



September 18, 2017

Wisconsin Department of Natural Resources

Attn: Mr. Ralph Smith
101 S. Webster Street
PO Box 7921
Madison, WI 53707-7921



Subject:

Update Report
Burnett Oil Company
26504 Minnow Avenue
Webster, WI
BRRTS #02-07-282564
PECFA #54893-8024-14

Dear Mr. Smith:

Enclosed is the Update Report for the above-mentioned site. REI has identified residual soil contamination on the subject property. Groundwater analytical results document no petroleum related groundwater contamination above detection limits in any of the locations sampled in 2017.

REI is recommending the completion of a soil excavation to remove the documented soil contamination. REI is not recommending further groundwater sampling at this time.

Please call me with questions or comments toll free at 877-734-7745 or contact me electronically at dlarsen@reiengineering.com.

Sincerely,
REI Engineering, Inc.

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

Enclosure

CC: Burnett County, Attn: Mr. Nathan Ehalt, 7410 County Road K, #116, Webster, WI 54872



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

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REI

**CIVIL & ENVIRONMENTAL
ENGINEERING, SURVEYING**

UPDATE REPORT

**BURNETT OIL COMPANY
WEBSTER, WISCONSIN**

**WDNR BRRTS #02-07-282564
PECFA #54893-8024-14
REI PROJECT #6962**



**COMPREHENSIVE
SERVICES WITH
PRACTICAL
SOLUTIONS**



UPDATE REPORT

**BURNETT OIL COMPANY
26504 MINNOW AVENUE
WEBSTER, WI 54893**

**BRRTS #02-07-282564
PECFA #54893-8024-14**

REI #6962

PREPARED FOR:

**Burnett County
Attn: Mr. Nathan Ehalt
7410 Cty Road K, #116
Siren, WI 54872**

SEPTEMBER 2017

UPDATE REPORT

**BURNETT OIL COMPANY
26504 MINNOW AVENUE
WEBSTER, WI 54893**

**BRRTS #02-07-282564
PECFA #54893-8024-14**

REI #6962

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, Scott J. Blado, 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."

Scott J. Blado

Environmental Scientist

9/18/17

Date

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UPDATE REPORT

**BURNETT OIL COMPANY
26504 MINNOW AVENUE
WEBSTER, WI 54893**

**BRRTS #02-07-282564
PECFA #54893-8024-14**

REI #6962

1.0 INTRODUCTION

The Burnett Oil Company site is located in the NE ¼ of the SE ¼ of Section 08, Township 39 North, Range 16 West, in the Village of Webster, Burnett County, Wisconsin (Figure 1). The site address is 26504 Minnow Avenue, Webster, Wisconsin, 54893. Wisconsin Transverse Mercator (WTM) coordinates are 336177, 603362.

Following the completion of the Environmental Site Investigation Report, it was determined that additional soil and groundwater sampling was required to adequately define the degree and extent of the historic petroleum release. Additionally, the locations identified for soil samples (GP2-GP6) were inadvertently misrepresented on the figures included in the Environmental Site Investigation Report. Actual boring locations are depicted in this report.

2.0 SUMMARY OF ACTIVITIES

2.1 Geoprobe Borings

REI was on-site to oversee the advancement of four (4) Geoprobe push borings (GP7-GP10) on June 12, 2017. Gestra Engineering, Inc., Milwaukee, WI was subcontracted to complete the Geoprobe advancement. Boring depths ranged from fifteen (15) feet to thirty-five (35) feet.

Figure 2 documents the locations of the soil borings advanced during the site investigation. Soil Boring Logs (WDNR Form 4400-122) and Borehole Abandonment Forms (WDNR Form 3300-5) are included in Appendix A. Methods and Procedures are included in Appendix B.

A total of twelve (12) soil samples and one (1) groundwater sample were collected and submitted for laboratory analysis during this scope of services, in addition to the twenty (20) soil samples and one (1) groundwater sample collected in 2016. Soil samples were obtained to describe the lateral and vertical extent of the petroleum contamination in the subsurface. The soil borings performed during the Burnett Oil investigation indicate the site geology consists mainly of gravel and sand fill material overlying layers of clay and sand to a depth of approximately ten (10) feet below land surface (bls) overlying fine to medium grained sands. Groundwater has been observed at a depth of approximately thirty (30) feet bls.

Analytical results were directly compared against the State of Wisconsin's cleanup criteria listed in the Chapter NR720. Numerous soil sample locations document the presence of petroleum compounds exceeding the NR720.09(04) Residual Contaminant Level (RCL). Additionally, direct contact exceedances were identified in many of the shallow soil samples collected at the site. Soil analytical results are summarized on Tables 1a-c. A copy of the laboratory analytical report is included in Appendix C. Figure 3 presents the estimated extent of petroleum related soil contamination.

2.2 Groundwater Sampling Results

A total of six (6) monitoring wells were installed during the investigation. Monitoring wells MW1, MW2 and MW3 were installed specifically for the Burnett Oil investigation. Monitoring wells MW91-1, MW91-2A and MW91-2B were transferred to the Burnett Oil investigation from the Webster State Lead investigation. Additionally, two (2) groundwater samples were collected from temporary wells installed at Geoprobe boring locations GP2 and GP9. Locations of the borings and wells are presented on Figure 2.

Measured depth to groundwater and groundwater elevations are presented in Table 2. A summary of groundwater analytical results are presented in Tables 3a-h. An excess of four (4) well volumes was removed from each well prior to sampling by REI personnel. All purge water was properly disposed of at the City of Wausau waste water treatment facility. Groundwater samples were collected and submitted to a State certified laboratory for chemical analysis. Copies of the analytical chemistry reports are presented in Appendix C.

Groundwater sample results for the July 7, 2017 sampling event document no groundwater contamination in concentrations exceeding the NR 140.10 Groundwater Quality Enforcement Standards (ES) or Preventive Action Limit (PAL) for petroleum compounds at any of the sample locations.

Vertical gradients were also calculated across the MW91-2A and MW91-2B well nest. Measured depths to groundwater across the MW91-2A and MW91-2B well nest document a minimal downward gradient for the September 2016 sample event and a static level for the July 2017 sample event (Table 2b).

A groundwater contour map was prepared for the July 7, 2017 groundwater sampling event for the water table wells (Figure 4). The westerly groundwater flow direction is consistent with historical groundwater flow directions.

3.0 Conclusion

REI is recommending the completion of a soil excavation at the Burnett Oil site to remove the known contaminant mass and limit any potential contaminant loading to groundwater. Additional groundwater sampling is not recommended at this time.

Table 1a
Summary of Soil Analytical Results
Geoprobe Borings
Burnett Oil Company
Webster, Wisconsin

	Sample Location-->		GPI		GP2		GP3		GP4		GP5		GP6	
	Date-->		8/10/16		8/10/16		8/10/16		8/10/16		8/10/16		8/10/16	
	Sample Depth-->	Sample Depth--(Feet)-->	2-4	6-7	2-3	8-9	2-4	14-15	2-4	14-15	2-4	9-10	2-4	
	Percent Moisture-->		17.70%	17.70%	24.20%	19.30%	18.00%	12.30%	9.40%	7.00%	10.40%	8.70%	3.40%	
Non-Industrial Note To Exceed DC RCL	NR 140													
	Groundwater Pathway Protection (DF=2)													
	400	13.50	40.3	3.8	8.7	20.3	1.2*	1.2*	2.3	0.93*	11.1	4.2	0.95*	
Lead (mg/kg)														
Petroleum VOC's (µg/kg)														
Benzene	1,490	5.1	<2,560	1,410	<556	<247	<27.8	<25.0	<34.2	<41.0	4,670	13,300	<26.0	
Ethylbenzene	7,470	1,570	33,700	6,450	1,530	993	<27.8	<25.0	<34.2	<41.0	24,800	51,100	<26.0	
Toluene	818,000	1,107	<2,560	1,240	<556	<247	<27.8	<25.0	<34.2	<41.0	2,140	68,100	<26.0	
Xylenes (Total)	258,000	3,940	210,900	35,200	6,150	3,590	<55.6	<50.0	<66.5	<82.0	192,500	308,400	<52.1	
Methyl tert Butyl Ether	59,400	27	<2,560	<200	<556	<247	<27.8	<25.0	<34.2	<41.0	<906	<1,710	<26.0	
1,2,4-Trimethylbenzene	89,800	NS	250,000	23,900	18,400	11,100	36.4*	<25.0	<34.2	<41.0	120,000	179,000	<26.0	
1,3,5-Trimethylbenzene	182,000	NS	118,000	10,500	10,100	5,090	<27.8	<25.0	<34.2	<41.0	44,600	64,900	<26.0	
Trimethylbenzenes (Total)	NS	1,379	368,000	34,400	28,500	16,190	36.4*	<25.0	<34.2	<41.0	164,600	243,900	<26.0	
Naphthalene	5,150	688.7	110,000	9,150	26,300	14,100	306	<27.2	<34.2	<41.0	37,600	66,800	<26.0	
PAH Compounds (µg/kg)														
Acenaphthene	3,440,000	NS	1,800*	<253	199*	240	<10.5	NA	NA	NA	NA	NA	NA	
Acenaphthylene	NS	NS	<1,450	<227	<98.4	108*	<9.4	NA	NA	NA	NA	NA	NA	
Anthracene	17,200,000	197,744.2	<1,680	<262	<114	<107	<10.9	NA	NA	NA	NA	NA	NA	
Benzo(a)Anthracene	148	NS	<1,120	<175	<72.6	<71.6	<7.3	NA	NA	NA	NA	NA	NA	
Benzo(a)Pyrene	15	470	<1,160	<181	<78.6	<73.9	<7.5	NA	NA	NA	NA	NA	NA	
Benzo(b)Fluoranthene	148	480	<1,620	<253	<110	<103	<10.5	NA	NA	NA	NA	NA	NA	
Benzo(ghi)Perylene	NS	NS	<1,230	<193	<83.8	<78.7	<8.0	NA	NA	NA	NA	NA	NA	
Benzo(k)Fluoranthene	1,480	NS	<1,790	<280	<122	<114	<11.6	NA	NA	NA	NA	NA	NA	
Chrysene	14,800	145.1	<1,500	<234	<102	<95.5	<9.7	NA	NA	NA	NA	NA	NA	
Dibenzo(a,h)anthracene	15	NS	<1,190	<186	<80.7	<75.8	<7.7	NA	NA	NA	NA	NA	NA	
Fluoranthene	2,290,000	88,817.9	<1,620	<253	<110	<1,032	<10.5	NA	NA	NA	NA	NA	NA	
Fluorene	2,290,000	14,814.8	4,210	<253	347	408	<10.5	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)Pyrene	148	NS	<1,230	<192	<83.6	<78.5	<8.0	NA	NA	NA	NA	NA	NA	
1-Methyl Naphthalene	15,600	NS	35,500	4,330	2,260	3,350	<10.5	NA	NA	NA	NA	NA	NA	
2-Methyl Naphthalene	229,000	NS	49,000	2,910	2,910	4,230	<10.5	NA	NA	NA	NA	NA	NA	
Naphthalene	5,150	688.7	26,700	3,740	897	1,310	<10.5	NA	NA	NA	NA	NA	NA	
Phenanthrene	NS	NS	4,910	388*	407	491	<10.5	NA	NA	NA	NA	NA	NA	
Pyrene	1,720,000	54,472.5	<1,620	<253	<110	<103	<10.5	NA	NA	NA	NA	NA	NA	
Number of Individual Exceedances (DO)-->			6	0	1	0					4	0		
Cumulative Hazard Index (DC)-->			4.0165	0.3828	0.432	0.2117					1.861	2.9277		
Cumulative Cancer Risk (DC)-->			1.10E-04	3.60E-06	5.70E-06	3.00E-06					1.40E-05	2.90E-05		

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 exceedance

NTEDC RCL exceedance

NS - No Standard

NA - Not Analyzed

* = Estimated Value between detection limit and quantification limit

Table 1b
Summary of Soil Analytical Results
Geoprobe Borings
Burnett Oil Company
Webster, Wisconsin

	Sample Location-->		GP7		GP8		GP9		GP10	
	Sample Depth--(Feet)-->	Date-->	6/12/17		6/12/17		6/12/17		6/12/17	
	Sample Depth--(Feet)-->		2.5-3.0	13-15	18-20	2-4	6-8	5-6	2-4	7.5
	PD-->		75.3	0.0	0.0	0.0	0.0	0.0	0.0	305
	Percent Moisture-->		16.4	3.9	4.0	14.9	11.9	16.7	10	10.7
	NR 140									11.8
	Non-Industrial Not To-Exceed DC RCL	Groundwater Pathway Protection (DF=2)								
	400	13.50	4.3	0.88 [†]	1.0*	3.2	1.9	4.8	2.7	2.8
	Petroleum VOC's (µg/kg)									0.84*
	Benzene	5.1	< 125	< 25	< 25	< 29.1	< 25	< 25	< 26.6	< 820
	Ethylbenzene	1,570	< 125	< 25	< 25	< 29.1	< 25	< 25	< 26.6	9,550
	Toluene	1,107	< 125	< 25	< 25	< 29.1	< 25	< 25	< 26.6	< 820
	Xylenes (Total)	3,940	< 250	< 50	< 50	< 58.1	< 50	< 50	< 53.2	20,800
	Methyl tert Butyl Ether	27	< 125	< 25	< 25	< 29.1	< 25	< 25	< 26.6	< 820
	1,2,4-Trimethylbenzene	NS	< 125	< 25	< 25	< 29.1	< 25	< 25	< 26.6	< 37.9
	1,3,5-Trimethylbenzene	NS	< 125	< 25	< 25	< 29.1	< 25	< 25	< 26.6	< 37.9
	Trimethylbenzenes (Total)	1,379	< 125	< 25	< 25	< 29.1	< 25	< 25	< 26.6	36,200
	Naphthalene	688.7	6,870	< 25	26.9*	< 29.1	< 25	< 25	< 26.6	41,400

