



March 1, 2018

Wisconsin Department of Natural Resources

Attn: Ms. Carrie Stoltz  
107 Sutliff Avenue  
Rhineland, WI 54501



**Subject:**

Update Report  
Moose Junction Lounge  
13195 S State Highway 35  
Dairyland, WI  
BRRTS #03-16-000301  
PECFA #54830-9999-97

**Dear Ms. Stoltz:**

Enclosed is the Update Report for the above-mentioned site. REI has completed two (2) Geoprobe sample events, well installation and two rounds of groundwater sampling. REI is recommending the use of injectates to remediate the observed groundwater contamination and a small soil excavation to remove direct contact soil impacts.

Please call me with questions or comments toll free at 877-734-7745 or contact me electronically at [dlarsen@reiengineering.com](mailto:dlarsen@reiengineering.com).

Sincerely,  
REI Engineering, Inc.

David N. Larsen, P.G.  
Hydrogeologist/Project Manager

Enclosure

CC: Mr. Trent Sprague, 13195 S State Highway 35, Dairyland, WI 54830



**RESPONSIVE. EFFICIENT. INNOVATIVE.**

4080 N. 20th Avenue Wausau, WI 54401  
715-675-9784 REIengineering.com

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**REI**

**CIVIL & ENVIRONMENTAL  
ENGINEERING, SURVEYING**

**UPDATE REPORT**

**MOOSE JUNCTION LOUNGE  
DAIRYLAND, WISCONSIN**

**WDNR BRRTS #03-16-000301  
PECFA #54830-9999-97**

**REI PROJECT #6510**



**COMPREHENSIVE  
SERVICES WITH  
PRACTICAL  
SOLUTIONS**



**UPDATE REPORT**

**MOOSE JUNCTION LOUNGE  
13195 S STATE RD 35  
DAIRYLAND, WI 54830  
BRRTS #03-16-000301**

**PECFA #54830-9999-97  
REI #6510**

**PREPARED FOR:**

**Mr. Trent Sprague  
13195 S State Highway 35  
Dairyland, WI 54830**

**MARCH 2018**

**UPDATE REPORT**

**MOOSE JUNCTION LOUNGE  
13195 S STATE RD 35  
DAIRYLAND, WI 54830  
BRRTS #03-16-000301**

**PECFA #54830-9999-97  
REI #6510**

The recommendations contained in this report are based on the information obtained from our study of the site and were arrived at in accordance with accepted hydrogeologic and engineering practices at this time and location.

"I, David N. Larsen, hereby certify that I am a registered Professional Geologist in the State of Wisconsin as defined in the Wisconsin Statutes Chapter 470.01. I am also a hydrogeologist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



"I, Brian J. Bailey, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

  
Environmental Scientist

3-1-18  
Date



**UPDATE REPORT**

**MOOSE JUNCTION LOUNGE  
13195 S STATE RD 35  
DAIRYLAND, WI 54830  
BRRTS #03-16-000301**

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"I, David N. Larsen, hereby certify that I am a registered Professional Geologist in the State of Wisconsin as defined in the Wisconsin Statutes Chapter 470.01. I am also a hydrogeologist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

"I, Brian J. Bailey, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

\_\_\_\_\_  
Environmental Scientist

\_\_\_\_\_  
Date

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## **UPDATE REPORT**

**MOOSE JUNCTION LOUNGE  
13195 S STATE RD 35  
DAIRYLAND, WI 54830  
BRRTS #03-16-000301**

**PECFA #54830-9999-97  
REI #6510**

### **1.0 INTRODUCTION**

The Moose Junction Lounge site is located in the SE  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 18, Township 44 North, Range 14 West, in the Town of Dairyland, Douglas County, Wisconsin (Figure 1). The property is located in a rural area and many of the adjacent properties are acres in size. Figure 2 presents the neighboring property boundaries as depicted on the Douglas County GIS database. The site address is 13195 S State Road 35, Wisconsin 54830. Wisconsin Transverse Mercator (WTM) coordinates are 353997, 648291.

### **2.0 SUMMARY OF ACTIVITIES**

#### **2.1 Geoprobe Soil and Groundwater Sampling Results**

REI personnel were on site on June 12-13, 2017 to advance the proposed Geoprobe borings. Gestra Engineering, Inc., Milwaukee, WI was subcontracted to complete the Geoprobe borings.

REI had proposed ten (10) borings to be advanced on the subject property, in Moose Road and the State Highway 35 right of way. A previous consultant had injected ORC compounds in Moose Road, but no post injection soil samples were collected. REI had received permission from the Town of Dairyland to advance the borings through the gravel covering Moose Road. REI had requested a utility locate and arrived on site the day after the utility markings were placed. Unfortunately, prior to REI arrival, the Town grader operator had graded Moose Road and covered all the utility markings. As such, REI could not advance any borings in Moose Road.

REI did advance a total of nine (9) borings (GP5-GP13) on the subject property and in the State Highway 35 right of way. Boring locations are presented on Figure 2.

Each boring was advanced to a maximum depth of twelve (12) feet below land surface. Soil Boring Logs and Borehole Abandonment Forms are included in Appendix A. Methods and procedures are presented in Appendix B. All soil cuttings from the Geoprobe borings were containerized in a WDOT approved 55-gallon drums and transported to the Lincoln County Landfill biopile located in Merrill, Wisconsin for final disposal. Disposal documentation is included in Appendix C. Continuous soil sampling was conducted during the advancement of the soil borings. Analytical results are presented on Table 1e. Analytical results were directly compared against the State of Wisconsin's cleanup criteria listed in Chapter NR720. Numerous soil sample locations document the presence of petroleum compounds exceeding the NR720.09 (04) Residual Contaminant Level (RCL).

REI personnel returned on November 28, 2017 to advance Geoprobe borings in Moose Road. Geiss Soils & Samples, LLC, Merrill, WI was subcontracted to advance the Geoprobe borings. WDNR project managers, Ms. Carrie Stoltz and John T. Hunt, were onsite to observe the borings in Moose Road. A total of nine (9) Geoprobe borings were advanced.

A single groundwater sample was also collected from select borings and analyzed for PVOC and naphthalene compounds. The results of the groundwater samples document exceedances of the NR 140.10 Groundwater Quality Enforcement Standards (ES) or Preventive Action Limit (PAL) at GP12, GP14, GP17, GP18, GP19, GP21 and GP22. The soil and groundwater analytical results from the Geoprobe sampling event are included in Appendix E.



## **2.2 Monitoring Well Installation**

REI personnel were on site on June 13, 2017 to install the proposed monitoring well (MW9). Gestra Engineering, Inc., Milwaukee, Merrill, WI was subcontracted to complete the monitoring well installation.

MW9 was completed as a flushmount well in the Douglas County right-of-way of County Highway M. Soil Boring Log (WDNR Form 4400-122), Monitoring Well Construction Form (WDNR Form 4400-133A) and Monitoring Well Development Form (WDNR Form 4400-133B) are included in Appendix D. Methods and procedures are presented in Appendix B. Waste disposal documentation is included in Appendix C. Figure 2 presents the updated locations of the monitoring well network for the site.

## **2.3 Monitoring Well Sampling Results**

REI personnel were on site to sample the wells on July 7, 2017 and again on November 27, 2017. Depth to water was measured on all wells and is presented in Table 2. An excess of four (4) well volumes was removed from each well prior to sampling by REI personnel. All purge water was containerized and transported to the City of Wausau waste water treatment facility for final treatment and disposal.

Groundwater samples were collected and submitted to a State certified laboratory for chemical analysis. Copies of the analytical chemistry reports are presented in Appendix E. The results of the two (2) additional groundwater sampling events, summarized in Tables 3a-t, reveal petroleum detects in excess of the NR 140.10 Groundwater Quality Enforcement Standards (ES) or Preventive Action Limit (PAL).

## **3.0 CONCLUSION**

REI is recommending the use of carbon based injectates for remediation of the dissolved phase petroleum groundwater contaminant plume. REI recommends the injection points be focused near borings GP10, GP12, GP14 and GP21. REI also recommends the proper abandonment and eventual replacement of the potable water supply well servicing the 2794 E Moose Road property (Francine Smolka).

Shallow soil contamination, exceeding direct contact RCL's, was identified at location GP8. This soil should be removed through excavation prior to closure consideration. REI is also recommending continued groundwater sampling through closure.



**Table 1b**  
**Summary of Soil Analytical Results**  
**DOT Contractor Samples (RMT)**  
**Moose Junction Lounge**  
**Dairyland, Wisconsin**

Parameters	Sample Location-->		Date-->		B-1		B-2		B-2A		B-3	
	Sample Depth--(Feet)>		Units		10/5/92		10/5/92		10/5/92		10/5/92	
	NTEDC	GW	1-3	3.5-5.5	4-6	4-6	6-8	6-8	2-4	4-6	6-8	
Lead	400	13.50	< 1.0	< 1.0	1.5	< 1.0	< 1.0	< 1.0	< 0.9	21.0	17.5	
GRO			< 2.0	< 2.0	< 2.0		410	11,000	5,100	NS	NS	
<b>Petroleum VOC's</b>												
Benzene	1,490	2.6	ND	ND	33	ND	5,200	540,000	160,000	NS	NS	
Ethylbenzene	7,470	785	ND	ND	ND	ND	8,500	370,000	200,000	NS	NS	
Toluene	818,000	553.6	ND	ND	32	ND	20,000	1,600,000	720,000	NS	NS	
Xylenes (Total)	258,000	1,970	ND	ND	ND	ND	38,000	2,150,000	1,220,000	NS	NS	
Methyl tert Butyl Ether	59,400	13.5	ND	ND	ND	ND	ND	ND	ND	NS	NS	
1,2,4-Trimethylbenzene	89,800	689.7	ND	ND	ND	ND	35,000	700,000	560,000	NS	NS	
1,3,5-Trimethylbenzene	182,000	689.7	ND	ND	ND	ND	12,000	210,000	190,000	NS	NS	
<b>Number of Individual Exceedances (DC)--&gt;</b>												
<b>Cumulative Hazard Index (DC)--&gt;</b>												
<b>Cumulative Cancer Risk (DC)--&gt;</b>												
0												
0.0003												
2												
0.501												
15.7668												
1.30E-04												
2.2E-08												
4.10E-04												

Parameters	Sample Location-->		Date-->		B-4		B-5		B-6	
	Sample Depth--(Feet)>		Units		10/5/92		10/5/92		10/5/92	
	NTEDC	GW	2-4	4-6	6-8	2-4	4-6	2-4	4-6	2-4
Lead	400	13.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.9	19.0
GRO			2	2	30	NS	NS	< 2.0	42	
<b>Petroleum VOC's</b>										
Benzene	1,490	2.6	530	970	NS	NS	ND	ND	1,600	
Ethylbenzene	7,470	785	ND	680	NS	NS	ND	ND	ND	200

**Table 1c**  
**Summary of Soil Analytical Results**  
**Soil Excavation**  
**Moose Junction Lounge**  
**Dairyland, Wisconsin**

Parameters	Sample-->		SB-7	SB-8	SB-9	SB-10	SB-11	SB-12		SB-13	
	NTEDC	GW	05/17/93	05/17/93	05/18/93	05/18/93	05/18/93	05/18/93	05/18/93	05/18/93	05/19/93
Lead	400	13.50	89.6%	83.2%	88.3%	86.6%	86.6%	6-8	4-6	14-16	2-4
GRO								6-8	4-6	14-16	2-4
VOC Parameters		Percent Solids-->						6-8	4-6	14-16	2-4
Benzenes	1,490	2.6	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Ethylbenzene	7,470	785	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Methyl t-Butyl Ether	59,400	13.5	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Toluene	818,000	553.6	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
1,2,4-Trimethylbenzene	89,800	689.7	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
1,3,5-Trimethylbenzene	182,000	689.7	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Xylenes (Total)	258,000	1,970	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Number of Individual Exceedances (DC)-->			0	0	0	0	0	0	0	0	0
Cumulative Hazard Index (DC)-->			0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0691	0.0046	0.0046
Cumulative Cancer Risk (DC)-->			0.00000016	0.00000016	0.00000016	0.00000016	0.00000016	0.00000016	0.00000052	0.00000016	0.00000016

Parameters	Sample-->		MW1	MW2	MW3	MW4	HSB-2	HSB-3	HSB-4
	NTEDC	GW	05/18/93	05/18/93	05/19/93	05/18/93	08/26/93	08/26/93	08/26/93
Lead	400	13.50	85.1%	82.1%	83.1%	82.5%	83.3%	82.0%	76.2%
GRO									
VOC Parameters		Percent Solids-->							
Benzenes	1,490	2.6	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Ethylbenzene	7,470	785	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Methyl t-Butyl Ether	59,400	13.5	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Toluene	818,000	553.6	< 200	< 200	< 200	< 200	< 200	< 200	< 200
1,2,4-Trimethylbenzene	89,800	689.7	< 200	< 200	< 200	< 200	< 200	< 200	< 200
1,3,5-Trimethylbenzene	182,000	689.7	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Xylenes (Total)	258,000	1,970	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Number of Individual Exceedances (DC)-->			2	5	1	0	0	0	0
Cumulative Hazard Index (DC)-->			0.2473	2.6024	0.0658	0.0046	0.0046	0.0046	0.0046
Cumulative Cancer Risk (DC)-->			8.00E-06	5.40E-05	4.10E-06	0.00000016	0.00000016	0.00000016	0.00000016

Notes:  
 NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)  
 GW - RCL Protective of Groundwater Quality  
 < - Concentration below listed laboratory detection limit  
**Bold**  
 NTEDC RCL exceedance  
 NS - No Standard  
 \* = Estimated Value between detection limit and quantification limit



**Table 1d**  
**Summary of Soil Analytical Results**  
**Soil Excavation**  
**Moose Junction Lounge**  
**Dairyland, Wisconsin**

Parameters	NTEDC	GW	Sample Depth--(Feet)>		9308-B1	9308-B2	9308-B3	9308-B4	9308-B5	9308-B6	9308-B7	9308-B8
	400	13.50	Date-->	Units	06/15/93	06/15/93	06/15/93	06/15/93	06/15/93	06/15/93	06/15/93	06/15/93
Lead		13.50	7.03	mg/kg	12	4	7	9	8	9	6	7
GR0			< 10,000	ug/kg	82.0%	88.3%	88.6%	89.5%	89.2%	90.2%	87.5%	88.0%
VOC Parameters												
Benzene	1,490	2.6	< 200	ug/kg		<b>6,610</b>	< 200	<b>644</b>	<b>1,570</b>	<b>11,600</b>	<b>7,240,000</b>	<b>1,390</b>
Ethylbenzene	7,470	785	< 200	ug/kg		<b>7,980</b>	< 200	<b>1,250</b>	<b>5,700</b>	<b>6,720</b>	<b>4,200,000</b>	< 200
Methyl t-Butyl Ether	59,400	13.5	NA	ug/kg		NA	NA	NA	NA	NA	NA	NA
Toluene	818,000	553.6	< 200	ug/kg		<b>12,400</b>	< 200	<b>2,250</b>	<b>5,720</b>	<b>19,800</b>	<b>10,500,000</b>	<b>1,010</b>
1,2,4-Trimethylbenzene	89,800	689.7	NA	ug/kg		NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	182,000	689.7	NA	ug/kg		NA	NA	NA	NA	NA	NA	NA
Xylenes (Total)	258,000	1,970	< 200	ug/kg		<b>9,560</b>	< 200	<b>5,820</b>	<b>24,900</b>	<b>30,000</b>	<b>18,400,000</b>	448
Number of Individual Exceedances (DC)-->			0			2	0	0	1	1	4	0
Cumulative Hazard Index (DC)-->			0.0021			0.0747	0.0021	0.0132	0.0449	0.144	89.1583	0.0133
Cumulative Cancer Risk (DC)-->			0.00000016			5.50E-06	0.00000016	6.00E-07	1.80E-06	8.70E-06	5.40E-03	9.60E-07

**Notes:**

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

< - Concentration below listed laboratory detection limit

GW - RCL exceedence

NTEDC RCL exceedence

NS - No Standard

\* = Estimated Value between detection limit and quantification limit

**Table 1e**  
**Summary of Soil Analytical Results**  
**Soil Samples**  
**Moose Junction Lounge**  
**Dairyland, Wisconsin**

Sample-->	Date-->		GP1		GP2		GP3		GP4		Furnace Room		GP5		GP6		GP7		GP8		GP9	
	Sample Depth--(Feet)-->	1/10/2012	12-13	1/10/2012	2-4	12-14	4-6	10-12	4-6	1/10/2012	4-6	06/28/16	6/12/2017	6/12/2017	6/12/2017	6/12/2017	6/12/2017	6/12/2017	6/12/2017	6/12/2017	6-12-17	
Lead (mg/kg)	400	13.5	BTV @82																			
<b>Petroleum VOC's (µg/kg)</b>	Non-Industrial Groundwater Not-To-Exceed DC RCL	NR 140																				
Benzene	1,490	5.1	ug/kg	< 25	< 25	140	< 25	78	< 25.5	< 1,250	< 25.5	< 25.5	< 33.3	< 33.3	< 30.5	< 30.5	< 172	< 38.5	< 31.2	< 39.7		
Ethylbenzene	7,470	1,570	ug/kg	< 25	< 25	< 25	< 25	< 25	< 25.5	16,800	< 25.5	< 25.5	< 33.3	< 33.3	< 30.5	< 30.5	6,190	< 38.5	< 31.2	< 43.1	< 39.7	
Methyl t-Butyl Ether	59,400	27	ug/kg	< 25	< 25	< 25	< 25	< 25	< 25.5	< 1,250	< 25.5	< 25.5	< 33.3	< 33.3	< 30.5	< 30.5	338*	< 38.5	< 31.2	< 43.1	< 39.7	
Toluene	818,000	1,107	ug/kg	< 25	< 25	< 25	< 25	< 25	< 25.5	14,600	< 25.5	< 25.5	< 33.3	< 33.3	< 30.5	< 30.5	402*	< 38.5	< 31.2	< 43.1	< 39.7	
1,2,4-Trimethylbenzene	89,800		ug/kg	< 25	< 25	< 25	< 25	< 25	< 25.5	42,500	< 25.5	< 25.5	< 33.3	< 33.3	< 30.5	< 30.5	32,600	< 38.5	< 31.2	< 43.1	< 39.7	
1,3,5-Trimethylbenzene	182,000		ug/kg	< 25	< 25	< 25	< 25	< 25	< 25.5	14,500	< 25.5	< 25.5	< 33.3	< 33.3	< 30.5	< 30.5	12,300	< 38.5	< 31.2	< 43.1	< 39.7	
Trimethylbenzenes (Total)		1,379	ug/kg	< 25	< 25	< 25	< 25	< 25	< 25.5	57,000	< 25.5	< 25.5	< 33.3	< 33.3	< 30.5	< 30.5	44,900	< 38.5	< 31.2	< 43.1	< 39.7	
Xylenes (Total)	258,000	3,940	ug/kg	< 25	< 25	< 25	< 25	< 25	< 25.5	86,400	< 51.0	< 51.0	< 66.7	< 66.7	< 61.0	< 61.0	27,470	< 76.9	< 62.5	< 86.2	< 79.4	
Naphthalene	5,150	658.7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 33.3	< 33.3	< 30.5	< 30.5	7,710	< 38.5	< 31.2	< 43.1	< 39.7	

