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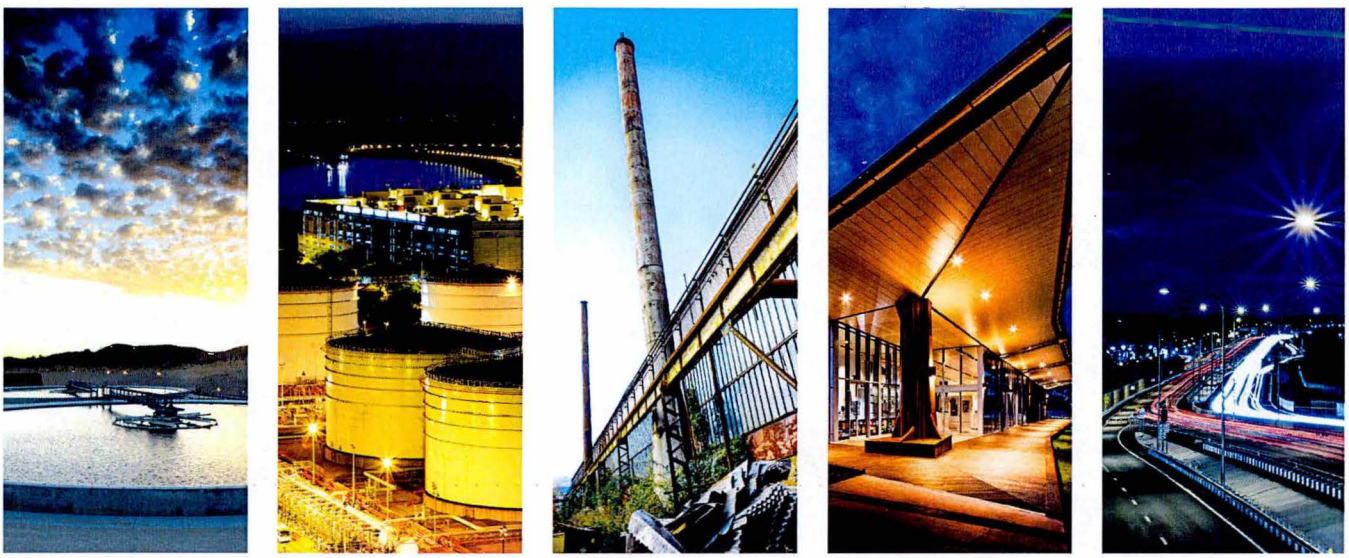

Quarterly Report

January through March 2016
Penta Wood Products Superfund Site

Wisconsin Department of Natural Resources

1801 Old Highway 8 Northwest Suite 114 St. Paul Minnesota 55112
086165 | Report No 10 | May 02 2016

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1. Introduction

GHD Services Inc. (GHD) prepared this Semiannual Report (Report) for the Penta Woods Products Superfund Site (Site) in Siren, Wisconsin on behalf of Wisconsin Department of Natural Resources (WDNR). The Site location is shown on Figure 1.1, and the Site plan is shown on Figure 1.2. This Report presents the results of the activities conducted at the Site during January through March 2016 including:

- Groundwater monitoring and sampling (Section 2)
- Residential well sampling (Section 3)
- Remediation system decommissioning (Section 4)
- Microcosm Study (Section 5)
- Bio-Trap Study (Section 6)
- Waste management and disposal (Section 7)
- Continuing Obligations and Inspections (Section 8)
- Recommendations (Section 9)
- Certification (Section 10)

2. Groundwater Monitoring and Sampling

Groundwater monitoring and sampling was not conducted at the Site during January through March 2016. Baseline groundwater monitoring and sampling at all Site wells will be conducted in April 2016. These results will be provided and discussed in the next quarterly report. Subsequent quarterly and semiannual groundwater monitoring and sampling will be conducted based on the schedule and scope provided in the Remediation System Shutdown Pilot Study Work Plan (GHD, November 2015). Historical groundwater data is included in Appendix A.

3. Residential Well Sampling

Residential well and onsite water supply well sampling was not conducted at the Site during January through March 2016. Residential well sampling will be conducted in April 2016. These results will be provided and discussed in the next quarterly report. Subsequent residential well sampling will be conducted on a semiannual schedule. Historical residential well sample analytical data is included in Appendix A.

4. Remediation System Decommissioning

This section discusses the remediation system decommissioning and water treatment activities conducted at the Site during January 2016.

4.1 Remediation System Decommissioning

The remediation system was shutdown on November 23, 2015 to initiate the remediation system shutdown pilot study as approved by the USEPA. On January 4 through 9, 2016, the remediation system cleaning and decommissioning work was completed including the following:

- Sludge was removed from the tanks, sumps, and piping.
- All tanks and sumps were cleaned.
- All piping and pumps were drained.
- Granular activated carbon (GAC) was removed from all treatment vessels and the vessels were inspected.
- Water remaining in the system components was treated with a temporary/portable GAC system (refer to Section 4.2).
- All wastes (sludges, fluids, recovered LNAPL, spent carbon, and miscellaneous debris) generated during the system decommissioning and cleaning were segregated and disposed at offsite facilities (refer to Section 7.0).

4.2 Water Treatment

On January 5 through 8, 2016 a temporary/portable GAC system was used to treat water remaining in the tanks, piping, and system components and water generated during the decommissioning/cleaning of the existing treatment system components. Authorization was obtained from the WDNR permit manager regarding the use of the temporary system to treat and discharge the water under the substantive WPDES permit requirements including a modified compliance sampling plan. A total of approximately 12,458 gallons of water were treated and discharged during this period . The daily system operation and discharge volumes are summarized in Table 4.1. Historical groundwater extraction data is included in Appendix A.

Influent and effluent water samples were collected from the temporary treatment system in general compliance with the substantive WPDES permit requirements. The influent and effluent sample analytical data are summarized in Table 4.2. A copy of the laboratory report is included in Appendix B. Historical influent analytical data is included in Appendix A.

An influent sample was collected on January 6, 2016 for laboratory analysis of pentachlorophenol (PCP). The analytical data is summarized in Table 4.2. Influent PCP was detected at a concentration of 35 micrograms per liter (µg/L).

An effluent sample was collected on January 6, 2016 for laboratory analysis of PCP, Wisconsin-Diesel Range Organics (WI-DRO) and naphthalene. The analytical data is summarized in Table 4.2. The effluent PCP concentration of 0.53 µg/L exceeded the substantive WPDES permit limit of 0.1 µg/L. The data indicate that the system treated and discharged water in compliance with the substantive WPDES permit limit for naphthalene; there is not a WPDES permit limit for WI-DRO.

A remediation system water treatment discharge non-compliance letter was submitted to WDNR on January 27, 2016 for the January 2016 exceedance, in general accordance with the WPDES permit requirements.

The WPDES permit will remain open during the pilot study in the event that the remediation system is restarted. However, associated treated water discharge and permit reporting will not be completed if the system is not operated.

4.3 Potential Remediation System Restart

Should the system need to be restarted during or after the remediation system shutdown pilot study, many items will need to be completed to properly resume operations. A list of items that would need to be completed includes:

- Connect all piping, replace tank manhole covers and pumps that were disconnected during decommissioning that will be needed for future operations
- Repair drill holes in building piping for piping to be used as part of future operations (3 holes were drilled in piping to drain fluids in the DAF room during decommissioning)
- Install existing groundwater extraction well pumps and new riser piping in selected wells
- Install existing LNAPL skimming pumps in selected wells
- Replace heat trace/insulation on recovered LNAPL pipe between oil/water separator and storage tank
- Replace controller for LNAPL tank heater
- Repair/reline carbon vessels
- Install new granular activated carbon
- Procure treatment system supplies (i.e. filter bags, etc.)

Additional items to be potentially considered should a restart of the system be required:

- Repair/install new building heating and ventilation system
- Clean forcemains
- Redevelop extraction wells
- Install/replace underground storage tank (UST) high level alarm and program the programmable logic controller (PLC) to shutdown system upon high-high level
- Reprogram the PLC if only filtration/GAC treatment are necessary and exclude all pre-treatment operations including the dissolved air flotation and rotary drum vacuum filter subsystems
- Repair/replace magnetic flowmeters
- Resize carbon vessels for 30-50 gallons per minute (gpm) groundwater pumping rate
- Redesign/replace tanks for backwash only in the GAC room
- Install remote monitoring capabilities
- Procure water pre-treatment chemicals (ferric sulfate and sodium hydroxide), if needed
- Consider placing a tank for LNAPL storage within the RDVF room instead of replacing controller for existing LNAPL tank heater

5. Microcosm Study

A microcosm study was initiated in accordance with the Remediation System Shutdown Pilot Study Work Plan (GHD, November 13, 2015). The objectives of this laboratory study are to gather the data necessary to:

- Determine whether natural attenuation of PCP is occurring at the Site
- Determine whether natural attenuation is occurring under aerobic conditions, anaerobic conditions, or both
- Determine a Site-specific biodegradation rate for PCP

During the drilling and well installation activities in November and December 2015, soil and groundwater samples were collected at borehole SB1. Borehole SB1 is located downgradient from the LNAPL where the groundwater is expected within the aerobic (i.e., oxygen rich) zone. A soil sample was collected at borehole MW29. A groundwater sample will be collected from MW29 during April 2016 for the microcosm study. Borehole MW29 is located closer to the LNAPL and elevated PCP concentrations where the groundwater is within the anaerobic (i.e., oxygen poor) zone. Approximately 4 gallons of groundwater and 5 pounds of soil were collected from each zone. The soil samples were collected from the interval immediately above the groundwater table. The samples were submitted to the GHD Innovative Technology Group (ITG) laboratory located in Niagara Falls, New York.

Upon arrival at the laboratory, the soil and groundwater samples were analyzed for the following parameters to provide a characterization of baseline conditions for the study:

- pH
- PCP
- Diesel range organics
- Ammonia-nitrogen
- Orthophosphate-phosphorus
- Total and dissolved metals (groundwater)
- Total metals (soil)

The PCP concentrations are sufficient to proceed with the microcosm study. The initial characterization results (0 month) are summarized in Tables 5.1 and 5.2.

Microcosms were set up to assess the potential for natural attenuation of PCP under aerobic and aerobic conditions using soil and groundwater samples collected at the Site. After 0, 3, 6, and 12 months, duplicate microcosms for each treatment will be sacrificed and the soil and groundwater samples would be analyzed for PCP. Depending on the results, additional testing may be conducted at extended durations. The microcosm study results for the three-month period will be provided in the next quarterly report.

Following completion of microcosm study, the data will be compiled and evaluated. An assessment will be made of the potential for natural attenuation with estimated degradation rates of PCP at the

Site, which can be used to project groundwater cleanup times. The microcosm study results for the three-month period will be provided in the next quarterly report.

6. Bio-Trap Study

A bio-trap study will be initiated in accordance with the Remediation System Shutdown Pilot Study Work Plan (GHD, November 13, 2015) in April 2016. Following completion of bio-trap study, the data will be compiled and evaluated. An assessment will be made of the potential for natural attenuation with estimated degradation rates of PCP at the Site. Updates will be provided in subsequent quarterly reports.

7. Waste Management and Disposal

Hazardous waste management protocols are outlined in the Waste Handling Plan (CH2M HILL, 2012). Historical hazardous waste disposal is summarized in Appendix A. The following sections discuss management and disposal of the primary waste streams including decommissioning sludge, debris, and soil cuttings; spent carbon; and recovered LNAPL and water.

7.1 Decommissioning Debris, Sludge, and Soil Cuttings

Sludge and debris from the remediation system decommissioning and soil cuttings from drilling and well installation were generated at the Site during November 2015 through January 2016. On February 18, 2016 a total of 15,212 pounds of material was removed from the Site and transported to the Clean Harbors Lambton facility located in Corunna, Ontario, Canada under Profile No. CH81542B for treatment and disposal. Waste disposal documentation, including the Uniform Hazardous Waste Manifest (Tracking Number 008772291 FLE), is included in Appendix C. Following receipt from the disposal facility, the certificate of disposal will be provided in a future report.

7.2 Spent Carbon

Spent carbon was generated during treatment of dissolved PCP in the extracted groundwater. Spent carbon was removed during the system decommissioning activities during January 2016. On February 11, 2016 a total of 34,877 pounds of spent carbon was removed from the Site and transported to the Clean Harbors Lambton facility located in Corunna, Ontario, Canada under Profile No. CH81546B for treatment and disposal. Waste disposal documentation, including the Uniform Hazardous Waste Manifests (Tracking Numbers 008772294 FLE and 008772295 FLE), is included in Appendix C. Following receipt from the disposal facility, the certificate of disposal will be included in a future report.

7.3 Recovered LNAPL and Water

LNAPL recovered during the system operation was contained in the onsite LNAPL storage tank. On February 16, 2016 a total of 14,374 pounds of LNAPL and water generated during the system decommissioning activities were removed from the Site and transported to the Clean Harbors Sarnia facility located in Corunna, Ontario, Canada under Profile No. CH81548B for treatment and disposal. Waste disposal documentation, including the Uniform Hazardous Waste Manifest (Tracking Number 008772292 FLE) and certificate of disposal, is included in Appendix C.

7.4 Waste Generator Designation

A RCRA Subtitle C Site Identification Form was submitted to WDNR to provide notification of a change in hazardous waste generator designation from a large quantity generator to a very small quantity generator. WDNR was previously considered a large quantity generator during operation of the remediation system. Now that the system has been shut down as part of the pilot study and less than 200 pounds per month of hazardous waste are expected to be generated, the very small quantity generator designation applies. Wisconsin regulations (NR 662.220) state that very small quantity generators have a conditional exemption from small and large quantity generator standards. Wisconsin regulations (NR 662.220(6)) require that if the waste is placed in containers, the very small quantity generator shall comply with NR 665.0171, NR 665.0172, NR665.0173(1), NR 665.0177(1). Waste generated during the pilot study would be placed in steel drums at the site labeled as "Hazardous Waste". Weekly inspections are not required. The time period for accumulation of waste onsite begins for a very small quantity generator when the accumulated waste exceeds 1,000 kilograms (2,205 pounds). In a letter dated March 14, 2016, WDNR confirmed this change in generator designation.

