/1997	NM	50.0	52.0
	5/18/1998	0.0	40.0	42.0
	9/23/1998	0.0	30.0	32.0
	10/26/1998	0.0	24.0	28.0
	4/8/1999	0.0	102*	140*
	7/16/1999	0.0	10.0	0.0
	11/2/1999	0.0	0.0	0.0
	6/30/2000	0.0 ⁽¹⁾	33.0	32.0
	9/21/2000	0.0 ⁽¹⁾	0.0	0.0
	1/5/2001	0.0 ⁽¹⁾	45.0	42.0
GP6	5/19/1995	NM	0.5	NM
	6/29/1995	0.0	5.7	4.5
	9/6/1995	0.0	NM	50.0
	11/16/1995	NM	18.0	18.0
	5/20/1996	0.0	30.0	35.0
	8/9/1996	0.0	NM	0.0
	10/11/1996	0.0	8.0	9.0
	6/6/1997	0.0	0.0	0.0
	9/18/1997	0.0	1.5	1.6
	11/25/1997	NM	39.0	40.0
	5/18/1998	0.0	47.0	52.0
	9/23/1998	0.0	1.5	1.4
	10/26/1998	0.0	0.0	0.0
	4/8/1999	0.0	19.0	30.0
	7/16/1999	0.0	0.0	0.0
	11/2/1999	0.0	0.0	0.0
	6/30/2000	0.0 ⁽¹⁾	32.0	30.0
	9/21/2000	0.0 ⁽¹⁾	0.0	0.0
	1/5/2001	0.0 ⁽¹⁾	42.0	40.0

Notes:

* Data point ignored

⁽¹⁾ Pressure measured with LandTec GEM 500

TABLE 5.2

**LANDTEC GEM 500
GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>LandTec GEM 500 Readings*</i>			
		<i>Pressure (in. H₂O)</i>	<i>%CH₄</i>	<i>%CO₂</i>	<i>%O₂</i>
GP1	11/02/99	0.0	1.3	17.6	3.5
GP1	06/30/00	0.0	46.3	13.2	5.1
GP1	09/21/00	0.0	3.6	1.4	19.3
GP1	01/05/01	0.2	62.4	12.3	2.3
GP1	05/18/01	0.0	0.0	8.1	6.8
GP1	08/17/01	0.0	0.4	12.4	1.9
GP1	06/17/02	0.0	0.0	7.3	6.0
GP1	11/04/02	0.0	0.0	4.2	14.9
GP1	05/20/03	0.0	0.0	2.5	15.2
GP1	08/13/03	0.0	0.0	18.2	1.7
GP1	04/14/04	0.0	2.0	8.5	7.3
GP1	07/08/04	0.0	0.1	6.1	12.8
GP1	04/27/05	0.0	0.0	2.5	18.9
GP1	07/06/05	0.0	0.0	13.9	7.2
GP1	04/26/06	0.0	0.0	4.6	15.0
GP1	09/20/06	0.0	0.1	8.2	7.4
GP1	06/13/07	0.0	6.3	14.0	2.5
GP1	09/20/07	0.0	31.9	11.2	8.9
GP1	06/12/08	0.0	0.0	10.4	6.5
GP1	08/26/08	0.0	0.0	3.4	16.1
GP1	06/24/09	0.0	2.0	10.5	2.8
GP1	09/17/09	0.0	11.3	4.9	12.9
GP1	04/28/10	0.0	0.0	0.4	19.7
GP1	09/17/10	0.0	0.0	1.0	19.4
GP1	05/04/11	0.0	0.0	0.6	20.4
GP1	09/14/11	0.0	0.0	2.3	18.4
GP1	06/20/12	0.0	0.3	0.2	19.4
GP1	09/19/12	0.0	0.1	1.4	18.3
GP1	05/22/13	0.0	0.4	0.8	20.3
GP1	09/18/13	0.0	3.4	2.4	17.1
GP2	11/02/99	0.0	6.1	14.2	1.0
GP2	06/30/00	0.4	11.0	15.6	0.0
GP2	09/21/00	0.0	10.2	15.9	1.8
GP2	01/05/01	0.0	34.7	8.7	2.5
GP2	05/18/01	0.0	13.6	6.1	6.3
GP2	08/17/01	0.0	14.3	15.7	0.8
GP2	06/17/02	0.0	0.0	2.4	16.9
GP2	11/04/02	0.0	23.2	10.5	4.2
GP2	05/20/03	0.0	0.0	0.5	19.7
GP2	08/13/03	0.0	9.8	0.7	11.4
GP2	04/14/04	0.0	0.0	16.7	2.0
GP2	07/08/04	0.0	0.1	12.6	4.9