Sample-->	Date-->		GP10		GP11		GP12		GP13		GP14		GP15		GP16		GP17		GP18		GP19		GP20		GP21		GP22			
	Sample Depth--(Feet)-->	6/13/2017	12-18 inch	1.5	12-18 inch	6/13/2017	9-10	6/13/2017	1.5	6/13/2017	1.5	2-4	11/28/2017	2-4	11/28/2017	2-4	11/28/2017	2-4	11/28/2017	2-4	11/28/2017	2-4	11/28/2017	2-4	11/28/2017	2-4	11/28/2017	2-4	11/28/2017	
Lead (mg/kg)	400	13.5	BTV @82																											
<b>Petroleum VOC's (µg/kg)</b>	Non-Industrial Groundwater Not-To-Exceed DC RCL	NR 140																												
Benzene	1,490	5.1	ug/kg	< 30.5	< 39.1	< 32.9	46.5*	< 36.2	10,600	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	
Ethylbenzene	7,470	1,570	ug/kg	< 30.5	< 39.1	53.8*	142	< 36.2	86,700	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0
Methyl t-Butyl Ether	59,400	27	ug/kg	< 30.5	< 39.1	< 32.9	< 32.1	< 36.2	7,680*	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0
Toluene	818,000	1,107	ug/kg	< 30.5	< 39.1	< 32.9	< 32.1	< 36.2	145,000	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0
1,2,4-Trimethylbenzene	89,800		ug/kg	< 30.5	< 39.1	58.8*	< 32.1	< 36.2	314,000	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0
1,3,5-Trimethylbenzene	182,000		ug/kg	< 30.5	< 39.1	< 32.9	< 32.1	< 36.2	111,000	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0
Trimethylbenzenes (Total)		1,379	ug/kg	< 30.5	< 39.1	58.8*	< 32.1	< 36.2	425,000	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0
Xylenes (Total)	258,000	3,940	ug/kg	< 61	< 78.1	< 65.8	143	< 72.5	591,000	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
Naphthalene	5,150	658.7	ug/kg	< 30.5	< 39.1	< 32.9	118	< 36.2	50,500	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0

Notes:  
 NITEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)  
 GW - RCL Protective of Groundwater Quality  
 < - Concentration below listed laboratory detection limit  
**Bold** - RCL exceedance  
*Italics* - NITEDC RCL exceedance  
 NS - No Standard  
 \* = Estimated Value between detection limit and quantification limit

**Table 2**  
**Moose Junction Lounge**  
**Depth to Water and Water Level Elevations**  
**Dairyland, WI**

Depth to Water (feet) below Reference Elevation												
Date	MWL	MW2	MW3	MW4	MW5	MW6R	MW6	MW7	MW8	MW9	ROW	Potable
5/27/1983	3.72	5.67	2.84	2.75								
8/26/1983	5.07	7.01	3.86	4.12								
11/18/1993	4.46	6.61	3.16	3.31								
3/1/1994	4.86	7.76	3.50	3.75								
7/22/1994	4.32	4.82	3.22	3.16								
10/27/1994	4.74	6.16	3.38	3.23								
4/18/2007	4.20	4.50	4.50	3.65	4.10							
8/15/2007	7.93	8.31	9.52	6.70	6.75							
10/3/2007	4.64	5.75	3.82	3.51	4.52							
7/13/2010	5.51	6.08	4.05	4.81		4.04						
11/23/2010	5.57	6.15	3.54	3.97		4.34						
3/4/2011	6.11	6.63		4.16		4.67						
7/22/2011	5.41	5.86		4.23		4.15						
10/27/2011	6.47	7.30		4.69		5.29						
1/26/2012	7.41	7.99	5.10	5.17		5.67						
4/27/2012	5.20	5.83	3.33	3.99		4.35						
10/5/2012	7.82	8.25	5.82	5.82		6.28						
11/14/2013	5.72	6.19	3.75	4.19	4.43	3.75						
6/28/2016		5.70	0.82	3.40	Abandoned	3.50	4.67	2.93	5.92		2.28	
10/3/2016	2.58	6.15	1.06	3.75		3.72	4.90	3.18	5.30		2.79	
7/7/2017	2.41	6.19	0.97	3.83		3.35	4.87	3.12	5.18		2.28	
11/27/2017	2.39	5.98	0.91	3.16		3.41	4.67	2.78	4.63		2.17	
<b>Measuring Point Elevations (top of well casing)</b>												
Initial Survey	1233.23	1231.18	1228.93	1226.11	1230.59							
Tetra-Tech Elevation Data (4/18/07)	1235.72	1234.43	1235.96	1229.86								
Carlson Elevation Data (7/13/2010)	101.98	100.86	100.41	96.82		96.79						
REI (6/28/16)	1,229.67	1,231.31	1,228.61	1,226.09		1,226.74	1,230.59	1,225.82	1,227.87		1,223.75	
REI (7/7/17)	1,229.74	1,231.34	1,228.63	1,226.19		1,226.77	1,230.64	1,225.86	1,227.92			
<b>Ground Surface Elevation</b>												
Initial Survey	1231.20	1229.20	1226.90	1224.10								
REI (6/28/16)	1230.31	1229.35	1228.99	1223.95								
REI (7/7/17)						1227.01	1228.38	1223.58	1226.14		1224.05	
<b>Depth to Water (feet) below Top of Casing</b>												
Average	5.35	6.44	3.85	4.11	4.95	4.52	4.79	3.06	5.61		2.54	
Maximum	7.93	8.31	9.52	6.70	6.75	6.28	4.90	3.18	5.92		2.79	
Minimum	2.58	4.50	0.82	2.75	4.10	3.50	4.67	2.93	5.30		2.28	
Range	5.35	3.81	8.70	3.95	2.65	2.78	0.23	0.25	0.62		0.51	
<b>Water Level Elevation (feet MSL)</b>												
Date	MWL	MW2	MW3	MW4	MW5	MW6R	MW6	MW7	MW8	MW9	ROW	Potable
5/27/1983	1,227.72	1,225.10	1,224.88	1,221.30								
8/26/1983	1,228.16	1,224.17	1,225.07	1,221.99								
11/18/1993	1,228.77	1,224.57	1,225.77	1,222.80								
3/1/1994	1,228.37	1,223.42	1,225.43	1,222.36								
7/22/1994	1,228.91	1,226.36	1,228.36	1,222.95								
10/27/1994	1,228.49	1,225.02	1,225.55	1,222.88								
4/18/2007	1,231.52	1,229.93	1,231.46	1,226.31	1,226.49							
8/15/2007	1,227.79	1,226.12	1,226.44	1,223.16	1,223.84							
10/3/2007	1,231.08	1,228.68	1,232.14	1,226.35	1,226.07							
7/13/2010	96.47	94.48	96.36	92.01		92.75	1,225.92					
11/23/2010	96.41	94.41	96.87	92.85		92.45						
3/4/2011	95.87	93.93	96.66	92.66		92.12						
7/22/2011	96.57	94.70	92.59	92.59		92.64						
10/27/2011	95.51	93.26	92.13	91.65		91.50						
1/26/2012	94.57	92.57	95.51	91.65		91.12						
4/27/2012	96.78	94.73	97.08	92.83		92.44						
10/5/2012	94.16	92.31	94.49	91.00		90.51						
11/14/2013					Not calculated due to unknown casing elevations							
6/28/2016	1,225.61	1,227.79	1,227.79	1,222.69		1,223.24	1,225.92	1,222.69	1,221.95		1,221.95	
10/3/2016	1,227.09	1,225.16	1,227.55	1,222.34		1,223.02	1,225.69	1,222.44	1,222.57		1,222.57	
7/7/2017	1,227.33	1,225.15	1,227.66	1,222.36		1,223.42	1,225.77	1,222.54	1,222.74		1,222.84	
11/27/2017	1,227.35	1,225.36	1,227.72	1,223.03		1,223.36	1,225.97	1,222.88	1,223.29		1,223.48	

Notes:  
7-13-2010: Benchmark is the cement cover of site septic system  
6-28-16: WISDOT Benchmark #428  
6-28-16: MW1 and MW3 converted to flush mount wells

**Table 3a**  
**Summary of Groundwater Analytical Results**  
**DOT Contractor Samples (Aqua-Tech)**  
**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

VOC Parameters	ES	Sampled By -->			Aqua-Tech		
		PAL	Units	MJW-1	MJW-2	MJW-3	
			Date	11/8/1990	11/8/1990	11/8/1990	
			Depth (feet)	6.6	8.0	4.4	
Benzene	5	0.5	µg/l	<b>19,900</b>	<b>15,100</b>	ND	
Ethylbenzene	700	140	µg/l	<b>29,100</b>	<b>1,375</b>	ND	
Toluene	800	160	µg/l	<b>82,900</b>	<b>15,100</b>	ND	
Xylenes (mixed isomers)	2,000	400	µg/l	<b>199,000</b>	<b>7,490</b>	1.5	

*Notes:*

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

**Table 3b**  
**Summary of Groundwater Analytical Results**  
**DOT Contractor Samples (RMT)**  
**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

	Sampled By -->		RMT					
	Sample Location	Date	B-1	B-2A	B-3	B-4	B-5	B-6
<b>Parameters</b>	ES	Units						
<b>Lead</b>	15	µg/l	<b>130</b>	NS	<b>1,900</b>	< 20	<b>26</b>	<b>200</b>
<b>GRO</b>		mg/l	< 100	3,900	460,000	4,100	100	4,200
Benzene	5	µg/l	< 1.0	<b>7,400</b>	<b>42,000</b>	<b>22,000</b>	2.9	<b>4,800</b>
Toluene	800	µg/l	< 1.0	<b>18,000</b>	<b>48,000</b>	<b>30,000</b>	8.6	<b>3,100</b>
Ethylbenzene	700	µg/l	< 1.0	<b>2,400</b>	<b>6,500</b>	<b>5,900</b>	4	<b>1,300</b>
Xylenes (mixed isomers)	2,000	µg/l	< 1.0	<b>11,300</b>	<b>29,000</b>	<b>23,000</b>	19.7	<b>770</b>
1,2-Dichloroethane	5	µg/l	< 1.0	< 1.0	<b>180</b>	<b>120</b>	< 1.0	<b>57</b>

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>



**Table 3c**  
**Summary of Groundwater Analytical Results**  
**Geoprobe Borings**  
**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

VOC Parameters	Sampled By -->		REI				
	Sample Location -->		GP12	GP14	GP15	GP16	GP17
	ES	Units	6/13/2017	11/28/2017	11/28/2017	11/28/2017	11/28/2017
Benzene	5	µg/l	1,380	3,720	2.2	< 0.40	22.3
Ethylbenzene	700	µg/l	1,860	2,980	11.9	< 0.39	53.7
Toluene	800	µg/l	109	11,200	16.1	0.44*	9.2
Methyl tert-Butyl Ether (MTBE)	60	µg/l	< 19.4	< 97	< 0.48	< 0.48	< 1.2
Xylenes (mixed isomers)	2,000	µg/l	2,239	15,680	69.5	1.2*	252.9
Trimethylbenzenes (mixed isomers)	480	µg/l	93.5	3,191	36.3	0.68*	208.7
Naphthalene	100	µg/l	254	495	2.5	< 0.42	18.9

VOC Parameters	Sampled By -->		REI				
	Sample Location -->		GP18	GP19	GP20	GP21	GP22
	ES	Units	11/28/2017	11/28/2017	11/28/2017	11/28/2017	11/28/2017
Benzene	5	µg/l	44.5	7.2	< 0.40	1,180	98.30
Ethylbenzene	700	µg/l	0.45*	17.1	< 0.39	3,270	302
Toluene	800	µg/l	< 0.39	5.3	< 0.39	1,360	65.7
Methyl tert-Butyl Ether (MTBE)	60	µg/l	< 0.48	1.2	< 0.48	< 48.5	< 4.8
Xylenes (mixed isomers)	2,000	µg/l	2.0	63.7	< 0.80	15,070	1,200.4
Trimethylbenzenes (mixed isomers)	480	µg/l	1.9	34.7	< 0.42	4,505	494.2
Naphthalene	100	µg/l	< 0.42	1.4	< 0.42	692	74.9

**Notes:**

ES = NR140.10 Enforcement Standards  
PAL = NR140.10 Preventive Action Limits  
ND = Not Detected  
NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation  
Enforcement Standard exceeded  
Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

Table 3d  
 Summary of Groundwater Analytical Results  
 MW1  
 Moose Junction Lounge  
 13195 State Highway 35  
 Dairyland, WI

Detected Parameters	ES	Sampled By -->		Earth Burners												
		PAL	Units	05/27/93	06/15/93	08/26/93	11/18/93	03/01/94	07/22/94	10/27/94	2/9/1995	5/19/1995	8/7/1995	12/15/1995	3/11/1996	11/17/2003
Lead	15	1.5	µg/l	406		< 50	8	2	NA	70	42	NS	NA	11.3	NA	< 50
Lead (Dissolved)	15	1.5	µg/l	NA		NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
CRO			mg/l	6,160		3,590	1,430	1,480	140	280	446	NS	201	ND	190	< 100
<b>VOC Parameters</b>																
Benzene	5	0.5	µg/l	41	Soil	228	48	212	1.7	120	52	NS	8.41	14	29	7.6
Ethylbenzene	700	140	µg/l	22	Excavation	47	22	25	< 5.0	< 5.0	6	NS	< 5.0	< 5.0	3.3	< 0.18
Toluene	800	160	µg/l	210	Completed	54	7	14	< 5.0	< 5.0	< 5.0	NS	< 5.0	< 5.0	< 1.0	< 0.54
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	NA		99	< 5.0	23	1.7	< 5.0	< 5.0	NS	< 5.0	8.0	1.4	< 0.69
Xylenes (mixed isomers)	2,000	400	µg/l	820		53	61	194	1.9	11	160	NS	< 5.0	< 5.0	18.1	< 2.6
Xylenes (mixed isomers)	480	96	µg/l	286		114	68	63	< 5.0	7.3	24	NS	< 5.0	< 5.0	12.9	< 1.05
Trimethylbenzenes (mixed isomers)	100	10	µg/l	< 1		NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
Naphthalene	60	6	µg/l	< 1		NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
Dibromochloromethane			µg/l	6		NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
n-Propylbenzene			µg/l	3		NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
Isopropylbenzene			µg/l	6		NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
n-Butylbenzene			µg/l	6		NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
tert-Butylbenzene			µg/l	< 1		NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA

Detected Parameters	ES	Sampled By -->		Tetra-Tech				Carlson McCain					
		PAL	Units	Northern 4/14/2006	4/18/2007	8/15/2007	10/3/2007	7/13/2010	11/23/2010	3/4/2011	7/22/2011	10/27/2011	
Benzene	5	0.5	µg/l	< 0.12	NS	< 0.25	< 0.25	< 0.31	ORC	< 0.31	0.14*	< 0.31	< 0.31
Ethylbenzene	700	140	µg/l	< 0.3	NS	< 0.22	< 0.22	< 0.50	Injection	< 0.50	0.14*	< 0.50	< 0.50
Toluene	800	160	µg/l	< 0.13	NS	< 0.11	0.46	< 0.37		< 0.37	0.19*	< 0.37	< 0.37
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.11	NS	< 0.23	< 0.23	< 0.30		< 0.30	0.30*	< 0.30	< 0.30
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.7	NS	< 0.39	< 0.39	< 1.39		< 1.39	0.43*	< 1.39	< 1.39
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.58	NS	< 0.25	< 0.25	< 0.44		< 0.44	0.14*	< 0.44	< 0.44
Naphthalene	100	10	µg/l	NA	NS	< 0.50	< 0.50	< 2.00		< 2.00	0.48*	< 2.00	< 2.00

Notes:  
 ES = NR140.10 Enforcement Standards  
 PAL = NR140.10 Preventive Action Limits  
 ND = Not Detected  
 NA = Not Analyzed  
 \* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation  
**BOLD**  
*Italics*  
 Enforcement Standard exceeded  
 Preventive Action Limit exceeded

**Table 3e**  
**Summary of Groundwater Analytical Results**  
**MW1**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	Sampled By -->					REI				
		PAL	Units	11/14/2013	2/18/2015	6/28/2016	10/3/2016	7/7/2017	11/27/2017		
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	NA	NA	4.8*		
<b>VOC Parameters</b>											
Benzene	5	0.5	µg/l	< 0.34	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40		
Ethylbenzene	700	140	µg/l	< 0.34	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39		
Toluene	800	160	µg/l	< 0.34	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39		
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.37	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48		
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.71	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80		
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42		
Naphthalene	100	10	µg/l	< 0.37	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42		
<b>Natural Attenuation Parameters</b>											
Temperature			°F				60.99	64.89	47.02		
Conductivity			µS/cm				1408	167	830		
Dissolved Oxygen			mg/l				1.07	2.58	2.42		
pH							7.03	6.01	5.92		
Oxidation-Reduction Potential			mV				-76.4	30.9	158		

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

Table 3f  
Summary of Groundwater Analytical Results  
MW2

Moose Junction Lounge  
13195 State Highway 35  
Dairyland, WI

Detected Parameters	Sampled By -->													
	ES	PAL	Units	05/27/93	06/15/93	08/26/93	11/18/93	03/01/94	07/22/94	10/27/94	2/9/1995	8/7/1995	12/15/1995	3/11/1996
Lead	15	1.5	µg/l	131		58	770	27	60		47	NA	ND	NA
Lead (Dissolved)	15	1.5	µg/l	NA		NA	NA	NA	< 50	NA	NA	NA	NA	NA
GRO			mg/l	132,000		36,800	140,000	222,000	140,000	120,000	131,000	101,000	150,000	46,000
<b>VOC Parameters</b>														
Benzene	5	0.5	µg/l	19,000	Soil	2,790	10,500	55,200	120	34,000	28,200	32,100	41,000	16,000
Ethylbenzene	700	140	µg/l	1,600	Excavation	557	2,130	4,000	1,600	2,100	2,000	1,860	2,500	1,300
Toluene	800	160	µg/l	29,000	Completed	2,770	10,100	51,200	4,000	33,000	26,600	29,000	43,000	11,000
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	NA		< 5.0	55	570	240	280	296	< 5.0	1,600	< 100
Xylenes (mixed isomers)	2,000	400	µg/l	16,500		2,650	9,090	29,800	3,300	13,000	8,700	10,900	14,000	6,200
Trimethylbenzenes (mixed isomers)	480	96	µg/l	860		911	2,670	8,020	1,840	2,670	3,019	2,092	2,780	2,540
Naphthalene	100	10	µg/l	< 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	60	6	µg/l	130		NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene			µg/l	1,300		NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene			µg/l	53		NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene			µg/l	53		NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene			µg/l	270		NA	NA	NA	NA	NA	NA	NA	NA	NA