8. Continuing Obligations and Inspections

The WDNR has implemented Institutional Controls (ICs) at the Site in the form of Continuing Obligations (COs). COs are legal requirements designed to protect public health and the environment in regard to contamination that remains on a property, and COs still apply after a property is sold. The Long-Term Response Action Operation and Maintenance Plan (O&M Plan) – Addendum No. 1 (GHD; November 9, 2015) effectively serves as an Institutional Control Implementation and Assurance Plan (ICIAP). This section documents the COs in addition to inspections required by the O&M Plan (GHD; July 22, 2015)

8.1 Continuing Obligations

On July 6, 2015 the WDNR provided a letter approving the Remedial Actions with Continuing Obligations (WDNR BRRTS Activity #02-07-000532, FID #: 807050310). That letter approved the remedies which have been implemented at the Site and specified the condition with which any current or future owner of the property must comply to ensure that the Site does not pose a threat. These conditions or COs meet the intent of the ICs required by the Record of Decision for the Site.

CO maintenance consists of periodic monitoring and reporting to confirm that Site security is in place and providing protection as intended and that use of the land is restricted to maintain the integrity and functional effectiveness of the Site remedy.

Maintenance activities consist of periodic review of the property and COs by WDNR, notifications to new land owners or lessees, and continuing education for land owners and property users through annual updates and information. There was no transfer of ownership during the current monitoring period.

To facilitate monitoring of the COs, roles and responsibilities, schedules, corrective actions, and reporting requirements were performed as follows:

1. Periodic monitoring was conducted whenever WDNR or its contractors or other representatives were present at the Site.

2. Prohibition of use of the Site real estate is evaluated and updated on an annual basis (minimum frequency). This evaluation determined:
    a. The selected remedy (i.e. remediation system shutdown pilot study and associated monitoring) remains in place and remains effective
    b. Site security remains effective and real estate use meets the stated objectives and performance goals and provides protection required by the response
3. Evidence was not observed of the following improper uses:
    a. Removal of the existing barrier or cover
    b. Replacement with another barrier or cover
    c. Excavating or grading of the land surface
    d. Filling on covered or paved areas
    e. Plowing for agricultural cultivation
    f. Construction or placement of a building or other structure
    g. Changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure setting

8.2 Inspections

Additional inspections required by the O&M Plan (GHD; July 22, 2015) were conducted during this monitoring period. The results of the inspections are as follows:

- The CAMU area fence is in satisfactory condition and does not require repairs; the CAMU fence gates will be closed and locked following the baseline groundwater sampling event in April 2016
- The CAMU area surface soils/vegetation were frozen/dormant during this monitoring period and do not require repairs; erosion, subsidence, and ponding water were not observed on the CAMU

Well inspections will be conducted during the groundwater/fluid level monitoring events.

9. Recommendations

The following actions are recommended for the Site during the next reporting period:

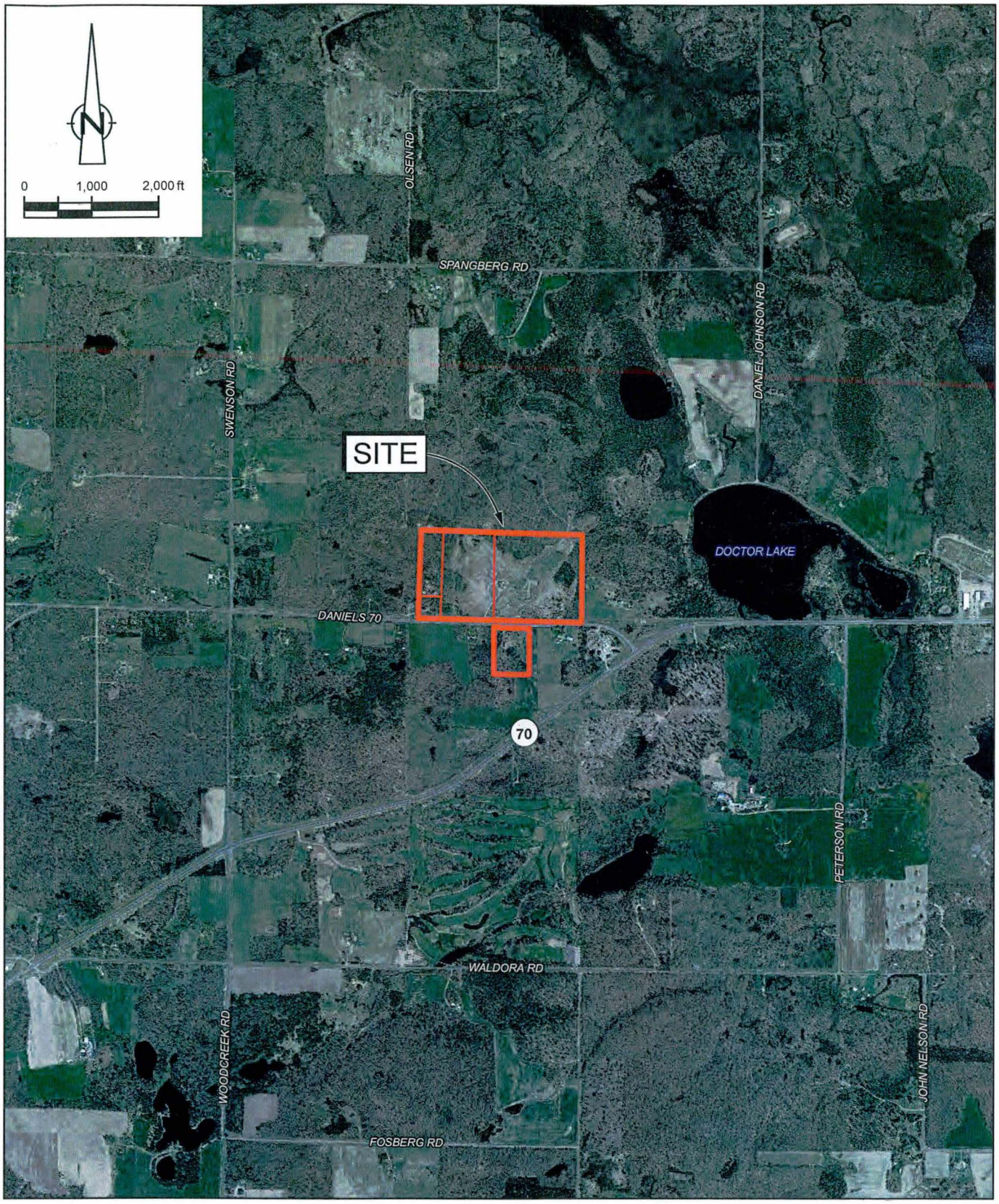
- Continue microcosm study laboratory analyses and evaluation
- Collect groundwater samples from well MW29 for the microcosm study
- Install the bio-traps in wells MW9, MW20, MW29, and EW11 to initiate this portion of the pilot study
- Conduct baseline groundwater monitoring and sampling at all wells
- Conduct semiannual residential well sampling
- Survey locations and elevations of all monitoring wells and extraction wells

- Prepare and submit required monthly and quarterly reports

10. Certification

The current actions at the Site remain protective of human health and the environment based on an evaluation of the current data. Implementation of the pilot study contingency plan outlined in the Remediation System Pilot Study Work Plan (GHD; November 13, 2015) is not necessary at this time.

Figures



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PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN
QUARTERLY REPORT

086165-03-13
Apr 25, 2016

SITE LOCATION

FIGURE 1.1

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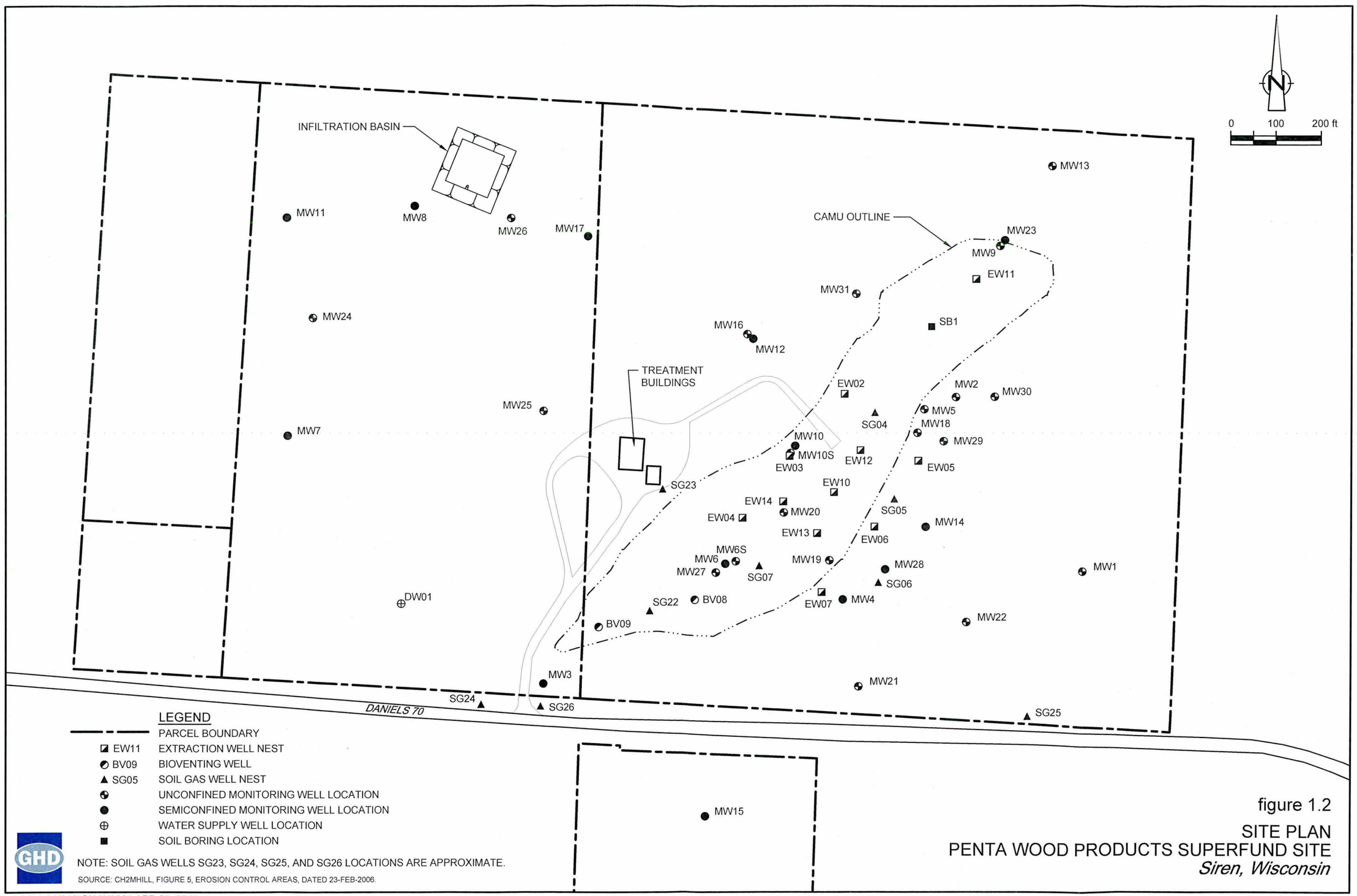

figure 1.2

SITE PLAN
PENTA WOOD PRODUCTS SUPERFUND SITE
Siren, Wisconsin

86165-00(010)GN-WA001 APR 25, 2016

Tables

Table 4.1

Groundwater Extraction Summary
Penta Wood Products Superfund Site
Siren, Wisconsin

Date	Pumping Volume (gallons)	Average Daily Pumping Rate (gallons per minute)	Comments
7/1/2015	42,436	29	
7/2/2015	42,367	29	
7/3/2015	36,591	25	System shutdown due to potential adverse weather
7/4/2015	0	0	
7/5/2015	0	0	
7/6/2015	17,803	12	System restarted after preventative shutdown
7/7/2015	42,625	30	
7/8/2015	42,121	29	
7/9/2015	41,651	29	
7/10/2015	24,326	17	System shutdown due to potential adverse weather
7/11/2015	0	0	
7/12/2015	0	0	
7/13/2015	0	0	
7/14/2015	24,856	17	System restarted after preventative shutdown
7/15/2015	42,829	30	
7/16/2015	23,078	16	System shutdown due to potential adverse weather
7/17/2015	3,607	3	System operated for approximately 2 hours
7/18/2015	7,250	5	System restarted after preventative shutdown
7/19/2015	43,019	30	
7/20/2015	42,437	29	
7/21/2015	42,416	29	
7/22/2015	42,619	30	
7/23/2015	42,306	29	
7/24/2015	42,754	30	
7/25/2015	42,527	30	
7/26/2015	42,150	29	
7/27/2015	42,032	29	
7/28/2015	41,848	29	
7/29/2015	42,220	29	
7/30/2015	42,133	29	
7/31/2015	42,188	29	

Table 4.1

Groundwater Extraction Summary
Penta Wood Products Superfund Site
Siren, Wisconsin

Date	Pumping Volume (gallons)	Average Daily Pumping Rate (gallons per minute)	Comments
8/1/2015	42,128	29	
8/2/2015	24,581	17	System shutdown due to potential adverse weather
8/3/2015	15,907	11	System restarted after preventative shutdown
8/4/2015	42,209	29	
8/5/2015	42,116	29	
8/6/2015	28,001	19	System shutdown due to potential adverse weather
8/7/2015	7,934	6	System operated for approximately 3 hours
8/8/2015	0	0	
8/9/2015	0	0	
8/10/2015	12,662	9	System restarted after preventative shutdown
8/11/2015	43,657	30	
8/12/2015	30,017	21	System shutdown due to potential adverse weather
8/13/2015	21,733	15	System restarted after preventative shutdown
8/14/2015	43,443	30	
8/15/2015	28,969	20	System shutdown due to potential adverse weather
8/16/2015	0	0	
8/17/2015	23,440	16	System restarted after preventative shutdown
8/18/2015	30,706	21	System shutdown due to potential adverse weather
8/19/2015	22,648	16	System restarted after preventative shutdown
8/20/2015	41,973	29	
8/21/2015	41,932	29	
8/22/2015	41,789	29	
8/23/2015	41,631	29	
8/24/2015	41,560	29	
8/25/2015	41,464	29	
8/26/2015	41,167	29	
8/27/2015	41,119	29	
8/28/2015	41,185	29	
8/29/2015	41,051	29	
8/30/2015	40,620	28	
8/31/2015	38,944	27	

