



**CONESTOGA-ROVERS
& ASSOCIATES**

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November 3, 2014

Reference No. 086165-01-16

Mr. Phil Richard
Wisconsin Department of Natural Resources
875 S 4th Avenue
Park Falls, Wisconsin 54552

Dear Phil:

Re: Monthly Status Report – September 1 through 28, 2014
Penta Wood Products Superfund Site
Siren, Wisconsin

Conestoga-Rovers & Associates, Inc. (CRA) has prepared this monthly progress report for the period of September 1 through 28, 2014 for the Penta Wood Products Superfund Site (Site). The project budget and costs are summarized in Table 1. The Site plan is shown on Figure 1.

1. Progress Made This Reporting Period

Task 01 Routine groundwater extraction and treatment, LNAPL recovery and bioventing system operation, equipment maintenance and repair

- The following tasks were completed as part of the routine remediation system operation, monitoring, and maintenance:
 - Adjusting pump levels
 - Backwashing the carbon units
 - Changing bag filters
 - Generating filter cake
 - Collecting compliance water samples
 - Operating and monitoring the biovent system
- Other work completed included:
 - Project management and coordination
 - Project transition items
 - Historical project documents and reports review
 - Class K operator certification
 - Waste profile development

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Employer

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ISO 9001
ENGINEERING DESIGN



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- The groundwater extraction and LNAPL skimming pumps operated continuously during September 2014 with the exception of during system maintenance and electrical storms. The groundwater extraction volumes are summarized in Table 2.

Task 02 Waste characterization and coordination (groundwater, LNAPL, GAC, filter cake)

- Waste profiles were developed for filter cake, LNAPL, and spent carbon.
- No costs were billed to this Task 02 in the current invoice. The budget for this task only includes costs for waste characterization sampling, which was not conducted during this reporting period. Labor associated with profile review/development was billed under Task 01, consistent with the project budget.

Task 03 Waste disposal

- Not applicable.

Task 04 Housekeeping and grounds keeping (building, access roads, paths, CAMU, etc.)

- Housekeeping tasks were completed in the building on a weekly basis.

Task 05 Monthly soil gas sampling and analysis (17 wells)

- The biovent remediation system operation and monitoring was conducted from September 15 through 19, 2014. Monitoring data is summarized in Tables 3 and 4. Monitoring data is generally consistent with recent events.
- No costs were billed to this Task 05 in the current invoice. The budget for this task only includes costs for field equipment rental, which will be included in a future invoice. Labor associated with the biovent system operation and monitoring is billed under Task 01, consistent with the project budget.

Task 06 Treatment system influent sampling and analysis

- The monthly influent sample was collected on September 5, 2014. The analytical data is summarized in Table 4. The laboratory reports are included in Attachment A. The results were generally consistent with recent sampling events.



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Task 07 Treatment system effluent sampling and analysis (weekly, PCP)

- The weekly effluent samples were collected on September 5, 9, 16, 23, and 30, 2014 for laboratory analysis of PCP. The analytical data is summarized in Table 5. The data indicate that the system treated and discharged water in accordance with the substantive WPDES permit requirements. The laboratory reports are included in Attachment A.

Task 08 Treatment system effluent sampling and analysis (monthly, DRO & Naphthalene)

- The monthly effluent sample was collected on September 5, 2014 for laboratory analysis of DRO and naphthalene. The analytical data is summarized in Table 5. The data indicate that the system is treating and discharging water in accordance with the substantive WPDES permit requirements. The laboratory reports are included in Attachment A.

Task 09 Treatment system effluent sampling and analysis (quarterly, metals)

- Not applicable.

Task 10 Treatment system effluent sampling and analysis (annually, BTEX, Phenol, Dioxin)

- Not applicable.

Task 11 Groundwater and LNAPL elevation measurement in all wells

- Groundwater and LNAPL level monitoring was conducted on September 22, 2014. The monitoring data is summarized in Table 6.

Task 12 Purging, sampling, and analysis of all monitoring wells (annually for PCP, BTEX, Naphthalene, TAL metals, and NA indicator parameters)

- The annual groundwater sampling event was performed during the week of September 22, 2014. The analytical data is summarized in Table 7. The results were generally consistent with recent sampling events. The laboratory reports are included in Attachment B.

Task 13 Purging, sampling, and analysis of five monitoring wells (semi-annually for PCP, BTEX, Naphthalene, TAL metals, and NA indicator parameters)

- Not applicable.



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Task 14 Sampling of five private wells and onsite potable water well (semi-annually for PCP, BTEX and naphthalene)

- The semi-annual residential well and onsite potable water well sampling was conducted on September 25, 2014. As requested by WDNR, a sixth residential well sample (RW-06) was collected at the Wegner property. The analytical data are summarized in Table 8. The results were generally consistent with recent sampling events. The well locations are shown on Figure 2. The laboratory report and data quality assessment are included in Attachment C.