Detected Parameters	Sampled By -->				Tetra-Tech				
	ES	PAL	Units	11/17/2003	Northern	4/14/2006	4/18/2007	8/15/2007	10/3/2007
Lead	15	1.5	µg/l	< 50	< 0.7	NA	NA	NA	NA
Lead (Dissolved)			µg/l	NA	NA	NA	NA	NA	NA
GRO			mg/l	21000	NA	NA	NA	NA	NA
<b>VOC Parameters</b>									
Benzene	5	0.5	µg/l	6,400	4,900	77	8,600	170	
Ethylbenzene	700	140	µg/l	840	720	23	1,600	41	
Toluene	800	160	µg/l	380	770	130	1,700	450	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 69	< 5.5	< 0.23	< 46	< 2.3	
Xylenes (mixed isomers)	2,000	400	µg/l	5,330	3,300	260	14,000	630	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	1,630	1,430	112	2,730	181	
Naphthalene	100	10	µg/l	NA	NA	12	550	20	

Detected Parameters	Sampled By -->											
	ES	PAL	Units	7/13/2010	11/23/2010	3/4/2011	7/22/2011	10/27/2011	1/26/2012	4/27/2012	10/5/2012	
<b>VOC Parameters</b>												
Benzene	5	0.5	µg/l	4,060	4,100	6,000	7,310	6,930	8,350	2,930	5,600	
Ethylbenzene	700	140	µg/l	866	Injection	750	1,110	1,980	2,500	1,670	1,900	
Toluene	800	160	µg/l	1,410	4,860	7,700	9,760	13,800	19,900	4,270	13,000	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	50.1	68.4*	42*	< 30	< 30	< 30	< 60	280	
Xylenes (mixed isomers)	2,000	400	µg/l	7,240	6,990	870	11,090	12,330	16,530	6,860	12,400	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	1,785	2,229	1,680	1,813	1,908	2,512	1,377	1,920	
Naphthalene	100	10	µg/l	NA	443	290	352	432	586	578	580	

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

**BOLD**

*Italics*

**Table 3g**  
**Summary of Groundwater Analytical Results**  
**MW2**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	PAL	Units	Sampled By -->							REI
				11/14/2013	2/18/2015	6/28/2016	10/3/2016	7/7/2017	11/27/2017		
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	NA	NA	NA	13.7*	
<b>VOC Parameters</b>											
Benzene	5	0.5	µg/l	3,520	2,680	4,120	2,770	3,240	2,770	2,770	
Ethylbenzene	700	140	µg/l	1,720	1,100	2,100	1,550	2,050	1,920	1,920	
Toluene	800	160	µg/l	7,080	1,890	4,700	1,060	4,790	1,830	1,830	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 18.6	< 9.7	< 24.2	< 9.7	< 9.7	< 12.1	< 12.1	
Xylenes (mixed isomers)	2,000	400	µg/l	12,130	7,770	12,460	7,810	10,390	9,330	9,330	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	8,530	1,376	1,901	1,398	1,417	1,645	1,645	
Naphthalene	100	10	µg/l	462	312	455	388	477	422	422	
<b>Natural Attenuation Parameters</b>											
Temperature			°F				56.69	54.49	47.41		
Conductivity			uS/cm				886	1589	890		
Dissolved Oxygen			mg/l				0.43	1.5	2.52		
pH							6.82	6.27	6.52		
Oxidation-Reduction Potential			mV				-129.7	-201.6	-99.5		

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>



**Table 3h**  
**Summary of Groundwater Analytical Results**  
**MW3**  
**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	Sampled By -->		Earth Burners												
		PAL	Units	05/27/93	06/15/93	08/26/93	11/18/93	03/01/94	07/22/94	10/27/94	02/09/95	8/7/1995	12/15/1995	3/11/1996		
Lead	15	1.5	µg/l	118		< 50	11	NS	NA	80	NS	NA	72	NS	< 2.0	NS
Lead (Dissolved)	15	1.5	µg/l	NA		NA	NA	NS	< 50	NA	NS	NA	NA	NS	NA	NS
GRO			mg/l	NA		< 100	< 100	NS	1100	< 100	NS	< 100	107	NS	< 100	NS
<b>VOC Parameters</b>																
Benzene	5	0.5	µg/l	< 1.0	Soil	< 5.0	< 5.0	NS	4.8	< 5.0	NS	< 5.0	55.9	NS	< 5	NS
Ethylbenzene	700	140	µg/l	< 1.0	Excavation	< 5.0	< 5.0	NS	13	< 5.0	NS	< 5.0	< 5.0	NS	< 5	NS
Toluene	800	160	µg/l	< 1.0	Completed	< 5.0	< 5.0	NS	92	< 5.0	NS	< 5.0	< 5.0	NS	< 5	NS
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	NA		< 5.0	< 5.0	NS	< 5.0	< 5.0	NS	< 5.0	< 5.0	NS	< 5	NS
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.0		< 5.0	< 5.0	NS	130	< 5.0	NS	< 5.0	< 5.0	NS	< 5	NS
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 1.0		< 5.0	< 5.0	NS	88	< 5.0	NS	< 5.0	< 5.0	NS	< 5	NS
Naphthalene	100	10	µg/l	< 1.0		NA	NA	NS	NA	NA	NS	NA	NA	NS	NA	NS
Dibromochloromethane			µg/l	< 1.0		NA	NA	NS	NA	NA	NS	NA	NA	NS	NA	NS
n-Propylbenzene			µg/l	< 1.0		NA	NA	NS	NA	NA	NS	NA	NA	NS	NA	NS
Isopropylbenzene			µg/l	< 1.0		NA	NA	NS	NA	NA	NS	NA	NA	NS	NA	NS
n-Butylbenzene			µg/l	< 1.0		NA	NA	NS	NA	NA	NS	NA	NA	NS	NA	NS
tert-Butylbenzene			µg/l	< 1.0		NA	NA	NS	NA	NA	NS	NA	NA	NS	NA	NS

Detected Parameters	ES	Sampled By -->		Northern	Tetra-Tech			
		PAL	Units		4/14/2006	4/18/2007	8/15/2007	10/3/2007
<b>VOC Parameters</b>								
Benzene	5	0.5	µg/l	< 0.5	< 0.12	< 0.25	NS	NS
Ethylbenzene	700	140	µg/l	< 0.18	< 0.3	< 0.22	NS	NS
Toluene	800	160	µg/l	< 0.54	< 0.13	< 0.11	NS	NS
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.69	< 0.11	< 0.23	NS	NS
Xylenes (mixed isomers)	2,000	400	µg/l	< 2.6	< 1.7	< 0.39	NS	NS
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 1.05	< 0.58	< 0.25	NS	NS
Naphthalene	100	10	µg/l	NA	NA	< 0.50	NS	NS

Detected Parameters	ES	Sampled By -->		Carlson McCain									
		PAL	Units	7/13/2010	11/23/2010	3/4/2011	7/22/2011	10/27/2011	1/26/2012	4/27/2012	10/5/2012		
<b>VOC Parameters</b>													
Benzene	5	0.5	µg/l	< 0.31	< 0.31	NS	NS	NS	NS	< 0.31	NS	NS	NS
Ethylbenzene	700	140	µg/l	< 0.37	<b>ORC</b>	< 0.37	<b>Injection</b>	NS	NS	< 0.37	NS	NS	NS
Toluene	800	160	µg/l	< 0.50		< 0.50		NS	NS	< 0.50	NS	NS	NS
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.30		< 0.30		NS	NS	< 0.30	NS	NS	NS
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.39		< 1.39		NS	NS	< 1.39	NS	NS	NS
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.44		< 0.44		NS	NS	< 0.44	NS	NS	NS
Naphthalene	100	10	µg/l	NA		< 2.00		NS	NS	< 2.00	NS	NS	NS

Notes:  
ES = NR140.10 Enforcement Standards  
PAL = NR140.10 Preventive Action Limits  
ND = Not Detected  
NA = Not Analyzed  
\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation  
**BOLD**  
*Italics*  
Preventive Action Limit exceeded

**Table 3i**  
**Summary of Groundwater Analytical Results**  
**MW3**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	PAL	Units	Sampled By -->				REI			
				11/14/2013	2/18/2015	6/28/2016	10/3/2016	7/7/2017	11/27/2017		
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	NA	NA	NA	NA	5.0*
<b>VOC Parameters</b>											
Benzene	5	0.5	µg/l	< 0.34	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
Ethylbenzene	700	140	µg/l	< 0.34	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Toluene	800	160	µg/l	< 0.34	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.37	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.71	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.36	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
Naphthalene	100	10	µg/l	< 0.37	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
<b>Natural Attenuation Parameters</b>											
Temperature			°F				58.23		59.02		46.89
Conductivity			uS/cm				537		635		350
Dissolved Oxygen			mg/l				1.21		2.18		5.04
pH							6.91		6.56		5.76
Oxidation-Reduction Potential			mV				-102.5		-50.8		120.7

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>



**Table 3k  
Summary of Groundwater Analytical Results  
MW4**

**Moose Junction Lounge  
13195 State Highway 35  
Dairyland, WI**

Detected Parameters	ES	PAL	Units	Sampled By -->										REI
				11/14/2013	2/18/2015	6/28/2016	10/3/2016	7/7/2017	11/27/2017					
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.0*
<b>VOC Parameters</b>														
Benzene	5	0.5	µg/l	< 0.34	<b>192</b>	<b>56</b>	<b>20.3</b>	<b>119</b>	<b>311</b>					
Ethylbenzene	700	140	µg/l	< 0.34	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39					< 0.39
Toluene	800	160	µg/l	< 0.34	1.36	< 0.39	< 0.39	0.94*	3.1					
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.37	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48					< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.71	4.4	< 0.80	< 0.80	2.9	10.4					
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.36	< 0.42	< 0.42	< 0.42	< 0.42	0.53*					
Naphthalene	100	10	µg/l	< 0.37	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42					< 0.42
<b>Natural Attenuation Parameters</b>														
Temperature			°F				54.96	53.05	41.39					
Conductivity			uS/cm				1,216	1,194	679					
Dissolved Oxygen			mg/l				0.74	1.25	3.82					
pH							6.71	6.26	6.41					
Oxidation-Reduction Potential			mV				-140.2	-50.7	-21.7					

**Notes:**

- ES = NRI 40.10 Enforcement Standards
- PAL = NRI 40.10 Preventive Action Limits
- ND = Not Detected
- NA = Not Analyzed
- \* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation
- Enforcement Standard exceeded
- Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

Table 31  
**Summary of Groundwater Analytical Results**  
 MW5  
 Moose Junction Lounge  
 13195 State Highway 35  
 Dairyland, WI

Detected Parameters	ES	Sampled By -->		Tetra-Tech			REI			
		PAL	Units	4/18/2007	8/15/2007	10/3/2007	11/14/2013	2/18/2015	6/28/2016	10/3/2016
<b>VOC Parameters</b>										
Benzene	5	0.5	µg/l	< 0.25	< 0.25	< 0.25	Well	Well	Well	Well
Ethylbenzene	700	140	µg/l	< 0.22	< 0.22	< 0.22	Not	Not	Not	Abandoned
Toluene	800	160	µg/l	0.15*	< 0.11	0.29*	Sampled	Sampled	Sampled	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.23	< 0.23	< 0.23				
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.39	< 0.39	< 0.39				
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.25	< 0.25	< 0.25				
Naphthalene	100	10		< 0.50	< 0.50	< 0.50				

*Notes:*

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>



**Table 3m**  
**Summary of Groundwater Analytical Results**  
**MW5R**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	Sampled By -->										
	ES	PAL	Units	7/13/2010	11/23/2010	3/4/2011	7/22/2011	10/27/2011	1/26/2012	4/27/2012	10/5/2012
<b>VOC Parameters</b>											
Benzene	5	0.5	µg/l	< 0.31	< 0.31	0.14*	< 0.31	< 0.31	< 0.31	< 0.31	< 0.50
Ethylbenzene	700	140	µg/l	< 0.50	< 0.50	0.14*	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0
Toluene	800	160	µg/l	< 0.37	< 0.37	0.13*	< 0.37	< 0.37	< 0.37	< 0.37	< 0.50
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.30	< 0.30	0.30*	< 0.30	< 0.30	< 0.30	< 0.30	< 0.10
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.39	< 1.39	0.43*	< 1.39	< 1.39	< 1.39	< 1.39	< 1.50
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.44	< 0.44	0.12*	< 0.44	< 0.44	< 0.44	< 0.44	< 1.0
Naphthalene	100	10	µg/l	< 2.00	< 2.00	0.48*	< 2.00	< 2.00	< 2.00	< 2.00	< 5.0

Carlson McCain

Detected Parameters	Sampled By -->									
	ES	PAL	Units	11/14/2013	2/18/2015	6/28/2016	10/3/2016	7/7/2017	11/27/2017	REI
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	NA	NA	< 4.3	
<b>VOC Parameters</b>										
Benzene	5	0.5	µg/l	< 0.34	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
Ethylbenzene	700	140	µg/l	< 0.34	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Toluene	800	160	µg/l	< 0.34	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.37	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.71	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.36	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
Naphthalene	100	10	µg/l	< 0.37	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
<b>Natural Attenuation Parameters</b>										
Temperature			°F				55.35	53.56	46.46	
Conductivity			µS/cm				233	286	974	
Dissolved Oxygen			mg/l				5.18	1.35	7.35	
pH							6.76	5.63	6.3	
Oxidation-Reduction Potential			mV				-35.2	60.9	106.8	

**Notes:**

ES = NR140.10 Enforcement Standards  
 PAL = NR140.10 Preventive Action Limits  
 ND = Not Detected  
 NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded **BOLD**  
 Preventive Action Limit exceeded *Italics*

**Table 3n**  
**Summary of Groundwater Analytical Results**  
**MW6**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	Sampled By -->				REI			
		PAL	Units	6/29/2016	10/3/2016	7/7/2017	11/27/2017		
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	6.5*		
<b>VOC Parameters</b>									
Benzene	5	0.5	µg/l	< 0.40	< 0.40	< 0.40	< 0.40		
Ethylbenzene	700	140	µg/l	< 0.39	< 0.39	< 0.39	< 0.39		
Toluene	800	160	µg/l	0.71*	< 0.39	< 0.39	< 0.39		
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.48	< 0.48	< 0.48	< 0.48		
Xylenes (mixed isomers)	2,000	400	µg/l	0.98*	< 0.80	< 0.80	< 0.80		
Trimethylbenzenes (mixed isomers)	480	96	µg/l	0.51*	< 0.42	< 0.42	< 0.42		
Naphthalene	100	10	µg/l	< 0.42	< 0.42	< 0.42	< 0.42		
<b>Natural Attenuation Parameters</b>									
Temperature			°F		60.25	57.19	47.08		
Conductivity			uS/cm		727	1,494	571		
Dissolved Oxygen			mg/l		1.36	1.93	3.03		
pH					6.72	6.11	6.14		
Oxidation-Reduction Potential			mV		-60.8	-44.4	29.8		

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

**Table 30**  
**Summary of Groundwater Analytical Results**  
**MW7**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	PAL	Sampled By -->				REI		
			Units	6/29/2016	10/3/2016	7/7/2017	11/27/2017		
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	NA	< 4.3	
<b>VOC Parameters</b>									
Benzene	5	0.5	µg/l	1.8	<b>Sample</b>	2.4		< 0.40	
Ethylbenzene	700	140	µg/l	1.9	<b>Damaged</b>	< 0.39		< 0.39	
Toluene	800	160	µg/l	3.0	<b>Not</b>	< 0.39		< 0.39	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.48	<b>Reported</b>	< 0.48		< 0.48	
Xylenes (mixed isomers)	2,000	400	µg/l	5.4		< 0.80		< 0.80	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	1.4		< 0.42		< 0.42	
Naphthalene	100	10	µg/l	1.7		< 0.42		< 0.42	
<b>Natural Attenuation Parameters</b>									
Temperature			°F		54.4	52.43		43.02	
Conductivity			uS/cm		1,215	1,573		810	
Dissolved Oxygen			mg/l		1.63	1.90		3.49	
pH					6.94	5.65		6.52	
Oxidation-Reduction Potential			mV		-128.6	-88.9		63.8	

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

**Table 3p**  
**Summary of Groundwater Analytical Results**  
**MW8**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	PAL	Sampled By -->				REI			
			Units	6/29/2016	10/3/2016	7/7/2017	11/27/2017			
Dissolved Lead	15	1.5	µg/l	NA	NA	NA	NA	11.8*		
<b>VOC Parameters</b>										
Benzene	5	0.5	µg/l	<b>236</b>	<b>37.9</b>	<b>119</b>	<b>115</b>			
Ethylbenzene	700	140	µg/l	106	20.2	78.6	33.7			
Toluene	800	160	µg/l	17.3	1.5	6.0	4.9			
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.97	< 0.48	< 0.48	< 0.48			
Xylenes (mixed isomers)	2,000	400	µg/l	50.3	6.1	18.2	9.6			
Trimethylbenzenes (mixed isomers)	480	96	µg/l	9.5	5.9	20.8	9.6			
Naphthalene	100	10	µg/l	<i>11.3</i>	8.9	<i>17.5</i>	<i>11.0</i>			
<b>Natural Attenuation Parameters</b>										
Temperature			°F		55.15	52.64	42.86			
Conductivity			uS/cm		2,102	2,085	976			
Dissolved Oxygen			mg/l		0.65	0.67	2.85			
pH					6.40	6.29	6.46			
Oxidation-Reduction Potential			mV		-116.1	-26.3	-11.3			

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

**Table 3q**  
**Summary of Groundwater Analytical Results**

**MW9**

**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	PAL	Sampled By -->		REI	
			Units	7/7/2017	11/27/2017	
Dissolved Lead	15	1.5	µg/l	NA		< 4.3
<b>VOC Parameters</b>						
Benzene	5	0.5	µg/l	< 0.50		< 0.40
Ethylbenzene	700	140	µg/l	< 0.50		< 0.39
Toluene	800	160	µg/l	< 0.50		< 0.39
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.17		< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.0		< 0.80
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.50		< 0.42
Naphthalene	100	10	µg/l	< 2.5		< 0.42
<b>Natural Attenuation Parameters</b>						
Temperature			°F	NA		43.71
Conductivity			uS/cm	NA		1,949
Dissolved Oxygen			mg/l	NA		3.63
pH				NA		5.9
Oxidation-Reduction Potential			mV	NA		24.5

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

**Table 3r**  
**Summary of Groundwater Analytical Results**  
**R-O-W Potable**  
**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

Detected Parameters	ES	Sampled By -->				REI		
		PAL	Units	6/28/2016	10/3/2016	7/7/2017	11/27/2017	
<b>VOC Parameters</b>								
Benzene	5	0.5	µg/l	2.1	<b>7.3</b>	< 0.40	< 0.40	< 0.40
Ethylbenzene	700	140	µg/l	< 0.39	0.91*	< 0.39	< 0.39	< 0.39
Toluene	800	160	µg/l	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
Naphthalene	100	10	µg/l	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

<b>BOLD</b>
<i>Italics</i>

**Table 3s**  
**Summary of Groundwater Analytical Results**  
**On Site Potable Well**  
**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

