



March 15, 2017

Wisconsin Department of Natural Resources

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



**Subject:**

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

**Dear Mr. Smith:**

Enclosed is the Environmental Site Investigation Report for the above-mentioned site. REI identified significant petroleum related soil contamination and minimal groundwater impact. REI is recommending the completion of a soil excavation to address the residual soil contamination followed by quarterly groundwater sampling through case closure consideration.

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

Sincerely,  
REI Engineering, Inc.

A handwritten signature in black ink, appearing to read "David N. Larsen".

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  
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CIVIL & ENVIRONMENTAL  
ENGINEERING, SURVEYING

**ENVIRONMENTAL SITE  
INVESTIGATION REPORT**

**BURNETT OIL COMPANY  
WEBSTER, WISCONSIN**

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



**COMPREHENSIVE  
SERVICES WITH  
PRACTICAL  
SOLUTIONS**



## **ENVIRONMENTAL SITE INVESTIGATION 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**

**MARCH 2017**

# **ENVIRONMENTAL SITE INVESTIGATION 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

*3/15/17*  
\_\_\_\_\_  
Date

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# **ENVIRONMENTAL SITE INVESTIGATION REPORT**

**BURNETT OIL COMPANY  
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WEBSTER, WI 54893**

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

**REI #6962**

## **1.0 INTRODUCTION**

### **1.1 Purpose of Report**

The Burnett Oil Company had operated a bulk fueling facility on the property (leased from the railroad) for many years. This report presents the results of an Environmental Site Investigation performed at the Burnett County Oil site in Webster, Wisconsin. The purpose of the investigation was to determine the source, as well as the degree and extent of petroleum related contamination in soil, groundwater and evaluate soil gases. The Wisconsin Department of Natural Resources (WDNR) was notified of a petroleum release at the Burnett County Oil facility on July 26, 2001. A Site Investigation Workplan was submitted to the WDNR on July 15, 2016.

### **1.2 Site Background**

#### **1.2.1 Site Description**

The Burnett Oil Company site is located in the NE  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  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.

Based on DATCP registration records, six (6) above ground storage tanks (ASTs) were located on the site. All the tanks were reported to have been

removed as of June 20, 2001. AST registration numbers, tank identification numbers, tank size, contents are listed below:

<b>Registration No.</b>	<b>Size (Gallons)</b>	<b>Contents</b>
761191	10,000	Unleaded Gasoline
761205	15,000	Unleaded Gasoline
761206	10,000	Fuel Oil
761207	10,000	Fuel Oil
761208	17,000	Diesel Fuel
813857	15,000	Diesel Fuel

The property lies adjacent to the former railroad grade, which has since been acquired under the “Rails for Trails” program and is part of the Gandy Dancer Trail.

The neighboring properties are as follows:

- North: Fir Street and residential beyond
- East: Gandy Dancer Trail (former railroad grade)
- South: Propane dealer and propane tank storage
- West: Burnett County Forest Land

### **1.2.2 Current Site Operation**

The property is currently vacant, unimproved and gravel covered. Following the removal of the former bulk plant operations in 2001, the rail line was abandoned and eventually converted in to the Gandy Dancer Trail. The Gandy Dancer Trail group did not acquire the former Burnett Oil Company property due to the petroleum contamination. The property was eventually acquired by Burnett County.

### **1.2.3 Previous Investigations**

Other than the release from the PECFA eligible petroleum system no other releases have been reported at this location.

The Village of Webster was the focus of a Webster VOC Contamination investigation for the Webster VOC Contamination (BRRTS 02-07-000337) due to VOC (chlorinated compounds from a dry cleaner release) impact to the

municipal water supply well. This investigation was initiated in 1984 and eventually nineteen (19) environmental monitoring wells were advanced to identify the degree and extent of the release. A figure depicting the locations of the Webster VOC Contamination installed wells and soil borings is included in Appendix A. Monitoring wells MW92-1, MW92-2A and MW92-2B were transferred from the Webster VOC Contamination project to the Burnett County Oil PECFA investigation.

### **1.3 Potable Water Survey**

The Village of Webster is serviced by municipal sewer and water. Potable water supply wells are located near the subject property. Copies of local potable well construction logs are included in Appendix B.

### **1.4 Other Sources of Contamination**

A review of the Wisconsin Department of Natural Resources (WDNR) Spills and Leaking Underground Storage Tank (LUST) list was performed for the surrounding area. According to the Bureau of Remediation and Redevelopment Tracking System (BRRTS) database this is the only release notification for this property.

## **2.0 METHOD OF INVESTIGATION**

### **2.1 Soil**

The borings were placed to aid in the determination of the lateral and vertical extents of the petroleum contamination. A total of ten (10) soil borings were advanced during the site investigation.

The soil boring locations and estimated extent of soil contamination are shown on Figure 2. Additional information regarding site specific soil characteristics and contaminant concentrations will be detailed in later sections of this report.

Soil Boring Logs (WDNR Form 4400-122) are included in Appendix C. Monitoring Well Construction Forms (WDNR Form 4400-133A) are included in Appendix D. Monitoring Well Development Forms (WDNR Form 4400-133B) are included in Appendix E. Borehole Abandonment Forms (WDNR Form 3300-5) are included in

Appendix F. Historical information specific to wells MW91-1, MW91-2A and MW91-2B are included in Appendix G. Investigative waste disposal is included in Appendix H.

## **2.2 Groundwater**

A total of seven (7) groundwater monitoring wells have been advanced to determine if the observed petroleum related soil contamination had impacted the groundwater at the Burnett County Oil site. Four (4) monitoring wells, MW1 to MW4 were installed under the direction of REI. Three (3) additional monitoring wells MW91-1, MW91-2A and MW91-2B were installed as part of the Webster VOC Contamination project and were transferred to the Burnett Oil Company investigation. All three (3) of the transferred wells were redeveloped prior to incorporation into the Burnett Oil project. Well development forms are included in Appendix E. Depths to groundwater and groundwater elevation measurements were collected during each well sampling event. The samples were placed in laboratory provided containers and submitted to a State Certified Laboratory for analysis. Additional information regarding site specific groundwater characteristics are presented in later sections of this report.

## **3.0 SUMMARY OF FIELD INVESTIGATION RESULTS**

### **3.1 Regional Geology and Hydrogeology**

Site specific topography is relatively flat with a slight grade to the south. The area is situated within the St. Croix River Basin of Wisconsin, with the Yellow River as the primary drainage feature for the area (Young and Hindall, 1973).

The geology and water resources of the basin were described by Young and Hindall (1973). Briefly, the surficial geology consists of glacially derived sediments ranging from outwash plains to end moraines. The glacial deposits are underlain by Precambrian basaltic lava flows classified by Young and Hindall (1973). The depth to bedrock typically is greater than 100 feet (Trotta and Cotter, 1973).

The geology and water resources of the basin as described by Young and Hindall (1973) indicate that almost the entire St. Croix River basin is covered with

unconsolidated deposits consisting of unpitted outwash, pitted outwash, lake deposits, end moraines and ground moraines. The outwash deposits are typically less than 50 feet in thickness but may be thicker over channels in bedrock. Soil permeability for the soils as described on the site are 0.8 to 2.5 inches per hour. The average annual precipitation in the area is about 29.3 inches. The typical evapotranspiration rate is about 20.3 inches per year, leaving about 9.0 inches per year for both groundwater recharge and surface runoff (Devaul and Green, 1971). The regional groundwater recharge rate will be assumed to be the NR 720.09(3) default rate of 10.0 inches per year. Site specific topography is relatively flat but slopes to the northwest. Land surface elevations in the area are about 980 +/- 5 feet above Mean Sea Level (U.S.G.S. Webster 7 1/2-minute quadrangle map).

### **3.2 Site Specific Geology and Hydrogeology**

The soil borings performed during the Burnett Oil Company investigation indicate the site geology consists mainly of fill material overlying layers of sands and clays, which overly a fine to medium grained sand. The Burnett County Oil soil description is consistent with the soil description from the Webster VOC Contamination project. Much of the site specific hydrologic data was obtained from the previously submitted data for the Webster VOC Contamination Project (02-07-000337). Figure 3 presents the geologic cross section of the soils identified at the site.

The average depth to groundwater is approximately thirty (30) feet bls. Therefore, the physical and hydraulic properties of the red brown silty sand probably are most representative of the material below the water table through which most groundwater contaminant travel occurs.

#### **3.2.1 Site Hydrogeology**

Depths to groundwater were measured in the monitoring wells as part of each sampling event. The direction of groundwater flow identified during the Webster VOC Contamination investigation was westerly. REI groundwater flow contour map for September 2016 is presented in Figure 4.

As part of the Webster VOC Contamination project soil samples were collected and submitted for mechanical grain size analysis. Particle size analysis and soil classification using the Unified Soil Classification System (USCS) was performed. The results are presented in Appendix I. The samples collected from OW5 at a depth of 45-46.5 feet and from OW9, 35-36.5 feet, were the only samples collected below the average depth to groundwater. Both were classified as SP soils (poorly sorted sands) using the Unified Soil Classification System (USCS).

Published estimates of typical values for the soils classified as SP in the USCS system indicates the hydraulic conductivity are approximately 1.5 ft./day to 28 ft./day (Schroeder and others, 1994).

Hydraulic conductivities were calculated during the Webster VOC Contamination investigation for wells MW91-1 and MW91-2A. Additionally, hydraulic conductivity values were calculated for many of the other wells associated with the Webster VOC Contamination investigation. Copies of the calculated hydraulic conductivity output is included in Appendix J. Calculated hydraulic conductivity results at MW91-1 and MW91-2A ranged from a low of 38.27 feet/day at MW91-1 to a high of 48.19 feet/day at MW91-2A. The calculated average value was 43.23 feet/day and will be used for estimating clean up time estimates under natural conditions. Contaminant velocities will be less than groundwater velocities, and will depend on the retardation factors for each contaminant.

The natural rate of lateral groundwater movement is estimated to be approximately 717 feet per year, which is based on the estimated horizontal hydraulic conductivity, the horizontal gradients (between MW91-1 and MW91-2) and the assumed porosity observed at the site. Vertical gradients were also calculated across each well nest. Groundwater contaminant concentrations in the piezometer documents a shallow downward vertical component across the MW91-2A and MW91-2B well nest. The calculated gradient was -0.0006 ft./ft. for the September 14, 2016 sample event.

Contaminant velocities are less than groundwater velocities, and depend on the retardation factor of each contaminant.

### **3.3 Nature and Extent of Soil Contamination**

Figure 2 documents the locations of the nine (9) soil borings advanced during the site investigation. Soil samples were obtained to determine the lateral and vertical extent of the petroleum contamination in the subsurface. 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).

A total of twenty (20) soil samples were collected and submitted for laboratory analysis during the investigation. Tables 1a-b present the results from the nine (9) soil borings advanced during the investigation. Copies of the soil laboratory analytical reports are included in Appendix K.

Based on field screening and analytical results, the estimated extent of pre-remedial soil contamination associated with the petroleum release at the Burnett County Oil site encompasses an area of approximately 3,600 square feet. Using this area and an assumed depth of soil contamination of fourteen (14) feet, the estimated in-place volume of petroleum impacted soil in concentrations above the WDNR-RCL is approximately 1,867 cubic yards. The anticipated volume of petroleum impacted soil to be removed for disposal is estimated at approximately 180 cubic yards. Figure 5 presents the estimated extent of petroleum impacted soil contamination at the Burnett County Oil site associated with the petroleum release.

### **3.4 Nature and Extent of Groundwater Contamination**

A single groundwater-sampling event has been conducted during the site investigation. Depth to water and water level elevations for the investigation are presented in Table 2. Analysis of the groundwater samples from the single sampling event indicated no detectable petroleum compounds above NR 140.10 Groundwater Quality Enforcement Standards (ES) and laboratory qualified Preventive Action

Limits (PAL) exceedances in monitoring well MW2 only. A summary of groundwater analytical results is presented in Tables 3a-h. All development and purge water was transported to the Village of Luck for disposal in their waste water treatment system.

### **3.5 Vapor Intrusion Screening Analysis**

Vapor intrusion screening is used to determine the potential for vapor migration from a contaminated property. Vapor intrusion of petroleum compounds most often occurs when free phase petroleum compounds are located near building foundations, where petroleum impacted groundwater has entered a building, or when petroleum contaminated groundwater is in contact with a building foundation.

Vapor intrusion from petroleum releases tend to occur near the source of the petroleum release and are often detected by smelling petroleum odors in the building. When petroleum odors are not detected, vapor intrusion concerns can be dismissed if there is more than five (5) feet of clean unsaturated and aerated (greater than 5% oxygen content) soil separating the residual contamination from the building.

An investigation into the potential for vapor migration should be completed in situations when there is not more than five (5) feet of clean unsaturated and aerated (greater than 5% oxygen content) soil separating the residual contamination from the building or any of the following conditions:

- Free phase product that has the potential for off gassing vapors underlies a building or is within 30 feet, horizontally or vertically of a building foundation.
- Petroleum contaminated soils with the potential for off gassing vapors are within 5 feet or less of a building foundation.
- Benzene concentrations in groundwater underlying a building is >1,000 ppb and there is less than 20 feet of unsaturated soil between the groundwater and the building.
- Groundwater contaminated with petroleum product above Wisconsin's groundwater preventive action limit (PAL) is entering a building or in contact

with a buildings foundation or is in water intercepted by the buildings foundation drainage system, including sumps.

- Petroleum vapors are present that may migrate from the petroleum source and move through preferential pathways (utility lines, fractured bedrock, etc.) into a building.

There is no structure on the Burnett Oil Company property, or on any of the immediate adjoining properties. Based depth to groundwater, soil types and contaminants of concern, it can be concluded that the threat for vapor migration from the petroleum release at the Burnett Oil Company site is not a possibility and further investigation into vapor migration is not warranted.

#### **4.0 EVALUATION OF ENVIRONMENTAL FACTORS**

The five environmental factors were evaluated during the site investigation. These factors include:

- a. Documented expansion of plume margin,
- b. Verified contaminant concentrations in a private or potable well exceeding the PAL,
- c. Contamination within bedrock or within 1 meter of bedrock,
- d. Free phase petroleum product present with a thickness of 0.01 feet or more, verified by more than one sampling event, or
- e. Documented contamination discharges to a surface water or wetland.

Site-specific characteristics indicate or suggest that none of the environmental factors have been triggered by the release at the Burnett Oil Company site.

##### **4.1 Site Risk Classification**

According to NR746.03(4) a “high-risk” site is been defined in SS 101.144(aq) as a release from a petroleum storage tank if one or more of the following applies:

- 1) Repeated tests determined the release has impacted a potable well used for human consumptive use.

- 2) Petroleum product that is not in a dissolved phase and present in a thickness of greater than 0.01 feet or more in repeated measurements.
- 3) An enforcement standard exceedance in groundwater within 1,000 feet of a municipal well or within 100 feet of any other well used for human consumptive use.
- 4) An enforcement standard exceedance in fractured bedrock.

Site-specific characteristics indicate or suggest that none of the high-risk criteria have been triggered by the release at the Burnett Oil Company site.

#### **5.0 RECOMMENDED REMEDIAL ACTION**

REI recommends a soil excavation in the area identified in Figure 5. The soil excavation will extend to the limits of the petroleum impact. The maximum assumed depth of petroleum impact is estimated at fourteen (14) feet bbls. Soils will be field screened to document headspace concentrations to aid in determining excavation limits. REI conservatively estimates approximately 1,867 cubic yards, or approximately 2,425 tons of soil be removed for offsite disposal at an approved location. REI recommends confirmation soil samples be collected for PVOC and naphthalene compounds.

Additionally, REI also recommends quarterly groundwater sampling of the existing monitoring well network and water level measurements from select wells transferred from the Webster VOC Contamination investigation. REI recommends the monitoring well samples be analyzed for PVOC and naphthalene compounds. In addition to the groundwater sampling, REI also recommends the completion and submittal of a construction documentation report following the soil excavation and an update reports after the completion of the second and fourth proposed groundwater sampling events.

#### **6.0 CONCLUSIONS AND RECOMMENDATIONS**

REI recommends the completion of a soil excavation to remove the petroleum impacted soil from the subject property. The groundwater analytical results from the single sampling event suggest that the impact to groundwater is minimal. REI

also recommends continued groundwater sampling on a quarterly basis for a minimum of four (4) post excavation sampling events to confirm the effectiveness of the recommended remedial action. Case closure should be achievable prior to the PECFA deadline for the Burnett Oil Company investigation.

## **7.0 REFERENCES**

Trotta, L.C., and Cotter, R.D., 1973, Depth to Bedrock in Wisconsin, University of Wisconsin - Extension Geological and Natural History Survey, Madison, Wisconsin.

Young, H.L. and Hindall, S.M., 1973, Water Resources of Wisconsin, St Croix River Basin, U.S. Geologic Survey Hydrologic Investigations Atlas HA-451, Washington D.C.

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

Sample Location ->		GP1 8/10/16		GP2 8/10/16		GP3 8/10/16		GP4 8/10/16		GP5 8/10/16		GP6 8/10/16		
Date ->		2-4		6-7		2-3		8-9		14-15		2-4		
Sample Depth-(Feet)>		17.70%		17.70%		24.20%		19.30%		20.40%		12.30%		
Percent Moisture ->														
NR 140.	Non-Industrial Not To-Exceed DC RCL	NR 140.	Groundwater Pathway Protection (D1=2)											
Lead (mg/kg)	400	13.50	<b>40.3</b>	3.8	8.7	<b>20.3</b>	1.2*	4.0	1.2*	2.3	0.93*	11.1	4.2	
<b>Petroleum VOC's (µg/kg)</b>													1.0*	
Benzene	1,490	8.1	< 2,560	<b>1,410</b>	< 566	< 247	< 27.8	< 25.0	< 34.2	< 41.0	<b>4,670</b>	13,300	< 40.3	
Ethylbenzene	7,470	1,570	<b>33,700</b>	<b>6,450</b>	1,530	933	< 27.8	< 25.0	< 34.2	< 41.0	<b>24,800</b>	51,100	< 40.3	
Toluene	818,000	1,107	< 2,560	<b>1,240</b>	< 566	< 247	< 27.8	< 25.0	< 34.2	< 41.0	<b>2,140</b>	68,100	< 40.3	
Xylenes (Total)	258,000	3,940	<b>210,900</b>	<b>35,200</b>	<b>6,150</b>	3,590	< 55.6	< 54.3	< 82.0	< 82.0	<b>192,500</b>	308,400	< 80.6	
Methyl tert Butyl Ether	59,400	27	< 2,560	< 200	< 556	< 247	< 27.8	< 25.0	< 34.2	< 41.0	< 906	< 1,710	< 40.3	
1,2,4-Trimethylbenzene	88,800	NS	<b>250,000</b>	23,900	18,400	11,100	<b>36.4*</b>	< 27.2	< 25.0	< 34.2	< 41.0	<b>120,000</b>	179,000	< 40.3
1,3,5-Trimethylbenzene	182,000	NS	<b>118,000</b>	10,500	10,100	5,090	< 27.8	< 27.2	< 25.0	< 34.2	< 41.0	44,600	64,900	< 40.3
Trimethylbenzenes (Total)	NS	1,379	<b>368,000</b>	<b>34,400</b>	<b>28,500</b>	<b>16,190</b>	<b>36.4*</b>	< 27.2	< 25.0	< 34.2	< 41.0	<b>164,600</b>	<b>243,900</b>	< 40.3
Naphthalene	5,150	658.7	<b>110,000</b>	<b>9,150</b>	<b>26,300</b>	<b>14,100</b>	306	< 27.2	< 25.0	< 34.2	< 41.0	<b>37,600</b>	66,800	< 40.3
<b>PAH Compounds (µg/kg)</b>													34.3	
Acenaphthene	3,440,000	NS	1,890*	< 253	199*	240	< 10.5	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NS	< 1,450	< 227	< 98.4	108*	< 9.4	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	17,200,000	197,714.2	< 1,680	< 292	< 114	< 107	NA	NA	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	NA
Benzo(a)Pyrene	15	470	< 1,160	< 181	< 78.6	< 73.9	< 7.5	NA	NA	NA	NA	NA	NA	NA
Benzo(b)Fluoranthene	148	480	< 1,620	< 253	< 110	< 103	< 10.5	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)Perylene	NS	NS	< 1,230	< 183	< 83.8	< 78.7	< 8.0	NA	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	NA
Chrysene	14,800	146.1	< 1,500	< 234	< 102	< 95.5	< 9.7	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	15	NS	< 1,190	< 186	< 80.7	< 75.8	< 7.7	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,280,000	88,817.9	< 1,620	< 253	< 110	< 1032	< 10.5	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,230,000	14,814.8	4,210	< 253	408	< 10.5	NA	NA	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	NA
1-Methyl Naphthalene	15,600	NS	<b>35,500</b>	<b>4,330</b>	2,260	3,350	< 10.5	NA	NA	NA	NA	NA	NA	NA
2-Methyl Naphthalene	229,000	NS	49,000	6,460	2,910	4,230	< 10.5	NA	NA	NA	NA	NA	NA	NA
Naphthalene	5,150	688.7	<b>26,700</b>	<b>3,740</b>	<b>897</b>	<b>1,310</b>	< 10.5	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	4,910	NS	388*	407	491	< 10.5	NA	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	NA
<b>Number of Individual Exceedances (DC)-&gt;</b>	6	0	1	0							4	0		
<b>Cumulative Hazard Index (DC)-&gt;</b>	4.0165	0.3828	0.432	0.2117							1.861	2.9277		
	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

**Bold**

**Bold**

NS - No Standard

NA - Not Analyzed

\* = Estimated Value between detection limit and quantification limit

**Table 1b**  
**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%
<u>Non-Industrial Not-To-Exceed DC RCL</u>	<u>NR 140</u> <u>Groundwater Pathway Protection (DF=2)</u>					
Lead (mg/kg)	400	13.50	2.8	0.57*	0.94*	25.6
<b>Petroleum VOC's (µg/kg)</b>						
Benzene	1,490	5.1	< 25.0	< 25.0	<b>2,560*</b>	< 25.0
Ethylbenzene	7,470	1,570	< 25.0	< 25.0	<b>13,100</b>	< 25.0
Toluene	818,000	1,107	< 25.0	< 25.0	<b>2,510*</b>	< 25.0
Xylenes (Total)	258,000	3,940	< 50.0	< 50.0	<b>133,100</b>	< 50.0
Methyl tert Butyl Ether	59,400	27	< 25.0	< 25.0	< 1,000	< 25.0
1,2,4-Trimethylbenzene	89,800	NS	< 25.0	< 25.0	<b>128,000</b>	< 25.0
1,3,5-Trimethylbenzene	182,000	NS	< 25.0	< 25.0	52,500	< 25.0
Trimethylbenzenes (Total)	NS	1,379	< 25.0	< 25.0	<b>180,500</b>	< 25.0
Naphthalene	5,150	658.7	< 25.0	< 25.0	<b>53,500</b>	< 25.0
<b>Number of Individual Exceedances (DC--&gt;)</b>					4	
<b>Cumulative Hazard Index (DC--&gt;)</b>					1.9554	
<b>Cumulative Cancer Risk (DC--&gt;)</b>					1.40E-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 exceedence  
NTEDC RCL exceedence

<b>Bold</b>
<b>Bold</b>

NS - No Standard

NA - Not Analyzed

\* = Estimated Value between detection limit and quantification limit

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

<b>Depth to Water (feet) below Reference Elevation</b>		<u>MW1</u>	<u>MW2</u>	<u>MW3</u>	<u>MW4</u>	<u>MW91-1</u>	<u>MW91-2A</u>	<u>MW91-2B</u>
Date								32.25
9/14/2016		33.63	32.46	32.20	29.11	31.90	32.84	
9/20/2016								
<b>Measuring Point Elevations (top of well casing)</b>								
Initial Survey	985.84		984.80	984.56		981.90	984.35	985.65
Ground Surface Elevation		982.71		982.26		981.75		981.76
Initial Survey								983.31
<b>Depth to Water (feet) below Top of Casing</b>								
Average		33.63	32.46	32.20	29.11	31.90	32.84	32.25
Maximum		33.63	32.46	32.20	29.11	31.90	32.84	32.25
Minimum		33.63	32.46	32.20	29.11	31.90	32.84	32.25
Range		0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Water Level Elevation (feet MSL)</b>								
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		952.21	952.34	952.36	952.79	952.45	952.81	952.79
9/20/2016								

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

<b>VOC Parameters</b>	<b>Location --&gt;</b>			<b>GP2</b>
	ES	PAL	Units	03/27/93
Benzene	5	0.5	µg/l	< 0.40
Ethylbenzene	700	140	µg/l	0.62*
Toluene	800	160	µg/l	1.1
Methyltert-Butyl Ether (MTBE)	60	12	µg/l	1.5
Xylenes (mixed isomers)	2,000	400	µg/l	1.4*
Trimethylbenzenes (mixed isomers)	480	96	µg/l	4.6
Naphthalene	100	10	µg/l	7.00

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

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

Enforcement Standard exceeded  
Preventive Action Limit exceeded

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<i>Italics</i>

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

<b>Detected Parameters</b>	<b>ES</b>	<b>PAL</b>	<b>Units</b>	<b>09/20/16</b>
Lead (Dissolved)	15	1.5	$\mu\text{g/l}$	< 0.30
<b>VOC Parameters</b>				
Benzene	5	0.5	$\mu\text{g/l}$	< 0.50
Ethylbenzene	700	140	$\mu\text{g/l}$	< 0.50
Toluene	800	160	$\mu\text{g/l}$	< 0.50
Methyl tert-Butyl Ether (MTBE)	60	12	$\mu\text{g/l}$	< 0.17
Xylenes (mixed isomers)	2,000	400	$\mu\text{g/l}$	< 1.0
Trimethylbenzenes (mixed isomers)	480	96	$\mu\text{g/l}$	< 0.50
Naphthalene	100	10	$\mu\text{g/l}$	< 2.5
Dibromochloromethane	60	6	$\mu\text{g/l}$	< 0.22
n-Propylbenzene			$\mu\text{g/l}$	< 0.50
Isopropylbenzene			$\mu\text{g/l}$	< 0.14
n-Butylbenzene			$\mu\text{g/l}$	< 0.50
tert-Butylbenzene			$\mu\text{g/l}$	< 0.18
<b>PAH Parameters</b>				
Acenaphthene			$\mu\text{g/l}$	0.0060*
Acenaphthylene			$\mu\text{g/l}$	< 0.0045
Anthracene	3,000	600	$\mu\text{g/l}$	< 0.0094
Benzo(a)Anthracene			$\mu\text{g/l}$	< 0.0068
Benzo(a)Pyrene	0.2	0.02	$\mu\text{g/l}$	< 0.0095
Benzo(b)Fluoranthene	0.2	0.02	$\mu\text{g/l}$	< 0.0052
Benzo(g,h)Perylene			$\mu\text{g/l}$	< 0.0061
Benzo(k)Fluoranthene			$\mu\text{g/l}$	< 0.0068
Chrysene	0.2	0.02	$\mu\text{g/l}$	< 0.012
Dibenzo(a,h)anthracene			$\mu\text{g/l}$	< 0.0090
Fluoranthene	400	80	$\mu\text{g/l}$	< 0.0096
Fluorene	400	80	$\mu\text{g/l}$	< 0.0072
Indeno(1,2,3-cd)Pyrene			$\mu\text{g/l}$	< 0.013
1-Methyl Naphthalene			$\mu\text{g/l}$	0.4
2-Methyl Naphthalene			$\mu\text{g/l}$	0.36
Naphthalene	100	10	$\mu\text{g/l}$	0.040*
Phenanthrene			$\mu\text{g/l}$	< 0.012
Pyrene	250	50	$\mu\text{g/l}$	0.0089*

Notes:

ES = NRI 40.10 Enforcement Standards

PAL = NRI 40.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

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

Enforcement Standard exceeded  
Preventive Action Limit exceeded

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

<b>Detected Parameters</b>	ES	PAL	Units	09/20/16
Lead (Dissolved)	15	1.5	µg/l	< 0.30
<b>VOC Parameters</b>				
Benzene	5	0.5	µg/l	< 0.50
Ethylbenzene	700	140	µg/l	< 0.50
Toluene	800	160	µg/l	< 0.50
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.17
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.0
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.50
Naphthalene	100	10	µg/l	< 2.5
Dibromochloromethane	60	6	µg/l	< 0.22
n-Propylbenzene			µg/l	< 0.50
Isopropylbenzene			µg/l	< 0.14
n-Butylbenzene			µg/l	< 0.50
tert-Butylbenzene			µg/l	< 0.18
<b>PAH Parameters</b>				
Acenaphthene			µg/l	0.0060*
Acenaphthylene			µg/l	0.028
Anthracene	3,000	600	µg/l	0.013*
Benzo(a)Anthracene			µg/l	< 0.0069
Benzo(a)Pyrene	0.2	0.02	µg/l	0.026*
Benzo(b)Fluoranthene	0.2	0.02	µg/l	0.029
Benzo(ghi)Perylene			µg/l	0.016*
Benzo(k)Fluoranthene			µg/l	0.014*
Chrysene	0.2	0.02	µg/l	0.041*
Dibenzo(a,h)anthracene			µg/l	< 0.0092
Fluoranthene	400	80	µg/l	0.014*
Fluorene	400	80	µg/l	< 0.0073
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.016
1-Methyl Naphthalene			µg/l	0.025*
2-Methyl Naphthalene			µg/l	0.031
Naphthalene	100	10	µg/l	0.019*
Phenanthrene			µg/l	0.031*
Pyrene	250	50	µg/l	0.021*

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

<b>Detected Parameters</b>	ES	PAL	Units	09/20/16
Lead (Dissolved)	15	1.5	µg/l	< 0.30
<b>VOC Parameters</b>				
Benzene	5	0.5	µg/l	< 0.50
Ethylbenzene	700	140	µg/l	< 0.50
Toluene	800	160	µg/l	< 0.50
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.17
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.0
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.50
Naphthalene	100	10	µg/l	< 2.5
Dibromochloromethane	60	6	µg/l	< 0.22
n-Propylbenzene			µg/l	< 0.50
Isopropylbenzene			µg/l	< 0.14
n-Butylbenzene			µg/l	< 0.50
tert-Butylbenzene			µg/l	< 0.18
<b>PAH Parameters</b>				
Acenaphthene			µg/l	< 0.0056
Acenaphthylene			µg/l	< 0.0046
Anthracene	3,000	600	µg/l	< 0.0096
Benzo(a)Anthracene			µg/l	< 0.0069
Benzo(a)Pyrene	0.2	0.02	µg/l	< 0.0097
Benzo(b)Fluoranthene	0.2	0.02	µg/l	< 0.0053
Benzo(ghi)Perylene			µg/l	< 0.0062
Benzo(k)Fluoranthene			µg/l	< 0.0069
Chrysene	0.2	0.02	µg/l	< 0.012
Dibenzo(a,h)anthracene			µg/l	< 0.0092
Fluoranthene	400	80	µg/l	< 0.0098
Fluorene	400	80	µg/l	< 0.0073
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.016
1-Methyl Naphthalene			µg/l	0.0222*
2-Methyl Naphthalene			µg/l	0.0049*
Naphthalene	100	10	µg/l	< 0.017
Phenanthrene			µg/l	< 0.013
Pyrene	250	50	µg/l	< 0.0070

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

ND = Not Detected

NA = Not Analyzed

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

Enforcement Standard exceeded

Preventive Action Limit exceeded

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

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

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

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

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

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**

<b>Detected Parameters</b>	<b>ES</b>	<b>PAL</b>	<b>Units</b>	<b>09/14/16</b>
Lead (Dissolved)	15	1.5	$\mu\text{g/l}$	< 3.0
<b>VOC Parameters</b>				
Benzene	5	0.5	$\mu\text{g/l}$	< 0.50
Ethylbenzene	700	140	$\mu\text{g/l}$	< 0.50
Toluene	800	160	$\mu\text{g/l}$	< 0.50
Methyl tert-Butyl Ether (MTBE)	60	12	$\mu\text{g/l}$	< 0.17
Xylenes (mixed isomers)	2,000	400	$\mu\text{g/l}$	< 1.0
Trimethylbenzenes (mixed isomers)	480	96	$\mu\text{g/l}$	< 0.50
Naphthalene	100	10	$\mu\text{g/l}$	< 2.5
Dibromochloromethane	60	6	$\mu\text{g/l}$	< 0.50
n-Propylbenzene			$\mu\text{g/l}$	< 0.50
Isopropylbenzene			$\mu\text{g/l}$	< 0.14
n-Butylbenzene			$\mu\text{g/l}$	< 0.50
tert-Butylbenzene			$\mu\text{g/l}$	< 0.18
<b>PAH Parameters</b>				
Acenaphthene			$\mu\text{g/l}$	< 0.00055
Acenaphthylene			$\mu\text{g/l}$	< 0.0045
Anthracene	3,000	600	$\mu\text{g/l}$	< 0.0095
Benzo(a)Anthracene			$\mu\text{g/l}$	< 0.0069
Benzo(a)Pyrene	0.2	0.02	$\mu\text{g/l}$	< 0.0096
Benzo(b)Fluoranthene	0.2	0.02	$\mu\text{g/l}$	< 0.0052
Benzo(g,h)Perylene			$\mu\text{g/l}$	< 0.0062
Benzo(k)Fluoranthene			$\mu\text{g/l}$	< 0.0069
Chrysene	0.2	0.02	$\mu\text{g/l}$	< 0.012
Dibenzo(a,h)anthracene			$\mu\text{g/l}$	< 0.0091
Fluoranthene	400	80	$\mu\text{g/l}$	< 0.0097
Fluorene	400	80	$\mu\text{g/l}$	< 0.0072
Indeno(1,2,3-cd)Pyrene			$\mu\text{g/l}$	< 0.016
1-Methyl Naphthalene			$\mu\text{g/l}$	< 0.0054
2-Methyl Naphthalene			$\mu\text{g/l}$	< 0.0045
Naphthalene	100	10	$\mu\text{g/l}$	< 0.017
Phenanthrene			$\mu\text{g/l}$	< 0.013
Pyrene	250	50	$\mu\text{g/l}$	< 0.0070

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

<b>Detected Parameters</b>	ES	PAL	Units	09/14/16
Lead (Dissolved)	15	1.5	µg/l	< 0.30
<b>VOC Parameters</b>				
Benzene	5	0.5	µg/l	< 0.50
Ethylbenzene	700	140	µg/l	< 0.50
Toluene	800	160	µg/l	< 0.50
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.17
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.0
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.50
Naphthalene	100	10	µg/l	< 2.5
Dibromochloromethane	60	6	µg/l	< 0.50
n-Propylbenzene			µg/l	< 0.50
Isopropylbenzene			µg/l	< 0.14
n-Butylbenzene			µg/l	< 0.50
tert-Butylbenzene			µg/l	< 0.18
<b>PAH Parameters</b>				
Acenaphthene			µg/l	< 0.0071
Acenaphthylene			µg/l	< 0.0059
Anthracene	3,000	600	µg/l	< 0.012
Benzo(a)Anthracene			µg/l	< 0.0089
Benzo(a)Pyrene	0.2	0.02	µg/l	< 0.012
Benzo(b)Fluoranthene	0.2	0.02	µg/l	< 0.0068
Benzo(ghi)Perylene			µg/l	< 0.0080
Benzo(k)Fluoranthene			µg/l	< 0.0089
Chrysene	0.2	0.02	µg/l	< 0.015
Dibenzo(a,h)anthracene			µg/l	< 0.012
Fluoranthene	400	80	µg/l	< 0.013
Fluorene	400	80	µg/l	< 0.0094
Indeno(1,2,3-cd)Pyrene			µg/l	< 0.021
1-Methyl Naphthalene			µg/l	< 0.0069
2-Methyl Naphthalene			µg/l	< 0.0091*
Naphthalene	100	10	µg/l	< 0.022
Phenanthrene			µg/l	< 0.016
Pyrene	250	50	µg/l	< 0.0090

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

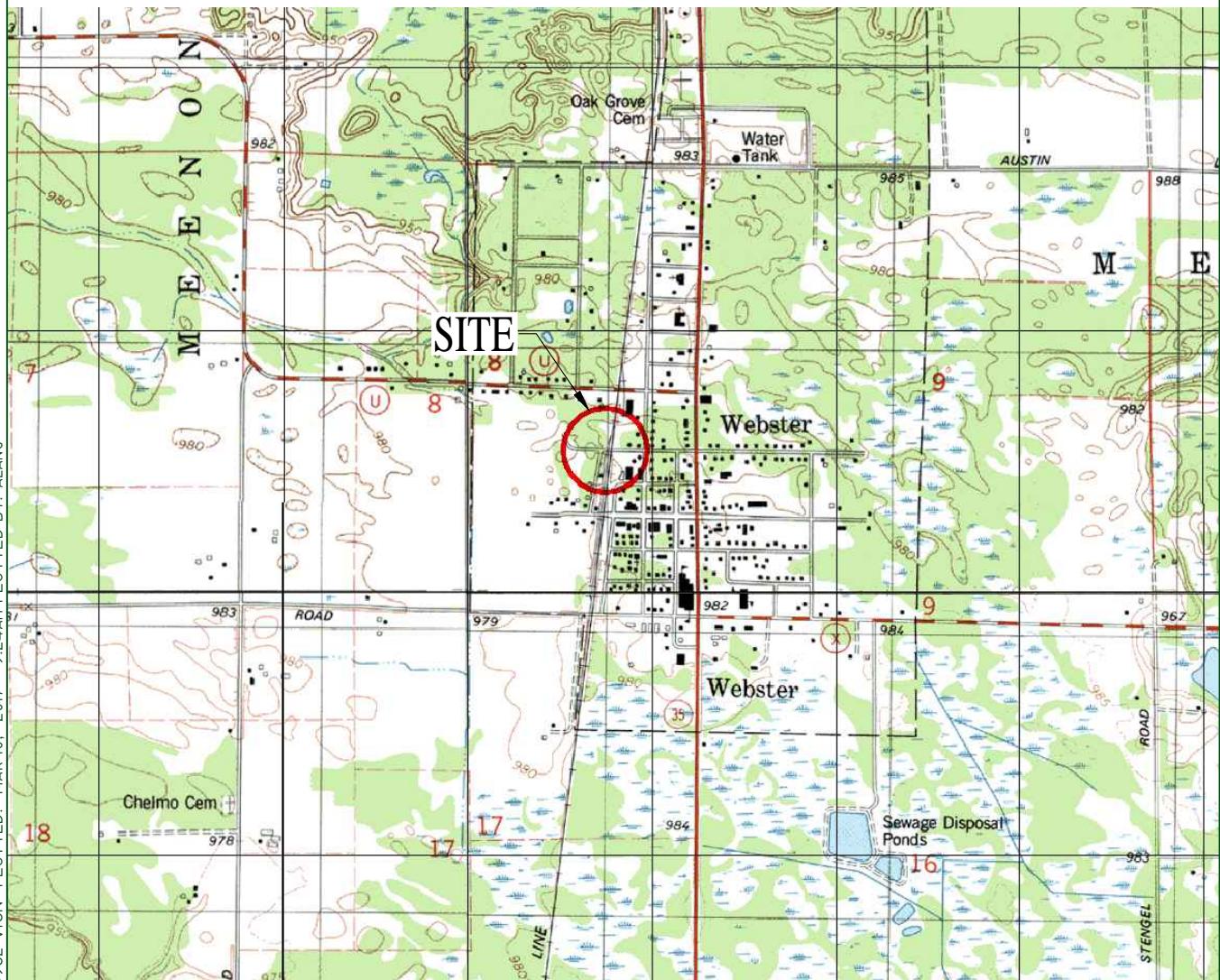
ND = Not Detected

NA = Not Analyzed

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

Enforcement Standard exceeded  
 Preventive Action Limit exceeded

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



SCALE 1:24 000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MN  
GN  
0°30' 3°  
9 MILS 53 MILS

UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



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

1982

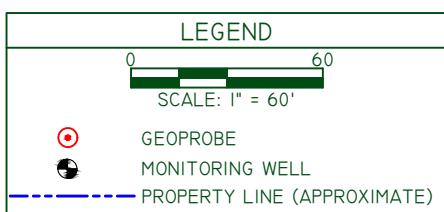
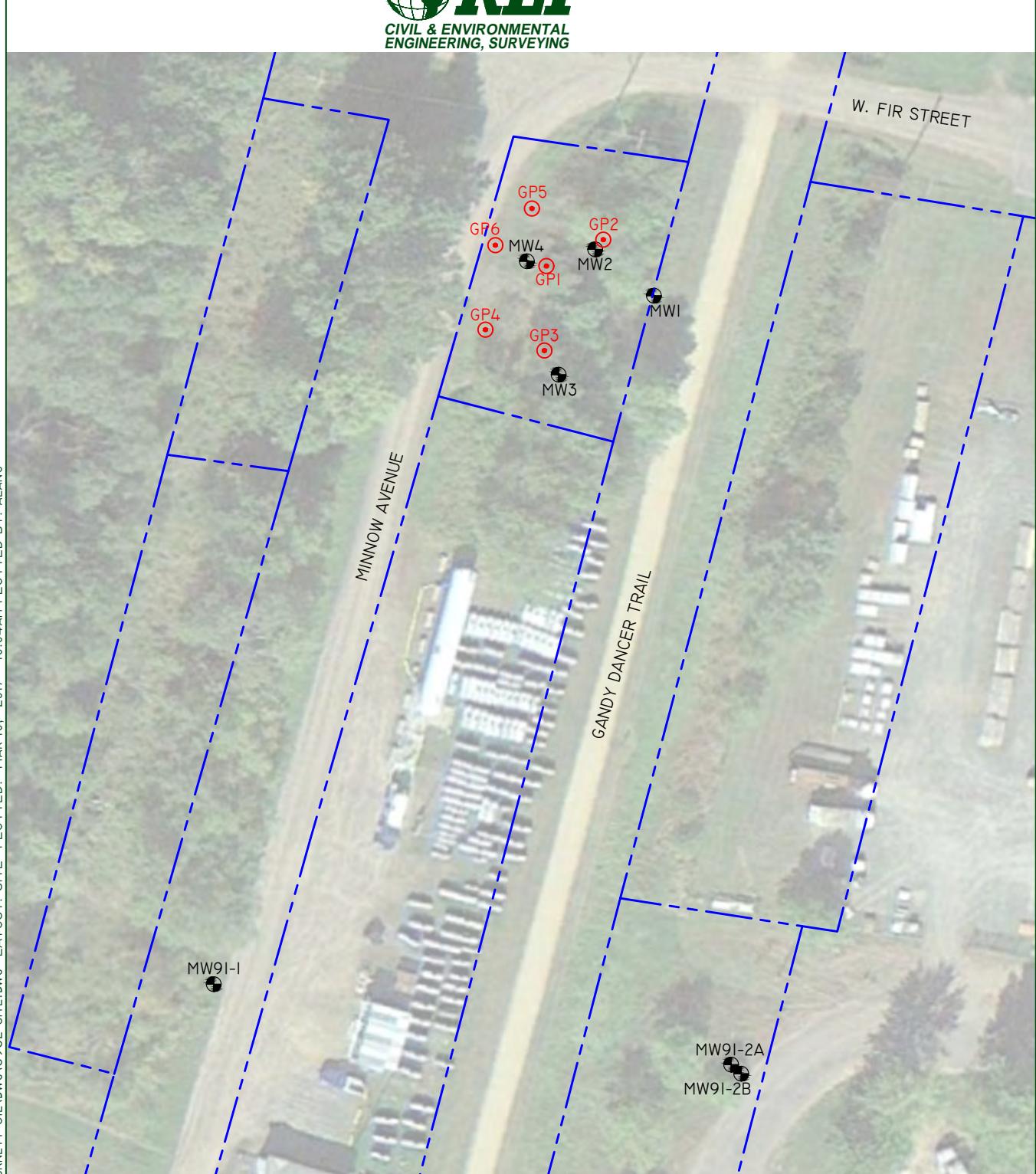
DMA 2575 IV NE-SERIES V861

REI Engineering, INC.