TABLE 5.2

**LANDTEC GEM 500
GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>LandTec GEM 500 Readings*</i>			
		<i>Pressure (in. H₂O)</i>	<i>%CH₄</i>	<i>%CO₂</i>	<i>%O₂</i>
GP2	04/27/05	0.0	0.0	1.9	16.2
GP2	07/06/05	0.0	0.3	7.8	6.7
GP2	04/26/06	0.0	0.0	0.9	19.5
GP2	09/20/06	0.0	3.4	8.3	7.7
GP2	06/13/07	0.0	0.1	6.0	15.0
GP2	09/20/07	0.0	15.0	9.1	7.5
GP2	06/12/08	0.0	0.0	6.1	9.9
GP2	08/26/08	0.0	2.9	6.1	7.9
GP2	06/24/09	0.0	8.2	9.4	2.3
GP2	09/17/09	0.0	8.1	3.4	14.3
GP2	04/28/10	0.0	0.0	0.7	19.4
GP2	09/17/10	0.0	3.4	5.4	13.2
GP2	05/04/11	0.0	0.0	0.6	20.4
GP2	09/14/11	0.0	0.0	0.4	20.4
GP2	06/20/12	0.0	0.3	1.5	18.5
GP2	09/19/12	0.0	7.6	11.8	1.8
GP2	05/22/13	0.0	0.2	0.4	20.6
GP2	09/18/13	0.3	0.4	7.5	8.6
GP3	11/02/99	0.0	15.1	0.7	3.8
GP3	06/30/00	0.1	24.6	3.5	0.0
GP3	09/21/00	0.0	0.0	0.0	21.1
GP3	01/05/01	0.1	36.2	2.2	0.0
GP3	05/18/01	-0.1	15.0	3.3	0.4
GP3	08/17/01	0.0	0.0	0.0	20.4
GP3	06/17/02	0.0	34.4	2.9	0.6
GP3	11/04/02	0.0	48.4	2.4	0.2
GP3	05/20/03	0.0	1.4	0.3	19.3
GP3	08/13/03	0.0	12.8	4.4	1.4
GP3	04/14/04	0.0	20.2	0.2	3.8
GP3	07/08/04	0.0	25.5	0.4	3.0
GP3	04/27/05	0.0	0.0	0.0	21.3
GP3	07/06/05	0.0	25.3	3.3	0.1
GP3	04/26/06	0.0	0.0	0.0	20.4
GP3	09/20/06	0.0	0.0	1.4	17.6
GP3	06/13/07	0.0	0.0	0.3	20.8
GP3	09/20/07	0.0	25.0	4.3	3.4
GP3	06/12/08	0.0	12.4	2.1	10.8
GP3	08/26/08	0.0	17.5	1.8	12.5
GP3	06/24/09	0.0	13.6	2.6	2.5
GP3	09/17/09	0.0	19.2	1.5	6.0
GP3	04/28/10	0.0	0.0	0.4	19.6
GP3	09/17/10	0.0	0.0	1.6	17.9

TABLE 5.2

**LANDTEC GEM 500
GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>LandTec GEM 500 Readings*</i>			
		<i>Pressure (in. H₂O)</i>	<i>%CH₄</i>	<i>%CO₂</i>	<i>%O₂</i>
GP3	05/04/11	0.0	0.0	2.5	17.3
GP3	09/14/11	0.0	0.1	1.8	17.6
GP3	06/20/12	0.0	37.4	1.3	2.3
GP3	09/19/12	0.0	43.7	1.1	0.0
GP3	05/22/13	0.0	33.6	2.1	0.9
GP3	09/18/13	0.0	41.8	1.6	0.2
GP4	11/02/99	0.0	20.8	0.3	0.1
GP4	06/30/00	0.0	0.0	0.1	19.8
GP4	09/21/00	0.1	0.0	0.0	21.1
GP4	01/05/01	0.0	73.5	1.5	4.0
GP4	05/18/01	0.0	0.0	0.1	20.0
GP4	08/17/01	0.0	0.1	2.9	15.8
GP4	06/17/02	0.0	0.0	0.0	20.0
GP4	11/04/02	0.0	0.9	0.4	19.8
GP4	05/20/03	0.0	0.0	0.0	20.7
GP4	08/13/03	0.0	0.0	15.4	2.4
GP4	04/14/04	0.0	0.0	6.1	3.5
GP4	07/08/04	0.0	3.0	2.5	7.4
GP4	04/27/05	0.0	0.0	0.0	21.2
GP4	07/06/05	0.0	64.6	3.9	3.3
GP4	04/26/06	0.1	40.2	2.3	9.3
GP4	09/20/06	0.0	0.7	4.8	9.9
GP4	06/13/07	0.0	63.5	3.0	0.3
GP4	09/20/07	0.0	4.5	6.7	3.7
GP4	06/12/08	0.0	0.0	0.0	20.4
GP4	08/26/08	0.0	9.6	20.7	2.8
GP4	06/24/09	0.0	62.5	1.0	0.0
GP4	09/17/09	0.0	34.3	0.9	6.6
GP4	04/28/10	0.0	0.0	0.0	20.2
GP4	09/17/10	0.0	1.1	1.4	18.6
GP4	05/04/11	0.0	0.0	0.2	20.5
GP4	09/14/11	0.0	24.5	7.9	12.9
GP4	06/20/12	0.0	0.3	0.0	20.3
GP4	09/19/12	0.0	4.4	0.8	19.0
GP4	05/22/13	0.0	0.3	0.1	20.7
GP4	09/18/13	0.0	6.2	4.6	9.5
GP5	11/02/99	0.0	3.6	1.0	19.0
GP5	06/30/00	0.0	36.0	5.4	0.0
GP5	09/21/00	0.0	1.4	0.3	20.5
GP5	01/05/01	0.0	43.8	3.2	0.4
GP5	05/18/01	0.0	17.1	2.1	0.4