VOC Parameters	ES	PAL	Units	On Site Potable (PW1) 13195 S State Highway 35											
				5/27/1993	1/9/2001**	2/6/2001	4/9/2002	4/14/2006	4/18/2007	10/3/2007	9/10/2008	12/18/2008	10/27/2011	1/26/2012	
Benzene	5	0.5	µg/l	< 1.00	< 0.15	< 0.15	< 0.15	< 0.15	< 0.17	< 0.20	< 0.050	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	700	140	µg/l	< 1.00	< 0.15	< 0.15	< 0.15	< 0.20	< 0.20	< 0.10	< 0.050	< 0.20	< 0.20	< 0.20	< 0.20
Toluene	800	160	µg/l	< 1.00	< 0.15	< 0.15	< 0.15	< 0.25	0.49*	0.35	< 0.050	< 0.40	< 0.40	< 0.40	< 0.40
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	NA	< 0.15	< 0.15	< 0.15	< 0.34	< 0.20	< 0.20	< 0.050	< 0.50	< 0.50	< 0.50	< 0.50
Xylenes (mixed isomers)	2,000	400	µg/l	< 2.00	< 0.15	< 0.15	< 0.15	< 0.33	< 1.00	< 1.00	< 0.050	< 1.00	< 1.00	< 1.00	< 1.00
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 1.00	< 0.15	< 0.15	< 0.15	< 1.20	< 0.20	< 0.20	< 0.050	< 0.20	< 0.20	< 0.20	< 0.20
Naphthalene	100	10	µg/l		< 0.15	< 0.15	< 0.15	< 2.20	< 1.00	< 1.00	< 0.25	< 1.00	< 1.00	< 1.00	< 1.00
Chloroform	6	0.6	µg/l		0.15*	< 0.15	< 0.15	6.80	< 0.20	< 0.20	< 0.050	< 0.20	< 0.20	< 0.20	< 0.20
Chloromethane	30	3	µg/l		< 0.15	< 0.15	< 0.15	< 0.91	< 0.30	0.11*	< 0.40	0.45*	< 0.40	< 0.40	< 0.40
1,2-Dichloropropane	5	0.5	µg/l		0.16*	< 0.15	< 0.15	< 0.21	< 0.20	< 0.20	< 0.050	< 1.00	< 0.30	< 0.50	< 0.40
1,2-Dichloroethane	5	0.5	µg/l	< 1.00	< 0.15	< 0.15	< 0.15	< 0.72	< 0.20	< 0.20	< 0.050	< 0.30	< 0.30	< 0.30	< 0.30
Isopropylbenzene			µg/l	< 1.00	< 0.15	< 0.15	< 0.15	< 0.99	< 0.10	< 0.10	< 0.050	< 0.10	< 0.10	< 0.20	< 0.20

VOC Parameters	ES	PAL	Units	On Site Potable (PW1) 13195 S State Highway 35											
				3/15/2012	4/27/2012	10/5/2012	11/14/2013	2/18/2015	6/28/2016	10/3/2016	7/7/2017	11/27/2017			
Benzene	5	0.5	µg/l	< 0.20	< 0.20	< 0.50	< 0.24	< 0.40	< 0.50	< 0.50	< 0.086	< 0.086	< 0.23	< 0.23	
Ethylbenzene	700	140	µg/l	< 0.20	< 0.20	< 0.50	< 0.21	< 0.39	< 0.50	< 0.50	< 0.051	< 0.051	< 0.22	< 0.22	
Toluene	800	160	µg/l	< 0.40	< 0.40	< 0.50	< 0.22	< 0.39	< 0.50	< 0.50	< 0.080	< 0.080	< 0.22	< 0.22	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.50	< 0.50	< 0.50	< 0.25	< 0.48	< 0.17	< 0.58	< 0.058	< 0.058	< 0.29	< 0.29	
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.00	< 1.00	< 0.50	< 0.75	< 0.80	< 1.0	< 0.73	< 0.073	< 0.073	< 0.48	< 0.48	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.20	< 0.20	< 0.50	< 0.42	< 0.42	< 0.50	< 0.083	< 0.083	< 0.22	< 0.22	< 0.22	
Naphthalene	100	10	µg/l	< 1.0	< 1.0	NA	< 0.50	< 0.42	< 2.5	< 0.064	< 0.064	< 0.23	< 0.23	< 0.23	
Chloroform	6	0.6	µg/l	< 0.20	< 0.20	< 0.50	< 0.50	NA	< 2.5	< 0.10	< 0.10	< 0.25	< 0.25	< 0.25	
Chloromethane	30	3	µg/l	< 0.40	< 0.40	< 0.50	< 0.50	NA	< 0.50	< 0.21	< 0.21	< 0.23	< 0.23	< 0.23	
1,2-Dichloropropane	5	0.5	µg/l	< 0.40	< 0.40	< 0.50	< 0.20	NA	< 0.23	< 0.084	< 0.084	< 0.23	< 0.23	< 0.23	
1,2-Dichloroethane	5	0.5	µg/l	< 0.30	< 0.30	< 0.50	< 0.21	NA	< 0.17	< 0.092	< 0.092	< 0.25	< 0.25	< 0.25	
Isopropylbenzene			µg/l	< 0.20	< 0.20	NA	< 0.12	NA	< 0.14	< 0.11	< 0.11	< 0.22	< 0.22	< 0.22	

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Enforcement Standard exceeded

Preventive Action Limit exceeded

**BOLD**

*Italics*

\*\* Collected after water softener

**Table 3t**  
**Summary of Groundwater Analytical Results**  
**Neighboring Potable Well**  
**Moose Junction Lounge**  
**13195 State Highway 35**  
**Dairyland, WI**

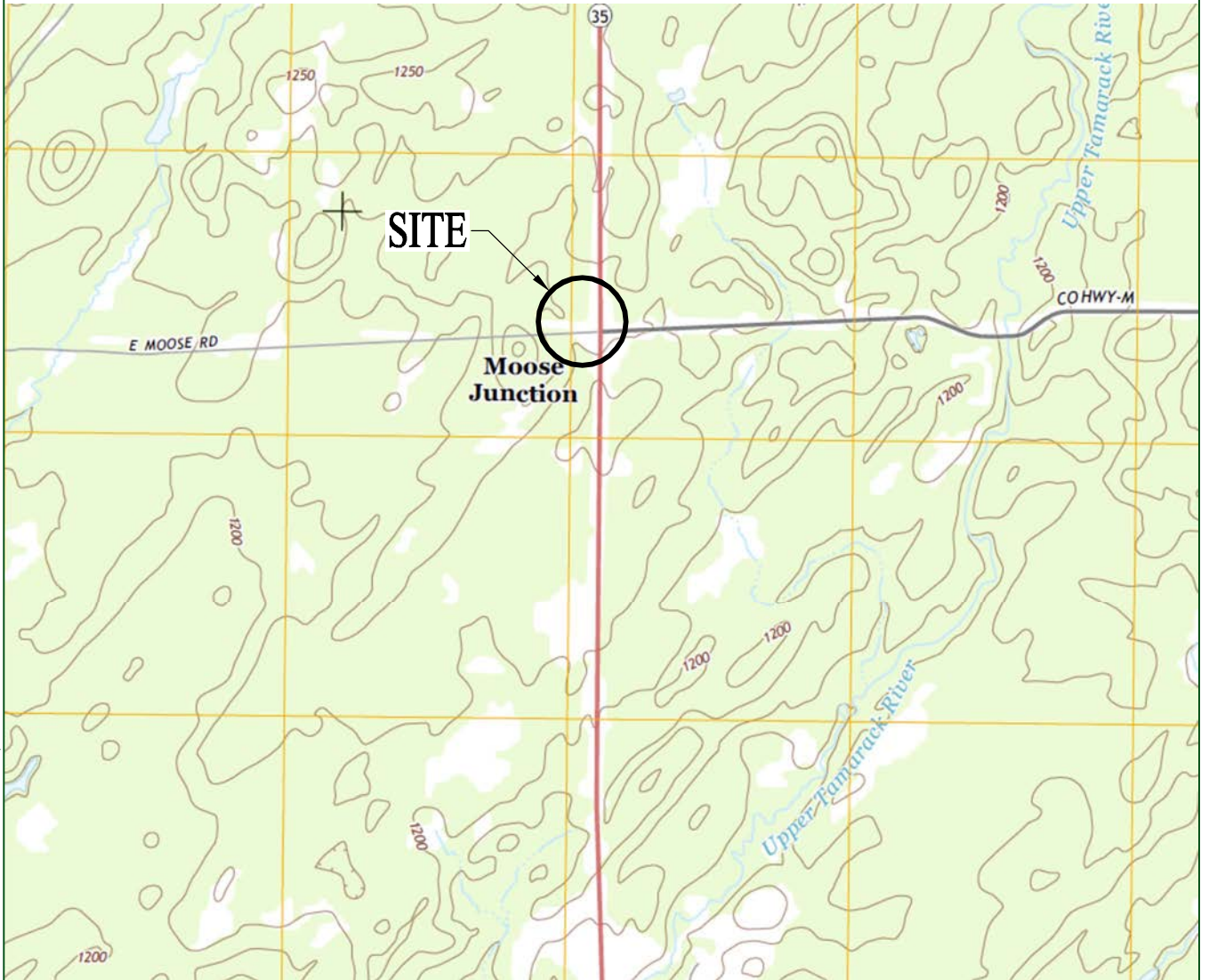
VOC Parameters	ES	PAL	Units	Off Site Potable (PW2) 2794 E Moose Road															
				10/12/1992	10/29/1992	11/17/2003	4/14/2006	7/27/2006	4/18/2007	5/15/2007	10/3/2007	9/10/2008	12/18/2008	7/13/2010	8/3/2010	11/23/2010	3/4/2011		
Benzene	5	0.5	µg/l	< 1.0	< 1.0	< 0.5	4.30	< 0.17	15.8	< 0.20	< 0.05	< 0.20	< 0.20	< 0.20	< 0.20	5.29	4.8	21.6	6.1
Ethylbenzene	700	140	µg/l	< 1.0	< 1.0	2.6	1.41	< 0.20	4.25	0.42*	0.10*	< 0.20	< 0.20	< 0.20	< 0.20	3.25	2.65	7.99	3.4
Toluene	800	160	µg/l	< 1.0	< 1.0	< 0.54	< 0.25	< 0.25	0.53*	< 0.40	0.88	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	0.61*	< 0.50
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 10.0	< 10.0	< 0.69	< 0.34	< 0.34	< 0.20	< 0.20	< 0.05	< 0.20	< 0.20	< 0.20	< 0.20	< 0.50	< 0.50	< 0.50	< 0.50
Xylenes (mixed isomers)	2,000	400	µg/l	< 2.0	< 2.0	4.4*	1.39	< 0.33	< 1.0	< 1.0	0.37	< 1.00	< 1.00	< 1.00	< 1.00	3.05	3.12	8.01	2.7
Trimethylbenzenes (mixed isomers)	480	96	µg/l	NA	NA	0.55*	0.59	< 2.20	2.94	< 2.20	< 1.0	< 1.0	< 1.00	< 1.00	< 1.00	0.99	2.16	5.88	0.82
Naphthalene	100	10	µg/l	NA	NA	NA	< 2.20	< 2.20	< 1.0	< 1.0	1.4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	6	0.6	µg/l	< 1.0	< 1.0	< 0.61	< 0.61	< 0.61	< 0.20	< 0.20	< 0.05	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Chloromethane	30	3	µg/l	NA	NA	< 0.91	< 0.91	< 0.91	< 0.30	< 0.30	0.16*	< 0.30	< 0.30	< 0.30	< 0.30	< 0.40	< 0.40	< 1.0	< 1.0
1,4-Dichlorobenzene	75	15	µg/l	< 2.0	< 2.0	< 0.45	< 0.45	< 0.45	< 0.80	< 0.80	0.36	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
1,1,1-Trichloroethane	200	40	µg/l	< 1.0	< 1.0	< 0.42	< 0.42	< 0.42	< 0.20	< 0.20	0.17	< 0.20	< 0.20	< 0.20	< 0.20	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	5	0.5	µg/l	< 1.0	< 1.0	< 0.72	< 0.72	< 0.72	< 0.20	< 0.20	< 0.05	< 0.20	< 0.20	< 0.20	< 0.20	0.36*	0.34*	< 0.30	< 0.50
Isopropylbenzene			µg/l	NA	< 1.0		< 0.99	< 0.99	0.29	< 0.10	< 0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	0.48*	< 0.50	< 0.20

VOC Parameters	ES	PAL	Units	Off Site Potable (PW2) 2794 E Moose Road																
				7/22/2011	10/27/2011	1/26/2012	4/27/2012	10/5/2012	11/14/2013	2/18/2015	6/28/2016	10/3/2016	7/7/2017	11/27/2017						
Benzene	5	0.5	µg/l	< 0.20	8.36	12.7	4.95	8.6												
Ethylbenzene	700	140	µg/l	< 0.20	4.62	4.63	2.32	2.6												
Toluene	800	160	µg/l	< 0.40	< 0.40	< 0.40	< 0.40	< 0.90												
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50												
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.00	4.48	4.05	1.9	3.3												
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.20	3.53	3.22	1.54	NA												
Naphthalene	100	10	µg/l	< 1.0	< 1.00	< 1.0	< 1.0	NA												
Chloroform	6	0.6	µg/l	< 0.20	0.39*	< 0.20	< 0.20	< 0.50												
Chloromethane	30	3	µg/l	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50												
1,4-Dichlorobenzene	75	15	µg/l	< 0.80	< 0.40	< 0.80	< 0.80	< 0.50												
1,1,1-Trichloroethane	200	40	µg/l	< 0.50	0.47*	< 0.50	< 0.50	< 0.50												
1,2-Dichloroethane	5	0.5	µg/l	< 0.30	0.24*	< 0.30	< 0.30	< 0.50												
Isopropylbenzene			µg/l	< 0.20	< 0.20	0.30*	< 0.20	NA												

Notes:  
ES = NR140.10 Enforcement Standards  
PAL = NR140.10 Preventive Action Limits  
ND = Not Detected  
NA = Not Analyzed  
\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation  
Enforcement Standard exceeded  
Preventive Action Limit exceeded

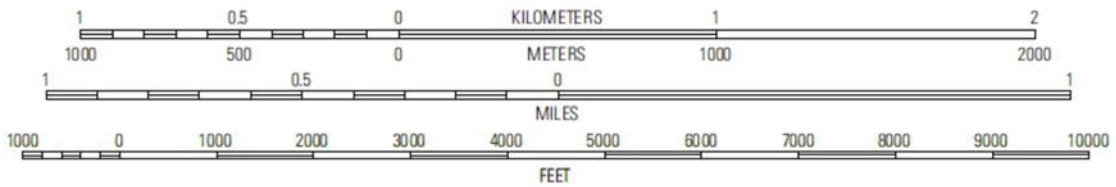
**BOLD**  
*Italics*





DRAWING FILE: P:\6500-6599\6510 - MOOSE JUNCTION\DWG\6510-VICN.DWG LAYOUT: VICN PLOTTED: JAN 16, 2017 - 5:07PM PLOTTED BY: NATHANP

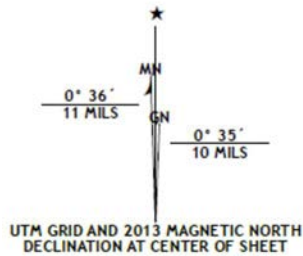
SCALE 1:24 000



CONTOUR INTERVAL 10 FEET  
 NORTH AMERICAN VERTICAL DATUM OF 1988



QUADRANGLE LOCATION



UTM GRID AND 2013 MAGNETIC NORTH  
 DECLINATION AT CENTER OF SHEET

**MOOSE JUNCTION, WI**  
 2013

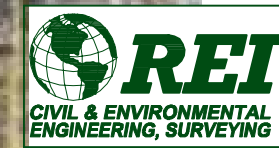
REI Engineering, INC.

MOOSE JUNCTION LOUNGE  
 13195 HIGHWAY 35 SOUTH  
 DAIRYLAND, WISCONSIN

FIGURE 1 : SITE VICINITY MAP

PROJECT NO.	6510	DRAWN BY:	TAW	DATE:	3/12/2014
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DRAWING FILE: P:\6500-6599\6510 - Moose Junction\dwg\6510-PROPERTY.dwg LAYOUT: gis PLOTTED: JAN 16, 2017 - 5:07PM PLOTTED BY: NATHANP



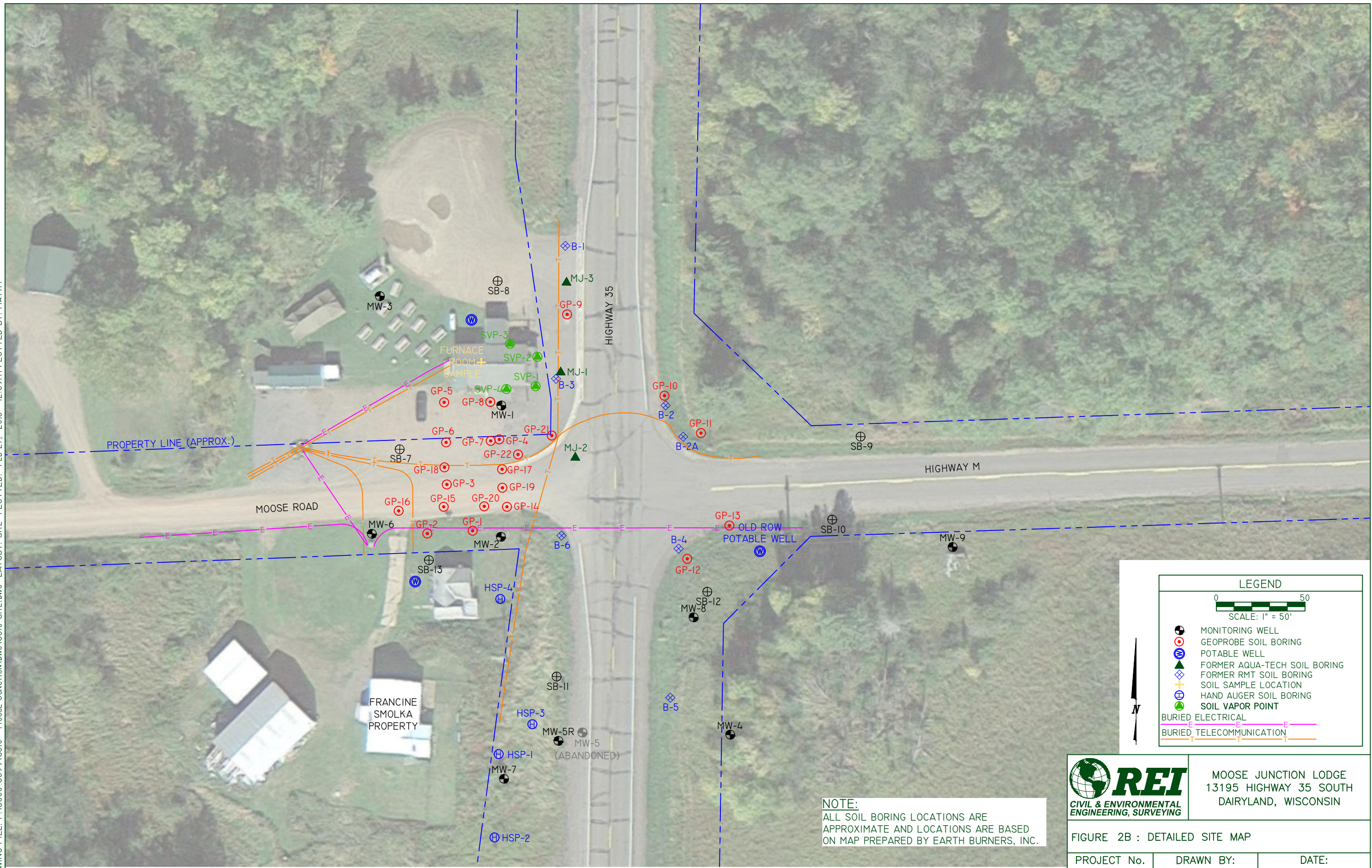
MOOSE JUNCTION LOUNGE  
13195 HIGHWAY 35 SOUTH  
DAIRYLAND, WISCONSIN

FIGURE 2A : GIS PROPERTY BOUNDARIES

PROJECT No. 6510	DRAWN BY: TAW	DATE: 3/12/2014
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DRAWING FILE: P:\6500-6599\6510 - Moose Junction\DWG\6510-SITE.DWG LAYOUT: SITE PLOTTED: FEB 27, 2018 - 12:59PM PLOTTED BY: MATTM