BURNETT OIL COMPANY 26514 MINNOW AVENUE WEBSTER, WISCONSIN 54893	FIGURE 1 : SITE VICINITY MAP		
PROJECT NO.	6962AxUC	DRAWN BY:	AJG

DATE:  
3/10/2017

DRAWING FILE: P:\6900-6999\6962 - BURNETT OIL\DWG\6962-SITE.DWG LAYOUT: SITE PLOTTED: MAR 10, 2017 - 10:04AM PLOTTED BY: ALANG

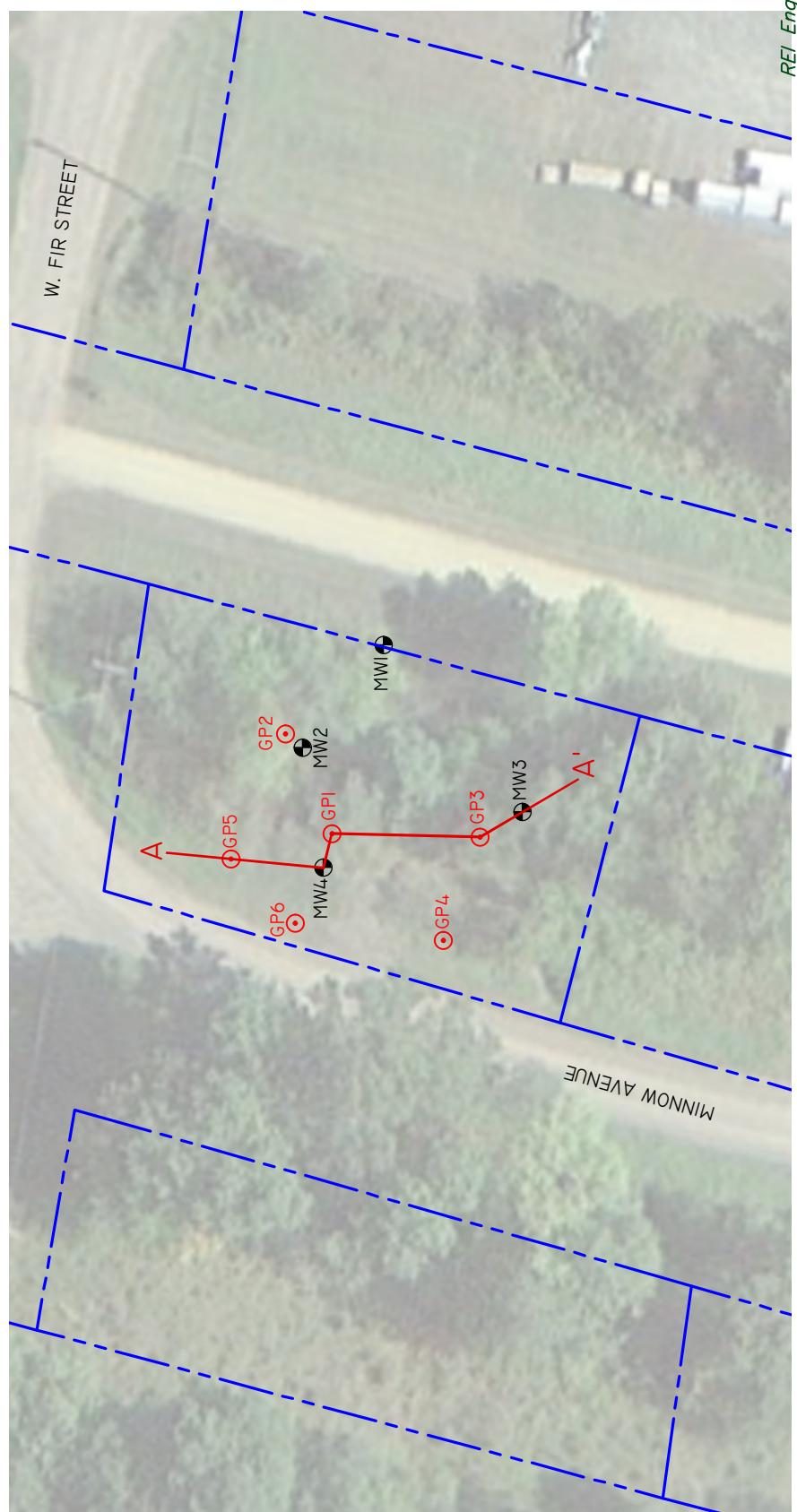
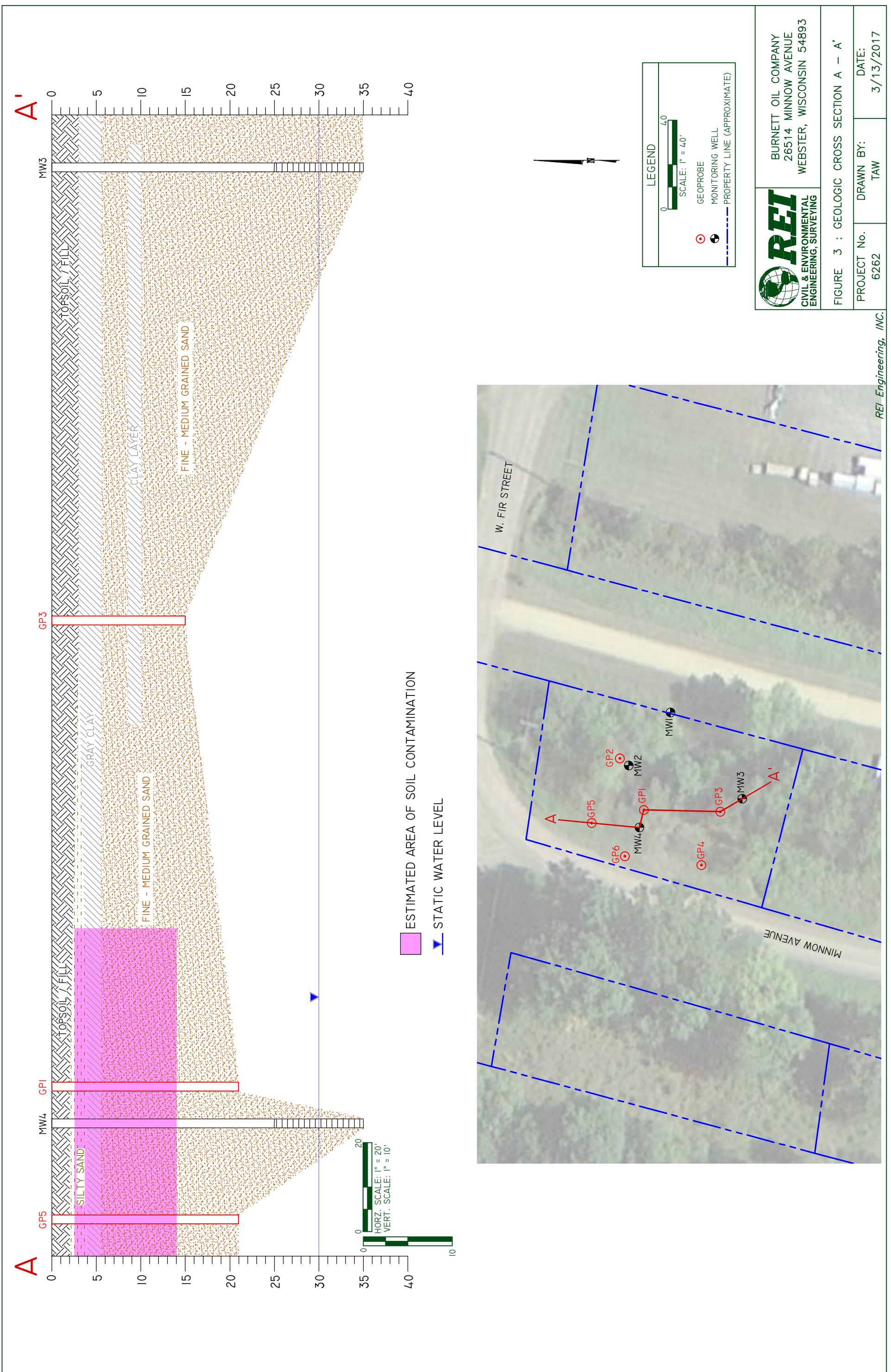


REI Engineering, INC.

BURNETT OIL COMPANY  
26514 MINNOW AVENUE  
WEBSTER, WISCONSIN 54893

FIGURE 2 : DETAILED SITE MAP

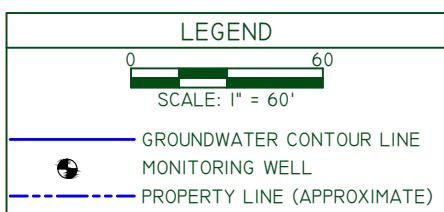
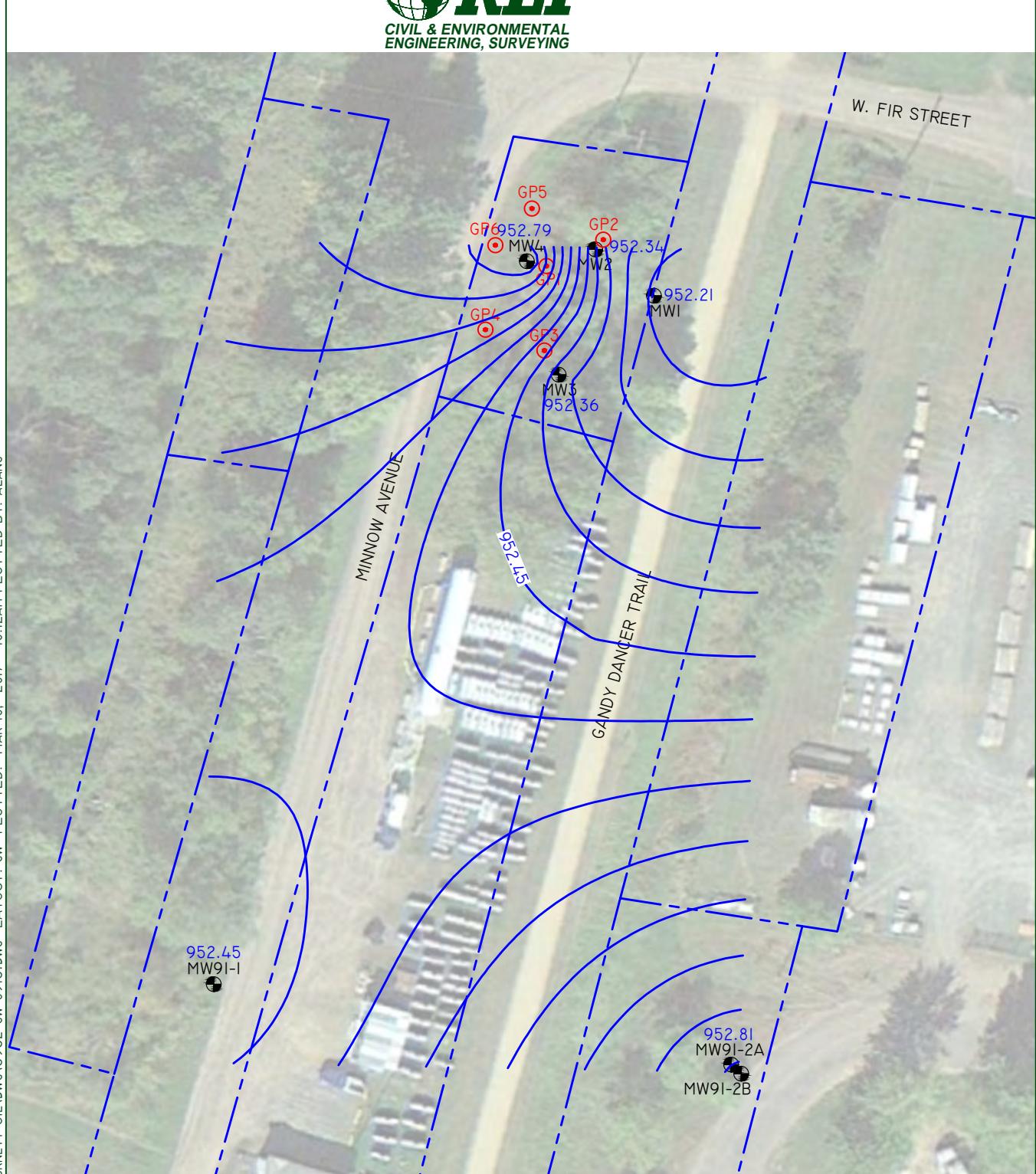
PROJECT NO. 6962AxUC	DRAWN BY: AJG	DATE: 3/10/2017
-------------------------	------------------	--------------------



<b>REI</b> CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING		BURNETT OIL COMPANY 26514 MINNOW AVENUE WEBSTER, WISCONSIN 54893
FIGURE 3 : GEOLOGIC CROSS SECTION A - A'	DRAWN BY: TAW	DATE: 3/13/2017

REI Engineering, Inc.  
3/13/2017

DRAWING FILE: P:\6900-6999\6962 - BURNETT OIL\DWG6\6962-GW-0916.DWG LAYOUT: GW PLOTTED: MAR 10, 2017 - 10:12AM PLOTTED BY: ALANG



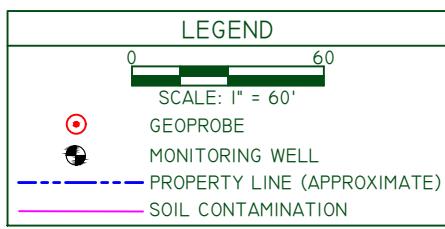
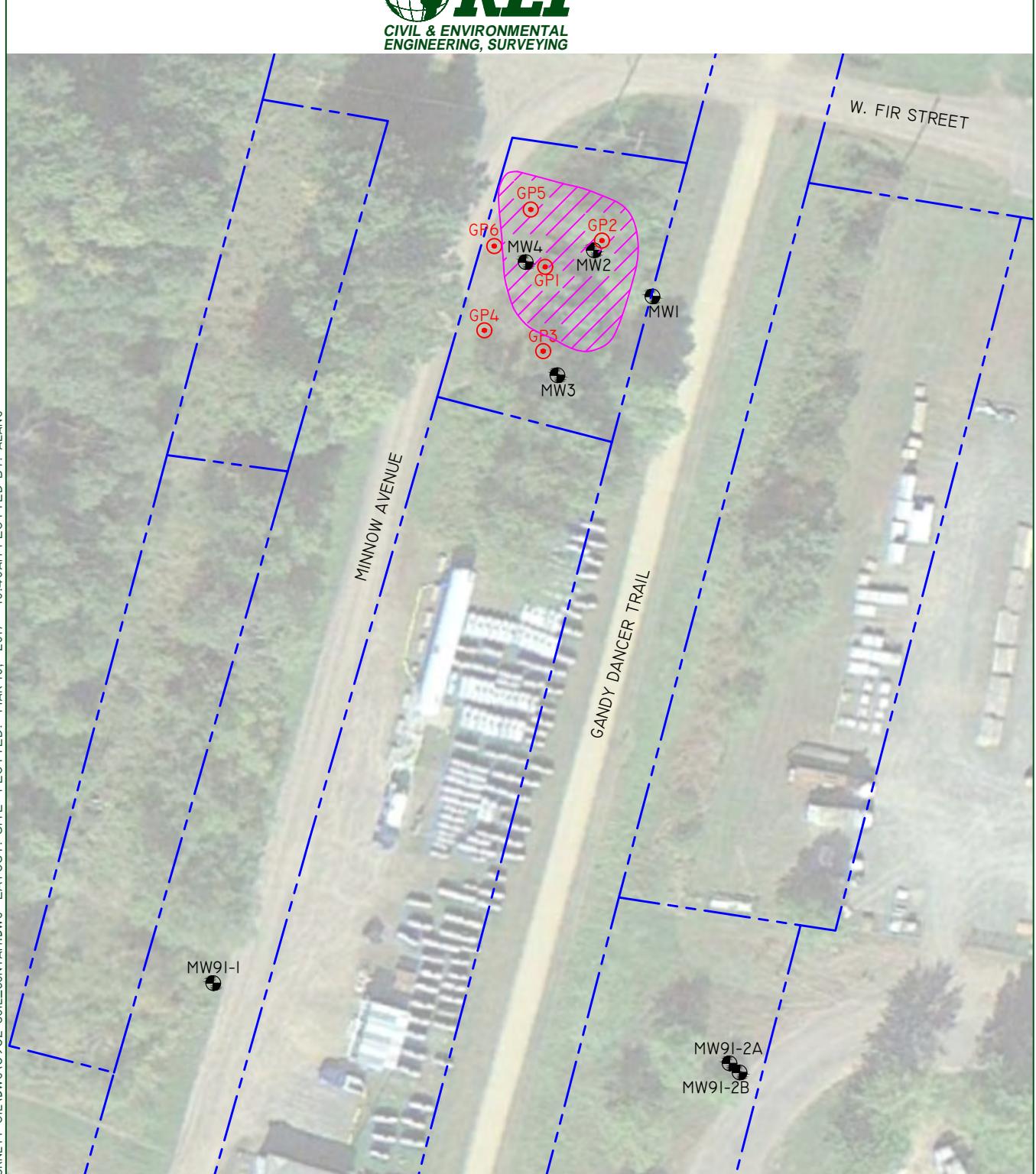
REI Engineering, INC.

BURNETT OIL COMPANY  
26514 MINNOW AVENUE  
WEBSTER, WISCONSIN 54893

FIGURE 4 : GROUNDWATER CONTOUR MAP (SEPTEMBER 2016)

PROJECT NO.	DRAWN BY:	DATE:
6962AxUC	AJG	3/10/2017

DRAWING FILE: P:\6900-6999\6962 - BURNETT OIL\DWG\6962-SOIL\_CONTAM.DWG LAYOUT: SITE PLOTTED: MAR 0, 2017 - 10:40AM PLOTTED BY: ALANG



REI Engineering, INC.

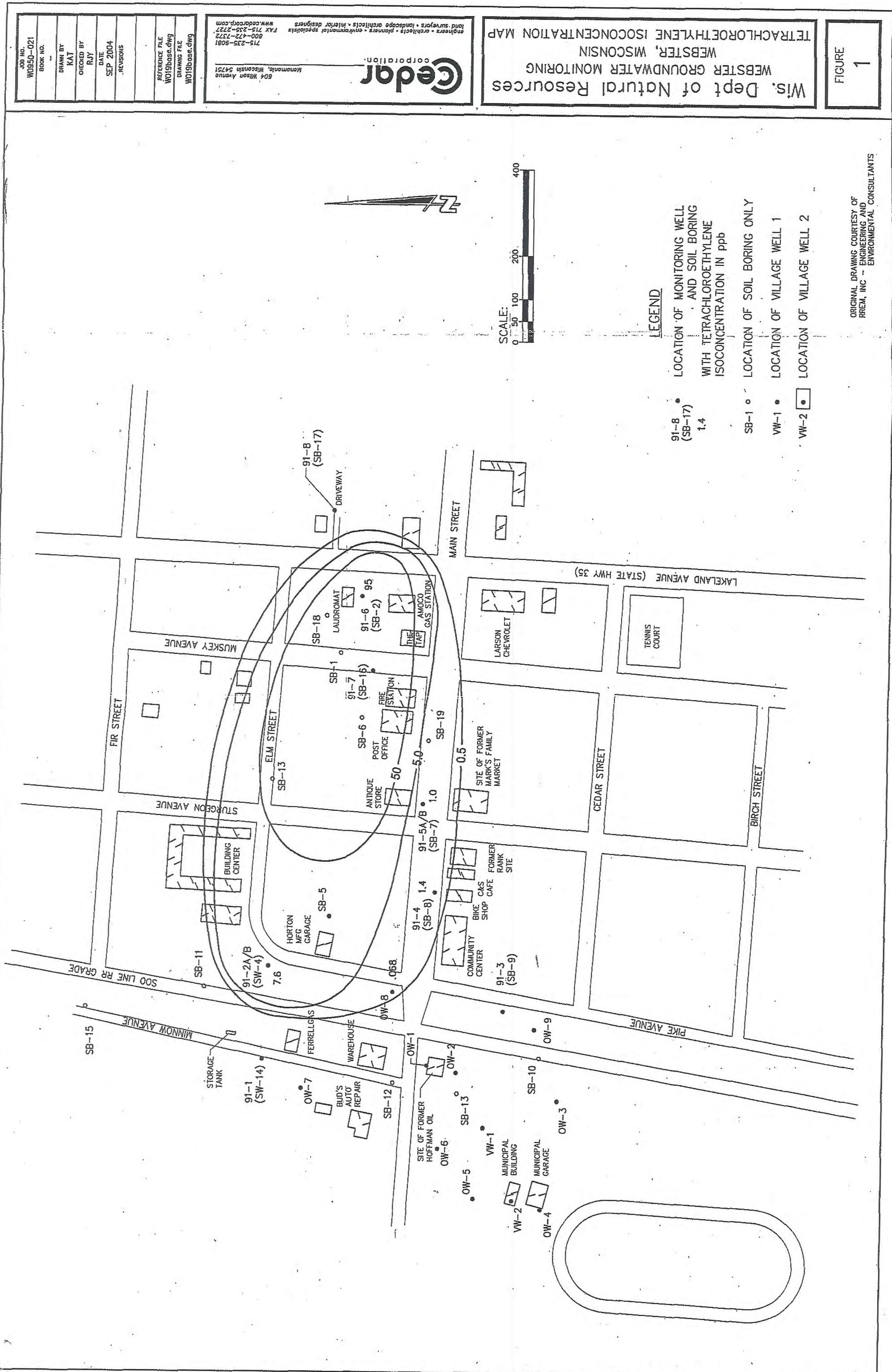
BURNETT OIL COMPANY  
26514 MINNOW AVENUE  
WEBSTER, WISCONSIN 54893

FIGURE 5 : ESTIMATED EXTENT OF SOIL CONTAMINATION  
PROJECT NO. 6962AxUC DRAWN BY: AJG DATE: 3/10/2017

## **APPENDIX A**

### **FIGURE DEPICTING WEBSTER VOC CONTAMINATION WELL LOCATIONS**





ORIGINAL DRAWING COURTESY OF  
RREM, INC - ENGINEERING AND  
ENVIRONMENTAL CONSULTANTS

## **APPENDIX B**

### **POTABLE WELL CONSTRUCTION LOGS**





Department of Natural Resources

Well Construction Report Comment Sheet  
Form 3300-77A  
Rev. 8/00

Well Codes and Identifiers

*Geologic Log No*

*SID Number*

*Common Well Name*

*Well Notification #*

*Batch Seq #* 437

**Abandonment**

*Abandonment Type*

*Date of Abandonment*

*Abandonment Procedure*

*Reason*

Permanent

REMEDIATION



**Department of Natural Resources****Well Construction Report Comment Sheet**  
**Form 3300-77A**  
Rev. 8/00**Well Codes and Identifiers***Geologic Log No**SID Number**Common Well Name**Well Notification #**Batch Seq #*      437**Abandonment***Abandonment Type**Date of Abandonment**Abandonment Procedure**Reason*

Permanent

REMEDIATION

Well Construction Report For  
WISCONSIN UNIQUE WELL NUMBER

**VF797**

Property **WILEY, ROBERT & DEBBIE**  
Owner

Telephone **760-735-9890**  
Number

Mailing **PO BOX 759**  
Address

City **ESCONDIDO**

State  
**CA**

Zip Code  
**92033**

County of Well Location  
**Burnett**

County Well Permit No.  
**W**

Well Completion Date  
**07/12/2010**

Well Constructor (Business Name)  
**ROBERT WILEY**

License #

Facility ID Number (Public Wells)

Address  
**PO BOX 759**

Public Well Plan Approval #  
**W--**

City  
**ESCONDIDO**

State  
**CA**

Zip Code  
**92033**

Date of Approval (mm/dd/yyyy)

Hicap Permanent well #

Common Well #

Specific Capacity

gpm/ft

3. Well serves

1 # of homes and or

SHOP

High capacity

Well?

Property?

Yes

No

Yes

No

4. Is the well located upslope or sideslope and not down slope from any contamination source, including those on neighboring properties?  Yes  No

Well located within 1,200 feet of a quarry?  Yes  No If yes, distance in feet from quarry:

Well located in floodplain?  Yes  No

Distance in Feet from Well to Nearest:

1. Landfill

2. Building Overhang

3. Septic  Holding Tank

4. Sewage Absorption Unit

5. Nonconforming Pit

6. Buried Home Heating Oil Tank

7. Buried Petroleum Tank

9. Downspout/Yard Hydrant

10. Privy

11. Foundation Drain to Clearwater

12. Foundation Drain to Sewer

13. Building Drain

Cast Iron or Plastic  Other

14. Building Sewer  Gravity  Pressure

Cast Iron or Plastic  Other

15. Collector or Street Sewer:

Sanitary units in diam.

Storm  <= 6  > 6

17. Wastewater Sump

18. Paved Animal Barn Pen

19. Animal Yard or Shelter

20. Silo

21. Barn Gutter

22. Manure Pipe  Gravity  Pressure

Cast Iron or Plastic  Other

23. Other Manure Storage

24. Ditch

25. Other NR 812 Waste Storage

5. Drillhole Dimensions and Construction Method

From  
**Dia (in.)**

To  
**(ft.)**

Upper  
Enlarged Drillhole

Lower  
Open Bedrock

8.

Geology  
Type, Caving/Noncaving, Color, Hardness, etc.

From  
(ft.)

To  
(ft.)

---1. Rotary - Mud Circulation-----

---2. Rotary - Air-----

---3. Rotary - Air and Foam-----

---4. Drill-Through Casing Hammer-----

---5. Reverse Rotary-----

---6. Cable-tool Bit in, dia-----

---7. Dual Rotary-----

---8. Temp. Outer Casing in, dia. depth-----

Removed?  Yes  No

If no, why not?

--S-

SAND

0

50

6. Casing, Liner, Screen Material, Weight, Specification

**Dia (in.)**

From  
(ft.)

To  
(ft.)

**2 WHEATLAND ASTM A-53 SCH 40 GALV**

**0**

**47**

9. Static Water Level

ft. above ground surface

**35.5** ft. below ground surface

10. Pump Test

Pumping Level **35.5** ft. below surface

Pumping at **6 GPM** for **2 hours**

11. Well is:

Above Grade

Below Grade

**16** in.

Developed?

Yes  No

Disinfected?

Yes  No

Capped?

Yes  No

7. Grout or Other Sealing Material, Method

Method:

From  
(ft.)

To  
(ft.)

# Sacks

Cement

**0**

12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property?

Yes  No If no, explain: **NONE**

13. Signature of the Well Constructor or Supervisory Driller

**RW**

Date signed

**08/04/2010**

Signature of Drill Rig Operator (Mandatory unless same as above) Date signed

Make additional comments on reverse side about geology, additional screens, water quality, etc.

Variance issued  Yes  No

Department of Natural Resources

Well Construction Report Comment Sheet  
Form 3300-77A

Rev. 8/00

Well Codes and Identifiers

*Geologic Log No*

*SID Number*

*Common Well Name*

*Well Notification #* 37361532

*Batch Seq #* 1198

AUG - 4 1982

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, seepage, springs, etc., resulting from finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Business Name and Complete Mailing Address      2016-03

*Gary Beecroft* Registered Well Driller      Gary Beecroft Well Drilling  
Rt. 1 Box 194-A Siren, Wis. 54872 pl 10

Well Construction Report For  
WISCONSIN UNIQUE WELL NUMBER **CF 807**

Property Owner **Calvin Petersen** Telephone Number **713 866 - 4313**  
Mailing Address **7902 County Rd FF**  
City **Webster** State **WI** Zip Code **54893**  
County of Well **Burnett** County Well Location **Permit No. W**  
Location **MEEONON** Wall Completion Date **9-20-89**

State of Wisconsin  
Department of Natural Resources  
Private Water Supply - WS/2  
Box 7921  
Madison, WI 53707

OCT 03 1989

1. Location (Please type or print using a black pen.)

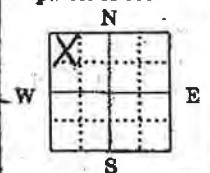
Town  City  Village  Fire # (if available)  
of **MEEONON**

Grid or Street Address or Road Name and Number (if available)

Subdivision Name Lot # Block #

Gov't Lot # \_\_\_\_\_ or **all 1/4 of all 1/4 of**  
**Section 8 : T 39 N: R 16 E  W**

2. Mark well location in correct 40-acre parcel of section.



N

E

S

W

3. Well Type  New  
 Replacement  Reconstruction

of unique well # \_\_\_\_\_ constructed in 19 \_\_\_\_\_

Reason for new, replaced or reconstructed well?  
**To get better quality water**

Drilled  Driven Point  Jetted  Other

4. Well serves **1** # of homes and/or **barn**  
(ex: barn, restaurant, church, school, industry, etc.)

High Capacity Well?  Yes  No

High Capacity Property?  Yes  No

5. Well Located on Highest Point of Property, Consistent with the General Layout and Surroundings?

Well Located in Floodplain?  Yes  No 9. Downspout/Yard Hydrant

Distance In Feet From Well To Nearest:

1. Landfill  Yes  No 10. Privy

2. Building Overhang  Yes  No 11. Foundation Drain to Clearwater

3. Septic or Holding Tank  Yes  No 12. Foundation Drain to Sewer

4. Sewage Absorption Unit  Yes  No 13. Building Drain

5. Nonconforming Pit  Yes  No  Cast Iron or Plastic  Other

6. Buried Home Heating Oil Tank  Yes  No 14. Building Sewer  Gravity  Pressure

7. Buried Petroleum Tank  Yes  No  Cast Iron or Plastic  Other

8. Shoreline/Swimming Pool  Yes  No 15. Collector or Street Sewer

9. Clearwater Sump  Yes  No If no, explain \_\_\_\_\_

10. Wastewater Sump

11. Paved Animal Barn Pen

12. Animal Yard or Shelter

13. Silo - Type \_\_\_\_\_

14. Barn Gutter

15. Manure Pipe  Gravity  Pressure

Cast Iron or Plastic  Other

16. Other Manure Storage \_\_\_\_\_

Other NR 112 Waste Source

17. 24. \_\_\_\_\_

6. Drillhole Dimensions Method of constructing upper enlarged drillhole only.

From To DNB USE ONLY  
Dia. (in.) (ft.) (ft.) ONLY

10 surface 6 15 Sandy clay surface 4

6 6 15.4 clay 4 6

115.91 115.91 56 sand & gravel 6 6.3

115.91 115.91 15 sandy clay 6.3 105 Hc

105 115.91 5 sand 105 115.91

7. Casing, Liner, Screen Material, Weight, Specification From To  
Dia. (in.) Mfg. & Method of Assembly (ft.) (ft.)

6 New Galv Steel 18.97 Lbs per Ft. surface 115.91

ASTM A 53 B .280 Wall thickness 11.91

Sumitomo Metals

Welded Joints 115.91

8. Grout or Other Sealing Material Method From To  
Kind of Sealing Material (ft.) (ft.)

dry cuttings surface 6

10. Static Water Level ft. above ground level  
49 ft. below ground surface

11. Pump Test Pumping Level 105 ft. below surface  
Pumping at 6 GPM for 2 hours

12. Well Is: Above Grade  
8 in.  Below   
Developed?  Yes  No  
Disinfected?  Yes  No  
Capped?  Yes  No

13. Did you permanently seal all unused, noncomplying, or unsafe wells?  
 Yes  No If no, explain \_\_\_\_\_

14. Signature of Permit Driver or Registered Driller Date Signed  
**Gary Beecroft** 10-1-89

Signature of Drill Rig Operator Date Signed  
**Gary Beecroft** 10-1-89

Make additional comments on reverse side about geology, etc.

HDR

DNR

WELL CONSTRUCTION REPORT

Form 3300-77A Rev. 9-88

100% ORIGINAL

MAR 27 1985

1. COUNTY <i>Burnett</i>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City					Name <i>Meenan</i>				
2. LOCATION OR — Grid or Street No.	1/4 Section or Gov't. Lot <i>Sec 5</i>	Section <i>5</i>	Township <i>39N</i>	Range <i>16W</i>	3. NAME OWNER <i>Harold McCann</i>	AGENT AT TIME OF DRILLING CHECK (/) ONE <input checked="" type="checkbox"/> <input type="checkbox"/>					
Street or Road Name <i>(NE, sec. 8)</i>					ADDRESS <i>Rte 2 Box 1009 Linen, Wisc.</i>						
AND — If available subdivision name, lot & block No.					POST OFFICE ZIP CODE						
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <i>6</i>	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To: <input type="checkbox"/> C.I. Sewer <input type="checkbox"/> Other Sewer	Storm Bldg. Drain	Storm Bldg. Sewer		
Street Sewer	Other Sewers	Foundation Drain Connected to: <input type="checkbox"/> C.I. <input type="checkbox"/> Other		Sewage Sump		Clearwater Sump	Septic Tank	Sewage Absorption Unit <input type="checkbox"/> Seepage Pit <input type="checkbox"/> Seepage Bed <input type="checkbox"/> Seepage Trench		Manure Hopper or Retention or Pneumatic Tank	
San.	Storm	C.I. <input type="checkbox"/> Clearwater Dr.	Other <input type="checkbox"/> Sewer Clearwater Sump	C.I. <input type="checkbox"/> Clearwater Sump	Other <input type="checkbox"/>		<i>60</i>				
Privy	Pet Waste Pit	Pit: Nonconforming Existing <input type="checkbox"/> Well <input type="checkbox"/> Pump <input type="checkbox"/> Tank		Subsurface Pumproom <input type="checkbox"/> Nonconforming Existing		Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit <input type="checkbox"/> Glass Lined Storage Facility	Silo w/o Pit <input type="checkbox"/> Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin <input type="checkbox"/> Concrete Floor Only <input type="checkbox"/> Concrete Floor and Partial Concrete Walls			Other (Describe)		
5. Well is intended to supply water for: <i>home</i>					9. FORMATIONS <i>sand</i>				From (ft.)	To (ft.)	
6. DRILLHOLE <i>4 Surface 52</i>									Surface	<i>52</i>	
7. CASING, LINER, CURBING AND SCREEN Material, Weight, Specification Mfg. & Method of Assembly					From (ft.)    To (ft.)						
<i>4 10.79 Newlin steel A120 ft Welded joint</i>					<i>Surface 49</i>						
<i>4 screen</i>					<i>49 52</i>						
8. GROUT OR OTHER SEALING MATERIAL Kind					From (ft.)    To (ft.)				10. TYPE OF DRILLING MACHINE USED		
					<i>Surface</i>				<input checked="" type="checkbox"/> Cable Tool	Rotary-hammer w/drilling	<input type="checkbox"/> Jetting with
									<input type="checkbox"/> Rotary-air w/drilling mud	<input type="checkbox"/> mud & air	<input type="checkbox"/> Air
									<input type="checkbox"/> Rotary-hammer & air	<input type="checkbox"/> Water	
									<input type="checkbox"/> Reverse Rotary		
11. MISCELLANEOUS DATA Yield Test: <i>1</i> Hrs. at <i>10</i> GPM					Well construction completed on <i>2-21 1985</i>						
Depth from surface to normal water level <i>32</i> Ft.					Well is terminated <i>8</i> inches				<input checked="" type="checkbox"/> above final grade		
Depth of water level when pumping <i>45</i> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					Well disinfected upon completion				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water sample sent to <i>Madison</i>					Well sealed watertight upon completion				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
					laboratory on <i>3-25 1985</i>						
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.											
Signature <i>Clarence Beecraft</i>					Business Name and Complete Mailing Address Beecraft Drilling - Water Systems Route 2, Box 137 Frederic, Wisconsin 54637						
410											

WELL CONSTRUCTOR'S REPORT  
FORM 3300-15

SEP 5 1973

## NOTE

WHITE COPY - DIVISION'S COPY  
GREEN COPY - DRILLER'S COPY  
YELLOW COPY - OWNER'S COPYSTATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
Box 450  
Madison, Wisconsin 53701

1. COUNTY <b>Burnett</b>		CHECK ONE <input type="checkbox"/> Town <input checked="" type="checkbox"/> Village <input type="checkbox"/> City		NAME <b>Webster</b>	
-----------------------------	--	--	--	------------------------	--

2. LOCATION - <b>1/4 Section NW of SW</b>		Section <b>8</b>	Township <b>39N</b>	Range <b>16W</b>	3. OWNER AT TIME OF DRILLING <b>Village of Webster</b>
---	--	------------------	---------------------	------------------	---

OR - Grid or street no.		Street name			ADDRESS
-------------------------	--	-------------	--	--	---------

AND - If available subdivision name, lot & block no.					POST OFFICE <b>Webster, Wis.</b>
--	--	--	--	--	-------------------------------------

4. Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING C. I.	SANITARY C. I.	SEWER TILE	FLOOR C. I.	DRAIN TILE	FOUNDATION SEWER CONNECTED	DRAIN INDEPENDENT	WASTE WATER DRAIN C. I.	TILE
---	--	-------------------	-------------------	---------------	----------------	---------------	-------------------------------	----------------------	----------------------------	------

CLEAR WATER DRAIN C. I.	SEPTIC TANK TILE	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
----------------------------	---------------------	-------	-------------	------------------	------	------	----------------	-----------

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for:	<b>Village</b>	<b>Well #2</b>
--	----------------	----------------

6. DRILLHOLE						9. FORMATIONS		
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
12	Surface	43	8	43	72	Sand & little clay	Surface	55
						clean sand	55	72

7. CASING, LINER, CURBING, AND SCREEN					
Dia. (in.)	Kind and Weight		From (ft.)	To (ft.)	
12			Surface	43	
8	25# new black-welded J Welded		43	60	
8	Screen		60	72	

8. GROUT OR OTHER SEALING MATERIAL						10. TYPE OF DRILLING MACHINE USED		
Kind	From (ft.)	To (ft.)				Cable Tool	Direct Rotary	Reverse Rotary
neat cement	Surface	40				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. MISCELLANEOUS DATA						Well construction completed on <b>8-27 1973</b>		
------------------------	--	--	--	--	--	---	--	--

Yield test: <b>24</b>	Hrs. at <b>50</b>	GPM	Well is terminated <b>8</b> inches			<input checked="" type="checkbox"/> above	<input type="checkbox"/> below	final grade
-----------------------	-------------------	-----	------------------------------------	--	--	---	--------------------------------	-------------

Depth from surface to normal water level <b>50</b> ft.			Well disinfected upon completion			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
--	--	--	----------------------------------	--	--	---	-----------------------------

Depth to water level when pumping <b>55</b> ft.			Well sealed watertight upon completion			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
---	--	--	--	--	--	---	-----------------------------

Water sample sent to <b>Madison</b>	laboratory on: <b>9-4 1973</b>		
-------------------------------------	--------------------------------	--	--

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE  
**Clarence Beecroft**      COMPLETE MAIL ADDRESS  
Registered Well Driller      **54837  
Frederic, Wis. RT 2**

1316      Please do not write in space below

COLIFORM TEST RESULT  
**File - S65 - D.J.T.**      GAS - 24 HRS.      GAS - 48 HRS.      CONFIRMED      REMARKS

REV. 3-71

Bt-6

**WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH**  
See Instructions on Reverse Side

1. County Burnett

Town <input type="checkbox"/>	Village <input checked="" type="checkbox"/>	Webster, Wis.
City <input type="checkbox"/>	Check one and give name	

NE, SE, NE, SW, SE, Sec. 8, T. 39, R. 16W

Name of street and number of premise or Section, Town and Range numbers

3. Owner  or Agent  Village of Webster, Wis.

Name of individual, partnership or firm

4. Mail Address Webster, Wisconsin.

Complete address required

5. From well to nearest: Building ft; sewer ft; drain ft; septic tank ft;  
dry well or filter bed ft; abandoned well ft.

6. Well is intended to supply water for: Village of Webster

**7. DRILLHOLE:**

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
16" O.D.	0	45			
10" I.D.	45	65			

**8. CASING AND LINER PIPE OR CURBING:**

Dia. (in.)	Kind	From (ft.)	To (ft.)
16" O.D.	Steel-65#	0	45
10" I.D.	GWI - 35#	43	56
10"	Johnson Everdurscreen	10'7"	

Depth of Well 68'

**9. GROUT:**

Kind	From (ft.)	To (ft.)
1 to 1	0	45

**11. MISCELLANEOUS DATA:**

Yield test: 4 Hrs. at 75 GPM.

Depth from surface to water-level: 32 ft.

Water-level when pumping: 55 ft.

Water sample was sent to the state laboratory at:

Madison, Wis. on Dec. 29<sup>th</sup> 1952  
City

KEYS WELL DRILLING COMPANY.

Signature Stanley M. Keys  
Registered Well Driller

Please do not write in space below

413 No. Lexington, St. Paul 4, Minn.  
Complete Mail Address

Rec'd \_\_\_\_\_ No. \_\_\_\_\_

10 ml 10 ml 10 ml 10 ml 10 ml

Ans'd \_\_\_\_\_

Gas—24 hrs. \_\_\_\_\_

Interpretation \_\_\_\_\_

48 hrs. \_\_\_\_\_

Confirm \_\_\_\_\_

B. Coli \_\_\_\_\_

Examiner \_\_\_\_\_

plot

3050059

treat as original

**DRY WELL**  
WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH  
See Instructions on Reverse Side

753663  
BT-1

1. County **BURNETT**

Town   
Village   
City

**WEBSTER**

Check one and give name

2. Location **WEST SIDE OF THE VILLAGE** NESE, SE, SEC 8, T39N, R16W

Name of street and number of premise or Section, Town and Range numbers

3. Owner  or Agent

Name of individual, partnership or firm

4. Mail Address **WEBSTER, WIS.**

Complete address required

5. From well to nearest: Building **100** ft; sewer **—** ft; drain **—** ft; septic tank **200** ft;  
dry well or filter bed **X** ft; abandoned well **35** ft.

6. Well is intended to supply water for: **VILLAGE**

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<b>16</b>	<b>0</b>	<b>45</b>			
<b>10</b>	<b>45</b>	<b>274</b>			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
<b>Casing</b>			
<b>lateral</b>			
<b>taken</b>			
<b>out</b>			

9. GROUT:

Kind	From (ft.)	To (ft.)