Task 15 Semi-annual reporting

- Not applicable

Task 16 Monthly status reports

- The Monthly Status Report – July 16, 2014 through August 31, 2014 was issued on September 26, 2014.

Task 17 Remedial system optimization/alternative remedial action analysis

- The following were evaluated to develop a remediation system operation modification strategy to save project costs while still meeting remedial objectives:
 - Remediation system and well construction details
 - LNAPL recovery rate
 - Water treatment alternatives
 - System modification options

Task 18 Regulatory communications

- A meeting between WDNR, USEPA, and CRA was held on September 25, 2014 at the USEPA office in Chicago, Illinois.

Task 19 Site Safety Plan

- The Health and Safety Plan (HASP) was finalized.



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Task 20 Site QA/QC Plan

- Portions of a draft QA/QC Plan were prepared.

Task 21 Change Order No. 1

- Transducers installed in selected wells were removed and data was evaluated. Data was inconclusive.

2. Problems Resolved

- Problems were not encountered.

3. Problem Areas and Recommended Solutions

- Unresolved problems have not been identified.

4. Deliverables Submitted

- Access Agreement of Residential Well Sampling (September 2, 2014)
- Hazardous Waste Export (September 3, 2014)
- Residential Well Sampling Notification (September 11, 2014)
- Remediation System Operation Modification (September 17, 2014)
- Monthly Status Report – July 16, 2014 through August 31, 2014 preparation (September 26, 2014)

5. Activities Planned Next Reporting Period

- Issue laboratory results to property owners for residential well sampling
- Complete draft QA/QC Plan and amend QAPP
- Operate, monitor, and maintain the groundwater and LNAPL extraction remediation system



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- Conduct WPDES permit compliance sampling
- Prepare access agreement for residential well located at the Wegner property
- Modify remediation system piping and collect initial discharge sample of extracted groundwater treated only with carbon
- Finalize filter cake hazardous waste profile and coordinate disposal
- Prepare monthly status report
- Submit September 2014 discharge monitoring report

6. Key Personnel Changes

- Personnel changes are not necessary.

7. Subcontractor Services

CRA has retained the following subcontractors to provide services at the Site:

- North Shore Environmental Construction, Inc. – waste management and disposal
- Maurer Power – potential remediation system electrical repair/service
- Evoqua Water Treatment Technologies LLC – carbon supply and change out
- Alar Chemical Sales – diatomaceous earth supply
- Applied Air Systems – air compressor routine service and potential repairs
- A-1 Septic – septic tank service
- Austin Lake Landscaping – mowing
- Republic Services – trash disposal

8. Travel

- To/from the Site for remediation system operation
- To/from the Site for annual groundwater sampling
- To/from Chicago, Illinois for meeting with WNDR and USEPA



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9. Laboratories

CRA submitted all samples to TestAmerica Laboratories, Inc. in North Canton, Ohio for laboratory analyses.

10. Project Performance

- CRA became competent in operation of the remediation system
- Compliance sampling indicated that the remediation system treated and discharged water in accordance with the substantive requirements of the WPDES discharge permit

Should you have questions, please do not hesitate to contact us.