**NOTE:**  
 ALL SOIL BORING LOCATIONS ARE APPROXIMATE AND LOCATIONS ARE BASED ON MAP PREPARED BY EARTH BURNERS, INC.

**LEGEND**

0 50  
 SCALE: 1" = 50'

- MONITORING WELL
- GEOPROBE SOIL BORING
- POTABLE WELL
- FORMER AQUA-TECH SOIL BORING
- FORMER RMT SOIL BORING
- SOIL SAMPLE LOCATION
- HAND AUGER SOIL BORING
- SOIL VAPOR POINT
- BURIED ELECTRICAL
- BURIED TELECOMMUNICATION



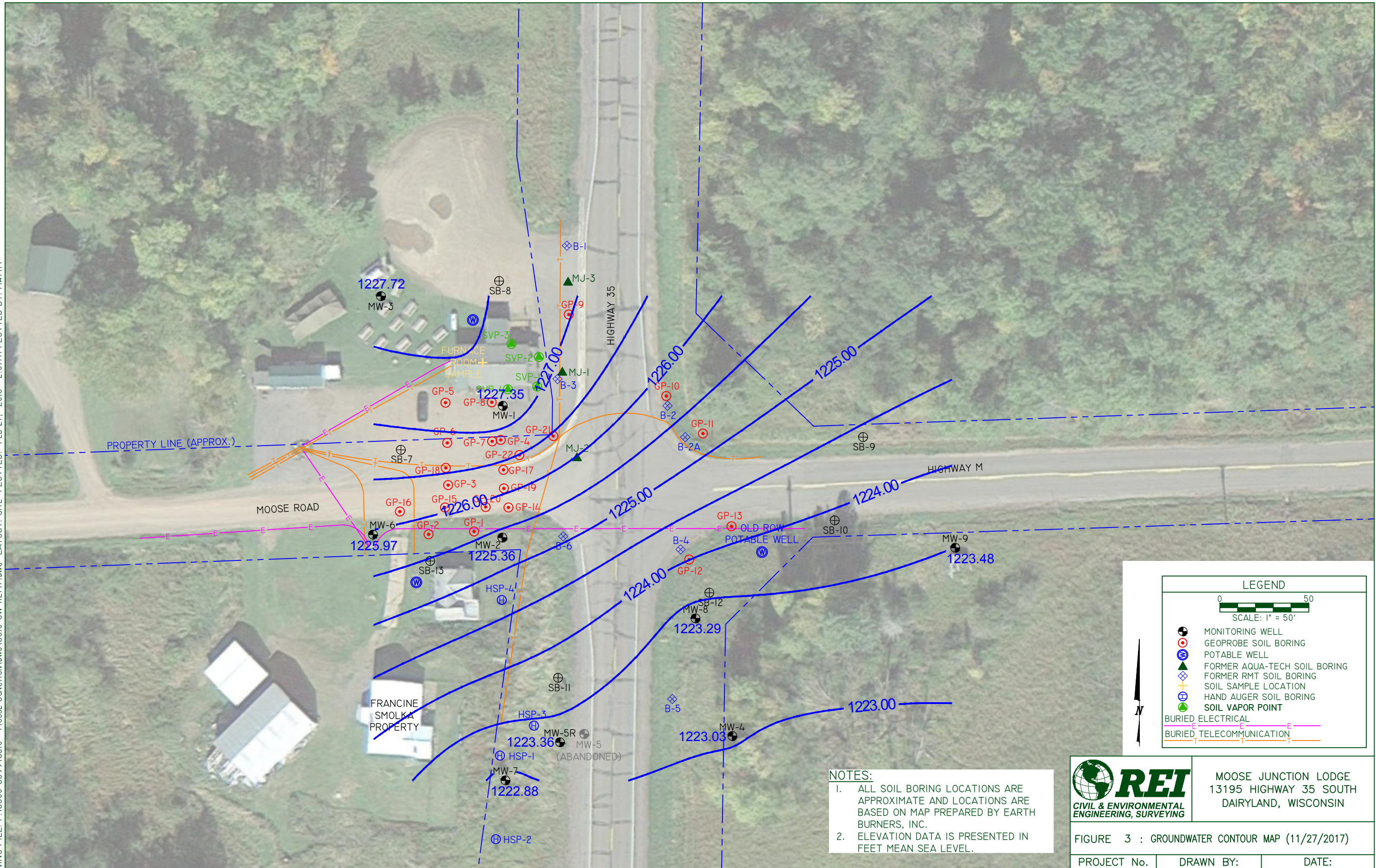
MOOSE JUNCTION LODGE  
 13195 HIGHWAY 35 SOUTH  
 DAIRYLAND, WISCONSIN

FIGURE 2B : DETAILED SITE MAP

PROJECT No. 6510	DRAWN BY: MCM	DATE: 2/27/2018
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DRAWING FILE: P:\6500-6599\6510 - Moose Junction\DWG\6510-GW-112717.DWG LAYOUT: SITE PLOTTED: FEB 27, 2018 - 2:07PM PLOTTED BY: MATTM



**NOTES:**  
 1. ALL SOIL BORING LOCATIONS ARE APPROXIMATE AND LOCATIONS ARE BASED ON MAP PREPARED BY EARTH BURNERS, INC.  
 2. ELEVATION DATA IS PRESENTED IN FEET MEAN SEA LEVEL.



MOOSE JUNCTION LODGE  
 13195 HIGHWAY 35 SOUTH  
 DAIRYLAND, WISCONSIN

FIGURE 3 : GROUNDWATER CONTOUR MAP (11/27/2017)

PROJECT No. 6510	DRAWN BY: MCM	DATE: 2/27/2018
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## **APPENDIX A**

# **GEOPROBE BORING LOGS AND BOREHOLE ABANDONMENT FORMS**



Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Moose Junction</b>		License/Permit/Monitoring Number		Boring Number <b>GP5</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Mitch Panfil - Gestra Engineering</b>			Date Drilling Started <b>6/12/2017</b>	Date Drilling Completed <b>6/12/2017</b>	Drilling Method <b>Geoprobe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation <b>0</b>	Borehole Diameter <b>2.25 in</b>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> <b>GP5</b> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County <b>Douglas</b>	County Code <b>16</b>	Civil Town/City/or Village <b>Dairyland</b>	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		42		1	Gravel base coarse	GP					M				
				2	Sandy clay					0.0					
2		60		3											
				4		CL				0.0					
				5											
				6						0.0					
				7											
				8	Sandy clay w/ clasts	GC				0.0					
				9											
				10											
				11	EOB @ 10.5' Refusal										
				12											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *[Signature]* Firm **REI Engineering, Inc.**  
4080 North 20th Avenue, Wausau, WI

This form is authorized by Chapters 281,283,289,292,293,295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number		Boring Number GP6	
Boring Drilled By: Name of crew chief (first, last) and Firm Mitch Panfil - Gestra Engineering			Date Drilling Started 6/12/2017	Date Drilling Completed 6/12/2017	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	

Facility ID	County Douglas	County Code 16	Civil Town/City/or Village Dairyland
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Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		12		1	Gravel base coarse	GP					M				
				2	Fine brown sand w/ gravel	GM									
				3	Brown clay	CH									
2		60		4				0.0							
				5	Fine to medium sandy clay w/ gravel	SC		6							
				6	Mixed grain sand w/ gravelly clay	GC		0.0							
				7											
				8											
				9											
				10	EOB @ 10'										
				11											
				12											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature	Firm RE Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Moose Junction</b>		License/Permit/Monitoring Number		Boring Number <b>GP7</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Mitch Panfil - Gestra Engineering</b>			Date Drilling Started <b>6/12/2017</b>	Date Drilling Completed <b>6/12/2017</b>	Drilling Method <b>Geoprobe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation <b>0</b>	Borehole Diameter <b>2.25 in</b>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> <b>GP7</b> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County <b>Douglas</b>	County Code <b>16</b>	Civil Town/City/or Village <b>Dairyland</b>	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		42		1	Gravel base coarse	GP			0.0						
				2	Sandy clay w/ trace gravel										
				3											
				4											
				5											
2		48		6	Sandy clay w/ stones	GC									
				7											
				8											
				9											
				10	EOB @ 9.5' Refusal										
11															

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *Scott J. Block* Firm **REI Engineering, Inc.**  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number		Boring Number GP8	
Boring Drilled By: Name of crew chief (first, last) and Firm Mitch Panfil - Gestra Engineering			Date Drilling Started 6/12/2017	Date Drilling Completed 6/12/2017	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in '8
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> GP8 State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	

Facility ID	County Douglas	County Code 16	Civil Town/City/or Village Dairyland
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Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		36		0	Gravel base course	GP			401		M				
				1	Silty/sandy clay	GC									
				2											
				3											
				4											
2		42		5	Silty/sandy clay w/ gravel	GC			1.6						
				6											
				7											
				8											
				9											
				10											
				EOB @ 9.5'											








I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Scott J. Block</i>	Firm REI Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
---------------------------------	--

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Moose Junction</b>		License/Permit/Monitoring Number		Boring Number <b>GP9</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Mitch Panfil - Gestra Engineering</b>			Date Drilling Started <b>6/12/2017</b>	Date Drilling Completed <b>6/12/2017</b>	Drilling Method <b>Geoprobe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation <b>0</b>	Borehole Diameter <b>2.25 in</b>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> <b>GP9</b>			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County <b>Douglas</b>	County Code <b>16</b>	Civil Town/City/or Village <b>Dairyland</b>	

Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		30		1	Asphalt base coarse				0.6						
				1	Gravel base coarse material	GP									
2		42		2	Sandy clay	SC			0.0						
				3	Gray clay w/ orange mottling										
				7	Brown clay	CL									
				9	Sandy clay	SC									
				10	EOB @ 10'										

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *Scott J. Blodt* Firm **REI Engineering, Inc.**  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number		Boring Number GP10	
Boring Drilled By: Name of crew chief (first, last) and Firm Mitch Panfil - Gestra Engineering			Date Drilling Started 6/13/2017	Date Drilling Completed 6/13/2017	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in '10
Local Grid Orign <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> GP10 State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	

Sample		Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
Number	Type								Length Att. & Recovered (in)	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	
			1	Topsoil/fill					M					
1		30	2	Silty sand	SM		11.5							
			3	Silty sand w/ gravel					W					
			4		GM		25.5							
2		42	5	Sandy clay w/ stones moist to wet	SC		81.2							
			6											
			7											
			8											
			9											
			10	EOB @ 10'			1703							
			11											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *Scott J. Blodot* Firm REI Engineering, Inc.  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number		Boring Number GP11	
Boring Drilled By: Name of crew chief (first, last) and Firm Mitch Panfil - Gestra Engineering			Date Drilling Started 6/13/2017	Date Drilling Completed 6/13/2017	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in '11
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> GP11 State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	

Sample		Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
Number	Type								Length Att. & Recovered (in)	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	
1		30	0	Topsoil/fill					M					
			1	Fine to medium sand				62.3						
			2		SW									
2		60	3	Clayey sand and gravel										
			4		SC			172.3						
			5	Fine to medium grain sand w/ trace stones Saturated @5', dryer with depth					16.3	W				
			6											
			7											
			8											
			9											
			10											
			10	EOB @ 10'										
			11											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *Stt J. Blodo* Firm **REI Engineering, Inc.**  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Moose Junction</b>		License/Permit/Monitoring Number		Boring Number <b>GP12</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Mitch Panfil - Gestra Engineering</b>			Date Drilling Started <b>6/13/2017</b>	Date Drilling Completed <b>6/13/2017</b>	Drilling Method <b>Geoprobe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation <b>0</b>	Borehole Diameter <b>2.25 in</b>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> <b>GP12</b>			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County <b>Douglas</b>	County Code <b>16</b>	Civil Town/City/or Village <b>Dairyland</b>	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		30		0	Topsoil/fill				0.0		W				
				1	Silts and fine grain sand							M			
				2		SM		35.8							
2		60		3	Clay				31.7						
				4		CL									
				5	Gray sandy clay w/ orange mottles										
				6		SC		13.4							
				7	Brown silty sand w/ trace stones										
8		SM													
				9											
				10	EOB @ 10'										
				11											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *[Signature]* Firm **REI Engineering, Inc.**  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction			License/Permit/Monitoring Number			Boring Number GP13		
Boring Drilled By: Name of crew chief (first, last) and Firm Mitch Panfil - Gestra Engineering				Date Drilling Started 6/13/2017		Date Drilling Completed 6/13/2017		Drilling Method Geoprobe
WI Unique Well No.		DNR Well ID No.	Common Well Name		Final Static Water Level		Surface Elevation 0	Borehole Diameter 2.25 in '13
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> GP13 State Plane				Lat Long		Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>		
Facility ID			County Douglas		County Code 16		Civil Town/City/or Village Dairyland	

Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		30		1	Topsoil/fill				8.2		M				
				2	Silty sand	SM			14.8						
				3	Gray silts w/ mottles moist										
2		42		4	Gray silts w/ mottles moist										
				5	Sandy silt	SM									
				6	Wet gray silt w/ black mottles wet										
				7		SM			43.8		W				
				8											
				9											
				10	EOB @ 10'										
				11											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *Scott J. Blach* Firm REI Engineering, Inc.  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP14	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-14	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in <sup>2-14</sup>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location GP-14			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
State Plane		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample				Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
Number	Type	Length Att. & Recovered (in)	Blow Counts							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		24 in.		1	GRAVEL Sandy gravel fill	SM			1492 ppm						
				2	PEAT Black peat material										
				3	SAND Brown silty sand (F-M) -Petroleum Odor										
				4	SAND Brown/dark grey silty sand (F-M) with gravel -Petroleum Sheen/Odor										
2		22 in.		5											
				6				915 ppm							
3		20 in.		8	SAND Grey/brown silty sand (F-C) with Gravel										
				9	SAND Brown silty sand (F-M) -Petroleum Sheen/Odor										
				10				399 ppm							
				12	EOB EOB @12' BLS										

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature Firm REI Engineering, Inc.  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP15	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-15	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Orign <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location GP15			Lat Long	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		40 in.		1	GRAVEL Gravel fill	SM									
				2	SAND Brown silty sand										
				3	CLAY Brown silty clay with gravel @ bottom										
2		21 in.		4	CLAY Brown sandy clay with trace gravel	SC									
				5											
				6											
3		40 in.		7											
				8											
				9											
				10											
				11											
				12	SAND Silty sand (F-M)	SM									
				13	EOB EOB @12' BLS										
				14											
				15											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature Firm REI Engineering, Inc.  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP16	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-16	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> P-16 State Plane			Lat Long	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		22 in		1	SAND Brown gravelly sand	SM			0.7 ppm						
				2	SAND Brown clayey sand				0.9 ppm						
				3	CLAY Brown silty clay with gravel				1.4 ppm						
2		24 in		4	SAND Silty sand (F-M) with gravel	SC			1.4 ppm						
				5	SAND Silty sand (F-M) with gravel				1.4 ppm						
3		13 in		6	SAND Brown silty sand	SM			1.4 ppm						
				7											
				8											
				12	EOB EOB @12' BLS										

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature  Firm **REI Engineering, Inc.**  
4060 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP17	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-17	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> P-17 State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		28 in.		1	Asphalt Asphalt/ gravel/ road base	SC			0.0 ppm						
				2	SAND Brown clayey sand (F-M) with little gravel										
				3											
				4	CLAY Brown/grey silty sand (F-M)										
2		24 in.		5	CLAY Brown/grey silty clay with sand and trace gravel	CL			8.1 ppm						
				6											
				7											
				8	SAND Brown/grey clayey sand with gravel										
3		14 in.		9		SC			6.3 ppm						
				10	EOB Refusal @10' BLS										
				11											
				12											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature Firm REI Engineering, Inc.  
4080 North 20th Avenue, Wausau, WI

This form is authorized by Chapters 281,283,289,292,293,295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP18	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-18	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> SP-18			Lat	Local Grid Location	
State Plane			Long	N <input type="checkbox"/>	E <input type="checkbox"/>
				S <input type="checkbox"/>	W <input type="checkbox"/>
Facility ID		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample Number	Sample Type	Length Art. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		20 in.		1	GRAVEL Gravel	SM			0.0 ppm						
				2	SAND Brown silty sand (F-M) with gravel										
				3	CLAY Brown silty clay	CL			0.0 ppm						
2		17 in.		4	SAND Brown/grey silty sand (F-M) with trace gravel				0.0 ppm						
				5											
				6											
3		28 in.		7					0.0 ppm	Moist					
				8	SAND Brown/grey silty sand (F-M)	SM			0.0 ppm						
				9											
				10					0.0 ppm						
				11											
				12	ROCK Rock material										
				13	EOB Refusal @ 12' BLS										
				14											
				15											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature Firm **REI Engineering, Inc.**  
4080 North 20th Avenue, Wausau, WI

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction			License/Permit/Monitoring Number 03-16-000301			Boring Number GP19		
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)				Date Drilling Started 11/28/17		Date Drilling Completed 11/28/17		Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-19		Final Static Water Level		Surface Elevation 0		Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> P-19 State Plane				Lat Long		Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>		
Facility ID			County Douglas		County Code 16		Civil Town/City/lor Village Dairyland	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments	
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1		20 in		1	ROAD BASE Road base											
				2	SAND Dark brown silty sand (F-M) with gravel	SM			9.8 ppm							
				3	SAND Light brown sand (F-M) with grey clay				0.8 ppm							
2		28 in		4	CLAY Red/brown sandy (F-C) dry clay	CL										
				5					2.9 ppm							
3		N/A		7												
				8					0.0 ppm				Wet @ 7' BLS			
				9	REFUSAL Refusal @ 9' BLS											
				10												
				11												
				12												

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Signature	Firm REI Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
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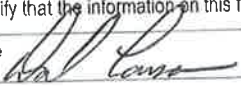


Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP-20	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-20	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> GP-20 State Plane			Lat Long	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		12 in		1	GRAVEL Gravel and sand				0.0 ppm						
				2	SAND Brown silty sand (F-M) with gravel										
2		10 in		6		SM			0.1 ppm		Moist @ 7' BLS				
3		35 in		10					0.0 ppm		Wet @ 10' BLS				
				12	EOB EOB @ 12' BLS										