Table 4.1

Groundwater Extraction Summary
Penta Wood Products Superfund Site
Siren, Wisconsin

Date	Pumping Volume (gallons)	Average Daily Pumping Rate (gallons per minute)	Comments
9/1/2015	40,979	28	
9/2/2015	40,829	28	
9/3/2015	40,636	28	
9/4/2015	40,693	28	
9/5/2015	40,517	28	
9/6/2015	40,147	28	
9/7/2015	40,318	28	
9/8/2015	40,029	28	
9/9/2015	39,994	28	
9/10/2015	39,875	28	
9/11/2015	39,812	28	
9/12/2015	39,803	28	
9/13/2015	39,409	27	
9/14/2015	39,541	27	
9/15/2015	39,365	27	
9/16/2015	37,762	26	
9/17/2015	39,688	28	
9/18/2015	39,608	28	
9/19/2015	39,353	27	
9/20/2015	39,248	27	
9/21/2015	39,275	27	
9/22/2015	39,025	27	
9/23/2015	39,056	27	
9/24/2015	38,822	27	
9/25/2015	38,831	27	
9/26/2015	38,852	27	
9/27/2015	38,716	27	
9/28/2015	38,641	27	
9/29/2015	38,407	27	
9/30/2015	38,509	27	

Table 4.1

Groundwater Extraction Summary
Penta Wood Products Superfund Site
Siren, Wisconsin

Date	Pumping Volume (gallons)	Average Daily Pumping Rate (gallons per minute)	Comments
10/1/2015	38,230	27	
10/2/2015	38,359	27	
10/3/2015	38,450	27	
10/4/2015	38,142	26	
10/5/2015	28,925	20	System shutdown due to power outage
10/6/2015	28,540	20	System restarted after power outage shutdown
10/7/2015	38,470	27	
10/8/2015	37,288	26	
10/9/2015	42,431	29	
10/10/2015	42,429	29	
10/11/2015	42,017	29	
10/12/2015	41,714	29	
10/13/2015	41,486	29	
10/14/2015	41,402	29	
10/15/2015	53,161	37	
10/16/2015	41,860	29	
10/17/2015	41,707	29	
10/18/2015	41,602	29	
10/19/2015	40,436	28	
10/20/2015	41,984	29	
10/21/2015	41,713	29	
10/22/2015	41,806	29	
10/23/2015	41,933	29	
10/24/2015	41,875	29	
10/25/2015	41,840	29	
10/26/2015	41,495	29	
10/27/2015	41,480	29	
10/28/2015	41,657	29	
10/29/2015	41,581	29	
10/30/2015	39,951	28	
10/31/2015	41,501	29	

Table 4.1

Groundwater Extraction Summary
Penta Wood Products Superfund Site
Siren, Wisconsin

Date	Pumping Volume (gallons)	Average Daily Pumping Rate (gallons per minute)	Comments
11/1/2015	43,020	30	
11/2/2015	41,274	29	
11/3/2015	41,469	29	
11/4/2015	41,350	29	
11/5/2015	42,418	29	
11/6/2015	41,354	29	
11/7/2015	41,396	29	
11/8/2015	41,207	29	
11/9/2015	41,002	28	
11/10/2015	39,414	27	
11/11/2015	41,393	29	
11/12/2015	41,177	29	
11/13/2015	40,336	28	
11/14/2015	13,598	9	System shutdown due to power outage
11/15/2015	0	0	
11/16/2015	0	0	
11/17/2015	22,468	16	System restarted after power outage shutdown
11/18/2015	33,846	24	System restarted after power outage shutdown
11/19/2015	41,471	29	
11/20/2015	41,658	29	
11/21/2015	41,364	29	
11/22/2015	41,113	29	
11/23/2015	15,422	11	System shutdown for pilot study
1/5/2016	4,392	9	System temporarily operated during decommissioning, groundwater was not extracted. Clean water was used to clean system during decommissioning. System shutdown on 1/8/2016
1/6/2016	5,910	12	
1/7/2016	1,667	3	
1/8/2016	489	1	

Table 4.2

Temporary Treatment System Compliance Sample Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Sample Date	Pentachlorophenol ug/L	Naphthalene ug/L	WI DRO (C10-C28) mg/L
Water Influent Sample			
1/6/2016	35	NA	NA
Water Effluent Sample			
1/6/2016	0.53	<0.060	0.085 J

Notes:

ug/L	- Concentrations listed with units of micrograms per liter
mg/L	- Concentrations listed with units of milligrams per liter
<	- Less than symbol indicates the analand was not detected above the reporting limit
WI DRO	- Wisconsin Diesel Range Organics
NA	- Not analyzed
J	- Data qualifier indicates concentration was estimated

Table 5.1

Initial Groundwater Characterization Analytical Data - Microcosm Study
Penta Wood Products Superfund Site
Siren, Wisconsin

Parameters	Units	SB1 Analyzed January 2016
General Chemistry		
pH	S.U.	6.72
Ammonia-Nitrogen	mg/L	< 1.00
Orthophosphate-Phosphorus	mg/L	1.85
Pentachlorophenol	ug/L	87
Total Petroleum Hydrocarbons		
TPH(C_5-C_{12})	mg/L	0.176
Total Metals		
Aluminum	ug/L	8510
Antimony	ug/L	< 50
Arsenic	ug/L	< 50
Barium	ug/L	58.0
Berylium	ug/L	< 25
Cadmium	ug/L	1.32 J
Calcium	ug/L	32400
Chromium	ug/L	58.8
Cobalt	ug/L	7.13 J
Copper	ug/L	38.7 J
Iron	ug/L	27600
Lead	ug/L	35
Magnesium	ug/L	24.7 J
Manganese	ug/L	4480
Nickel	ug/L	< 50
Potassium	ug/L	3730
Selenium	ug/L	< 100
Silver	ug/L	< 50
Sodium	ug/L	7860
Thallium	ug/L	5.01 J
Vanadium	ug/L	25.1 J
Zinc	ug/L	283
Dissolved Metals		
Dissolved Aluminum	ug/L	4.93 J
Dissolved Antimony	ug/L	< 50
Dissolved Arsenic	ug/L	< 50
Dissolved Barium	ug/L	28.4 J
Dissolved Berylium	ug/L	< 25
Dissolved Cadmium	ug/L	< 25
Dissolved Calcium	ug/L	20000
Dissolved Chromium	ug/L	< 25
Dissolved Cobalt	ug/L	< 50
Dissolved Copper	ug/L	< 50
Dissolved Iron	ug/L	1010

Table 5.1

Initial Groundwater Characterization Analytical Data - Microcosm Study
Penta Wood Products Superfund Site
Siren, Wisconsin

Parameters	Units	SB1 Analyzed January 2016
Dissolved Metals (cont'd)		
Dissolved Lead	ug/L	< 50
Dissolved Magnesium	ug/L	10600
Dissolved Manganese	ug/L	3340
Dissolved Nickel	ug/L	< 50
Dissolved Potassium	ug/L	3000
Dissolved Selenium	ug/L	< 100
Dissolved Silver	ug/L	< 50
Dissolved Sodium	ug/L	7880
Dissolved Thallium	ug/L	5.99 J
Dissolved Vanadium	ug/L	< 50
Dissolved Zinc	ug/L	190

Notes:

< - Compound was not detected above the reporting limit
J - Concentration was estimated
S.U. - Standard units
ug/L - Concentrations reported in units of micrograms per liter
mg/L - Concentrations reported in units of milligrams per liter

Table 5.2

Initial Soil Characterization Analytical Data - Microcosm Study
Penta Wood Products Superfund Site
Siren, Wisconsin

Parameters	Units	SB1 Analyzed January 2016	MW29 Analyzed January 2016
General Chemistry			
pH	S.U.	7.14	6.65
Ammonia-Nitrogen	mg/kg	ND	ND
Orthophosphate-Phosphorus	mg/kg	27.8	20.5
Percent Moisture	%	7.77	4.45
Percent Solids	%	92.2	95.6
Pentachlorophenol	mg/kg	0.502	61
Total Petroleum Hydrocarbons			
TPH(C_5-C_{12})	mg/kg	<50	153
Total Metals			
Aluminum	mg/kg	2100	2390
Antimony	mg/kg	0.466 J	0.258 J
Arsenic	mg/kg	0.592 J	0.493 J
Barium	mg/kg	8.63	10.2
Berylium	mg/kg	0.0400 J	0.0372 J
Cadmium	mg/kg	1.00 J	1.16 J
Calcium	mg/kg	1100	1440
Chromium	mg/kg	6.15	6.84
Cobalt	mg/kg	3.18 J	3.93 J
Copper	mg/kg	10.1	11.3
Iron	mg/kg	6880	8330
Lead	mg/kg	20.4	23.2
Magnesium	mg/kg	1550	1970
Manganese	mg/kg	79.9	94.56
Nickel	mg/kg	4.86 J	5.86
Potassium	mg/kg	1701	171
Selenium	mg/kg	< 10	< 10
Silver	mg/kg	< 5	< 5
Sodium	mg/kg	64.8	57.4
Thallium	mg/kg	0.0696 J	0.0279 J
Vanadium	mg/kg	13.3	17.4
Zinc	mg/kg	8.81	11.3

Notes:

ND - Compound was not detected
< - Compound was not detected above the reporting limit
J - Concentration was estimated
S.U. - Standard units
mg/kg - Concentrations listed with units of milligrams per kilogram
% - Percent

Appendices

Appendix A
Historical Site Data

Appendix A.1

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
DW01	9/24/03	N	0.5 U	0.05 J		1 U		2		50 UJ			5 UJ		30	1 U	0.25 U	2.5 U	2.5 U	2.5 U		250	66.9		110.8	1.48	2 U		1.5
DW01	9/24/03	N2	0.5 U			1 U		1 U		50 UJ			5 U		40														
DW01	5/4/04	N	10.0 U	0.102 UB		0.243 J		61.5 R		194 R	27300		108 R		2710 R	5.00 U	0.109 J	5.00 U	0.153 J	5.00 U		292	49 =		309	1.8 J	7.9 R		1.54 J
DW01	5/4/04	N2				0.280 J		49.5 R		29.2 R			58.0 R		2590 R														
DW01	9/22/04	N														5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
DW01	9/28/04	N		1.08 =																									
DW01	11/1/04	N		0.0962 U																									
DW01	5/11/05	N	2.0 U	0.033 J												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U					260 J				
DW01	9/27/05	N		0.040 J												0.93 UJ	0.50 U	5.0 U	5.0 U	5.0 U									
DW01	5/31/06	N	2.0 U	0.039 J		1.0 UJ		140 J		50 UJ			4.0 UJ		1900 J	0.95 U	0.50 U	5.0 U	5.0 U	5.0 U		270 J	29 J		260 J	1.5 J	6.5		1.1 J
DW01	9/26/06	N	2.0 UJ	0.11 U		1.0 UJ		100		50 UJ			15 J		1500 J	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		230 J	21 J		230 J	0.67 J	13 J		2.1
DW01	5/10/07	N	2.0 UJ	0.074 J		1.0 UJ		100		100 UJ			10 UB		620 J	0.95 R	1.0 UJ	1.0 UJ	1.0 UJ	2.0 UJ		400 =	29		320	1.8	17 J		1.0 UB
DW01	9/19/07	N	2.0 UJ	0.093 UJ		0.63 J		89		100 UJ			2.4 J		1100	0.93 R	1.0 U	1.0 U	1.0 U	2.0 U		250 J	27		330 J	1.5 J	14 J		0.92 J
DW01	5/20/08	N		0.094 UJ												0.94 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ									
DW01	10/23/08	N	2.0 UJ	0.1 U		2 UJ		205 J		642 J	33000 J		4.6 J		81.2 J	1 U	0.5 U	2.0 U	2.0 U	5.0 U		297 J	29.6		423 J	1.79 J	9.07		44.4
DW01	6/3/09	N		0.1 U												1.0 UJ	0.5 U	2.0 U	2.0 U	5.0 U									
DW01	10/8/09	N		0.1 UJ												0.994 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
DW01	5/19/10	N		0.1 U												1.0 U	0.4 U	5 U	5 U	5 U									
DW01	10/7/10	N		0.1 UJ												0.995 UJ	0.1 U	0.4 U	0.4 U	1 U									
DW01	6/30/11	N		0.1 U												0.999 U	0.1 U	0.4 U	0.4 U	1 U									
DW01	10/18/11	N		0.032 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
DW01	5/23/12	N		0.028 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
DW01	10/18/12	N		0.032 J												0.19 U H	0.50 U	1.0 U	1.0 U	2.0 U									
DW01	5/21/13	N		0.029 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
DW01	10/8/13	N		0.027 J												0.20 U	0.50 U	1.0 U	1.0 U	2.0 U									
DW01	5/13/14	N		0.057 J																									
DW01	9/25/14	N		0.54 J												0.060 UJ	0.24 U	0.23 U	0.22 U	0.43 U									
DW01	4/21/15	N		0.023 J												0.061 U	0.35 U	0.25 U	0.23 U	0.52 U									
DW01	10/15/15	FD		0 U											0.015 U	0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
DW01	10/15/15	N		0 U											0.015 U	0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
MW1	10/9/97	FD	10 U	1		2.3		3.5 U		20 J			1180		3.8		0.1 U	1 U	1 U	1 U		190	16			4.5	5.8		43.5
MW1	10/9/97	FD2				2 U		70.9							36														
MW1	10/9/97	N	10 U	2		2 U		61.6		20 U			1070		32.8		0.1 U	1 U	1 U	1 U		190	18			6.5	6.3		20
MW1	10/9/97	N2		2		2 U		2 U							3		0.1 U	1 U	1 U	1 U									
MW1	4/24/01	N	0.11 U	0.1 U		2.4		33		9830			642		16	5.6 U	0.1 U	1 U	1 U	1 U		140	24		218	6.5 =	13		3.89
MW1	4/24/01	N2	0.11 U			1 U		25 U		25 U			15 U		25 U											6.5			
MW1	9/11/01	N	10 U	0.5		0.7 J		4 J		35 U			0.79 J		3.7 U	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		130	10		170	2.6	8.2 U		3.9
MW1	9/11/01	N2				1.3		25 U		4000			450		20														
MW1	5/14/02	N				1.4 U		1.6 J		11.2 U			0.48 J		5.4 J														
MW1	8/6/02	N	10.0 U	0.067		1.4 U		7.6 J		1700			180		5.8 J	5 U	1 U	5 U	5 U	5 U		170	7.4		190	0.15 U	7.9		2.6
MW1	8/6/02	N2	10.0 U	0.063		1.7 J		0.3 U		11 U			0.95 J		3.9 J	5 U	1 U	5 U	5 U	5 U		160	7.3		190	0.15 U	7.7		3.7
MW1	8/6/02	N3				1.8 J		9.5 J		2200			230		6.5 J														
MW1	8/6/02	N4				1.4 U		0.3 U		11 U			2.2 J		2.9 J														
MW1	4/29/03	N	0.5 U	0.1 U		1 U		14		3160			217		10 U	7.4 U	0.5 U	5 U	5 U	5 U		174	4.3		187	2.6	10		3.2
MW1	4/29/03	N2	0.5 U			1 U		1 U		25 U			5 U		10 U														
MW1	9/24/03	N	0.5 U	0.13		1 J		21		7000 J			416		20 J	1 U	0.25 U	2.5 U	2.5 U	2.5 U		157	3.3		68.25	2.61	2 U		8.4
MW1	9/24/03	N2	0.5 U			1 U		1 J		100 J			36		10 U														
MW1	5/4/04	N	0.863 J	1.06 J		0.346 J		5.73 R		790 R	13900		135 R		7.43 R	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		147	4.3 R		158	2.1 J	2.0 R		6.37 J
MW1	5/4/04	N2				0.190 J		0.785 R		29.9 R			15.0 R		2.74 R														