Sincerely,

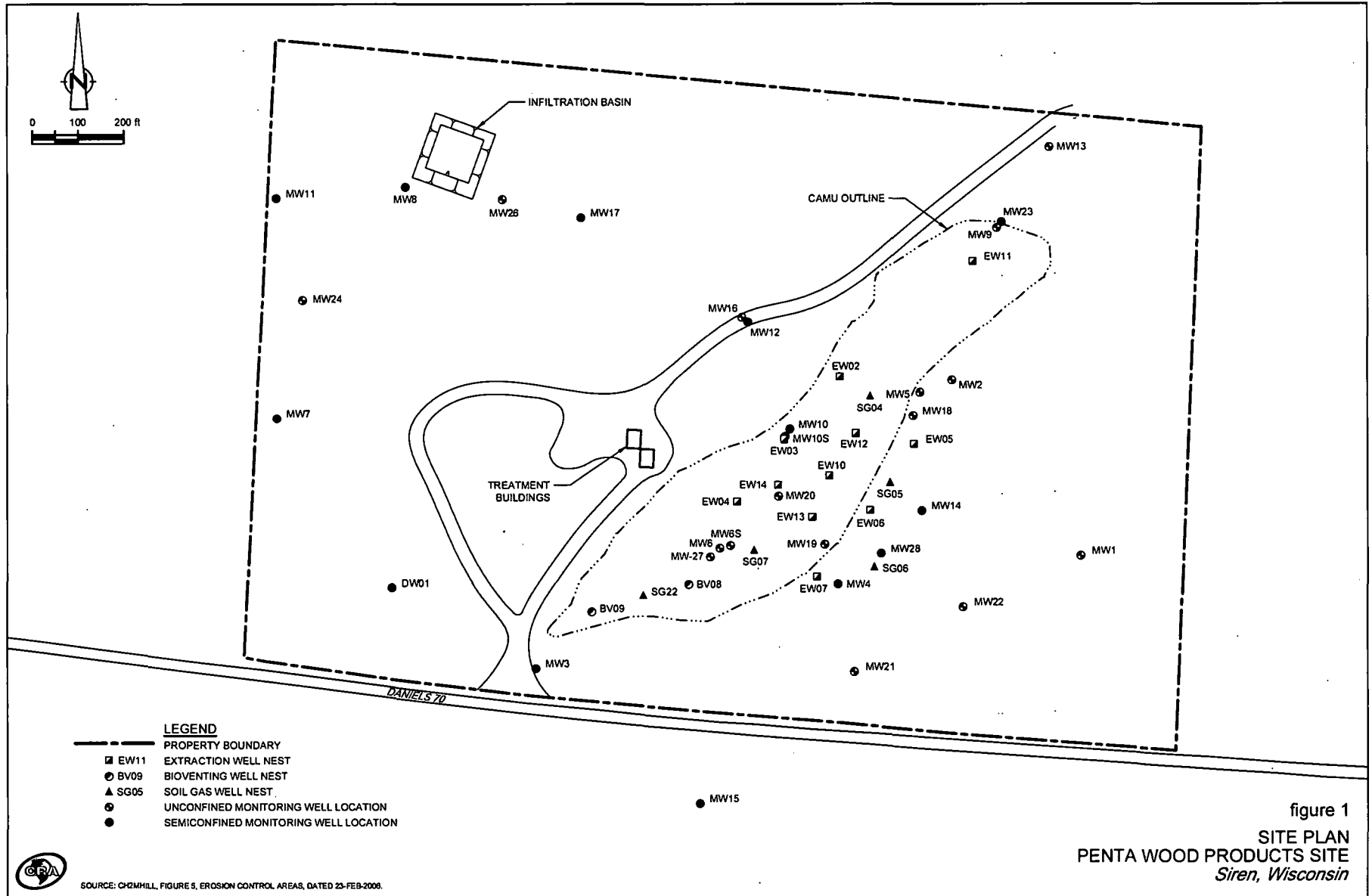
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Tim Ree

TR/sb/7

Encl.

cc: Erin Endsley, WDNR Superior (via email)
Judy Fassbender, WDNR Madison (via email)
David Swimm, WDNR Madison (via email)
John Robinson, WDNR Wausau (via email)
Gary Edelstein, WDNR Madison (via email)
Tim Pänzer, WDNR Madison (via email)
Ron Frehner, CRA (via email)
Brian Sandberg, CRA (via email)
Pete Storlie, CRA (via email)
Linda Martin, USEPA (via email)



LEGEND

- PROPERTY BOUNDARY
- ▣ EW11 EXTRACTION WELL NEST
- BV09 BIOVENTING WELL NEST
- ▲ SG05 SOIL GAS WELL NEST
- UNCONFINED MONITORING WELL LOCATION
- SEMICONFINED MONITORING WELL LOCATION

figure 1
 SITE PLAN
 PENTA WOOD PRODUCTS SITE
Siren, Wisconsin



SOURCE: CH2MHILL, FIGURE 9, EROSION CONTROL AREAS, DATED 23-FEB-2006.



LEGEND

⊕ RESIDENTIAL WELL SAMPLING LOCATION

— SITE PROPERTY BOUNDARY



figure 2
RESIDENTIAL WELL SAMPLING LOCATIONS
PENTA WOOD PRODUCTS SUPERFUND SITE
Siren, Wisconsin