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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP-21	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Keith)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-21	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> GP-21			Lat	Local Grid Location	
State Plane			Long	N <input type="checkbox"/> S <input type="checkbox"/>	
Facility ID		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					ROD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		34 in.		1	ASPHALT Asphalt				105.6						
				2	SAND Brown/grey silty sand (F-M) with gravel -Petroleum Odor				968						
2		20 in.		3		SM			786						
				4											
3		30 in.		5											
				6	GRAVEL Layer of gravel										
				7											
				8	SAND Brown/grey silty sand (F-M)										1292
				9											
				10											
				11	SAND Fine sand with little gravel										
				12	EOB EOB @ 12' BLS										
				13											
				14											
				15											

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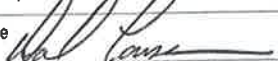
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Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number 03-16-000301		Boring Number GP-22	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil and Sampling LLC (Derrin and Kelth)			Date Drilling Started 11/28/17	Date Drilling Completed 11/28/17	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name GP-22	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> GP-22			Lat Long	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Douglas	County Code 16	Civil Town/City/or Village Dairyland	

Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		17 in.		1	ASPHALT Asphalt				23.4 ppm						
				2	SAND Brown/grey silty sand (F-M) with gravel -Petroleum Odor										
2		17 in		6		SM			47.2 ppm						
				7											
				8	SAND Brown silty fine sand										
3		26 in		10					46.4 ppm						
				12	EOB EOB @ 12' BLS										
				13											
				14											
				15											

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4080 North 20th Avenue, Wausau, WI

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<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County GP5 Douglas	Original Well Owner (if Known) Moose Junction Lounge	
1/4 of 1/4 of Sec. , T. N; R. E W		Present Well Owner Moose Junction Lounge	
(If applicable) Gov't Lot Grid Number		Street or Route 13195 S. State 35	
Grid Location FT. N <input type="checkbox"/> S., ft. E. <input type="checkbox"/> W.		City, State, Zip Code Dairyland, WI	
Civil Town Name		Facility Well No. and/or Name (If Applicable)	WI Unique Well No.
Street Address of Well		Reason For Abandonment Soil and groundwater sampling complete	
City, Village		Date of Abandonment 6/12/17	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>6/12/2017</u></p> <p> <input type="checkbox"/> Monitoring Well  <input type="checkbox"/> Water Well  <input type="checkbox"/> Drillhole  <input checked="" type="checkbox"/> Borehole         </p> <p>Construction Report Available  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No         </p> <p>Construction Type:  <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug  <input type="checkbox"/> Other (Specify) _____         </p> <p>Formation Type  <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock         </p> <p>Total Well Depth (ft.) <u>10.5</u> Casing Diameter (ins.) <u>2</u> (From ground surface)</p> <p>Casing Depth (ft.) <u>NA</u></p> <p>Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet</p>	<p><b>(4) Depth to Water (Feet)</b> <u>6</u></p> <p>           Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable            Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable            Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable            Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No            If No, Explain _____         </p> <hr/> <p>           Was Casing Cut Off Below Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No            Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No            Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No            If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No         </p> <p><b>(a) Required Method of Placing Sealing Material</b>  <input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped  <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____         </p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes on</p> <p> <input type="checkbox"/> Neat Cement Grout  <input type="checkbox"/> Sand-Cement (Concrete) Grout  <input type="checkbox"/> Concrete  <input type="checkbox"/> Clay-Sand Slurry  <input type="checkbox"/> Bentonite-Sand Slurry  <input type="checkbox"/> Chipped Bentonite         </p> <p> <input type="checkbox"/> Bentonite Pellets  <input checked="" type="checkbox"/> Granular Bentonite         </p>

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	10.5 feet	0.34 bags	

(a) Comments:

**(9) Name of Person or Firm Doing Sealing Work**  
David Larsen / REI

Signature of Person Doing Work 	Date Signed
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784
City, State, Zip Code Wausau, WI 54401	

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow up Necessary	



All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County Douglas	Original Well Owner (if Known) Moose Junction Lounge	
____ 1/4 of ____ 1/4 of Sec. ____ , T. ____ N; R. ____		Present Well Owner Moose Junction Lounge	
(If applicable) Gov't Lot _____ Grid Number _____		Street or Route 13195 S. State 35	
Grid Location _____ FT. N <input type="checkbox"/> S., _____ ft. E. <input type="checkbox"/> W.		City, State, Zip Code Dairyland, WI	
Civil Town Name _____		Facility Well No. and/or Name (If Applicable)	WI Unique Well No. _____
Street Address of Well _____		Reason For Abandonment Soil and groundwater sampling complete	
City, Village _____		Date of Abandonment 6/12/17	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>		<b>(4) Depth to Water (Feet)</b> <small>Not encountered</small>											
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>6/12/2017</u>		<table style="width:100%;"> <tr> <td>Pump &amp; Piping Removed?</td> <td><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable</td> </tr> <tr> <td>Liner(s) Removed?</td> <td><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable</td> </tr> <tr> <td>Screen Removed?</td> <td><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable</td> </tr> <tr> <td>Casing Left in Place?</td> <td><input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td colspan="2">If No, Explain _____</td> </tr> </table>		Pump & Piping Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	Liner(s) Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	Screen Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	Casing Left in Place?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, Explain _____	
Pump & Piping Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable												
Liner(s) Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable												
Screen Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable												
Casing Left in Place?	<input type="checkbox"/> Yes <input type="checkbox"/> No												
If No, Explain _____													
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Construction Report Available <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No											
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		Was Casing Cut Off Below Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No											
Formation Type <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<b>(a) Required Method of Placing Sealing Material</b>											
Total Well Depth (ft.) <u>10</u> Casing Diameter (ins.) <u>2</u> (From ground surface)		<input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____											
Casing Depth (ft.) <u>NA</u>		<b>(6) Sealing Materials</b> <small>For monitoring wells and monitoring well boreholes on</small>											
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite											
		<input type="checkbox"/> Bentonite Pellets <input checked="" type="checkbox"/> Granular Bentonite											

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	10 feet	0.32 bags	

<b>(9) Name of Person or Firm Doing Sealing Work</b>		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
David Larsen / REI		Date Received/Inspected	District/County
Signature of Person Doing Work 	Date Signed	Reviewer/Inspector	
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784	Follow up Necessary	
City, State, Zip Code Wausau, WI 54401			

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<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location GP7	County Douglas	Original Well Owner (if Known) Moose Junction Lounge	
1/4 of 1/4 of Sec. , T. N; R. <span style="border: 1px solid black; padding: 2px;">E W</span>		Present Well Owner Moose Junction Lounge	
(If applicable) Gov't Lot Grid Number		Street or Route 13195 S. State 35	
Grid Location FT. N <input type="checkbox"/> S., ft. E. <input type="checkbox"/> W.		City, State, Zip Code Dairyland, WI	
Civil Town Name		Facility Well No. and/or Name (If Applicable)	WI Unique Well No. -----
Street Address of Well		Reason For Abandonment Soil and groundwater sampling complete	
City, Village		Date of Abandonment 6/12/17	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

**(3) Original Well/Drillhole/Borehole Construction Completed On**  
(Date) 6/12/2017

<input type="checkbox"/> Monitoring Well	Construction Report Available <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Water Well	
<input type="checkbox"/> Drillhole	
<input checked="" type="checkbox"/> Borehole	

Construction Type:  
 Drilled     Driven (Sandpoint)     Dug  
 Other (Specify) \_\_\_\_\_

Formation Type  
 Unconsolidated Formation     Bedrock

Total Well Depth (ft.) 9.5    Casing Diameter (ins.) 2  
(From ground surface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted?     Yes     No     Unknown  
If Yes, To What Depth? \_\_\_\_\_ Feet

**(4) Depth to Water (Feet)** Not encountered

Pump & Piping Removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Not Applicable
Liner(s) Removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Not Applicable
Screen Removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Not Applicable
Casing Left in Place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

If No, Explain \_\_\_\_\_

---

Was Casing Cut Off Below Surface?     Yes     No  
Did Sealing Material Rise to Surface?     Yes     No  
Did Material Settle After 24 Hours?     Yes     No  
If Yes, Was Hole Retopped?     Yes     No

**(a) Required Method of Placing Sealing Material**

<input checked="" type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input type="checkbox"/> Dump Bailer	<input type="checkbox"/> Other (Explain)

**(6) Sealing Materials** For monitoring wells and monitoring well boreholes on

<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Bentonite Pellets <input checked="" type="checkbox"/> Granular Bentonite
<input type="checkbox"/> Sand-Cement (Concrete) Grout	
<input type="checkbox"/> Concrete	
<input type="checkbox"/> Clay-Sand Slurry	
<input type="checkbox"/> Bentonite-Sand Slurry	
<input type="checkbox"/> Chipped Bentonite	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	9.5 feet	0.3 bags	

**(a) Comments:**

**(9) Name of Person or Firm Doing Sealing Work**  
David Larsen / REI

Signature of Person Doing Work 	Date Signed
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784
City, State, Zip Code Wausau, WI 54401	

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow up Necessary	

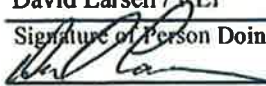


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<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County	Original Well Owner (if Known)	
GP8	Douglas	Moose Junction Lounge	
1/4 of 1/4 of Sec. _____, T. _____ N; R. _____		Present Well Owner	
(If applicable) Gov't Lot _____ Grid Number _____		Moose Junction Lounge	
Grid Location _____ FT. N <input type="checkbox"/> S., _____ ft. E. <input type="checkbox"/> W.		Street or Route	
Civil Town Name _____		13195 S. State 35	
Street Address of Well _____		City, State, Zip Code	
City, Village _____		Dairyland, WI	
		Facility Well No. and/or Name (If Applicable)	WI Unique Well No.
		Reason For Abandonment	
		Soil and groundwater sampling complete	
		Date of Abandonment	
		6/12/17	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>			
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b>		<b>(4) Depth to Water (Feet)</b> <small>Not encountered</small>	
(Date) <u>6/12/2017</u>		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain _____	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Was Casing Cut Off Below Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Construction Report Available <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>(a) Required Method of Placing Sealing Material</b>	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		<input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
Formation Type <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<b>(6) Sealing Materials</b> <small>For monitoring wells and monitoring well boreholes only</small>	
Total Well Depth (ft.) <u>9.5</u> Casing Diameter (ins.) <u>2</u> (From ground surface)		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input checked="" type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite	
Casing Depth (ft.) <u>NA</u>		Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	9.5 feet	0.3 bags	

<b>(9) Name of Person or Firm Doing Sealing Work</b>		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
David Larsen / REI		Date Received/Inspected _____ District/County _____	
Signature of Person Doing Work	Date Signed	Reviewer/Inspector	
		Follow up Necessary	
Street or Route	Telephone Number		
4080 N 20th Ave	(715) 675-9784		
City, State, Zip Code			
Wausau, WI 54401			

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County GP9 Douglas	Original Well Owner (if Known) Moose Junction Lounge	
1/4 of 1/4 of Sec. _____, T. _____ N; R. _____		Present Well Owner Moose Junction Lounge	
(If applicable) Gov't Lot _____ Grid Number _____		Street or Route 13195 S. State 35	
Grid Location _____ FT. N <input type="checkbox"/> S., _____ ft. E. <input type="checkbox"/> W.		City, State, Zip Code Dairyland, WI	
Civil Town Name _____		Facility Well No. and/or Name (If Applicable)	WI Unique Well No. _____
Street Address of Well _____		Reason For Abandonment Soil and groundwater sampling complete	
City, Village _____		Date of Abandonment 6/13/17	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

**(3) Original Well/Drillhole/Borehole Construction Completed On**  
(Date) 6/13/2017

Monitoring Well  
 Water Well  
 Drillhole  
 Borehole

Construction Report Available  
 Yes  No

Construction Type:  
 Drilled  Driven (Sandpoint)  Dug  
 Other (Specify) \_\_\_\_\_

Formation Type  
 Unconsolidated Formation  Bedrock

Total Well Depth (ft.) 10 Casing Diameter (ins.) 2  
(From ground surface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted?  Yes  No  Unknown  
If Yes, To What Depth? \_\_\_\_\_ Feet

**(4) Depth to Water (Feet)** 6

Pump & Piping Removed?  Yes  No  Not Applicable  
 Liner(s) Removed?  Yes  No  Not Applicable  
 Screen Removed?  Yes  No  Not Applicable  
 Casing Left in Place?  Yes  No  
 If No, Explain \_\_\_\_\_

Was Casing Cut Off Below Surface?  Yes  No  
 Did Sealing Material Rise to Surface?  Yes  No  
 Did Material Settle After 24 Hours?  Yes  No  
 If Yes, Was Hole Retopped?  Yes  No

**(a) Required Method of Placing Sealing Material**  
 Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Dump Bailer  Other (Explain) \_\_\_\_\_

**(6) Sealing Materials** For monitoring wells and monitoring well boreholes on

Neat Cement Grout  
 Sand-Cement (Concrete) Grout  
 Concrete  
 Clay-Sand Slurry  
 Bentonite-Sand Slurry  
 Chipped Bentonite

Bentonite Pellets  
 Granular Bentonite

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	10 feet	0.32 bags	

**(a) Comments:** \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
David Larsen / REI

Signature of Person Doing Work 	Date Signed
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784
City, State, Zip Code Wausau, WI 54401	

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow up Necessary	

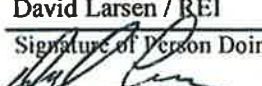


All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location GP10	County Douglas	Original Well Owner (if Known) Moose Junction Lounge	
1/4 of _____ 1/4 of Sec. _____, T. _____ N; R. _____ (If applicable) Gov't Lot _____ Grid Number _____		Present Well Owner Moose Junction Lounge	
Grid Location _____ FT. N <input type="checkbox"/> S., _____ ft. E. <input type="checkbox"/> W.		Street or Route 13195 S. State 35	
Civil Town Name _____		City, State, Zip Code Dairyland, WI	
Street Address of Well _____		Facility Well No. and/or Name (If Applicable) _____	
City, Village _____		WI Unique Well No. _____	
		Reason For Abandonment Soil and groundwater sampling complete	
		Date of Abandonment 6/13/17	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>			
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>6/13/2017</u>		<b>(4) Depth to Water (Feet)</b> <u>6</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain _____	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		Was Casing Cut Off Below Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Formation Type <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<b>(a) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
Total Well Depth (ft.) <u>10</u> Casing Diameter (ins.) <u>2</u> (From ground surface)  Casing Depth (ft.) <u>NA</u>		<b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes onl <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet		<input type="checkbox"/> Bentonite Pellets <input checked="" type="checkbox"/> Granular Bentonite	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	10 feet	0.32 bags	

<b>(9) Name of Person or Firm Doing Sealing Work</b> David Larsen / REI		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
Signature of Person Doing Work 	Date Signed	Date Recieved/Inspected	District/County
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784	Reviewer/Inspector	
City, State, Zip Code Wausau, WI 54401		Follow up Necessary	

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location GP11	County Douglas	Original Well Owner (if Known) Moose Junction Lounge	
1/4 of 1/4 of Sec. _____, T. _____ N; R. _____ (If applicable) Gov't Lot _____ Grid Number _____		Present Well Owner Moose Junction Lounge	
Grid Location _____ FT. N <input type="checkbox"/> S., _____ ft. E. <input type="checkbox"/> W.		Street or Route 13195 S. State 35	
Civil Town Name _____		City, State, Zip Code Dairyland, WI	
Street Address of Well _____		Facility Well No. and/or Name (If Applicable) _____	WI Unique Well No. _____
City, Village _____		Reason For Abandonment Soil and groundwater sampling complete	
		Date of Abandonment 6/13/17	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>			
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>6/13/2017</u>		<b>(4) Depth to Water (Feet)</b> <u>5</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain _____	
Construction Report Available <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Was Casing Cut Off Below Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		<b>(a) Required Method of Placing Sealing Material</b>	
Formation Type <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
Total Well Depth (ft.) <u>10</u> Casing Diameter (ins.) <u>2</u> (From ground surface)		<b>(6) Sealing Materials</b>	
Casing Depth (ft.) <u>NA</u>		For monitoring wells and monitoring well boreholes on: <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet		<input type="checkbox"/> Bentonite Pellets <input checked="" type="checkbox"/> Granular Bentonite	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	10 feet	0.32 bags	

<b>(9) Name of Person or Firm Doing Sealing Work</b> David Larsen / REI		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
Signature of Person Doing Work	Date Signed	Date Received/Inspected	District/County
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784	Reviewer/Inspector	
City, State, Zip Code Wausau, WI 54401		Follow up Necessary	



<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location GP12	County Douglas	Original Well Owner (if Known) Moose Junction Lounge	
1/4 of _____ 1/4 of Sec. _____, T. _____ N; R. _____ (If applicable)		Present Well Owner Moose Junction Lounge	
Gov't Lot _____ Grid Number _____		Street or Route 13195 S. State 35	
Grid Location _____ FT. N <input type="checkbox"/> S., _____ ft. E. <input type="checkbox"/> W.		City, State, Zip Code Dairyland, WI	
Civil Town Name _____		Facility Well No. and/or Name (If Applicable)	WI Unique Well No. _____
Street Address of Well _____		Reason For Abandonment Soil and groundwater sampling complete	
City, Village _____		Date of Abandonment 6/13/17	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>		<b>(4) Depth to Water (Feet)</b> <small>Not encountered</small>	
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>6/13/2017</u>		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain _____	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Was Casing Cut Off Below Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		(a) Required Method of Placing Sealing Material <input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
Formation Type <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		(6) Sealing Materials <small>For monitoring wells and monitoring well boreholes onl</small> <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Granular Bentonite <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite	
Total Well Depth (ft.) <u>10</u> Casing Diameter (ins.) <u>2</u> (From ground surface)  Casing Depth (ft.) <u>NA</u>  Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet			

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	10 feet	0.32 bags	

(9) Name of Person or Firm Doing Sealing Work David Larsen / REI		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
Signature of Person Doing Work 	Date Signed	Date Received/Inspected	District/County
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784	Reviewer/Inspector	
City, State, Zip Code Wausau, WI 54401		Follow up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location GP13	County Douglas	Original Well Owner (if Known) Moose Junction Lounge	
1/4 of 1/4 of Sec. , T. N; R. <input type="checkbox"/> E <input type="checkbox"/> W		Present Well Owner Moose Junction Lounge	
(If applicable) Gov't Lot Grid Number		Street or Route 13195 S. State 35	
Grid Location FT. N <input type="checkbox"/> S., ft. E. <input type="checkbox"/> W.		City, State, Zip Code Dairyland, WI	
Civil Town Name		Facility Well No. and/or Name (If Applicable)	WI Unique Well No. -----
Street Address of Well		Reason For Abandonment Soil and groundwater sampling complete	
City, Village		Date of Abandonment 6/13/17	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

**(3) Original Well/Drillhole/Borehole Construction Completed On**  
(Date) 6/13/2017

Monitoring Well  
 Water Well  
 Drillhole  
 Borehole

Construction Report Available  
 Yes  No

Construction Type:  
 Drilled  Driven (Sandpoint)  Dug  
 Other (Specify) \_\_\_\_\_

Formation Type  
 Unconsolidated Formation  Bedrock

Total Well Depth (ft.) 10 Casing Diameter (ins.) 2  
(From ground surface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted?  Yes  No  Unknown  
If Yes, To What Depth? \_\_\_\_\_ Feet

**(4) Depth to Water (Feet)** 7

Pump & Piping Removed?  Yes  No  Not Applicable  
 Liner(s) Removed?  Yes  No  Not Applicable  
 Screen Removed?  Yes  No  Not Applicable  
 Casing Left in Place?  Yes  No  
 If No, Explain \_\_\_\_\_

Was Casing Cut Off Below Surface?  Yes  No  
 Did Sealing Material Rise to Surface?  Yes  No  
 Did Material Settle After 24 Hours?  Yes  No  
 If Yes, Was Hole Retopped?  Yes  No

**(a) Required Method of Placing Sealing Material**

Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Dump Bailer  Other (Explain) \_\_\_\_\_

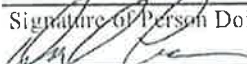
**(6) Sealing Materials** For monitoring wells and monitoring well boreholes only

Neat Cement Grout  
 Sand-Cement (Concrete) Grout  
 Concrete  Bentonite Pellets  
 Clay-Sand Slurry  Granular Bentonite  
 Bentonite-Sand Slurry  
 Chipped Bentonite

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Granular bentonite and gravel cover	Surface	10 feet	0.32 bags	

(a) Comments: \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
David Larsen / REI

Signature of Person Doing Work 	Date Signed
Street or Route 4080 N 20th Ave	Telephone Number (715) 675-9784
City, State, Zip Code Wausau, WI 54401	

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow up Necessary	



**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

Verification Only of Fill and Seal

**1. Well Location Information** **2. Facility / Owner Information**

County: Douglas  
 WI Unique Well # of Removed Well: GP-14  
 Hicap #: \_\_\_\_\_  
 Latitude / Longitude (see instructions): \_\_\_\_\_ N  DD  GPS008  
 \_\_\_\_\_ W  DDM  SCR002  OTH001  
 ¼ / ¼ \_\_\_\_\_ Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range:  E  W  
 or Gov't Lot #: \_\_\_\_\_  
 Well Street Address: 13195 S. State 35  
 Well City, Village or Town: Dairyland Well ZIP Code: 54380  
 Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

Facility Name: Moose Junction Lounge  
 Facility ID (FID or PWS): \_\_\_\_\_  
 License/Permit/Monitoring #: 03-16-000301  
 Original Well Owner: \_\_\_\_\_  
 Present Well Owner: \_\_\_\_\_  
 Mailing Address of Present Owner: 13195 S. State 35  
 City of Present Owner: Dairyland State: WI ZIP Code: 54380

Reason for Removal from Service: Temporary Borehole  
 WI Unique Well # of Replacement Well: \_\_\_\_\_

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole  
 Original Construction Date (mm/dd/yyyy): 11/28/17  
 If a Well Construction Report is available, please attach.