11. MISCELLANEOUS DATA:

Yield test: **None** Hrs. at **—** GPM.

Depth from surface to water-level: **34** ft.

Water-level when pumping: **—** ft.

Water sample was sent to the state laboratory at:

**SENT BY OWNER**

on **19**

City

Signature **Kemp Well Drilling Co.**

Registered Well Driller

Please do not write in space below

**413 No LEXINGTON AVE**

Complete Mail Address

**ST PAUL 4,  
MICH**

Rec'd \_\_\_\_\_ No. \_\_\_\_\_

Ans'd \_\_\_\_\_

Interpretation \_\_\_\_\_

10 ml 10 ml 10 ml 10 ml 10 ml

Gas—24 hrs. \_\_\_\_\_

48 hrs. \_\_\_\_\_

Confirm \_\_\_\_\_

B. Coli \_\_\_\_\_

John Deppen George Smith

Examiner \_\_\_\_\_

## WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Burnett  Town  Village  City Menomonie  
 Check one and give name

2. Location E 1/4 SE, NW Sec 8 - T39 - R16W  
 Name of street and number of premise or Section, Town and Range numbers

3. Owner  or Agent  Elmer J. Converse  
 Name of individual, partnership or firm

4. Mail Address Webster Wis  
 Complete address required

5. From well to nearest: Building 4 ft; sewer 75 ft; drain \_\_\_\_\_ ft; septic tank \_\_\_\_\_ ft;  
 dry well or filter bed \_\_\_\_\_ ft; abandoned well \_\_\_\_\_ ft.

6. Well is intended to supply water for: Home

## 7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>4</u>	<u>1</u>	<u>113</u>			

## 8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
<u>4</u>	<u>steel</u>	<u>1</u>	<u>113</u>

## 9. GROUT:

Kind	From (ft.)	To (ft.)

## 11. MISCELLANEOUS DATA:

Yield test: Pont Hrs. at 10 GPM.

Depth from surface to water-level: 60 ft.

Water-level when pumping: 20 ft.

Water sample was sent to the state laboratory at:

Madison on July 25 1960  
 City

Signature

Wm Beesley  
 Registered Well Driller

Please do not write in space below

Clara Dalla Pisa

Complete Mail Address

Rec'd. \_\_\_\_\_ No. \_\_\_\_\_

10 ml 10 ml 10 ml 10 ml 10 ml

Ans'd. \_\_\_\_\_

Gas—24 hrs. \_\_\_\_\_

Interpretation \_\_\_\_\_

48 hrs. \_\_\_\_\_

Confirm \_\_\_\_\_

B. Coli \_\_\_\_\_

Examiner \_\_\_\_\_

3049036

plot

## WELL CONSTRUCTOR'S REPORT

Well-6

DEC 11 1969

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
Box 450  
Madison, Wisconsin 53701

1. COUNTY		CHECK ONE		NAME									
<i>Barnett</i>		<input checked="" type="checkbox"/> Town	<input type="checkbox"/> Village	<input type="checkbox"/> City	<i>Meenon</i>								
2. LOCATION (Number and Street or $\frac{1}{4}$ section, section, township and range. Also give subdivision name, lot and block numbers when available.) <i>SW. SE NW 1/4 Sec. 8 T 39 N R 16 W</i>													
3. OWNER AT TIME OF DRILLING <i>Merrill Benson</i>													
4. OWNER'S COMPLETE MAIL ADDRESS <i>Webster, Wis.</i>													
5. Distance in feet from well to nearest: (Record answer in appropriate block)													
		BUILDING C. I.	SANITARY SEWER C. I. TILE	FLOOR DRAIN C. I. TILE	FOUNDATION DRAIN SEWER CONNECTED INDEPENDENT	WASTE WATER DRAIN C. I. TILE							
		<i>50</i>	<i>55</i>	<i>None</i>	<i>None</i>	<i>None</i>							
CLEAR WATER DRAIN C. I. TILE						SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
						<i>None</i>	<i>55</i>	<i>None</i>	<i>75</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

*None*6. Well is intended to supply water for: *Private residence*

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
<i>8</i>	Surface	<i>22</i>				<i>sand</i>		<i>Surface</i>	<i>4</i>
<i>4</i>	<i>22</i>	<i>54</i>				<i>sand &amp; blue clay</i>	<i>4</i>	<i>18</i>	
8. CASING, LINER, CURBING, AND SCREEN						<i>sand &amp; red clay</i>	<i>18</i>	<i>46</i>	
Dia. (in.)	New Kind and Weight	From (ft.)	To (ft.)						
<i>4</i>	<i>Std. Blk. Pipe</i>	Surface	<i>51</i>			<i>sand</i>	<i>46</i>	<i>54</i>	
<i>4</i>	<i>TTC 11#/ft.</i>								
<i>4</i>	<i>Johnson #14 slot</i>	<i>51</i>	<i>54</i>						
						<i>5.5. well screen</i>			

9. GROUT OR OTHER SEALING MATERIAL					
Kind	From (ft.)	To (ft.)			
<i>clay slurry</i>	Surface	<i>22</i>			

11. MISCELLANEOUS DATA					
Yield test:	<i>4</i>	Hrs. at	<i>16</i>	GPM	Well construction completed on <i>Dec. 1 1969</i>
Depth from surface to normal water level	<i>31</i>	ft.		Well is terminated <i>14</i> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final grade	
Depth to water level when pumping	<i>40</i>	ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water sample sent to	<i>State Lab. of Hygiene-Madison</i>				Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Water sample sent to *State Lab. of Hygiene-Madison* laboratory on: *12/18 1969*

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE

*Rodney Cull*

Registered Well Driller

COMPLETE MAIL ADDRESS

*Pt. 3 Frederic, Wis.*

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
1320				

## DEPARTMENT OF RESOURCE DEVELOPMENT

Well 6

## WELL CONSTRUCTOR'S REPORT

1. COUNTY Burnett		CHECK ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		NAME Meenon				
2. LOCATION (Number and Street or $\frac{1}{4}$ section, section, township and range. Also give subdivision name, lot and block numbers when available.) SW <sub>1/4</sub> , SE <sub>1/4</sub> , NW <sub>1/4</sub> , Sec. 8, Twp. 39 N., R. 16 W								
3. OWNER AT TIME OF DRILLING Merrill Benson								
4. OWNER'S COMPLETE MAIL ADDRESS Webster, Wisconsin								
5. Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING C. I. 4	SANITARY SEWER C. I. TILE	FLOOR DRAIN C. I. TILE	FOUNDATION DRAIN SEWER CONNECTED INDEPENDENT	WASTE WATER DRAIN C. I. TILE		
CLEAR WATER DRAIN C. I. TILE	SEPTIC TANK (steel) 30	PRIVY	SEEPAGE PIT 55	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)								
6. Well is intended to supply water for: Private								
7. DRILLHOLE						10. FORMATIONS		
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
4	Surface	295				silty sand	Surface	22
						hard pan	22	45
						sand	45	50
						clay	50	225
4	11# new steel, Blk.		Surface	231		hard clay or shale	225	245
	T & C						245	255
2	st'd. gal. new steel	216		247		shale	255	288
3	stainless steel, no. 18 slot screen	247		253		gravely shale	288	295
2	st'd. gal., new steel	253		289				
3	stainless steel, no. 18 slot screen	289		295				
9. GROUT OR OTHER SEALING MATERIAL						11. MISCELLANEOUS DATA		
Kind	From (ft.)	To (ft.)	Yield test: continuous, 3 wks. Hrs. at 4 GPM			trap rock	295	---
2 inch pipe sealed to	Surface							
4 inch by lead packer						Well construction completed on September 21 1968		
Depth from surface to normal water level 35 ft.						Well is terminated 8 inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below		
Depth to water level when pumping 105 ft.						Well disinfected upon completion	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Water sample sent to Madison						Well sealed watertight upon completion	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
						laboratory on: Sept. 23 1968		
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.								
SIGNATURE <i>Tom K. Beecroft</i> Registered Well Driller			COMPLETE MAIL ADDRESS Beecroft Bros. Well Drillers Rt. 2, Box 109, Frederic, Wisconsin					
Please do not write in space below						54837		
COLIFORM TEST RESULT		GAS - 24 HRS.		GAS - 48 HRS.		CONFIRMED	REMARKS	
1321								

## **APPENDIX C**

### **WDNR SOIL BORING LOGS (FORM 4400-122)**

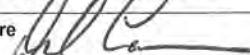


Route To: Watershed/Wastewater  Remediation/Redevelopment  Waste Management  Other

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number 02-07-282564			Boring Number GP1						
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch)			Date Drilling Started 08/10/2016	Date Drilling Completed 08/10/2016	Drilling Method Geoprobe							
WI Unique Well No.	DNR Well ID No.	Common Well Name GP1	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2 in	1						
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/>			Lat Long	Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/>								
Facility ID 6962		County Burnett	County Code 07	Civil Town/City/or Village Webster								
Sample		Blow Counts	Depth In Feet	Soil Properties			RQD/ Comments					
Number	Type			Length Att. & Recovered (in)	U.S.C.S.	Graphic		Well	PID/FID	Compressive Strength	Moisture Content	Liquid Limit
1	48 in		1	FILL Miscellaneous FILL	SW	927 ppm						
			2	SAND Impacted silty SAND								
			3	CLAY Grey CLAY								
			4									
2	48 in		5	SAND SAND with sheen	SW	939 ppm						
			6	CLAY Grey CLAY, Moist								
			7	SAND Impacted SAND								
			8									
3	48 in		9	SAND Brown fine SAND, Moist	SW	1938 ppm						
			10									
			11									
			12									
4	60 in		13		SW	70.6 ppm						
			14									
			15									
			16									
			17			6.2 ppm						
			18			1.9 ppm						
			19			30.7 ppm						
			20	EOB EOB @ 20' BLS		1.3 ppm						
			21									
			22									
			23									

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

Signature 

Firm

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

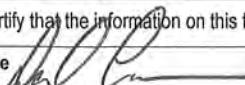
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Route To: Watershed/Wastewater  Remediation/Redevelopment  Waste Management  Other

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number 02-07-282564			Boring Number GP2						
Boring Drilled By: Name of crew chief (first, last) and Firm Gesta Engineering (Mitch)			Date Drilling Started 08/10/2016	Date Drilling Completed 08/11/2016	Drilling Method Geoprobe							
WI Unique Well No.	DNR Well ID No. GP2	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2 in	'2						
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long	Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/>								
Facility ID 6962		County Burnett	County Code 07	Civil Town/City/or Village Webster								
Sample		Blow Counts	Depth In Feet	Soil Properties			RQD/ Comments					
Number	Type			Length Att. & Recovered (in)	U.S.C.S.	Graphic		Well	PID/FID	Compressive Strength	Moisture Content	Liquid Limit
1			1 FILL Miscellaneous FILL	SW		397 ppm						
2	60 in		2 SAND	CL		376 ppm						
3	60 in		3 SAND	SW		303 ppm						
4	60 in		4 CLAY	CL		0.7 ppm						
5	60 in		5 CLAY	SW		84.6 ppm						
6	60 in		6 SAND	CL		46.7 ppm						
7	60 in		7 SAND, Saturated	SW		13.7 ppm						
8			8 CLAY	SW		192.6 ppm						
9			9 CLAY	CL		10.4 ppm						
10			10 SAND	SW		120.6 ppm						
11			11 Fine brown SAND	CL								
12			12 Medium grained SAND	SW								
13			13 SAND	CL								
14			14 Fine brown SAND	SW								
15			15 SAND	CL								
16			16 Tighter SAND	SW								
17			17 SAND	CL								
18			18 Fine-medium SAND	SW								
19			19 Fine grain SAND	CL								
20			20 SAND	SW								
21			21 Fine-medium SAND	CL								
22			22 Clay layer	SW								
23			23 SAND	CL								
24			24 Fine-medium grained brown SAND	SW								
25			25 SAND	CL								
26			26 Tighter SAND	SW								
27			27 SAND	CL								
28			28 Fine-medium SAND	SW								
29			29 Fine grain SAND	CL								
30			30 SAND	SW								
31			31 Fine-medium SAND	CL								
32			32 EOB	SW								
33			33 EOB @ 35' BLS	CL								
34			34 EOB	SW								
35			35 EOB @ 35' BLS	CL								
36			36 EOB	SW								
37			37 EOB	CL								
38			38 EOB	SW								
39			39 EOB	CL								
40			40 EOB	SW								

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

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

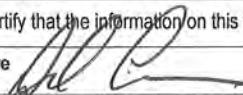
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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number 02-07-282564			Boring Number GP3									
Boring Drilled By: Name of crew chief (first, last) and Firm Gesta Engineering (Mitch)			Date Drilling Started 08/10/2016		Date Drilling Completed 08/10/2016		Drilling Method Geoprobe								
WI Unique Well No.	DNR Well ID No.	Common Well Name GP3	Final Static Water Level		Surface Elevation 0	Borehole Diameter 2 in	'3								
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long		Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>										
Facility ID 6962		County Burnett		County Code 07		Civil Town/City/or Village Webster									
Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit		U.S.C.S.	Graphic	Well	Soil Properties				P 200	RQD/ Comments
					PID/FID	Compressive Strength				Moisture Content	Liquid Limit	Plasticity Index			
1	60 in			1	FILL Miscellaneous FILL					0.6 ppm					
				2											
				3	CLAY CLAY layer	CL									
				4											
				5	SAND Fine grain SAND, Saturated	SW									
				6											
				7											
				8											
				9	CLAY CLAY layer	CL									
				10	SAND Fine grain SAND	SW									
				11											
				12											
				13											
				14											
				15	EOB EOB @ 15' BLS										
16															
17															
18															
19															
20															

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

Signature 

Firm

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

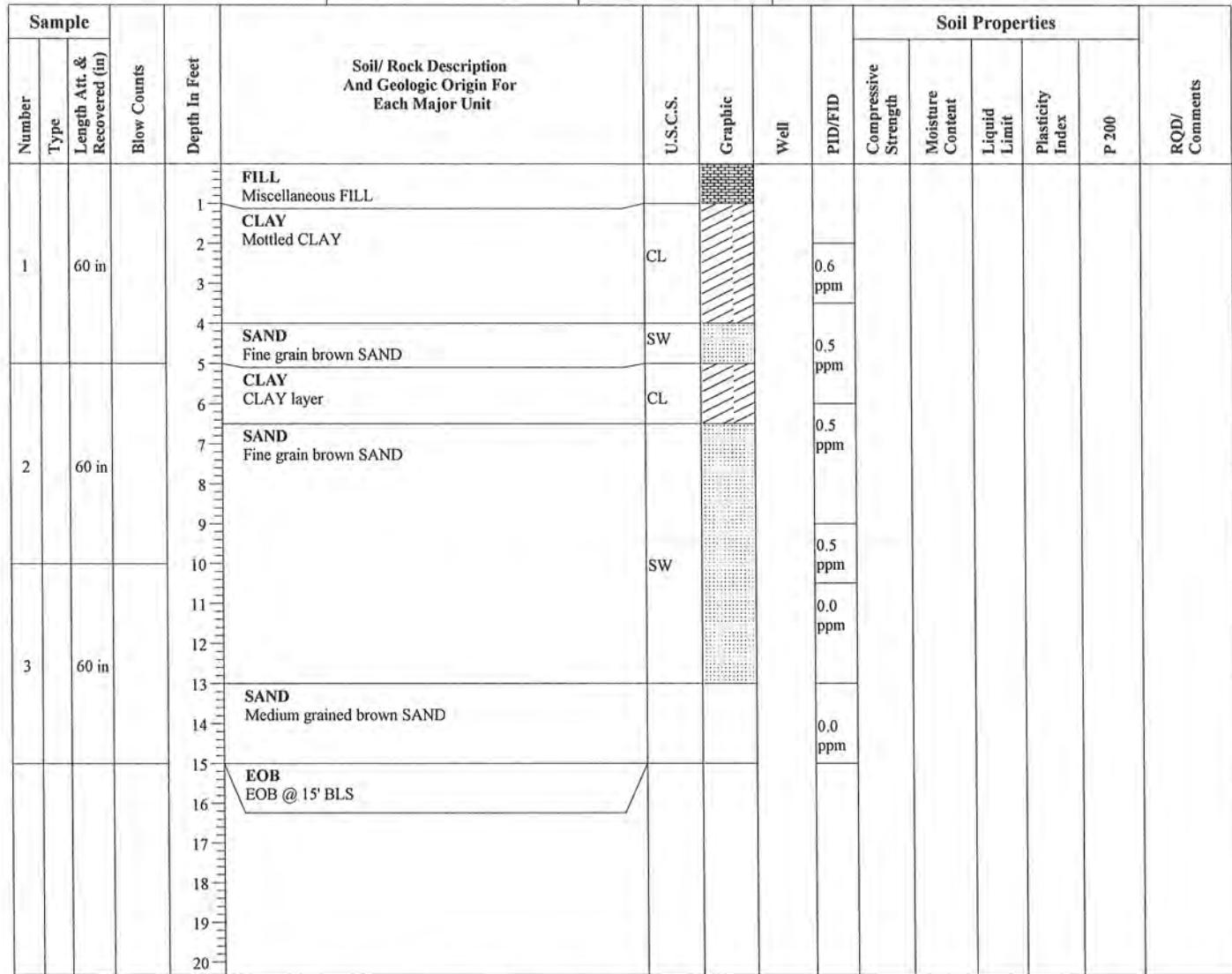
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Route To: Watershed/Wastewater  Remediation/Redevelopment  Waste Management  Other

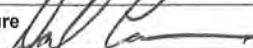
Page 1 of 1

Facility/Project Name Burnett Oil		License/Permit/Monitoring Number 02-07-282564		Boring Number GP4	
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch)		Date Drilling Started 08/10/2016	Date Drilling Completed 08/10/2016	Drilling Method Geoprobe	
WI Unique Well No.	DNR Well ID No. GP4	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2 in
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long	Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/>	

Facility ID 6962 County Burnett County Code 07 Civil Town/City/or Village Webster



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

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

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

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number 02-07-282564			Boring Number GP5						
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch)			Date Drilling Started 08/10/2016	Date Drilling Completed 08/10/2016	Drilling Method Geoprobe							
WI Unique Well No.	DNR Well ID No.	Common Well Name GP5	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2 in	'25						
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long	Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/>								
Facility ID 6962		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			Soil Properties				RQD/ Comments	
Number	Type			Length Att. & Recovered (in)	U.S.C.S.	Graphic	Well	PID/FID	Compressive Strength	Moisture Content		Liquid Limit
1	60 in	1	FILL Miscellaneous FILL									
		2	SAND Impacted grey SAND	SW			1154 ppm					
		3					398 ppm					
		4	CLAY Grey mottled CLAY	CL			1179 ppm					
		5	SAND Fine grain brown SAND, moist with odor				927 ppm 216 ppm					
2	60 in	7										
		8										
		9										
		10										
		11										
3	60 in	12										
		13										
		14										
		15										
		16										
4	SS 60 in	17										
		18										
		19										
		20	EOB EOB @ 20' BLS				176 ppm 1.6 ppm					
		21					0.9 ppm					
22												
23												

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

Signature

Firm

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

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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 02-07-282564			Boring Number GP6									
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch)			Date Drilling Started 08/10/2016	Date Drilling Completed 08/10/2016	Drilling Method Geoprobe										
WI Unique Well No.	DNR Well ID No.	Common Well Name GP6	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2 in	'6									
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/>			Lat	Local Grid Location											
			Long	N <input type="checkbox"/>	E <input type="checkbox"/>	S <input type="checkbox"/>	W <input type="checkbox"/>								
Facility ID 6962		County Burnett		County Code 07	Civil Town/City/or Village Webster										
Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil Properties			RQD/ Comments							
					U.S.C.S.	Graphic	Well		PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	60 in			1	FILL Miscellaneous FILL										
				2	SAND SAND		SW			0.9 ppm					
				3	CLAY Grey mottled CLAY		CL			0.4 ppm					
				4			SW			0.5 ppm					
				5	SAND SAND		CL			0.4 ppm					
				6	CLAY CLAY		SW			0.6 ppm					
				7	SAND Fine grain brown SAND, Moist		CL			0.7 ppm					
				8			SW			0.6 ppm					
				9											
				10											
				11											
				12											
				13											
				14											
				15	EOB EOB @ 20' BLS										
16															
17															
18															

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

Signature 

Firm

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

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

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

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number 02-07-282564		Boring Number MW-1					
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch & Joe)			Date Drilling Started 9/14/2016		Date Drilling Completed 9/14/2016					
WI Unique Well No.	DNR Well ID No.	Common Well Name MW-1	Final Static Water Level		Surface Elevation 0	Borehole Diameter 2 in				
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long		Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/>					
Facility ID 6962		County Burnett		County Code 07		Civil Town/City/or Village Webster				
Sample		Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit		U.S.C.S.	Graphic	Soil Properties		RQD/ Comments	
Number	Type		Length Att. & Recovered (in)	Blow Counts			Well	PID/FID		Compressive Strength
1	14"	4								
2	18"	3			SW					
3	18"	6								
4	18"	18			CL					
5	16"	23								
6	16"	20								
7	14"	15								
8	14"	7								
9	14"	15								
10	14"	14								
11	10"	9								
12	18"	8								
13	10"	27								
14	12"	15								
15	12"	10								
16	12"	7								
17	14"	15								
35			END OF BORING							
36			EOB @ 35' BLS							
37										
38										
39										
40										

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

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number 02-07-282564			Boring Number MW-3																																						
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch & Joe)			Date Drilling Started 9/14/2016		Date Drilling Completed 9/14/2016	Drilling Method hollow stem																																						
WI Unique Well No.	DNR Well ID No.	Common Well Name MW-3	Final Static Water Level		Surface Elevation 0	Borehole Diameter 2 in																																						
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long		Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/>																																							
Facility ID 6962		County Burnett	County Code 07		Civil Town/City/or Village Webster																																							
Number	Type	Length Att. & Recovered (in)	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit					U.S.C.S.	Graphic	Well	P/D/FID	Soil Properties				RQD/Comments																											
													Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index		P 200																										
			Blow Counts	BLIND DRILL																																								
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
				END OF BORING EOB @ 35' BLS																																								

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

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4080 North 20th Avenue, Wausau, WI

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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 02-07-282564			Boring Number MW-2										
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch & Joe)			Date Drilling Started 9/14/2016		Date Drilling Completed 9/14/2016		Drilling Method hollow stem									
WI Unique Well No.	DNR Well ID No.	Common Well Name MW-2	Final Static Water Level		Surface Elevation 0	Borehole Diameter 2 in	N-2									
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/>			Lat Long		Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/>		E <input type="checkbox"/> W <input type="checkbox"/>									
Facility ID 6962		County Burnett		County Code 07		Civil Town/City/or Village Webster										
Number	Sample	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit					U.S.C.S.	Graphic	Well	Soil Properties				RQD/ Comments
				Type	Length Att. & Recovered (in)	PID/FID	Compressive Strength	Moisture Content				Liquid Limit	Plasticity Index	P 200		
			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	BLIND DRILL												
				EOB @ 35' BLS												

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Route To: Watershed/Wastewater  Remediation/Redevelopment  Other

Page 1 of 1

Facility/Project Name Burnett Oil			License/Permit/Monitoring Number 02-07-282564			Boring Number MW-4									
Boring Drilled By: Name of crew chief (first, last) and Firm Gestra Engineering (Mitch & Joe)			Date Drilling Started 9/15/2016		Date Drilling Completed 9/15/2016		Drilling Method hollow stem								
WI Unique Well No.	DNR Well ID No.	Common Well Name MW-4	Final Static Water Level		Surface Elevation 0	Borehole Diameter 2 in	N-2								
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long		Local Grid Location N <input type="checkbox"/> S <input type="checkbox"/>		E <input type="checkbox"/> W <input type="checkbox"/>								
Facility ID 6962		County Burnett		County Code 07		Civil Town/City/or Village Webster									
Sample Number	Type	Length Att. & Recovered (ft.)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit		U.S.C.S.	Graphic	Well	Soil Properties				RQD/ Comments	
1	16"	9		1	TOPSOIL Grassy topsoil					PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200
2	18"	7		2	SAND Grey clayey sand					ppm	1438				
3	18"	20		3	SAND Grey fine sand					ppm	1485				
4	14"	18		4						ppm	1930				
5	18"	21		5						ppm	2110				
6	14"	22		6						ppm	371				
7	14"	16		7						ppm	1177				
8	12"	14		8						ppm	113				
9	14"	19		9						ppm	33.4				
10	12"	16		10						ppm	7.9				
11	16"	12		11	SAND Medium/fine grey/brown sand					ppm	22.1				
12	12"	15		12						ppm	4.0				
13	14"	15		13						ppm	10.0				
14	12"	15		14	SAND Fine brown sand					ppm	3.0				
15	14"	13		15						ppm	15.8				
16	14"	9		16	SAND Fine/medium brown sand					ppm	24.2				
17	12"	10		17	SATURATED @ 30' BLS					ppm	21.3				
				18						ppm	130				
				19						ppm					
				20						ppm					
				21						ppm					
				22						ppm					
				23	SAND Brown gravelly sand					ppm					
				24						ppm					
				25	SAND Fine brown sand					ppm					
				26						ppm					
				27						ppm					
				28						ppm					
				29						ppm					
				30	END OF BORING					ppm					
				31						ppm					
				32						ppm					
				33						ppm					
				34						ppm					
				35						ppm					
				36	EOB @ 35' BLS					ppm					
				37						ppm					
				38						ppm					
				39						ppm					
				40						ppm					

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## **APPENDIX D**

### **WDNR MONITORING WELL CONSTRUCTION FORMS (FORM 4400-133A)**



Route To Solid Haste  Haz. Haste  Wastewater   
Env. Response & Repair  Underground Tanks  Other \_\_\_\_\_

Facility/Project Name Burnett Oil	Local Grid Location of Well Feet S. _____ Feet W. _____ Feet N. _____ Feet E. _____	Well Name MW-1
Facility License Permit or Monitoring Number BRRTS# 02-07-282564	Grid Origin Location	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 2	Section Location of Waste/Source <input type="checkbox"/> E	Date Well Installed 9/14/16
Distance Well Is From Waste/Source Boundary Ft.	1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ W	Well Installed By (Person's Name and Firm) Gesta Engineering (Mitch and Mike)
Is Well A Point of Enforcement Std. Application <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: 4 in. b. Length: 4 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL	d. Additional protection? If yes, describe: <input type="checkbox"/> Yes <input type="checkbox"/> No
D. Surface seal, bottom 1 ft. MSL or _____ ft.	3. Surface seal: Bentonite <input checked="" type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS Classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input checked="" type="checkbox"/> 33 b. ____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. ____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. ____ %Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. 2.6 ft <sup>3</sup> Volume added for any of the above
14. Drilling method used Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: a. Bentonite Granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____	7. Fine sand material Manufacturer, product name and mesh size a. #15 b. Volume added _____ ft <sup>3</sup>
17. Source of water (attach analysis): _____	8. Filter pack material: Manufacturer, product name and mesh size a. #40 b. Volume added _____ ft <sup>3</sup>
E. Bentonite seal, top _____ ft. MSL or 1 ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or 21 ft.	10. Screen material: PVC a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
G. Filter pack, top _____ ft. MSL or 23 ft.	b. Manufacturer Johnson Screen c. Slot size: 0.10 in. d. Slotted length: 10 ft.
H. Screen joint, top _____ ft. MSL or 25 ft.	
I. Well bottom _____ ft. MSL or 35 ft.	11. Backfill material (below filter Pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
J. Filter pack, bottom _____ ft. MSL or 25 ft.	
K. Borehole, bottom _____ ft. MSL or 35 ft.	
L. Borehole, diameter 8.25 in.	
M. O.D. well casing 2.32 in.	
N. I.D. well casing 2.07 in.	

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

Signature

Firm

REI Engineering, Inc.  
4080 N. 20th Ave.  
Wausau, WI 54401

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Route To Solid Haste  Haz. Haste  Wastewater   
Env. Response & Repair  Underground Tanks  Other \_\_\_\_\_

Facility/Project Name Burnett Oil	Local Grid Location of Well Feet S. _____ Feet W. _____ Feet N. _____ Feet E. _____	Well Name MW-2
Facility License Permit or Monitoring Number BRRTS# 02-07-282564	Grid Origin Location	Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source <input type="checkbox"/> E	Date Well Installed 9/14/16
Distance Well Is From Waste/Source Boundary Ft. _____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N; R. _____ W	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By (Person's Name and Firm) Gesta Engineering (Mitch and Mike)
Is Well A Point of Enforcement Std. Application <input type="checkbox"/> Yes <input type="checkbox"/> No		

- A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL  
B. Well casing, top elevation \_\_\_\_\_ ft. MSL  
C. Land surface elevation \_\_\_\_\_ ft. MSL  
D. Surface seal, bottom \_\_\_\_\_ 1 ft. MSL or \_\_\_\_\_ ft.

12. USCS Classification of soil near screen:

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

13. Sieve analysis attached?  Yes  No

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

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

16. Drilling additives used?  Yes  No

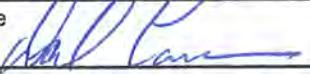
Describe \_\_\_\_\_

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

- E. Bentonite seal, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ 1 ft.  
F. Fine sand, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ 21 ft.  
G. Filter pack, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ 23 ft.  
H. Screen joint, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ 25 ft.  
I. Well bottom \_\_\_\_\_ ft. MSL or \_\_\_\_\_ 35 ft.  
J. Filter pack, bottom \_\_\_\_\_ ft. MSL or \_\_\_\_\_ 25 ft.  
K. Borehole, bottom \_\_\_\_\_ ft. MSL or \_\_\_\_\_ 35 ft.  
L. Borehole, diameter \_\_\_\_\_ 8.25 in.  
M. O.D. well casing \_\_\_\_\_ 2.32 in.  
N. I.D. well casing \_\_\_\_\_ 2.07 in.

1. Cap and lock?  Yes  No  
2. Protective cover pipe:  
a. Inside diameter: 4 in.  
b. Length: 4 ft.  
c. Material: Steel  04  
Other   
d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_  
3. Surface seal: Bentonite  30  
Concrete  01  
Other   
4. Material between well casing and protective pipe:  
Bentonite  30  
Annular space seal   
Other \_\_\_\_\_  
5. Annular space seal:  
a. Granular Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight \_\_\_\_\_ Bentonite-sand slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight \_\_\_\_\_ Bentonite slurry  31  
d. \_\_\_\_\_ %Bentonite \_\_\_\_\_ Bentonite-cement grout  50  
e. 2.6 ft<sup>3</sup> Volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08  
6. Bentonite seal:  
a. Bentonite Granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
c. \_\_\_\_\_ Other   
7. Fine sand material Manufacturer, product name and mesh size  
a. #15  
b. Volume added \_\_\_\_\_ ft<sup>3</sup>  
8. Filter pack material: Manufacturer, product name and mesh size  
a. #40  
b. Volume added \_\_\_\_\_ ft<sup>3</sup>  
9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other   
10. Screen material: PVC  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other   
b. Manufacturer Johnson Screen  
c. Slot size: 0.10 in.  
d. Slotted length: 10 ft.  
11. Backfill material (below filter Pack): None  14  
Other

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Signature 

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Wausau, WI 54401

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

Facility/Project Name Burnett Oil	Local Grid Location of Well Feet S. _____ Feet W. _____ Feet N. _____ Feet E. _____	Well Name MW-3
Facility License Permit or Monitoring Number BRRTS# 02-07-282564	Grid Origin Location	Wls. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Date Well Installed 9/14/16
Distance Well Is From Waste/Source Boundary Ft.	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____, T. _____ N; R. _____ <input type="checkbox"/> W	Well Installed By (Person's Name and Firm) Gestra Engineering (Mitch and Mike)
Is Well A Point of Enforcement Std. Application <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL   
 B. Well casing, top elevation \_\_\_\_\_ ft. MSL  
 C. Land surface elevation \_\_\_\_\_ ft. MSL  
 D. Surface seal, bottom 1 ft. MSL or \_\_\_\_\_ ft.

1. Cap and lock?  Yes  No  
 2. Protective cover pipe:  
 a. Inside diameter: 4 in.  
 b. Length: 4 ft.  
 c. Material: Steel  04  
 d. Additional protection? Other  Yes  No  
 If yes, describe: \_\_\_\_\_  
 3. Surface seal: Bentonite  30  
 Concrete  01  
 Other   
 4. Material between well casing and protective pipe:  
 Bentonite  30  
 Annular space seal   
 Other   
 5. Annular space seal:  
 a. Granular Bentonite  33  
 b. Lbs/gal mud weight ..... Bentonite-sand slurry  35  
 c. Lbs/gal mud weight ..... Bentonite slurry  31  
 d. %Bentonite ..... Bentonite-cement grout   
 e. 2.6 ft<sup>3</sup> Volume added for any of the above  
 f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08  
 6. Bentonite seal:  
 a. Bentonite Granules  33  
 b. 1/4 in.  3/8 in.  1/2 in. Bentonite pellets   
 c. Other   
 7. Fine sand material Manufacturer, product name and mesh size  
 a. #15  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>  
 8. Filter pack material: Manufacturer, product name and mesh size  
 a. #40  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>  
 9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other   
 10. Screen material: PVC  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other   
 b. Manufacturer Johnson Screen  
 c. Slot size: 0.10 in.  
 d. Slotted length: 10 ft.  
 11. Backfill material (below filter Pack): None  14  
 Other

12. USCS Classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis attached?  Yes  No  
 14. Drilling method used  
 Rotary  50  
 Hollow Stem Auger  41  
 Other   
 15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99  
 16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_  
 17. Source of water (attach analysis):  
 \_\_\_\_\_

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1 ft.  
 F. Fine sand, top \_\_\_\_\_ ft. MSL or 21 ft.  
 G. Filter pack, top \_\_\_\_\_ ft. MSL or 23 ft.  
 H. Screen joint, top \_\_\_\_\_ ft. MSL or 25 ft.  
 I. Well bottom \_\_\_\_\_ ft. MSL or 35 ft.  
 J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 25 ft.  
 K. Borehole, bottom \_\_\_\_\_ ft. MSL or 35 ft.  
 L. Borehole, diameter 8.25 in.  
 M. O.D. well casing 2.32 in.  
 N. I.D. well casing 2.07 in.

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4080 N. 20th Ave.  
Wausau, WI 54401

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

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

Facility/Project Name Burnett Oil	Local Grid Location of Well _____ Feet S. _____ Feet W. _____ Feet N. _____ Feet E. _____	Well Name MW-4
Facility License Permit or Monitoring Number BRRTS# 02-07-282564	Grid Origin Location	Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> <input type="checkbox"/> Piezometer <input checked="" type="checkbox"/> <input type="checkbox"/>	Section Location of Waste/Source <input type="checkbox"/> E	Date Well Installed 9/15/16
Distance Well Is From Waste/Source Boundary Ft.	1/4 of _____ 1/4 of Sec. _____, T. _____ N.R. <input type="checkbox"/> W. _____	Well Installed By (Person's Name and Firm) Gestra Engineering (Mitch and Mike)
Is Well A Point of Enforcement Std. Application <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

- A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL  
B. Well casing, top elevation \_\_\_\_\_ ft. MSL  
C. Land surface elevation \_\_\_\_\_ ft. MSL  
D. Surface seal, bottom 1 ft. MSL or \_\_\_\_\_ ft.

12. USCS Classification of soil near screen:

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

13. Sieve analysis attached?  Yes  No

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

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

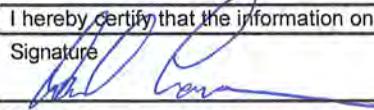
16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

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

- E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1 ft.  
F. Fine sand, top \_\_\_\_\_ ft. MSL or 21 ft.  
G. Filter pack, top \_\_\_\_\_ ft. MSL or 23 ft.  
H. Screen joint, top \_\_\_\_\_ ft. MSL or 25 ft.  
I. Well bottom \_\_\_\_\_ ft. MSL or 35 ft.  
J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 25 ft.  
K. Borehole, bottom \_\_\_\_\_ ft. MSL or 35 ft.  
L. Borehole, diameter 8.25 in.  
M. O.D. well casing 2.32 in.  
N. I.D. well casing 2.07 in.

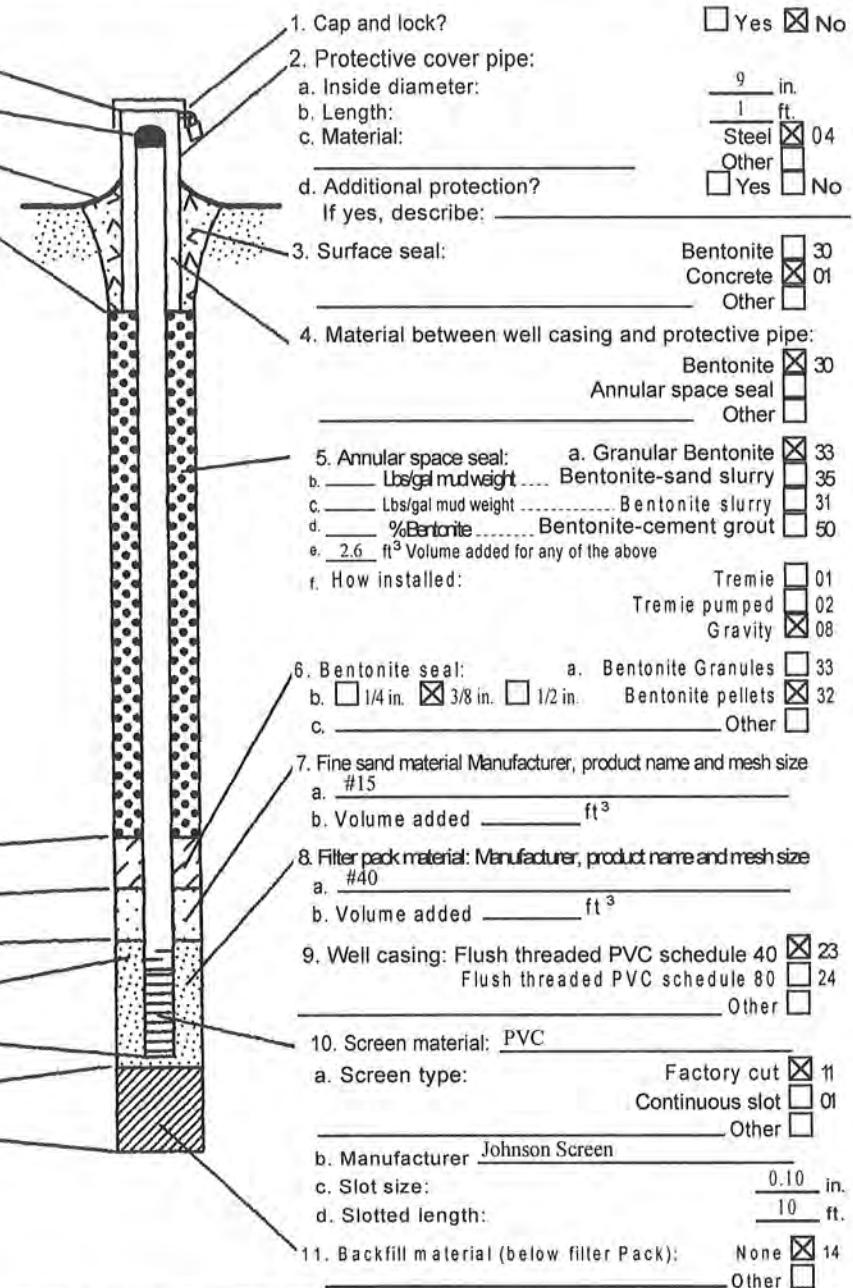
I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature 

Firm

REI Engineering, Inc.  
4080 N. 20th Ave.  
Wausau, WI 54401

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



## **APPENDIX E**

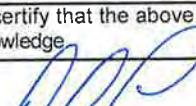
### **WDNR MONITORING WELL DEVELOPMENT FORMS (FORM 4400-133A)**



Facility/Project Name Burnett Oil	County Name Polk	Well Name MW1
Facility Licence, Permit or Monitoring Number	County Code 48	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development		After Development
2. Well development method	<input type="checkbox"/> 41 <input checked="" type="checkbox"/> 61 <input type="checkbox"/> 42 <input type="checkbox"/> 62 <input type="checkbox"/> 70 <input type="checkbox"/> 20 <input type="checkbox"/> 10 <input type="checkbox"/> 51 <input type="checkbox"/> 50 Other _____	11. Depth to Water (from top of well casing)	a. 33.63 ft.	33.61 ft.
		Data mm/dd/yy	b. 9/20/16	9/20/16
		Time	c. 2:15 <input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.	4:40 <input checked="" type="checkbox"/> p.m. <input type="checkbox"/> a.m.
3. Time spent developing well	145 min.	12. Sediment in well bottom	6 inches	0 inches
4. Depth of well (from top of Casing)	38.15 ft.	13. Water clarity	Clear <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> (Describe) 10 15	Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> (Describe) 10 15
5. Inside diameter of well	2.07 in.			Clear at 15 gallons
6. Volume of water in filter pack and well casing	4.3 gal.			Fill in if drilling fluids were used and well is at solid waste facility:
7. Volume of water removed from well	75 gal.	14. Total suspended solids	mg/l	mg/l
8. Volume of water added (If any)	0 gal.	15. COD	mg/l	mg/l
9. Source of water added _____				
10. Analysis performed on water added? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes. attach results)				

## 16. Additional comments on development:

Well developed by: Person's Name and Firm Name: David Larsen (REI) Firm: REI Engineering, Inc. 4020 N 20th Ave. Wausau, WI 54401	I hereby certify that the above information is true and correct to the best of my knowledge.  Signature:  Print Initials: DVL Firm: REI Engineering, Inc.
--	---

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

Facility/Project Name Burnett Oil	County Name Polk	Well Name MW2
Facility Licence, Permit or Monitoring Number	County Code 48	Wis. Unique Well Number  

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method		11. Depth to Water (from top of well casing)	
surged with bailer and bailed	<input type="checkbox"/> 41	a. 32.46 ft.	32.44 ft.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61	b. 9/20/16	9/20/16
surged with block and bailed	<input type="checkbox"/> 42	mm/dd/yy	<input checked="" type="checkbox"/> p.m. <input type="checkbox"/> a.m.
surged with block and pumped	<input type="checkbox"/> 62	Time	3:35
surged with block, bailed and pumped	<input type="checkbox"/> 70	c. 1:57	<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
compressed air	<input type="checkbox"/> 20		
bailed only	<input type="checkbox"/> 10		
pumped only	<input type="checkbox"/> 51		
pumped slowly	<input type="checkbox"/> 50		
Other _____	<input type="checkbox"/>		
3. Time spent developing well	92	min.	12. Sediment in well bottom 6 inches
4. Depth of well (from top of Casing)	37.28	ft.	13. Water clarity Clear Turbid (Describe)
5. Inside diameter of well	2.07	in.	<input type="checkbox"/> 10 <input checked="" type="checkbox"/> 15 Clear Turbid (Describe) Clear at 15 gallons
6. Volume of water in filter pack and well casing	4.57	gal.	Fill in if drilling fluids were used and well is at solid waste facility:
7. Volume of water removed from well	75	gal.	14. Total suspended solids mg/l
8. Volume of water added (If any)	0	gal.	15. COD mg/l
9. Source of water added _____			
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No		

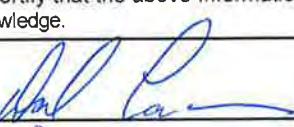
## 16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: David Larsen (REI)

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

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

Signature: 

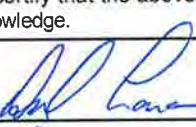
Print Initials: DNL

Firm: REI Engineering, Inc.