TABLE 1

**CONTRACT BUDGET SUMMARY
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

**CRA Project Number 086165
Phase 01 - August 1, 2014 - July 31, 2015**

Task	Description	Unit	Estimated Quantity	Contract Budget		Project Costs			
				Unit Cost	Budget	Current Invoice Cost (through 9/28/2014)	Previous Invoiced Cost (through 8/31/2014)	Total Invoiced Cost (through 9/28/2014)	Budget Remaining (through 9/28/2014)
01	Routine O&M	Labor hours/rate Estimated material equipment and rental	1	\$ 444,802.00	\$ 444,802.00	\$ 26,504.40	\$ 35,757.27	\$ 62,261.67	\$ 382,540.33
02	Waste characterization	Labor hours/rate Estimated material equipment and rental	1	\$ 10,500.00	\$ 10,500.00	\$ -	\$ -	\$ -	\$ 10,500.00
03	Waste disposal	Costs plus markup	1	\$ 287,069.00	\$ 287,069.00	\$ -	\$ -	\$ -	\$ 287,069.00
04	Housekeeping and grounds keeping	Labor hours/rate Estimated material equipment and rental	1	\$ 13,088.00	\$ 13,088.00	\$ 318.00	\$ -	\$ 318.00	\$ 12,770.00
05	Monthly soil gas monitoring	Each round	6	\$ 150.00	\$ 900.00	\$ -	\$ -	\$ -	\$ 900.00
06	Treat syst inf (PCP)	Each round	12	\$ 104.50	\$ 1,254.00	\$ 94.50	\$ -	\$ 94.50	\$ 1,159.50
07	Treat syst eff (PCP)	Each round	52	\$ 184.50	\$ 9,594.00	\$ 581.13	\$ -	\$ 581.13	\$ 9,012.87
08	Treat syst eff (DRO, Naph)	Each round	12	\$ 139.00	\$ 1,668.00	\$ 126.00	\$ -	\$ 126.00	\$ 1,542.00
09	Treat syst eff (metals)	Each round	4	\$ 58.00	\$ 232.00	\$ -	\$ -	\$ -	\$ 232.00
10	Treat syst eff (BTEX, Phen, Diox)	Each round	1	\$ 571.00	\$ 571.00	\$ -	\$ -	\$ -	\$ 571.00
11	Semi-annual GW/LNAPL level monit	Each round	2	\$ 435.00	\$ 870.00	\$ 437.25	\$ -	\$ 437.25	\$ 432.75
12	Annual GW well samp	Each round	1	\$ 15,871.00	\$ 15,871.00	\$ 5,553.25	\$ -	\$ 5,553.25	\$ 10,317.75
13	Semi-annual GW well samp	Each round	1	\$ 5,920.00	\$ 5,920.00	\$ -	\$ -	\$ -	\$ 5,920.00

TABLE 1

**CONTRACT BUDGET SUMMARY
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

**CRA Project Number 086165
Phase 01 - August 1, 2014 - July 31, 2015**

Task	Description	Unit	Estimated Quantity	Contract Budget		Project Costs			
				Unit Cost	Budget	Current Invoice Cost	Previous Invoiced Cost	Total Invoiced Cost	Budget Remaining
14	Annual residential well samp	Each round	1	\$ 2,142.00	\$ 2,142.00	\$ 675.75	\$ -	\$ 675.75	\$ 1,466.25
15	Semi-annual reporting	Each	2	\$ 8,345.00	\$ 16,690.00	\$ -	\$ -	\$ -	\$ 16,690.00
16	Monthly status reports	Each	12	\$ 930.00	\$ 11,160.00	\$ 849.75	\$ -	\$ 849.75	\$ 10,310.25
17	Remedial system analysis	Estimated cost not to exceed	1	\$ 39,650.00	\$ 39,650.00	\$ 14,314.30	\$ 10,092.05	\$ 24,406.35	\$ 15,243.65
18	Regulatory communications	Pre-approved and determined by DNR	1	\$ 15,000.00	\$ 15,000.00	\$ 6,469.90	\$ -	\$ 6,469.90	\$ 8,530.10
19	Site Safety Plan	Estimated cost not to exceed	1	\$ 2,202.00	\$ 2,202.00	\$ 53.34	\$ 1,990.10	\$ 2,043.44	\$ 158.56
20	Site QA/QC Plan	Estimated cost not to exceed	1	\$ 5,000.00	\$ 5,000.00	\$ 4,324.75	\$ 543.00	\$ 4,867.75	\$ 132.25
21	Change Order No. 1	Estimated cost not to exceed	1	\$ 6,276.00	\$ 6,276.00	\$ 2,143.67	\$ 1,132.50	\$ 3,276.17	\$ 2,999.83
				TOTAL	\$ 890,459.00	\$ 62,445.99	\$ 49,514.92	\$ 111,960.91	\$ 778,498.09

TABLE 2
GROUNDWATER EXTRACTION SUMMARY
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

<i>Date</i>	<i>Effluent Flow Meter Reading (gallons)</i>	<i>Pumping Volume (gallons)</i>
9/1/2014	200270976	90,240
9/2/2014	200407536	136,560
9/3/2014	200476688	69,152
9/4/2014	200482160	5,472
9/5/2014	200569344	87,184
9/6/2014	200707312	137,968
9/7/2014	200845280	137,968
9/8/2014	200976240	130,960
9/9/2014	201061776	85,536
9/10/2014	201140928	79,152
9/11/2014	201269296	128,368
9/12/2014	201404160	134,864
9/13/2014	201542080	137,920
9/14/2014	201680016	137,936
9/15/2014	201792032	112,016
9/16/2014	201928544	136,512
9/17/2014	202065872	137,328
9/18/2014	202202704	136,832
9/19/2014	202277040	74,336
9/20/2014	202277040	-
9/21/2014	202277040	-
9/22/2014	202343792	66,752
9/23/2014	202420208	76,416
9/24/2014	202420208	-
9/25/2014	202508560	88,352
9/26/2014	202643472	134,912
9/27/2014	202781232	137,760
9/28/2014	202918832	137,600
9/29/2014	203051664	132,832
9/30/2014	203185872	134,208