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound [1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW1	9/21/04	FD	10.0 U	0.442		0.470 J		13.6 J		1210			158		13.4 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		140	2.7 =		1960	1.8 J	4.5 J		7.98
MW1	9/21/04	FD2				0.227 J		0.707 J		21.0 J			3.07 J		3.31 J														
MW1	9/21/04	N	10.0 U	0.348		0.353 J		8.41 J		838			103		17.1 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U		130	2.7 =		776	1.8 J	5.2 J		6.75
MW1	9/21/04	N2				0.218 J		0.605 J		18.0 J			2.60 J		4.06 J														
MW1	5/10/05	N	2.0 U	0.12		1.0 U		18		3800			360		11 J	0.92 U	0.50 U	5.0 U	5.0 U	5.0 U		110 J	3.6 J		140 J	1.7 J	14 R		3.7 R
MW1	5/10/05	N2				1.0 U		10 U		50 U			10 U		20 U														
MW1	9/29/05	N	2.0 U	0.12		1.0 J		23 J		4800 J			400 J		14 J	1.0 U	0.50 U	5.0 U	5.0 U	5.0 U		110 J	6.2 J		160 J	1.9 J	16 R		2.4 J
MW1	9/29/05	N2				1.0 UJ		10 UJ		50 UJ			3.8 J		20 UJ														
MW1	5/31/06	N	2.0 U	0.049 J		1.0 UJ		10 UJ		50 UJ			10 UJ		20 UJ	1.0 U	0.50 U	5.0 U	5.0 U	5.0 U		110 J	2.3 J		100 J	1.6 J	17		1.7 J
MW1	5/8/07	N	2.0 UJ	0.11 J		1.0 UJ		10 UJ		100 UJ			6.3 J		20 UJ	1.0 R	1.0 U	1.0 U	1.0 U	2.0 U		190 =	2.2 J		130	1.9	15 J		1.9
MW1	9/18/07	N	2.0 UJ	0.093 UJ		1.0 UJ		10 UJ		100 UJ			10 UJ		20 UJ	0.93 R	1.0 U	1.0 U	1.0 U	2.0 U		110 J	9.4		170 J	3.0 J	12 J		1.1 J
MW1	10/21/08	N	2.0 UJ	0.42 UJ		2 U		10 UJ		388	21200		10 U		8.60 J	1.00 U	0.50 U	2.0 U	2.0 U	5.0 U		109	3.91		223 J	1.62 J	6.19		3.38 J
MW10	10/15/97	N	13.5	8200 J		1.4		9.1		2190			2510 J		4.4		0.2	2	3	17		340	35			4.9	13		20
MW10	10/15/97	N2		8200 E		2 J		2.8 U							9.2		0.2	2	3	17									
MW10	4/6/00	N		9530 J												60 =													
MW10	4/6/00	N2		12900 =												5410 U													
MW10	4/26/01	N	2.9	22800		3.1		98		25200			2560		44	5.2 U	0.4	3.3	5.3	27		472	48		505	0.18	22		26
MW10	4/26/01	N2	2.9			2.4		5.9		5650			2380		25 U														
MW10	9/12/01	N	10 U	21000		3.9		3.9 J		2400			3200		9.5 J	130	0.44 U	6.3	10	55		540 J	61		630	0.13 J	23		64
MW10	9/12/01	N2				4.5		40		20000			3300		13														
MW10	8/7/02	N	11	22000 J		9.5		48.2		24400			2730		2.8 J	120	1 U	7	11	54		400	56		480	0.15 U	20		110
MW10	8/7/02	N2				7.3		10.1 J		10700			2540		6.1 J														
MW10	10/1/03	N	0.62	9000		2 J		30		5470			1960		10 J	18	0.25 U	2.5 U	2.5 U	13.5		287	22		93.58	0.05 U	3 J		25.3
MW10	10/1/03	N2	0.62			2 J		8		2590			1850		10 U														
MW10	9/23/04	N	10.0 U	38000 =		2.66		28.3		3550			2550		5.58 J	173 E	0.296 J	5.58 J	8.09 J	47.1		390	38		1640	0.0018 J	18 =		54.1
MW10	9/23/04	N2				3.01		12.4 J		24.1 J			1810		4.23 J	160													
MW10	9/27/06	N	2.0 UJ	23000 J		1.0 U		4.3 J		120			2600		20 U	50	0.50 U	2.0 J	1.7 J	16		450 J	14		440	0.10 U	24 =		21
MW10	9/21/07	N	2.4 J	1700 J		0.88 J		2.3 J		550			2700		20 UJ	12 J	1.0 U	1.3	1.0 U	7.2		380 J	20		420 J	0.68	25 J		12 J
MW10	10/23/08	FD	7 J	1720		2 UJ		10 UJ		1080	48600 J		2190 J		20 UJ	0.82 J	0.5 U	2.0 U	2.0 U	5.0 U		310 J	12.4		500 J	0.05 J	29.5		13.1
MW10	10/23/08	N	6 J	1630		2 UJ		10 UJ		1110 J	40000 J		2210 J		20 UJ	0.92 J	0.5 U	2.0 U	2.0 U	5.0 U		305 J	12.4		432 J	0.05 U	28.1		39.2
MW10	10/7/09	FD	23 J	214 J		2 UJ		10 UJ		704 J	36900 J		2310 J		20 UJ	0.996 UJ	0.1 UJ	0.094 J	0.083 J	0.49 J		282 J	9.84 J		347.47 J	0.05 UJ	59 J		2.13 J
MW10	10/7/09	N	17 J	220 J		2 UJ		8.2 J		1210 J	38800 J		2230 J		20 UJ	0.998 UJ	0.1 UJ	0.072 J	0.073 J	0.41 J		280 J	9.82 J		369.28 J	0.05 UJ	58.7 J		4.68 J
MW10	10/7/10	FD	2.3	77.1 J		2 U		8 U		396	37200		1820		20 U	1.0 UJ	0.1 U	0.4 U	0.074 J	1 U		272	7.3 J		346	0.10 UJ	47.7 J		1.8
MW10	10/7/10	N	1.8	92.4 J		2 U		8 U		488	41600		1780		20 U	1.0 UJ	0.1 U	0.4 U	0.051 J	1 U		308	7.2 J		390	0.10 UJ	48.2 J		2.2
MW10	10/20/11	FD	11 J	21		0.60 J		2 U		180	33000 B		1700		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		260	8.7		303.00	0.22	54		2.1
MW10	10/20/11	N	8.8 J	21		2.0 U		2 U		180	33000 B		1700		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		260	8.4		303.00	0.21	53		2.1
MW10	10/17/12	FD	12	14		0.50 J		10 U		180	31000 =		1600		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		230	8.0		292	0.067 J	69 J		1.7
MW10	10/17/12	N	12	8.7		0.55 J		10 U		190	32000 =		1600		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		240	7.8		304	0.075 J	68 J		1.7
MW10	10/10/13	FD	140 J	16		0.19 J		10.0 UJ		230 J	31000 J		1600 J		20 UJ	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		230 B	7.9			0.39 J	94		1.7
MW10	10/10/13	N	27 J	17		0.19 J		10.0 UJ		260 J	32000 J		1700 J		20 UJ	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		220 B	7.8			0.41 J	93		1.4
MW10	9/25/14	N	8.1	37	0.21 J		0.75 U		250 B			1300		7.3 U		0.061 U*	0.24 U	0.23 U	0.22 U	0.43 U		180	6.1	270		0.10	77	0.50 U	
MW10	10/15/15	N	8.2	0.49 U		1.0 J		188			861		7.3 U		150	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		178 B	6.5	244		ND	71.8	1.8	
MW10S	10/15/97	N	10 U	30000 E		2 U		28.5 J		45.4 J			10700 J		11.6		0.4	0.9 J	1	8		260	38			0.1 U	23		49.7
MW10S	10/15/97	N2		30000 J		2 J		10.9 J							8.4		0.4	0.9 J	1	8									
MW10S	4/7/00	N		56100 J												512 =													
MW10S	4/7/00	N2		34800 =												393 F													
MW10S	12/5/00	N	0.57	3810 B		0.74 J		13 J		610			6900		25 U	152	0.1 U	5.9	2.9	70		31	15		570	1	11		300
MW10S	12/5/00	N2	0.57	3810 J		9.36		160		11000			7100		35	152									570				
MW10S	4/25/01	N	0.55	49000		18		409		131000			7990		216	306	1 U	3.5	10 U	44		142	11		425	1.49 =	8.64		503