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

NA - Not Analyzed

* = Estimated Value between detection limit and quantification limit

Bold
Bold

Table 1c
Summary of Soil Analytical Results
Monitoring Wells
Burnett Oil Company
Webster, Wisconsin

	Sample Location-->		MW1			MW4		
		Date-->	9/14/16			9/15/16		
		Sample Depth--(Feet)-->	2-4	14-16	26-28	2-3	12-14	24-26
		Percent Moisture-->	13.10%	4.70%	5.40%	10.90%	4.10%	4.50%
	Non-Industrial Not-To-Exceed DC RCL	NR 140 Groundwater Pathway Protection (DF=2)						
Lead (mg/kg)	400	13.50	2.8	0.57*	0.94*	25.6	1.9	1.1*
Petroleum VOC's (µg/kg)								
Benzene	1,490	5.1	< 25.0	< 25.0	< 25.0	2,560*	< 25.0	< 25.0
Ethylbenzene	7,470	1,570	< 25.0	< 25.0	< 25.0	13,100	< 25.0	< 25.0
Toluene	818,000	1,107	< 25.0	< 25.0	< 25.0	2,510*	< 25.0	< 25.0
Xylenes (Total)	258,000	3,940	< 50.0	< 50.0	< 50.0	133,100	< 50.0	< 50.0
Methyl tert Butyl Ether	59,400	27	< 25.0	< 25.0	< 25.0	< 1,000	< 25.0	< 25.0
1,2,4-Trimethylbenzene	89,800	NS	< 25.0	< 25.0	< 25.0	128,000	< 25.0	< 25.0
1,3,5-Trimethylbenzene	182,000	NS	< 25.0	< 25.0	< 25.0	52,500	< 25.0	< 25.0
Trimethylbenzenes (Total)	NS	1,379	< 25.0	< 25.0	< 25.0	180,500	< 25.0	< 25.0
Naphthalene	5,150	658.7	< 25.0	< 25.0	< 25.0	53,500	< 25.0	< 25.0
Number of Individual Exceedances (DC)-->						4		
Cumulative Hazard Index (DC)-->						1.9554		
Cumulative Cancer Risk (DC)-->						1.40E-05		

Notes:

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

GW - RCL Protective of Groundwater Quality

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GW - RCL exceedence

NTEDC RCL exceedence

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NA - Not Analyzed

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Table 2a
Burnett Oil Company
Depth to Water and Water Level Elevations
Webster, WI

Depth to Water (feet) below Reference Elevation							
Date	<u>MW1</u>	<u>MW2</u>	<u>MW3</u>	<u>MW4</u>	<u>MW91-1</u>	<u>MW91-2A</u>	<u>MW91-2B</u>
9/14/2016					31.90	32.84	32.25
9/20/2016	33.63	32.46	32.20	29.11			
7/7/2017	33.44	32.26	32.00	28.99	31.59	32.62	32.01
Measuring Point Elevations (top of well casing)							
Initial Survey	985.84	984.80	984.56	981.90	984.35	985.65	985.04
Ground Surface Elevation							
Initial Survey	982.71	982.26	981.75	981.97	981.76	983.31	983.31
Depth to Water (feet) below Top of Casing							
Average	33.54	32.36	32.10	29.05	31.75	32.73	32.13
Maximum	33.63	32.46	32.20	29.11	31.90	32.84	32.25
Minimum	33.44	32.26	32.00	28.99	31.59	32.62	32.01
Range	0.19	0.20	0.20	0.12	0.31	0.22	0.24
Water Level Elevation (feet MSL)							
Date	<u>MW1</u>	<u>MW2</u>	<u>MW3</u>	<u>MW4</u>	<u>MW91-1</u>	<u>MW91-2A</u>	<u>MW91-2B</u>
9/14/2016					952.45	952.81	952.79
9/20/2016	952.21	952.34	952.36	952.79			
7/7/2017	952.40	952.54	952.56	952.91	952.76	953.03	953.03

Table 2b
Vertical Gradient Documentation
Burnett Oil Company
Webster, WI

	Piezometer Depth (ft)	Water Level		Elevation		Vertical Difference	Vertical Gradient ft/ft (+/-)
		Elevation		Difference			
September 14, 2016							
MW91-2A		952.81		0.02		36.00	-0.0006
MW91-2B	69	952.79					
July 7, 2017							
MW91-2A		953.03		0.00		987.28	0.0000
MW91-2B	69	953.03					

Piezometer midpoint calculated from center of well screen

Table 3a
Summary of Groundwater Analytical Results
Geoprobe Borings
Burnett Oil Company
Webster, WI

		Location --->		GP2	GP9
	ES	PAL	Units	5/27/1993	05/27/93
VOC Parameters					
Benzene	5	0.5	µg/l	< 0.40	< 0.40
Ethylbenzene	700	140	µg/l	0.62*	< 0.39
Toluene	800	160	µg/l	1.1	< 0.39
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	1.5	< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	1.4*	< 0.80
Trimethylbenzenes (mixed isomers)	480	96	µg/l	4.6	< 0.42
Naphthalene	100	10	µg/l	7	< 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

BOLD
<i>Italics</i>

Table 3b
Summary of Groundwater Analytical Results
MW1
Burnett Oil Company
Webster, WI

Detected Parameters	ES	PAL	Units	09/20/16	07/07/17
Lead (Dissolved)	15	1.5	µg/l	< 0.30	NA
VOC Parameters					
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
Dibromochloromethane	60	6	µg/l	< 0.22	NA
n-Propylbenzene			µg/l	< 0.50	NA
Isopropylbenzene			µg/l	< 0.14	NA
n-Butylbenzene			µg/l	< 0.50	NA
tert-Butylbenzene			µg/l	< 0.18	NA
PAH Parameters					
Acenaphthene			µg/l	0.0060*	NA
Acenaphthylene			µg/l	< 0.0045	NA
Anthracene	3,000	600	µg/l	< 0.0094	NA
Benzo(a)Anthracene			µg/l	< 0.0068	NA
Benzo(a)Pyrene	0.2	0.02	µg/l	< 0.0095	NA
Benzo(b)Fluoranthene	0.2	0.02	µg/l	< 0.0052	NA
Benzo(ghi)Perylene			µg/l	< 0.0061	NA
Benzo(k)Fluoranthene			µg/l	< 0.0068	NA
Chrysene	0.2	0.02	µg/l	< 0.012	NA
Dibenzo(a,h)anthracene			µg/l	< 0.0090	NA
Fluoranthene	400	80	µg/l	< 0.0096	NA
Fluorene	400	80	µg/l	< 0.0072	NA
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.013	NA
1-Methyl Naphthalene			µg/l	0.4	NA
2-Methyl Naphthalene			µg/l	0.36	NA
Naphthalene	100	10	µg/l	0.040*	NA
Phenanthrene			µg/l	< 0.012	NA
Pyrene	250	50	µg/l	0.0089*	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

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<i>Italics</i>

Table 3c
Summary of Groundwater Analytical Results
MW2
Burnett Oil Company
Webster, WI

Detected Parameters	ES	PAL	Units	09/20/16	07/07/17
Lead (Dissolved)	15	1.5	µg/l	< 0.30	NA
VOC Parameters					
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
Dibromochloromethane	60	6	µg/l	< 0.22	NA
n-Propylbenzene			µg/l	< 0.50	NA
Isopropylbenzene			µg/l	< 0.14	NA
n-Butylbenzene			µg/l	< 0.50	NA
tert-Butylbenzene			µg/l	< 0.18	NA
PAH Parameters					
Acenaphthene			µg/l	0.0060*	NA
Acenaphthylene			µg/l	0.028	NA
Anthracene	3,000	600	µg/l	0.013*	NA
Benzo(a)Anthracene			µg/l	< 0.0069	NA
Benzo(a)Pyrene	0.2	0.02	µg/l	0.026*	NA
Benzo(b)Fluoranthene	0.2	0.02	µg/l	0.029	NA
Benzo(ghi)Perylene			µg/l	0.016*	NA
Benzo(k)Fluoranthene			µg/l	0.014*	NA
Chrysene	0.2	0.02	µg/l	0.041*	NA
Dibenzo(a,h)anthracene			µg/l	< 0.0092	NA
Fluoranthene	400	80	µg/l	0.014*	NA
Fluorene	400	80	µg/l	< 0.0073	NA
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.016	NA
1-Methyl Naphthalene			µg/l	0.025*	NA
2-Methyl Naphthalene			µg/l	0.031	NA
Naphthalene	100	10	µg/l	0.019*	NA
Phenanthrene			µg/l	0.031*	NA
Pyrene	250	50	µg/l	0.021*	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
<i>Italics</i>

Table 3d
Summary of Groundwater Analytical Results
MW3
Burnett Oil Company
Webster, WI

Detected Parameters	ES	PAL	Units	09/20/16	07/07/17
Lead (Dissolved)	15	1.5	µg/l	< 0.30	NA
VOC Parameters					
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
Dibromochloromethane	60	6	µg/l	< 0.22	NA
n-Propylbenzene			µg/l	< 0.50	NA
Isopropylbenzene			µg/l	< 0.14	NA
n-Butylbenzene			µg/l	< 0.50	NA
tert-Butylbenzene			µg/l	< 0.18	NA
PAH Parameters					
Acenaphthene			µg/l	< 0.0056	NA
Acenaphthylene			µg/l	< 0.0046	NA
Anthracene	3,000	600	µg/l	< 0.0096	NA
Benzo(a)Anthracene			µg/l	< 0.0069	NA
Benzo(a)Pyrene	0.2	0.02	µg/l	< 0.0097	NA
Benzo(b)Fluoranthene	0.2	0.02	µg/l	< 0.0053	NA
Benzo(ghi)Perylene			µg/l	< 0.0062	NA
Benzo(k)Fluoranthene			µg/l	< 0.0069	NA
Chrysene	0.2	0.02	µg/l	< 0.012	NA
Dibenzo(a,h)anthracene			µg/l	< 0.0092	NA
Fluoranthene	400	80	µg/l	< 0.0098	NA
Fluorene	400	80	µg/l	< 0.0073	NA
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.016	NA
1-Methyl Naphthalene			µg/l	0.022*	NA
2-Methyl Naphthalene			µg/l	0.0049*	NA
Naphthalene	100	10	µg/l	< 0.017	NA
Phenanthrene			µg/l	< 0.013	NA
Pyrene	250	50	µg/l	< 0.0070	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

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<i>Italics</i>

Table 3e
Summary of Groundwater Analytical Results
MW4
Burnett Oil Company
Webster, WI

Detected Parameters	ES	PAL	Units	09/20/16	07/07/17
Lead (Dissolved)	15	1.5	µg/l	< 3.0	NA
VOC Parameters					
Benzene	5	0.5	µg/l	0.069*	< 0.40
Ethylbenzene	700	140	µg/l	1.6	< 0.39
Toluene	800	160	µg/l	1.6	< 0.39
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.17	< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	26.6	< 0.80
Trimethylbenzenes (mixed isomers)	480	96	µg/l	32.1	< 0.42
Naphthalene	100	10	µg/l	4.3*	< 0.42
Dibromochloromethane	60	6	µg/l	< 0.22	NA
n-Propylbenzene			µg/l	0.57*	NA
Isopropylbenzene			µg/l	0.24*	NA
n-Butylbenzene			µg/l	< 0.50	NA
tert-Butylbenzene			µg/l	< 0.18	NA
PAH Parameters					
Acenaphthene			µg/l	0.18	NA
Acenaphthylene			µg/l	0.057	NA
Anthracene	3,000	600	µg/l	0.045*	NA
Benzo(a)Anthracene			µg/l	< 0.0068	NA
Benzo(a)Pyrene	0.2	0.02	µg/l	< 0.0095	NA
Benzo(b)Fluoranthene	0.2	0.02	µg/l	< 0.0052	NA
Benzo(ghi)Perylene			µg/l	< 0.0061	NA
Benzo(k)Fluoranthene			µg/l	< 0.0068	NA
Chrysene	0.2	0.02	µg/l	< 0.012	NA
Dibenzo(a,h)anthracene			µg/l	< 0.0090	NA
Fluoranthene	400	80	µg/l	0.013*	NA
Fluorene	400	80	µg/l	0.47	NA
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.016	NA
1-Methyl Naphthalene			µg/l	3.5	NA
2-Methyl Naphthalene			µg/l	4.1	NA
Naphthalene	100	10	µg/l	2.7	NA
Phenanthrene			µg/l	0.59	NA
Pyrene	250	50	µg/l	0.041	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

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Table 3f
Summary of Groundwater Analytical Results
MW91-1
Burnett Oil Company
Webster, WI