TABLE 3

**BIOVENT SYSTEM MONITORING DATA
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

<i>Well ID</i>	<i>Date</i>	<i>Time</i>	<i>Methane (%)</i>	<i>Carbon Dioxide (%)</i>	<i>Oxygen (%)</i>	<i>Lower Explosive Limit (%)</i>	<i>Temperature (°F)</i>
System Startup	9/15/14	13:30	NA	NA	NA	NA	NA
SG-04D	9/15/14	13:43	0	0.1	21	0	58
SG-04I	9/15/14	13:41	0	0.2	20.5	0	59
SG-04S	9/15/14	13:44	0	0.4	19.8	0	59
SG-05D	9/15/14	14:07	0	0.3	20.6	0	62
SG-05I	9/15/14	14:05	0	0.2	20.6	0	60
SG-05S	9/15/14	14:06	0	0.2	20.7	0	60
SG-06D	9/15/14	14:02	0	0.2	20.7	0	64
SG-06I	9/15/14	14:00	0	0.1	20.9	0	65
SG-06S	9/15/14	14:01	0	0.2	20.5	0	62
SG-07D	9/15/14	13:51	0	0.4	20.3	0	62
SG-07I	9/15/14	13:52	0	0.6	20.1	0	60
SG-07S	9/15/14	13:50	10.9	14.7	10.1	218	63
SG-22	9/15/14	13:54	0.4	8.2	9.1	8	76
SG-23	9/15/14	14:23	0	0.1	20.8	0	NA
SG-24	9/15/14	14:20	0	0	20.8	0	NA
SG-25	9/15/14	14:13	0	0.5	20.3	0	NA
SG-26	9/15/14		NM	NM	NM	NM	NM
Blower	9/15/14	14:24	0	0.1	20.8	0	75
SG-07D	9/16/14	12:13	0	0.3	20.3	0	64
SG-07I	9/16/14	12:10	0	0.4	20	0	70
SG-07S	9/16/14	12:12	13.3	24.7	6.5	266	70
SG-22	9/16/14	12:02	3.1	17.4	6.2	62	70
Blower	9/16/14	12:30	0	0.1	20.5	0	68
SG-07D	9/17/14	15:24	0	0.2	20	0	64
SG-07I	9/17/14	15:23	0	0.3	19.9	0	64
SG-07S	9/17/14	15:22	11.4	22.5	6.2	228	87
SG-22	9/17/14	15:19	1.7	16.6	5	34	82
Blower	9/17/14	15:44	0	0.1	20.6	0	74
SG-07D	9/18/14	13:46	0	0.3	20.4	0	70
SG-07I	9/18/14	13:47	0	0.2	20.4	0	64
SG-07S	9/18/14	13:48	10.8	22.6	6.2	216	63
SG-22	9/18/14	13:51	1.3	16.2	6.1	26	71

TABLE 3

**BIOVENT SYSTEM MONITORING DATA
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

<i>Well ID</i>	<i>Date</i>	<i>Time</i>	<i>Methane (%)</i>	<i>Carbon Dioxide (%)</i>	<i>Oxygen (%)</i>	<i>Lower Explosive Limit (%)</i>	<i>Temperature (°F)</i>
Blower	9/18/14	13:30	0	0.1	20.5	0	69
SG-07D	9/19/14	11:53	0	0.2	20.4	0	64
SG-07I	9/19/14	11:02	0	0.2	20.4	0	67
SG-07S	9/19/14	11:55	8.5	21.6	6.1	170	70
SG-22	9/19/14	11:49	1	14.9	6.7	20	70
Blower	9/19/14	12:01	0	0.1	20.7	0	69

Notes:

NA - Not Applicable

NM - Not Measured

°F - Degrees Fahrenheit

% - Percent

TABLE 4

**BIOVENT SYSTEM OPERATION DATA
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

<i>Biovent Data</i>	<i>9/15/14</i>		<i>9/16/14</i>		<i>9/17/14</i>		<i>9/18/14</i>		<i>9/19/14</i>	
	<i>Flow (scfm)</i>	<i>Pressure (psi)</i>	<i>Flow (scfm)</i>	<i>Pressure (psi)</i>	<i>Flow (scfm)</i>	<i>Pressure (psi)</i>	<i>Flow (scfm)</i>	<i>Pressure (psi)</i>	<i>Flow (scfm)</i>	<i>Pressure (psi)</i>
BV-11	<100	1.0	<100	1.0	<100	1.0	<100	1.0	<100	1.0
BV-02	340	1.0	330	1.0	330	1.0	330	1.0	330	1.0
BV-05	280	1.0	290	1.0	290	1.0	290	1.0	290	1.0
BV-08	<100	1.0	<100	1.0	<100	1.0	<100	1.0	<100	1.0
BV-09	>200	0.8	>200	0.8	>200	0.8	>200	0.8	>200	0.8
BV-03	280	1.0	280	1.0	280	1.0	280	1.0	280	1.0
BV-06	270	1.1	270	1.0	280	1.0	270	1.0	280	1.0
BV-04	360	0.9	260	0.9	250	0.9	360	0.9	350	0.9
BV-07	460	1.0	460	1.0	470	1.0	470	1.0	470	1.0

Blower Data

Discharge (psi)	0.4	0.4	0.4	0.4	0.4
Temp (°F)	83	90	96	83	93
Inlet (in H ₂ O)	>10	>10	>10	>10	>10

Notes:

- scfm - Standard cubic feet per minute
psi - Pounds per square inch
°F - Degrees Fahrenheit
in H₂O - Pressure in inches of water

TABLE 5

**GROUNDWATER EXTRACTION SYSTEM INFLUENT AND EFFLUENT ANALYTICAL DATA
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

<i>Sample Date</i>	<i>Pentachlorophenol</i> ug/L ¹	<i>Naphthalene</i> ug/L	<i>WI DRO (C10-C28)</i> mg/L ²
<i>Groundwater Influent Sample</i>			
9/5/2014	2400	NA	NA
<i>Groundwater Effluent Sample</i>			
9/5/2014	0.021 J ³	< ⁴ 0.19	< 0.096
9/9/2014	< 0.095	NA	NA
9/16/2014	< 0.097	NA	NA
9/23/2014	< 0.095	NA	NA
9/30/2014	< 0.10	NA	NA

Notes:

- 1 - Concentrations listed with units of micrograms per liter (ug/L).
- 2 - Concentrations listed with units of milligrams per liter (mg/L).
- 3 - Data qualified with "J" indicates concentration was estimated.
- 4 - Less than symbol (<) indicates the analyte was not detected above the reporting limit.

WI DRO - Wisconsin Diesel Range Organics

TABLE 6

**GROUNDWATER AND LNAPL LEVEL MONITORING DATA
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

<i>Well ID</i>	<i>Top of Casing Elevation (feet)</i>	<i>Depth to Groundwater (feet btoc)</i>	<i>Depth to LNAPL (feet btoc)</i>	<i>LNAPL Thickness (feet)</i>	<i>Groundwater Elevation (feet)</i>	<i>LNAPL Elevation (feet)</i>
<i>Semiconfined Aquifer (Lower)</i>						
MW-03	1129.50	144.25	ND	0.00	985.25	NA
MW-04	1087.81	103.18	ND	0.00	984.63	NA
MW-07	1096.39	111.04	ND	0.00	985.35	NA
MW-08	1091.28	105.94	ND	0.00	985.34	NA
MW-10	1089.74	105.21	ND	0.00	984.53	NA
MW-11	1085.58	100.69	ND	0.00	984.89	NA
MW-12	1081.99	97.20	ND	0.00	984.79	NA
MW-14	1078.50	93.83	ND	0.00	984.67	NA
MW-15	1127.22	141.83	ND	0.00	985.39	NA
MW-17	1084.50	99.40	ND	0.00	985.10	NA
MW-23	1017.57	32.75	ND	0.00	984.82	NA
MW-28	1083.10	98.39	ND	0.00	984.71	NA
<i>Unconfined Aquifer (Upper)</i>						
MW-01	1072.32	86.80	ND	0.00	985.52	NA
MW-02	1064.85	79.69	ND	0.00	985.16	NA
MW-05	1071.73	86.77	ND	0.00	984.96	NA
MW-06S	1108.63	123.00	ND	0.00	985.63	NA
MW-09	1020.71	32.04	ND	0.00	988.67	NA
MW-10S	1090.43	105.01	ND	0.00	985.42	NA
MW-13	1006.10	20.95	ND	0.00	985.15	NA
MW-16	1081.92	96.21	ND	0.00	985.71	NA
MW-18	1072.44	87.45	86.89	0.56	984.99	985.55
MW-19	1088.17	103.40	103.10	0.30	984.77	985.07
MW-20	1097.76	112.32	ND	0.00	985.44	NA
MW-21	1095.70	110.32	ND	0.00	985.38	NA
MW-22	1084.70	99.23	ND	0.00	985.47	NA
MW-24	1084.10	98.16	ND	0.00	985.94	NA
MW-25	1095.24	109.44	ND	0.00	985.80	NA
MW-26	1087.07	101.96	ND	0.00	985.11	NA
MW-27	1111.00	125.36	ND	0.00	985.64	NA