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW10S	4/25/01	N2	0.55			2.3		46		11300			6030		45		10 U	100 U	100 U	100 U						1.49			
MW10S	9/12/01	N	10 U	82000		5.1		170		35000			8600		100	75	0.44 U	0.94 J	0.41 J	15		270 J	10		260	4.7	13		19
MW10S	9/12/01	N2				0.29 U		3.2 J		48 J			7600		3.7 U														
MW10S	8/7/02	N	10.0 U	390 J		3.9		53.3		9490			7560		22.4 J	5 U	1 U	1 J	5 U	10		170	10		4 U	0.11 J	14		10
MW10S	8/7/02	N2				3.1		2.3 J		67.3			7070		0.98 U														
MW10S	9/25/03	N	0.5 U	2200		1 U		7		1760			5910		10 U	1 U	0.25 U	2.5 U	2.5 U	3.4 J		135	6.7		52.05	3.41	2 J		6.6
MW10S	9/25/03	N2	0.5 U			1 U		1 J		50 U			5900		10 U														
MW10S	9/22/04	N	10.0 UJ	9490		1.49 J		73.1 J		14500 J			5460 J		49.7 J	51.9	5.00 U	50.0 U	50.0 U	5.42 J		120 J	24 J		1220 J	3.6 J	15 R		7.54 R
MW10S	9/22/04	N2				0.190 J		1.79 J		22.7 J			3740 J		6.07 J														
MW10S	9/29/05	N	2.0 U	0.11 U		1.0 UJ		14 J		3600 J			4000 J		8.0 J	5.6	0.50 U	5.0 U	5.0 U	0.99 J		130 J	16 J		300 J	2.0 J	120 R		3.0 J
MW10S	9/29/05	N2				1.0 UJ		10 UJ		50 UJ			3900 J		20 UJ														
MW10S	9/26/06	N	2.0 UJ	2700 J		1.0 U		2.2 J		50 U			2500		20 U	1.2	0.50 U	5.0 U	5.0 U	2.6 J		180 J	8.6		310	1.2	79 =		6.5
MW10S	9/21/07	N	2.0 U	24 J		1.0 UJ		10 UJ		100 UJ			1300		20 UJ	2.4 R	1.0 U	1.0 U	1.0 U	2.0 U		170 J	8.7		240 J	1.3	69 J		2.9 J
MW10S	10/24/08	N	2.0 UJ													3.36	0.5 U	2.0 U	2.0 U	5.0 U									
MW11	10/15/97	N	10 U	1 U		2 U		2 U		10 U			2 U		5.3		0.3	1 JB	0.2 J	0.5 J		190	7.5			5	12		1.3
MW11	10/15/97	N2		1 U		2 J		4.2 U							10.3		0.3	1 J	0.2 J	0.5 J									
MW11	4/4/00	N		0.6 U												11 U													
MW11	4/24/01	N	0.1 U	0.1 U		1.4		25 U		58			15 U		25	5.3 U	0.1 U	1 U	1 U	1 U		185	6.16		231	3.59 =	4.57		7.9
MW11	4/24/01	N2	0.11 U	0.11 U		1.2		25 U		25 U			15 U		20	5.3 U	0.1 U	1 U	1 U	1 U		225	6.25		231	3.59	3.48		4.67
MW11	4/24/01	N3	0.11 U			1.4		25 U		151			15 U		126	5.4 U									3.74 =				
MW11	4/24/01	N4				1.3		25 U		25 U			15 U		25 U	5.4 U									3.74				
MW11	9/10/01	N	10 U	0.091 J		1.4		2.9 J		66 J			1.9		9.1 J	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		190	8		220	3.1	7.4 U		4.2
MW11	9/10/01	N2				1.1		2.2 U		35 U			0.45 J		3.7 U														
MW11	8/6/02	N	10.0 U	0.04 U		4.7		0.83 J		46			2.3 J		6.4 J	5 U	1 U	5 U	5 U	5 U		210	7.8		230	0.15 U	7.6		18
MW11	8/6/02	N2	10.0 U			1.5 J		0.3 U		11.2 U			1.2 J		8.5 J														
MW11	9/23/03	N	0.5 U	0.11 U		1 U		2		160			5 U		10 U	0.98 U	0.25 U	2.5 U	2.5 U	2.5 U		187	6.7		72.14	2.94	2 U		2.3
MW11	9/23/03	N2	0.5 U			1 U		1 U		50 U			5 U		10 U														
MW11	9/21/04	N	10.0 U	0.0656 J		0.885 J		0.620 J		15.6 J			2.81 J		6.36 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U		210	9.0 =		1020	3.0 J	6.2 J		14.1
MW11	9/21/04	N2				0.948 J		0.366 J		6.05 J			1.40 J		4.05 J														
MW11	9/29/05	N	2.0 U	740 =		1.0 UJ		10 UJ		50 UJ			1.6 J		20 UJ	0.95 U	0.50 U	5.0 U	5.0 U	5.0 U		200 J	14 J		280 J	2.4 J	9.7 R		1.2 J
MW11	9/29/05	N2				1.0 UJ		10 UJ		50 UJ			3.0 J		20 UJ														
MW11	9/27/06	N	2.0 UJ	0.11 U		1.0 UJ		10 UJ		50 UJ			10 UJ		20 UJ	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		220 J	16 J		240	0.53 J	8.8 J		2.3
MW11	9/20/07	N	2.0 UJ	0.093 U		1.2 J		10 UJ		100 UJ			10 UJ		20 UJ	0.93 U	1.0 U	1.0 U	1.0 U	2.0 U		220	20		260 J	2.4	19 J		1.2 J
MW11	10/22/08	N	2.0 UJ	0.27		2 UJ		10 UJ		533	33600 J		10 UJ		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5 U		234 J	19.9		433 J	2.26 J	17.8		20.2
MW12	10/15/97	N	10 U	13000 E		2 U		5		267			1660		10.6		1	2	3	14		490	50			0.1 U	15		21.7
MW12	10/15/97	N2		13000 J		2 U		6.1 U							16.3		1	2	3	14									
MW12	4/6/00	FD		10600 J												45 =													
MW12	4/6/00	FD2		14100 =												5150 U													
MW12	4/6/00	N		15000 =												5210 U													
MW12	4/6/00	N2		10300 J												47 =													
MW12	4/26/01	N	0.99	1500		1		25 U		151			1540		25 U	44	0.34	2.5	4.1	22		564	48		556	0.43	16		23
MW12	4/26/01	N2	0.99			0.91		25 U		131			1570		25 U														
MW12	9/13/01	N	10 U	18000		1.1		5 J		770			1300		9.3 J	40	0.44 U	2.3 U	3.2 U	20		490	47		470	0.53 U	16		25
MW12	9/13/01	N2				0.95 U		6.8 J		740			1400		12														
MW12	5/14/02	FD		4000																									
MW12	5/14/02	N	10 U	4000		1.4 U		5.3 J		44.5			1670		7.4 J	33	1 U	2 J	2 J	14		490	39		520	0.68 H	16		31
MW12	5/14/02	N2		4300		1.5 J		5 J		11.2 U			1670		9.3 J										520				
MW12	5/14/02	N3				1.4 U		4.9 J		11.2 U			1680		12 J														
MW12	8/8/02	N	10.0 U	6400 J		2.8		5.6 J		123			1620		7.7 J	28	1 U	2 J	2 J	15		460	37		4 U	0.46	15		28

Historical Groundwater Analytical Data
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MW12	8/8/02	N2				1.4 U		2.9 J		105			1600		3.3 J														
MW12	4/29/03	N	0.5 U	3000		1 J		5		230			1640		10 U	17	0.5 U	1.3 J	1.3 J	11		470	31		442	0.8	20		19
MW12	4/29/03	N2	0.5 U			1 U		4		25 U			1560		10 U														
MW12	9/23/03	N	0.49 J	10000		1 U		4		70 J			1420		10 U	14	0.25 U	2.5 U	2.5 U	8.6		443	30.8		151.4	1.17	2 U		15.5
MW12	9/23/03	N2	0.49 J			1 U		3		50 U			1530		10 U		0.25 U	2.5 U	2.5 U	9.4		433	29.8		153.3	1.23	2 U		16
MW12	9/23/03	N3	0.64			1 U		4		80 J			1490		10 U														
MW12	9/23/03	N4				1 U		3		50 U			1490		10 U														
MW12	5/4/04	N	1.34 J	11200 J		0.564 J		5.50 R		52.7 R	45900		1730 R		10.8 R	22.9	0.124 J	1.39 J	1.03 J	11.2		446	29 =		443	1.1 J	14 R		20.2 J
MW12	5/4/04	N2				0.600 J		3.95 R		33.6 R			1480 R		8.80 R														
MW12	9/22/04	N	10.0 UJ	9060 J		1.00 UJ		5.09 J		53.9 J			1540 J		9.53 J	28.2 J	0.113 J	1.22 J	0.866 J	9.83		440 J	26 J		1660 J	1.1 J	12 R		18.2 R
MW12	9/22/04	N2		3730 E		0.672 J		3.91 J		22.7 J			1230 J		8.10 J														
MW12	5/10/05	N	2.0 U	8300 J		1.0 U		4.2 J		50 U			1500		8.9 J	6.1	0.50 U	0.93 J	5.0 U	5.6		390 J	23 J		360 J	1.3 J	16 R		9.9 R
MW12	5/10/05	N2				1.0 U		4.8 J		50 U			1400		20 U														
MW12	9/27/05	N	2.0 UJ	8500 J		1.0 UJ		10 U		50 U			1200		7.8 J	3.3	0.50 U	0.85 J	5.0 U	4.9 J		370 J	20 J		410	1.1 J	26 J		9.2
MW12	9/27/05	N2				1.0 UJ		3.9 J		50 U			1300		20 U														
MW12	6/7/06	N	2.0 U	6100 J		1.0 UJ		2.3 J		50 R			1100 J		20 UJ	0.94 U	0.50 U	0.67 J	5.0 U	3.4 J		400 J	21 J		400 J	2.1 J	32 =		7.2 J
MW12	9/26/06	FD	2.0 UJ	2000 =		1.0 UJ		2.5 UJ		46 J			1200 J		20 UJ	1.4	0.50 U	5.0 U	5.0 U	1.7 J		390 J	15 J		370	2.0 J	15 J		10
MW12	9/26/06	N	2.0 UJ	3100 =		1.0 UJ		3.2 J		50 UJ			1200 J		16 J	1.5	0.50 U	5.0 U	5.0 U	2.9 J		390 J	14 J		380	1.9 J	15 J		10
MW12	5/9/07	N	2.0 UJ	3000 J		1.0 UJ		2.1 J		100 UJ			1100		5.2 J	0.99 J	1.0 UJ	1.0 UJ	1.0 UJ	1.9 J		340 =	13		370	2.4	37 J		7.0 UB
MW12	9/19/07	FD	2.0 UJ	1000 J		1.1 J		1.7 J		100 R			790		20 UJ	0.74 J	1.0 U	1.0 U	1.0 U	2.0 U		340	14		350 J	2.2	2.7 J		5.7 J
MW12	9/19/07	N	2.0 UJ	1100 J		0.97 J		10 UJ		100 R			820		20 UJ	0.71 J	1.0 U	1.0 U	1.0 U	2.0 U		340	14		330 J	2.8	29 J		5.6 J
MW12	5/20/08	FD	2.0 UJ	2200 J		0.61 J		3.8		100 UJ			1000		4.2 J	0.95 U	1.0 UJ	1.0 U	1.0 U	1.6 J		360 =	12		380	2.1	25		4.5 J
MW12	5/20/08	N	2.0 UJ	2100 J		0.59 J		3.7		100 UJ			1000		4.6 J	0.96 U	1.0 UJ	1.0 U	1.0 U	1.5 J		360 =	12		350	2.0	25		4.7 J
MW12	10/21/08	FD	2.0 UJ	1300.00 J		2.00 U		3.70 J		936	45000		1120		20 U	1.00 U	0.5 U	2.0 U	2.0 U	5.0 U		322	14.50		465 J	2.95 J	31.70		11.80 J
MW12	10/21/08	N	2.0 UJ	1670.00 J		2 U		4 J		927	50200		1140		11 J	1.00 U	0.5 U	2.0 U	2.0 U	5.0 U		323	13.10		519 J	2.96 J	31.80		11.70 J
MW12	6/2/09	FD	0.8 UJ	489 J		2 U		10 UJ		292 =	40600 =		1020 =		20 U	1.0 UJ	0.5 U	0.31 J	2.0 U	0.96 J	302 J		12.4		429.3758	2.64 J	62.2		1.7 J
MW12	6/2/09	N	0.8 UJ	521 J		2 U		10 UJ		310 =	34400 =		1040 =		20 U	1.0 UJ	0.5 U	0.28 J	2.0 U	0.88 J	294 J		12.3		363.3928	2.65 J	59.9		3.6 J
MW12	10/6/09	FD	0.83 UJ	289 J		2 UJ		4 J		294 J	47600 J		982 J		20 UJ	0.997 UJ	0.1 UJ	0.069 J	0.4 UJ	0.28 J		294 J	13.7 J		468.19 J	1.83 J	84.7 J		3.25 J
MW12	10/6/09	N	0.83 UJ	295 J		2 UJ		4 J		307 J	51600 J		987 J		20 UJ	0.995 UJ	0.1 UJ	0.073 J	0.4 UJ	0.28 J		297 J	13.7 J		509.63 J	1.84 J	85.4 J		3.83 J
MW12	5/19/10	FD	1.3 U	81.9		2 UJ		3.8 J		225. J	41800. J		633. J		8.2 J	1.0 U	0.5 U	5 U	5 U	5 U		308	14.7		432	1.91 J	117		36.1 UB
MW12	5/19/10	N	1.3 U	70.3		1.9 J		3.5 J		228. J	47700. J		913. J		11. J	1.0 U	0.5 U	5 U	5 U	5 U		308	14.7		496	1.87 J	116		41.8 UB
MW12	10/5/10	FD	1.3 U	42.9		2 U		8 U		332	47500 R		859		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		316	14.4 J		483	1.72	119		22.9 J
MW12	10/5/10	N	1.3 U	43.7		2 U		8 U		358	41500 R		834		20 U	1.0 U	0.1 U	0.4 U	0.044	1 U		320	14.4 J		548	1.73	119		53.9 J
MW12	6/29/11	FD	0.9 U	35.1		2 UJ		10 U		291	56900		765		20 U	0.998 U	0.1 U	0.4 U	0.4 U	1 U		276	13.3 J		524.00	2.11 J	103 J		1.53 J+
MW12	6/29/11	N	0.9 U	37		1.8 J		10 U		314	62600		744		20 U	0.998 U	0.1 U	0.4 U	0.4 U	1 U		295	14.1 J		555.00	2.28	111		1.28 J+
MW12	10/18/11	FD	0.50 U	30		1.0 J		2.3 J+		50 U	42000 B		640		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		300	14		398.00	2.1	100		2.0
MW12	10/18/11	N	0.50 U	37		1.1 J		2.3 J+		50 U	42000 B		660		10 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		300	14		398.00	2.1	98		2.0
MW12	5/22/12	FD	0.50 U	16 J		2.0 U		4.3 J		50 U	43000 =		630		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		310	14 =		419.00	1.8	120		1.6
MW12	5/22/12	N	0.50 U	21 J		2.0 U		10 U		50 U	44000 =		670		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		300	14 =		431.00	1.8	120		1.5
MW12	10/16/12	FD	0.50 U	23		1.2 J		10 U		50 U	43000 =		420		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		290	13		424	2.0 J	130 =		1.3
MW12	10/16/12	N	0.50 U	26		0.98 J		10 U		50 U	42000 =		410		20 U	0.21 U	0.50 U	1.0 U	1.0 U	2.0 U		280	14		413	2.0 J	120 =		1.4
MW12	5/22/13	FD	0.50 U	24		2.0 U		10 U		50 UJ	39000 B		530 B		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		290	12			2.1 J	150		1.6
MW12	5/22/13	N	0.50 U	22		2.0 U		10 U		50 U	36000 B		460 B		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		280	12			2.0 J	150		1.6
MW12	10/8/13	FD	0.50 U	22		0.37 J		10.0 U		50 U	42000 B		710 B		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		260	12			2.1 J	120		1.3
MW12	10/8/13	N	0.50 U	28		0.37 J		10.0 U		50 U	41000 B		680 B		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		270	12			2.1 J	120		1.4
MW12	5/14/14	N		19																									
MW12	9/23/14	N	0.076 J	24	0.66 JB		0.75 U		16 U			450		7.3 U		0.061 U	0.24 U	0.23 U	0.22 U	0.43 U		240	11	360		1.7	130	0.50 U	
MW12	4/20/15	N	0.070 U	16	1.1 JB		1.4 J		16 U			530		7.3 U		0.060 U	0.35 U	0.25 U	0.23 U	0.52 U		220 B	11		410	1.7	140		0.95 J
MW12	10/13/15	N	0.080 JB	0.49 U		0.75 U		362 B			27.4		7.3 U		25	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		279 B	11.7	74.4		1.6	159	1.2	