Detected Parameters	ES	PAL	Units	09/14/16	09/21/16	07/07/17
Lead (Dissolved)	15	1.5	µg/l	< 3.0	NA	NA
VOC Parameters						
Benzene	5	0.5	µg/l	< 0.50	NA	< 0.40
Ethylbenzene	700	140	µg/l	< 0.50	NA	< 0.39
Toluene	800	160	µg/l	< 0.50	NA	< 0.39
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.17	NA	< 0.48
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.0	NA	< 0.80
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.50	NA	< 0.42
Naphthalene	100	10	µg/l	< 2.5	NA	< 0.42
Dibromochloromethane	60	6	µg/l	< 0.50	NA	NA
n-Propylbenzene			µg/l	< 0.50	NA	NA
Isopropylbenzene			µg/l	< 0.14	NA	NA
n-Butylbenzene			µg/l	< 0.50	NA	NA
tert-Butylbenzene			µg/l	< 0.18	NA	NA
PAH Parameters						
Acenaphthene			µg/l	NA	< 0.0057	NA
Acenaphthylene			µg/l	NA	< 0.0047	NA
Anthracene	3,000	600	µg/l	NA	< 0.0099	NA
Benzo(a)Anthracene			µg/l	NA	< 0.0071	NA
Benzo(a)Pyrene	0.2	0.02	µg/l	NA	< 0.0099	NA
Benzo(b)Fluoranthene	0.2	0.02	µg/l	NA	< 0.0054	NA
Benzo(ghi)Perylene			µg/l	NA	< 0.064	NA
Benzo(k)Fluoranthene			µg/l	NA	< 0.0071	NA
Chrysene	0.2	0.02	µg/l	NA	< 0.012	NA
Dibenzo(a,h)anthracene			µg/l	NA	< 0.0095	NA
Fluoranthene	400	80	µg/l	NA	< 0.010	NA
Fluorene	400	80	µg/l	NA	< 0.0075	NA
Indeno(1,2,3-cd)Pyrene			µg/l	NA	< 0.017	NA
1-Methyl Naphthalene			µg/l	NA	< 0.0056	NA
2-Methyl Naphthalene			µg/l	NA	< 0.0046	NA
Naphthalene	100	10	µg/l	NA	< 0.017	NA
Phenanthrene			µg/l	NA	< 0.013	NA
Pyrene	250	50	µg/l	NA	< 0.0072	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

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<i>Italics</i>

Table 3g
Summary of Groundwater Analytical Results
MW91-2A
Burnett Oil Company
Webster, WI

Detected Parameters	ES	PAL	Units	09/14/16	07/07/17
Lead (Dissolved)	15	1.5	µg/l	< 3.0	NA
VOC Parameters					
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
Dibromochloromethane	60	6	µg/l	< 0.50	NA
n-Propylbenzene			µg/l	< 0.50	NA
Isopropylbenzene			µg/l	< 0.14	NA
n-Butylbenzene			µg/l	< 0.50	NA
tert-Butylbenzene			µg/l	< 0.18	NA
PAH Parameters					
Acenaphthene			µg/l	< 0.0055	NA
Acenaphthylene			µg/l	< 0.0045	NA
Anthracene	3,000	600	µg/l	< 0.0095	NA
Benzo(a)Anthracene			µg/l	< 0.0069	NA
Benzo(a)Pyrene	0.2	0.02	µg/l	< 0.0096	NA
Benzo(b)Fluoranthene	0.2	0.02	µg/l	< 0.0052	NA
Benzo(ghi)Perylene			µg/l	< 0.0062	NA
Benzo(k)Fluoranthene			µg/l	< 0.0069	NA
Chrysene	0.2	0.02	µg/l	< 0.012	NA
Dibenzo(a,h)anthracene			µg/l	< 0.0091	NA
Fluoranthene	400	80	µg/l	< 0.0097	NA
Fluorene	400	80	µg/l	< 0.0072	NA
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.016	NA
1-Methyl Naphthalene			µg/l	< 0.0054	NA
2-Methyl Naphthalene			µg/l	< 0.0045	NA
Naphthalene	100	10	µg/l	< 0.017	NA
Phenanthrene			µg/l	< 0.013	NA
Pyrene	250	50	µg/l	< 0.0070	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

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<i>Italics</i>

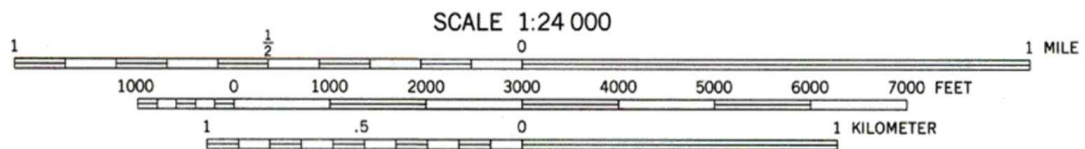
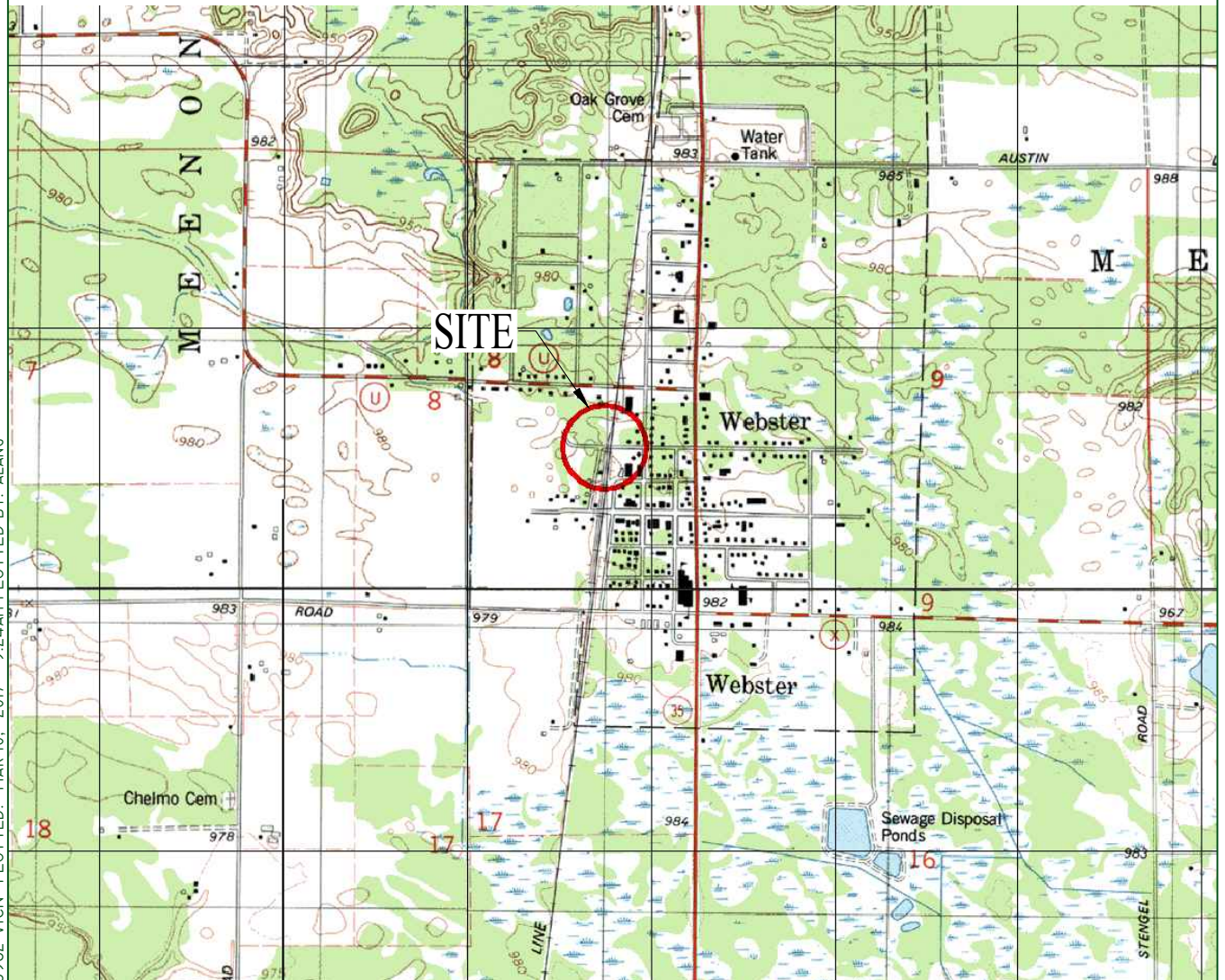
Table 3h
Summary of Groundwater Analytical Results
MW91-2B
Burnett Oil Company
Webster, WI

Detected Parameters	ES	PAL	Units	09/14/16	07/07/17
Lead (Dissolved)	15	1.5	µg/l	< 0.30	NA
VOC Parameters					
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
Dibromochloromethane	60	6	µg/l	< 0.50	NA
n-Propylbenzene			µg/l	< 0.50	NA
Isopropylbenzene			µg/l	< 0.14	NA
n-Butylbenzene			µg/l	< 0.50	NA
tert-Butylbenzene			µg/l	< 0.18	NA
PAH Parameters					
Acenaphthene			µg/l	< 0.0071	NA
Acenaphthylene			µg/l	< 0.0059	NA
Anthracene	3,000	600	µg/l	< 0.012	NA
Benzo(a)Anthracene			µg/l	< 0.0089	NA
Benzo(a)Pyrene	0.2	0.02	µg/l	< 0.012	NA
Benzo(b)Fluoranthene	0.2	0.02	µg/l	< 0.0068	NA
Benzo(ghi)Perylene			µg/l	< 0.0080	NA
Benzo(k)Fluoranthene			µg/l	< 0.0089	NA
Chrysene	0.2	0.02	µg/l	< 0.015	NA
Dibenzo(a,h)anthracene			µg/l	< 0.012	NA
Fluoranthene	400	80	µg/l	< 0.013	NA
Fluorene	400	80	µg/l	< 0.0094	NA
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.021	NA
1-Methyl Naphthalene			µg/l	< 0.0069	NA
2-Methyl Naphthalene			µg/l	< 0.0091*	NA
Naphthalene	100	10	µg/l	< 0.022	NA
Phenanthrene			µg/l	< 0.016	NA
Pyrene	250	50	µg/l	< 0.0090	NA

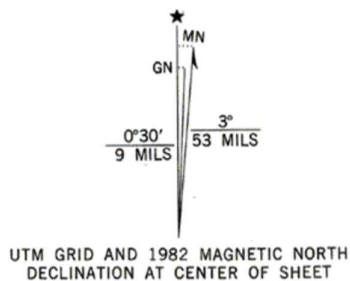
Notes:
ES = NR140.10 Enforcement Standards
PAL = NR140.10 Preventive Action Limits
ND = Not Detected
NA = Not Analyzed
* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation
Enforcement Standard exceeded
Preventive Action Limit exceeded

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<i>Italics</i>

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CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



WEBSTER, WIS.

NE/4 WEBSTER 15' QUADRANGLE
N4552.5-W9215/7.5

1982

DMA 2575 IV NE-SERIES V861

REI Engineering, INC.

BURNETT OIL COMPANY
26514 MINNOW AVENUE
WEBSTER, WISCONSIN 54893

FIGURE 1 : SITE VICINITY MAP

PROJECT NO.