Construction Type:  
 Drilled     Driven (Sandpoint)     Dug  
 Other (specify): Hydraulic/Direct Push

Formation Type:  
 Unconsolidated Formation     Bedrock

Total Well Depth From Ground Surface (ft.): 12'    Casing Diameter (in.): 2.25"

Lower Drillhole Diameter (in.): \_\_\_\_\_    Casing Depth (ft.): \_\_\_\_\_

Was well annular space grouted?  Yes  No  Unknown

If yes, to what depth (feet)? \_\_\_\_\_    Depth to Water (feet): \_\_\_\_\_

**5. Material Used to Fill Well / Drillhole**

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips	Surface	12'	1/3	

**6. Comments**

**7. Supervision of Work** **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing: Geiss Soil & Sample, REI Engineering  
 License #: \_\_\_\_\_ Date of Filling & Sealing or Verification (mm/dd/yyyy): 11/28/17  
 Street or Route: 4080 N. 20th Avenue Telephone Number: (715) 675-9784  
 City: Wausau State: WI ZIP Code: 54401 Signature of Person Doing Work: \_\_\_\_\_ Date Signed: 2-26-18

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Liner(s) perforated?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A  
 Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

**Required Method of Placing Sealing Material**

Conductor Pipe-Gravity     Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)     Other (Explain): \_\_\_\_\_

**Sealing Materials**  
 Neat Cement Grout     Concrete  
 Sand-Cement (Concrete) Grout     Bentonite Chips

**For Monitoring Wells and Monitoring Well Boreholes Only:**  
 Bentonite Chips     Bentonite - Cement Grout  
 Granular Bentonite     Bentonite - Sand Slurry

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

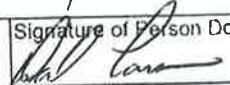
County Douglas		WI Unique Well # of Removed Well GP-15		Hicap #		Facility Name Moose Junction Lounge	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 13195 S. State 35				Original Well Owner			
Well City, Village or Town Dairyland				Present Well Owner			
Well ZIP Code 54380				Mailing Address of Present Owner 13195 S. State 35			
Subdivision Name		Lot #		City of Present Owner Dairyland		State WI	ZIP Code 54380

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

Reason for Removal from Service Temporary Borehole		WI Unique Well # of Replacement Well		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 11/28/17		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): <u>Hydraulic/Direct Push</u>					
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock					
Total Well Depth From Ground Surface (ft.) 12'		Casing Diameter (in.) 2.25"			
Lower Drillhole Diameter (in.)		Casing Depth (ft.)			
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown					
If yes, to what depth (feet)?		Depth to Water (feet)			
Pump and piping removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Liner(s) removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Liner(s) perforated?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Screen removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Casing left in place?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Was casing cut off below surface?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Did sealing material rise to surface?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Did material settle after 24 hours?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
If yes, was hole relapped?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
If bentonite chips were used, were they hydrated with water from a known safe source?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Required Method of Placing Sealing Material					
<input type="checkbox"/> Conductor Pipe-Gravity		<input type="checkbox"/> Conductor Pipe-Pumped			
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)		<input type="checkbox"/> Other (Explain): _____			
Sealing Materials					
<input type="checkbox"/> Neat Cement Grout		<input type="checkbox"/> Concrete			
<input type="checkbox"/> Sand-Cement (Concrete) Grout		<input checked="" type="checkbox"/> Bentonite Chips			
For Monitoring Wells and Monitoring Well Boreholes Only:					
<input type="checkbox"/> Bentonite Chips		<input type="checkbox"/> Bentonite - Cement Grout			
<input type="checkbox"/> Granular Bentonite		<input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used to Fill Well / Drillhole		From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips		Surface	12'	1/3	

**6. Comments**

<b>7. Supervision of Work</b>			<b>DNR Use Only</b>		
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17	Date Received	Noted By
Street or Route 4080 N. 20th Avenue			Telephone Number ( 715 ) 675-9784	Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work 	Date Signed 2-26-19	



**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information** **2. Facility / Owner Information**

County Douglas		WI Unique Well # of Removed Well GP-16		Hicap #		Facility Name Moose Junction Lounge	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 13195 S. State 35				License/Permit/Monitoring # 03-16-000301			
Well City, Village or Town Dairyland				Well ZIP Code 54380			
Subdivision Name				Lot #		Original Well Owner	
Reason for Removal from Service Temporary Borehole				WI Unique Well # of Replacement Well			
Well Street Address				Mailing Address of Present Owner 13195 S. State 35			
Well City, Village or Town				City of Present Owner Dairyland		State WI	ZIP Code 54380

**3. Filled & Sealed Well / Drillhole / Borehole Information** **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 11/28/17		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:		Formation Type:		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push		Total Well Depth From Ground Surface (ft.) 12'		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Lower Drillhole Diameter (in.)		Casing Diameter (in.) 2.25"		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Casing Depth (ft.)		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
If yes, to what depth (feet)?		Depth to Water (feet)		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	

5. Material Used to Fill Well / Drillhole		From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips		Surface	12'	1/3	

**6. Comments**

<b>7. Supervision of Work</b>			<b>DNR Use Only</b>		
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17	Date Received	Noted By
Street or Route 4080 N. 20th Avenue		Telephone Number ( 715 ) 675-9784		Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work 	Date Signed 2-26-18	

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Verification Only of Fill and Seal

Route to DNR Bureau:  
 Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Douglas	WI Unique Well # of Removed Well GP-17	Hicap #	Facility Name Moose Junction Lounge
Latitude / Longitude (see instructions) N _____ W _____	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	Facility ID (FID or PWS)
1/4 / 1/4 _____ or Gov't Lot #	Section	Township N	Range <input type="checkbox"/> E <input type="checkbox"/> W
Well Street Address 13195 S. State 35	Well City, Village or Town Dairyland	Well ZIP Code 54380	License/Permit/Monitoring # 03-16-000301
Subdivision Name	Lot #	Original Well Owner	Present Well Owner
Reason for Removal from Service Temporary Borehole	WI Unique Well # of Replacement Well	Mailing Address of Present Owner 13195 S. State 35	
City of Present Owner Dairyland		State WI	ZIP Code 54380

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 11/28/17	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Total Well Depth From Ground Surface (ft.) 10'	Casing Diameter (in.) 2.25"	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Lower Drillhole Diameter (in.)	Casing Depth (ft.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Depth to Water (feet)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
If yes, to what depth (feet)?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips	Surface	10'	1/4	

**6. Comments**

<b>7. Supervision of Work</b>		<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17	Date Received
Street or Route 4080 N. 20th Avenue	City Wausau	State WI	ZIP Code 54401
Telephone Number ( 715 ) 675-9784	Signature of Person Doing Work <i>[Signature]</i>	Comments	Date Signed 2-26-18



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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**  
 Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County Douglas		WI Unique Well # of Removed Well GP-18		Hicap #		Facility Name Moose Junction Lounge	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 13195 S. State 35				Original Well Owner			
Well City, Village or Town Dairyland				Present Well Owner			
Subdivision Name				Mailing Address of Present Owner 13195 S. State 35			
Reason for Removal from Service Temporary Borehole				Well ZIP Code 54380			
WI Unique Well # of Replacement Well				City of Present Owner Dairyland		State WI	ZIP Code 54380

3. Filled & Sealed Well / Drillhole / Borehole Information		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) 11/28/17		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Pump and piping removed?	
If a Well Construction Report is available, please attach.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) perforated?	
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): <u>Hydraulic/Direct Push</u>		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Screen removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Casing left in place?	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Was casing cut off below surface?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did sealing material rise to surface?	
Total Well Depth From Ground Surface (ft.) 12'		Casing Diameter (in.) 2.25"		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Did material settle after 24 hours?	
Lower Drillhole Diameter (in.)		Casing Depth (ft.)		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If yes, was hole retopped?	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet)		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If bentonite chips were used, were they hydrated with water from a known safe source?	
If yes, to what depth (feet)?		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips		For Monitoring Wells and Monitoring Well Boreholes Only: <input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips	Surfacc	12'	1/3	

**6. Comments**

7. Supervision of Work			DNR Use Only		
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17	Date Received	Noted By
Street or Route 4080 N. 20th Avenue		Telephone Number ( 715 ) 675-9784		Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work 	Date Signed 2-26-18	

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**Verification Only of Fill and Seal**

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Douglas	WI Unique Well # of Removed Well GP-19	Hicap #	Facility Name Moose Junction Lounge
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	Facility ID (FID or PWS)
1/4 / 1/4 or Gov't Lot #	Section	Township N	Range <input type="checkbox"/> E <input type="checkbox"/> W
Well Street Address 13195 S. State 35	Well City, Village or Town Dairyland	Well ZIP Code 54380	License/Permit/Monitoring # 03-16-000301
Subdivision Name	Lot #	City of Present Owner Dairyland	State WI
Reason for Removal from Service Temporary Borehole	WI Unique Well # of Replacement Well	ZIP Code 54380	Original Well Owner

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 11/28/17	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Total Well Depth From Ground Surface (ft.) 9'	Casing Diameter (in.) 2.25"	Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Lower Drillhole Diameter (in.)	Casing Depth (ft.)	Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If yes, to what depth (feet)?	Depth to Water (feet)	If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips	Surface	9'	1/4	

**6. Comments**

<b>7. Supervision of Work</b>		<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17	Date Received
Street or Route 4080 N. 20th Avenue	City Wausau	State WI	Noted By
Telephone Number ( 715 ) 675-9784	ZIP Code 54401	Signature of Person Doing Work <i>[Signature]</i>	Comments
		Date Signed 2-26-18	



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**Verification Only of Fill and Seal**

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Douglas	WI Unique Well # of Removed Well GP-20	Hicap #	Facility Name Moose Junction Lounge
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	Facility ID (FID or PWS)
1/4 1/4 or Gov't Lot #	Section	Township N	Range <input type="checkbox"/> E <input type="checkbox"/> W
Well Street Address 13195 S. State 35	Well ZIP Code 54380	Original Well Owner	Present Well Owner
Well City, Village or Town Dairyland	Subdivision Name	Lot #	Mailing Address of Present Owner 13195 S. State 35
Reason for Removal from Service Temporary Borehole	WI Unique Well # of Replacement Well	City of Present Owner Dairyland	State WI
		ZIP Code 54380	

**3. Filled & Sealed Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 11/28/17	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type:		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Formation Type:		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Total Well Depth From Ground Surface (ft.) 12'	Casing Diameter (in.) 2.25"	If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Lower Drillhole Diameter (in.)	Casing Depth (ft.)	If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Depth to Water (feet)	Required Method of Placing Sealing Material
If yes, to what depth (feet)?		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped
		<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____
		Sealing Materials
		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete
		<input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips
		For Monitoring Wells and Monitoring Well Boreholes Only:
		<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout
		<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips	Surface	12'	1/3	

**6. Comments**

<b>7. Supervision of Work</b>		<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17	Date Received
Street or Route 4080 N. 20th Avenue	Telephone Number ( 715 ) 675-9784	Noted By	
City Wausau	State WI	ZIP Code 54401	Comments
Signature of Person Doing Work <i>[Signature]</i>			Date Signed 2-26-18

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County Douglas		WI Unique Well # of Removed Well GP-21		Hicap #		Facility Name Moose Junction Lounge	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		License/Permit/Monitoring # 03-16-000301	
Well Street Address 13195 S. State 35		Well ZIP Code 54380		Original Well Owner		Present Well Owner	
Well City, Village or Town Dairyland		Well ZIP Code 54380		Mailing Address of Present Owner 13195 S. State 35		City of Present Owner Dairyland	
Subdivision Name		Lot #		State WI		ZIP Code 54380	
3. Filled & Sealed Well / Drillhole / Borehole Information				4. Pump, Liner, Screen, Casing & Sealing Material			
Reason for Removal from Service Temporary Borehole		WI Unique Well # of Replacement Well		Pump and piping removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 11/28/17		Liner(s) removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) perforated?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:				Casing left in place?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Was casing cut off below surface?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push				Did sealing material rise to surface?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type:				Did material settle after 24 hours?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				If yes, was hole retopped?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.) 12'		Casing Diameter (in.) 2.25"		If bentonite chips were used, were they hydrated with water from a known safe source?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Lower Drillhole Diameter (in.)		Casing Depth (ft.)		Required Method of Placing Sealing Material			
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		If yes, to what depth (feet)?		Depth to Water (feet)		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped	
						<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
5. Material Used to Fill Well / Drillhole							
3/8" bentonite Chips				Sealing Materials			
				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete			
				<input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips			
				For Monitoring Wells and Monitoring Well Boreholes Only:			
				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout			
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			
6. Comments							
7. Supervision of Work				DNR Use Only			
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering		License #		Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17		Date Received	
Street or Route 4080 N. 20th Avenue		Telephone Number ( 715 ) 675-9784		Comments		Noted By	
City Wausau		State WI		ZIP Code 54401		Signature of Person Doing Work <i>[Signature]</i>	
						Date Signed 2-26-18	



**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

Route to DNR Bureau:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County Douglas		WI Unique Well # of Removed Well GP-22		Hicap #		Facility Name Moose Junction Lounge	
Latitude / Longitude (see instructions)		Formal Code		Method Code		Facility ID (FID or PWS)	
_____ N _____ W		<input type="checkbox"/> DD <input type="checkbox"/> DDM		<input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		License/Permit/Monitoring # 03-16-000301	
1/4 / 1/4 or Gov'l Lot #		Section		Township		Original Well Owner	
_____		_____		Range <input type="checkbox"/> E <input type="checkbox"/> W		Present Well Owner	
Well Street Address 13195 S. State 35				Mailing Address of Present Owner 13195 S. State 35			
Well City, Village or Town Dairyland				Well ZIP Code 54380		City of Present Owner Dairyland	
Subdivision Name				Lot #		State WI	
						ZIP Code 54380	

Reason for Removal from Service Temporary Borehole		WI Unique Well # of Replacement Well		4. Pump, Liner, Screen, Casing & Sealing Material			
				Pump and piping removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
				Liner(s) removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
				Liner(s) perforated?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
				Screen removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
				Casing left in place?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
				Was casing cut off below surface?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
				Did sealing material rise to surface?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
				Did material settle after 24 hours?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
				If yes, was hole retopped?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
				If bentonite chips were used, were they hydrated with water from a known safe source?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	

3. Filled & Sealed Well / Drillhole / Borehole Information	
Original Construction Date (mm/dd/yyyy) 11/28/17	
If a Well Construction Report is available, please attach.	
Construction Type:	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug	
<input checked="" type="checkbox"/> Other (specify): <u>Hydraulic/Direct Push</u>	
Formation Type:	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.) 12'	Casing Diameter (in.) 2.25"
Lower Drillhole Diameter (in.)	Casing Depth (ft.)
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)?	Depth to Water (feet)

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" bentonite Chips	Surface	12'	1/3	

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Sample, REI Engineering		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 11/28/17	Date Received	Noted By
Street or Route 4080 N. 20th Avenue		Telephone Number ( 715 ) 675-9784		Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>[Signature]</i>	Date Signed 2-26-18	

## **APPENDIX B**

### **METHODS AND PROCEDURES**



# **METHODS AND PROCEDURES**

## **FOR**

### **GEOPROBE SOIL SAMPLING**

The Geoprobe unit hydraulically advances threaded, two-inch diameter, four-foot long, steel rod sections into the subsurface. A four-foot sampler, consisting of a drive shoe, a steel tube with a clean acetate liner, and a drive-head retractable piston, is attached to the leading Geoprobe rod. The sampler is driven down to the top of the interval to be sampled. The stop-pin is removed to release the drive head piston, which retracts as the sampler is advanced. When the sampler has been advanced four feet, the rods are retracted from the hole and the soil in the acetate liner is recovered. The acetate liner is split open and the soil is visually and manually classified by the field geologist/technician in accordance with **ASTM:D2488-84**. Logs of the borings are filled out indicating the depth and identification of the various strata, water level information, and pertinent information regarding the method of maintaining and advancing the borings.

Immediately after identification, the soil is quickly divided into two portions. One portion is prepared for potential laboratory analysis. The other portion is placed into a clean one-quart Ziploc bag for field screening. See the section "Soil Headspace Analysis" for field screening procedures.

#### **HEADSPACE ANALYSIS**

The soils were screened with a Mini-RAE photoionization detector (PID) equipped with an 10.6 eV lamp. The detector was calibrated in instrument units for Total Organic Vapors using an isobutylene standard. The soil sample, sealed in a Ziploc bag, was shaken vigorously to promote volatilization of the contaminant into the headspace of the bag. The sample was allowed to rest for at least ten minutes and then shaken again before screening. When ambient temperatures were below 60 degrees F, soil samples were allowed to warm for a minimum of 10 minutes in a heated environment prior to headspace development. The Ziploc bag was punctured with the PID probe and the resulting meter reading was recorded.