Facility/Project Name Burnett Oil	County Name Polk	Well Name MW3
Facility Licence, Permit or Monitoring Number	County Code 48	Wis. Unique Well Number  

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method	<input type="checkbox"/> 41 <input checked="" type="checkbox"/> 61 <input type="checkbox"/> 42 <input type="checkbox"/> 62 <input type="checkbox"/> 70 <input type="checkbox"/> 20 <input type="checkbox"/> 10 <input type="checkbox"/> 51 <input type="checkbox"/> 50 Other _____	<b>11. Depth to Water</b> (from top of well casing) a. 32.20 ft.  <b>Data</b> b. 9/20/16 <i>mm/dd/yy</i> <input checked="" type="checkbox"/> p.m. <b>Time</b> c. 2:06 <input type="checkbox"/> a.m.  <b>12. Sediment in well bottom</b> 6 inches	32.28 ft.  9/20/16 <input checked="" type="checkbox"/> p.m. 4:22 <input type="checkbox"/> a.m.  0 inches
3. Time spent developing well	138 min.	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) Clear at 15 gallons
4. Depth of well (from top of Casing)	36.97 ft.	14. Total suspended solids	mg/l mg/l
5. Inside diameter of well	2.07 in.	15. COD	mg/l mg/l
6. Volume of water in filter pack and well casing	4.53 gal.	Fill in if drilling fluids were used and well is at solid waste facility:	
7. Volume of water removed from well	75 gal.		
8. Volume of water added (If any)	0 gal.		
9. Source of water added			
10. Analysis performed on water added?	<input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)		

## 16. Additional comments on development:

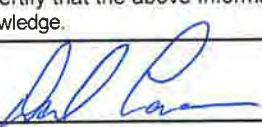
Well developed by: Person's Name and Firm  Name: David Larsen (REI)  Firm: REI Engineering, Inc. 4020 N 20th Ave. Wausau, WI 54401	I hereby certify that the above information is true and correct to the best of my knowledge.  Signature:  Print Initials: DNL Firm: REI Engineering, Inc.
--	---

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

Facility/Project Name Burnett Oil	County Name Polk	Well Name MW4
Facility Licence, Permit or Monitoring Number	County Code 48	Wis. Unique Well Number DNR Well Number

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method		11. Depth to Water (from top of well casing)	
surged with bailer and bailed	<input type="checkbox"/> 41	a. 29.11 ft.	29.31 ft.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61	b. 9/20/16	9/20/16
surged with block and bailed	<input type="checkbox"/> 42	mm/dd/yy	<input checked="" type="checkbox"/> pm
surged with block and pumped	<input type="checkbox"/> 62	Time	<input type="checkbox"/> a.m.
surged with block, bailed and pumped	<input type="checkbox"/> 70	c. 1:44	3:25
compressed air	<input type="checkbox"/> 20		<input checked="" type="checkbox"/> p.m.
bailed only	<input type="checkbox"/> 10		<input type="checkbox"/> a.m.
pumped only	<input type="checkbox"/> 51		
pumped slowly	<input type="checkbox"/> 50		
Other _____	<input type="checkbox"/>	12. Sediment in well bottom	0 inches
3. Time spent developing well	101 min	13. Water clarity	Clear Turbid (Describe)
4. Depth of well (from top of Casing)	34.24 ft	<input type="checkbox"/> 10	<input checked="" type="checkbox"/> 10
5. Inside diameter of well	2.07 in.	<input type="checkbox"/> 15	Turbid (Describe)
6. Volume of water in filter pack and well casing	4.87 gal.	Clear at 15 gallons	
7. Volume of water removed from well	90 gal.	Fill in if drilling fluids were used and well is at solid waste facility.	
8. Volume of water added (If any)	0 gal.	14. Total suspended solids	mg/l
9. Source of water added _____		15. COD	mg/l
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No		

16. Additional comments on development:

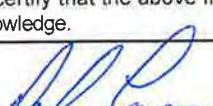
Well developed by: Person's Name and Firm  Name: David Larsen (REI)  Firm: REI Engineering, Inc. 4020 N 20th Ave. Wausau, WI 54401	I hereby certify that the above information is true and correct to the best of my knowledge.  Signature:  Print Initials: DNL Firm: REI Engineering, Inc.
--	---

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

Facility/Project Name Burnett Oil	County Name Polk	Well Name MW91-1	
Facility Licence, Permit or Monitoring Number	County Code 48	Wis. Unique Well Number	DNR Well Number

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development		After Development
2. Well development method	surged with bailer and bailed <input type="checkbox"/> 41 surged with bailer and pumped <input checked="" type="checkbox"/> 61 surged with block and bailed <input type="checkbox"/> 42 surged with block and pumped <input type="checkbox"/> 62 surged with block, bailed and pumped <input type="checkbox"/> 70 compressed air <input type="checkbox"/> 20 bailed only <input type="checkbox"/> 10 pumped only <input type="checkbox"/> 51 pumped slowly <input type="checkbox"/> 50 Other _____ <input type="checkbox"/>	11. Depth to Water (from top of well casing)	a. 31.90 ft.  Data mm/dd/yy Time c. 11:50	32.08 ft.  9/14/16 p.m. <input type="checkbox"/> a.m. <input checked="" type="checkbox"/>
3. Time spent developing well	75 min.	12. Sediment in well bottom	6 inches	0 inches
4. Depth of well (from top of Casing)	42.5 ft.	13. Water clarity	Clear <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> (Describe) 10 15	Clear <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> (Describe) 10 15
5. Inside diameter of well	2.07 in.			
6. Volume of water in filter pack and well casing	10 gal.	Fill in if drilling fluids were used and well is at solid waste facility:		
7. Volume of water removed from well	65 gal.	14. Total suspended solids	mg/l	mg/l
8. Volume of water added (If any)	0 gal.	15. COD	mg/l	mg/l
9. Source of water added _____				
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No			

16. Additional comments on development:

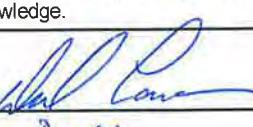
Well developed by: Person's Name and Firm Name: David Larsen (REI) Firm: REI Engineering, Inc. 4020 N 20th Ave. Wausau, WI 54401	I hereby certify that the above information is true and correct to the best of my knowledge. Signature:  Print Initials: DNL Firm: REI Engineering, Inc.
--	---

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

Facility/Project Name Burnett Oil	County Name Polk	Well Name MW91-2A
Facility Licence, Permit or Monitoring Number	County Code 48	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 41	11. Depth to Water (from top of well casing)	a. 32.84 ft.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61		32.91 ft.
surged with block and bailed	<input type="checkbox"/> 42	Data mm/dd/yy	9/14/16
surged with block and pumped	<input type="checkbox"/> 62	Time	<input checked="" type="checkbox"/> p.m. <input type="checkbox"/> a.m.
surged with block, bailed and pumped	<input type="checkbox"/> 70	c. 1:56	3:50 pm am
compressed air	<input type="checkbox"/> 20	12. Sediment in well bottom	0 inches
bailed only	<input type="checkbox"/> 10		
pumped only	<input type="checkbox"/> 51	13. Water clarity	Clear Turbid (Describe)
pumped slowly	<input type="checkbox"/> 50	<input type="checkbox"/> 10 <input checked="" type="checkbox"/> 15	<input checked="" type="checkbox"/> 10 15
Other _____	<input type="checkbox"/>		Clear at 15 gallons
3. Time spent developing well	115	min.	
4. Depth of well (from top of Casing)	42.26	ft.	
5. Inside diameter of well	2.07	in.	
6. Volume of water in filter pack and well casing	10	gal.	Fill in if drilling fluids were used and well is at solid waste facility:
7. Volume of water removed from well	75	gal.	
8. Volume of water added (If any)	0	gal.	14. Total suspended solids mg/l
9. Source of water added _____			15. COD mg/l
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No		

16. Additional comments on development:

Well developed by: Person's Name and Firm Name: David Larsen (REI) Firm: REI Engineering, Inc. 4020 N 20th Ave. Wausau, WI 54401	I hereby certify that the above Information is true and correct to the best of my knowledge. Signature:  Print Initials: DNL Firm: REI Engineering, Inc.
--	---

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

Facility/Project Name Burnett Oil	County Name Polk	Well Name MW91-2B
Facility Licence, Permit or Monitoring Number	County Code 48	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method	surged with bailer and bailed <input type="checkbox"/> 41 surged with bailer and pumped <input checked="" type="checkbox"/> 61 surged with block and bailed <input type="checkbox"/> 42 surged with block and pumped <input type="checkbox"/> 62 surged with block, bailed and pumped <input type="checkbox"/> 70 compressed air <input type="checkbox"/> 20 bailed only <input type="checkbox"/> 10 pumped only <input type="checkbox"/> 51 pumped slowly <input type="checkbox"/> 50 Other _____ <input type="checkbox"/>	11. Depth to Water (from top of well casing) a. 32.25 ft.  Data mm/dd/yy b. 9/14/16  Time c. 2:04 <input checked="" type="checkbox"/> p.m. <input type="checkbox"/> a.m.	33.17 ft.  9/14/16  4:00 <input checked="" type="checkbox"/> p.m. <input type="checkbox"/> a.m.
3. Time spent developing well	118 min.	12. Sediment in well bottom	6 inches
4. Depth of well (from top of Casing)	71.14 ft	13. Water clarity	Clear <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> (Describe) 10 15
5. Inside diameter of well	2.07 in.	Clear at 15 gallons	
6. Volume of water in filter pack and well casing	9.4 gal.	Fill in if drilling fluids were used and well is at solid waste facility:	
7. Volume of water removed from well	85 gal.	14. Total suspended solids	mg/l
8. Volume of water added (If any)	0 gal.	15. COD	mg/l
9. Source of water added _____			
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No		

16. Additional comments on development:

Well developed by: Person's Name and Firm  Name: <u>David Larsen (REI)</u>  Firm: <u>REI Engineering, Inc.</u> 4020 N 20th Ave. Wausau, WI 54401	I hereby certify that the above information is true and correct to the best of my knowledge.  Signature: <u>David Larsen</u> Print Initials: <u>D.L.</u> Firm: <u>REI Engineering, Inc.</u>
--	---

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

## **APPENDIX F**

### **WDNR BOREHOLE ABANDONMENT FORMS (FORM 3300-5)**



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

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Drinking Water   | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other: _____         |   |

**1. Well Location Information**

County Burnett	WI Unique Well # of Removed Well GP1	Hicap #
-------------------	--	---------

Latitude / Longitude (see instructions)

Format Code

Method Code

DD

GPS008

DDM

SCR002

OTH001

OTH001

1/4 NE

1/4 SE

Section  
08

Township  
T39

Range  
16

E

W

N

W

or Gov't Lot #

N

Well Street Address

26504 Minnow Ave

Well City, Village or Town

Village of Wester

Well ZIP Code

54893

Subdivision Name

Lot #

Reason for Removal from Service

WI Unique Well # of Replacement Well  
GP1

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

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 08/10/2016
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.
<input checked="" type="checkbox"/> Borehole / Drillhole	

Construction Type:

Drilled     Driven (Sandpoint)     Dug  
 Other (specify): Geoprobe

Formation Type:

Unconsolidated Formation     Bedrock

Total Well Depth From Ground Surface (ft.)  
20'

Casing Diameter (in.)

2"

Lower Drillhole Diameter (in.)

Casing Depth (ft.)

Was well annular space grouted?

Yes     No     Unknown

If yes, to what depth (feet)?

Depth to Water (feet)

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

3/8" bentonite Chips

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	20'	2/3 bag	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing  
Gestra (Mitch Panfil), REI Engineering

License #

Date of Filling & Sealing or Verification  
(mm/dd/yyyy) 08/10/2016

**DNR Use Only**

Date Received

Noted By

Street or Route  
4080 N. 20th Avenue

Telephone Number  
( 715 ) 675-9784

Comments

City  
Wausau

State  
WI

ZIP Code  
54401

Signature of Person Doing Work

Date Signed  
8/24/16

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

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Drinking Water   | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other:               |   |

**1. Well Location Information**

County Burnett	WI Unique Well # of Removed Well GP2	Hicap #			
Latitude / Longitude (see instructions)		Format Code N DD	Method Code GPS008		
		W DDM	SCR002		
			OTH001		
1/4 NE or Gov't Lot #	1/4 SE	Section 08	Township T39	Range N 16	E <input checked="" type="checkbox"/>
Well Street Address 26504 Minnow Ave					
Well City, Village or Town Village of Wester		Well ZIP Code 54893			
Subdivision Name		Lot #			

Reason for Removal from Service      WI Unique Well # of Replacement Well  
Temporary Borehole      GP2

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

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 08/10/2016	
<input type="checkbox"/> Water Well		
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.	
Construction Type:		
<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Dug
<input checked="" type="checkbox"/> Other (specify): Geoprobe		

Formation Type:

<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Ground Surface (ft.) 35'	Casing Diameter (in.) 2"

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
--------------------------------	--------------------

Was well annular space grouted?       Yes       No       Unknown

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

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

3/8" bentonite Chips	From (ft.) Surface	To (ft.) 35'	No. Yards, Sacks Sealant or Volume (circle one) 1 & 2/3 bag	Mix Ratio or Mud Weight
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**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Gestra (Mitch Panfil), REI Engineering	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/11/2016	Date Received	Noted By
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Street or Route 4080 N. 20th Avenue	Telephone Number ( 715 ) 675-9784	Comments
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City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Mitch Panfil</i>	Date Signed 8/24/16
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**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Drinking Water   | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other:               |   |

**1. Well Location Information**

County Burnett	WI Unique Well # of Removed Well GP3	Hicap #
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Latitude / Longitude (see instructions)		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
		N	
		W	

¼ / ¼ NE	¼ SE	Section or Gov't Lot #	Township 08	Range N	E <input type="checkbox"/> W
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Well Street Address 26504 Minnow Ave	Well ZIP Code 54893
Well City, Village or Town Village of Wester	
Subdivision Name	Lot #

Reason for Removal from Service Temporary Borehole	WI Unique Well # of Replacement Well GP3
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**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole	Original Construction Date (mm/dd/yyyy) 08/10/2016
If a Well Construction Report is available, please attach.	

Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Other (specify): Geoprobe	<input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug
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Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
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Total Well Depth From Ground Surface (ft.) 15'	Casing Diameter (in.) 2"
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Lower Drillhole Diameter (in.)	Casing Depth (ft.)
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Was well annular space grouted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
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If yes, to what depth (feet)?	Depth to Water (feet)
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5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
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3/8" bentonite Chips	Surface	15'	2/3 bag	
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**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Gestra (Mitch Panfil), REI Engineering	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/10/2016
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**DNR Use Only**

Date Received	Noted By
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Street or Route 4080 N. 20th Avenue	Telephone Number ( 715 ) 675-9784	Comments
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Comments

City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>[Signature]</i>	Date Signed 8/24/16
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**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Drinking Water   | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other:               |   |

**1. Well Location Information**

County Burnett	WI Unique Well # of Removed Well GP4	Hicap #	2. Facility / Owner Information			
Latitude / Longitude (see instructions)		Format Code N	Method Code <input type="checkbox"/> DD <input type="checkbox"/> SCR002 <input type="checkbox"/> DDM <input type="checkbox"/> OTH001	Facility Name Burnett Oil		
		W		Facility ID (FID or PWS)		
				License/Permit/Monitoring # 02-07-282564		
1/4 NE or Gov't Lot #	1/4 SE	Section 08	Township T39	Range N	E <input type="checkbox"/>	Original Well Owner Burnett CO
16						Present Well Owner Burnett CO
Well Street Address 26504 Minnow Ave						Mailing Address of Present Owner 7410 County HWY K
Well City, Village or Town Village of Wester			Well ZIP Code 54893			City of Present Owner Siren
Subdivision Name			Lot #			State WI
Reason for Removal from Service Temporary Borehole			WI Unique Well # of Replacement Well GP4			ZIP Code 54872

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

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 08/10/2016	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Other (specify): Geoprobe		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

Formation Type:

<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock	Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Total Well Depth From Ground Surface (ft.) 15'	Casing Diameter (in.) 2"	Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Lower Drillhole Diameter (in.)	Casing Depth (ft.)	Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A

Was well annular space grouted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	If yes, to what depth (feet)?	Depth to Water (feet)	If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
				If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A

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

3/8" bentonite Chips	From (ft.) Surface	To (ft.) 15'	No. Yards, Sacks Sealant or Volume (circle one) 2/3 bag	Mix Ratio or Mud Weight
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**6. Comments**

<b>7. Supervision of Work</b> Name of Person or Firm Doing Filling & Sealing Gestra (Mitch Panfil), REI Engineering			License #	Date of Filing & Sealing or Verification (mm/dd/yyyy) 08/10/2016	Date Received	Noted By
Street or Route 4080 N. 20th Avenue			Telephone Number ( 715 ) 675-9784		Comments	
City Wausau		State WI	ZIP Code 54401	Signature of Person Doing Work <i>Mitch Panfil</i>		Date Signed 8/24/16

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

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Drinking Water   | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other: _____         |   |

**1. Well Location Information**

County Burnett	WI Unique Well # of Removed Well GP5	Hicap #	Facility Name Burnett Oil
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Latitude / Longitude (see instructions)		Format Code N	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
		W	<input type="checkbox"/> DDM

¼ / ¼ NE	¼ SE	Section or Gov't Lot #	Township 08	Range N	E <input type="checkbox"/>
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Well Street Address 26504 Minnow Ave	Well ZIP Code 54893	Mailing Address of Present Owner 7410 County HWY K
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Subdivision Name	Lot #	City of Present Owner Siren	State WI	ZIP Code 54872
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Reason for Removal from Service Temporary Borehole	WI Unique Well # of Replacement Well GP5	Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 08/10/2016	Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) perforated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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<input checked="" type="checkbox"/> Borehole / Drillhole	Casing removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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Construction Type: <input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Dug	Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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<input checked="" type="checkbox"/> Other (specify): Geoprobe	Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock	Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
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Total Well Depth From Ground Surface (ft.) 20'	Casing Diameter (in.) 2"	If yes, to what depth (feet)? Depth to Water (feet)	If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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Lower Drillhole Diameter (in.)	Casing Depth (ft.)	Required Method of Placing Sealing Material Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
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Was well annular space grouted? <input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown	Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____
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For Monitoring Wells and Monitoring Well Boreholes Only: <input checked="" type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
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<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry
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5. Material Used to Fill Well / Drillhole 3/8" bentonite Chips	From (ft.) Surface	To (ft.) 20'	No. Yards, Sacks Sealant or Volume (circle one) 1 bag	Mix Ratio or Mud Weight
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6. Comments	Comments
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7. Supervision of Work Name of Person or Firm Doing Filling & Sealing Gestra (Mitch Panfil), REI Engineering	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/10/2016	Date Received	Noted By
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Street or Route 4080 N. 20th Avenue	Telephone Number ( 715 ) 675-9784	Comments
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City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>[Signature]</i>	Date Signed 8/24/16
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**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Drinking Water   | <input type="checkbox"/> Watershed/Wastewater | <input checked="" type="checkbox"/> Remediation/Redevelopment |
| <input type="checkbox"/> Waste Management | <input type="checkbox"/> Other:               |   |

**1. Well Location Information**

County Burnett	WI Unique Well # of Removed Well GP6	Hicap #	Facility Name Burnett Oil
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Latitude / Longitude (see instructions)		Format Code <input type="checkbox"/> DD	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001	N
		<input type="checkbox"/> DDM		W
1/4 NE	1/4 SE	Section 08	Township T39	Range N 16 <input checked="" type="checkbox"/> W

Well Street Address 26504 Minnow Ave				Original Well Owner Burnett County
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Well City, Village or Town Village of Webster		Well ZIP Code 54893	Mailing Address of Present Owner 7410 County HWY K	
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Subdivision Name		Lot #	City of Present Owner Siren	State WI	ZIP Code 54872
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Reason for Removal from Service Temporary Borehole	WI Unique Well # of Replacement Well GP6	Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 08/10/2016	Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) perforated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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<input checked="" type="checkbox"/> Borehole / Drillhole	Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
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Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
---------------------------------------	---	-----------------------------	------------------------------

Did material settle after 24 hours? If yes, was hole retopped?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
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If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
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Required Method of Placing Sealing Material	<input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped		
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<input type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____		
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Sealing Materials	<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete		
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<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite Chips		
---	--	--	--

For Monitoring Wells and Monitoring Well Boreholes Only:			
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<input checked="" type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout		
---	---	--	--

<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry		
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**5. Material Used to Fill Well / Drillhole**

3/8" bentonite Chips	From (ft.) Surface	To (ft.) 20'	No. Yards, Sacks Sealant or Volume (circle one) 1 bag	Mix Ratio or Mud Weight
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**6. Comments**

<b>7. Supervision of Work</b>	<b>DNR Use Only</b>		
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Name of Person or Firm Doing Filling & Sealing Gestra (Mitch Panfil), REI Engineering	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/10/2016	Date Received	Noted By
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Street or Route 4080 N. 20th Avenue	Telephone Number ( 715 ) 675-9784	Comments
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City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Mitch Panfil</i>	Date Signed 8/24/16
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## **APPENDIX G**

### **SELECT SECTIONS FROM PREVIOUS REPORTS**



Facility/Project Name <u>VILLAGE OF WEBSTER - WATER SUPPLY</u>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>MW-91-1</u>
Facility License, Permit or Monitoring Number	WELL LOCATION Lat. _____ Long. _____ or St. Plane 268547.217 ft. N. 1316684.11 ft. E.	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. ___, T. ___, N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	
Distance Well Is From Waste/Source Boundary ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

A. Protective pipe, top elevation <u>983.42</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>983.22</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>4.0</u> in. b. Length: <u>4.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> ____
C. Land surface elevation <u>980.2</u> ft. MSL	d. Additional protection? If yes, describe: <u>3-4" x 7' STEEL GUARD POSTS</u>
D. Surface seal, bottom ft. MSL or <u>27.5</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> ____
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u>CONCRETE</u> Other <input type="checkbox"/> ____
13. Sieve analysis attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 31 d. % Bentonite ..... Bentonite-cement grout <input checked="" type="checkbox"/> 50 e. Ft <sup>3</sup> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/> ____	f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: a. Bentonite granules <input checked="" type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. Other <input type="checkbox"/> ____
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name & mesh size a. <u>None Used</u>
Describe _____	b. Volume added <u>ft<sup>3</sup></u>
17. Source of water (attach analysis): <u>WEBSTER CITY GARAGE or County Fairgrounds</u>	8. Filter pack material: Manufacturer, product name and mesh size a. <u>RED FLINT SAND 45-55</u> b. Volume added <u>5 ft<sup>3</sup></u>
E. Bentonite seal, top ft. MSL or <u>25.5</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> ____
F. Fine sand, top ft. MSL or <u>27.5</u> ft.	10. Screen material: a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> ____
G. Filter pack, top ft. MSL or <u>27.5</u> ft.	
H. Screen joint, top ft. MSL or <u>30.0</u> ft.	
I. Well bottom ft. MSL or <u>40.0</u> ft.	
J. Filter pack, bottom ft. MSL or <u>42.0</u> ft.	
K. Borehole, bottom ft. MSL or <u>42.0</u> ft.	
L. Borehole, diameter in. <u>8.0</u>	
M. O.D. well casing in. <u>2.39</u>	
N. I.D. well casing in. <u>2.09</u>	

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

Signature:

Date: 10/1/01 Firm: GME CONSULTANT, INC.

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$10,000 for each offense. In accordance with ch. 147 Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each offense.

Facility/Project Name <b>VILLAGE OF WEBSTER-WATER SUPPLY</b>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input checked="" type="checkbox"/> S. ft. <input type="checkbox"/> E. <input checked="" type="checkbox"/> W.	Well Name <b>MW-91-2A</b>
Facility License, Permit or Monitoring Number	Grid <del>Registration</del> WELL LOCATION Lat. _____ Long. _____ or St. Plane 26053S. 63 ft. N. 1346897.47 ft. E.	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. ___, T. ___, N. R. <input type="checkbox"/> E. <input checked="" type="checkbox"/> W.	
Distance Well Is From Waste/Source Boundary ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <b>4.0 in.</b> b. Length: <b>4.0 ft.</b> c. Material: <b>Steel <input checked="" type="checkbox"/> 04</b> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <b>3 - 4" STEEL GUARD POSTS</b>
C. Land surface elevation _____ ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/> --
D. Surface seal, bottom ft. MSL or <b>27.0 ft.</b>	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3.0 Annular space seal <input type="checkbox"/> -- <b>Concrete</b> Other <input type="checkbox"/> --
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 3.3 b. ____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 c. ____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 3.1 d. ____ % Bentonite ..... Bentonite-cement grout <input checked="" type="checkbox"/> 5.0 e. ____ Ft <sup>3</sup> volume added for any of the above
13. Sieve analysis attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	f. How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.2 Gravity <input checked="" type="checkbox"/> 0.8
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/> --	6. Bentonite seal: a. Bentonite granules <input checked="" type="checkbox"/> 3.3 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3.2 c. Other <input type="checkbox"/> --
15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1 Drilling Mud <input type="checkbox"/> 0.3 None <input checked="" type="checkbox"/> 9.9	7. Fine sand material: Manufacturer, product name & mesh size a. <b>None Used</b>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	b. Volume added <b>ft<sup>3</sup></b>
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size a. <b>REO FLINT SAND 95-55</b>
17. Source of water (attach analysis): <b>WEBSTER CITY GARAGE or County Fairgrounds</b>	b. Volume added <b>ft<sup>3</sup></b>
E. Bentonite seal, top _____ ft. MSL or _____ ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2.3 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 2.4 Other <input type="checkbox"/> --
F. Fine sand, top _____ ft. MSL or _____ ft.	10. Screen material: <b>Schedule 80 PVC</b> a. Screen type: Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/> --
G. Filter pack, top _____ ft. MSL or _____ ft.	b. Manufacturer <b>Johnson</b> c. Slot size: <b>0.212 in.</b> d. Slotted length: <b>12.0 ft</b>
H. Screen joint, top _____ ft. MSL or _____ ft.	
I. Well bottom _____ ft. MSL or _____ ft.	
J. Filter pack, bottom _____ ft. MSL or _____ ft.	
K. Borehole, bottom _____ ft. MSL or _____ ft.	
L. Borehole, diameter _____ in.	
M. O.D. well casing _____ in.	
N. I.D. well casing _____ in.	

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

*Jamie Tuura PE* Firm **GME CONSULTANTS, INC.**

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each

Facility/Project Name <b>VILLAGE OF WEBSTER - WATER SUPPLY</b>		Local Grid Location of Well ft. N. <input type="checkbox"/> S. <input type="checkbox"/> ft. E. <input type="checkbox"/> W.		Well Name <b>MW-91-2B</b>	
Facility License, Permit or Monitoring Number		WELL LOCATION Lat. _____ Long. _____ or St. Plane 268539. 35 ft. N. 1396893. 28 ft. E.		Wis. Unique Well Number DNR Well Number <b>DL-003</b>	
Type of Well Piezometer	Water Table Observation Well <input type="checkbox"/> 11 <input checked="" type="checkbox"/> 12	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. <input type="checkbox"/> E. <input checked="" type="checkbox"/> W.		Date Well Installed <b>07/12/91</b>	
Distance Well Is From Waste/Source Boundary ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and Firm) <b>JAMIE Tulura</b>	
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				GME Consultants, Inc.	

1. Protective pipe, top elevation	- 984.5 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		
3. Well casing, top elevation	- 984.7 ft. MSL	2. Protective cover pipe: a. Inside diameter: <b>4.0 in.</b> b. Length: <b>4.0 ft.</b> c. Material: <b>Steel <input checked="" type="checkbox"/> 04</b> d. Additional protection? If yes, describe: _____ <b>Other <input type="checkbox"/> 04</b>																		
5. Land surface elevation	- 982.0 ft. MSL	3. Surface seal: <b>Bentonite <input type="checkbox"/> 30</b> <b>Concrete <input checked="" type="checkbox"/> 01</b> Other <input type="checkbox"/> --																		
7. Surface seal, bottom	ft. MSL or 51.0 ft.	4. Material between well casing and protective pipe: <b>Bentonite <input type="checkbox"/> 30</b> <b>Annular space seal <input type="checkbox"/> --</b> <b>Concrete <input type="checkbox"/> Other <input checked="" type="checkbox"/> --</b>																		
12. USCS classification of soil near screen:	<table border="1"> <tr> <td>GP <input type="checkbox"/></td> <td>GM <input type="checkbox"/></td> <td>GC <input type="checkbox"/></td> <td>GW <input type="checkbox"/></td> <td>SW <input type="checkbox"/></td> <td>SP <input checked="" type="checkbox"/></td> </tr> <tr> <td>SM <input type="checkbox"/></td> <td>SC <input type="checkbox"/></td> <td>ML <input type="checkbox"/></td> <td>MH <input type="checkbox"/></td> <td>CL <input type="checkbox"/></td> <td>CH <input type="checkbox"/></td> </tr> <tr> <td colspan="6">Bedrock <input type="checkbox"/></td> </tr> </table>		GP <input type="checkbox"/>	GM <input type="checkbox"/>	GC <input type="checkbox"/>	GW <input type="checkbox"/>	SW <input type="checkbox"/>	SP <input checked="" type="checkbox"/>	SM <input type="checkbox"/>	SC <input type="checkbox"/>	ML <input type="checkbox"/>	MH <input type="checkbox"/>	CL <input type="checkbox"/>	CH <input type="checkbox"/>	Bedrock <input type="checkbox"/>					
GP <input type="checkbox"/>	GM <input type="checkbox"/>	GC <input type="checkbox"/>	GW <input type="checkbox"/>	SW <input type="checkbox"/>	SP <input checked="" type="checkbox"/>															
SM <input type="checkbox"/>	SC <input type="checkbox"/>	ML <input type="checkbox"/>	MH <input type="checkbox"/>	CL <input type="checkbox"/>	CH <input type="checkbox"/>															
Bedrock <input type="checkbox"/>																				
13. Sieve analysis attached?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. ____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. ____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 31 d. ____ % Bentonite ..... Bentonite-cement grout <input checked="" type="checkbox"/> 50 e. ____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08																		
14. Drilling method used:	Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/> --	6. Bentonite seal: a. Bentonite granules <input checked="" type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. _____ Other <input type="checkbox"/> --																		
15. Drilling fluid used:	Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. <b>None Used</b>																		
16. Drilling additives used?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size a. <b>Red Flint Sand - 45-55</b>																		
Describe _____		9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> --																		
17. Source of water (attach analysis): <b>WEBSTER City GARAGE or County Fairgrounds</b>		10. Screen material: <b>Schedule 80 PVC</b> a. Screen type: <b>Factory cut <input checked="" type="checkbox"/> 11</b> <b>Continuous slot <input type="checkbox"/> 01</b> Other <input type="checkbox"/> --																		
E. Bentonite seal, top	- 49.0 ft. MSL or _____ ft.	b. Manufacturer <b>Johnson</b> 0.01 in. c. Slot size: <b>5.0 ft.</b>																		
F. Fine sand, top	- 51.0 ft. MSL or _____ ft.	d. Slotted length: <b>14</b>																		
G. Filter pack, top	- 59.0 ft. MSL or _____ ft.																			
H. Screen joint, top	- 69.0 ft. MSL or _____ ft.																			
I. Well bottom	- 69.0 ft. MSL or _____ ft.																			
J. Filter pack, bottom	- 71.0 ft. MSL or _____ ft.																			
K. Borehole, bottom	- 71.0 ft. MSL or _____ ft.																			
L. Borehole, diameter	8.0 in.																			
M. O.D. well casing	2.39 in.																			
N. I.D. well casing	2.09 in.																			

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

Signature Jamie Tulura Firm GME CONSULTANTS INC.

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by ch. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each

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

Facility/Project Name <b>WEBSTER</b>	County Name <b>BURNETT</b>	Well Name <b>91-ZB</b>	
Facility License, Permit or Monitoring Number	County Code <b>D 7</b>	Wis. Unique Well Number <b>D 1 - 0 0 2</b>	DNR Well Number

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11. Depth to Water (from top of well casing) <b>36.33 ft</b>	Before Development <b>36.31 ft</b>	After Development
2. Well development method		Date <b>b 0 9 / 0 5 / 9 1</b> <b>m m d d y y</b>	<b>0 9 / 0 5 / 9 1</b> <b>m m d d y y</b>	
surged with bailer and bailed	<input type="checkbox"/> 41	Time <b>c 11 : 57 a.m.</b>	<b>1 : 40 p.m.</b>	<input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61			
surged with block and bailed	<input type="checkbox"/> 42			
surged with block and pumped	<input type="checkbox"/> 62			
surged with block, bailed and pumped	<input type="checkbox"/> 70			
compressed air	<input type="checkbox"/> 20			
bailed only	<input type="checkbox"/> 10			
pumped only	<input type="checkbox"/> 51			
pumped slowly	<input type="checkbox"/> 50			
Other _____	<input checked="" type="checkbox"/>			
3. Time spent developing well	<b>62 min.</b>	12. Sediment in well bottom <b>0.5 inches</b>	<b>0.2 inches</b>	
4. Depth of well (from top of well casing)	<b>71.8 ft.</b>	13. Water clarity Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) <b>CLEAR WATER BUT 0.5 - 1.0 INCHES OF SAND CONSISTENTLY ON BOTTOM OF BAILER</b>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <b>CLEAR - LITTLE OR NO SAND OBSERVED</b>	
5. Inside diameter of well	<b>2.00 in.</b>			
6. Volume of water in filter pack and well casing	<b>10.7 gal.</b>			
7. Volume of water removed from well	<b>60.0 gal.</b>	Fill in if drilling fluids were used and well is at solid waste facility:		
8. Volume of water added (if any)	<b>0.0 gal.</b>	14. Total suspended solids <b>mg/l</b>	<b>mg/l</b>	
9. Source of water added _____		15. COD <b>mg/l</b>	<b>mg/l</b>	

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

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: GEORGE J. HUDAk

Firm: PREM, INC

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

Signature: WCL

Print Initials: WCL

Firm: GME CONSULTANT, INC

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

Facility/Project Name <u>WEBSTER</u>	County Name <u>BURNETT</u>	Well Name <u>91-ZA</u>
Facility License, Permit or Monitoring Number _____- <u>07</u>	County Code <u>07</u>	Wis. Unique Well Number <u>DN 00000000000000000000000000000000</u>
		DNR Well Number <u>      </u>

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11. Depth to Water (from top of well casing) <u>36.94 ft.</u>	Before Development	After Development
2. Well development method surged with bailer and bailed <input type="checkbox"/> 41 surged with bailer and pumped <input checked="" type="checkbox"/> 61 surged with block and bailed <input type="checkbox"/> 42 surged with block and pumped <input type="checkbox"/> 62 surged with block, bailed and pumped <input type="checkbox"/> 70 compressed air <input type="checkbox"/> 20 bailed only <input type="checkbox"/> 10 pumped only <input type="checkbox"/> 51 pumped slowly <input type="checkbox"/> 50 Other _____	Date <u>b 09 / 0 5 / 9 1</u> m m d d y y	<u>36.93 ft.</u>	<u>36.93 ft.</u>
	Time <u>a 10:27</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>11:45</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	
3. Time spent developing well <u>45 min.</u>	12. Sediment in well bottom <u>0.2 inches</u>	<u>0.1 inches</u>	
4. Depth of well (from top of well casisng) <u>42.9 ft.</u>	13. Water clarity Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) <u>CLEAR W/ MINOR FINE GRAINED SAND</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>CLEAR - SEDIMENT FREE AFTER 2 MINUTES OF PUMPING</u>	
5. Inside diameter of well <u>2.00 in.</u>			
6. Volume of water in filter pack and well casing <u>6.3 gal.</u>			
7. Volume of water removed from well <u>20.0 gal.</u>			
8. Volume of water added (if any) <u>0.0 gal.</u>			
9. Source of water added _____			
10. Analysis performed on water added? (If yes, attach results) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	14. Total suspended solids <u>      </u> mg/l	15. COD <u>      </u> mg/l	<u>      </u> mg/l
16. Additional comments on development:    	Fill in if drilling fluids were used and well is at solid waste facility:		

Well developed by: Person's Name and Firm

Name: GEORGE J. HUDAkFirm: KREM, INC.

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

Signature: George J. HudaKPrint Initials: GJHFirm: GEORGE J. HUDAk CONSULTANT, INC.

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

Facility/Project Name <b>WEBSTER</b>	County Name <b>BURNETT</b>	Well Name <b>MW-91-1</b>
Facility License, Permit or Monitoring Number -----	County Code <b>O 7</b>	Wis. Unique Well Number DNR Well Number -----

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11. Depth to Water (from top of well casing)  Before Development <u>36.02 ft</u>	After Development <u>36.03 ft</u>
2. Well development method		Date <u>09/05/91</u> <u>m m d d y y</u>	
surged with bailer and bailed	<input type="checkbox"/> 41	Time <u>7:50</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>9:20</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61		
surged with block and bailed	<input type="checkbox"/> 42		
surged with block and pumped	<input type="checkbox"/> 62		
surged with block, bailed and pumped	<input type="checkbox"/> 70		
compressed air	<input type="checkbox"/> 20		
bailed only	<input type="checkbox"/> 10		
pumped only	<input type="checkbox"/> 51		
pumped slowly	<input type="checkbox"/> 50		
Other _____	<input checked="" type="checkbox"/>		
3. Time spent developing well	<u>45</u> min.	12. Sediment in well bottom <u>0.4 inches</u>	<u>0.1 inches</u>
4. Depth of well (from top of well casing)	<u>43.0</u> ft.	13. Water clarity Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>LIGHT BROWN</u> <u>DU TO</u> <u>SUSPENDED</u> <u>FINE TO VERY</u> <u>FINE SILT</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>CLEAR WATER</u> <u>AFTER 3</u> <u>MINUTES OF</u> <u>PUMPING</u>
5. Inside diameter of well	<u>2.00</u> in.		
6. Volume of water in filter pack and well casing	<u>6.5</u> gal.		
7. Volume of water removed from well	<u>20.0</u> gal.		
8. Volume of water added (if any)	<u>0.0</u> gal.	14. Total suspended solids <u>mg/l</u>	<u>mg/l</u>
9. Source of water added _____		15. COD <u>mg/l</u>	<u>mg/l</u>
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Fill in if drilling fluids were used and well is at solid waste facility:	

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: GEORGE J. HUDA

Firm: BREM, Inc.

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

Signature: J. J. Weasy, PE

Print Initials: WCK

Firm: GME CONSULTANTS, INC.

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

**Table 5**  
**Water Table Elevations**  
**Village of Webster, Wisconsin**

(Wells Installed During RREM, Inc., Investigation)

(Wells Installed During RREM, Inc., Investigation)						
RREM Well No.	Wisconsin Unique Well No.	Top of Riser Elevation	Date of Elevation Measurement (measured in feet)			
			7/24/91	8/7/91	8/26/91	9/10/91
91-1	DL-001	983.22	946.70	947.00	947.20	947.39
91-2A	DL-002	984.28	946.97	947.25	947.37	947.44
91-2B	DL-003	983.69	946.69	947.21	947.37	947.42
91-3	DL-004	982.27	946.77	947.25	947.35	947.43
91-4	DL-005	980.13	947.18	947.43	947.60	947.66
91-5A	DL-006	980.49	947.52	947.63	947.76	947.82
91-5B	DL-007	980.48	947.53	947.62	947.75	947.81
91-6	DL-008	982.01	947.85	947.94	948.04	948.09
91-7	DL-571	980.99	(1)	947.89	947.96	948.05
91-8	DL-572	980.50	—	948.34	948.17	948.30

## **APPENDIX H**

### **INVESTIGATIVE WASTE DISPOSAL**



**LINCOLN COUNTY LANDFILL 715-536-9636**  
Site: N4750 Landfill Lane, Merrill, WI 54452  
Mailing: 801 N Sales St, Ste 201, Merrill, WI 54452  
**OPERATING HOURS:**  
Monday-Friday  
SUMMER (May 1 - Sept. 30) 7:00 am - 4:00 pm  
WINTER (Oct. 1 - Apr. 30) 8:00 am - 4:00 pm  
1st and 3rd Sat. 8:00 am - Noon

DATE: 9/28/2016  
Time In: 02:30 PM

TICKET #: 220048      Vehicle #:  
Time Out: 02:39 PM

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

JOB : 16 - 57 B - REI #6962 Burnett Oil, Webster  
PO# : REI job #6962

\$23.00 ton exempt (CON31)    2.04 tn  
Gross: 15600                Tare: 11520                Net Weight: 4080

Scale Notes:

Charge Transaction

HAVE A NICE DAY!

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

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

**LINCOLN COUNTY LANDFILL 715-536-9636**  
Site: N4750 Landfill Lane, Merrill, WI 54452  
Mailing: 801 N Sales St, Ste 201, Merrill, WI 54452  
**OPERATING HOURS:**  
Monday-Friday  
SUMMER (May 1 - Sept. 30) 7:00 am - 4:00 pm  
WINTER (Oct. 1 - Apr. 30) 8:00 am - 4:00 pm  
1st and 3rd Sat. 8:00 am - Noon

DATE: 8/25/2016  
Time In: 12:13 PM

TICKET #: 218459      Vehicle #:  
Time Out: 12:13 PM

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

JOB : 16 - 57 B - REI #6962 Burnett Oil, Webster  
PO# : REI job #6962

PEFCA DRUMS (PECFA)      1 un  
Gross: 1      Tare: 0      Net Weight: 1

Scale Notes:

Charge Transaction

HAVE A NICE DAY!