6962AxUC

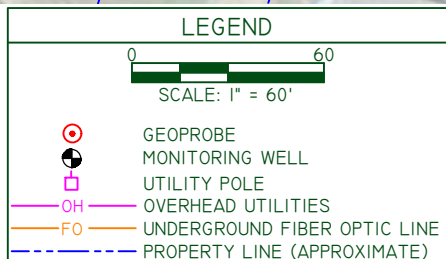
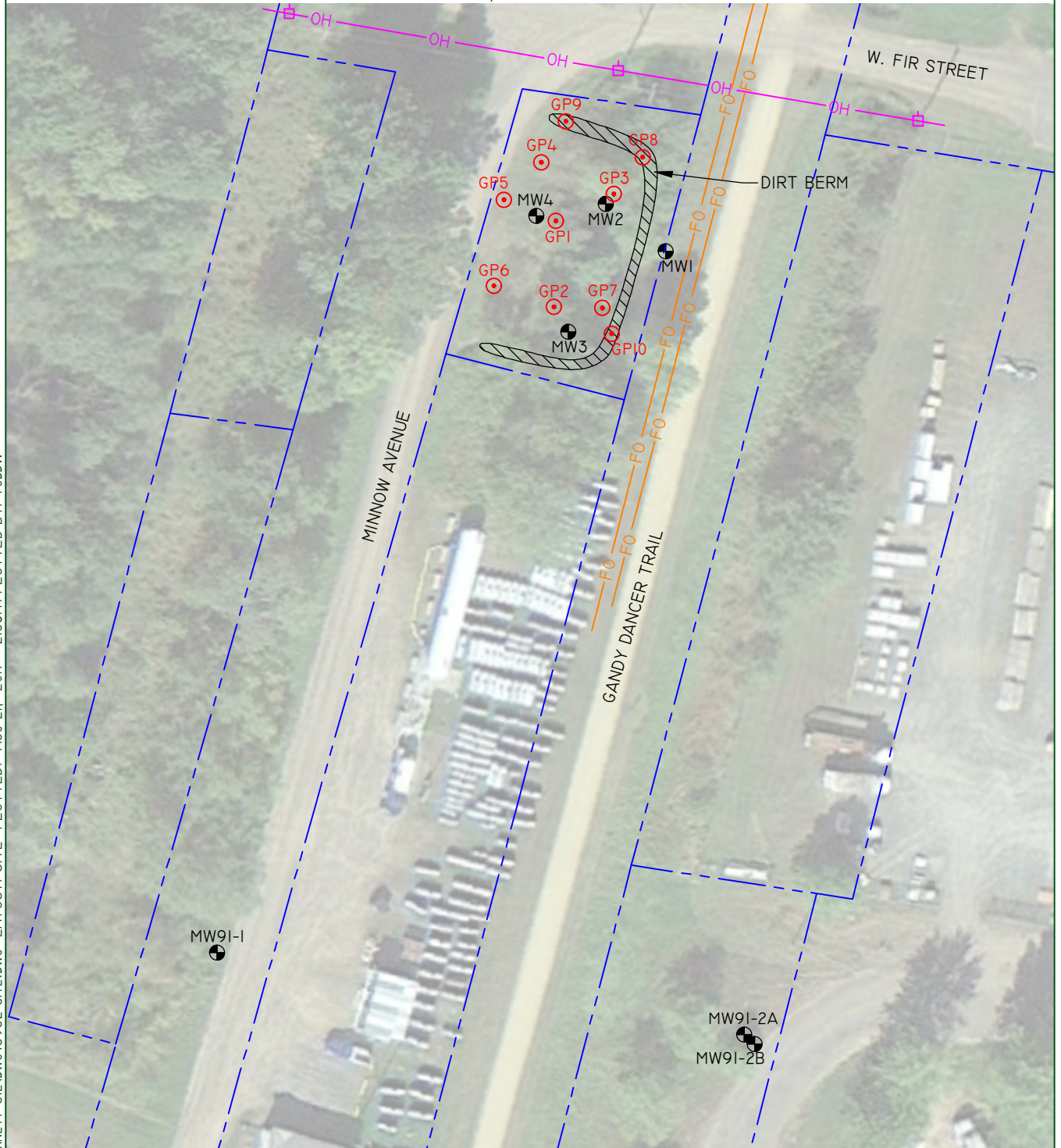
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AJG

DATE:

3/10/2017

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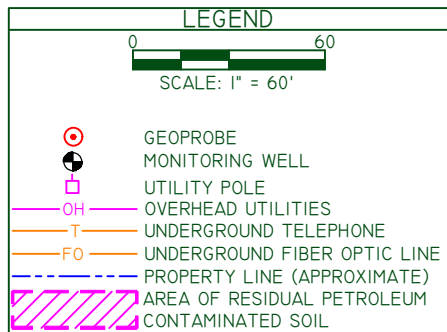
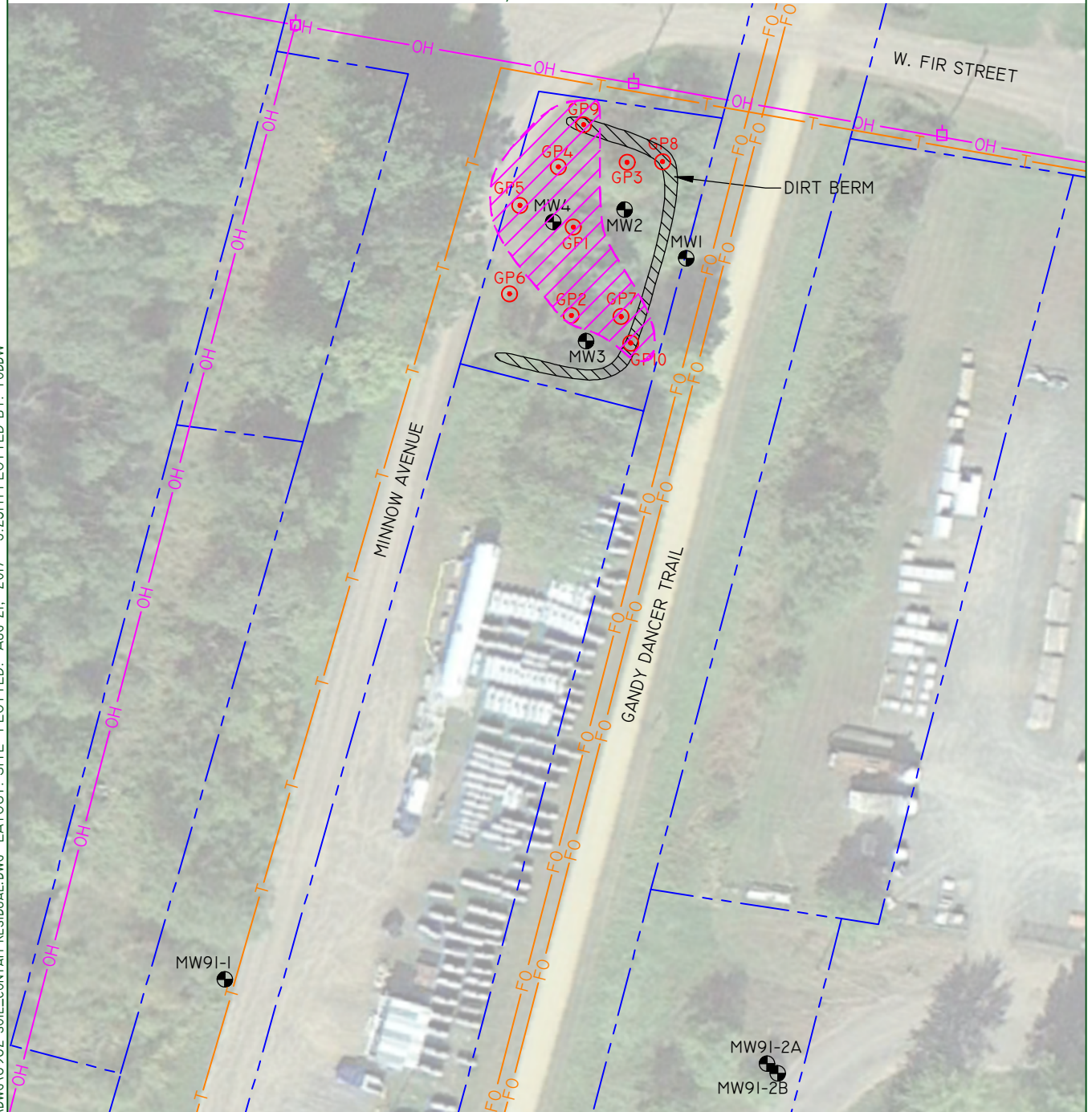
REI Engineering, INC.

BURNETT OIL COMPANY
 26514 MINNOW AVENUE
 WEBSTER, WISCONSIN 54893

FIGURE 2 : DETAILED SITE MAP

PROJECT NO.	DRAWN BY:	DATE:
6962AxUC	TAW	8/21/2017

DRAWING FILE: P:\6900-6999\6962 - BURNETT OIL\DWG\6962-SOIL-CONTAM-RESIDUAL.DWG LAYOUT: SITE PLOTTED: Aug 21, 2017 - 5:23PM PLOTTED BY: ToddW



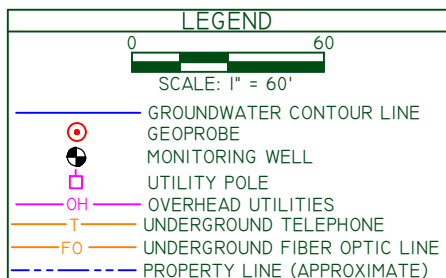
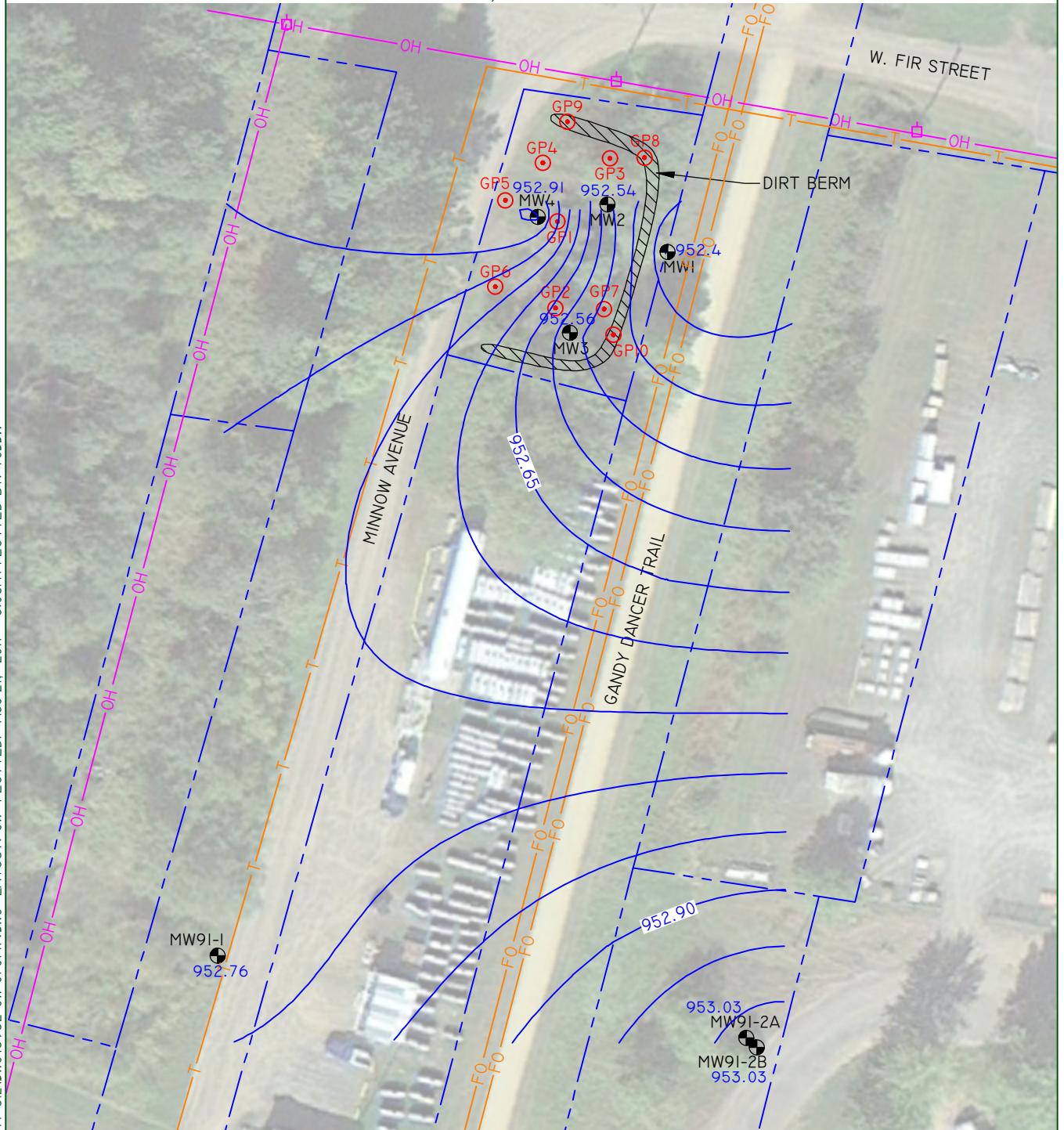
REI Engineering, INC.

BURNETT OIL COMPANY
26514 MINNOW AVENUE
WEBSTER, WISCONSIN 54893

FIGURE 3 : AREA OF RESIDUAL SOIL CONTAMINATION

PROJECT NO.	DRAWN BY:	DATE:
6962AxUC	TAW	8/21/2017

DRAWING FILE: P:\6900-6999\6962 - BURNETT OIL\dwg\6962-gw-070717.dwg LAYOUT: gw PLOTTED: Aug 21, 2017 - 5:06PM PLOTTED BY: ToddW



REI Engineering, INC.

BURNETT OIL COMPANY
26514 MINNOW AVENUE
WEBSTER, WISCONSIN 54893

FIGURE 4 : GROUNDWATER CONTOUR MAP (7/7/2017)

PROJECT NO.	DRAWN BY:	DATE:
6962AxUC	TAW	8/21/2017

APPENDIX A

SOIL BORING LOGS AND ABANDONMENT FORMS



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

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number BRRS#02-07-282564		Boring Number GP7	
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" 27	
Local Grid Origin ☐ (estimated) ☐ or Boring Location ☒			Lat	Local Grid Location N ☐ E ☐ S ☐ W ☐		
State Plane			Long			

Facility ID					County Burnett					County Code 07					Civil Town/City/or Village Webster				
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					RQD/ Comments			
Number	Type	Length Att. & Recovered (in)									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200				
1		48			1	Topsoil	SW					M							
					2	Fine to medium sands odorous												75.3	
					3	Gray clay												CL	
2		60			5	Fine gray sand odorous	SM				28.2								
					6	Fine brown/tan sand													
					7	Fine gray/brown sand													
					8														
					9	Gray clay Wet												CL	
3		60			10	Fine to medium brown sand Moist	SW				0.0								
					11														
					12														
					13	Saturated sand												SP	
4		42			15	Fine to medium brown sand Wet	SW												
					16														
					17														
					18														
					19														
					20	EOB @ 20'													
					21														
					22														

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.