TABLE 5.2

**LANDTEC GEM 500
GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>LandTec GEM 500 Readings*</i>			
		<i>Pressure (in. H₂O)</i>	<i>%CH₄</i>	<i>%CO₂</i>	<i>%O₂</i>
GP5	08/17/01	0.0	0.0	1.7	15.1
GP5	06/17/02	0.0	33.8	3.0	2.7
GP5	11/04/02	0.0	11.1	1.5	1.1
GP5	05/20/03	0.0	1.8	0.0	19.3
GP5	08/13/03	0.0	0.0	15.9	1.2
GP5	04/14/04	0.0	28.5	0.2	2.9
GP5	07/08/04	0.0	10.7	1.8	4.8
GP5	04/27/05	0.1	0.0	0.0	21.2
GP5	07/06/05	0.0	28.8	3.6	0.1
GP5	04/26/06	0.0	0.0	0.2	19.9
GP5	09/20/06	0.0	0.0	0.4	20.0
GP5	06/13/07	0.0	0.0	0.1	21.2
GP5	09/20/07	0.0	0.0	0.2	20.9
GP5	06/12/08	0.0	0.0	0.0	20.4
GP5	08/26/08	0.0	0.0	1.0	18.2
GP5	06/24/09	0.0	0.0	0.0	19.9
GP5	09/17/09	0.0	0.0	0.2	19.9
GP5	04/28/10	0.0	0.0	0.2	20.1
GP5	09/17/10	0.0	0.0	0.7	19.4
GP5	05/04/11	0.0	0.0	1.1	17.5
GP5	09/14/11	0.0	0.0	0.5	20.2
GP5	06/20/12	0.0	0.1	0.0	20.2
GP5	09/19/12	0.0	0.0	0.1	20.3
GP5	05/22/13	0.0	0.2	0.8	18.4
GP5	09/18/13	0.0	0.0	0.3	20.3
GP6	11/02/99	0.0	0.3	0.3	20.8
GP6	06/30/00	0.0	31.2	6.0	0.0
GP6	09/21/00	0.0	0.0	0.0	21.0
GP6	01/05/01	0.0	40.0	5.1	1.5
GP6	05/18/01	0.0	28.2	3.3	0.4
GP6	08/17/01	0.0	0.0	1.8	17.8
GP6	06/17/02	0.0	0.0	2.6	12.0
GP6	11/04/02	0.0	12.0	1.7	0.3
GP6	05/20/03	0.0	0.0	1.3	15.5
GP6	08/13/03	0.0	0.0	17.4	2.3
GP6	04/14/04	0.0	0.1	16.3	1.1
GP6	07/08/04	0.0	16.4	0.3	2.8
GP6	04/27/05	0.0	0.0	0.6	17.2
GP6	07/06/05	0.0	27.5	3.5	0.1
GP6	04/26/06	0.0	0.0	1.7	17.7
GP6	09/20/06	0.0	0.0	4.3	14.5
GP6	06/13/07	0.0	0.1	6.1	14.2
GP6	09/20/07	0.0	0.1	10.0	3.8

**LANDTEC GEM 500
GAS PROBE MONITORING RESULTS
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

<i>Probe</i>	<i>Date</i>	<i>LandTec GEM 500 Readings*</i>			
		<i>Pressure (in. H₂O)</i>	<i>%CH₄</i>	<i>%CO₂</i>	<i>%O₂</i>
GP6	06/12/08	0.0	16.7	3.0	9.5
GP6	08/26/08	0.0	0.0	5.3	15.6
GP6	06/24/09	0.0	0.0	3.6	15.9
GP6	09/17/09	0.0	0.0	4.5	14.6
GP6	04/28/10	0.0	0.0	2.6	17.1
GP6	09/17/10	0.0	0.0	2.6	17.5
GP6	05/04/11	0.0	0.0	0.7	18.2
GP6	09/14/11	0.0	0.0	1.0	19.7
GP6	06/20/12	0.0	0.2	1.2	17.7
GP6	09/19/12	0.0	0.0	0.5	20.0
GP6	05/22/13	0.0	0.2	0.2	20.5
GP6	09/18/13	0.1	0.0	3.8	14.7

Notes:

* - Readings captured once stabilized, after at least 60 seconds of purging.