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

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

## **APPENDIX I**

### **GRAIN SIZE ANALYSIS**



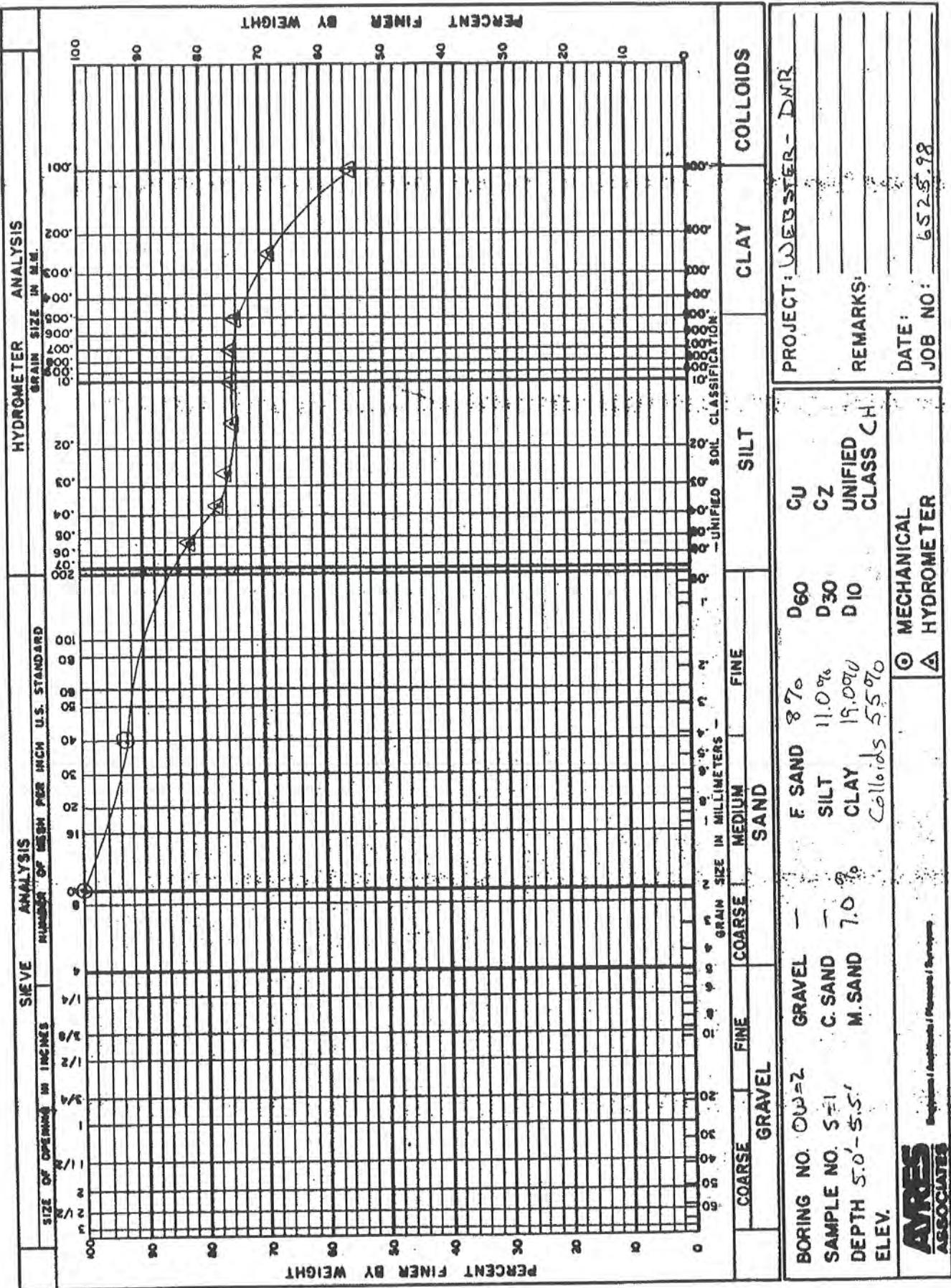
**AVRES**  
ASSOCIATES

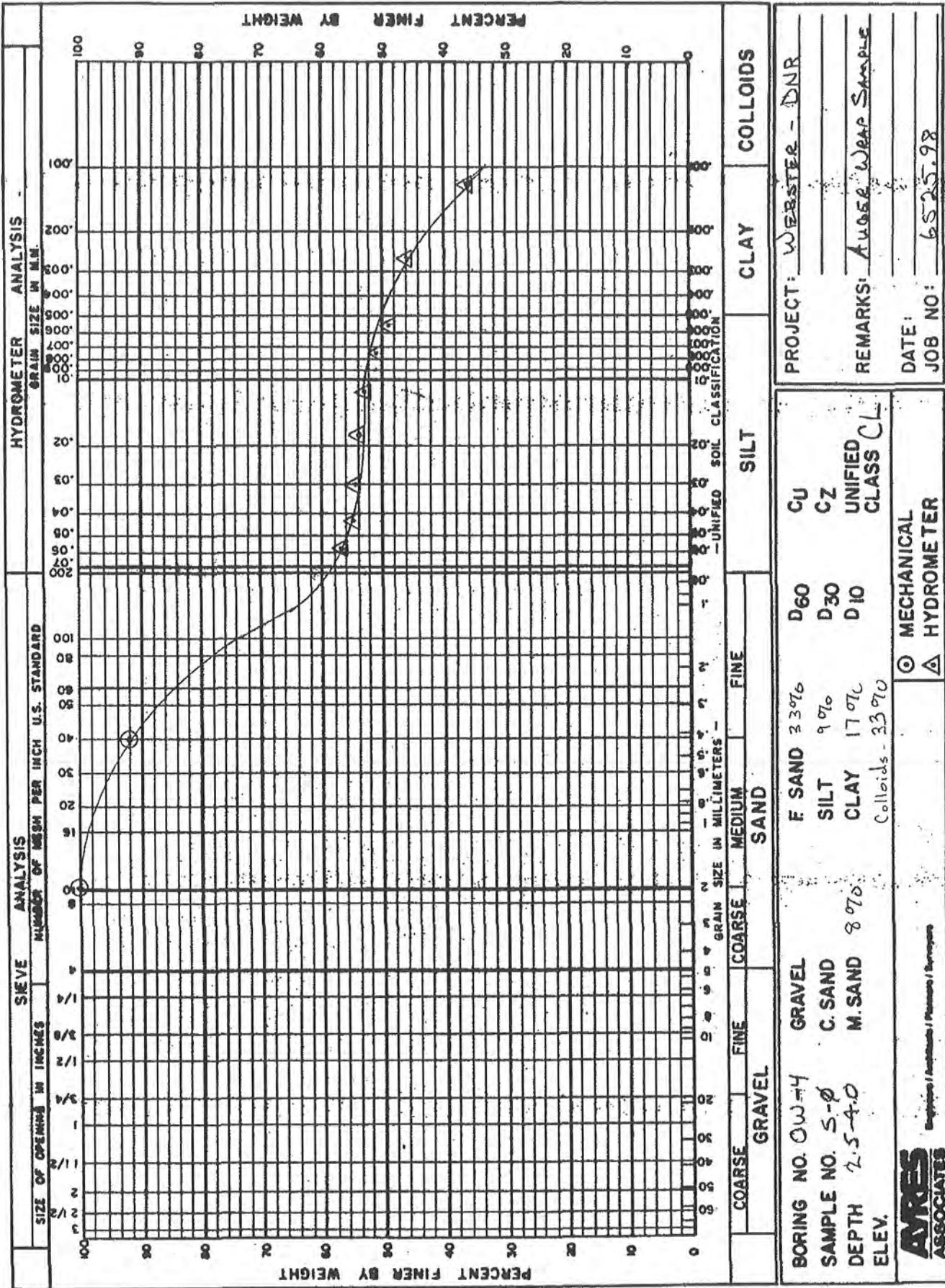
Engineers / Architects / Planners / Surveyors

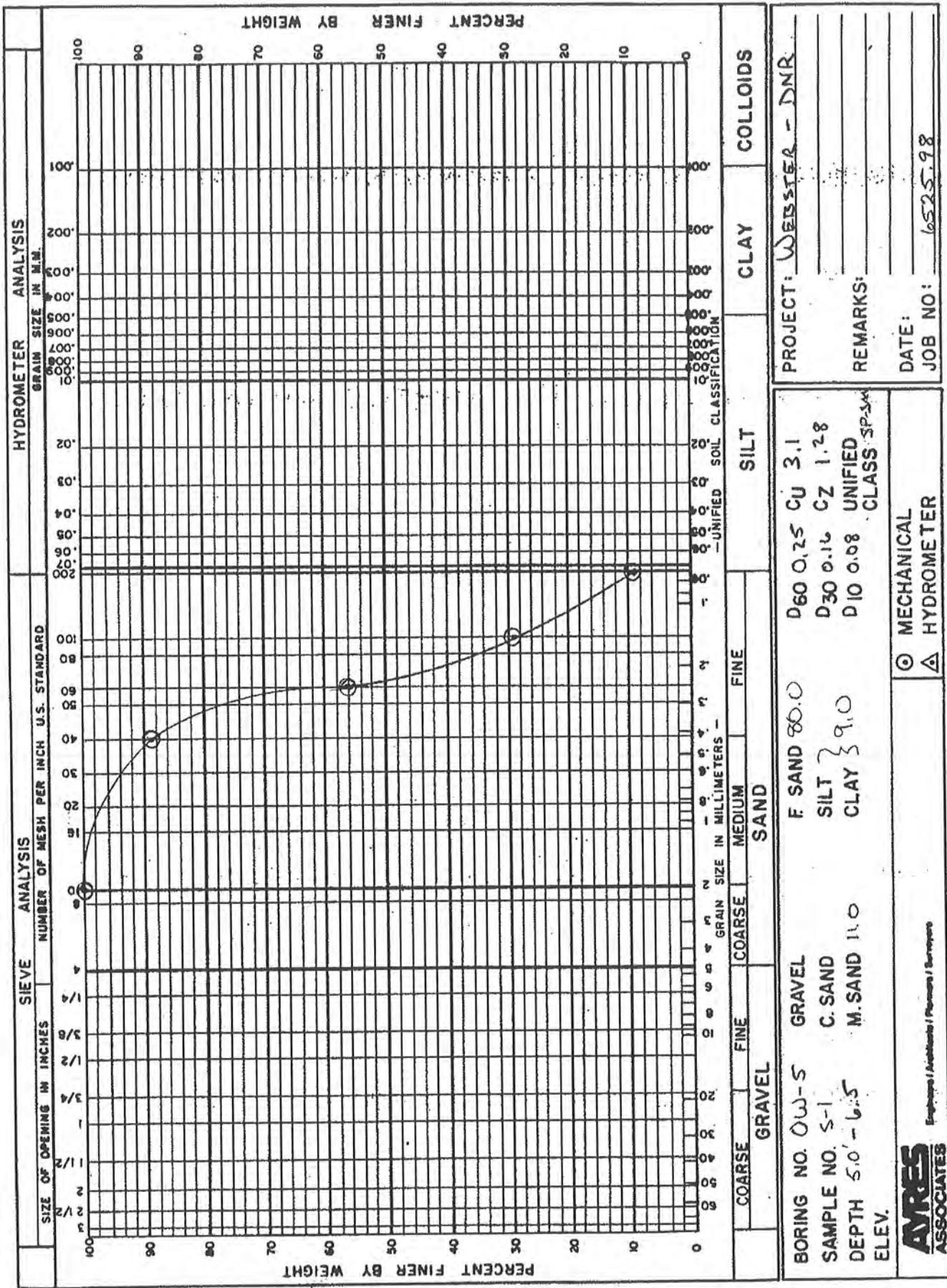
PROJECT: Webster, DNR

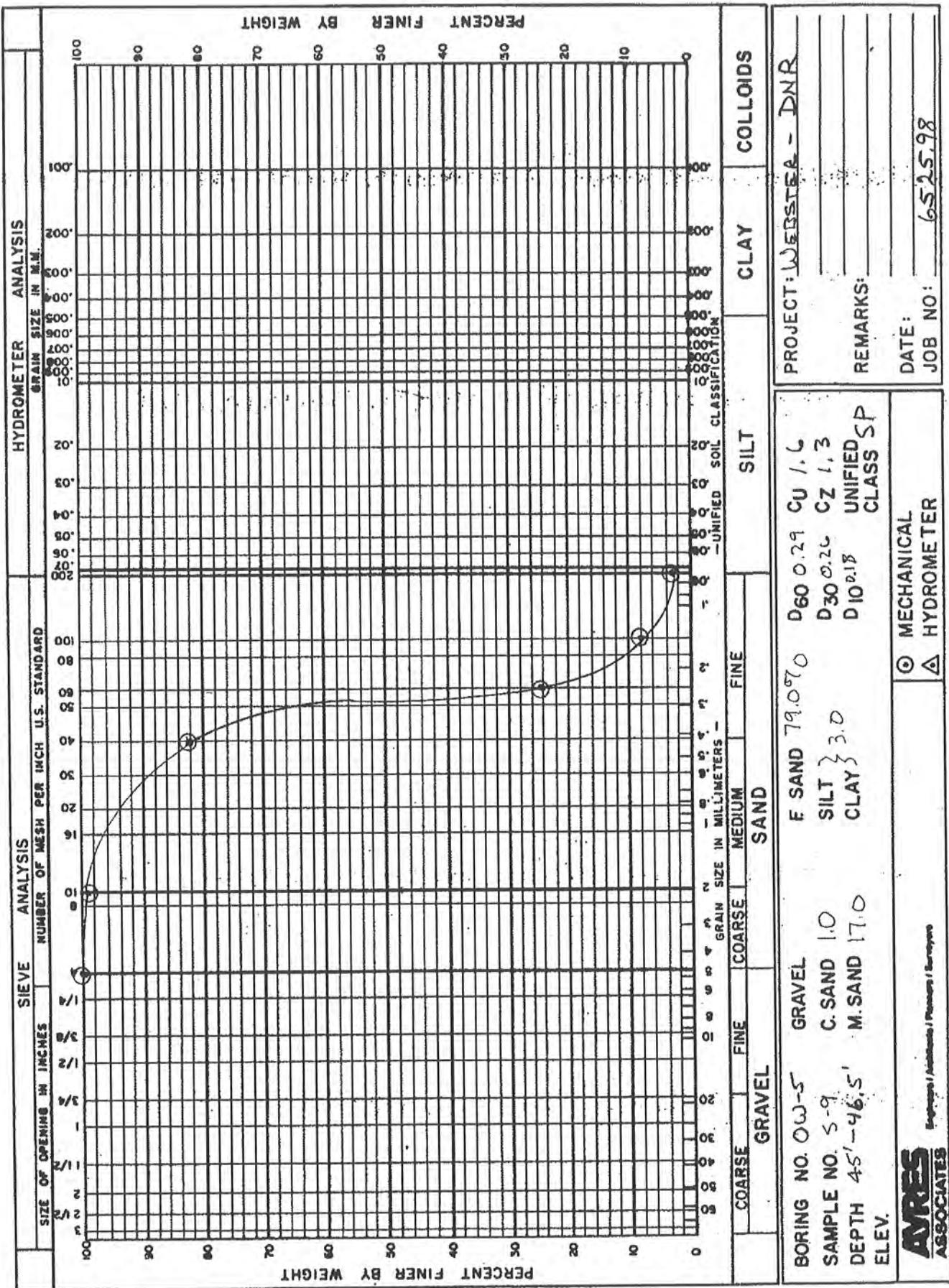
JOB NO. 6525-98 DATE Aug 21, 1986

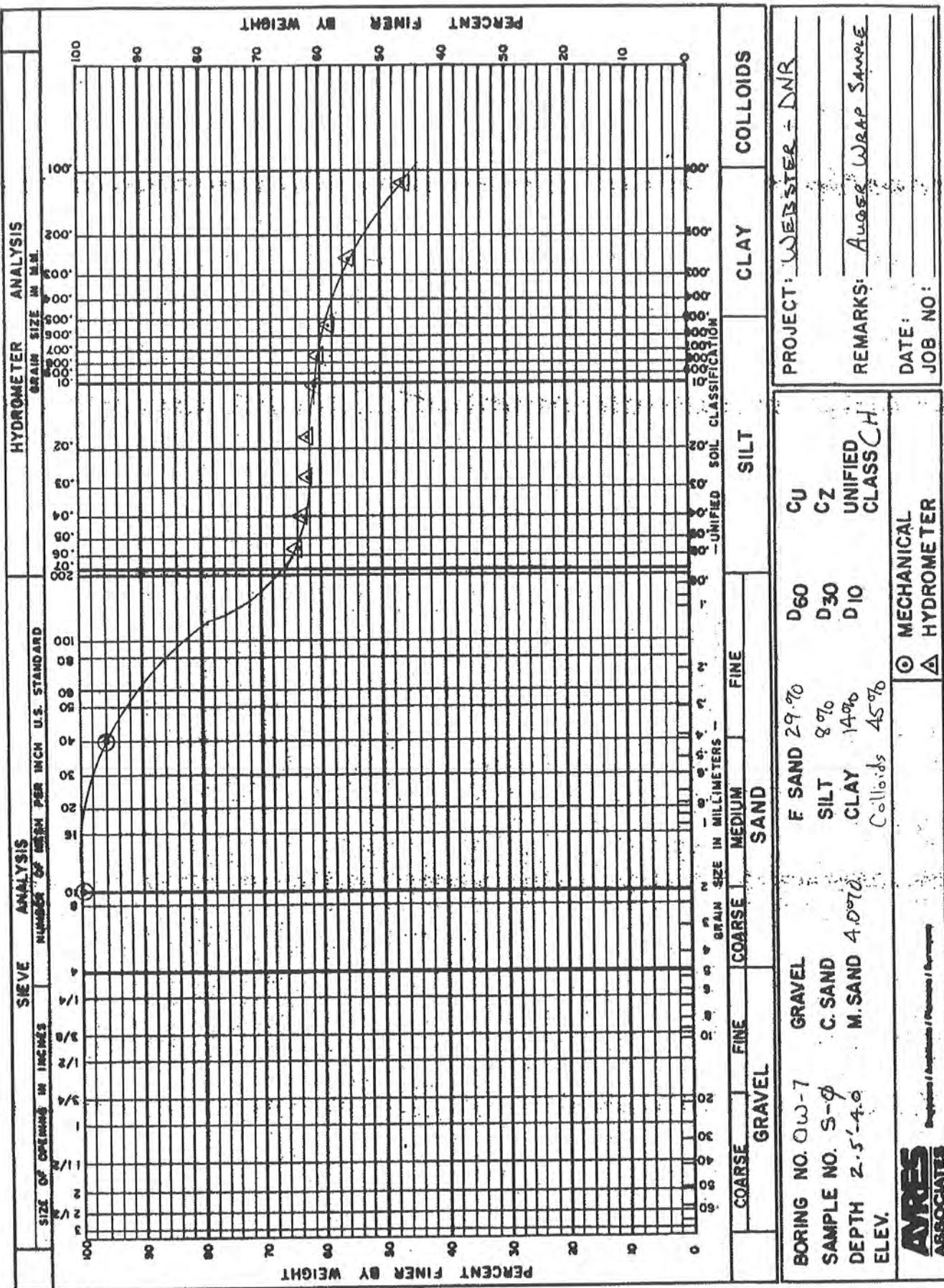
BORING NO.	SAMPLE NO.	DEPTH	FIELD CLASS	GRADATION - % PASSING						LL	PI	USCS	W <sub>n</sub> %	e	Y <sub>d</sub> P.C.E.	GS	k - (CM/S)
				.005	.05	.074	#40	#10	#4								
DW-2	S-1	5.0 - 5.5		74	74.5	81	85	93.3	/00				63.9	42.4	CH		2.70
DW-4	S-Φ	2.5 - 4.0		50	53	56	59	92.1	/00				37.3	20.8	CL		2.68
DW-5	S-1	5.0 - 6.5	SP-SM					9.2	88.9	/00						SP-SM	
DW-5	S-9	45.0 - 46.5	SP					2.7	82.1	99.7	/00					SP	
DW-7	S-Φ	2.5 - 4.0		59	62	64	67	96.3	/00				52.4	35.3	CH		2.70
DW-7	S-3	15.0 - 16.5	SP					2.1	74.2	/00						SP	
DW-9	S-4	20.0 - 21.5	SP					2.9	39.1	91.7	96.3	100 - 3/8"				SP	
DW-9	S-7	35.0 - 36.5	SP					0.8	27.6	84.3	94.5	/00				SP	

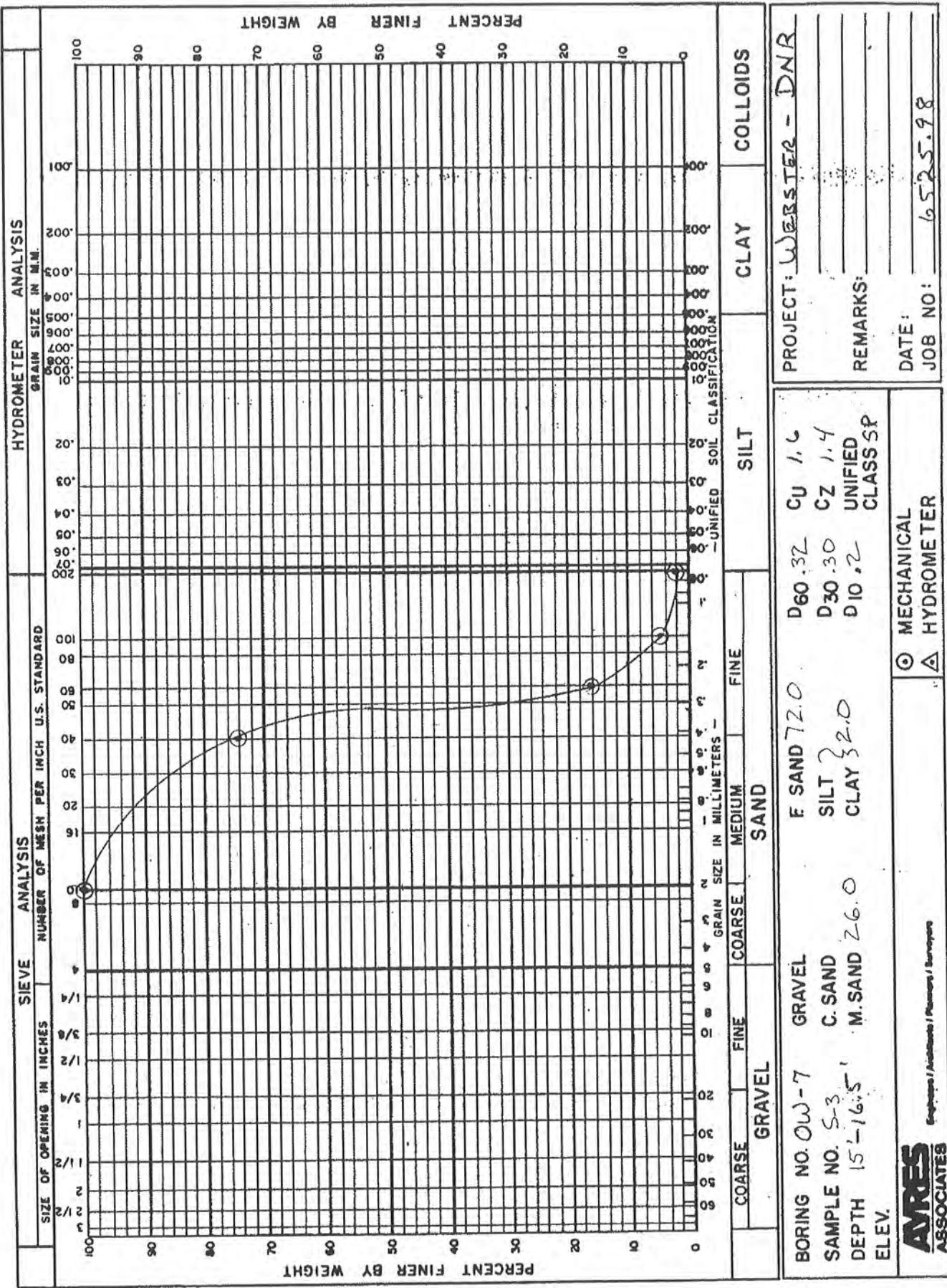


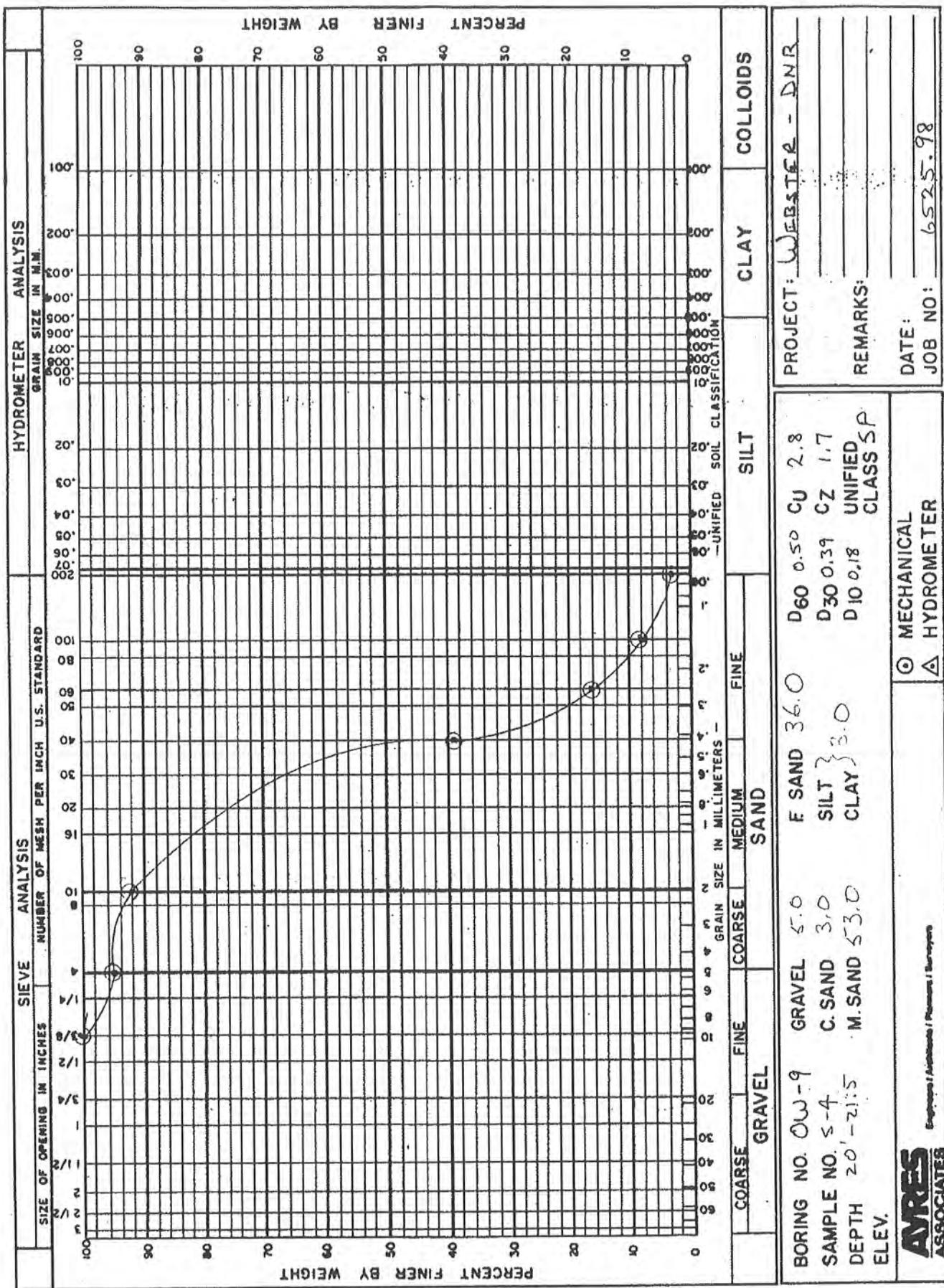


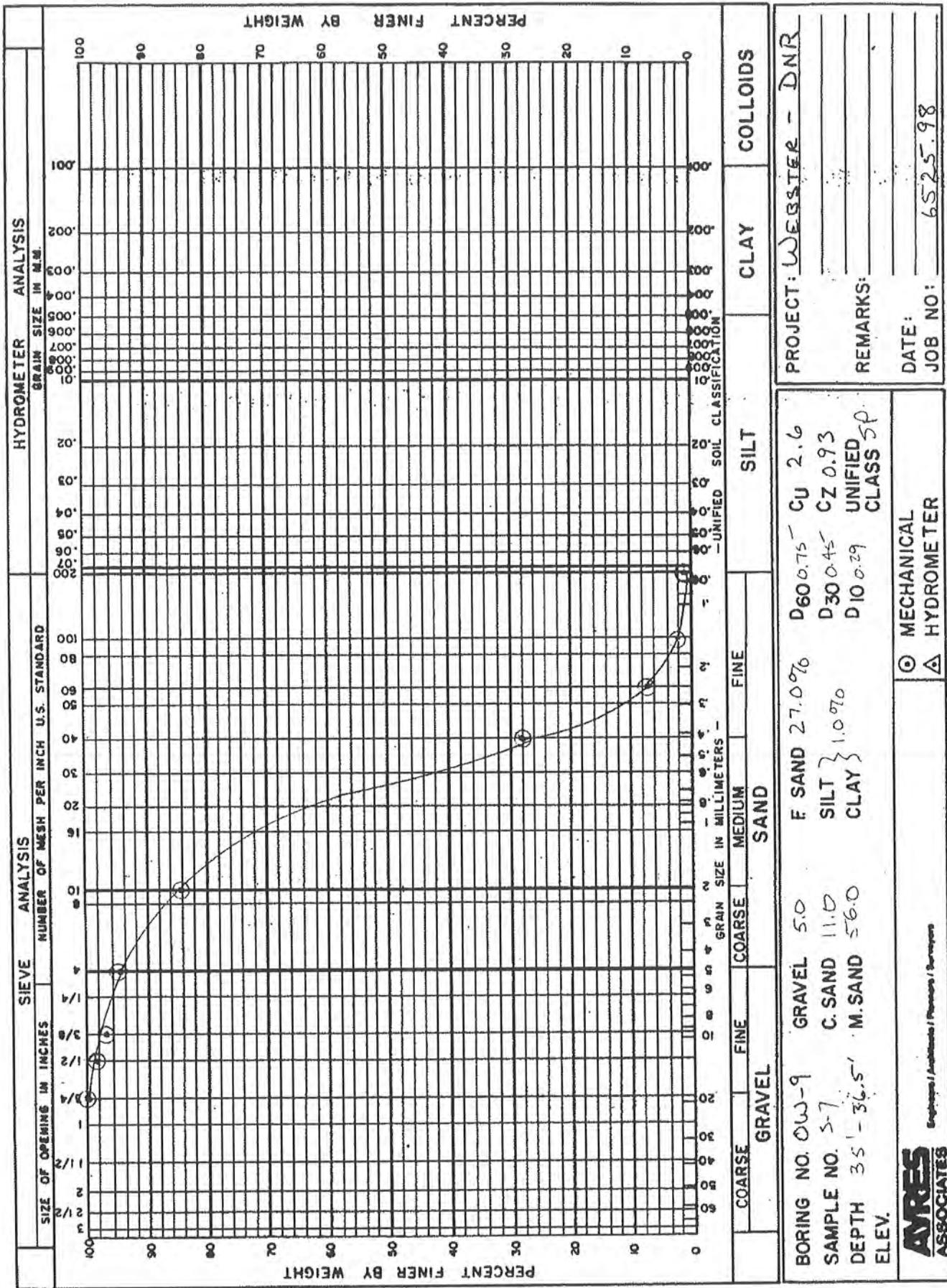












## **APPENDIX J**

### **HYDRAULIC CONDUCTIVITY CALCULATIONS**



**Hydraulic Conductivity Calculations**  
**WDNR State Lead Project**  
**BRRTS #02-07-000337**  
**Webster, Wisconsin**

Monitoring Well	Hvorslev Method (cm/sec)	Hvorslev Method (ft/day)
MW91-1	1.35E-02	38.27
MW91-2A	1.70E-02	48.19
MW91-2B	Not Completed	Not Completed
MW91-3	Not Completed	Not Completed
MW91-4	2.42E-02	68.60
MW91-5A	1.23E-02	34.87
MW91-5B	Not Completed	Not Completed
MW91-6	1.57E-02	44.50
MW91-7	Not Completed	Not Completed
MW91-8	Not Completed	Not Completed
OW-1	2.25E-02	63.78
OW-2	1.63E-02	46.20
OW-3	1.65E-02	46.77
OW-4	1.83E-02	51.87
OW-5	1.93E-02	54.71
OW-6	1.74E-02	49.32
OW-7	2.90E-02	82.20
OW-8	1.33E-02	37.70
OW-9	1.97E-02	55.84
WC-91-1	Not Completed	Not Completed
WC-91-2	Not Completed	Not Completed
WC-91-3	1.86E-02	52.72
WC-91-4	1.68E-02	47.62
WD-91-1	1.71E-02	48.47
WD-91-2	2.25E-02	63.78
WD-91-3	1.86E-02	52.72

## **APPENDIX K**

### **SOIL AND GROUNDWATER ANALYTICAL REPORTS**



August 26, 2016

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

RE: Project: 6962 BURNETT OIL  
Pace Project No.: 40136685

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on August 12, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,



Steven Mleczko for  
Brian Basten  
[brian.basten@pacelabs.com](mailto:brian.basten@pacelabs.com)  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 6962 BURNETT OIL  
Pace Project No.: 40136685

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302	South Carolina Certification #: 83006001
Florida/NELAP Certification #: E87948	Texas Certification #: T104704529-14-1
Illinois Certification #: 200050	US Dept of Agriculture #: S-76505
Kentucky Certification #: 82	Virginia VELAP Certification ID: 460263
Louisiana Certification #: 04168	Virginia VELAP ID: 460263
Minnesota Certification #: 055-999-334	Wisconsin Certification #: 405132750
Virginia VELAP ID: 460263	Wisconsin DATCP Certification #: 105-444
North Dakota Certification #: R-150	

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 6962 BURNETT OIL  
 Pace Project No.: 40136685

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40136685001	GP1 @ 2-4	Solid	08/10/16 12:50	08/12/16 08:50
40136685002	GP1 @ 6-7	Solid	08/10/16 12:55	08/12/16 08:50
40136685003	GP2 @ 2-3	Solid	08/10/16 13:45	08/12/16 08:50
40136685004	GP2 @ 8-9	Solid	08/10/16 13:55	08/12/16 08:50
40136685005	GP2 @ 14-15	Solid	08/10/16 14:10	08/12/16 08:50
40136685006	GP3 @ 2-4	Solid	08/10/16 15:00	08/12/16 08:50
40136685007	GP3 @ 14-15	Solid	08/10/16 15:20	08/12/16 08:50
40136685008	GP4 @ 2-4	Solid	08/10/16 16:00	08/12/16 08:50
40136685009	GP4 @ 14-15	Solid	08/10/16 16:15	08/12/16 08:50
40136685010	GP5 @ 2-4	Solid	08/10/16 16:30	08/12/16 08:50
40136685011	GP5 @ 9-10	Solid	08/10/16 16:45	08/12/16 08:50
40136685012	GP5 @ 19-20	Solid	08/10/16 17:00	08/12/16 08:50
40136685013	GP6 @ 2-4	Solid	08/10/16 17:15	08/12/16 08:50
40136685014	GP6 @ 14-15	Solid	08/10/16 17:25	08/12/16 08:50
40136685015	GP2	Water	08/11/16 09:00	08/12/16 08:50

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 6962 BURNETT OIL  
Pace Project No.: 40136685

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40136685001	GP1 @ 2-4	WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
40136685002	GP1 @ 6-7	WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
40136685003	GP2 @ 2-3	WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
40136685004	GP2 @ 8-9	WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
40136685005	GP2 @ 14-15	WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
40136685006	GP3 @ 2-4	WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
40136685007	GP3 @ 14-15	EPA 6010	DLB	1
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
		EPA 6010	DLB	1
40136685008	GP4 @ 2-4	ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		ASTM D2974-87	KTS	1
40136685009	GP4 @ 14-15	WI MOD GRO	PMS	10
		EPA 6010	DLB	1
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
40136685010	GP5 @ 2-4	EPA 6010	DLB	1
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
		EPA 6010	DLB	1
40136685011	GP5 @ 9-10	ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
		EPA 6010	DLB	1

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## SAMPLE ANALYTE COUNT

Project: 6962 BURNETT OIL  
 Pace Project No.: 40136685

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40136685012	<b>GP5 @ 19-20</b>	ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
		EPA 6010	DLB	1
40136685013	<b>GP6 @ 2-4</b>	ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
		EPA 6010	DLB	1
40136685014	<b>GP6 @ 14-15</b>	ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10
		EPA 6010	DLB	1
40136685015	<b>GP2</b>	ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	10

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

Sample: GP1 @ 2-4 Lab ID: 40136685001 Collected: 08/10/16 12:50 Received: 08/12/16 08:50 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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<2560	ug/kg	5130	2560	80	08/16/16 05:30	08/16/16 15:34	71-43-2	W
Ethylbenzene	33700	ug/kg	6230	3120	80	08/16/16 05:30	08/16/16 15:34	100-41-4	
Methyl-tert-butyl ether	<2560	ug/kg	5130	2560	80	08/16/16 05:30	08/16/16 15:34	1634-04-4	W
Naphthalene	110000	ug/kg	6230	3120	80	08/16/16 05:30	08/16/16 15:34	91-20-3	
Toluene	<2560	ug/kg	5130	2560	80	08/16/16 05:30	08/16/16 15:34	108-88-3	W
1,2,4-Trimethylbenzene	250000	ug/kg	6230	3120	80	08/16/16 05:30	08/16/16 15:34	95-63-6	
1,3,5-Trimethylbenzene	118000	ug/kg	6230	3120	80	08/16/16 05:30	08/16/16 15:34	108-67-8	
m&p-Xylene	120000	ug/kg	12500	6230	80	08/16/16 05:30	08/16/16 15:34	179601-23-1	
o-Xylene	90900	ug/kg	6230	3120	80	08/16/16 05:30	08/16/16 15:34	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	108	%	80-120		80	08/16/16 05:30	08/16/16 15:34	98-08-8	D3
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	40.3	mg/kg	1.3	0.46	1	08/23/16 16:05	08/24/16 19:59	7439-92-1	
<b>8270 MSSV PAH by SIM</b>	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	1890J	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	83-32-9	
Acenaphthylene	<1450	ug/kg	3240	1450	160	08/22/16 09:18	08/23/16 09:39	208-96-8	
Anthracene	<1680	ug/kg	3240	1680	160	08/22/16 09:18	08/23/16 09:39	120-12-7	
Benzo(a)anthracene	<1120	ug/kg	3240	1120	160	08/22/16 09:18	08/23/16 09:39	56-55-3	
Benzo(a)pyrene	<1160	ug/kg	3240	1160	160	08/22/16 09:18	08/23/16 09:39	50-32-8	
Benzo(b)fluoranthene	<1620	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	205-99-2	
Benzo(g,h,i)perylene	<1230	ug/kg	3240	1230	160	08/22/16 09:18	08/23/16 09:39	191-24-2	
Benzo(k)fluoranthene	<1790	ug/kg	3240	1790	160	08/22/16 09:18	08/23/16 09:39	207-08-9	
Chrysene	<1500	ug/kg	3240	1500	160	08/22/16 09:18	08/23/16 09:39	218-01-9	
Dibenz(a,h)anthracene	<1190	ug/kg	3240	1190	160	08/22/16 09:18	08/23/16 09:39	53-70-3	
Fluoranthene	<1620	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	206-44-0	
Fluorene	4210	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<1230	ug/kg	3240	1230	160	08/22/16 09:18	08/23/16 09:39	193-39-5	
1-Methylnaphthalene	35500	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	90-12-0	
2-Methylnaphthalene	49000	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	91-57-6	
Naphthalene	26700	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	91-20-3	
Phenanthrene	4910	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	85-01-8	
Pyrene	<1620	ug/kg	3240	1620	160	08/22/16 09:18	08/23/16 09:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	0	%	26-130		160	08/22/16 09:18	08/23/16 09:39	321-60-8	S4
Terphenyl-d14 (S)	0	%	10-130		160	08/22/16 09:18	08/23/16 09:39	1718-51-0	S4
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	17.7	%	0.10	0.10	1			08/24/16 14:08	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

Sample: GP1 @ 6-7 Lab ID: 40136685002 Collected: 08/10/16 12:55 Received: 08/12/16 08:50 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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	1410	ug/kg	486	243	8	08/16/16 05:30	08/16/16 15:09	71-43-2	
Ethylbenzene	6450	ug/kg	486	243	8	08/16/16 05:30	08/16/16 15:09	100-41-4	
Methyl-tert-butyl ether	<200	ug/kg	400	200	8	08/16/16 05:30	08/16/16 15:09	1634-04-4	W
Naphthalene	9150	ug/kg	486	243	8	08/16/16 05:30	08/16/16 15:09	91-20-3	
Toluene	1240	ug/kg	486	243	8	08/16/16 05:30	08/16/16 15:09	108-88-3	
1,2,4-Trimethylbenzene	23900	ug/kg	486	243	8	08/16/16 05:30	08/16/16 15:09	95-63-6	
1,3,5-Trimethylbenzene	10500	ug/kg	486	243	8	08/16/16 05:30	08/16/16 15:09	108-67-8	
m&p-Xylene	25100	ug/kg	972	486	8	08/16/16 05:30	08/16/16 15:09	179601-23-1	
o-Xylene	10100	ug/kg	486	243	8	08/16/16 05:30	08/16/16 15:09	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	109	%	80-120		8	08/16/16 05:30	08/16/16 15:09	98-08-8	D3
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	3.8	mg/kg	1.4	0.52	1	08/23/16 16:05	08/24/16 19:19	7439-92-1	
<b>8270 MSSV PAH by SIM</b>	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	<253	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	83-32-9	M6
Acenaphthylene	<227	ug/kg	506	227	25	08/22/16 09:18	08/23/16 11:09	208-96-8	M6
Anthracene	<262	ug/kg	506	262	25	08/22/16 09:18	08/23/16 11:09	120-12-7	M6
Benzo(a)anthracene	<175	ug/kg	506	175	25	08/22/16 09:18	08/23/16 11:09	56-55-3	M6
Benzo(a)pyrene	<181	ug/kg	506	181	25	08/22/16 09:18	08/23/16 11:09	50-32-8	
Benzo(b)fluoranthene	<253	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	205-99-2	
Benzo(g,h,i)perylene	<193	ug/kg	506	193	25	08/22/16 09:18	08/23/16 11:09	191-24-2	
Benzo(k)fluoranthene	<280	ug/kg	506	280	25	08/22/16 09:18	08/23/16 11:09	207-08-9	M6
Chrysene	<234	ug/kg	506	234	25	08/22/16 09:18	08/23/16 11:09	218-01-9	M6
Dibenz(a,h)anthracene	<186	ug/kg	506	186	25	08/22/16 09:18	08/23/16 11:09	53-70-3	
Fluoranthene	<253	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	206-44-0	
Fluorene	<253	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	86-73-7	M6
Indeno(1,2,3-cd)pyrene	<192	ug/kg	506	192	25	08/22/16 09:18	08/23/16 11:09	193-39-5	
1-Methylnaphthalene	4330	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	90-12-0	M6
2-Methylnaphthalene	6460	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	91-57-6	M6
Naphthalene	3740	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	91-20-3	
Phenanthrene	388J	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	85-01-8	M6
Pyrene	<253	ug/kg	506	253	25	08/22/16 09:18	08/23/16 11:09	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	32	%	26-130		25	08/22/16 09:18	08/23/16 11:09	321-60-8	
Terphenyl-d14 (S)	39	%	10-130		25	08/22/16 09:18	08/23/16 11:09	1718-51-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	17.7	%	0.10	0.10	1			08/24/16 14:08	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