Notice. Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160,281,283,289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141 Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a 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 the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION		(2) FACILITY/ OWNER INFORMATION	
WI Unique Well No. _____	DNR Well ID No. _____	County Burnett	Facility Name Burnett County Oil
Common Well Name <u>GP7</u> Gov't Lot (If applicable) _____		Facility ID _____	License/Permit/Monitoring No. <u>BRRTS #02-07-282564</u>
_____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N; R. _____ E _____ W		Street Address of Well _____	
Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.		City, Village, or Town <u>Webster</u>	
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐		Present Well Owner _____ Original Owner _____	
Lat. _____ Long. _____ or _____ S C N Zone _____		Street Address or Route of Owner _____	
St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone _____		City, State, Zip Code _____	
Reason For Abandonment Soil and groundwater sampling complete		WI Unique Well No. _____ of Replacement Well _____	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION	(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL														
Original Construction Date <u>6/12/2017</u> ☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole If a Well Construction Report is available, please attach. _____ Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) <u>Hydraulic push</u> Formation Type: ☒ Unconsolidated Formation ☐ Bedrock Total Well Depth (ft.) <u>20</u> Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) _____ Lower Drillhole Diameter (in.) <u>2.25</u> Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown If Yes, To What Depth? _____ Feet Depth to Water (Feet) <u>Not encountered</u>	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 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 Required Method of Placing Sealing Material ☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain) _____ <table style="width:100%;"> <tr> <th style="text-align: left;">Sealing Materials</th> <th style="text-align: left;">For monitoring wells and monitoring well boreholes only</th> </tr> <tr> <td>☐ Neat Cement Grout</td> <td>☐ Bentonite Chips</td> </tr> <tr> <td>☐ Sand-Cement (Concrete) Grout</td> <td>☒ Granular Bentonite</td> </tr> <tr> <td>☐ Concrete</td> <td>☐ Bentonite - Cement Grout</td> </tr> <tr> <td>☐ Clay-Sand Slurry (11 lb./gal. wt.)</td> <td>☐ Bentonite - Sand Slurry</td> </tr> <tr> <td>☐ Bentonite-Sand Slurry " "</td> <td></td> </tr> <tr> <td>☐ Bentonite Chips</td> <td></td> </tr> </table>	Sealing Materials	For monitoring wells and monitoring well boreholes only	☐ Neat Cement Grout	☐ Bentonite Chips	☐ Sand-Cement (Concrete) Grout	☒ Granular Bentonite	☐ Concrete	☐ Bentonite - Cement Grout	☐ Clay-Sand Slurry (11 lb./gal. wt.)	☐ Bentonite - Sand Slurry	☐ Bentonite-Sand Slurry " "		☐ Bentonite Chips	
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☐ Clay-Sand Slurry (11 lb./gal. wt.)	☐ Bentonite - Sand Slurry														
☐ Bentonite-Sand Slurry " "															
☐ Bentonite Chips															

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No Yards Sacks Sealent or Volume	(Circle One)	Mix Ratio or Mud Weight
Granular bentonite	Surface	20	0.64 bags		

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work <u>Gesta Engineering/ REI - Dave Larsen</u>		Date of Abandonment <u>6/12/2017</u>	
Signature of Person Doing Work <u>[Signature]</u>		Date Signed <u>6/28/2017</u>	
Street or Route <u>4080 N. 20th Avenue, Wausau, WI</u>		Telephone Number <u>(715) 675-9784</u>	
City, State, Zip Code _____			

FOR DNR OR COUNTY USE ONLY	
Date Received _____	Noted By _____
Comments _____	

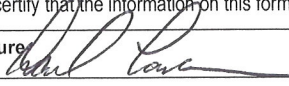
Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number BRRTS#02-07-282564		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" 28	
Local Grid Origin ☐ (estimated) ☐ or Boring Location ☒ State Plane			Lat	Local Grid Location N ☐ E ☐ S ☐ W ☐		

Facility ID				County Burnett				County Code 07				Civil Town/City/or Village Webster					
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					RQD/ Comments	
Number	Type	Length Att. & Recovered (in)									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1		24			1	Topsoil Sandy brown/gray clay	SC			0.0		M					
					2												
					3												
					4												
2		36			5	Fine grained brown sand				0.0							
					6												
					7												
					8												
3		48			9												
					10												
					11												
					12												
4		48			13												
					14												
					15												
					16												
					17												
					18												
					19												
					20	EOB @ 20'											
					21												
					22												

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.

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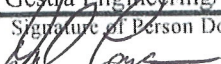
Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION		(2) FACILITY/ OWNER INFORMATION	
WI Unique Well No. _____	DNR Well ID No. _____	County Burnett	Facility Name Burnett County Oil
Common Well Name GP8 Gov't Lot (If applicable) _____		Facility ID _____	License/Permit/Monitoring No. BRRTS #02-07-282564
_____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N; R. _____ Grid Location _____ _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W. Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. _____ Long. _____ or _____ St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone _____		Street Address of Well _____ City, Village, or Town Webster Present Well Owner _____ Original Owner _____ Street Address or Route of Owner _____ City, State, Zip Code _____	
Reason For Abandonment Soil and groundwater sampling complete		WI Unique Well No. _____ of Replacement Well _____	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION	(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL														
Original Construction Date <u>6/12/2017</u> ☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole If a Well Construction Report is available, please attach. Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) <u>Hydraulic push</u> Formation Type: ☒ Unconsolidated Formation ☐ Bedrock Total Well Depth (ft.) <u>20</u> Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) _____ Lower Drillhole Diameter (in.) <u>2.25</u> Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown If Yes, To What Depth? _____ Feet Depth to Water (Feet) <u>Not encountered</u>	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 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 Required Method of Placing Sealing Material ☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain) _____ <table style="width:100%;"> <tr> <th style="text-align: left;">Sealing Materials</th> <th style="text-align: left;">For monitoring wells and monitoring well boreholes only</th> </tr> <tr> <td>☐ Neat Cement Grout</td> <td>☐ Bentonite Chips</td> </tr> <tr> <td>☐ Sand-Cement (Concrete) Grout</td> <td>☒ Granular Bentonite</td> </tr> <tr> <td>☐ Concrete</td> <td>☐ Bentonite - Cement Grout</td> </tr> <tr> <td>☐ Clay-Sand Slurry (11 lb./gal. wt.)</td> <td>☐ Bentonite - Sand Slurry</td> </tr> <tr> <td>☐ Bentonite-Sand Slurry</td> <td></td> </tr> <tr> <td>☐ Bentonite Chips</td> <td></td> </tr> </table>	Sealing Materials	For monitoring wells and monitoring well boreholes only	☐ Neat Cement Grout	☐ Bentonite Chips	☐ Sand-Cement (Concrete) Grout	☒ Granular Bentonite	☐ Concrete	☐ Bentonite - Cement Grout	☐ Clay-Sand Slurry (11 lb./gal. wt.)	☐ Bentonite - Sand Slurry	☐ Bentonite-Sand Slurry		☐ Bentonite Chips	
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☐ Bentonite-Sand Slurry															
☐ Bentonite Chips															

(5)	Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No Yards Sacks Sealed or Volume	(Circle One)	Mix Ratio or Mud Weight
	Granular bentonite	Surface	20	0.64 bags		

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work Gesta Engineering/ REI - Dave Larsen	Date of Abandonment 6/12/2017
Signature of Person Doing Work 	Date Signed 6/28/2017
Street or Route 4080 N. 20th Avenue, Wausau, WI	Telephone Number (715) 675-9784
City, State, Zip Code _____	

FOR DNR OR COUNTY USE ONLY	
Date Received _____	Noted By _____
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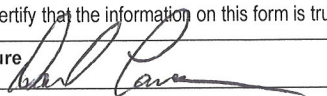
Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

Facility/Project Name Burnett Oil		License/Permit/Monitoring Number BRRS#02-07-282564		Boring Number GP9	
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" 9
Local Grid Origin ☐ (estimated) ☐ or Boring Location ☒ State Plane			Lat Long	Local Grid Location N ☐ E ☐ S ☐ W ☐	

Facility ID				County Burnett				County Code 07				Civil Town/City/or Village Webster			
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					RQD/ Comments
Number	Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1		36		1 2 3 4 5	Topsoil Black organic matter Fine grained brown sand Gray clay w/ orange mottling Fine grained brown sand	SM CL			67.2		M				
2		60		6 7 8 9 10					0.0						
3		48		11 12 13 14 15 16		SM			0.0 0.0						
4		60		17 18 19 20					0.0						
				21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38	Blind drilled to 35' to collect water sample EOB @ 35'										

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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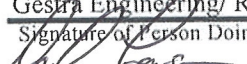
Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION		(2) FACILITY/ OWNER INFORMATION	
WI Unique Well No. _____	DNR Well ID No. _____	County Burnett	Facility Name Burnett County Oil
Common Well Name <u>GP9</u> Gov't Lot (If applicable) _____		Facility ID _____	License/Permit/Monitoring No. BRRTS #02-07-282564
_____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N; R. _____ E _____ W		Street Address of Well _____	
Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.		City, Village, or Town Webster	
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐		Present Well Owner _____	Original Owner _____
Lat. _____ Long. _____ or _____ S C N Zone _____		Street Address or Route of Owner _____	
St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone _____		City, State, Zip Code _____	
Reason For Abandonment Soil and groundwater sampling complete		WI Unique Well No. _____ of Replacement Well _____	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION	(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL														
Original Construction Date <u>6/12/2017</u> ☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole If a Well Construction Report is available, please attach. _____ Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) <u>Hydraulic push</u> Formation Type: ☒ Unconsolidated Formation ☐ Bedrock Total Well Depth (ft.) <u>35</u> Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) _____ Lower Drillhole Diameter (in.) <u>2.25</u> Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown If Yes, To What Depth? _____ Feet Depth to Water (Feet) <u>30</u>	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 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 Required Method of Placing Sealing Material ☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain) _____ <table style="width:100%;"> <tr> <th style="text-align: left;">Sealing Materials</th> <th style="text-align: left;">For monitoring wells and monitoring well boreholes only</th> </tr> <tr> <td>☐ Neat Cement Grout</td> <td>☐ Bentonite Chips</td> </tr> <tr> <td>☐ Sand-Cement (Concrete) Grout</td> <td>☒ Granular Bentonite</td> </tr> <tr> <td>☐ Concrete</td> <td>☐ Bentonite - Cement Grout</td> </tr> <tr> <td>☐ Clay-Sand Slurry (11 lb./gal. wt.)</td> <td>☐ Bentonite - Sand Slurry</td> </tr> <tr> <td>☐ Bentonite-Sand Slurry " "</td> <td></td> </tr> <tr> <td>☐ Bentonite Chips</td> <td></td> </tr> </table>	Sealing Materials	For monitoring wells and monitoring well boreholes only	☐ Neat Cement Grout	☐ Bentonite Chips	☐ Sand-Cement (Concrete) Grout	☒ Granular Bentonite	☐ Concrete	☐ Bentonite - Cement Grout	☐ Clay-Sand Slurry (11 lb./gal. wt.)	☐ Bentonite - Sand Slurry	☐ Bentonite-Sand Slurry " "		☐ Bentonite Chips	
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☐ Clay-Sand Slurry (11 lb./gal. wt.)	☐ Bentonite - Sand Slurry														
☐ Bentonite-Sand Slurry " "															
☐ Bentonite Chips															

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No Yards Sacks Sealed or Volume	(Circle One)	Mix Ratio or Mud Weight
Granular bentonite	Surface	35	1.12 bags		

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work <u>Gestra Engineering/ REI - Dave Larsen</u>	Date of Abandonment <u>6/12/2017</u>
Signature of Person Doing Work 	Date Signed <u>6/28/2017</u>
Street or Route <u>4080 N. 20th Avenue, Wausau, WI</u>	Telephone Number <u>(715) 675-9784</u>
City, State, Zip Code _____	

FOR DNR OR COUNTY USE ONLY	
Date Received _____	Noted By _____
Comments _____ _____	

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

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number BRRS#02-07-282564		Boring Number GP10	
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" ¹⁰	
Local Grid Origin ☐ (estimated) ☐ or Boring Location ☒			Lat	Local Grid Location N ☐ E ☐ S ☐ W ☐		
State Plane			Long			

Facility ID				County Burnett				County Code 07				Civil Town/City/or Village Webster						
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					RQD/ Comments			
Number	Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200				
1		36		1	Topsoil													
					Black organic matter													
					Fine grained brown sand	SM												
					Gray clay	CL												
				2	Fine grained brown sand	SM												
					Gray clay	CL												
					Fine grained brown sand	SM												
					Gray clay	CL												
				3														
																		
																		
																		
2		60		4														
					Fine grained brown sand	SM												
					Gray clay	CL												
																		
				5														
																		
																		
																		
				6	Gray/brown fine grained sand odorous	SM												
																		
																		
																		
				7														
																		
																		
																		
3		48		8														
																		
																		
																		
				9	Fine grained brown sand													
																		
																		
																		
				10														
																		
																		
				11		SM												
				12														
				13	Mixed grained sands w/ gravel at depth													
				14		SW												
				15	EOB @ 15'													
				16														
				17														