Notes:

- btoc - Below top of Casing
 NA - Not Applicable
 NM - Not Measured
 ND - Not Detected

TABLE 7
GROUNDWATER ANALYTICAL DATA
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

Sample Location	ES ¹ PAL ² Sample Date	pH	Temperature °C ³	Specific Conductance uS/cm ⁴	Oxidation Reduction Potential mV ⁵	Dissolved Oxygen mg/L ⁶	Turbidity NTU ⁷	Total Manganese ¹⁴ mg/L	Total Iron ¹⁴ mg/L	Total Sulfide mg/L	Alkalinity, total (as CaCO3) mg/L	Chloride ¹⁴ mg/L	Hardness, carbonate mg/L	Nitrate (as N) mg/L	Sulfate ¹⁴ mg/L	TOC averages mg/L	Methane (dissolved) ug/L ⁸	Arsenic (dissolved) ug/L	Copper (dissolved) ug/L	Iron (dissolved) ¹⁴ ug/L	Manganese (dissolved) ¹⁴ ug/L	Zinc (dissolved) ¹⁴ ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Xylenes (total) ug/L	
MW2	9/24/2014	7.97	12.5	135	90	11.17	228	ND ⁹	1.1	ND	62	0.69 J ¹⁰	68	0.73	2.4	<11	1.0	<0.50	<5.0	<2.0	<100	1.4 J	<20	0.32	<0.20	<0.50	<1.0	<1.0	<2.0
MW3	9/25/2014	7.04	10.71	803	34	7.45	0	ND	0.8	ND	290	72	360	2.1	12	0.91 J	15	<5.0	<2.0	160 B ¹²	7.6	<20	0.35	<0.19	<0.50	<1.0	<1.0	<2.0	
MW5	9/24/2014	6.57	9.95	328	-116	0	0	0.5	1.4	ND	100	4.3	150	0.14	48	2.3	12	0.41 J	<2.0	1200 B	2200	<20	12	<0.19	<0.50	<1.0	<1.0	<2.0	
MW5	9/24/2014	6.57	9.95	328	-116	0	0	0.5	1.4	ND	97	4.3	150	0.12	48	<1.0	10	0.42 J	<2.0	1200 B	2200	<20	12	<0.20	<0.50	<1.0	<1.0	<2.0	
MW6S	9/24/2014	7.99	10.5	170	-63	10.2	300	ND	ND	ND	22	9.3	100	3.6	7.3	<1.0	0.082 J	1.3 J	27	6000 B	110	41 B	0.27	<0.20	<0.50	<1.0	<1.0	<2.0	
MW7	9/23/2014	7.28	10.76	616	-24	14.14	91	ND	4.0	ND	200	9	240	1.9 H ¹³	110	0.96 J	15	0.28 JB	<2.0	260	33	30 B	0.034 J	<0.19	<0.50	<1.0	<1.0	<2.0	
MW9	9/24/2014	8.06	14.26	81	64	9.87	33.3	ND	1.0	ND	14	1.1	41	2.4	10	2.5	<0.50	<5.0	<2.0	<100	<5.0	<20	1.6	<0.19	<0.50	<1.0	<1.0	<2.0	
MW10	9/25/2014	7.43	10.71	536	-107	0.68	0	0.3	0.6	ND	180	6.1	270	0.1	77	<1.0	8.1	0.21 J	<2.0	250 B	1300	<20	37	<0.19	<0.50	<1.0	<1.0	<2.0	
MW12	9/23/2014	7.46	14.22	737	14	3.86	0	ND	ND	ND	240	11	360	1.7	130	<1.0	0.076 J	0.66 JB	<2.0	<100	450	<20	24	<0.20	<0.50	<1.0	<1.0	<2.0	
MW15	9/23/2014	7.97	10.87	505	59	10.62	0	ND	0.1	ND	210	11	250	5.3	5.6	0.85 J	<0.50	1.1 JB	<2.0	28 J	1.9 J	<20	0.054 J	<0.19	<0.50	<1.0	<1.0	<2.0	
MW16	9/23/2014	7.91	14.29	99	1	15.81	322	ND	1.8	ND	31	5.4	60	0.54	2.8	1.1	<0.50	0.41 JB	<2.0	<100	<5.0	<20	0.036 J	<0.19	<0.50	<1.0	<1.0	<2.0	
MW17	9/24/2014	7.54	10.3	17	464	102	5.89	ND	ND	ND	150	15	250	4.8	40	0.72 J	<0.50	0.83 J	<2.0	<100	1.3 J	<20	<0.097	<0.20	<0.50	<1.0	<1.0	<2.0	
MW22	9/24/2014	7.17	10.87	116	85	10.14	90.2	ND	ND	ND	51	1.7	60	0.69	3.6	0.71 J	<0.50	0.22 J	<2.0	25 JB	19	<20	0.27	<0.19	<0.50	<1.0	<1.0	<2.0	
MW26	9/24/2014	7.30	10.45	713	102	11.68	0	ND	ND	ND	150	17	290	1.2	160	<1.0	<0.50	0.43 J	<2.0	<100	<5.0	<20	<0.095	<0.19	<0.50	<1.0	<1.0	<2.0	
MW26	9/24/2014	7.30	10.45	713	102	11.68	0	ND	ND	ND	150	17	280	1.2	160	<1.0	<0.50	0.32 J	<2.0	<100	<5.0	<20	<0.095	<0.19	<0.50	<1.0	<1.0	<2.0	
MW28	9/25/2014	7.88	10.36	328	104	8.92	0	ND	ND	ND	120	18	150	1.3	5.1	0.85 J	<0.50	0.31 J	<2.0	<100	<5.0	<20	0.099	<0.19	<0.50	<1.0	<1.0	<2.0	