Sample: GP2 @ 2-3 Lab ID: 40136685003 Collected: 08/10/16 13:45 Received: 08/12/16 08:50 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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<556	ug/kg	1110	556	20	08/16/16 05:30	08/16/16 16:00	71-43-2	W
Ethylbenzene	1530	ug/kg	1470	733	20	08/16/16 05:30	08/16/16 16:00	100-41-4	
Methyl-tert-butyl ether	<556	ug/kg	1110	556	20	08/16/16 05:30	08/16/16 16:00	1634-04-4	W
Naphthalene	26300	ug/kg	1470	733	20	08/16/16 05:30	08/16/16 16:00	91-20-3	
Toluene	<556	ug/kg	1110	556	20	08/16/16 05:30	08/16/16 16:00	108-88-3	W
1,2,4-Trimethylbenzene	18400	ug/kg	1470	733	20	08/16/16 05:30	08/16/16 16:00	95-63-6	
1,3,5-Trimethylbenzene	10100	ug/kg	1470	733	20	08/16/16 05:30	08/16/16 16:00	108-67-8	
m&p-Xylene	3800	ug/kg	2930	1470	20	08/16/16 05:30	08/16/16 16:00	179601-23-1	
o-Xylene	2350	ug/kg	1470	733	20	08/16/16 05:30	08/16/16 16:00	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		20	08/16/16 05:30	08/16/16 16:00	98-08-8	D3
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	8.7	mg/kg	1.4	0.49	1	08/23/16 16:05	08/24/16 19:26	7439-92-1	
<b>8270 MSSV PAH by SIM</b>	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	199J	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	83-32-9	
Acenaphthylene	<98.4	ug/kg	220	98.4	10	08/22/16 09:18	08/23/16 12:01	208-96-8	
Anthracene	<114	ug/kg	220	114	10	08/22/16 09:18	08/23/16 12:01	120-12-7	
Benzo(a)anthracene	<76.2	ug/kg	220	76.2	10	08/22/16 09:18	08/23/16 12:01	56-55-3	
Benzo(a)pyrene	<78.6	ug/kg	220	78.6	10	08/22/16 09:18	08/23/16 12:01	50-32-8	
Benzo(b)fluoranthene	<110	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	205-99-2	
Benzo(g,h,i)perylene	<83.8	ug/kg	220	83.8	10	08/22/16 09:18	08/23/16 12:01	191-24-2	
Benzo(k)fluoranthene	<122	ug/kg	220	122	10	08/22/16 09:18	08/23/16 12:01	207-08-9	
Chrysene	<102	ug/kg	220	102	10	08/22/16 09:18	08/23/16 12:01	218-01-9	
Dibenz(a,h)anthracene	<80.7	ug/kg	220	80.7	10	08/22/16 09:18	08/23/16 12:01	53-70-3	
Fluoranthene	<110	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	206-44-0	
Fluorene	347	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	86-73-7	
Indeno(1,2,3-cd)pyrene	<83.6	ug/kg	220	83.6	10	08/22/16 09:18	08/23/16 12:01	193-39-5	
1-Methylnaphthalene	2260	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	90-12-0	
2-Methylnaphthalene	2910	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	91-57-6	
Naphthalene	897	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	91-20-3	
Phenanthrene	407	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	85-01-8	
Pyrene	<110	ug/kg	220	110	10	08/22/16 09:18	08/23/16 12:01	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	26-130		10	08/22/16 09:18	08/23/16 12:01	321-60-8	
Terphenyl-d14 (S)	60	%	10-130		10	08/22/16 09:18	08/23/16 12:01	1718-51-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	24.2	%	0.10	0.10	1			08/24/16 14:08	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

Sample: GP2 @ 8-9 Lab ID: 40136685004 Collected: 08/10/16 13:55 Received: 08/12/16 08:50 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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<247	ug/kg	494	247	8	08/16/16 05:30	08/16/16 16:51	71-43-2	W
Ethylbenzene	993	ug/kg	612	306	8	08/16/16 05:30	08/16/16 16:51	100-41-4	
Methyl-tert-butyl ether	<247	ug/kg	494	247	8	08/16/16 05:30	08/16/16 16:51	1634-04-4	W
Naphthalene	14100	ug/kg	612	306	8	08/16/16 05:30	08/16/16 16:51	91-20-3	
Toluene	<247	ug/kg	494	247	8	08/16/16 05:30	08/16/16 16:51	108-88-3	W
1,2,4-Trimethylbenzene	11100	ug/kg	612	306	8	08/16/16 05:30	08/16/16 16:51	95-63-6	
1,3,5-Trimethylbenzene	5090	ug/kg	612	306	8	08/16/16 05:30	08/16/16 16:51	108-67-8	
m&p-Xylene	2160	ug/kg	1220	612	8	08/16/16 05:30	08/16/16 16:51	179601-23-1	
o-Xylene	1430	ug/kg	612	306	8	08/16/16 05:30	08/16/16 16:51	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		8	08/16/16 05:30	08/16/16 16:51	98-08-8	D3
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	20.3	mg/kg	1.4	0.49	1	08/23/16 16:05	08/24/16 19:28	7439-92-1	
<b>8270 MSSV PAH by SIM</b>	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	240	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	83-32-9	
Acenaphthylene	108J	ug/kg	207	92.4	10	08/22/16 09:18	08/23/16 12:18	208-96-8	
Anthracene	<107	ug/kg	207	107	10	08/22/16 09:18	08/23/16 12:18	120-12-7	
Benzo(a)anthracene	<71.6	ug/kg	207	71.6	10	08/22/16 09:18	08/23/16 12:18	56-55-3	
Benzo(a)pyrene	<73.9	ug/kg	207	73.9	10	08/22/16 09:18	08/23/16 12:18	50-32-8	
Benzo(b)fluoranthene	<103	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	205-99-2	
Benzo(g,h,i)perylene	<78.7	ug/kg	207	78.7	10	08/22/16 09:18	08/23/16 12:18	191-24-2	
Benzo(k)fluoranthene	<114	ug/kg	207	114	10	08/22/16 09:18	08/23/16 12:18	207-08-9	
Chrysene	<95.5	ug/kg	207	95.5	10	08/22/16 09:18	08/23/16 12:18	218-01-9	
Dibenz(a,h)anthracene	<75.8	ug/kg	207	75.8	10	08/22/16 09:18	08/23/16 12:18	53-70-3	
Fluoranthene	<103	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	206-44-0	
Fluorene	408	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	86-73-7	
Indeno(1,2,3-cd)pyrene	<78.5	ug/kg	207	78.5	10	08/22/16 09:18	08/23/16 12:18	193-39-5	
1-Methylnaphthalene	3350	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	90-12-0	
2-Methylnaphthalene	4230	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	91-57-6	
Naphthalene	1310	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	91-20-3	
Phenanthrene	491	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	85-01-8	
Pyrene	<103	ug/kg	207	103	10	08/22/16 09:18	08/23/16 12:18	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	26-130		10	08/22/16 09:18	08/23/16 12:18	321-60-8	
Terphenyl-d14 (S)	65	%	10-130		10	08/22/16 09:18	08/23/16 12:18	1718-51-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	19.3	%	0.10	0.10	1			08/24/16 14:08	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

Sample: GP2 @ 14-15 Lab ID: 40136685005 Collected: 08/10/16 14:10 Received: 08/12/16 08:50 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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<27.8	ug/kg	55.6	27.8	1	08/16/16 05:30	08/16/16 12:09	71-43-2	W
Ethylbenzene	<27.8	ug/kg	55.6	27.8	1	08/16/16 05:30	08/16/16 12:09	100-41-4	W
Methyl-tert-butyl ether	<27.8	ug/kg	55.6	27.8	1	08/16/16 05:30	08/16/16 12:09	1634-04-4	W
Naphthalene	306	ug/kg	69.8	34.9	1	08/16/16 05:30	08/16/16 12:09	91-20-3	
Toluene	<27.8	ug/kg	55.6	27.8	1	08/16/16 05:30	08/16/16 12:09	108-88-3	W
1,2,4-Trimethylbenzene	36.4J	ug/kg	69.8	34.9	1	08/16/16 05:30	08/16/16 12:09	95-63-6	
1,3,5-Trimethylbenzene	<27.8	ug/kg	55.6	27.8	1	08/16/16 05:30	08/16/16 12:09	108-67-8	W
m&p-Xylene	<55.6	ug/kg	111	55.6	1	08/16/16 05:30	08/16/16 12:09	179601-23-1	W
o-Xylene	<27.8	ug/kg	55.6	27.8	1	08/16/16 05:30	08/16/16 12:09	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	08/16/16 05:30	08/16/16 12:09	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.2J	mg/kg	1.4	0.52	1	08/23/16 16:05	08/24/16 19:30	7439-92-1	
<b>8270 MSSV PAH by SIM</b>	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	83-32-9	
Acenaphthylene	<9.4	ug/kg	20.9	9.4	1	08/22/16 09:18	08/23/16 02:09	208-96-8	
Anthracene	<10.9	ug/kg	20.9	10.9	1	08/22/16 09:18	08/23/16 02:09	120-12-7	
Benzo(a)anthracene	<7.3	ug/kg	20.9	7.3	1	08/22/16 09:18	08/23/16 02:09	56-55-3	
Benzo(a)pyrene	<7.5	ug/kg	20.9	7.5	1	08/22/16 09:18	08/23/16 02:09	50-32-8	
Benzo(b)fluoranthene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	205-99-2	
Benzo(g,h,i)perylene	<8.0	ug/kg	20.9	8.0	1	08/22/16 09:18	08/23/16 02:09	191-24-2	
Benzo(k)fluoranthene	<11.6	ug/kg	20.9	11.6	1	08/22/16 09:18	08/23/16 02:09	207-08-9	
Chrysene	<9.7	ug/kg	20.9	9.7	1	08/22/16 09:18	08/23/16 02:09	218-01-9	
Dibenz(a,h)anthracene	<7.7	ug/kg	20.9	7.7	1	08/22/16 09:18	08/23/16 02:09	53-70-3	
Fluoranthene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	206-44-0	
Fluorene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	86-73-7	
Indeno(1,2,3-cd)pyrene	<8.0	ug/kg	20.9	8.0	1	08/22/16 09:18	08/23/16 02:09	193-39-5	
1-Methylnaphthalene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	90-12-0	
2-Methylnaphthalene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	91-57-6	
Naphthalene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	91-20-3	
Phenanthrene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	85-01-8	
Pyrene	<10.5	ug/kg	20.9	10.5	1	08/22/16 09:18	08/23/16 02:09	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	26-130		1	08/22/16 09:18	08/23/16 02:09	321-60-8	
Terphenyl-d14 (S)	61	%	10-130		1	08/22/16 09:18	08/23/16 02:09	1718-51-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	20.4	%	0.10	0.10	1			08/24/16 14:08	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

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**Sample: GP3 @ 2-4**      Lab ID: **40136685006**      Collected: 08/10/16 15:00      Received: 08/12/16 08:50      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	71-43-2	W
Ethylbenzene	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	100-41-4	W
Methyl-tert-butyl ether	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	1634-04-4	W
Naphthalene	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	91-20-3	W
Toluene	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	108-88-3	W
1,2,4-Trimethylbenzene	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	95-63-6	W
1,3,5-Trimethylbenzene	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	108-67-8	W
m&p-Xylene	<54.3	ug/kg	109	54.3	1	08/16/16 05:30	08/16/16 12:34	179601-23-1	W
o-Xylene	<27.2	ug/kg	54.3	27.2	1	08/16/16 05:30	08/16/16 12:34	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	08/16/16 05:30	08/16/16 12:34	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	4.0	mg/kg	1.3	0.46	1	08/23/16 16:05	08/24/16 19:33	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	18.0	%	0.10	0.10	1			08/24/16 14:08	

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**Sample: GP3 @ 14-15**      Lab ID: **40136685007**      Collected: 08/10/16 15:20      Received: 08/12/16 08:50      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	1634-04-4	W
Naphthalene	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	91-20-3	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/16/16 05:30	08/16/16 13:00	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/16/16 05:30	08/16/16 13:00	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	08/16/16 05:30	08/16/16 13:00	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.2J	mg/kg	1.2	0.45	1	08/23/16 16:05	08/24/16 19:35	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	12.3	%	0.10	0.10	1			08/24/16 14:09	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

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**Sample: GP4 @ 2-4**      Lab ID: **40136685008**      Collected: 08/10/16 16:00      Received: 08/12/16 08:50      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	71-43-2	W
Ethylbenzene	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	100-41-4	W
Methyl-tert-butyl ether	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	1634-04-4	W
Naphthalene	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	91-20-3	W
Toluene	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	108-88-3	W
1,2,4-Trimethylbenzene	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	95-63-6	W
1,3,5-Trimethylbenzene	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	108-67-8	W
m&p-Xylene	<68.5	ug/kg	137	68.5	1	08/16/16 05:30	08/16/16 13:26	179601-23-1	W
o-Xylene	<34.2	ug/kg	68.5	34.2	1	08/16/16 05:30	08/16/16 13:26	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/16/16 05:30	08/16/16 13:26	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	2.3	mg/kg	1.2	0.44	1	08/23/16 16:05	08/24/16 19:37	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	9.4	%	0.10	0.10	1			08/24/16 14:09	

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**Sample: GP4 @ 14-15**      Lab ID: **40136685009**      Collected: 08/10/16 16:15      Received: 08/12/16 08:50      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	71-43-2	W
Ethylbenzene	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	100-41-4	W
Methyl-tert-butyl ether	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	1634-04-4	W
Naphthalene	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	91-20-3	W
Toluene	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	108-88-3	W
1,2,4-Trimethylbenzene	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	95-63-6	W
1,3,5-Trimethylbenzene	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	108-67-8	W
m&p-Xylene	<82.0	ug/kg	164	82.0	1	08/16/16 05:30	08/16/16 14:43	179601-23-1	W
o-Xylene	<41.0	ug/kg	82.0	41.0	1	08/16/16 05:30	08/16/16 14:43	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/16/16 05:30	08/16/16 14:43	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	0.93J	mg/kg	1.1	0.41	1	08/23/16 16:05	08/24/16 19:44	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	7.0	%	0.10	0.10	1			08/24/16 14:09	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

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**Sample: GP5 @ 2-4**      Lab ID: 40136685010      Collected: 08/10/16 16:30      Received: 08/12/16 08:50      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	4670	ug/kg	2020	1010	25	08/16/16 05:30	08/16/16 16:26	71-43-2	
Ethylbenzene	24800	ug/kg	2020	1010	25	08/16/16 05:30	08/16/16 16:26	100-41-4	
Methyl-tert-butyl ether	<906	ug/kg	1810	906	25	08/16/16 05:30	08/16/16 16:26	1634-04-4	W
Naphthalene	37600	ug/kg	2020	1010	25	08/16/16 05:30	08/16/16 16:26	91-20-3	
Toluene	2140	ug/kg	2020	1010	25	08/16/16 05:30	08/16/16 16:26	108-88-3	
1,2,4-Trimethylbenzene	120000	ug/kg	2020	1010	25	08/16/16 05:30	08/16/16 16:26	95-63-6	
1,3,5-Trimethylbenzene	44600	ug/kg	2020	1010	25	08/16/16 05:30	08/16/16 16:26	108-67-8	
m&p-Xylene	130000	ug/kg	4040	2020	25	08/16/16 05:30	08/16/16 16:26	179601-23-1	
o-Xylene	62500	ug/kg	2020	1010	25	08/16/16 05:30	08/16/16 16:26	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	109	%	80-120		25	08/16/16 05:30	08/16/16 16:26	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	11.1	mg/kg	1.1	0.41	1	08/23/16 16:05	08/24/16 19:47	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	10.4	%	0.10	0.10	1			08/24/16 14:09	

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**Sample: GP5 @ 9-10**      Lab ID: 40136685011      Collected: 08/10/16 16:45      Received: 08/12/16 08:50      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	13300	ug/kg	3750	1870	50	08/16/16 05:30	08/16/16 17:17	71-43-2	
Ethylbenzene	51100	ug/kg	3750	1870	50	08/16/16 05:30	08/16/16 17:17	100-41-4	
Methyl-tert-butyl ether	<1710	ug/kg	3420	1710	50	08/16/16 05:30	08/16/16 17:17	1634-04-4	W
Naphthalene	66800	ug/kg	3750	1870	50	08/16/16 05:30	08/16/16 17:17	91-20-3	
Toluene	68100	ug/kg	3750	1870	50	08/16/16 05:30	08/16/16 17:17	108-88-3	
1,2,4-Trimethylbenzene	179000	ug/kg	3750	1870	50	08/16/16 05:30	08/16/16 17:17	95-63-6	
1,3,5-Trimethylbenzene	64900	ug/kg	3750	1870	50	08/16/16 05:30	08/16/16 17:17	108-67-8	
m&p-Xylene	217000	ug/kg	7500	3750	50	08/16/16 05:30	08/16/16 17:17	179601-23-1	
o-Xylene	91300	ug/kg	3750	1870	50	08/16/16 05:30	08/16/16 17:17	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	107	%	80-120		50	08/16/16 05:30	08/16/16 17:17	98-08-8	D3
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	4.2	mg/kg	1.3	0.47	1	08/23/16 16:05	08/24/16 19:49	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	8.7	%	0.10	0.10	1			08/24/16 14:09	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

Sample: GP5 @ 19-20 Lab ID: 40136685012 Collected: 08/10/16 17:00 Received: 08/12/16 08:50 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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	71-43-2	W
Ethylbenzene	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	100-41-4	W
Methyl-tert-butyl ether	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	1634-04-4	W
Naphthalene	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	91-20-3	W
Toluene	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	108-88-3	W
1,2,4-Trimethylbenzene	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	95-63-6	W
1,3,5-Trimethylbenzene	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	108-67-8	W
m&p-Xylene	<52.1	ug/kg	104	52.1	1	08/16/16 05:30	08/16/16 19:00	179601-23-1	W
o-Xylene	<26.0	ug/kg	52.1	26.0	1	08/16/16 05:30	08/16/16 19:00	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/16/16 05:30	08/16/16 19:00	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	0.95J	mg/kg	1.2	0.44	1	08/23/16 16:05	08/24/16 19:52	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	3.4	%	0.10	0.10	1			08/24/16 15:09	

Sample: GP6 @ 2-4 Lab ID: 40136685013 Collected: 08/10/16 17:15 Received: 08/12/16 08:50 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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	71-43-2	W
Ethylbenzene	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	100-41-4	W
Methyl-tert-butyl ether	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	1634-04-4	W
Naphthalene	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	91-20-3	W
Toluene	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	108-88-3	W
1,2,4-Trimethylbenzene	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	95-63-6	W
1,3,5-Trimethylbenzene	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	108-67-8	W
m&p-Xylene	<80.6	ug/kg	161	80.6	1	08/16/16 05:30	08/16/16 19:25	179601-23-1	W
o-Xylene	<40.3	ug/kg	80.6	40.3	1	08/16/16 05:30	08/16/16 19:25	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	08/16/16 05:30	08/16/16 19:25	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	34.3	mg/kg	3.5	1.2	2	08/23/16 16:05	08/25/16 19:15	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	30.6	%	0.10	0.10	1			08/24/16 15:09	

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## ANALYTICAL RESULTS

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

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Sample: GP6 @ 14-15      Lab ID: 40136685014      Collected: 08/10/16 17:25      Received: 08/12/16 08:50      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	71-43-2	W
Ethylbenzene	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	100-41-4	W
Methyl-tert-butyl ether	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	1634-04-4	W
Naphthalene	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	91-20-3	W
Toluene	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	108-88-3	W
1,2,4-Trimethylbenzene	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	95-63-6	W
1,3,5-Trimethylbenzene	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	108-67-8	W
m&p-Xylene	<74.6	ug/kg	149	74.6	1	08/16/16 05:30	08/16/16 19:51	179601-23-1	W
o-Xylene	<37.3	ug/kg	74.6	37.3	1	08/16/16 05:30	08/16/16 19:51	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1	08/16/16 05:30	08/16/16 19:51	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.0J	mg/kg	1.2	0.44	1	08/23/16 16:05	08/24/16 19:56	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	4.9	%	0.10	0.10	1			08/24/16 15:09	

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Sample: GP2      Lab ID: 40136685015      Collected: 08/11/16 09:00      Received: 08/12/16 08:50      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.40	ug/L	1.0	0.40	1			08/15/16 16:36	71-43-2
Ethylbenzene	0.62J	ug/L	1.0	0.39	1			08/15/16 16:36	100-41-4
Methyl-tert-butyl ether	1.5	ug/L	1.0	0.48	1			08/15/16 16:36	1634-04-4
Naphthalene	7.0	ug/L	1.0	0.42	1			08/15/16 16:36	91-20-3
Toluene	1.1	ug/L	1.0	0.39	1			08/15/16 16:36	108-88-3
1,2,4-Trimethylbenzene	3.0	ug/L	1.0	0.42	1			08/15/16 16:36	95-63-6
1,3,5-Trimethylbenzene	1.6	ug/L	1.0	0.42	1			08/15/16 16:36	108-67-8
m&p-Xylene	1.4J	ug/L	2.0	0.80	1			08/15/16 16:36	179601-23-1
o-Xylene	<0.45	ug/L	1.0	0.45	1			08/15/16 16:36	95-47-6
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	111	%	80-120		1			08/15/16 16:36	98-08-8

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

QC Batch: 232381 Analysis Method: WI MOD GRO

QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV

Associated Lab Samples: 40136685001, 40136685002, 40136685003, 40136685004, 40136685005, 40136685006, 40136685007,  
40136685008, 40136685009, 40136685010, 40136685011, 40136685012, 40136685013, 40136685014

METHOD BLANK: 1377949 Matrix: Solid

Associated Lab Samples: 40136685001, 40136685002, 40136685003, 40136685004, 40136685005, 40136685006, 40136685007,  
40136685008, 40136685009, 40136685010, 40136685011, 40136685012, 40136685013, 40136685014

Parameter	Units	Blank		Reporting		Qualifiers
		Result	Limit	Analyzed		
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	08/16/16 07:52		
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	08/16/16 07:52		
Benzene	ug/kg	<25.0	50.0	08/16/16 07:52		
Ethylbenzene	ug/kg	<25.0	50.0	08/16/16 07:52		
m&p-Xylene	ug/kg	<50.0	100	08/16/16 07:52		
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	08/16/16 07:52		
Naphthalene	ug/kg	<25.0	50.0	08/16/16 07:52		
o-Xylene	ug/kg	<25.0	50.0	08/16/16 07:52		
Toluene	ug/kg	<25.0	50.0	08/16/16 07:52		
a,a,a-Trifluorotoluene (S)	%	101	80-120	08/16/16 07:52		

LABORATORY CONTROL SAMPLE &amp; LCSD: 1377950

1377951

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec	Limits			
1,2,4-Trimethylbenzene	ug/kg	1000	1150	1090	115	109	80-120	6	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1130	1070	113	107	80-120	6	20	
Benzene	ug/kg	1000	1110	1070	111	107	80-120	4	20	
Ethylbenzene	ug/kg	1000	1110	1050	111	105	80-120	6	20	
m&p-Xylene	ug/kg	2000	2250	2100	112	105	80-120	7	20	
Methyl-tert-butyl ether	ug/kg	1000	1160	1070	116	107	80-120	8	20	
Naphthalene	ug/kg	1000	1060	1000	106	100	80-120	6	20	
o-Xylene	ug/kg	1000	1140	1060	114	106	80-120	7	20	
Toluene	ug/kg	1000	1090	1050	109	105	80-120	4	20	
a,a,a-Trifluorotoluene (S)	%				101	101	80-120			

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

QC Batch:	232262	Analysis Method:	WI MOD GRO
QC Batch Method:	WI MOD GRO	Analysis Description:	WIGRO GCV Water
Associated Lab Samples:	40136685015		

METHOD BLANK: 1377678                                  Matrix: Water

Associated Lab Samples: 40136685015

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	08/15/16 10:36	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	08/15/16 10:36	
Benzene	ug/L	<0.40	1.0	08/15/16 10:36	
Ethylbenzene	ug/L	<0.39	1.0	08/15/16 10:36	
m&p-Xylene	ug/L	<0.80	2.0	08/15/16 10:36	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	08/15/16 10:36	
Naphthalene	ug/L	<0.42	1.0	08/15/16 10:36	
o-Xylene	ug/L	<0.45	1.0	08/15/16 10:36	
Toluene	ug/L	<0.39	1.0	08/15/16 10:36	
a,a,a-Trifluorotoluene (S)	%	105	80-120	08/15/16 10:36	

LABORATORY CONTROL SAMPLE &amp; LCSD: 1377679

1377680

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec	Limits			
1,2,4-Trimethylbenzene	ug/L	20	19.7	19.1	99	96	80-120	3	20	
1,3,5-Trimethylbenzene	ug/L	20	19.1	18.7	95	93	80-120	2	20	
Benzene	ug/L	20	20.3	20.3	101	101	80-120	0	20	
Ethylbenzene	ug/L	20	19.4	19.3	97	96	80-120	1	20	
m&p-Xylene	ug/L	40	38.5	38.4	96	96	80-120	0	20	
Methyl-tert-butyl ether	ug/L	20	20.4	19.9	102	99	80-120	3	20	
Naphthalene	ug/L	20	19.5	18.8	98	94	80-120	4	20	
o-Xylene	ug/L	20	19.7	19.7	99	99	80-120	0	20	
Toluene	ug/L	20	20.0	19.9	100	99	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%			103	104	104	80-120			

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1377869

1377870

Parameter	Units	MS		MSD		MS		MSD		% Rec	RPD	Max RPD	Qual
		40136648001	Spike	Spike	Conc.	Result	MSD	Result	% Rec				
1,2,4-Trimethylbenzene	ug/L	<0.42	20	20	18.9	18.5	94	93	48-177	2	20		
1,3,5-Trimethylbenzene	ug/L	<0.42	20	20	17.4	17.2	87	86	73-145	1	20		
Benzene	ug/L	<0.40	20	20	21.9	21.7	109	108	74-139	1	20		
Ethylbenzene	ug/L	<0.39	20	20	21.2	20.7	106	103	74-140	2	20		
m&p-Xylene	ug/L	<0.80	40	40	39.5	38.8	99	97	55-165	2	20		
Methyl-tert-butyl ether	ug/L	<0.48	20	20	21.8	21.1	109	106	80-120	3	20		
Naphthalene	ug/L	0.84J	20	20	20.9	20.2	100	97	73-133	3	20		
o-Xylene	ug/L	<0.45	20	20	20.1	19.7	101	98	73-136	2	20		
Toluene	ug/L	<0.39	20	20	21.4	21.2	107	106	80-128	1	20		

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL  
 Pace Project No.: 40136685

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			1377869	1377870								
Parameter	Units	Result	MS Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
a,a,a-Trifluorotoluene (S)	%	40136648001	Spike Conc.	MS Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	103	102	80-120	

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL  
Pace Project No.: 40136685

QC Batch:	233035	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	40136685001, 40136685002, 40136685003, 40136685004, 40136685005, 40136685006, 40136685007, 40136685008, 40136685009, 40136685010, 40136685011, 40136685012, 40136685013, 40136685014		

METHOD BLANK: 1381180 Matrix: Solid  
Associated Lab Samples: 40136685001, 40136685002, 40136685003, 40136685004, 40136685005, 40136685006, 40136685007,  
40136685008, 40136685009, 40136685010, 40136685011, 40136685012, 40136685013, 40136685014

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Lead	mg/kg	<0.43	1.2	08/24/16 19:10	

LABORATORY CONTROL SAMPLE: 1381181

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Lead	mg/kg	50	47.0	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1381182 1381183

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike										
Lead	mg/kg	40136685002	3.8	60.3	60.8	60.3	60.8	94	94	75-125	1	20	

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

QC Batch: 232924 Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM

Associated Lab Samples: 40136685001, 40136685002, 40136685003, 40136685004, 40136685005

METHOD BLANK: 1380786 Matrix: Solid

Associated Lab Samples: 40136685001, 40136685002, 40136685003, 40136685004, 40136685005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<8.3	16.7	08/22/16 15:28	
2-Methylnaphthalene	ug/kg	<8.3	16.7	08/22/16 15:28	
Acenaphthene	ug/kg	<8.3	16.7	08/22/16 15:28	
Acenaphthylene	ug/kg	<7.5	16.7	08/22/16 15:28	
Anthracene	ug/kg	<8.6	16.7	08/22/16 15:28	
Benzo(a)anthracene	ug/kg	<5.8	16.7	08/22/16 15:28	
Benzo(a)pyrene	ug/kg	<6.0	16.7	08/22/16 15:28	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	08/22/16 15:28	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	08/22/16 15:28	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	08/22/16 15:28	
Chrysene	ug/kg	<7.7	16.7	08/22/16 15:28	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	08/22/16 15:28	
Fluoranthene	ug/kg	<8.3	16.7	08/22/16 15:28	
Fluorene	ug/kg	<8.3	16.7	08/22/16 15:28	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	08/22/16 15:28	
Naphthalene	ug/kg	<8.3	16.7	08/22/16 15:28	
Phenanthrene	ug/kg	<8.3	16.7	08/22/16 15:28	
Pyrene	ug/kg	<8.3	16.7	08/22/16 15:28	
2-Fluorobiphenyl (S)	%	57	26-130	08/22/16 15:28	
Terphenyl-d14 (S)	%	88	10-130	08/22/16 15:28	

LABORATORY CONTROL SAMPLE: 1380787

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	269	81	48-130	
2-Methylnaphthalene	ug/kg	333	276	83	49-130	
Acenaphthene	ug/kg	333	245	73	54-130	
Acenaphthylene	ug/kg	333	233	70	56-130	
Anthracene	ug/kg	333	281	84	70-130	
Benzo(a)anthracene	ug/kg	333	282	84	58-130	
Benzo(a)pyrene	ug/kg	333	307	92	58-130	
Benzo(b)fluoranthene	ug/kg	333	281	84	50-130	
Benzo(g,h,i)perylene	ug/kg	333	337	101	39-130	
Benzo(k)fluoranthene	ug/kg	333	287	86	57-130	
Chrysene	ug/kg	333	296	89	64-130	
Dibenz(a,h)anthracene	ug/kg	333	357	107	44-130	
Fluoranthene	ug/kg	333	275	82	59-130	
Fluorene	ug/kg	333	244	73	56-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	362	109	45-130	
Naphthalene	ug/kg	333	248	75	46-130	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL

Pace Project No.: 40136685

LABORATORY CONTROL SAMPLE: 1380787

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	333	280	84	56-130	
Pyrene	ug/kg	333	275	83	59-130	
2-Fluorobiphenyl (S)	%			71	26-130	
Terphenyl-d14 (S)	%			86	10-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1380788      1380789

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		40136685002	Result	Spike Conc.	MS Result						
1-Methylnaphthalene	ug/kg	4330	405	405	3270	3300	-261	-255	41-130	1	24 M6
2-Methylnaphthalene	ug/kg	6460	405	405	5090	4960	-340	-370	42-130	2	25 M6
Acenaphthene	ug/kg	<253	405	405	258J	256J	29	28	49-130		27 M6
Acenaphthylene	ug/kg	<227	405	405	<227	<227	30	34	52-130		26 M6
Anthracene	ug/kg	<262	405	405	<262	<262	43	43	61-130		29 M6
Benzo(a)anthracene	ug/kg	<175	405	405	<175	188J	43	46	45-130		28 M6
Benzo(a)pyrene	ug/kg	<181	405	405	<181	<181	40	44	39-130		34
Benzo(b)fluoranthene	ug/kg	<253	405	405	<253	<253	42	44	30-130		43
Benzo(g,h,i)perylene	ug/kg	<193	405	405	<193	<193	44	47	24-130		34
Benzo(k)fluoranthene	ug/kg	<280	405	405	<280	<280	36	41	41-130		32 M6
Chrysene	ug/kg	<234	405	405	<234	<234	44	49	46-130		37 M6
Dibenz(a,h)anthracene	ug/kg	<186	405	405	192J	208J	47	51	33-130		34
Fluoranthene	ug/kg	<253	405	405	<253	<253	41	44	41-130		25
Fluorene	ug/kg	<253	405	405	329J	366J	21	30	49-130		30 M6
Indeno(1,2,3-cd)pyrene	ug/kg	<192	405	405	195J	209J	48	52	30-130		28
Naphthalene	ug/kg	3740	405	405	3090	3020	-161	-179	39-130	2	26 M6
Phenanthrene	ug/kg	388J	405	405	491J	514	25	31	47-130		26 M6
Pyrene	ug/kg	<253	405	405	<253	<253	39	45	37-130		30
2-Fluorobiphenyl (S)	%						31	35	26-130		
Terphenyl-d14 (S)	%						36	40	10-130		

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL  
 Pace Project No.: 40136685

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QC Batch:	233217	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40136685001, 40136685002, 40136685003, 40136685004, 40136685005, 40136685006, 40136685007, 40136685008, 40136685009, 40136685010, 40136685011		

---

SAMPLE DUPLICATE: 1382024

Parameter	Units	40136667027 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.8	30.6	3	10	

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## QUALITY CONTROL DATA

Project: 6962 BURNETT OIL  
 Pace Project No.: 40136685

---

QC Batch:	233226	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples: 40136685012, 40136685013, 40136685014			

---

SAMPLE DUPLICATE: 1382082

Parameter	Units	40136667030 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.0	29.9	3	10	

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## QUALIFIERS

Project: 6962 BURNETT OIL  
Pace Project No.: 40136685

---

### 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.

### BATCH QUALIFIERS

Batch: 232984

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were in the check standard but did not meet the resolution criteria in SW846 Method 8270C. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

### ANALYTE QUALIFIERS

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

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

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 6962 BURNETT OIL  
Pace Project No.: 40136685

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40136685001	GP1 @ 2-4	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685002	GP1 @ 6-7	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685003	GP2 @ 2-3	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685004	GP2 @ 8-9	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685005	GP2 @ 14-15	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685006	GP3 @ 2-4	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685007	GP3 @ 14-15	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685008	GP4 @ 2-4	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685009	GP4 @ 14-15	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685010	GP5 @ 2-4	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685011	GP5 @ 9-10	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685012	GP5 @ 19-20	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685013	GP6 @ 2-4	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685014	GP6 @ 14-15	TPH GRO/PVOC WI ext.	232381	WI MOD GRO	232383
40136685015	GP2	WI MOD GRO	232262		
40136685001	GP1 @ 2-4	EPA 3050	233035	EPA 6010	233211
40136685002	GP1 @ 6-7	EPA 3050	233035	EPA 6010	233211
40136685003	GP2 @ 2-3	EPA 3050	233035	EPA 6010	233211
40136685004	GP2 @ 8-9	EPA 3050	233035	EPA 6010	233211
40136685005	GP2 @ 14-15	EPA 3050	233035	EPA 6010	233211
40136685006	GP3 @ 2-4	EPA 3050	233035	EPA 6010	233211
40136685007	GP3 @ 14-15	EPA 3050	233035	EPA 6010	233211
40136685008	GP4 @ 2-4	EPA 3050	233035	EPA 6010	233211
40136685009	GP4 @ 14-15	EPA 3050	233035	EPA 6010	233211
40136685010	GP5 @ 2-4	EPA 3050	233035	EPA 6010	233211
40136685011	GP5 @ 9-10	EPA 3050	233035	EPA 6010	233211
40136685012	GP5 @ 19-20	EPA 3050	233035	EPA 6010	233211
40136685013	GP6 @ 2-4	EPA 3050	233035	EPA 6010	233211
40136685014	GP6 @ 14-15	EPA 3050	233035	EPA 6010	233211
40136685001	GP1 @ 2-4	EPA 3546	232924	EPA 8270 by SIM	232984
40136685002	GP1 @ 6-7	EPA 3546	232924	EPA 8270 by SIM	232984
40136685003	GP2 @ 2-3	EPA 3546	232924	EPA 8270 by SIM	232984
40136685004	GP2 @ 8-9	EPA 3546	232924	EPA 8270 by SIM	232984
40136685005	GP2 @ 14-15	EPA 3546	232924	EPA 8270 by SIM	232984
40136685001	GP1 @ 2-4	ASTM D2974-87	233217		
40136685002	GP1 @ 6-7	ASTM D2974-87	233217		
40136685003	GP2 @ 2-3	ASTM D2974-87	233217		
40136685004	GP2 @ 8-9	ASTM D2974-87	233217		
40136685005	GP2 @ 14-15	ASTM D2974-87	233217		
40136685006	GP3 @ 2-4	ASTM D2974-87	233217		
40136685007	GP3 @ 14-15	ASTM D2974-87	233217		
40136685008	GP4 @ 2-4	ASTM D2974-87	233217		
40136685009	GP4 @ 14-15	ASTM D2974-87	233217		
40136685010	GP5 @ 2-4	ASTM D2974-87	233217		
40136685011	GP5 @ 9-10	ASTM D2974-87	233217		
40136685012	GP5 @ 19-20	ASTM D2974-87	233226		

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6962 BURNETT OIL  
 Pace Project No.: 40136685

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40136685013	GP6 @ 2-4	ASTM D2974-87	233226		
40136685014	GP6 @ 14-15	ASTM D2974-87	233226		

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(Please Print Clearly)

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www.pacelabs.com

UPPER MIDWEST REGION  
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 29

401Bills

4/12

Company Name: Et1

Branch/Location:

Project Contact: Davis Consul

Phone: 75-607-9747

Project Number: 09162

Project Name: Burnett Oil

Project State: WI

Sampled By (Print): Doug Johnson

Sampled By (Sign): Doug Johnson

PO #: Recut

Regulatory Program:

MS/MSDS

Matrix Codes

(billable)  On your sample (billable)

NOT needed on your sample

Preservation Codes

A=None

B=HCL

C=H<sub>2</sub>SO<sub>4</sub>

D=HNO<sub>3</sub>

E=DI Water

F=Methanol

G=NaOH

H=Sodium Bisulfite Solution

I=Sodium Thiosulfate

J=Other

FILTERED? (YES/NO)

PRESERVATION (CODE)\*

Y/N

Pick Letter

Analyses Requested

ReCut

## CHAIN OF CUSTODY

Quote #:

Mail To Contact:

Mail To Company:

Mail To Address:

Invoice To Contact:

Invoice To Company:

Invoice To Address:

LAB COMMENTS (Lab Use Only)

CLIENT COMMENTS

Profile #

140 Only F 1-402ag A

PAGE Project No.