I herby 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: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION			(2) FACILITY/ OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County Burnett	Facility Name Burnett County Oil	
Common Well Name GP10			Facility ID	License/Permit/Monitoring No. BRRTS #02-07-282564
Gov't Lot (If applicable)			Street Address of Well	
1/4 of 1/4 of Sec. , T. N; R. ☐ E ☐ W			City, Village, or Town Webster	
Grid Location			Present Well Owner	
ft. ☐ N. ☐ S., ft. ☐ E. ☐ W.			Original Owner	
Local Grid Origin (estimated:) or Well Location			Street Address or Route of Owner	
Lat. Long. or			City, State, Zip Code	
St. Plane ft. N. ft. E. ☐ ☐ ☐ Zone				
Reason For Abandonment Soil and groundwater sampling complete			WI Unique Well No. of Replacement Well	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION	(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL		
Original Construction Date 6/12/2017 ☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) Hydraulic push Formation Type: ☒ Unconsolidated Formation ☐ Bedrock Total Well Depth (ft.) 15 Casing Diameter (in.) (From ground surface) Casing Depth (ft.) Lower Drillhole Diameter (in.) 2.25 Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown If Yes, To What Depth? Feet Depth to Water (Feet) Not encountered	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 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 Required Method of Placing Sealing Material ☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain) <table style="width:100%;"> <tr> <td style="width:50%;"> Sealing Materials ☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry ☐ Bentonite Chips </td> <td style="width:50%;"> For monitoring wells and monitoring well boreholes only ☐ Bentonite Chips ☒ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry </td> </tr> </table>	Sealing Materials ☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry ☐ Bentonite Chips	For monitoring wells and monitoring well boreholes only ☐ Bentonite Chips ☒ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry
Sealing Materials ☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry ☐ Bentonite Chips	For monitoring wells and monitoring well boreholes only ☐ Bentonite Chips ☒ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry		

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No Yards, Sacks Sealed or Volume	(Circle One)	Mix Ratio or Mud Weight
Granular bentonite	Surface	15	0.48 bags		

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work Gestra Engineering/ REI - Dave Larsen		Date of Abandonment 6/12/2017
Signature of Person Doing Work <i>Dave Larsen</i>	Date Signed 6/28/2017	
Street or Route 4080 N. 20th Avenue, Wausau, WI	Telephone Number (715) 675-9784	
City, State, Zip Code		

FOR DNR OR COUNTY USE ONLY	
Date Received	Noted By
Comments	

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.

APPENDIX C

LABORATORY ANALYTICAL RESULTS



June 28, 2017

DAVID LARSEN
REI
4080 NORTH 20TH AVENUE
Wausau, WI 54401

RE: Project: 6962 BURNETT OIL
Pace Project No.: 40151983

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40151983001	GP7 @ 2.5-3.0	Solid	06/12/17 13:00	06/20/17 09:00
40151983002	GP7 @ 13-15	Solid	06/12/17 13:15	06/20/17 09:00
40151983003	GP7 @ 18-20	Solid	06/12/17 13:30	06/20/17 09:00
40151983004	GP8 @ 2-4	Solid	06/12/17 13:35	06/20/17 09:00
40151983005	GP8 @ 6-8	Solid	06/12/17 13:40	06/20/17 09:00
40151983006	GP8 @ 18-20	Solid	06/12/17 14:00	06/20/17 09:00
40151983007	GP9 @ 0.5-1.0	Solid	06/12/17 14:10	06/20/17 09:00
40151983008	GP9 @ 5-6	Solid	06/12/17 14:15	06/20/17 09:00
40151983009	GP9 @ 19-20	Solid	06/12/17 14:30	06/20/17 09:00
40151983010	GP10 @ 2-4	Solid	06/12/17 15:25	06/20/17 09:00
40151983011	GP10 @ 9-10	Solid	06/12/17 15:25	06/20/17 09:00
40151983012	GP10 @ 7.5	Solid	06/12/17 15:20	06/20/17 09:00
40151983013	GP9	Water	06/12/17 15:15	06/20/17 09:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40151983001	GP7 @ 2.5-3.0	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983002	GP7 @ 13-15	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983003	GP7 @ 18-20	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983004	GP8 @ 2-4	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983005	GP8 @ 6-8	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983006	GP8 @ 18-20	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983007	GP9 @ 0.5-1.0	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983008	GP9 @ 5-6	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983009	GP9 @ 19-20	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983010	GP10 @ 2-4	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983011	GP10 @ 9-10	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983012	GP10 @ 7.5	WI MOD GRO	ALD	10
		EPA 6010	AJT	1
		ASTM D2974-87	AH	1
40151983013	GP9	WI MOD GRO	ALD	10

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

Sample: GP7 @ 2.5-3.0 **Lab ID: 40151983001** Collected: 06/12/17 13:00 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<125	ug/kg	300	125	5	06/22/17 07:45	06/22/17 15:50	71-43-2	W
Ethylbenzene	<125	ug/kg	300	125	5	06/22/17 07:45	06/22/17 15:50	100-41-4	W
Methyl-tert-butyl ether	<125	ug/kg	300	125	5	06/22/17 07:45	06/22/17 15:50	1634-04-4	W
Naphthalene	6870	ug/kg	359	150	5	06/22/17 07:45	06/22/17 15:50	91-20-3	
Toluene	<125	ug/kg	300	125	5	06/22/17 07:45	06/22/17 15:50	108-88-3	W
1,2,4-Trimethylbenzene	<125	ug/kg	300	125	5	06/22/17 07:45	06/22/17 15:50	95-63-6	W
1,3,5-Trimethylbenzene	<125	ug/kg	300	125	5	06/22/17 07:45	06/22/17 15:50	108-67-8	W
m&p-Xylene	<250	ug/kg	600	250	5	06/22/17 07:45	06/22/17 15:50	179601-23-1	W
o-Xylene	<125	ug/kg	300	125	5	06/22/17 07:45	06/22/17 15:50	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	106	%	80-120		5	06/22/17 07:45	06/22/17 15:50	98-08-8	D3
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	4.3	mg/kg	1.5	0.49	1	06/22/17 13:38	06/26/17 13:05	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	16.4	%	0.10	0.10	1		06/27/17 15:14		

Sample: GP7 @ 13-15 **Lab ID: 40151983002** Collected: 06/12/17 13:15 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/22/17 07:45	06/22/17 14:08	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:08	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	105	%	80-120		1	06/22/17 07:45	06/22/17 14:08	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	0.88J	mg/kg	1.2	0.41	1	06/22/17 13:38	06/26/17 13:07	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	3.9	%	0.10	0.10	1		06/27/17 15:14		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL
Pace Project No.: 40151983

Sample: GP7 @ 18-20 **Lab ID: 40151983003** Collected: 06/12/17 13:30 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:33	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:33	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:33	1634-04-4	W
Naphthalene	26.9J	ug/kg	62.5	26.0	1	06/22/17 07:45	06/22/17 14:33	91-20-3	
Toluene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:33	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:33	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:33	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/22/17 07:45	06/22/17 14:33	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 14:33	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1	06/22/17 07:45	06/22/17 14:33	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	1.0J	mg/kg	1.3	0.44	1	06/22/17 13:38	06/26/17 13:10	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	4.0	%	0.10	0.10	1		06/27/17 15:14		

Sample: GP8 @ 2-4 **Lab ID: 40151983004** Collected: 06/12/17 13:35 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	71-43-2	W
Ethylbenzene	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	100-41-4	W
Methyl-tert-butyl ether	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	1634-04-4	W
Naphthalene	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	91-20-3	W
Toluene	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	108-88-3	W
1,2,4-Trimethylbenzene	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	95-63-6	W
1,3,5-Trimethylbenzene	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	108-67-8	W
m&p-Xylene	<58.1	ug/kg	140	58.1	1	06/22/17 07:45	06/22/17 18:24	179601-23-1	W
o-Xylene	<29.1	ug/kg	69.8	29.1	1	06/22/17 07:45	06/22/17 18:24	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	06/22/17 07:45	06/22/17 18:24	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	3.2	mg/kg	1.5	0.50	1	06/22/17 13:38	06/26/17 13:17	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	14.9	%	0.10	0.10	1		06/27/17 15:14		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL
Pace Project No.: 40151983

Sample: GP8 @ 6-8 **Lab ID: 40151983005** Collected: 06/12/17 13:40 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/22/17 07:45	06/22/17 18:49	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 18:49	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1	06/22/17 07:45	06/22/17 18:49	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	1.9	mg/kg	1.3	0.44	1	06/22/17 13:38	06/26/17 13:19	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	11.9	%	0.10	0.10	1		06/27/17 15:14		

Sample: GP8 @ 18-20 **Lab ID: 40151983006** Collected: 06/12/17 14:00 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/22/17 07:45	06/22/17 19:15	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:15	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1	06/22/17 07:45	06/22/17 19:15	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	0.73J	mg/kg	1.7	0.55	1	06/22/17 13:38	06/26/17 13:21	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	23.3	%	0.10	0.10	1		06/27/17 15:14		

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

Sample: GP9 @ 0.5-1.0 **Lab ID: 40151983007** Collected: 06/12/17 14:10 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<290	ug/kg	696	290	8	06/22/17 07:45	06/22/17 16:41	71-43-2	W
Ethylbenzene	<290	ug/kg	696	290	8	06/22/17 07:45	06/22/17 16:41	100-41-4	W
Methyl-tert-butyl ether	<290	ug/kg	696	290	8	06/22/17 07:45	06/22/17 16:41	1634-04-4	W
Naphthalene	14800	ug/kg	866	361	8	06/22/17 07:45	06/22/17 16:41	91-20-3	W
Toluene	<290	ug/kg	696	290	8	06/22/17 07:45	06/22/17 16:41	108-88-3	W
1,2,4-Trimethylbenzene	3440	ug/kg	866	361	8	06/22/17 07:45	06/22/17 16:41	95-63-6	
1,3,5-Trimethylbenzene	2210	ug/kg	866	361	8	06/22/17 07:45	06/22/17 16:41	108-67-8	
m&p-Xylene	1350J	ug/kg	1730	721	8	06/22/17 07:45	06/22/17 16:41	179601-23-1	
o-Xylene	547J	ug/kg	866	361	8	06/22/17 07:45	06/22/17 16:41	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	106	%	80-120		8	06/22/17 07:45	06/22/17 16:41	98-08-8	D3
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	66.7	mg/kg	1.5	0.51	1	06/22/17 13:38	06/26/17 13:24	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	19.6	%	0.10	0.10	1		06/27/17 15:14		

Sample: GP9 @ 5-6 **Lab ID: 40151983008** Collected: 06/12/17 14:15 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/22/17 07:45	06/22/17 19:40	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/22/17 07:45	06/22/17 19:40	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1	06/22/17 07:45	06/22/17 19:40	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	4.8	mg/kg	1.6	0.52	1	06/22/17 13:38	06/26/17 13:26	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	16.7	%	0.10	0.10	1		06/27/17 15:14		

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL
Pace Project No.: 40151983

Sample: GP9 @ 19-20 **Lab ID: 40151983009** Collected: 06/12/17 14:30 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	71-43-2	W
Ethylbenzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	100-41-4	W
Methyl-tert-butyl ether	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	1634-04-4	W
Naphthalene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	91-20-3	W
Toluene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	108-88-3	W
1,2,4-Trimethylbenzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	95-63-6	W
1,3,5-Trimethylbenzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	108-67-8	W
m&p-Xylene	<53.2	ug/kg	128	53.2	1	06/22/17 07:45	06/22/17 20:06	179601-23-1	W
o-Xylene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:06	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1	06/22/17 07:45	06/22/17 20:06	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	0.75J	mg/kg	1.3	0.43	1	06/22/17 13:38	06/26/17 13:28	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	3.6	%	0.10	0.10	1		06/27/17 15:14		

Sample: GP10 @ 2-4 **Lab ID: 40151983010** Collected: 06/12/17 15:25 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	71-43-2	W
Ethylbenzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	100-41-4	W
Methyl-tert-butyl ether	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	1634-04-4	W
Naphthalene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	91-20-3	W
Toluene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	108-88-3	W
1,2,4-Trimethylbenzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	95-63-6	W
1,3,5-Trimethylbenzene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	108-67-8	W
m&p-Xylene	<53.2	ug/kg	128	53.2	1	06/22/17 07:45	06/22/17 20:31	179601-23-1	W
o-Xylene	<26.6	ug/kg	63.8	26.6	1	06/22/17 07:45	06/22/17 20:31	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	105	%	80-120		1	06/22/17 07:45	06/22/17 20:31	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	2.7	mg/kg	1.4	0.48	1	06/22/17 13:38	06/26/17 13:31	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	10	%	0.10	0.10	1		06/27/17 15:14		

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL
Pace Project No.: 40151983

Sample: GP10 @ 9-10 **Lab ID: 40151983011** Collected: 06/12/17 15:25 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	71-43-2	W
Ethylbenzene	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	100-41-4	W
Methyl-tert-butyl ether	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	1634-04-4	W
Naphthalene	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	91-20-3	W
Toluene	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	108-88-3	W
1,2,4-Trimethylbenzene	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	95-63-6	W
1,3,5-Trimethylbenzene	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	108-67-8	W
m&p-Xylene	<75.8	ug/kg	182	75.8	1	06/22/17 07:45	06/22/17 20:57	179601-23-1	W
o-Xylene	<37.9	ug/kg	90.9	37.9	1	06/22/17 07:45	06/22/17 20:57	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1	06/22/17 07:45	06/22/17 20:57	98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	0.84J	mg/kg	1.4	0.48	1	06/22/17 13:38	06/26/17 13:33	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	11.8	%	0.10	0.10	1		06/27/17 15:14		