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MW13	10/8/97	N	10 U	0.7 J		2 U		3.32 U		6.7 J			27.3		2.7		0.1 U	1 U	1 U	1 U		70	2.7			1.4	1.4		17.9
MW13	10/8/97	N2		0.7 J													0.1 U	1 U	1 U	1 U									
MW13	4/5/00	N		0.8 =												10 U													
MW13	12/5/00	N	0.58 U	114 J		1 U		25 U		230			66		25 U	5.5 U	0.1 U	1 U	1 U	1 U		72	4.2		140	0.45	8.2		7.9
MW13	12/5/00	N2	0.58 U					92		26000			870		52	5.5 U	0.1 U	1 U	1 U	1 U					140				
MW13	4/23/01	N	0.12 U	0.18		14		140		56300			1300		89	5.3 U	0.1 U	1 U	1 U	1 U		70	3.52		146	1.77	35		18
MW13	4/23/01	N2	0.12 U			0.24		25 U		25 U			110		25 U														
MW13	6/19/01	N	0.12 U	0.11 U		1.1		68		32800			848		45	5.3 U	0.12	1 U	1 U	1 U		68	5.73		112	2.87 =	11		13
MW13	6/19/01	N2	0.12 U			9.1		6.1 J		141			26		25 U											2.87			
MW13	9/10/01	N	10 U	0.69		3.9		49		14000			510		37	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		75	5.4		100	2.5	7.5 U		9.5
MW13	9/10/01	N2				0.54 J		2.8 J		52 J			27		4.7 J														
MW13	8/5/02	N	10.0 U	0.64		9.1		55.3		19000			580		39.5	5 U	1 U	5 U	5 U	5 U		86	6.8		110	0.15 U	8.4		6.3
MW13	8/5/02	N2				2.2 J		2.5 J		1300			45		9.1 J														
MW13	9/23/03	N	0.5 U	2.9		3		55		24600			687		50	1 U	0.25 U	2.5 U	2.5 U	2.5 U		78	5.1		35.04	1.86	7		6
MW13	9/23/03	N2	0.5 U			1 U		8		960			182		10 U														
MW13	9/21/04	N	10.0 UJ	4.67		1.52		32.4		8770			357		24.3 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		68 J	6.5 J		667 J	2.4 J	6.4 R		6.30 R
MW13	9/21/04	N2				0.259 J		1.96 J		125 UJ			3.67 J		5.28 J														
MW13	9/27/05	N	2.0 UJ	0.85		1.0 J		18		6200			200		18 J	0.97 U	0.50 U	5.0 U	5.0 U	5.0 U		67 J	3.1 J		68	0.60 J	19 J		4.3
MW13	9/27/05	N2				1.0 UJ		2.5 J		50 U			7.1 J		20 U														
MW13	9/18/07	N	2.0 UJ	0.53 J		1.0 UJ		10 UJ		100 UJ			6.3 J		5.2 J	0.93 R	1.0 U	1.0 U	1.0 U	2.0 U		71 J	2.9		100 J	0.31 J	29 J		4.1 J
MW13	10/21/08	N	2.0 UJ	0.31 UJ		2 U		10 UJ		207	10500 J		10 U		20 U	1.00 U	0.50 U	2.0 U	2.0 U	5.0 U		55	1.90		110 J	0.45 J	10.10		3.44 J
MW13	10/7/09	N	0.83 UJ	0.16 J		2 UJ		3.2 J		50 UJ	4430 J		10 UJ		20 UJ	0.996 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		30 J	2.12 J		45.46 J	0.77 J	9.71 J		13.9 J
MW14	10/9/97	N	10 U	1 U		2 U		2 U		20 U			4 J		4		0.1 U	1 U	1 U	1 U		120	8			1.6	2.4		1 U
MW14	10/9/97	N2		1 U		2 U		2 U							2 U		0.1 U	1 U	1 U	1 U									
MW14	4/6/00	N		0.5 U												11 U													
MW14	6/19/01	N	0.11 U	0.96		1.4		5.4 J		1070			57		25 U	239	0.1 U	1 U	1 U	1 U		104	12		124	2.06	3.48 J		6.41
MW14	6/19/01	N2	0.11 U			2		25 U		25 U			4.4		25 U											2.06 =			
MW15	10/16/97	N	10 U	1 U		2 U		2 U		8.2 J			62.2		2 U		0.1 U	1 U	1 U	1 U		190	6.5			4.1	6.3		1.2
MW15	10/16/97	N2		1 U		2 U		3.5 U							13.9		0.1 U	1 U	1 U	1 U									
MW15	4/4/00	N		0.5 U												11 U													
MW15	4/25/01	N	0.1 U	0.11 U		0.5		25 U		58			4.8		50	5.3 U	0.1 U	1 U	1 U	1 U		240	15		276	3.97	2.61		5.24
MW15	4/25/01	N2	0.1 U	0.11 U		0.31		25 U		25 U			15 U		15	5.6 U	0.1 U	1 U	1 U	1 U		246	16		276	3.97 =	4.05		3.7
MW15	4/25/01	N3	0.12 U			0.56		25 U		174			4.1		25 U	5.6 U										3.92			
MW15	4/25/01	N4				0.42		25 U		25 U			15 U		16											3.92 =			
MW15	9/12/01	N	10 U	0.077 J		0.95 U		2.9 J		35 U			0.31 J		35	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		240	17		270	3.7	4.5 U		4.5
MW15	9/12/01	N2				0.95 U		5.7 J		63 J			2.7		36														
MW15	8/6/02	N	10.0 U	0.04 U		3.7		1.6 J		130			2.8 J		17 J	5 U	1 U	5 U	5 U	5 U		230	16		250	0.15 U	4.7		53
MW15	8/6/02	N2				2.6		0.3 U		11 U			0.42 U		11 J														
MW15	9/23/03	N	0.5 U	0.1 U		1 U		1 J		280			9 J		10 J	0.99 U	0.25 U	2.5 U	2.5 U	2.5 U		213	17.4		88.57	3.8	2 U		1.8
MW15	9/23/03	N2	0.5 U			1 U		1 U		50 U			5 U		10 U														
MW15	9/21/04	N	10.0 U	0.279		0.468 J		1.74 J		36.7			3.15 J		20.8 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U		230	16 =		1020	3.2 J	3.9 J		12.7
MW15	9/21/04	N2				0.482 J		0.648 J		5.57 J			0.976 J		8.97 J														
MW15	9/29/05	N	2.0 U	0.11 U		1.0 UJ		2.4 J		420 J			15 J		20 UJ	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		220 J	17 J		300 J	4.2 J	5.8 R		0.84 J
MW15	9/29/05	N2				1.0 UJ		10 UJ		50 UJ			1.6 J		20 UJ														
MW15	9/27/06	N	2.0 UJ	0.11 U		1.0 UJ		3.5 J		50 UJ			2.0 UB		13 J	0.91 U	0.50 U	5.0 U	5.0 U	5.0 U		260 J	14 J		250	4.7 J	5.9 J		2.1
MW15	9/19/07	N	2.0 UJ	0.10 U		0.68 J		10 UJ		100 UJ			10 UJ		20 UJ	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U		250	15		250 J	5.7	13 J		1.3 J
MW15	5/20/08	N	2.0 UJ	0.18 J		0.40 J		1.0 J		100 UJ			0.52 J		20 U	0.93 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ		260 =	14		290	4.7	6.6		0.85 J
MW15	10/21/08	N	2.0 UJ	0.10 UJ		2 U		10 UJ		854	45400		10 U		20 U	1.00 U	0.5 U	2.0 U	2.0 U	5.00 U		265	14.60		567 J	6.05 J	6.99		13.60 J
MW15	6/2/09	N	0.8 UJ	0.1 UJ		2 U		10 UJ		301 =	30600 =		10 U		20 U	1.0 UJ	0.5 U	0.21 J	2.0 U	5.0 U	279 J		13.5		375.2114	5.33 J	6.42		1.7 UJ

Appendix A.1

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Type[3]	Compound [1] / Units	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW15	10/7/09	N		0.83 UJ	0.1 UJ		2 UJ		3 J		293 J	25500 J		10 UJ		5.4 J	0.999 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		260 J	12.9 J		294.28 J	4.74 J	6.52 J		1.49 J
MW15	5/18/10	N		1.3 U	0.1 U		2 UJ		10 UJ		194. J	24400. J		10 UJ		20 UJ	1.0 U	0.5 U	5 U	5 U	5 U		300	10.7		342	4.57 J	6.3		26.7 UB
MW15	10/7/10	N		1.3 U	2.32 J		2 U		8 U		311	38400		16.7 U		20 U	1.0 UJ	0.5 UJ	2 UJ	2 UJ	5 UJ		252	13.2 J		430	5.49 J	6.9 J		1.0 U
MW15	6/28/11	N		0.9 U	0.1 U		2 UJ		10 U		205	23100		10 U		20 U	0.998 U	0.1 U	0.4 U	0.4 U	1 U		239	12.1 J		307.00	5.2 J	6.91		0.77 J
MW15	10/18/11	N		0.50 U	0.10 U		0.70 J		2.7 J+		50 U	24000 B		1.7 J		10 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		240	12		261.00	4.8 J	5.3		1.0 J
MW15	5/22/12	N		0.50 U	0.024 J		2.0 U		10 U		50 U	24000 =		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		260	11		266.00	4.6 J	5.1 J		1.2
MW15	10/16/12	N		0.50 U	0.094 U		0.97 J		10 U		50 U	24000 =		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		250	12		271	5.3 J	5.0 U		0.69 J
MW15	5/21/13	N		0.50 U	0.025 J		2.0 U		10 U		50 U	26000 B		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		280	9.8			4.7 J	5.9		0.82 J
MW15	10/8/13	N		0.50 U	0.095 U		0.36 J		10.0 U		50 U	23000 B		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		220	11			5.2 J	6.5		0.50 J
MW15	5/13/14	N			0.095 U																									
MW15	9/23/14	N		0.070 U	0.054 J	1.1 JB		0.75 U		28 J			1.9 J		7.3 U		0.060 U	0.24 U	0.23 U	0.22 U	0.43 U		210	11	250		5.3	5.6	0.85 J	
MW15	4/20/15	N		0.070 U	0.015 U	0.78 JB		0.75 U		16 U			1.1 J		7.3 U		0.060 U	0.35 U	0.25 U	0.23 U	0.52 U		190 B	11		270	5.6	5.7		0.44 J
MW15	10/12/15	N		0.080 U	0.54 J		1.0 J		16.0 U			1.1 U		7.3 U		0.015 U	0.063 U	0.35 U	0.23 U	0.25 U	0.52 U		224 B	12	302		6.7 F1	5.8	0.55	
MW16	10/14/97	N		10 U	1 U		17.1		438		15.3 J			10300 J		210		0.1 U	1 U	1 U	1 U		170	6.1			2.6	8.1		3
MW16	10/14/97	N2			1 U		2 U		2.7 U							1.9 J		0.1 U	1 U	1 U	1 U									
MW16	4/6/00	N			0.5 U												10 U													
MW16	4/23/01	N		0.12 U	0.11 U		6.5		62		22300			1460		136	5.6 U	0.1 U	1 U	1 U	1 U		90	3.57		164	8.69 =	29		4.4
MW16	4/23/01	N2		0.12 U			1 U		25 U		26			9.4		23											8.69			
MW16	9/10/01	N		10 U	0.17		1.8		23 U		5500			520		19	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		79	1.8		120	5.8	11		0.34 U
MW16	9/10/01	N2					0.29 U		2.2 U		35 U			0.82 J		4.5 J														
MW16	8/6/02	N		10.0 U	0.035 J		3.5		25 J		6800			14		760 J	5 U	1 U	5 U	5 U	5 U		130	2		120	0.15 U	13		1.3
MW16	8/6/02	N2					1.4 U		0.3 U		78			9.1 J		13 J														
MW16	9/23/03	N		0.5 U	0.089 J		2 J		18		7470			532		10 J	1.1 U	0.25 U	2.5 U	2.5 U	2.5 U		82	6.2		37.96	3.49	3 J		2.3
MW16	9/23/03	N2		0.5 U			1 U		1 U		50 U			5 U		10 U														
MW16	9/21/04	N		10.0 U	0.0962 J		0.277 J		4.07 J		570			74.7		8.71 J	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U		82	3.7 =		1220	2.1 J	5.5 J		4.28
MW16	9/21/04	N2					0.135 J		0.509 J		25.0 U			0.617 J		2.79 J														
MW16	9/29/05	N		2.0 U	0.11 U		1.0 UJ		7.6 J		1000 J			130 J		8.1 J	1.0 U	0.50 U	5.0 U	5.0 U	5.0 U		82 J	11 J		190 J	1.5 J	71 R		0.83 J
MW16	9/29/05	N2					1.0 UJ		2.9 J		50 UJ			2.1 J		20 UJ														
MW16	9/27/06	N		2.0 UJ	0.046 J		1.0 UJ		10 UJ		50 UJ			0.59 UB		20 UJ	0.92 U	0.50 U	5.0 U	5.0 U	5.0 U		83 J	4.1 J		100	1.2 J	32 J		1.3
MW16	9/18/07	N		2.0 UJ	0.20 J		1.0 UJ		10 UJ		100 UJ			10 UJ		20 UJ	0.99 R	1.0 U	1.0 U	1.0 U	2.0 U		81 J	4.5		120 J	1.2 J	23 J		1.3 J
MW16	10/22/08	N		2.0 UJ	0.08 J		2 UJ		10 UJ		318 J	19400 J		20 J		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5 U		51 J	7.51		175 J	0.99 J	43.2		92.3
MW16	10/6/09	N		0.83 UJ	0.1 UJ		2 UJ		6.6 J		458 J	8360 J		48.6 J		20 UJ	0.998 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		40 J	6.35 J		81.869 J	1.03 J	36.7 J		1 UJ
MW16	10/5/10	N		1.3 U	0.1 U		2 U		8 U		50 U	2910 R		16.7 U		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		39	5.7 J		29.3	0.63 J	6.3 J		15.7
MW16	10/19/11	N		0.50 U	0.095 U		0.44 J		2.2 J+		130	3200 B		14		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		32	4.2		30.70	0.63 J	12		1.0 U
MW16	10/16/12	N		0.50 U	0.099 U		0.66 J		10 U		180	3600 =		17		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		37	4.6		39.8	0.52 J	17 J		1.3
MW16	10/8/13	N		0.50 U	0.029 J		0.61 J		10.0 U		1500 B	3300 B		100 B		59 J	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		34	6.2			0.57 J	6.3		1.1
MW16	9/23/14	N		0.070 U	0.036 J	0.41 JB		0.75 U		16 U			1.1 U		7.3 U		0.060 U	0.24 U	0.23 U	0.22 U	0.43 U		31	5.4	60		0.54	2.8	1.1	
MW16	10/13/15	N		0.080 U	0.49 U		1.0 J		45.2 JB			2.1 J		7.3 U		0.015 U	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		48.4 B	4.3	84.4		0.61	5.9	0.70 J	
MW17	10/15/97	N		10 U	1 U		2 U		2		10 U			2 U		17.6		0.1 U	1 JB	1 U	0.6 J		180	4.8			4.1	10		0.7 J
MW17	10/15/97	N2			1 U		2 U		2.3 U							2.5		0.1 U	1 J	1 U	0.6 J									
MW17	10/28/97	N			5																									
MW17	4/6/00	N			0.5 U												11 U													
MW17	4/26/01	N		0.12 U	0.72		0.6		25 U		33			15 U		12	54	0.1 U	1 U	1 U	1 U		202	4.12		228	4.98	6.82		1.57
MW17	4/26/01	N2		0.12 U			0.69		25 U		25 U			15 U		25 U											4.98 =			
MW17	9/11/01	N		10 U	0.059 U		0.94		2.2 U		330			0.27 U		3.7 U	0.29 U	0.44 U	0.5 U	0.4 U	1.2 U		180	4.8		210	4.4	9.3 U		1 J
MW17	9/11/01	N2					1		2.2 U		310			0.27 U		3.7 U														
MW17	8/8/02	N		10.0 U	0.032 J		3		0.47 J		11 U			0.42 U		0.98 U	5 U	1 U	5 U	5 U	5 U		200	4.6		210	0.15 U	7.4		0.73
MW17	8/8/02	N2					1.9 J		0.3 U		11 U			0.42 U		15 J														
MW17	9/25/03	N		0.5 U	0.46		1 U		1 U		50 U			18		10 U	0.96 U	0.25 U	2.5 U	2.5 U	2.5 U		184	4.4		71.56	5.1	2 U		2.1