Date/Time:

Received By:

401Bills85

Rush Turnaround Time Requested - Prelims

(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #:

Telephone:

Email #:

Telephone:

Fax:

Samples on HOLD are subject to special pricing and release of liability



# Sample Condition Upon Receipt

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

*Pace Analytical*

*REI*

Project #:

WO# : 40136685

Client Name:

*Waltco*

Courier:  FedEx  UPS  Client  Pace Other: *Waltco*

Tracking #: *1130291*

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 *N/A*

Type of Ice: *Wet* Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature

Uncorr: *ROF* /Corr:

Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Comments:

Person examining contents:  
Date: *8-12-16*  
Initials: *SAC*

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

Date: *8-12-16*

September 26, 2016

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

RE: Project: 6962 AXUC BARRETT OIL  
Pace Project No.: 40138476

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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  
Project Manager

Enclosures



#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 6962 AXUC BARRETT OIL  
Pace Project No.: 40138476

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263  
North Dakota Certification #: R-150

South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP Certification ID: 460263  
Virginia VELAP ID: 460263  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40138476001	MW 91-1	Water	09/14/16 13:00	09/17/16 08:00
40138476002	MW 91-2A	Water	09/14/16 15:55	09/17/16 08:00
40138476003	MW 91-2B	Water	09/14/16 16:00	09/17/16 08:00

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 6962 AXUC BARRETT OIL  
 Pace Project No.: 40138476

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40138476001	<b>MW 91-1</b>	EPA 6010	DLB	1
		EPA 8260	LAP	64
40138476002	<b>MW 91-2A</b>	EPA 6010	DLB	1
		EPA 8270 by HVI	TPO	21
40138476003	<b>MW 91-2B</b>	EPA 8260	LAP	64
		EPA 6010	DLB	1
		EPA 8270 by HVI	TPO	21
		EPA 8260	LAP	64

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

Sample: MW 91-1	Lab ID: 40138476001	Collected: 09/14/16 13:00	Received: 09/17/16 08:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Lead, Dissolved	<3.0	ug/L	12.0	3.0	1		09/20/16 17:16	7439-92-1	1q
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/21/16 11:59	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/21/16 11:59	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/21/16 11:59	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/21/16 11:59	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/21/16 11:59	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/21/16 11:59	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/21/16 11:59	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/21/16 11:59	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/21/16 11:59	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		09/21/16 11:59	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/21/16 11:59	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		09/21/16 11:59	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/21/16 11:59	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/21/16 11:59	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/21/16 11:59	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/21/16 11:59	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/21/16 11:59	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/21/16 11:59	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/21/16 11:59	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/21/16 11:59	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/21/16 11:59	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/21/16 11:59	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/21/16 11:59	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/21/16 11:59	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/21/16 11:59	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/21/16 11:59	91-20-3	

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## ANALYTICAL RESULTS

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

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**Sample: MW 91-1**      **Lab ID: 40138476001**      Collected: 09/14/16 13:00      Received: 09/17/16 08:00      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/21/16 11:59	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/21/16 11:59	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/21/16 11:59	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/21/16 11:59	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		09/21/16 11:59	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/21/16 11:59	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		09/21/16 11:59	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/21/16 11:59	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/21/16 11:59	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/21/16 11:59	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		09/21/16 11:59	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		09/21/16 11:59	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		09/21/16 11:59	2037-26-5	

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**Sample: MW 91-2A**      **Lab ID: 40138476002**      Collected: 09/14/16 15:55      Received: 09/17/16 08:00      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Lead, Dissolved	<3.0	ug/L	12.0	3.0	1		09/20/16 17:18	7439-92-1	1q
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	<0.0055	ug/L	0.028	0.0055	1	09/20/16 08:31	09/22/16 13:33	83-32-9	
Acenaphthylene	<0.0045	ug/L	0.023	0.0045	1	09/20/16 08:31	09/22/16 13:33	208-96-8	
Anthracene	<0.0095	ug/L	0.048	0.0095	1	09/20/16 08:31	09/22/16 13:33	120-12-7	
Benzo(a)anthracene	<0.0069	ug/L	0.034	0.0069	1	09/20/16 08:31	09/22/16 13:33	56-55-3	
Benzo(a)pyrene	<0.0096	ug/L	0.048	0.0096	1	09/20/16 08:31	09/22/16 13:33	50-32-8	
Benzo(b)fluoranthene	<0.0052	ug/L	0.026	0.0052	1	09/20/16 08:31	09/22/16 13:33	205-99-2	
Benzo(g,h,i)perylene	<0.0062	ug/L	0.031	0.0062	1	09/20/16 08:31	09/22/16 13:33	191-24-2	
Benzo(k)fluoranthene	<0.0069	ug/L	0.034	0.0069	1	09/20/16 08:31	09/22/16 13:33	207-08-9	
Chrysene	<0.012	ug/L	0.059	0.012	1	09/20/16 08:31	09/22/16 13:33	218-01-9	
Dibenz(a,h)anthracene	<0.0091	ug/L	0.046	0.0091	1	09/20/16 08:31	09/22/16 13:33	53-70-3	
Fluoranthene	<0.0097	ug/L	0.048	0.0097	1	09/20/16 08:31	09/22/16 13:33	206-44-0	
Fluorene	<0.0072	ug/L	0.036	0.0072	1	09/20/16 08:31	09/22/16 13:33	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.016	ug/L	0.080	0.016	1	09/20/16 08:31	09/22/16 13:33	193-39-5	

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## ANALYTICAL RESULTS

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

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**Sample: MW 91-2A**      **Lab ID: 40138476002**      Collected: 09/14/16 15:55      Received: 09/17/16 08:00      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
1-Methylnaphthalene	<0.0054	ug/L	0.027	0.0054	1	09/20/16 08:31	09/22/16 13:33	90-12-0	
2-Methylnaphthalene	<0.0045	ug/L	0.022	0.0045	1	09/20/16 08:31	09/22/16 13:33	91-57-6	
Naphthalene	<0.017	ug/L	0.083	0.017	1	09/20/16 08:31	09/22/16 13:33	91-20-3	
Phenanthrene	<0.013	ug/L	0.063	0.013	1	09/20/16 08:31	09/22/16 13:33	85-01-8	
Pyrene	<0.0070	ug/L	0.035	0.0070	1	09/20/16 08:31	09/22/16 13:33	129-00-0	
Total PAHs	0.011	ug/L				1	09/20/16 08:31	09/22/16 13:33	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	45	%	25-130		1	09/20/16 08:31	09/22/16 13:33	321-60-8	
Terphenyl-d14 (S)	83	%	13-158		1	09/20/16 08:31	09/22/16 13:33	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/21/16 12:21	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/21/16 12:21	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/21/16 12:21	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/21/16 12:21	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/21/16 12:21	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/21/16 12:21	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/21/16 12:21	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/21/16 12:21	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/21/16 12:21	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		09/21/16 12:21	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/21/16 12:21	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		09/21/16 12:21	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/21/16 12:21	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/21/16 12:21	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/21/16 12:21	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/21/16 12:21	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/21/16 12:21	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/21/16 12:21	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/21/16 12:21	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/21/16 12:21	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/21/16 12:21	10061-02-6	

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## ANALYTICAL RESULTS

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

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**Sample: MW 91-2A**      **Lab ID: 40138476002**      Collected: 09/14/16 15:55      Received: 09/17/16 08:00      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/21/16 12:21	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/21/16 12:21	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/21/16 12:21	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/21/16 12:21	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/21/16 12:21	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/21/16 12:21	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/21/16 12:21	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/21/16 12:21	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/21/16 12:21	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		09/21/16 12:21	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/21/16 12:21	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		09/21/16 12:21	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/21/16 12:21	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/21/16 12:21	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:21	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	92	%	70-130		1		09/21/16 12:21	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		09/21/16 12:21	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/21/16 12:21	2037-26-5	

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**Sample: MW 91-2B**      **Lab ID: 40138476003**      Collected: 09/14/16 16:00      Received: 09/17/16 08:00      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Lead, Dissolved	<3.0	ug/L	12.0	3.0	1		09/20/16 17:21	7439-92-1	1q
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	<0.0071	ug/L	0.036	0.0071	1	09/20/16 08:31	09/22/16 13:49	83-32-9	
Acenaphthylene	<0.0059	ug/L	0.029	0.0059	1	09/20/16 08:31	09/22/16 13:49	208-96-8	
Anthracene	<0.012	ug/L	0.061	0.012	1	09/20/16 08:31	09/22/16 13:49	120-12-7	
Benzo(a)anthracene	<0.0089	ug/L	0.044	0.0089	1	09/20/16 08:31	09/22/16 13:49	56-55-3	
Benzo(a)pyrene	<0.012	ug/L	0.062	0.012	1	09/20/16 08:31	09/22/16 13:49	50-32-8	

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## ANALYTICAL RESULTS

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

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**Sample: MW 91-2B**      **Lab ID: 40138476003**      Collected: 09/14/16 16:00      Received: 09/17/16 08:00      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
Benzo(b)fluoranthene	<0.0068	ug/L	0.034	0.0068	1	09/20/16 08:31	09/22/16 13:49	205-99-2	
Benzo(g,h,i)perylene	<0.0080	ug/L	0.040	0.0080	1	09/20/16 08:31	09/22/16 13:49	191-24-2	
Benzo(k)fluoranthene	<0.0089	ug/L	0.044	0.0089	1	09/20/16 08:31	09/22/16 13:49	207-08-9	
Chrysene	<0.015	ug/L	0.077	0.015	1	09/20/16 08:31	09/22/16 13:49	218-01-9	
Dibenz(a,h)anthracene	<0.012	ug/L	0.059	0.012	1	09/20/16 08:31	09/22/16 13:49	53-70-3	
Fluoranthene	<0.013	ug/L	0.063	0.013	1	09/20/16 08:31	09/22/16 13:49	206-44-0	
Fluorene	<0.0094	ug/L	0.047	0.0094	1	09/20/16 08:31	09/22/16 13:49	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.021	ug/L	0.10	0.021	1	09/20/16 08:31	09/22/16 13:49	193-39-5	
1-Methylnaphthalene	<0.0069	ug/L	0.035	0.0069	1	09/20/16 08:31	09/22/16 13:49	90-12-0	
2-Methylnaphthalene	0.0091J	ug/L	0.029	0.0058	1	09/20/16 08:31	09/22/16 13:49	91-57-6	
Naphthalene	<0.022	ug/L	0.11	0.022	1	09/20/16 08:31	09/22/16 13:49	91-20-3	
Phenanthrene	<0.016	ug/L	0.081	0.016	1	09/20/16 08:31	09/22/16 13:49	85-01-8	
Pyrene	<0.0090	ug/L	0.045	0.0090	1	09/20/16 08:31	09/22/16 13:49	129-00-0	
Total PAHs	<b>0.047</b>	ug/L				1	09/20/16 08:31	09/22/16 13:49	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	25-130		1	09/20/16 08:31	09/22/16 13:49	321-60-8	
Terphenyl-d14 (S)	90	%	13-158		1	09/20/16 08:31	09/22/16 13:49	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/21/16 12:43	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/21/16 12:43	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/21/16 12:43	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/21/16 12:43	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/21/16 12:43	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/21/16 12:43	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/21/16 12:43	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/21/16 12:43	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/21/16 12:43	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		09/21/16 12:43	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/21/16 12:43	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		09/21/16 12:43	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/21/16 12:43	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/21/16 12:43	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/21/16 12:43	75-35-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

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**Sample: MW 91-2B      Lab ID: 40138476003      Collected: 09/14/16 16:00      Received: 09/17/16 08:00      Matrix: Water**


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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/21/16 12:43	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/21/16 12:43	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/21/16 12:43	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/21/16 12:43	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/21/16 12:43	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/21/16 12:43	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/21/16 12:43	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/21/16 12:43	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/21/16 12:43	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/21/16 12:43	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/21/16 12:43	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/21/16 12:43	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/21/16 12:43	79-34-5	
Tetrachloroethene	1.1	ug/L	1.0	0.50	1		09/21/16 12:43	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/21/16 12:43	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/21/16 12:43	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		09/21/16 12:43	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/21/16 12:43	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		09/21/16 12:43	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/21/16 12:43	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/21/16 12:43	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/21/16 12:43	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	89	%	70-130		1		09/21/16 12:43	460-00-4	
Dibromofluoromethane (S)	97	%	70-130		1		09/21/16 12:43	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		09/21/16 12:43	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

QC Batch: 235462 Analysis Method: EPA 6010

QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved

Associated Lab Samples: 40138476001, 40138476002, 40138476003

METHOD BLANK: 1395480 Matrix: Water

Associated Lab Samples: 40138476001, 40138476002, 40138476003

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Lead, Dissolved	ug/L	<3.0	12.0	09/20/16 16:41	

LABORATORY CONTROL SAMPLE: 1395481

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Lead, Dissolved	ug/L	500	457	91	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1395482 1395483

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		40138373001	Spike										
Lead, Dissolved	ug/L	<3.0	500	500	451	452	90	90	75-125	0	20		

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

QC Batch:	235352	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 40138476001, 40138476002, 40138476003			

METHOD BLANK: 1394994                          Matrix: Water

Associated Lab Samples: 40138476001, 40138476002, 40138476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/21/16 06:53	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/21/16 06:53	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/21/16 06:53	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	09/21/16 06:53	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/21/16 06:53	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/21/16 06:53	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/21/16 06:53	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/21/16 06:53	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/21/16 06:53	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/21/16 06:53	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/21/16 06:53	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/21/16 06:53	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	09/21/16 06:53	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/21/16 06:53	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/21/16 06:53	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/21/16 06:53	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/21/16 06:53	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/21/16 06:53	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/21/16 06:53	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/21/16 06:53	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/21/16 06:53	
2-Chlorotoluene	ug/L	<0.50	1.0	09/21/16 06:53	
4-Chlorotoluene	ug/L	<0.21	1.0	09/21/16 06:53	
Benzene	ug/L	<0.50	1.0	09/21/16 06:53	
Bromobenzene	ug/L	<0.23	1.0	09/21/16 06:53	
Bromochloromethane	ug/L	<0.34	1.0	09/21/16 06:53	
Bromodichloromethane	ug/L	<0.50	1.0	09/21/16 06:53	
Bromoform	ug/L	<0.50	1.0	09/21/16 06:53	
Bromomethane	ug/L	<2.4	5.0	09/21/16 06:53	
Carbon tetrachloride	ug/L	<0.50	1.0	09/21/16 06:53	
Chlorobenzene	ug/L	<0.50	1.0	09/21/16 06:53	
Chloroethane	ug/L	<0.37	1.0	09/21/16 06:53	
Chloroform	ug/L	<2.5	5.0	09/21/16 06:53	
Chloromethane	ug/L	<0.50	1.0	09/21/16 06:53	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/21/16 06:53	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/21/16 06:53	
Dibromochloromethane	ug/L	<0.50	1.0	09/21/16 06:53	
Dibromomethane	ug/L	<0.43	1.0	09/21/16 06:53	
Dichlorodifluoromethane	ug/L	<0.22	1.0	09/21/16 06:53	
Diisopropyl ether	ug/L	<0.50	1.0	09/21/16 06:53	
Ethylbenzene	ug/L	<0.50	1.0	09/21/16 06:53	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

METHOD BLANK: 1394994

Matrix: Water

Associated Lab Samples: 40138476001, 40138476002, 40138476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/21/16 06:53	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/21/16 06:53	
m&p-Xylene	ug/L	<1.0	2.0	09/21/16 06:53	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/21/16 06:53	
Methylene Chloride	ug/L	<0.23	1.0	09/21/16 06:53	
n-Butylbenzene	ug/L	<0.50	1.0	09/21/16 06:53	
n-Propylbenzene	ug/L	<0.50	1.0	09/21/16 06:53	
Naphthalene	ug/L	<2.5	5.0	09/21/16 06:53	
o-Xylene	ug/L	<0.50	1.0	09/21/16 06:53	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/21/16 06:53	
sec-Butylbenzene	ug/L	<2.2	5.0	09/21/16 06:53	
Styrene	ug/L	<0.50	1.0	09/21/16 06:53	
tert-Butylbenzene	ug/L	<0.18	1.0	09/21/16 06:53	
Tetrachloroethene	ug/L	<0.50	1.0	09/21/16 06:53	
Toluene	ug/L	<0.50	1.0	09/21/16 06:53	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/21/16 06:53	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/21/16 06:53	
Trichloroethene	ug/L	<0.33	1.0	09/21/16 06:53	
Trichlorofluoromethane	ug/L	<0.18	1.0	09/21/16 06:53	
Vinyl chloride	ug/L	<0.18	1.0	09/21/16 06:53	
4-Bromofluorobenzene (S)	%	88	70-130	09/21/16 06:53	
Dibromofluoromethane (S)	%	101	70-130	09/21/16 06:53	
Toluene-d8 (S)	%	99	70-130	09/21/16 06:53	

LABORATORY CONTROL SAMPLE: 1394995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.4	101	70-131	
1,1,2,2-Tetrachloroethane	ug/L	50	52.6	105	67-130	
1,1,2-Trichloroethane	ug/L	50	49.3	99	70-130	
1,1-Dichloroethane	ug/L	50	49.1	98	70-133	
1,1-Dichloroethene	ug/L	50	44.4	89	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.0	98	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.7	103	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	50.8	102	70-130	
1,2-Dichlorobenzene	ug/L	50	51.7	103	70-130	
1,2-Dichloroethane	ug/L	50	50.1	100	70-130	
1,2-Dichloropropane	ug/L	50	49.7	99	70-130	
1,3-Dichlorobenzene	ug/L	50	52.2	104	70-130	
1,4-Dichlorobenzene	ug/L	50	50.6	101	70-130	
Benzene	ug/L	50	52.9	106	60-135	
Bromodichloromethane	ug/L	50	52.0	104	70-130	
Bromoform	ug/L	50	45.4	91	70-130	
Bromomethane	ug/L	50	33.9	68	33-130	

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## QUALITY CONTROL DATA

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

**LABORATORY CONTROL SAMPLE: 1394995**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	52.5	105	70-138	
Chlorobenzene	ug/L	50	51.5	103	70-130	
Chloroethane	ug/L	50	37.6	75	51-130	
Chloroform	ug/L	50	50.4	101	70-130	
Chloromethane	ug/L	50	33.7	67	25-132	
cis-1,2-Dichloroethene	ug/L	50	47.5	95	69-130	
cis-1,3-Dichloropropene	ug/L	50	49.5	99	70-130	
Dibromochloromethane	ug/L	50	51.0	102	70-130	
Dichlorodifluoromethane	ug/L	50	32.0	64	23-130	
Ethylbenzene	ug/L	50	53.4	107	70-136	
Isopropylbenzene (Cumene)	ug/L	50	53.8	108	70-140	
m&p-Xylene	ug/L	100	107	107	70-138	
Methyl-tert-butyl ether	ug/L	50	47.5	95	66-138	
Methylene Chloride	ug/L	50	46.7	93	70-130	
o-Xylene	ug/L	50	51.7	103	70-134	
Styrene	ug/L	50	50.5	101	70-133	
Tetrachloroethene	ug/L	50	51.2	102	70-138	
Toluene	ug/L	50	51.6	103	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.2	96	70-131	
trans-1,3-Dichloropropene	ug/L	50	47.8	96	69-130	
Trichloroethene	ug/L	50	52.0	104	70-130	
Trichlorofluoromethane	ug/L	50	47.2	94	50-150	
Vinyl chloride	ug/L	50	43.1	86	49-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1396013      1396014**

Parameter	Units	MS 40138476001		MSD		MS 40138476001		MSD		% Rec Limits	RPD RPD	Max Qual
		Result	Spike Conc.	Spike Conc.	Result	MSD Result	% Rec	MSD % Rec	% Rec			
1,1,1-Trichloroethane	ug/L	<0.50	50	50	49.5	49.3	99	99	70-134	0	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	48.3	52.8	97	106	67-130	9	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	48.6	49.2	97	98	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	47.5	48.1	95	96	70-134	1	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	43.4	42.8	87	86	68-136	1	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	46.8	49.3	94	99	62-139	5	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	47.4	50.6	95	101	50-150	7	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	49.0	50.3	98	101	70-130	3	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	48.7	51.9	97	104	70-130	6	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	48.0	49.4	96	99	70-130	3	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	48.4	49.0	97	98	70-130	1	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	50.3	51.3	101	103	70-131	2	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	47.6	50.1	95	100	70-130	5	20	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

Parameter	Units	40138476001		MS		MSD		1396013		1396014			
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD RPD	Max Qual		
Benzene	ug/L	<0.50	50	50	51.7	51.8	103	104	57-138	0	20		
Bromodichloromethane	ug/L	<0.50	50	50	49.9	51.2	100	102	70-130	3	20		
Bromoform	ug/L	<0.50	50	50	45.5	45.7	91	91	70-130	1	20		
Bromomethane	ug/L	<2.4	50	50	34.1	34.1	68	68	33-130	0	27		
Carbon tetrachloride	ug/L	<0.50	50	50	50.5	52.5	101	105	70-138	4	20		
Chlorobenzene	ug/L	<0.50	50	50	50.7	51.4	101	103	70-130	1	20		
Chloroethane	ug/L	<0.37	50	50	36.0	36.9	72	74	51-130	2	20		
Chloroform	ug/L	<2.5	50	50	49.7	50.5	99	101	70-130	2	20		
Chloromethane	ug/L	<0.50	50	50	32.5	32.0	65	64	25-132	1	20		
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	46.7	46.9	93	94	61-140	1	20		
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	47.8	49.2	96	98	70-130	3	20		
Dibromochloromethane	ug/L	<0.50	50	50	49.2	51.3	98	103	70-130	4	20		
Dichlorodifluoromethane	ug/L	<0.22	50	50	29.7	29.9	59	60	23-130	1	20		
Ethylbenzene	ug/L	<0.50	50	50	52.2	52.5	104	105	70-138	1	20		
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	52.2	53.1	104	106	70-152	2	20		
m&p-Xylene	ug/L	<1.0	100	100	105	106	105	106	70-140	2	20		
Methyl-tert-butyl ether	ug/L	<0.17	50	50	46.7	47.0	93	94	66-139	1	20		
Methylene Chloride	ug/L	<0.23	50	50	45.3	46.3	91	93	70-130	2	20		
o-Xylene	ug/L	<0.50	50	50	50.5	51.7	101	103	70-134	3	20		
Styrene	ug/L	<0.50	50	50	49.2	50.4	98	101	70-138	2	20		
Tetrachloroethene	ug/L	<0.50	50	50	49.7	48.9	99	98	70-148	2	20		
Toluene	ug/L	<0.50	50	50	49.6	50.7	99	101	70-130	2	20		
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	47.2	46.6	94	93	70-133	1	20		
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	48.4	48.9	97	98	69-130	1	20		
Trichloroethene	ug/L	<0.33	50	50	50.9	50.4	102	101	70-131	1	20		
Trichlorofluoromethane	ug/L	<0.18	50	50	46.7	47.2	93	94	50-150	1	20		
Vinyl chloride	ug/L	<0.18	50	50	42.8	41.4	86	83	49-133	3	20		
4-Bromofluorobenzene (S)	%						99	96	70-130				
Dibromofluoromethane (S)	%						101	101	70-130				
Toluene-d8 (S)	%						98	99	70-130				

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## QUALITY CONTROL DATA

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

QC Batch: 235381 Analysis Method: EPA 8270 by HVI

QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI

Associated Lab Samples: 40138476002, 40138476003

METHOD BLANK: 1395073 Matrix: Water

Associated Lab Samples: 40138476002, 40138476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0031	0.050	09/20/16 11:46	
2-Methylnaphthalene	ug/L	<0.0028	0.050	09/20/16 11:46	
Acenaphthene	ug/L	<0.0050	0.050	09/20/16 11:46	
Acenaphthylene	ug/L	<0.0049	0.050	09/20/16 11:46	
Anthracene	ug/L	<0.0040	0.050	09/20/16 11:46	
Benzo(a)anthracene	ug/L	<0.0051	0.050	09/20/16 11:46	
Benzo(a)pyrene	ug/L	<0.0044	0.050	09/20/16 11:46	
Benzo(b)fluoranthene	ug/L	<0.0053	0.050	09/20/16 11:46	
Benzo(g,h,i)perylene	ug/L	<0.0035	0.050	09/20/16 11:46	
Benzo(k)fluoranthene	ug/L	<0.0056	0.050	09/20/16 11:46	
Chrysene	ug/L	<0.0042	0.050	09/20/16 11:46	
Dibenz(a,h)anthracene	ug/L	<0.0056	0.050	09/20/16 11:46	
Fluoranthene	ug/L	<0.0094	0.050	09/20/16 11:46	
Fluorene	ug/L	<0.0040	0.050	09/20/16 11:46	
Indeno(1,2,3-cd)pyrene	ug/L	<0.0036	0.050	09/20/16 11:46	
Naphthalene	ug/L	<0.0045	0.050	09/20/16 11:46	
Phenanthrene	ug/L	<0.0077	0.050	09/20/16 11:46	
Pyrene	ug/L	<0.0077	0.050	09/20/16 11:46	
Total PAHs	ug/L	0.018		09/20/16 11:46	
2-Fluorobiphenyl (S)	%	53	25-130	09/20/16 11:46	
Terphenyl-d14 (S)	%	98	13-158	09/20/16 11:46	

LABORATORY CONTROL SAMPLE &amp; LCSD: 1395074

1395075

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/L	2	0.96	1.2	48	58	35-130	18	36	
2-Methylnaphthalene	ug/L	2	0.98	1.2	49	59	36-130	19	37	
Acenaphthene	ug/L	2	0.88	1.0	44	51	41-130	14	32	
Acenaphthylene	ug/L	2	0.82	0.94	41	47	41-130	14	32	
Anthracene	ug/L	2	1.2	1.2	61	62	38-130	2	28	
Benzo(a)anthracene	ug/L	2	1.4	1.3	69	66	49-130	4	27	
Benzo(a)pyrene	ug/L	2	1.6	1.5	78	77	69-143	1	26	
Benzo(b)fluoranthene	ug/L	2	1.6	1.5	79	76	63-146	4	28	
Benzo(g,h,i)perylene	ug/L	2	0.97	0.87	48	44	10-145	10	37	
Benzo(k)fluoranthene	ug/L	2	1.7	1.5	83	77	64-152	7	28	
Chrysene	ug/L	2	1.7	1.7	87	87	64-156	0	26	
Dibenz(a,h)anthracene	ug/L	2	0.97	0.84	48	42	10-143	14	39	
Fluoranthene	ug/L	2	1.4	1.2	69	62	54-134	11	23	
Fluorene	ug/L	2	0.91	1.0	46	50	44-130	10	33	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.5	1.4	75	71	39-140	6	26	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

LABORATORY CONTROL SAMPLE & LCSD: 1395074

1395075

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	2	0.97	1.2	48	59	35-130	19	39	
Phenanthrene	ug/L	2	1.3	1.3	63	63	51-130	0	29	
Pyrene	ug/L	2	1.5	1.4	75	68	61-140	9	24	
Total PAHs	ug/L		22.2	22.4					1	
2-Fluorobiphenyl (S)	%				45	53	25-130			
Terphenyl-d14 (S)	%				92	90	13-158			

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## QUALIFIERS

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

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### 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.

### BATCH QUALIFIERS

Batch: 235455

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q Analyte was measured in the associated method blank at a concentration of -3.6 ug/L.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6962 AXUC BARRETT OIL

Pace Project No.: 40138476

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138476001	MW 91-1	EPA 6010	235462		
40138476002	MW 91-2A	EPA 6010	235462		
40138476003	MW 91-2B	EPA 6010	235462		
40138476002	MW 91-2A	EPA 3510	235381	EPA 8270 by HVI	235455
40138476003	MW 91-2B	EPA 3510	235381	EPA 8270 by HVI	235455
40138476001	MW 91-1	EPA 8260	235352		
40138476002	MW 91-2A	EPA 8260	235352		
40138476003	MW 91-2B	EPA 8260	235352		

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Pace Analytical

# Sample Condition Upon Receipt

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

Client Name: REI

Project #:

WO# : 40138476



40138476

Courier:  FedEx  UPS Client  Pace Other: waltco  
Tracking #: 159704-2

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

Cooler Temperature Uncorr: ROT /Corr:   Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

no

Person examining contents:  
Date: 9/17/16  
Initials: BD

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>DO1-DO3 ID have no MW - on all sample labels vials. mm 9/17/16</u>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input checked="" type="checkbox"/> HNO3 <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed <u>B/V</u> Lab Std #ID of preservative Date/ Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

## Client Notification/ Resolution:

Person Contacted:

If checked, see attached form for additional comments

Comments/ Resolution:

Client crossed out request for PATT analysis for O&G on COC BT 9/17/16

Project Manager Review:

Date: 9-19-16

September 26, 2016

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

RE: Project: 6962 AXUC BURNETT OIL  
Pace Project No.: 40138481

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 6962 AXUC BURNETT OIL  
Pace Project No.: 40138481

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263  
North Dakota Certification #: R-150

South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP Certification ID: 460263  
Virginia VELAP ID: 460263  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 6962 AXUC BURNETT OIL  
 Pace Project No.: 40138481

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40138481001	MW1 @ 2-4	Solid	09/14/16 11:25	09/17/16 08:00
40138481002	MW1 @ 14-16	Solid	09/14/16 12:10	09/17/16 08:00
40138481003	MW1 @ 26-28	Solid	09/14/16 12:40	09/17/16 08:00
40138481004	MW4 @ 2-4	Solid	09/15/16 07:50	09/17/16 08:00
40138481005	MW4 @ 12-14	Solid	09/15/16 08:20	09/17/16 08:00
40138481006	MW4 @ 24-26	Solid	09/15/16 09:00	09/17/16 08:00

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## SAMPLE ANALYTE COUNT

Project: 6962 AXUC BURNETT OIL  
 Pace Project No.: 40138481

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40138481001	MW1 @ 2-4	WI MOD GRO	ALD	10
		EPA 6010	DLB	1
		ASTM D2974-87	MAV	1
40138481002	MW1 @ 14-16	WI MOD GRO	ALD	10
		EPA 6010	DLB	1
		ASTM D2974-87	MAV	1
40138481003	MW1 @ 26-28	WI MOD GRO	ALD	10
		EPA 6010	DLB	1
		ASTM D2974-87	MAV	1
40138481004	MW4 @ 2-4	WI MOD GRO	ALD	10
		EPA 6010	DLB	1
		ASTM D2974-87	MAV	1
40138481005	MW4 @ 12-14	WI MOD GRO	ALD	10
		EPA 6010	DLB	1
		ASTM D2974-87	MAV	1
40138481006	MW4 @ 24-26	WI MOD GRO	ALD	10
		EPA 6010	DLB	1
		ASTM D2974-87	MAV	1

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## ANALYTICAL RESULTS

Project: 6962 AXUC BURNETT OIL

Pace Project No.: 40138481

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**Sample: MW1 @ 2-4**      Lab ID: **40138481001**      Collected: 09/14/16 11:25      Received: 09/17/16 08:00      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/22/16 07:34	09/22/16 19:39	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 19:39	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	09/22/16 07:34	09/22/16 19:39	98-08-8	1q,P4
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	2.8	mg/kg	1.2	0.45	1	09/20/16 10:31	09/20/16 21:43	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	13.1	%	0.10	0.10	1			09/22/16 16:10	

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**Sample: MW1 @ 14-16**      Lab ID: **40138481002**      Collected: 09/14/16 12:10      Received: 09/17/16 08:00      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/22/16 07:34	09/22/16 11:51	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 11:51	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1	09/22/16 07:34	09/22/16 11:51	98-08-8	1q,P4
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	0.57J	mg/kg	1.2	0.45	1	09/20/16 10:31	09/20/16 21:49	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	4.7	%	0.10	0.10	1			09/22/16 16:10	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962 AXUC BURNETT OIL

Pace Project No.: 40138481

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**Sample: MW1 @ 26-28      Lab ID: 40138481003      Collected: 09/14/16 12:40      Received: 09/17/16 08:00      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/22/16 07:34	09/22/16 12:17	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:17	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	09/22/16 07:34	09/22/16 12:17	98-08-8	1q,P4
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	0.94J	mg/kg	1.1	0.41	1	09/20/16 10:31	09/20/16 21:52	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	5.4	%	0.10	0.10	1			09/22/16 16:10	

---

**Sample: MW4 @ 2-4      Lab ID: 40138481004      Collected: 09/15/16 07:50      Received: 09/17/16 08:00      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	2560J	ug/kg	2690	1120	40	09/22/16 07:34	09/22/16 17:31	71-43-2	
Ethylbenzene	13100	ug/kg	2690	1120	40	09/22/16 07:34	09/22/16 17:31	100-41-4	
Methyl-tert-butyl ether	<1000	ug/kg	2400	1000	40	09/22/16 07:34	09/22/16 17:31	1634-04-4	W
Naphthalene	53500	ug/kg	2690	1120	40	09/22/16 07:34	09/22/16 17:31	91-20-3	
Toluene	2510J	ug/kg	2690	1120	40	09/22/16 07:34	09/22/16 17:31	108-88-3	
1,2,4-Trimethylbenzene	128000	ug/kg	2690	1120	40	09/22/16 07:34	09/22/16 17:31	95-63-6	
1,3,5-Trimethylbenzene	52500	ug/kg	2690	1120	40	09/22/16 07:34	09/22/16 17:31	108-67-8	
m&p-Xylene	78400	ug/kg	5390	2240	40	09/22/16 07:34	09/22/16 17:31	179601-23-1	
o-Xylene	58300	ug/kg	2690	1120	40	09/22/16 07:34	09/22/16 17:31	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	109	%	80-120		40	09/22/16 07:34	09/22/16 17:31	98-08-8	1q,D3, P4
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	25.6	mg/kg	1.1	0.41	1	09/20/16 10:31	09/20/16 21:54	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	10.9	%	0.10	0.10	1			09/22/16 16:10	

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## ANALYTICAL RESULTS

Project: 6962 AXUC BURNETT OIL

Pace Project No.: 40138481

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**Sample: MW4 @ 12-14**      Lab ID: **40138481005**      Collected: 09/15/16 08:20      Received: 09/17/16 08:00      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/22/16 07:34	09/22/16 12:43	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 12:43	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	09/22/16 07:34	09/22/16 12:43	98-08-8	1q,P4
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.9	mg/kg	1.2	0.43	1	09/20/16 10:31	09/20/16 21:56	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	4.1	%	0.10	0.10	1			09/22/16 16:10	

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**Sample: MW4 @ 24-26**      Lab ID: **40138481006**      Collected: 09/15/16 09:00      Received: 09/17/16 08:00      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
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/22/16 07:34	09/22/16 20:05	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/22/16 07:34	09/22/16 20:05	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	09/22/16 07:34	09/22/16 20:05	98-08-8	P4
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.1J	mg/kg	1.3	0.45	1	09/20/16 10:31	09/20/16 21:58	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	4.5	%	0.10	0.10	1			09/22/16 16:10	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962 AXUC BURNETT OIL

Pace Project No.: 40138481

QC Batch: 235708 Analysis Method: WI MOD GRO

QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV

Associated Lab Samples: 40138481001, 40138481002, 40138481003, 40138481004, 40138481005, 40138481006

METHOD BLANK: 1397417 Matrix: Solid

Associated Lab Samples: 40138481001, 40138481002, 40138481003, 40138481004, 40138481005, 40138481006

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	09/22/16 08:23	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	09/22/16 08:23	
Benzene	ug/kg	<25.0	50.0	09/22/16 08:23	
Ethylbenzene	ug/kg	<25.0	50.0	09/22/16 08:23	
m&p-Xylene	ug/kg	<50.0	100	09/22/16 08:23	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	09/22/16 08:23	
Naphthalene	ug/kg	<25.0	50.0	09/22/16 08:23	
o-Xylene	ug/kg	<25.0	50.0	09/22/16 08:23	
Toluene	ug/kg	<25.0	50.0	09/22/16 08:23	
a,a,a-Trifluorotoluene (S)	%	99	80-120	09/22/16 08:23	

LABORATORY CONTROL SAMPLE &amp; LCSD: 1397418 1397419

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec	Limits			
1,2,4-Trimethylbenzene	ug/kg	1000	915	960	91	96	80-120	5	20	
1,3,5-Trimethylbenzene	ug/kg	1000	906	948	91	95	80-120	5	20	
Benzene	ug/kg	1000	982	988	98	99	80-120	1	20	
Ethylbenzene	ug/kg	1000	952	979	95	98	80-120	3	20	
m&p-Xylene	ug/kg	2000	1890	1950	95	98	80-120	3	20	
Methyl-tert-butyl ether	ug/kg	1000	980	966	98	97	80-120	1	20	
Naphthalene	ug/kg	1000	882	910	88	91	80-120	3	20	
o-Xylene	ug/kg	1000	953	986	95	99	80-120	3	20	
Toluene	ug/kg	1000	972	982	97	98	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				100	100	80-120			

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## QUALITY CONTROL DATA

Project: 6962 AXUC BURNETT OIL

Pace Project No.: 40138481

QC Batch: 235403 Analysis Method: EPA 6010

QC Batch Method: EPA 3050 Analysis Description: 6010 MET

Associated Lab Samples: 40138481001, 40138481002, 40138481003, 40138481004, 40138481005, 40138481006

METHOD BLANK: 1395179 Matrix: Solid

Associated Lab Samples: 40138481001, 40138481002, 40138481003, 40138481004, 40138481005, 40138481006

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Lead	mg/kg	<0.43	1.2	09/20/16 21:04	

LABORATORY CONTROL SAMPLE: 1395180

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Lead	mg/kg	50	47.4	95	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1395181 1395182

Parameter	Units	40138466001	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Lead	mg/kg	10.7	59.7	59.4	60.7	62.0	84	86	75-125	2	20			

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## QUALITY CONTROL DATA

Project: 6962 AXUC BURNETT OIL  
 Pace Project No.: 40138481

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QC Batch:	235860	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples: 40138481001, 40138481002, 40138481003, 40138481004, 40138481005, 40138481006			

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SAMPLE DUPLICATE: 1398375

Parameter	Units	40138481002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.7	4.8	3	10	

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## QUALIFIERS

Project: 6962 AXUC BURNETT OIL

Pace Project No.: 40138481

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### 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

1q Results are from sample aliquot taken from a jar with head space and preserved with MeOH in the laboratory.

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

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6962 AXUC BURNETT OIL  
Pace Project No.: 40138481

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138481001	MW1 @ 2-4	TPH GRO/PVOC WI ext.	235708	WI MOD GRO	235772
40138481002	MW1 @ 14-16	TPH GRO/PVOC WI ext.	235708	WI MOD GRO	235772
40138481003	MW1 @ 26-28	TPH GRO/PVOC WI ext.	235708	WI MOD GRO	235772
40138481004	MW4 @ 2-4	TPH GRO/PVOC WI ext.	235708	WI MOD GRO	235772
40138481005	MW4 @ 12-14	TPH GRO/PVOC WI ext.	235708	WI MOD GRO	235772
40138481006	MW4 @ 24-26	TPH GRO/PVOC WI ext.	235708	WI MOD GRO	235772
40138481001	MW1 @ 2-4	EPA 3050	235403	EPA 6010	235507
40138481002	MW1 @ 14-16	EPA 3050	235403	EPA 6010	235507
40138481003	MW1 @ 26-28	EPA 3050	235403	EPA 6010	235507
40138481004	MW4 @ 2-4	EPA 3050	235403	EPA 6010	235507
40138481005	MW4 @ 12-14	EPA 3050	235403	EPA 6010	235507
40138481006	MW4 @ 24-26	EPA 3050	235403	EPA 6010	235507
40138481001	MW1 @ 2-4	ASTM D2974-87	235860		
40138481002	MW1 @ 14-16	ASTM D2974-87	235860		
40138481003	MW1 @ 26-28	ASTM D2974-87	235860		
40138481004	MW4 @ 2-4	ASTM D2974-87	235860		
40138481005	MW4 @ 12-14	ASTM D2974-87	235860		
40138481006	MW4 @ 24-26	ASTM D2974-87	235860		

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Pace Analytical

# Sample Condition Upon Receipt

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

Client Name: REI

Project #

WO# : 40138481



40138481

Courier:  Fed Ex  UPS  Client  Pace Other: Waltco  
Tracking #: 159704-2

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: ROT /Corr:

Biological Tissue is Frozen:  yes

no

Temp Blank Present:  yes  no

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Comments:

Person examining contents:

Date: 9/17/16

Initials: BD

Chain of Custody Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>Lab added 006 to COC</u> <u>9/17/16 BH 9/17/16</u>
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>003 1-40ml vF no collect time/date</u> <u>9/17/16 BH 9/17/16</u>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed      Lab Std #ID of preservative      Date/ Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

If checked, see attached form for additional comments

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: BB

Date: 9-19-16

October 04, 2016

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

RE: Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2016. 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  
Project Manager

Enclosures



#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263  
North Dakota Certification #: R-150

South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP Certification ID: 460263  
Virginia VELAP ID: 460263  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40138875001	MW1	Water	09/20/16 17:10	09/23/16 09:00
40138875002	MW2	Water	09/20/16 15:35	09/23/16 09:00
40138875003	MW3	Water	09/20/16 16:22	09/23/16 09:00
40138875004	MW4	Water	09/20/16 15:20	09/23/16 09:00
40138875005	MW91-1	Water	09/21/16 10:30	09/23/16 09:00

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## SAMPLE ANALYTE COUNT

Project: 6962AXUC BURNETT OIL  
 Pace Project No.: 40138875

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40138875001	MW1	EPA 6010	DLB	1
		EPA 8270 by HVI	TPO	21
		EPA 8260	HNW	64
40138875002	MW2	EPA 6010	DLB	1
		EPA 8270 by HVI	TPO	21
		EPA 8260	HNW	64
40138875003	MW3	EPA 6010	DLB	1
		EPA 8270 by HVI	TPO	21
		EPA 8260	HNW	64
40138875004	MW4	EPA 6010	DLB	1
		EPA 8270 by HVI	TPO	21
		EPA 8260	HNW	64
40138875005	MW91-1	EPA 8270 by HVI	TPO	21

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Sample: MW1	Lab ID: 40138875001	Collected: 09/20/16 17:10	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Lead, Dissolved	<3.0	ug/L	12.0	3.0	1		09/28/16 21:17	7439-92-1	
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	0.0060J	ug/L	0.027	0.0055	1	09/24/16 07:15	09/26/16 20:55	83-32-9	
Acenaphthylene	<0.0045	ug/L	0.022	0.0045	1	09/24/16 07:15	09/26/16 20:55	208-96-8	
Anthracene	<0.0094	ug/L	0.047	0.0094	1	09/24/16 07:15	09/26/16 20:55	120-12-7	
Benzo(a)anthracene	<0.0068	ug/L	0.034	0.0068	1	09/24/16 07:15	09/26/16 20:55	56-55-3	
Benzo(a)pyrene	<0.0095	ug/L	0.047	0.0095	1	09/24/16 07:15	09/26/16 20:55	50-32-8	
Benzo(b)fluoranthene	<0.0052	ug/L	0.026	0.0052	1	09/24/16 07:15	09/26/16 20:55	205-99-2	
Benzo(g,h,i)perylene	<0.0061	ug/L	0.031	0.0061	1	09/24/16 07:15	09/26/16 20:55	191-24-2	
Benzo(k)fluoranthene	<0.0068	ug/L	0.034	0.0068	1	09/24/16 07:15	09/26/16 20:55	207-08-9	
Chrysene	<0.012	ug/L	0.059	0.012	1	09/24/16 07:15	09/26/16 20:55	218-01-9	
Dibenz(a,h)anthracene	<0.0090	ug/L	0.045	0.0090	1	09/24/16 07:15	09/26/16 20:55	53-70-3	
Fluoranthene	<0.0096	ug/L	0.048	0.0096	1	09/24/16 07:15	09/26/16 20:55	206-44-0	
Fluorene	<0.0072	ug/L	0.036	0.0072	1	09/24/16 07:15	09/26/16 20:55	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.016	ug/L	0.079	0.016	1	09/24/16 07:15	09/26/16 20:55	193-39-5	
1-Methylnaphthalene	0.040	ug/L	0.027	0.0053	1	09/24/16 07:15	09/26/16 20:55	90-12-0	
2-Methylnaphthalene	0.036	ug/L	0.022	0.0044	1	09/24/16 07:15	09/26/16 20:55	91-57-6	
Naphthalene	0.040J	ug/L	0.083	0.017	1	09/24/16 07:15	09/26/16 20:55	91-20-3	
Phenanthrene	<0.012	ug/L	0.062	0.012	1	09/24/16 07:15	09/26/16 20:55	85-01-8	
Pyrene	0.0089J	ug/L	0.034	0.0069	1	09/24/16 07:15	09/26/16 20:55	129-00-0	B
Total PAHs	0.16	ug/L			1	09/24/16 07:15	09/26/16 20:55		
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	47	%	25-130		1	09/24/16 07:15	09/26/16 20:55	321-60-8	
Terphenyl-d14 (S)	85	%	13-158		1	09/24/16 07:15	09/26/16 20:55	1718-51-0	
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/28/16 17:11	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/28/16 17:11	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/28/16 17:11	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/28/16 17:11	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/28/16 17:11	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/28/16 17:11	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/28/16 17:11	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/28/16 17:11	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/28/16 17:11	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		09/28/16 17:11	106-93-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

Sample: MW1	Lab ID: 40138875001	Collected: 09/20/16 17:10	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/28/16 17:11	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		09/28/16 17:11	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/28/16 17:11	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/28/16 17:11	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/28/16 17:11	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 17:11	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 17:11	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/28/16 17:11	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/28/16 17:11	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/28/16 17:11	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/28/16 17:11	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/28/16 17:11	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/28/16 17:11	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/28/16 17:11	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/28/16 17:11	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/28/16 17:11	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/28/16 17:11	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/28/16 17:11	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/28/16 17:11	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/28/16 17:11	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		09/28/16 17:11	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/28/16 17:11	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		09/28/16 17:11	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/28/16 17:11	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/28/16 17:11	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:11	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	87	%	70-130		1		09/28/16 17:11	460-00-4	pH
Dibromofluoromethane (S)	106	%	70-130		1		09/28/16 17:11	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		09/28/16 17:11	2037-26-5	