Sample: GP10 @ 7.5 **Lab ID: 40151983012** Collected: 06/12/17 15:20 Received: 06/20/17 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<820	ug/kg	1970	820	20	06/22/17 07:45	06/22/17 16:16	71-43-2	W
Ethylbenzene	9550	ug/kg	2200	918	20	06/22/17 07:45	06/22/17 16:16	100-41-4	
Methyl-tert-butyl ether	<820	ug/kg	1970	820	20	06/22/17 07:45	06/22/17 16:16	1634-04-4	W
Naphthalene	41400	ug/kg	2200	918	20	06/22/17 07:45	06/22/17 16:16	91-20-3	
Toluene	<820	ug/kg	1970	820	20	06/22/17 07:45	06/22/17 16:16	108-88-3	W
1,2,4-Trimethylbenzene	24000	ug/kg	2200	918	20	06/22/17 07:45	06/22/17 16:16	95-63-6	
1,3,5-Trimethylbenzene	12200	ug/kg	2200	918	20	06/22/17 07:45	06/22/17 16:16	108-67-8	
m&p-Xylene	18600	ug/kg	4410	1840	20	06/22/17 07:45	06/22/17 16:16	179601-23-1	
o-Xylene	2200J	ug/kg	2200	918	20	06/22/17 07:45	06/22/17 16:16	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	108	%	80-120		20	06/22/17 07:45	06/22/17 16:16	98-08-8	D3
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	2.8	mg/kg	1.5	0.48	1	06/22/17 13:38	06/26/17 13:35	7439-92-1	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	10.7	%	0.10	0.10	1		06/27/17 15:14		

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

Sample: GP9 Lab ID: 40151983013 Collected: 06/12/17 15:15 Received: 06/20/17 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.40	ug/L	1.0	0.40	1		06/22/17 12:29	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		06/22/17 12:29	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		06/22/17 12:29	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		06/22/17 12:29	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		06/22/17 12:29	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		06/22/17 12:29	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		06/22/17 12:29	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		06/22/17 12:29	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		06/22/17 12:29	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	106	%	80-120		1		06/22/17 12:29	98-08-8	

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QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

QC Batch:	259412	Analysis Method:	WI MOD GRO
QC Batch Method:	TPH GRO/PVOC WI ext.	Analysis Description:	WIGRO Solid GCV
Associated Lab Samples:	40151983001, 40151983002, 40151983003, 40151983004, 40151983005, 40151983006, 40151983007, 40151983008, 40151983009, 40151983010, 40151983011, 40151983012		

METHOD BLANK: 1527963 Matrix: Solid
Associated Lab Samples: 40151983001, 40151983002, 40151983003, 40151983004, 40151983005, 40151983006, 40151983007, 40151983008, 40151983009, 40151983010, 40151983011, 40151983012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	06/22/17 09:01	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	06/22/17 09:01	
Benzene	ug/kg	<25.0	50.0	06/22/17 09:01	
Ethylbenzene	ug/kg	<25.0	50.0	06/22/17 09:01	
m&p-Xylene	ug/kg	<50.0	100	06/22/17 09:01	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	06/22/17 09:01	
Naphthalene	ug/kg	<25.0	50.0	06/22/17 09:01	
o-Xylene	ug/kg	<25.0	50.0	06/22/17 09:01	
Toluene	ug/kg	<25.0	50.0	06/22/17 09:01	
a,a,a-Trifluorotoluene (S)	%	105	80-120	06/22/17 09:01	

LABORATORY CONTROL SAMPLE & LCSD: 1527964

		1527965								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1050	1080	105	108	80-120	2	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1020	1050	102	105	80-120	3	20	
Benzene	ug/kg	1000	1020	1050	102	105	80-120	3	20	
Ethylbenzene	ug/kg	1000	1030	1060	103	106	80-120	3	20	
m&p-Xylene	ug/kg	2000	2060	2100	103	105	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	991	1050	99	105	80-120	6	20	
Naphthalene	ug/kg	1000	1040	1150	104	115	80-120	9	20	
o-Xylene	ug/kg	1000	1030	1060	103	106	80-120	2	20	
Toluene	ug/kg	1000	1020	1050	102	105	80-120	2	20	
a,a,a-Trifluorotoluene (S)	%				107	107	80-120			

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QUALITY CONTROL DATA

Project: 6962 BURNETT OIL
Pace Project No.: 40151983

QC Batch:	259410	Analysis Method:	WI MOD GRO
QC Batch Method:	WI MOD GRO	Analysis Description:	WIGRO GCV Water
Associated Lab Samples:	40151983013		

METHOD BLANK: 1527957 Matrix: Water
Associated Lab Samples: 40151983013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	06/22/17 08:39	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	06/22/17 08:39	
Benzene	ug/L	<0.40	1.0	06/22/17 08:39	
Ethylbenzene	ug/L	<0.39	1.0	06/22/17 08:39	
m&p-Xylene	ug/L	<0.80	2.0	06/22/17 08:39	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	06/22/17 08:39	
Naphthalene	ug/L	<0.42	1.0	06/22/17 08:39	
o-Xylene	ug/L	<0.45	1.0	06/22/17 08:39	
Toluene	ug/L	<0.39	1.0	06/22/17 08:39	
a,a,a-Trifluorotoluene (S)	%	105	80-120	06/22/17 08:39	

LABORATORY CONTROL SAMPLE & LCSD: 1527958

LABORATORY CONTROL SAMPLE & LCSD: 1527958			1527959							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	21.1	21.6	106	108	80-120	2	20	
1,3,5-Trimethylbenzene	ug/L	20	20.5	20.8	102	104	80-120	2	20	
Benzene	ug/L	20	20.9	20.9	104	105	80-120	0	20	
Ethylbenzene	ug/L	20	20.8	21.0	104	105	80-120	1	20	
m&p-Xylene	ug/L	40	41.2	41.5	103	104	80-120	1	20	
Methyl-tert-butyl ether	ug/L	20	20.3	20.2	102	101	80-120	1	20	
Naphthalene	ug/L	20	19.7	20.0	99	100	80-120	2	20	
o-Xylene	ug/L	20	20.6	20.8	103	104	80-120	1	20	
Toluene	ug/L	20	20.7	20.8	103	104	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%				105	105	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1528255

Parameter	Units	1528256									
		40151907003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD
1,2,4-Trimethylbenzene	ug/L	<0.42	20	20	20.6	21.0	103	105	11-200	2	20
1,3,5-Trimethylbenzene	ug/L	<0.42	20	20	20.3	20.6	102	103	54-142	1	20
Benzene	ug/L	<0.40	20	20	21.3	21.1	106	105	66-140	1	20
Ethylbenzene	ug/L	<0.39	20	20	21.7	21.9	108	109	66-143	1	20
m&p-Xylene	ug/L	<0.80	40	40	42.1	42.5	105	106	60-141	1	20
Methyl-tert-butyl ether	ug/L	<0.48	20	20	20.2	20.0	101	100	70-129	1	20
Naphthalene	ug/L	<0.42	20	20	20.4	20.7	102	104	64-129	1	20
o-Xylene	ug/L	<0.45	20	20	21.0	21.2	105	106	68-132	1	20
Toluene	ug/L	<0.39	20	20	21.4	21.5	107	108	76-130	0	20

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QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1528255 1528256												
Parameter	Units	40151907003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
a,a,a-Trifluorotoluene (S)	%						105	105	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

QC Batch:	259488	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	40151983001, 40151983002, 40151983003, 40151983004, 40151983005, 40151983006, 40151983007, 40151983008, 40151983009, 40151983010, 40151983011, 40151983012		

METHOD BLANK: 1528334 Matrix: Solid
Associated Lab Samples: 40151983001, 40151983002, 40151983003, 40151983004, 40151983005, 40151983006, 40151983007, 40151983008, 40151983009, 40151983010, 40151983011, 40151983012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	<0.43	1.3	06/26/17 12:39	

LABORATORY CONTROL SAMPLE: 1528335

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	50	49.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1528336 1528337

Parameter	Units	40152001001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/kg	2.2	51.6	51.6	52.8	52.6	98	98	75-125	0	20	

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QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

QC Batch:	259922	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40151983001, 40151983002, 40151983003, 40151983004, 40151983005, 40151983006, 40151983007, 40151983008, 40151983009, 40151983010, 40151983011, 40151983012		

SAMPLE DUPLICATE: 1530990

Parameter	Units	40152319001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.8	5.9	1	10	

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QUALIFIERS

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

W Non-detect results are reported on a wet weight basis.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6962 BURNETT OIL

Pace Project No.: 40151983

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40151983001	GP7 @ 2.5-3.0	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983002	GP7 @ 13-15	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983003	GP7 @ 18-20	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983004	GP8 @ 2-4	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983005	GP8 @ 6-8	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983006	GP8 @ 18-20	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983007	GP9 @ 0.5-1.0	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983008	GP9 @ 5-6	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983009	GP9 @ 19-20	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983010	GP10 @ 2-4	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983011	GP10 @ 9-10	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983012	GP10 @ 7.5	TPH GRO/PVOC WI ext.	259412	WI MOD GRO	259450
40151983013	GP9	WI MOD GRO	259410		
40151983001	GP7 @ 2.5-3.0	EPA 3050	259488	EPA 6010	259604
40151983002	GP7 @ 13-15	EPA 3050	259488	EPA 6010	259604
40151983003	GP7 @ 18-20	EPA 3050	259488	EPA 6010	259604
40151983004	GP8 @ 2-4	EPA 3050	259488	EPA 6010	259604
40151983005	GP8 @ 6-8	EPA 3050	259488	EPA 6010	259604
40151983006	GP8 @ 18-20	EPA 3050	259488	EPA 6010	259604
40151983007	GP9 @ 0.5-1.0	EPA 3050	259488	EPA 6010	259604
40151983008	GP9 @ 5-6	EPA 3050	259488	EPA 6010	259604
40151983009	GP9 @ 19-20	EPA 3050	259488	EPA 6010	259604
40151983010	GP10 @ 2-4	EPA 3050	259488	EPA 6010	259604
40151983011	GP10 @ 9-10	EPA 3050	259488	EPA 6010	259604
40151983012	GP10 @ 7.5	EPA 3050	259488	EPA 6010	259604
40151983001	GP7 @ 2.5-3.0	ASTM D2974-87	259922		
40151983002	GP7 @ 13-15	ASTM D2974-87	259922		
40151983003	GP7 @ 18-20	ASTM D2974-87	259922		
40151983004	GP8 @ 2-4	ASTM D2974-87	259922		
40151983005	GP8 @ 6-8	ASTM D2974-87	259922		
40151983006	GP8 @ 18-20	ASTM D2974-87	259922		
40151983007	GP9 @ 0.5-1.0	ASTM D2974-87	259922		
40151983008	GP9 @ 5-6	ASTM D2974-87	259922		
40151983009	GP9 @ 19-20	ASTM D2974-87	259922		
40151983010	GP10 @ 2-4	ASTM D2974-87	259922		
40151983011	GP10 @ 9-10	ASTM D2974-87	259922		
40151983012	GP10 @ 7.5	ASTM D2974-87	259922		

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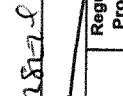
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H₂SO₄ D=HNO₃ E=DI Water F=Methanol G=NaOH
 H= Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)									
Company Name:		DET							
Branch/Location:									
Project Contact:		DAVID LANSARD							
Phone:		715 675-9784							
Project Number:		6962							
Project Name:		Barnett Oil							
Project State:		WI							
Sampled By (Print):		DAVID LANSARD							
Sampled By (Sign):									
PO #:		Regulatory Program:							
Data Package Options (billable)		MS/MSD		CLIENT FIELD ID		COLLEGE		Matrix	
☐ EPA Level III ☐ EPA Level IV		☐ On your sample (billable) ☐ NOT needed on your sample				DATE		A = Air B = Biota C = Charcoal O = Oil S = Soil SI = Sludge	
PACE LAB #									
001		GP7C 2.5-3.0		+		6-12-94			
002		GP7C 13-15							
003		GP8C 16-20							
004		GP8C 2-4							
005		GP8C 6-8							
006		GP8C 18-20							
007		GP9C 0.5-1.0							
008		GP9C 5-6							
009		GP9C 19-20							
010		GP10C 2-4							
011		GP10C 9-10							
012		GP10C 7-5							
013		GP9		+					
Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:									
Transmit Prelim Rush Results by (complete what you want):									
Email #1:									
Email #2:									
Telephone:									
Fax:									
Samples on HOLD are subject to special pricing and release of liability									

[illegible]

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)		Relinquished By: <i>[Signature]</i>	Date/Time: 6-19-17 @ 1:00pm	Received By:
Date Needed:		Relinquished By: <i>Walton</i>	Date/Time: 6/20/17 0900	Received By: <i>Kamukulya</i>
Transmit Prelim Rush Results by (complete what you want):		Relinquished By:	Date/Time:	Received By:
Email #1:		Relinquished By:		
Email #2:		Relinquished By:		
Telephone:		Relinquished By:		
Fax:		Relinquished By:		
Samples on HOLD are subject to special pricing and release of liability		Relinquished By:	Date/Time:	Received By:

Project # **WO# : 40151983**

Client Name: REI

Courier: ☐ Fed Ex ☐ UPS ☒ Client ☐ Pace Other: Waltco

Tracking #: 1400840-1

Custody Seal on Cooler/Box Present: ☐ yes ☒ no **Seals intact:** ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no **Seals intact:** ☐ yes ☒ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used NA Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20 /Corr: **Biological Tissue is Frozen:** ☐ yes

Temp Blank Present: ☐ yes ☒ no

Temp should be above freezing to 6°C.