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW17	9/25/03	N2	0.5 U			1 U		1 U		50 U			5 U		10 U														
MW17	9/22/04	N	10.0 UJ	2.82		0.0787 J		0.774 J		11.5 UB			0.371 J		2.46 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		190 J	4.1 J		1100 J	4.8 J	8.6 R		1.67 R
MW17	9/22/04	N2				0.782 J		0.847 J		13.9 J			45.0 J		2.09 J														
MW17	9/27/05	N	2.0 UJ	0.054 J		1.0 UJ		10 U		50 U			0.44 J		20 U	0.92 U	0.50 U	5.0 U	5.0 U	5.0 U		160 J	3.9 J		180	5.1 J	7.8 J		0.91 J
MW17	9/27/05	N2				1.0 UJ		10 U		50 U			10 U		20 U														
MW17	9/26/06	N	2.0 UJ	0.11 U		1.0 UJ		10 UJ		50 UJ			10 UJ		7.5 J	0.91 U	0.50 U	5.0 U	5.0 U	5.0 U		170 J	2.9 J		170	5.5 J	6.5 J		1.1
MW17	9/19/07	N	2.0 UJ	0.099 U		1.0 J		10 UJ		100 UJ			10 UJ		20 UJ	0.94 U	1.0 U	1.0 U	1.0 U	2.0 U		160	4.7		160 J	5.6	14 J		1.2 J
MW17	10/22/08	N	2.0 UJ	0.1		2 UJ		10 UJ		374 J	29200 J		10 UJ		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5 U		155 J	7.78		295 J	5.75 J	7.75		20.2
MW17	10/6/09	N	0.83 UJ	0.1 UJ		2 UJ		10 UJ		160 J	26700 J		10 UJ		20 UJ	0.995 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		60 J	6.54 J		295.228 J	1.65 J	6.86 J		1 UJ
MW17	10/5/10	N	1.3 U	0.1 U		2 U		10 U		163	20500		10 U		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		160	11.6 J		225	5.18	9.7 J		1.6
MW17	10/18/11	N	0.50 U	0.095 U		1.1 J		2 U		50 U	17000 B		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		140	16		180.00	3.9	24		0.89 J
MW17	10/16/12	N	0.50 U	0.095 U		1.2 J		10 U		50 U	17000 =		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		150	16		187	4.7	23 J		0.59 J
MW17	10/8/13	N	0.50 U	0.095 U		0.72 J		10.0 U		50 U	18000 B		10 U		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		140	16			4.5 J	36		0.40 J
MW17	9/24/14	N	0.070 U	0.015 U	0.83 J		0.75 U		16 U			1.3 J		7.3 U		0.061 U	0.24 U	0.23 U	0.22 U	0.43 U		150	15	250		4.8	40	0.72 J	
MW17	10/13/15	N	0.080 U	1.1 J		0.75 U		16.0 U			1.1 U		7.3 U		0.015 U	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		184 J	14.8	265		4.2 H	45.3	0.59	
MW18	10/10/97	N	10 U	27000 J		8.2		43.5 J		32000 J			10600		2.6		0.1 U	2	16	19		260	49			0.1 U	11		154
MW18	10/10/97	N2		27000 E		8.9		62.5							5.3		0.1 U	2	16	19									
MW18	6/19/01	N	0.13 U	27400		4.9		21 J		13700			6650		25 U	5 U	1.1	14	10 U	20		168	19		182	0.13 U	33 J		6.63
MW18	6/19/01	N2	0.13 U			5		43		15200			6540		25 U														
MW19	10/16/97	N	10 U	19000 J		2 U		38 J		10 U			2690 J		46		0.2	1 U	1 U	0.2 J		180	47			3.8	19		32.8
MW19	10/16/97	N2		19000 E		2 U		3.4 U							2 U		0.2	1 U	1 U	0.2 J									
MW19	4/7/00	N		11800 =												5260 U													
MW19	4/7/00	N2		11000 J												22 =													
MW19	4/26/01	N	0.5	25600		2.2		38		10000			1840		27	325 =	1 U	10 U	10 U	10		236	39		323	3.37 =	47		33
MW19	4/26/01	N2	0.5			1 U		25 U		25 U			1790		25 U	325	10 U	100 U	100 U	100 U						3.37			
MW19	9/12/01	N	16	400000		0.29 U		6.4 J		71 J			1800		5.8 J	240	0.44 U	1.9 U	1.7 U	28		320 J	19		270	1.3	9.7 U		34
MW19	9/12/01	N2				1.7 J		44		5600			2100		53 J														
MW19	5/13/02	N		14000		1.4 U		5.1 J		11.2 U			2070		9.4 J	190													
MW19	8/8/02	N	10.0 U	11000 J		7		30.2		719			3100		290	210	1 U	2 J	1 J	29		130	22		4 U	0.16	16		65
MW19	8/8/02	N2				1.4 U		7.1 J		218			3110		5.7 J														
MW19	4/29/03	N	2.4	4900		2 J		24		2030			3670		10 U	1200	500 U	5000 U	5000 U	5000 U		118	19.6		162	3	27		53
MW19	4/29/03	N2	2.4			1 U		5		25 U			3590		10 U														
MW19	9/25/03	N	5.7	15000		1 U		27		950			2210		10 U	3200	1 U	10 U	10 U	46.6		160	17.5 J		71.57	2 J	90 J		129 J
MW19	9/25/03	N2	5.7			1 U		9		50 J			4470		10 U											2 J			
MW19	5/4/04	N	1.13 J	70000 J		0.284 J		22.2 R		892 R	17600		4040 R		11.6 R	201	2.50 U	2.13 J	1.98 J	30.0		144	25 =		176	0.71 J	16 R		43.7 J
MW19	5/4/04	N2				0.169 J		5.77 R		31.4			3360 R		6.93 R														
MW19	9/22/04	N	10.0 UJ	111000		1.00 UJ		13.5 J		402 J			3160 J		16.7 J	260	0.500 U	3.45 J	2.25 J	50.3		110 J	15 J		1120 J	1.5 J	23 R		31.3 R
MW19	9/22/04	N2				0.159 J		6.26 J		125 U			2650		16.0 J														
MW19	5/10/05	N	2.0 U	45000 J		1.0 U		6.3 J		50 U			2300		9.8 J	2300 =	100 UJ	1000 UJ	1000 UJ	1000 UJ		97 J	18 J		140 J	0.76 J	29 R		35 R
MW19	5/10/05	N2				1.0 U		15		630			2100		8.4 J														
MW19	9/29/05	N	2.0 U	13000 =		1.0 UJ		11 J		97 J			2600 J		20 UJ	78	0.50 U	1.2 J	1.1 J	18		140 J	19 J		5 UJ	0.75 J	40 R		32 J
MW19	9/29/05	N2				1.0 UJ		5.0 J		50 UJ			2700 J		20 UJ														
MW19	6/7/06	N	2.0 U	17000 J		1.0 UJ		4.4 J		50 UJ			2700 J		20 UJ	59	0.50 U	1.5 J	1.3 J	22		120 J	18 J		360 J	0.76 J	36 =		20 J
MW19	9/27/06	N	2.0 UJ	8200 J		1.0 U		6.4 J		50 U			3100		20 U	69	0.50 U	1.4 J	1.2 J	19		160 J	14		190	0.66 J	30 =		35
MW19	5/9/07	N	2.0 UJ	11000 J		1.0 UJ		3.7 J		100 UJ			2600		20 UJ	54 J	1.0 U	1.4	1.5	17		230 =	15		160	0.29	59 J		33 UB
MW19	9/21/07	N		3500 J		1.0 UJ		4.0 J		100 UJ			3100		20 UJ	47 R	1.0 U	1.8	2.0	21		190 J	17		240 J	0.28	42 J		38 J
MW19	5/20/08	N	2.0 U	23000 J		1.0 U		3.4		100 UJ			2900		2.3 J	140	1.0 UJ	5.0	4.8	54 J		220 =	16		260	0.44	42		18 J
MW19	10/24/08	N	2.1 J	27900		2 UJ		5 J		510 J	28700 J		4850 J		20 UJ	120	0.5 U	5.11	5.08 =	50.3		221 J	15.9		373 J	0.04 J	46.2		29.8
MW19	6/2/09	N	3.9 J	18600 J		2 U		10 UJ		222 =	29900 =		4050 =		20 U	110 J	0.5 U	7.93	6.66	74.6	249 J		12.8		317.6445	0.01 UB	44.7		13