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Sample: MW2	Lab ID: 40138875002	Collected: 09/20/16 15:35	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Lead, Dissolved	<3.0	ug/L	12.0	3.0	1		09/28/16 21:19	7439-92-1	
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	<b>0.0060J</b>	ug/L	0.028	0.0056	1	09/24/16 07:15	09/26/16 21:12	83-32-9	
Acenaphthylene	<b>0.028</b>	ug/L	0.023	0.0046	1	09/24/16 07:15	09/26/16 21:12	208-96-8	
Anthracene	<b>0.013J</b>	ug/L	0.048	0.0096	1	09/24/16 07:15	09/26/16 21:12	120-12-7	
Benzo(a)anthracene	<b>&lt;0.0069</b>	ug/L	0.035	0.0069	1	09/24/16 07:15	09/26/16 21:12	56-55-3	
Benzo(a)pyrene	<b>0.026J</b>	ug/L	0.048	0.0097	1	09/24/16 07:15	09/26/16 21:12	50-32-8	
Benzo(b)fluoranthene	<b>0.029</b>	ug/L	0.026	0.0053	1	09/24/16 07:15	09/26/16 21:12	205-99-2	
Benzo(g,h,i)perylene	<b>0.016J</b>	ug/L	0.031	0.0062	1	09/24/16 07:15	09/26/16 21:12	191-24-2	
Benzo(k)fluoranthene	<b>0.014J</b>	ug/L	0.035	0.0069	1	09/24/16 07:15	09/26/16 21:12	207-08-9	
Chrysene	<b>0.041J</b>	ug/L	0.060	0.012	1	09/24/16 07:15	09/26/16 21:12	218-01-9	
Dibenz(a,h)anthracene	<b>&lt;0.0092</b>	ug/L	0.046	0.0092	1	09/24/16 07:15	09/26/16 21:12	53-70-3	
Fluoranthene	<b>0.014J</b>	ug/L	0.049	0.0098	1	09/24/16 07:15	09/26/16 21:12	206-44-0	B
Fluorene	<b>&lt;0.0073</b>	ug/L	0.037	0.0073	1	09/24/16 07:15	09/26/16 21:12	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>&lt;0.016</b>	ug/L	0.081	0.016	1	09/24/16 07:15	09/26/16 21:12	193-39-5	
1-Methylnaphthalene	<b>0.025J</b>	ug/L	0.027	0.0054	1	09/24/16 07:15	09/26/16 21:12	90-12-0	
2-Methylnaphthalene	<b>0.031</b>	ug/L	0.022	0.0045	1	09/24/16 07:15	09/26/16 21:12	91-57-6	
Naphthalene	<b>0.019J</b>	ug/L	0.084	0.017	1	09/24/16 07:15	09/26/16 21:12	91-20-3	
Phenanthrene	<b>0.031J</b>	ug/L	0.063	0.013	1	09/24/16 07:15	09/26/16 21:12	85-01-8	
Pyrene	<b>0.021J</b>	ug/L	0.035	0.0070	1	09/24/16 07:15	09/26/16 21:12	129-00-0	B
Total PAHs	<b>0.34</b>	ug/L			1	09/24/16 07:15	09/26/16 21:12		
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	44	%	25-130		1	09/24/16 07:15	09/26/16 21:12	321-60-8	
Terphenyl-d14 (S)	79	%	13-158		1	09/24/16 07:15	09/26/16 21:12	1718-51-0	
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	71-43-2	
Bromobenzene	<b>&lt;0.23</b>	ug/L	1.0	0.23	1		09/28/16 17:33	108-86-1	
Bromochloromethane	<b>&lt;0.34</b>	ug/L	1.0	0.34	1		09/28/16 17:33	74-97-5	
Bromodichloromethane	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	75-27-4	
Bromoform	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	75-25-2	
Bromomethane	<b>&lt;2.4</b>	ug/L	5.0	2.4	1		09/28/16 17:33	74-83-9	
n-Butylbenzene	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	104-51-8	
sec-Butylbenzene	<b>&lt;2.2</b>	ug/L	5.0	2.2	1		09/28/16 17:33	135-98-8	
tert-Butylbenzene	<b>&lt;0.18</b>	ug/L	1.0	0.18	1		09/28/16 17:33	98-06-6	
Carbon tetrachloride	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	56-23-5	
Chlorobenzene	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	108-90-7	
Chloroethane	<b>&lt;0.37</b>	ug/L	1.0	0.37	1		09/28/16 17:33	75-00-3	
Chloroform	<b>&lt;2.5</b>	ug/L	5.0	2.5	1		09/28/16 17:33	67-66-3	
Chloromethane	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	74-87-3	
2-Chlorotoluene	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	95-49-8	
4-Chlorotoluene	<b>&lt;0.21</b>	ug/L	1.0	0.21	1		09/28/16 17:33	106-43-4	
1,2-Dibromo-3-chloropropane	<b>&lt;2.2</b>	ug/L	5.0	2.2	1		09/28/16 17:33	96-12-8	
Dibromochloromethane	<b>&lt;0.50</b>	ug/L	1.0	0.50	1		09/28/16 17:33	124-48-1	
1,2-Dibromoethane (EDB)	<b>&lt;0.18</b>	ug/L	1.0	0.18	1		09/28/16 17:33	106-93-4	

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

Sample: MW2	Lab ID: 40138875002	Collected: 09/20/16 15:35	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/28/16 17:33	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		09/28/16 17:33	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/28/16 17:33	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/28/16 17:33	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/28/16 17:33	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 17:33	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 17:33	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/28/16 17:33	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/28/16 17:33	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/28/16 17:33	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/28/16 17:33	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/28/16 17:33	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/28/16 17:33	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/28/16 17:33	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/28/16 17:33	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/28/16 17:33	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/28/16 17:33	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/28/16 17:33	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/28/16 17:33	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/28/16 17:33	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		09/28/16 17:33	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/28/16 17:33	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		09/28/16 17:33	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/28/16 17:33	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/28/16 17:33	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:33	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	85	%	70-130		1		09/28/16 17:33	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		09/28/16 17:33	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		09/28/16 17:33	2037-26-5	

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Sample: MW3	Lab ID: 40138875003	Collected: 09/20/16 16:22	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Lead, Dissolved	<3.0	ug/L	12.0	3.0	1		09/28/16 21:22	7439-92-1	
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	<0.0056	ug/L	0.028	0.0056	1	09/24/16 07:15	09/26/16 21:28	83-32-9	
Acenaphthylene	<0.0046	ug/L	0.023	0.0046	1	09/24/16 07:15	09/26/16 21:28	208-96-8	
Anthracene	<0.0096	ug/L	0.048	0.0096	1	09/24/16 07:15	09/26/16 21:28	120-12-7	
Benzo(a)anthracene	<0.0069	ug/L	0.035	0.0069	1	09/24/16 07:15	09/26/16 21:28	56-55-3	
Benzo(a)pyrene	<0.0097	ug/L	0.048	0.0097	1	09/24/16 07:15	09/26/16 21:28	50-32-8	
Benzo(b)fluoranthene	<0.0053	ug/L	0.026	0.0053	1	09/24/16 07:15	09/26/16 21:28	205-99-2	
Benzo(g,h,i)perylene	<0.0062	ug/L	0.031	0.0062	1	09/24/16 07:15	09/26/16 21:28	191-24-2	
Benzo(k)fluoranthene	<0.0069	ug/L	0.035	0.0069	1	09/24/16 07:15	09/26/16 21:28	207-08-9	
Chrysene	<0.012	ug/L	0.060	0.012	1	09/24/16 07:15	09/26/16 21:28	218-01-9	
Dibenz(a,h)anthracene	<0.0092	ug/L	0.046	0.0092	1	09/24/16 07:15	09/26/16 21:28	53-70-3	
Fluoranthene	<0.0098	ug/L	0.049	0.0098	1	09/24/16 07:15	09/26/16 21:28	206-44-0	
Fluorene	<0.0073	ug/L	0.037	0.0073	1	09/24/16 07:15	09/26/16 21:28	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.016	ug/L	0.081	0.016	1	09/24/16 07:15	09/26/16 21:28	193-39-5	
1-Methylnaphthalene	0.022J	ug/L	0.027	0.0054	1	09/24/16 07:15	09/26/16 21:28	90-12-0	
2-Methylnaphthalene	0.0049J	ug/L	0.022	0.0045	1	09/24/16 07:15	09/26/16 21:28	91-57-6	
Naphthalene	<0.017	ug/L	0.084	0.017	1	09/24/16 07:15	09/26/16 21:28	91-20-3	
Phenanthrene	<0.013	ug/L	0.063	0.013	1	09/24/16 07:15	09/26/16 21:28	85-01-8	
Pyrene	<0.0070	ug/L	0.035	0.0070	1	09/24/16 07:15	09/26/16 21:28	129-00-0	
Total PAHs	0.051	ug/L			1	09/24/16 07:15	09/26/16 21:28		
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	44	%	25-130		1	09/24/16 07:15	09/26/16 21:28	321-60-8	
Terphenyl-d14 (S)	84	%	13-158		1	09/24/16 07:15	09/26/16 21:28	1718-51-0	
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/28/16 17:55	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/28/16 17:55	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/28/16 17:55	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/28/16 17:55	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/28/16 17:55	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/28/16 17:55	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/28/16 17:55	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/28/16 17:55	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/28/16 17:55	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		09/28/16 17:55	106-93-4	

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Sample: MW3	Lab ID: 40138875003	Collected: 09/20/16 16:22	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/28/16 17:55	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		09/28/16 17:55	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/28/16 17:55	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/28/16 17:55	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/28/16 17:55	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 17:55	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 17:55	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/28/16 17:55	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/28/16 17:55	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/28/16 17:55	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/28/16 17:55	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/28/16 17:55	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/28/16 17:55	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/28/16 17:55	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/28/16 17:55	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/28/16 17:55	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/28/16 17:55	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/28/16 17:55	79-34-5	
Tetrachloroethene	0.92J	ug/L	1.0	0.50	1		09/28/16 17:55	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/28/16 17:55	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/28/16 17:55	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		09/28/16 17:55	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/28/16 17:55	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		09/28/16 17:55	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/28/16 17:55	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/28/16 17:55	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/28/16 17:55	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	86	%	70-130		1		09/28/16 17:55	460-00-4	pH
Dibromofluoromethane (S)	110	%	70-130		1		09/28/16 17:55	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/28/16 17:55	2037-26-5	

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Sample: MW4	Lab ID: 40138875004	Collected: 09/20/16 15:20	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Lead, Dissolved	<3.0	ug/L	12.0	3.0	1		09/28/16 21:24	7439-92-1	
<b>8270 MSSV PAH by HVI</b>	Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510								
Acenaphthene	0.18	ug/L	0.027	0.0055	1	09/24/16 07:15	09/26/16 19:33	83-32-9	
Acenaphthylene	0.057	ug/L	0.022	0.0045	1	09/24/16 07:15	09/26/16 19:33	208-96-8	
Anthracene	0.045J	ug/L	0.047	0.0094	1	09/24/16 07:15	09/26/16 19:33	120-12-7	
Benzo(a)anthracene	<0.0068	ug/L	0.034	0.0068	1	09/24/16 07:15	09/26/16 19:33	56-55-3	
Benzo(a)pyrene	<0.0095	ug/L	0.047	0.0095	1	09/24/16 07:15	09/26/16 19:33	50-32-8	
Benzo(b)fluoranthene	<0.0052	ug/L	0.026	0.0052	1	09/24/16 07:15	09/26/16 19:33	205-99-2	
Benzo(g,h,i)perylene	<0.0061	ug/L	0.031	0.0061	1	09/24/16 07:15	09/26/16 19:33	191-24-2	
Benzo(k)fluoranthene	<0.0068	ug/L	0.034	0.0068	1	09/24/16 07:15	09/26/16 19:33	207-08-9	
Chrysene	<0.012	ug/L	0.059	0.012	1	09/24/16 07:15	09/26/16 19:33	218-01-9	
Dibenz(a,h)anthracene	<0.0090	ug/L	0.045	0.0090	1	09/24/16 07:15	09/26/16 19:33	53-70-3	
Fluoranthene	0.013J	ug/L	0.048	0.0096	1	09/24/16 07:15	09/26/16 19:33	206-44-0	B
Fluorene	0.47	ug/L	0.036	0.0072	1	09/24/16 07:15	09/26/16 19:33	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.016	ug/L	0.079	0.016	1	09/24/16 07:15	09/26/16 19:33	193-39-5	
1-Methylnaphthalene	3.5	ug/L	0.027	0.0053	1	09/24/16 07:15	09/26/16 19:33	90-12-0	
2-Methylnaphthalene	4.1	ug/L	0.022	0.0044	1	09/24/16 07:15	09/26/16 19:33	91-57-6	
Naphthalene	2.7	ug/L	0.083	0.017	1	09/24/16 07:15	09/26/16 19:33	91-20-3	
Phenanthrene	0.59	ug/L	0.062	0.012	1	09/24/16 07:15	09/26/16 19:33	85-01-8	
Pyrene	0.041	ug/L	0.034	0.0069	1	09/24/16 07:15	09/26/16 19:33	129-00-0	B
Total PAHs	11.6	ug/L			1	09/24/16 07:15	09/26/16 19:33		
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	47	%	25-130		1	09/24/16 07:15	09/26/16 19:33	321-60-8	
Terphenyl-d14 (S)	66	%	13-158		1	09/24/16 07:15	09/26/16 19:33	1718-51-0	
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	0.69J	ug/L	1.0	0.50	1		09/28/16 18:17	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/28/16 18:17	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/28/16 18:17	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/28/16 18:17	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/28/16 18:17	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/28/16 18:17	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/28/16 18:17	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/28/16 18:17	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/28/16 18:17	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/28/16 18:17	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		09/28/16 18:17	106-93-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Sample: MW4	Lab ID: 40138875004	Collected: 09/20/16 15:20	Received: 09/23/16 09:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/28/16 18:17	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		09/28/16 18:17	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/28/16 18:17	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/28/16 18:17	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/28/16 18:17	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 18:17	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/28/16 18:17	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/28/16 18:17	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/28/16 18:17	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/28/16 18:17	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/28/16 18:17	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	108-20-3	
Ethylbenzene	1.6	ug/L	1.0	0.50	1		09/28/16 18:17	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/28/16 18:17	87-68-3	
Isopropylbenzene (Cumene)	0.24J	ug/L	1.0	0.14	1		09/28/16 18:17	98-82-8	
p-Isopropyltoluene	0.52J	ug/L	1.0	0.50	1		09/28/16 18:17	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/28/16 18:17	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/28/16 18:17	1634-04-4	
Naphthalene	4.3J	ug/L	5.0	2.5	1		09/28/16 18:17	91-20-3	
n-Propylbenzene	0.57J	ug/L	1.0	0.50	1		09/28/16 18:17	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/28/16 18:17	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/28/16 18:17	79-34-5	
Tetrachloroethene	0.95J	ug/L	1.0	0.50	1		09/28/16 18:17	127-18-4	
Toluene	1.6	ug/L	1.0	0.50	1		09/28/16 18:17	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/28/16 18:17	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/28/16 18:17	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		09/28/16 18:17	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/28/16 18:17	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		09/28/16 18:17	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/28/16 18:17	96-18-4	
1,2,4-Trimethylbenzene	22.6	ug/L	1.0	0.50	1		09/28/16 18:17	95-63-6	
1,3,5-Trimethylbenzene	9.5	ug/L	1.0	0.50	1		09/28/16 18:17	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/28/16 18:17	75-01-4	
m&p-Xylene	15.0	ug/L	2.0	1.0	1		09/28/16 18:17	179601-23-1	
o-Xylene	11.6	ug/L	1.0	0.50	1		09/28/16 18:17	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	91	%	70-130		1		09/28/16 18:17	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		09/28/16 18:17	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		09/28/16 18:17	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

Sample: MW91-1      Lab ID: 40138875005      Collected: 09/21/16 10:30      Received: 09/23/16 09:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
			Analytical Method: EPA 8270 by HVI	Preparation Method: EPA 3510					
Acenaphthene	<0.0057	ug/L	0.029	0.0057	1	09/28/16 13:10	09/29/16 21:22	83-32-9	
Acenaphthylene	<0.0047	ug/L	0.023	0.0047	1	09/28/16 13:10	09/29/16 21:22	208-96-8	
Anthracene	<0.0099	ug/L	0.049	0.0099	1	09/28/16 13:10	09/29/16 21:22	120-12-7	
Benzo(a)anthracene	<0.0071	ug/L	0.036	0.0071	1	09/28/16 13:10	09/29/16 21:22	56-55-3	
Benzo(a)pyrene	<0.0099	ug/L	0.050	0.0099	1	09/28/16 13:10	09/29/16 21:22	50-32-8	
Benzo(b)fluoranthene	<0.0054	ug/L	0.027	0.0054	1	09/28/16 13:10	09/29/16 21:22	205-99-2	
Benzo(g,h,i)perylene	<0.0064	ug/L	0.032	0.0064	1	09/28/16 13:10	09/29/16 21:22	191-24-2	
Benzo(k)fluoranthene	<0.0071	ug/L	0.036	0.0071	1	09/28/16 13:10	09/29/16 21:22	207-08-9	
Chrysene	<0.012	ug/L	0.062	0.012	1	09/28/16 13:10	09/29/16 21:22	218-01-9	
Dibenz(a,h)anthracene	<0.0095	ug/L	0.047	0.0095	1	09/28/16 13:10	09/29/16 21:22	53-70-3	
Fluoranthene	<0.010	ug/L	0.050	0.010	1	09/28/16 13:10	09/29/16 21:22	206-44-0	
Fluorene	<0.0075	ug/L	0.038	0.0075	1	09/28/16 13:10	09/29/16 21:22	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.017	ug/L	0.083	0.017	1	09/28/16 13:10	09/29/16 21:22	193-39-5	
1-Methylnaphthalene	<0.0056	ug/L	0.028	0.0056	1	09/28/16 13:10	09/29/16 21:22	90-12-0	
2-Methylnaphthalene	<0.0046	ug/L	0.023	0.0046	1	09/28/16 13:10	09/29/16 21:22	91-57-6	
Naphthalene	<0.017	ug/L	0.086	0.017	1	09/28/16 13:10	09/29/16 21:22	91-20-3	
Phenanthrene	<0.013	ug/L	0.065	0.013	1	09/28/16 13:10	09/29/16 21:22	85-01-8	
Pyrene	<0.0072	ug/L	0.036	0.0072	1	09/28/16 13:10	09/29/16 21:22	129-00-0	
Total PAHs	<b>0.0044</b>	ug/L			1	09/28/16 13:10	09/29/16 21:22		
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	48	%	25-130		1	09/28/16 13:10	09/29/16 21:22	321-60-8	
Terphenyl-d14 (S)	52	%	13-158		1	09/28/16 13:10	09/29/16 21:22	1718-51-0	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

QC Batch: 236420 Analysis Method: EPA 6010

QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved

Associated Lab Samples: 40138875001, 40138875002, 40138875003, 40138875004

METHOD BLANK: 1401500 Matrix: Water

Associated Lab Samples: 40138875001, 40138875002, 40138875003, 40138875004

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Lead, Dissolved	ug/L	<3.0	12.0	09/28/16 20:48	

LABORATORY CONTROL SAMPLE: 1401501

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Lead, Dissolved	ug/L	500	474	95	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1401502 1401503

Parameter	Units	40138869010	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Lead, Dissolved	ug/L	3.9J	500	500	482	477	96	95	75-125	1	20			

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

QC Batch: 236093 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Associated Lab Samples: 40138875001, 40138875002, 40138875003, 40138875004

METHOD BLANK: 1400239 Matrix: Water

Associated Lab Samples: 40138875001, 40138875002, 40138875003, 40138875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/28/16 05:35	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/28/16 05:35	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/28/16 05:35	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	09/28/16 05:35	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/28/16 05:35	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/28/16 05:35	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/28/16 05:35	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/28/16 05:35	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/28/16 05:35	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/28/16 05:35	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/28/16 05:35	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/28/16 05:35	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	09/28/16 05:35	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/28/16 05:35	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/28/16 05:35	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/28/16 05:35	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/28/16 05:35	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/28/16 05:35	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/28/16 05:35	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/28/16 05:35	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/28/16 05:35	
2-Chlorotoluene	ug/L	<0.50	1.0	09/28/16 05:35	
4-Chlorotoluene	ug/L	<0.21	1.0	09/28/16 05:35	
Benzene	ug/L	<0.50	1.0	09/28/16 05:35	
Bromobenzene	ug/L	<0.23	1.0	09/28/16 05:35	
Bromochloromethane	ug/L	<0.34	1.0	09/28/16 05:35	
Bromodichloromethane	ug/L	<0.50	1.0	09/28/16 05:35	
Bromoform	ug/L	<0.50	1.0	09/28/16 05:35	
Bromomethane	ug/L	<2.4	5.0	09/28/16 05:35	
Carbon tetrachloride	ug/L	<0.50	1.0	09/28/16 05:35	
Chlorobenzene	ug/L	<0.50	1.0	09/28/16 05:35	
Chloroethane	ug/L	<0.37	1.0	09/28/16 05:35	
Chloroform	ug/L	<2.5	5.0	09/28/16 05:35	
Chloromethane	ug/L	<0.50	1.0	09/28/16 05:35	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/28/16 05:35	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/28/16 05:35	
Dibromochloromethane	ug/L	<0.50	1.0	09/28/16 05:35	
Dibromomethane	ug/L	<0.43	1.0	09/28/16 05:35	
Dichlorodifluoromethane	ug/L	<0.22	1.0	09/28/16 05:35	
Diisopropyl ether	ug/L	<0.50	1.0	09/28/16 05:35	
Ethylbenzene	ug/L	<0.50	1.0	09/28/16 05:35	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

METHOD BLANK: 1400239

Matrix: Water

Associated Lab Samples: 40138875001, 40138875002, 40138875003, 40138875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/28/16 05:35	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/28/16 05:35	
m&p-Xylene	ug/L	<1.0	2.0	09/28/16 05:35	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/28/16 05:35	
Methylene Chloride	ug/L	<0.23	1.0	09/28/16 05:35	
n-Butylbenzene	ug/L	<0.50	1.0	09/28/16 05:35	
n-Propylbenzene	ug/L	<0.50	1.0	09/28/16 05:35	
Naphthalene	ug/L	<2.5	5.0	09/28/16 05:35	
o-Xylene	ug/L	<0.50	1.0	09/28/16 05:35	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/28/16 05:35	
sec-Butylbenzene	ug/L	<2.2	5.0	09/28/16 05:35	
Styrene	ug/L	<0.50	1.0	09/28/16 05:35	
tert-Butylbenzene	ug/L	<0.18	1.0	09/28/16 05:35	
Tetrachloroethene	ug/L	<0.50	1.0	09/28/16 05:35	
Toluene	ug/L	<0.50	1.0	09/28/16 05:35	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/28/16 05:35	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/28/16 05:35	
Trichloroethene	ug/L	<0.33	1.0	09/28/16 05:35	
Trichlorofluoromethane	ug/L	<0.18	1.0	09/28/16 05:35	
Vinyl chloride	ug/L	<0.18	1.0	09/28/16 05:35	
4-Bromofluorobenzene (S)	%	89	70-130	09/28/16 05:35	
Dibromofluoromethane (S)	%	107	70-130	09/28/16 05:35	
Toluene-d8 (S)	%	103	70-130	09/28/16 05:35	

LABORATORY CONTROL SAMPLE: 1400240

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.5	105	70-131	
1,1,2,2-Tetrachloroethane	ug/L	50	54.6	109	67-130	
1,1,2-Trichloroethane	ug/L	50	51.1	102	70-130	
1,1-Dichloroethane	ug/L	50	55.9	112	70-133	
1,1-Dichloroethene	ug/L	50	43.2	86	70-130	
1,2,4-Trichlorobenzene	ug/L	50	45.6	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.1	96	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	51.7	103	70-130	
1,2-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,2-Dichloroethane	ug/L	50	61.2	122	70-130	
1,2-Dichloropropane	ug/L	50	58.4	117	70-130	
1,3-Dichlorobenzene	ug/L	50	50.7	101	70-130	
1,4-Dichlorobenzene	ug/L	50	50.3	101	70-130	
Benzene	ug/L	50	60.3	121	60-135	
Bromodichloromethane	ug/L	50	59.0	118	70-130	
Bromoform	ug/L	50	46.0	92	70-130	
Bromomethane	ug/L	50	33.8	68	33-130	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

LABORATORY CONTROL SAMPLE: 1400240

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	49.8	100	70-138	
Chlorobenzene	ug/L	50	51.6	103	70-130	
Chloroethane	ug/L	50	43.9	88	51-130	
Chloroform	ug/L	50	57.0	114	70-130	
Chloromethane	ug/L	50	36.6	73	25-132	
cis-1,2-Dichloroethene	ug/L	50	49.3	99	69-130	
cis-1,3-Dichloropropene	ug/L	50	53.6	107	70-130	
Dibromochloromethane	ug/L	50	49.1	98	70-130	
Dichlorodifluoromethane	ug/L	50	41.5	83	23-130	
Ethylbenzene	ug/L	50	53.6	107	70-136	
Isopropylbenzene (Cumene)	ug/L	50	56.6	113	70-140	
m&p-Xylene	ug/L	100	114	114	70-138	
Methyl-tert-butyl ether	ug/L	50	55.7	111	66-138	
Methylene Chloride	ug/L	50	50.0	100	70-130	
o-Xylene	ug/L	50	53.8	108	70-134	
Styrene	ug/L	50	57.0	114	70-133	
Tetrachloroethene	ug/L	50	45.0	90	70-138	
Toluene	ug/L	50	52.3	105	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.6	95	70-131	
trans-1,3-Dichloropropene	ug/L	50	52.5	105	69-130	
Trichloroethene	ug/L	50	53.4	107	70-130	
Trichlorofluoromethane	ug/L	50	48.0	96	50-150	
Vinyl chloride	ug/L	50	45.4	91	49-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1401508      1401509

Parameter	Units	MS		MSD		MS Result	% Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		40138882003	Spike Result	Spike Conc.	MS Result							
1,1,1-Trichloroethane	ug/L	<0.50	50	50	53.0	55.3	106	111	70-134	4	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	53.4	53.3	107	107	67-130	0	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	55.2	55.8	110	112	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	56.5	60.1	113	120	70-134	6	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	43.9	46.1	88	92	68-136	5	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	46.0	44.6	92	89	62-139	3	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	47.8	51.9	96	104	50-150	8	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	53.9	53.2	108	106	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	51.1	50.2	102	100	70-130	2	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	60.3	61.8	121	124	70-130	2	20	
1,2-Dichloropropene	ug/L	<0.23	50	50	58.7	60.4	117	121	70-130	3	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	50.1	48.3	100	97	70-131	4	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	50.0	49.9	100	100	70-130	0	20	

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

Parameter	Units	40138882003		MS		MSD		1401509		Max		
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Qual
Benzene	ug/L	<0.50	50	50	59.0	61.2	118	122	57-138	4	20	
Bromodichloromethane	ug/L	<0.50	50	50	57.2	58.6	114	117	70-130	3	20	
Bromoform	ug/L	<0.50	50	50	45.1	46.5	90	93	70-130	3	20	
Bromomethane	ug/L	<2.4	50	50	37.1	38.5	74	77	33-130	4	27	
Carbon tetrachloride	ug/L	<0.50	50	50	51.2	53.3	102	107	70-138	4	20	
Chlorobenzene	ug/L	<0.50	50	50	52.7	52.8	105	106	70-130	0	20	
Chloroethane	ug/L	<0.37	50	50	46.4	45.8	93	92	51-130	1	20	
Chloroform	ug/L	<2.5	50	50	58.7	58.3	117	117	70-130	1	20	
Chloromethane	ug/L	<0.50	50	50	36.6	38.0	73	76	25-132	4	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	50.7	51.7	101	103	61-140	2	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	55.4	57.9	111	116	70-130	4	20	
Dibromochloromethane	ug/L	<0.50	50	50	49.1	52.5	98	105	70-130	7	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	38.8	41.0	78	82	23-130	5	20	
Ethylbenzene	ug/L	<0.50	50	50	55.8	55.9	112	112	70-138	0	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	57.7	58.1	115	116	70-152	1	20	
m&p-Xylene	ug/L	<1.0	100	100	115	116	115	116	70-140	1	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	56.9	60.0	114	120	66-139	5	20	
Methylene Chloride	ug/L	<0.23	50	50	49.9	51.6	100	103	70-130	3	20	
o-Xylene	ug/L	<0.50	50	50	52.9	53.5	106	107	70-134	1	20	
Styrene	ug/L	<0.50	50	50	58.5	60.8	117	122	70-138	4	20	
Tetrachloroethene	ug/L	<0.50	50	50	48.0	49.5	96	99	70-148	3	20	
Toluene	ug/L	<0.50	50	50	52.8	53.9	106	108	70-130	2	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	49.1	50.8	98	102	70-133	4	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	51.9	53.2	104	106	69-130	2	20	
Trichloroethene	ug/L	<0.33	50	50	53.9	55.8	108	112	70-131	3	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	50.6	54.1	101	108	50-150	7	20	
Vinyl chloride	ug/L	<0.18	50	50	44.6	45.3	89	91	49-133	2	20	
4-Bromofluorobenzene (S)	%						99	96	70-130			
Dibromofluoromethane (S)	%						105	110	70-130			
Toluene-d8 (S)	%						100	101	70-130			

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

QC Batch:	236018	Analysis Method:	EPA 8270 by HVI
QC Batch Method:	EPA 3510	Analysis Description:	8270 Water PAH by HVI
Associated Lab Samples:	40138875001, 40138875002, 40138875003, 40138875004		

METHOD BLANK: 1399669                          Matrix: Water

Associated Lab Samples: 40138875001, 40138875002, 40138875003, 40138875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0059	0.030	09/26/16 10:46	
2-Methylnaphthalene	ug/L	<0.0049	0.024	09/26/16 10:46	
Acenaphthene	ug/L	<0.0061	0.030	09/26/16 10:46	
Acenaphthylene	ug/L	<0.0050	0.025	09/26/16 10:46	
Anthracene	ug/L	<0.010	0.052	09/26/16 10:46	
Benzo(a)anthracene	ug/L	<0.0076	0.038	09/26/16 10:46	
Benzo(a)pyrene	ug/L	<0.011	0.053	09/26/16 10:46	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	09/26/16 10:46	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	09/26/16 10:46	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	09/26/16 10:46	
Chrysene	ug/L	<0.013	0.065	09/26/16 10:46	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	09/26/16 10:46	
Fluoranthene	ug/L	0.012J	0.053	09/26/16 10:46	
Fluorene	ug/L	<0.0080	0.040	09/26/16 10:46	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	09/26/16 10:46	
Naphthalene	ug/L	<0.018	0.092	09/26/16 10:46	
Phenanthrene	ug/L	<0.014	0.069	09/26/16 10:46	
Pyrene	ug/L	0.022J	0.038	09/26/16 10:46	
Total PAHs	ug/L	0.046		09/26/16 10:46	
2-Fluorobiphenyl (S)	%	56	25-130	09/26/16 10:46	
Terphenyl-d14 (S)	%	97	13-158	09/26/16 10:46	

LABORATORY CONTROL SAMPLE &amp; LCSD: 1399670

1399671

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/L	2	1.2	1.1	59	57	35-130	4	36	
2-Methylnaphthalene	ug/L	2	1.2	1.2	61	59	36-130	5	37	
Acenaphthene	ug/L	2	1.1	1.1	54	53	41-130	1	32	
Acenaphthylene	ug/L	2	1.0	1.0	50	50	41-130	0	32	
Anthracene	ug/L	2	1.4	1.4	70	69	38-130	2	28	
Benzo(a)anthracene	ug/L	2	1.4	1.3	68	64	49-130	5	27	
Benzo(a)pyrene	ug/L	2	1.6	1.5	78	73	69-143	6	26	
Benzo(b)fluoranthene	ug/L	2	1.4	1.3	69	66	63-146	5	28	
Benzo(g,h,i)perylene	ug/L	2	0.70	0.61	35	31	10-145	14	37	
Benzo(k)fluoranthene	ug/L	2	1.5	1.4	77	72	64-152	6	28	
Chrysene	ug/L	2	1.8	1.7	91	83	64-156	9	26	
Dibenz(a,h)anthracene	ug/L	2	0.51	0.56	25	28	10-143	10	39	
Fluoranthene	ug/L	2	1.5	1.4	73	70	54-134	4	23	
Fluorene	ug/L	2	1.1	1.1	53	54	44-130	1	33	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.2	1.2	62	59	39-140	4	26	

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

LABORATORY CONTROL SAMPLE & LCSD: 1399670

1399671

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	2	1.2	1.2	61	58	35-130	5	39	
Phenanthrene	ug/L	2	1.4	1.3	71	67	51-130	5	29	
Pyrene	ug/L	2	1.5	1.4	75	68	61-140	10	24	
Total PAHs	ug/L		22.7	21.6					5	
2-Fluorobiphenyl (S)	%				54	55	25-130			
Terphenyl-d14 (S)	%				90	83	13-158			

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

QC Batch:	236463	Analysis Method:	EPA 8270 by HVI
QC Batch Method:	EPA 3510	Analysis Description:	8270 Water PAH by HVI
Associated Lab Samples:	40138875005		

METHOD BLANK: 1401612                          Matrix: Water

Associated Lab Samples: 40138875005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0059	0.030	09/29/16 10:49	
2-Methylnaphthalene	ug/L	<0.0049	0.024	09/29/16 10:49	
Acenaphthene	ug/L	<0.0061	0.030	09/29/16 10:49	
Acenaphthylene	ug/L	<0.0050	0.025	09/29/16 10:49	
Anthracene	ug/L	<0.010	0.052	09/29/16 10:49	
Benzo(a)anthracene	ug/L	<0.0076	0.038	09/29/16 10:49	
Benzo(a)pyrene	ug/L	<0.011	0.053	09/29/16 10:49	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	09/29/16 10:49	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	09/29/16 10:49	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	09/29/16 10:49	
Chrysene	ug/L	0.015J	0.065	09/29/16 10:49	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	09/29/16 10:49	
Fluoranthene	ug/L	<0.011	0.053	09/29/16 10:49	
Fluorene	ug/L	<0.0080	0.040	09/29/16 10:49	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	09/29/16 10:49	
Naphthalene	ug/L	<0.018	0.092	09/29/16 10:49	
Phenanthrene	ug/L	0.016J	0.069	09/29/16 10:49	
Pyrene	ug/L	0.028J	0.038	09/29/16 10:49	
Total PAHs	ug/L	0.078		09/29/16 10:49	
2-Fluorobiphenyl (S)	%	51	25-130	09/29/16 10:49	
Terphenyl-d14 (S)	%	85	13-158	09/29/16 10:49	

METHOD BLANK: 1401662                          Matrix: Water

Associated Lab Samples: 40138875005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	0.020J	0.030	09/29/16 11:05	
2-Methylnaphthalene	ug/L	0.030	0.024	09/29/16 11:05	
Acenaphthene	ug/L	<0.0061	0.030	09/29/16 11:05	
Acenaphthylene	ug/L	<0.0050	0.025	09/29/16 11:05	
Anthracene	ug/L	<0.010	0.052	09/29/16 11:05	
Benzo(a)anthracene	ug/L	<0.0076	0.038	09/29/16 11:05	
Benzo(a)pyrene	ug/L	<0.011	0.053	09/29/16 11:05	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	09/29/16 11:05	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	09/29/16 11:05	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	09/29/16 11:05	
Chrysene	ug/L	<0.013	0.065	09/29/16 11:05	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	09/29/16 11:05	
Fluoranthene	ug/L	0.014J	0.053	09/29/16 11:05	

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

METHOD BLANK: 1401662

Matrix: Water

Associated Lab Samples: 40138875005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluorene	ug/L	<0.0080	0.040	09/29/16 11:05	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	09/29/16 11:05	
Naphthalene	ug/L	0.093	0.092	09/29/16 11:05	
Phenanthrene	ug/L	<0.014	0.069	09/29/16 11:05	
Pyrene	ug/L	0.032J	0.038	09/29/16 11:05	
Total PAHs	ug/L	0.21		09/29/16 11:05	
2-Fluorobiphenyl (S)	%	53	25-130	09/29/16 11:05	
Terphenyl-d14 (S)	%	85	13-158	09/29/16 11:05	

LABORATORY CONTROL SAMPLE: 1401613

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	2	1.1	57	35-130	
2-Methylnaphthalene	ug/L	2	1.1	56	36-130	
Acenaphthene	ug/L	2	1.1	55	41-130	
Acenaphthylene	ug/L	2	1.0	50	41-130	
Anthracene	ug/L	2	1.4	71	38-130	
Benzo(a)anthracene	ug/L	2	1.4	70	49-130	
Benzo(a)pyrene	ug/L	2	1.6	81	69-143	
Benzo(b)fluoranthene	ug/L	2	1.6	79	63-146	
Benzo(g,h,i)perylene	ug/L	2	0.99	50	10-145	
Benzo(k)fluoranthene	ug/L	2	1.6	80	64-152	
Chrysene	ug/L	2	1.9	93	64-156	
Dibenz(a,h)anthracene	ug/L	2	0.91	46	10-143	
Fluoranthene	ug/L	2	1.5	74	54-134	
Fluorene	ug/L	2	1.1	55	44-130	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.6	78	39-140	
Naphthalene	ug/L	2	1.2	60	35-130	
Phenanthrene	ug/L	2	1.4	72	51-130	
Pyrene	ug/L	2	1.4	71	61-140	
Total PAHs	ug/L		23.9			
2-Fluorobiphenyl (S)	%			54	25-130	
Terphenyl-d14 (S)	%			91	13-158	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1401614 1401615

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	RPD	Max Qual
		40138817003	Spike Result	Spike Conc.	Conc.	MS Result	MSD Result	% Rec	MSD % Rec				
1-Methylnaphthalene	ug/L	<0.0058	2	2	1.1	1.1	56	56	56	16-130	1	30	
2-Methylnaphthalene	ug/L	<0.0049	2	2	1.1	1.2	57	59	59	33-130	3	30	
Acenaphthene	ug/L	<0.0060	2	2	1.1	1.1	56	54	54	29-130	4	27	
Acenaphthylene	ug/L	<0.0049	2	2	1.1	1.0	54	51	51	33-130	5	27	

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## QUALITY CONTROL DATA

Project: 6962AXUC BURNETT OIL

Pace Project No.: 40138875

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1401614		1401615							
Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	MSD	% Rec	Max
		40138817003	Spike Conc.							Limits	RPD
				Result	Conc.	Result	Conc.	% Rec	Result	RPD	RPD
Anthracene	ug/L	<0.010	2	2	1.3	1.4	64	69	26-130	7	31
Benzo(a)anthracene	ug/L	<0.0075	2	2	1.3	1.3	66	63	27-130	5	36
Benzo(a)pyrene	ug/L	<0.010	2	2	1.3	1.3	65	67	16-151	3	44
Benzo(b)fluoranthene	ug/L	<0.0057	2	2	1.4	1.4	70	69	30-142	3	41
Benzo(g,h,i)perylene	ug/L	<0.0067	2	2	0.68	0.77	34	38	10-130	12	50
Benzo(k)fluoranthene	ug/L	<0.0075	2	2	1.6	1.5	80	73	24-152	8	41
Chrysene	ug/L	<0.013	2	2	1.8	1.8	91	88	40-152	3	33
Dibenz(a,h)anthracene	ug/L	<0.0099	2	2	0.66	0.77	33	38	10-130	14	50
Fluoranthene	ug/L	0.015J	2	2	1.4	1.3	70	66	39-140	6	30
Fluorene	ug/L	<0.0079	2	2	1.1	1.1	56	53	35-130	6	26
Indeno(1,2,3-cd)pyrene	ug/L	<0.017	2	2	1.1	1.1	53	55	10-130	4	50
Naphthalene	ug/L	<0.018	2	2	1.2	1.2	60	62	29-130	2	31
Phenanthrene	ug/L	<0.014	2	2	1.4	1.4	68	70	48-130	2	25
Pyrene	ug/L	0.024J	2	2	1.3	1.3	62	65	42-143	5	25
Total PAHs	ug/L	0.055			22.0	22.0				0	
2-Fluorobiphenyl (S)	%						57	60	25-130		
Terphenyl-d14 (S)	%						82	85	13-158		

MATRIX SPIKE SAMPLE:		1401663							
Parameter	Units	40138985007		Spike	MS	MS	% Rec	% Rec	Limits
		Result	Conc.	Conc.	Result	% Rec	Limits	Limits	Qualifiers
1-Methylnaphthalene	ug/L	0.23	2	1.3		54	16-130		
2-Methylnaphthalene	ug/L	0.29	2	1.4		58	33-130		
Acenaphthene	ug/L	0.48	2	1.6		56	29-130		
Acenaphthylene	ug/L	<0.0050	2	1.1		53	33-130		
Anthracene	ug/L	<0.010	2	1.3		65	26-130		
Benzo(a)anthracene	ug/L	<0.0076	2	1.3		63	27-130		
Benzo(a)pyrene	ug/L	<0.011	2	1.4		71	16-151		
Benzo(b)fluoranthene	ug/L	<0.0057	2	1.4		68	30-142		
Benzo(g,h,i)perylene	ug/L	<0.0068	2	0.74		37	10-130		
Benzo(k)fluoranthene	ug/L	<0.0076	2	1.4		68	24-152		
Chrysene	ug/L	<0.013	2	1.6		82	40-152		
Dibenz(a,h)anthracene	ug/L	<0.010	2	0.69		34	10-130		
Fluoranthene	ug/L	<0.011	2	1.3		64	39-140		
Fluorene	ug/L	0.20	2	1.4		58	35-130		
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	2	1.1		55	10-130		
Naphthalene	ug/L	0.79	2	2.0		62	29-130		
Phenanthrene	ug/L	0.025J	2	1.3		66	48-130		
Pyrene	ug/L	0.011J	2	1.3		63	42-143		
Total PAHs	ug/L	2.0		23.6					
2-Fluorobiphenyl (S)	%					57	25-130		
Terphenyl-d14 (S)	%					81	13-158		

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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without the written consent of Pace Analytical Services, LLC.

## QUALIFIERS

Project: 6962AXUC BURNETT OIL  
Pace Project No.: 40138875

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### 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.

### BATCH QUALIFIERS

Batch: 236032

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6962AXUC BURNETT OIL  
 Pace Project No.: 40138875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40138875001	MW1	EPA 6010	236420		
40138875002	MW2	EPA 6010	236420		
40138875003	MW3	EPA 6010	236420		
40138875004	MW4	EPA 6010	236420		
40138875001	MW1	EPA 3510	236018	EPA 8270 by HVI	236032
40138875002	MW2	EPA 3510	236018	EPA 8270 by HVI	236032
40138875003	MW3	EPA 3510	236018	EPA 8270 by HVI	236032
40138875004	MW4	EPA 3510	236018	EPA 8270 by HVI	236032
40138875005	MW91-1	EPA 3510	236463	EPA 8270 by HVI	236567
40138875001	MW1	EPA 8260	236093		
40138875002	MW2	EPA 8260	236093		
40138875003	MW3	EPA 8260	236093		
40138875004	MW4	EPA 8260	236093		

### REPORT OF LABORATORY ANALYSIS

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REI



Company Name: REI  
 Branch/Location: Project Contact: David Lassig  
 Phone: 715-675-9784

## CHAIN OF CUSTODY

Preservation Codes							
A=None	B=HCl	C=H <sub>2</sub> SO <sub>4</sub>	D=HNO <sub>3</sub>	E=DI Water	F=Methanol	G=NaOH	
H=Sodium Bisulfite Solution	I=Sodium Thiosulfate	J=Other					

FILTERED?  
 (YES/NO)  
 PRESERVATION  
 (CODE)

Y/N  
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Pace Analytical

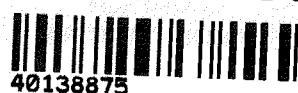
# Sample Condition Upon Receipt

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

Client Name: RET

Project #: WO# : 40138875

Courier:  FedEx  UPS  Client  Pace Other: Walter  
Tracking #: 164965



40138875

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: N/A

Type of Ice: Wet Blue Dry None

Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT Corr: 16

Biological Tissue is Frozen:  yes

no

Temp Blank Present:  yes  no

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Comments:

Person examining contents:  
Date: 9-23-16  
Initials: STC

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11. <u>9/23/16</u>
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>001 - No Collect time on Sample</u> <u>004 - Collect time 0325 on Sample</u> <u>9-23-16</u>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input checked="" type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct <u>SLC</u>
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

If checked, see attached form for additional comments

Project Manager Review: BB

Date: 9-23-16