Biota Samples may be received at $\leq 0^{\circ}\text{C}$.

Comments:

Person examining contents:

Date: 6-20-17

Initials: KK

Chain of Custody Form		Comments:
Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
- VOA Samples frozen upon receipt	☐ Yes ☐ No	Date/Time:
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
-Pace IR Containers Used:	☐ Yes ☐ No ☒ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☐ Yes ☒ No ☐ N/A	12. <i>009 40zag^A time 12:10.</i>
-Includes date/time/ID/Analysis Matrix: <i>W & S</i>		<i>10-20-17 KB</i>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO ₃ , H ₂ SO ₄ ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐ Yes ☐ No ☒ N/A	☐ HNO ₃ ☐ H ₂ SO ₄ ☐ NaOH ☐ NaOH + ZnAct
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐ Yes ☒ No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	14.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	15.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution:

Project Manager Review:

Date: 6-21-17

July 14, 2017

DAVID LARSEN
REI
4080 NORTH 20TH AVENUE
Wausau, WI 54401

RE: Project: 6962 BURNETT OIL
Pace Project No.: 40152988

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on July 11, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 6962 BURNETT OIL

Pace Project No.: 40152988

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 6962 BURNETT OIL

Pace Project No.: 40152988

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40152988001	MW1	Water	07/07/17 12:10	07/11/17 08:40
40152988002	MW2	Water	07/07/17 12:20	07/11/17 08:40
40152988003	MW3	Water	07/07/17 12:25	07/11/17 08:40
40152988004	MW4	Water	07/07/17 12:30	07/11/17 08:40
40152988005	MW91-1	Water	07/07/17 12:40	07/11/17 08:40
40152988006	MW92-A	Water	07/07/17 12:50	07/11/17 08:40
40152988007	MW92-B	Water	07/07/17 13:00	07/11/17 08:40

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SAMPLE ANALYTE COUNT

Project: 6962 BURNETT OIL

Pace Project No.: 40152988

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40152988001	MW1	WI MOD GRO	PMS	10
40152988002	MW2	WI MOD GRO	PMS	10
40152988003	MW3	WI MOD GRO	PMS	10
40152988004	MW4	WI MOD GRO	PMS	10
40152988005	MW91-1	WI MOD GRO	PMS	10
40152988006	MW92-A	WI MOD GRO	PMS	10
40152988007	MW92-B	WI MOD GRO	PMS	10

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL
Pace Project No.: 40152988

Sample: MW1 Lab ID: 40152988001 Collected: 07/07/17 12:10 Received: 07/11/17 08:40 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.40	ug/L	1.0	0.40	1		07/12/17 14:33	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		07/12/17 14:33	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		07/12/17 14:33	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		07/12/17 14:33	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		07/12/17 14:33	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 14:33	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 14:33	108-67-8	M1,R1
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		07/12/17 14:33	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		07/12/17 14:33	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	105	%	80-120		1		07/12/17 14:33	98-08-8	

Sample: MW2 Lab ID: 40152988002 Collected: 07/07/17 12:20 Received: 07/11/17 08:40 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.40	ug/L	1.0	0.40	1		07/12/17 14:59	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		07/12/17 14:59	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		07/12/17 14:59	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		07/12/17 14:59	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		07/12/17 14:59	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 14:59	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 14:59	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		07/12/17 14:59	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		07/12/17 14:59	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1		07/12/17 14:59	98-08-8	

Sample: MW3 Lab ID: 40152988003 Collected: 07/07/17 12:25 Received: 07/11/17 08:40 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.40	ug/L	1.0	0.40	1		07/12/17 15:25	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		07/12/17 15:25	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		07/12/17 15:25	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		07/12/17 15:25	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		07/12/17 15:25	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 15:25	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 15:25	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		07/12/17 15:25	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		07/12/17 15:25	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL
Pace Project No.: 40152988

Sample: MW3		Lab ID: 40152988003		Collected: 07/07/17 12:25		Received: 07/11/17 08:40		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV		Analytical Method: WI MOD GRO							
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1		07/12/17 15:25	98-08-8	

Sample: MW4		Lab ID: 40152988004		Collected: 07/07/17 12:30		Received: 07/11/17 08:40		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV		Analytical Method: WI MOD GRO							
Benzene	<0.40	ug/L	1.0	0.40	1		07/12/17 15:51	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		07/12/17 15:51	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		07/12/17 15:51	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		07/12/17 15:51	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		07/12/17 15:51	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 15:51	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 15:51	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		07/12/17 15:51	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		07/12/17 15:51	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1		07/12/17 15:51	98-08-8	

Sample: MW91-1		Lab ID: 40152988005		Collected: 07/07/17 12:40		Received: 07/11/17 08:40		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV		Analytical Method: WI MOD GRO							
Benzene	<0.40	ug/L	1.0	0.40	1		07/12/17 16:16	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		07/12/17 16:16	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		07/12/17 16:16	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		07/12/17 16:16	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		07/12/17 16:16	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 16:16	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 16:16	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		07/12/17 16:16	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		07/12/17 16:16	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1		07/12/17 16:16	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40152988

Sample: MW92-A Lab ID: 40152988006 Collected: 07/07/17 12:50 Received: 07/11/17 08:40 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.40	ug/L	1.0	0.40	1		07/12/17 16:42	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		07/12/17 16:42	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		07/12/17 16:42	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		07/12/17 16:42	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		07/12/17 16:42	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 16:42	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 16:42	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		07/12/17 16:42	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		07/12/17 16:42	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1		07/12/17 16:42	98-08-8	

Sample: MW92-B Lab ID: 40152988007 Collected: 07/07/17 13:00 Received: 07/11/17 08:40 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.40	ug/L	1.0	0.40	1		07/12/17 17:08	71-43-2	
Ethylbenzene	<0.39	ug/L	1.0	0.39	1		07/12/17 17:08	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		07/12/17 17:08	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		07/12/17 17:08	91-20-3	
Toluene	<0.39	ug/L	1.0	0.39	1		07/12/17 17:08	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 17:08	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		07/12/17 17:08	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		07/12/17 17:08	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		07/12/17 17:08	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1		07/12/17 17:08	98-08-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6962 BURNETT OIL
Pace Project No.: 40152988

QC Batch:	261242	Analysis Method:	WI MOD GRO
QC Batch Method:	WI MOD GRO	Analysis Description:	WIGRO GCV Water
Associated Lab Samples:	40152988001, 40152988002, 40152988003, 40152988004, 40152988005, 40152988006, 40152988007		

METHOD BLANK:	1538225	Matrix:	Water
Associated Lab Samples:	40152988001, 40152988002, 40152988003, 40152988004, 40152988005, 40152988006, 40152988007		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	07/12/17 09:51	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	07/12/17 09:51	
Benzene	ug/L	<0.40	1.0	07/12/17 09:51	
Ethylbenzene	ug/L	<0.39	1.0	07/12/17 09:51	
m&p-Xylene	ug/L	<0.80	2.0	07/12/17 09:51	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	07/12/17 09:51	
Naphthalene	ug/L	<0.42	1.0	07/12/17 09:51	
o-Xylene	ug/L	<0.45	1.0	07/12/17 09:51	
Toluene	ug/L	<0.39	1.0	07/12/17 09:51	
a,a,a-Trifluorotoluene (S)	%	105	80-120	07/12/17 09:51	

LABORATORY CONTROL SAMPLE & LCSD:		1538226	1538227							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.4	19.0	97	95	80-120	2	20	
1,3,5-Trimethylbenzene	ug/L	20	18.6	18.4	93	92	80-120	1	20	
Benzene	ug/L	20	22.4	21.8	112	109	80-120	2	20	
Ethylbenzene	ug/L	20	21.7	21.2	109	106	80-120	3	20	
m&p-Xylene	ug/L	40	42.0	40.8	105	102	80-120	3	20	
Methyl-tert-butyl ether	ug/L	20	19.8	19.9	99	99	80-120	0	20	
Naphthalene	ug/L	20	19.9	20.6	100	103	80-120	3	20	
o-Xylene	ug/L	20	20.9	20.4	105	102	80-120	2	20	
Toluene	ug/L	20	21.7	21.1	108	106	80-120	3	20	
a,a,a-Trifluorotoluene (S)	%				105	104	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			1539048		1539049							
Parameter	Units	40152988001	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
1,2,4-Trimethylbenzene	ug/L	<0.42	20	20	13.6	11.5	68	58	11-200	16	20	M1,R1
1,3,5-Trimethylbenzene	ug/L	<0.42	20	20	10.2	8.0	51	40	54-142	25	20	
Benzene	ug/L	<0.40	20	20	23.3	22.9	117	115	66-140	2	20	
Ethylbenzene	ug/L	<0.39	20	20	21.3	20.2	106	101	66-143	5	20	
m&p-Xylene	ug/L	<0.80	40	40	35.1	31.3	88	78	60-141	11	20	
Methyl-tert-butyl ether	ug/L	<0.48	20	20	20.4	20.0	102	100	70-129	2	20	
Naphthalene	ug/L	<0.42	20	20	19.2	18.3	96	91	64-129	5	20	
o-Xylene	ug/L	<0.45	20	20	18.0	16.5	90	82	68-132	9	20	
Toluene	ug/L	<0.39	20	20	21.3	20.5	107	103	76-130	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40152988

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1539048 1539049												
Parameter	Units	40152988001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
a,a,a-Trifluorotoluene (S)	%						101	102	80-120			

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QUALIFIERS

Project: 6962 BURNETT OIL

Pace Project No.: 40152988

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6962 BURNETT OIL

Pace Project No.: 40152988

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40152988001	MW1	WI MOD GRO	261242		
40152988002	MW2	WI MOD GRO	261242		
40152988003	MW3	WI MOD GRO	261242		
40152988004	MW4	WI MOD GRO	261242		
40152988005	MW91-1	WI MOD GRO	261242		
40152988006	MW92-A	WI MOD GRO	261242		
40152988007	MW92-B	WI MOD GRO	261242		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)									
Company Name:		PET							
Branch/Location:									
Project Contact:		David Caspell							
Phone:		75-675-9764							
Project Number:		69602							
Project Name:		Berrett Oil							
Project State:		GA							
Sampled By (Print):		David Caspell							
Sampled By (Sign):		David Caspell							
PO #:				Regulatory Program:					
Data Package Options (billable) ☐ EPA Level III ☐ EPA Level IV				MS/MSD ☐ On your sample (billable) ☐ NOT needed on your sample		Matrix A = Air B = Biota C = Charcoal O = Oil S = Soil SS = Sludge			
PACE LAB #		CLIENT FIELD ID							
001		MW1							
002		MW2							
003		MW3							
004		MW4							
005		MW91-1							
006		MW92-A							
007		MW92-B							
Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)									
Date Needed:									
Transmit Prelim Rush Results by (complete what you want):									
Email #1:									
Email #2:									
Telephone:									
Fax:									
Samples on HOLD are subject to special pricing and release of liability									

[illegible]

Relinquished By:	<i>Walter</i>	Date/Time:	<i>7/14/17 @ 2:00pm</i>	Received By:		Date/Time:	
Relinquished By:	<i>Walter</i>	Date/Time:	<i>7/14/17 0840</i>	Received By:	<i>Walter Schramm</i>	Date/Time:	<i>0840 7/14/17</i>
Relinquished By:		Date/Time:		Received By:		Date/Time:	
Relinquished By:		Date/Time:		Received By:		Date/Time:	

PACE Project No. 40152988	Recept Temp = $Ro1$ °C	Sample Recept pH OK / Adjusted	Cooler Custody Seal Present / Not Present Intact / Not Intact
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Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #:

WO#: 40152988

Client Name: REI

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace ☒ Other: Walco

Tracking #: 1421059-1



Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used

NA

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None

☒ Samples on ice, cooling process has begun

Cooler Temperature

Uncorr:

/Corr:

ROI

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

Person examining contents:

Date: 7/11/17

Initials: KJ

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
- VOA Samples frozen upon receipt	☐ Yes ☐ No	Date/Time:
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
-Pace IR Containers Used:	☐ Yes ☐ No ☒ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☐ Yes ☒ No ☐ N/A	12. 006 ID MW-91-2a, 007 MW-91-2b
-Includes date/time/ID/Analysis Matrix: W		KJ 7/11/17
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐ Yes ☐ No ☒ N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤ 2; NaOH + ZnAct ≥ 9, NaOH ≥ 12)	☐ Yes ☐ No ☒ N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☒ Yes ☐ No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	14.
Trip Blank Present:	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 7-11-17