Notes:

- 1 - Enforcement Standard (ES) criteria adapted from Table 1 referred to and incorporated by NR 140.10 with except of Iron, Manganese, Zinc, Chloride, and Sulfate (see note 14).
- 2 - Preventive Action Limit (PAL) criteria adapted from Table 1 referred to and incorporated by NR 140.10 with except of Iron, Manganese, Zinc, Chloride, and Sulfate (see note 14).
- 3 - Temperature listed in degrees Celcius (°C)
- 4 - Specific Conductance listed with units of microsiemens per centimeter (uS/cm)
- 5 - Oxidation Reduction Potential listed with units of millivolts (mV)
- 6 - Concentrations listed with units of milligrams per liter (mg/L).
- 7 - Turbidity listed with units of Nephelometric Turbidity Units (NTU).
- 8 - Concentrations listed with units of micrograms per liter (ug/L).
- 9 - Data was analyzed but not detected.
- 10 - Data qualified with "J" indicates concentration was estimated.
- 11 - Less than symbol (<) indicates the analand was not detected above the reporting limit.
- 12 - Data qualified with "B" indicates analand was detected in the method blank.
- 13 - Data qualified with "H" indicates analysis performed after holding time.
- 14 - Enforcement Standard (ES) and Preventive Action Limit (PAL) criteria adapted from Table 2 referred to and incorporated by NR 140.12.

Concentration exceeds one or both of the above listed screening criteria, ES or PAL.

Well MW19 not sampled due to the presence of LNAPL.

TABLE 8

**RESIDENTIAL WELL AND ONSITE WATER SUPPLY WELL ANALYTICAL DATA
PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN**

<i>Sample Location</i>	<i>Sample Date</i>	<i>Pentachlorophenol</i>	<i>Naphthalene</i>	<i>Benzene</i>	<i>Ethylbenzene</i>	<i>Toluene</i>	<i>Xylenes (total)</i>
		<i>ug/L³</i>	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>
	<i>ES¹</i>	1	100	5	700	800	2000
	<i>PAL²</i>	0.1	10	0.5	140	160	400
DW01	9/25/2014	0.54 J ⁴	< ⁵ 0.19	< 0.50	< 1.0	< 1.0	< 2.0
RW01	9/25/2014	0.043 J	< 0.19	< 0.50	< 1.0	< 1.0	< 2.0
RW02	9/25/2014	< 0.096	< 0.19	< 0.50	< 1.0	< 1.0	< 2.0
RW03	9/25/2014	< 0.095	< 0.19	< 0.50	< 1.0	< 1.0	< 2.0
RW03	9/25/2014	< 0.095	< 0.19	< 0.50	< 1.0	< 1.0	< 2.0
RW04	9/25/2014	< 0.096	< 0.19	< 0.50	< 1.0	< 1.0	< 2.0
RW05	9/25/2014	< 0.096	< 0.19	< 0.50	< 1.0	< 1.0	< 2.0
RW06	9/25/2014	< 0.095	< 0.19	< 0.50	< 1.0	< 1.0	< 2.0

Notes:

- 1 - Enforcement Standard (ES) criteria adapted from Table 1 referred to and incorporated by NR 140.10.
- 2 - Preventive Action Limit (PAL) criteria adapted from Table 1 referred to and incorporated by NR 140.10.
- 3 - Concentrations listed with units of micrograms per liter (ug/L).
- 4 - Data qualified with "J" indicates concentration was estimated.
- 5 - Less than symbol (<) indicates the analand was not detected above the reporting limit.

Concentration exceeds one or both of the above listed screening criteria, ES or PAL.

Attachment A

Remediation System Compliance Water Sample Laboratory Reports