### **SAMPLING AND CHAIN OF CUSTODY**

Soil samples for laboratory analysis were collected into laboratory prepared vials. Each vial was labeled and placed directly into a cooler pending delivery to the laboratory. Latex gloves were worn during all sample collection procedures.

An entry on a Chain of Custody log was completed as each sample was collected. The Chain of Custody included the following information: project name, work order number, shipped by, shipped to, sampling point, location, field ID number, date and time taken, sample type, number of containers, analysis required, sampler (s) signature (s), etc. As few people as possible handled the samples. The Chain of Custody log was sent to the laboratory with each cooler of samples.

### **DECONTAMINATION**

Sampling equipment was decontaminated prior to sampling. Steel rod sections were washed after every sample collected.

**METHODS AND PROCEDURES**  
**FOR**  
**GEOPROBE WATER SAMPLING**

**GROUNDWATER PROFILER**

The Geoprobe rods are connected to a covered stainless steel, 2-foot screen and driven to the appropriate depth. Internal rods are inserted in the hollow rods, and the cover is unscrewed and released, exposing the screen.

**PURGING, SAMPLING AND CHAIN OF CUSTODY**

Disposable ¼” polyethylene tubing is inserted to the screen and connected to a peristaltic pump. The water is pumped slowly until sediment free. Purge water is containerized for proper disposal. Water samples are collected directly from the tubing. If the well is purged dry, it is allowed to recharge and then sampled. Samples are labeled and placed in a cooler to be preserved at approximately 4 degrees C. Samples are accompanied by Chain of Custody records.

Upon completion of a sample, a chain of custody log is initiated. The chain of custody record includes the following information: project name, work order number, shipped by, shipped to, sampling point, location, field ID number, date and time taken, sample type, number of containers, analysis required, sampler (s) signature (s), etc. As few people as possible handle the samples.

**DECONTAMINATION**

Sampling equipment is decontaminated prior to sampling. The Geoprobe rods and screen are washed between holes using distilled water and Alconox cleaning detergent. Latex gloves are worn during all sample collection procedures and are changed between the collection of each of the water samples from each monitoring well.

# **METHODS AND PROCEDURES**

## **FOR**

### **SOIL SAMPLING USING HOLLOW STEM AUGERS**

Soil sampling was done in accordance with **ASTM:D1586-84**. Using this procedure, a 2 inch **OD**, 2 foot long split barrel sampler was driven into the soil by a 140 pound weight falling 30 inches. After an initial set of 6 inches, the number of blows required to drive the sampler an additional 12 inches is known as the penetration resistance or N value. The N value is an index of the relative density of cohesionless soils and the consistency of cohesive soils.

As the samples were obtained in the field, they were visually and manually classified by the field geologist/technician in accordance with **ASTM:D2488-84**. Representative portions of the samples were returned to the laboratory for further examination and for verification of the field classification. Logs of the borings were filled out indicating the depth and identification of the various strata, the N value, water level information and pertinent information regarding the method of maintaining and advancing the borings.

Soil samples recovered by the split spoon were divided into two portions. One portion was prepared for laboratory analysis. The other portion was placed into a clean one quart Ziploc bag. A headspace analysis was then conducted on this latter portion.

#### **HEADSPACE ANALYSIS**

The soils were scanned with a RAE photoionization detector equipped with a 10.6 eV lamp and calibrated for direct reading in units of Total Organic Vapors using an isobutylene standard. A Ziploc bag was filled two-thirds of the volume with the sample. The bags were sealed and shaken vigorously before headspace development. Headspace development is allowing the sample to rest for at least ten minutes before scanning. When ambient temperatures were below 60 degrees F, soil samples were allowed to warm for a minimum of 10 minutes in a heated environment prior to headspace development. The Ziploc bag was punctured with the probe and a reading was taken.

### **SAMPLING AND CHAIN OF CUSTODY**

Soil samples were collected from a split barrel sampler and placed in laboratory prepared glass vials and placed directly into a cooler pending delivery to the laboratory. Latex gloves were worn during all sample collection procedures.

Upon completion of a sample, a chain of custody log was initiated. The chain of custody record included the following information: project name, work order number, shipped by, shipped to, sampling point, location, field ID number, date and time taken, sample type, number of containers, analysis required, sampler (s) signature (s), etc. As few people as possible handled the samples.

### **SURVEYING**

Grade elevations of borings were surveyed to the nearest 0.1 foot and were tied to a USGS benchmark.

### **DECONTAMINATION**

Sampling equipment were decontaminated prior to sampling. Augers were steam cleaned on plastic and split spoons were cleaned after every sample taken.

**METHODS AND PROCEDURES**  
**FOR**  
**MONITORING WELL INSTALLATION AND GROUNDWATER**  
**SAMPLING**

The water table monitoring wells consist of pipe joint threaded, two inch by ten feet long schedule 40 PVC (#10 slot) with 2 inch schedule 40 PVC riser. After the screen and riser pipe were set, a sand filter pack was placed around the screen to a depth 3 feet above the top of the screen, capped by a 2 foot fine sand layer, covered with a bentonite seal, annular space seal and surface seal. A protective casing did enclose the PVC riser pipe.

Monitoring wells were installed in accordance with Wisconsin Administrative Code NR 141 regulations. The WDNR "Monitoring Well Construction Form 4400-113A" were completed in accordance with NR 144 and NR 147.

The wells were developed by bailing or pumping to establish a reliable intercept with the surrounding formation. At least ten well volumes were removed or bailed until the wells were sediment free. If the well was bailed dry, a minimum of 3 volumes were taken. The WDNR "Monitoring Well Development Form 4400-113B" was completed for each well.

**WATER LEVEL**

Groundwater level measurements were obtained by using an electronic measuring device which indicated when a probe is in contact by lowering the probe into the well until the instrument indicated that the water surface has been encountered, and the distance from the top of the well to the probe was measured. All measurements were reported to the nearest 0.01 foot.

**SAMPLING AND CHAIN OF CUSTODY**

Water samples were collected using disposable bottom loading plastic bailers. Prior to sampling, the wells were purged. At least 4 well volumes were removed before sampling to ensure collection of a representative sample. If the well was purged dry, it was allowed to recharge and then it was sampled.



Samples were taken from the middle section of the bailer and placed in laboratory prepared bottles. Samples were labeled and placed in a cooler to be preserved at approximately 4 degrees C. Samples were accompanied by Chain of Custody records.

Upon completion of a sample, a chain of custody log was initiated. The chain of custody record included the following information: project name, work order number, shipped by, shipped to, sampling point, location, field ID number, date and time taken, sample type, number of containers, analysis required, sampler (s) signature (s), etc. As few people as possible handled the samples.

### **SURVEYING**

Grade elevations of monitoring wells were surveyed to the nearest 0.1 foot and top of riser elevations were surveyed to the nearest 0.01 for monitoring wells. Elevations were tied to a USGS benchmark.

### **DECONTAMINATION**

Sampling equipment was decontaminated prior to sampling. The water level measuring device was washed before it was placed into each well using distilled water and Alconox cleaning detergent. Latex gloves were worn during all sample collection procedures and were changed between the collection of each of the water samples from each monitoring well.

## **APPENDIX C**

### **SOIL DISPOSAL DOCUMENTATION**



**LINCOLN COUNTY LANDFILL 715-536-9636**

Site: N4750 Landfill Lane, Merrill, WI 54452

Mailing: 801 N Sales St, Ste 201, Merrill, WI 54452

**OPERATING HOURS:**

Monday-Friday

SUMMER (May 1 - Sept. 30) 7:00 am - 4:00 pm

WINTER (Oct. 1 - Apr. 30) 8:00 am - 4:00 pm

1st and 3rd Sat. 8:00 am - Noon

DATE: 12/5/2017  
Time In: 11:09 AM

TICKET #: 240287      Vehicle #:  
Time Out: 11:09 AM

BILL TO: R.E.I.  
HAULER: R.E.I.

JOB : 17 - 41 B - Moose Junction Lounge, Dairyland  
PO# : REI job #6510axuc  
PEFCA DRUMS (PEGFA) 1 un      Net Weight: 1  
Gross: 1      Tare: 0

Scale Notes:

Charge Transaction

HAVE A NICE DAY!

Customer Signature \_\_\_\_\_

Weighed By: Administrator

I certify that the waste in this vehicle complies with the Wisconsin Recycling law and the landfill bans. I also agree to pay 1.5% per month Late payment charge after 30 days.

**LINCOLN COUNTY LANDFILL 715-536-9636**

Site: N4750 Landfill Lane, Merrill, WI 54452

Mailing: 801 N Sales St, Ste 201, Merrill, WI 54452

**OPERATING HOURS:**

Monday-Friday

SUMMER (May 1 - Sept. 30) 7:00 am - 4:00 pm

WINTER (Oct. 1 - Apr. 30) 8:00 am - 4:00 pm

1st and 3rd Sat. 8:00 am - Noon

DATE: 6/19/2017  
Time In: 02:51 PM

TICKET #: 231564      Vehicle #:  
Time Out: 03:04 PM

BILL TO: R.E.I.  
HAULER : R.E.I.

JOB : 17 - 41 B - Moose Junction Lounge, Dairyland  
PO# : REI job #6510axuc

\$23.00 ton exempt (CON31)      0.56 tn  
Gross: 13500      Tare: 12380      Net Weight: 1120

Scale Notes:

Charge Transaction

HAVE A NICE DAY!

Customer Signature \_\_\_\_\_  
Weighed By: Administrator

I certify that the waste in this vehicle complies with the Wisconsin Recycling law and the landfill bans. I also agree to pay 1.5% per month Late payment charge after 30 days.

## **APPENDIX D**

# **MW9 SOIL BORING LOG, WELL CONSTRUCTION AND WELL DEVELOPMENT FORMS**





Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number		Boring Number MW9	
Boring Drilled By: Name of crew chief (first, last) and Firm Mitch Panfil - Gestra Engineering			Date Drilling Started 6/13/2017	Date Drilling Completed 6/13/2017	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in <sup>1/8</sup>
Local Grid OrgIn <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> MW9			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
State Plane		Long			
Facility ID	County Douglas	County Code 16	Civil Town/City/or Village Dairyland		

Sample				Depth in Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments	
Number	Type	Length Att. & Recovered (in)	Blow Counts							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1		0		1-4	No recovery											
				5	Saturated gray silt w/ trace sand	SM			0.8							
2		36		7-9	Black fine grained sand over gray black silt	SM			7.6							
				10	Medium brown fine grained sand and silt						W					
3	SS	60		12-14		SM			0.0							
				15	Well set @ 14' Drilled to 15', well set @ 14'				0.0							

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *Sally Blode* Firm REI Engineering, Inc.  
4080 North 20th Avenue, Wausau, WI

This form is authorized by Chapters 281,283,289,292,293,295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To Solid Waste  Haz. Waste  Wastewater   
Env. Response & Repair  Underground Tanks  Other

Facility/Project Name Moose Junction	Local Grid Location of Well Feet S. ___ Feet W. ___ Feet N. ___ Feet E. ___	Well Name MW9
Facility License Permit or Monitoring Number	Grid Origin Location	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input type="checkbox"/> 2	Section Location of Waste/Source <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed 6/13/17
Distance Well Is From Waste/Source Boundary Ft. ___	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By (Person's Name and Firm) Gestra - Mitch Panfil
Is Well A Point of Enforcement Std. Application <input type="checkbox"/> Yes <input type="checkbox"/> No		

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1 ft.

12. USCS Classification of soil near screen:

GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis attached?  Yes  No

14. Drilling method used Rotary  50  
 Hollow Stem Auger  41  
 Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis):  
 \_\_\_\_\_

1. Cap and lock?  Yes  No

2. Protective cover pipe:  
 a. Inside diameter: \_\_\_\_\_ in.  
 b. Length: \_\_\_\_\_ ft.  
 c. Material: Steel  04  
 Other   
 d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
 Concrete  01  
 Other

4. Material between well casing and protective pipe:  
 Bentonite  30  
 Annular space seal   
 Other

5. Annular space seal:  
 a. Granular Bentonite  33  
 b. \_\_\_\_\_ Lbs/gal mud weight Bentonite-sand slurry  35  
 c. \_\_\_\_\_ Lbs/gal mud weight Bentonite slurry  31  
 d. \_\_\_\_\_ % Bentonite Bentonite-cement grout  50  
 e. 2.6 ft<sup>3</sup> Volume added for any of the above  
 f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08

6. Bentonite seal:  
 a. Bentonite Granules  33  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
 c. \_\_\_\_\_ Other

7. Fine sand material Manufacturer, product name and mesh size  
 a. #60 Badger  
 b. Volume added .2 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name and mesh size  
 a. #30 Red Flint  
 b. Volume added 2.2 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other

10. Screen material: PVC  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other   
 b. Manufacturer Johnson Screen  
 c. Slot size: 0.10 in.  
 d. Slotted length: 10 ft.

11. Backfill material (below filter Pack): None  14  
 Other

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1 ft.

F. Fine sand, top \_\_\_\_\_ ft. MSL or 2 ft.

G. Filter pack, top \_\_\_\_\_ ft. MSL or 3 ft.

H. Screen joint, top \_\_\_\_\_ ft. MSL or 4 ft.

I. Well bottom \_\_\_\_\_ ft. MSL or 14 ft.

J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 15 ft.

K. Borehole, bottom \_\_\_\_\_ ft. MSL or 15 ft.

L. Borehole, diameter 2 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature Firm REI Engineering, Inc.  
4080 N. 20th Ave.  
Wausau, WI 5440

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160 Wis. Stats. and ch NR 141, Wis. Ad. Code. In accordance with ch. 144 Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5000 for each day of violation. In accordance with ch. 147 Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. see instructions for more information including where the completed form should be sent.

Facility/Project Name <b>Moose Junction Lounge</b>	County Name <b>Douglas</b>	Well Name <b>MW9</b>
Facility Licence, Permit or Monitoring Number	County Code <b>16</b>	DNR Well Number

1. Can this well be purged dry?  Yes  No

2. Well development method

- surged with bailer and bailed  41
- surged with bailer and pumped  61
- surged with block and bailed  42
- surged with block and pumped  62
- surged with block, bailed and pumped  70
- compressed air  20
- bailed only  10
- pumped only  51
- pumped slowly  50
- Other \_\_\_\_\_

3. Time spent developing well                      28                      min.

4. Depth of well (from top of Casing)                      13.82                      ft.

5. Inside diameter of well                      2.07                      in.

6. Volume of water in filter pack and well casing                      12.26                      gal.

7. Volume of water removed from well                      42                      gal.

8. Volume of water added (if any)                      gal.

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 0.91 ft.	9.57 ft.
Data mm/dd/yy	b. 7/7/17	7/7/17
Time	c. 10:32 <input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.	11:00 <input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
12. Sediment in well bottom	inches	0 inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) Clear at 30 gallons
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

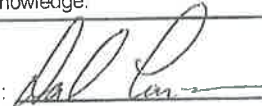
16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: David Larsen (REI)

Firm: REI Engineering, Inc.  
4020 N 20th Ave.  
Wausau, WI 54401

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: 

Print Initials: D L

Firm: REI Engineering, Inc.

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

## **APPENDIX E**

### **SOIL AND GROUNDWATER LABORATORY REPORTS**



Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Moose Junction		License/Permit/Monitoring Number		Boring Number MW9	
Boring Drilled By: Name of crew chief (first, last) and Firm Mitch Panfil - Gestra Engineering			Date Drilling Started 6/13/2017	Date Drilling Completed 6/13/2017	Drilling Method Geoprobe
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.25 in <sup>1/8</sup>
Local Grid OrgIn <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> MW9			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
State Plane		Long			
Facility ID	County Douglas	County Code 16	Civil Town/City/or Village Dairyland		

Sample				Depth in Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
Number	Type	Length Att. & Recovered (in)	Blow Counts							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		0		1-4	No recovery										
				5	Saturated gray silt w/ trace sand	SM			0.8						
2		36		7-9	Black fine grained sand over gray black silt	SM			7.6						
				10	Medium brown fine grained sand and silt						W				
3	SS	60		12-14		SM			0.0						
				15	Well set @ 14' Drilled to 15', well set @ 14'										

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature *Sally Blode* Firm REI Engineering, Inc.  
4080 North 20th Avenue, Wausau, WI

This form is authorized by Chapters 281,283,289,292,293,295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To Solid Waste  Haz. Waste  Wastewater   
Env. Response & Repair  Underground Tanks  Other

Facility/Project Name Moose Junction	Local Grid Location of Well Feet S. ___ Feet W. ___ Feet N. ___ Feet E. ___	Well Name MW9
Facility License Permit or Monitoring Number	Grid Origin Location	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input type="checkbox"/> 2	Section Location of Waste/Source <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed 6/13/17
Distance Well Is From Waste/Source Boundary Ft. ___	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By (Person's Name and Firm) Gestra - Mitch Panfil
Is Well A Point of Enforcement Std. Application <input type="checkbox"/> Yes <input type="checkbox"/> No		

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1 ft.

12. USCS Classification of soil near screen:

GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis attached?  Yes  No

14. Drilling method used Rotary  50  
 Hollow Stem Auger  41  
 Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis):  
 \_\_\_\_\_

1. Cap and lock?  Yes  No

2. Protective cover pipe:  
 a. Inside diameter: \_\_\_\_\_ in.  
 b. Length: \_\_\_\_\_ ft.  
 c. Material: Steel  04  
 Other   
 d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
 Concrete  01  
 Other

4. Material between well casing and protective pipe:  
 Bentonite  30  
 Annular space seal   
 Other

5. Annular space seal:  
 a. Granular Bentonite  33  
 b. \_\_\_\_\_ Lbs/gal mud weight Bentonite-sand slurry  35  
 c. \_\_\_\_\_ Lbs/gal mud weight Bentonite slurry  31  
 d. \_\_\_\_\_ % Bentonite Bentonite-cement grout  50  
 e. 2.6 ft<sup>3</sup> Volume added for any of the above  
 f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08

6. Bentonite seal:  
 a. Bentonite Granules  33  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
 c. \_\_\_\_\_ Other

7. Fine sand material Manufacturer, product name and mesh size  
 a. #60 Badger  
 b. Volume added .2 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name and mesh size  
 a. #30 Red Flint  
 b. Volume added 2.2 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other

10. Screen material: PVC  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other   
 b. Manufacturer Johnson Screen  
 c. Slot size: 0.10 in.  
 d. Slotted length: 10 ft.

11. Backfill material (below filter Pack): None  14  
 Other

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1 ft.

F. Fine sand, top \_\_\_\_\_ ft. MSL or 2 ft.

G. Filter pack, top \_\_\_\_\_ ft. MSL or 3 ft.

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M. O.D. well casing 2.38 in.

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Facility Licence, Permit or Monitoring Number	County Code <b>16</b>	DNR Well Number

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15. COD	mg/l	mg/l

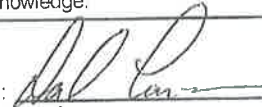
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Well developed by: Person's Name and Firm

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