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound [1] / Type[3] / Units	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW19	10/7/09	N	2 J	31800 J		2 UJ		3.8 J		237 J	27400 J		3190 J		7.2 J	137 J	0.1 UJ	7.62 J	5.77 J	60.7 J		228 J	14.3 J		271.39 J	0.05 UJ	42 J		20.4 J
MW19	5/20/10	N	1.4	26000.		2 UJ		3.2 J		92.2 UJ	19900. J		1870. J		20 UJ	123.	0.5 U	7.95	5.65	64.3		136	21.5		199	0.05 UJ	32.4		50.4 UB
MW19	10/7/10	N	1.3 U	4470 J		2 U		2.9 J		114	7130		942		20 U	102 J	0.5 UJ	3.21 J	1.7 J	44.7 J		84	13.6 J		77.8	0.10 UJ	18.7 J		17.4
MW19	6/29/11	N	0.9 U	8880		2 UJ		14.8 J		131	9550		1300		20 U	42.1	0.1 U	1.12	1.09	22.7		43	16.6 J		90.00	0.26	20.1		85.4
MW19	10/20/11	N	0.33 J	13000		2.0 U		12 B		52 J+	8600 B		1700		14 J+	2.8	0.84 U	1.1 J	1.0 J	23		57	19		85.40	0.30	17		92
MW19	5/22/12	N	0.71	5300		2.0 U		7.6 J		50 U	7600 =		1300		20 U	50	2.0 U	0.88 J	0.76 J	16		51	15		76.20	1.1	12		38
MW19	10/17/12	N	0.50 U	8100		2.0 U		6.9 J		50 U	5800 =		900		20 U	8.4	2.0 U	4.0 U	0.67 J	9.7		36	12		66.3	1.4	11 J		27
MW19	5/22/13	N	0.84 J	5800		2.0 U		7.3 J		50 U	8700 B		1100 B		20 U	29 J	0.50 U	0.99 J	1.5	19		54	14			1.1 J	11		45
MW19	10/10/13	N	0.50 U	7900		0.26 J		10.0 UJ		50 UJ	5800 J		990 J		20 UJ	3.0	2.5 U	5.0 U	1.1 J	15		36 B	12			1.1 J	11		31
MW19	5/14/14	N		18000																									
MW2	10/9/97	N	10 U	1 U		2 U		10.2 J		20 J			50.6		10		0.1 U	1 U	1 U	1 U		300	3.5			1.1	17		2.6
MW2	10/9/97	N2		1 U		2 U		11.4 J							10.7		0.1 U	1 U	1 U	1 U									
MW2	4/5/00	N		0.5 U												10 U													
MW2	6/18/01	N	0.14	0.1 U		0.37 J		25 U		24 U			8.3		25 U	5 U	0.1 U	1 U	1 U	1 U		36	5.73		66	38 =	105		5.57
MW2	6/18/01	N2	0.14			6.7		109		39900			1230		64														
MW2	9/12/01	N	10 U	0.51		3.9		110		29000			1200		69	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		49	6.2		140	2.3	10		4.2
MW2	9/12/01	N2				0.29 U		2.2 U		35 U			57		5.2 J														
MW2	8/6/02	N	10.0 U	0.12		6.4		30		10000			420		26 J	5 U	1 U	5 U	5 U	5 U		66	3		98	0.15 U	10		3.2
MW2	8/6/02	N2				1.4 U		0.3 U		48			18		9.1 J														
MW2	9/24/03	N	0.5 U	0.28		8		100		41300 J			1180		80	0.99 U	0.25 U	2.5 U	2.5 U	2.5 U		80	1 J		106.2	2.02	3 J		2.3
MW2	9/24/03	N2	0.5 U			1 U		16		3030 J			443		20 J														
MW2	9/21/04	N	10.0 UJ	1.26		4.03 J		87.2 J		25800 J			972 J		64.2 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		110 J	12 J		921 J	1.4 J	4.0 R		5.23 R
MW2	9/21/04	N2				0.237 J		3.10 J		662			22.2 J		7.73 J														
MW2	9/28/05	N	2.0 U	2.2 =		6.7		140 J		40000 J			1300 J		82 J	0.98 U	0.50 U	5.0 U	5.0 U	5.0 U		150 J	5.6 J		270 J	0.10 UJ	27 R		2.5 J
MW2	9/28/05	N2				1.0 UJ		2.5 J		65 J			9.3 J		20 UJ														
MW2	9/26/06	N	2.0 UJ	2.3		1.0 U		10 UJ		50 U			2.6 UB		20 UJ	1.7 U	0.50 U	5.0 U	5.0 U	5.0 U		160 J	1.6 J		220	0.12 J	20 J		3.1
MW2	9/19/07	N	2.0 UJ	3.7 J		0.62 J		10 UJ		100 UJ			6.5 J		20 UJ	0.97 R	1.0 U	1.0 U	1.0 U	2.0 U		160 J	3.6		200 J	0.22 J	16 J		2.1 J
MW2	10/21/08	N	2.0 UJ	1.60 J		2 U		10 UJ		424 J	27900		5.20 J		20 U	1.00 U	0.5 U	2.0 U	2.0 U	5.0 U		138	3.17		276 J	1.10 J	12.90		2.59 J
MW2	10/6/09	N	0.83 UJ	2.21 J		2 UJ		10 UJ		129 J	19000 J		10 UJ		20 UJ	0.996 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		122 J	1.97 J		190.6 J	0.81 J	11.6 J		5.33 J
MW2	10/6/10	N	1.3 U	0.1 U		2 U		8 U		43 J	4680		9.4 J		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		62	0.6 J		52.5	1.01 J	4.2 J		24
MW2	10/19/11	N	0.50 U	0.097 U		2.0 U		2.2 J+		47 J	9400 B		3.7 J		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		63	7.7		93.60	0.50 J	33		1.0 U
MW2	10/16/12	N	0.50 U	0.33		0.82 J		6.2 J		810	8800 =		25		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		54	4.1		91.2	0.90 J	32 J		6.7
MW2	10/9/13	N	0.50 U	0.94 J		2.0 UJ		10.0 UJ		50 UJ	6900 J		10 UJ		20 UJ	0.21 U	0.50 U	1.0 U	1.0 U	2.0 U *		39 J	2.8			2.9 J	28		4.5 J
MW2	10/9/13	N2																								2.9 J			
MW2	9/24/14	N	0.070 U	0.32	0.18 U		0.75 U		16 U			1.4 J		7.3 U		0.061 U	0.24 U	0.23 U	0.22 U	0.43 U		62	0.69 J	68		0.73	2.4	0.50 U	
MW2	10/14/15	N	0.080 U	0.49 U		0.75 J		56.7 J			2.9 J		7.3 U		0.13	0.060 U	0.35 U	0.23 U	0.25 U	0.52 U		50.7 B	0.55 J	60.3		0.63	2.1	1.3	
MW20	10/15/97	N	10 U	29000 J													0.1 U	1 U	1 U	0.1 U									
MW20	4/26/01	N	2.73	36600		8.2		196		33200			3120		126	9970 =	1 U	10 U	10 U	29		198	24		301	0.13 U	67		478
MW20	4/26/01	N2	2.73			1.1		14		841			2250		23	9970	10 U	100 U	100 U	71									
MW20	9/12/01	N	10 U	83000		3.6		81		7900			3200		36	890	0.44 U	3.4 U	4.1 U	37		260 J	16		250	0.15 J	24		65
MW20	9/12/01	N2				1.5		15 U		35 U			2800		12 U														
MW20	8/7/02	N	10.0 U	30000 J		8.9		87.4		4910			3520		16.6 J	1400	1 U	12	9	120		220	22		4 U	0.15 U	25		71
MW20	8/7/02	N2				2.6		5.8 J		206			3280		15.4 J														
MW20	9/25/03	N	5.4	13000		2 J		58		7220			3310		20 J	830	1 U	10 U	10 U	60.9		233	19.4 J		86.67	1.25 U	80 J		150 J
MW20	9/25/03	N2	5.4			1 U		11		350			3250		10 J											1.25 U			
MW20	9/22/04	N	10.0 UJ	133000		1.00 UJ		30.4 J		1320 J			2770 J		18.7 J	282	2.50 U	3.01 J	3.21 J	40.3		190 J	24 J		1320 J	0.29 J	23 R		46.3 R
MW20	9/22/04	N2				0.498 J		35.2 J		2070			2320		47.0 J														
MW20	10/25/05	N	2.0 UJ	63000 =		1.0 U		16 J		780 J			2300 J		20 UJ		0.50 U	5.5	5.4	62		170 J	13 J		190 J	2.1 J	39 R		21 R
MW20	10/25/05	N2				1.0 UJ		2.7 UJ		140 J			2400 J		20 UJ														

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Type[3] / Units	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW20	9/27/06	FD	2.0 UJ	44000 J		1.0 UJ		4.8 J		94 J			4200		20 U	180 =	0.50 U	5.1	4.1 J	53		230 J	16		380	0.19	65 =		22
MW20	9/27/06	N	2.0 UJ	35000 J		1.0 U		3.8 J		48 J			4200		20 U	160 =	0.50 U	4.8 J	4.1 J	51		220 J	16		240	0.22	71 =		23
MW20	9/21/07	N	2.0 U	9500 J		1.0 UJ		10 UJ		100 UJ			4800		20 UJ	71 R	1.0 U	6.4	4.4	62		230 J	18		300 J	0.10 U	98 J		13 J
MW20	10/23/08	N	2.0 UJ	41000		2 UJ		17.3 J		462	31700 J		3400 J		20 UJ	1150	0.5 U	2.99 =	2.94 =	38.7		127 J	15.7		332 J	0.13 J	28.9		121
MW21	2/9/98	FD	10	1		3.1		83.9		7.3 U			1380		98.9		0.1 U	1 U	1 U	1 U		196	67.3				8.9		0.47 U
MW21	2/9/98	FD2				2 U		9.5 U							33.8														
MW21	2/9/98	N	11	1 U		3		70.1		5.5 U			1210		113		0.1 U	1 U	1 U	1 U		176	70.6				9.1		0.47 U
MW21	2/9/98	N2		1 U		2 U		9.5 U							32.6 U		0.1 U	1 U	1 U	1 U									
MW21	5/14/02	N				1.9 J		1.3 J		130			9.7 J		11 J														
MW21	8/6/02	N		0.035 J		4.4		50		10000			930		29	5 U	1 U	5 U	5 U	5 U		120	49		150	0.15 U	9.6		8.3
MW21	8/6/02	N2				1.6 J		0.3 U		11 U			0.63 J		6.8 J														
MW21	4/29/03	N	0.5 U	0.15		1 U		12		3440			227		10 U	7.4 U	0.5 U	5 U	5 U	5 U		144	41		169	2.5	12		1.5
MW21	4/29/03	N2	0.5 U			1 U		1 U		25 U			5 U		10 U														
MW21	9/24/03	N	0.5 U	0.063 J		1 U		260		68400			3750		150	1 U	0.25 U	2.5 U	2.5 U	2.5 U		165	48		81.46	2.62	2 U		3.6
MW21	9/24/03	N2	0.5 U			1 U		1 U		50 UJ			5 U		10 U														
MW21	5/4/04	N	10.0 U	0.135 UB		2.31 J		72.5 R		14000 R	19300		1970 R		46.5 R	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		165	67 =		188	2.3 J	3.6 R		3.12 J
MW21	5/4/04	N2				0.122 J		1.28 R		28.6 R			0.718 R		4.48 R														
MW21	9/21/04	N	10.0 UJ	0.474		1.80 J		48.2 J		10300 J			983 J		32.6 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		150 J	63 J		1030 J	2.4 J	4.8 R		2.76 R
MW21	9/21/04	N2				0.130 J		0.955 J		25.0 UJ			0.484 J		3.30 J														
MW21	5/10/05	N	2.0 U	0.33		1.0 U		10 U		50 U			0.47 J		20 U	0.98 U	0.50 U	5.0 U	5.0 U	5.0 U		130 J	49 J		170 J	2.8 J	12 R		2.2 R
MW21	5/10/05	N2				1.0 U		25		6200			480		16 J														
MW21	9/27/05	N	2.0 UJ	0.046 J		7.1		230		56000			3400		110	0.91 U	0.50 U	5.0 U	5.0 U	5.0 U		130 J	47 J		370	2.4 J	17 J		1.2
MW21	9/27/05	N2				1.0 UJ		2.6 J		36 J			9.8 J		20 U														
MW21	6/1/06	N	2.0 U	0.023 J		1.0 UJ		10 UJ		47 J			17 J		20 UJ	0.99 U	0.50 U	5.0 U	5.0 U	5.0 U		140 J	65 J		140	2.7 J	20		1.5 J
MW21	5/8/07	N	2.0 UJ	0.098 UJ		1.0 UJ		10 UJ		100 UJ			10 UJ		4.2 J	1.0 R	1.0 U	1.0 U	1.0 U	2.0 U		210 =	33 J		120	4.2	9.3 J		1.7
MW21	9/18/07	N	2.0 UJ	0.13 J		1.0 UJ		10 UJ		100 UJ			10 UJ		20 UJ	0.98 R	1.0 U	1.0 U	1.0 U	2.0 U		110 J	29		120 J	3.7 J	12 J		1.2 J
MW21	10/21/08	N	2.0 UJ	0.10 UJ		2 U		10 UJ		294 J	14900 J		10 U		20 U	1.00 U	0.50 U	2.00 U	2.0 U	5.00 U		66	68.80		149 J	2.69 J	7.27 U		2.38 J
MW22	2/9/98	N	13	1 U		4		255		5.5 U			3700		121		0.1 U	1 U	1 U	1 U		186	56.3				17.9		0.47 U
MW22	2/9/98	N2		1 U		2 U		9.5 U							12.6		0.1 U	1 U	1 U	1 U									
MW22	5/14/02	N				1.4 U		0.3 U		22.9 J			3.5 J		2.7 J														
MW22	8/6/02	N	10.0 U	0.078		2.2 J		9.8 J		2500			170		7.3 J	5 U	1 U	5 U	5 U	5 U		150	7.2		170	0.15 U	12		1.3
MW22	8/6/02	N2				1.4 U		0.3 U		25 J			0.42 U		4.9 J														
MW22	9/24/03	N	0.5 U	0.34		7		140		56900			2570		120 J	1 U	0.25 U	2.5 U	2.5 U	2.5 U		132	4.9		101.8	2.15	3 J		1.7
MW22	9/24/03	N2	0.5 U			1 U		20		2770			542		20 J														
MW22	9/21/04	N	10.0 UJ	0.220		2.76 J		71.6 J		13600 J			963 J		48.4 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		130 J	11 J		885 J	2.2 J	6.7 R		3.86 R
MW22	9/21/04	N2				0.164 J		0.473 J		25.0 UJ			15.0 UJ		2.31 J														
MW22	9/28/05	N	2.0 U	0.16 J		1.0 UJ		9.8 J		2100 J			130 J		8.0 J	1.0 U	0.50 U	5.0 U	5.0 U	5.0 U		91 J	9.6 J		130 J	1.7 J	18 R		0.94 J
MW22	9/28/05	N2				1.0 UJ		10 UJ		50 UJ			1.3 J		20 UJ														
MW22	9/18/07	N	2.0 UJ	0.13 J		1.0 UJ		10 UJ		100 UJ			10 UJ		20 UJ	0.99 R	1.0 U	1.0 U	1.0 U	2.0 U		110 J	8.2		160 J	2.5 J	10 J		1.0 J
MW22	5/20/08	N	2.0 UJ	0.77 J		1.0 U		0.98 J		100 UJ			3.6		5.4 J	0.95 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ		110 =	8.4		200	2.3	12		3.0 J
MW22	10/21/08	N	2.0 UJ	0.09 UJ		2.60 J		10 UJ		303 J	11100 J		0.01 U		20 U	1.00 U	0.5 U	2.0 U	2.0 U	5.0 U		90	4.69		111 J	1.48 J	6.95		21.10 J
MW22	6/2/09	N	0.8 UJ	0.1 UJ		2 U		10 UJ		83.1 =	10000 J		10 U		20 U	1.0 UJ	0.5 U	0.22 J	2.0 U	5.0 U	70 J		6.92		99.6098	1.97 J	6.73		1.7 UJ
MW22	10/6/09	N	0.83 UJ	0.1 UJ		2 UJ		13.1 J		1560 J	11500 J		168 J		6.7 J	0.994 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		147 J	7 J		106.54 J	5.31 J	7.53 J		8.62 J
MW22	5/18/10	N	1.3 U	0.1 U													0.5 U	5 U	5 U	5 U		66 UB	9.21			1.9 J	6.9		58.8 UB
MW22	10/6/10	N	1.3 U	0.13 UB		2 U		4.1 J		74.2 J	3680		16.7 U		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		62	1.8 J		40.9	0.90 J	5.6 J		24.6
MW22	6/29/11	N	0.9 U	0.1 U		2 UJ		4.5 J		499	3700		27.6		20 U	0.999 U	0.1 U	0.4 U	0.4 U	1 U		32.	0.78 J+		34.10	0.46 J	3.9 J		11
MW22	10/18/11	N	0.50 U	0.098 U		0.45 J		2.1 J+		50 U	3600 B		2.7 J		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		43	1.0 U		37.30	0.50 J	3.5 J		1.0 U
MW22	5/22/12	N	0.50 U	0.084 J		2.0 U		2.3 J		160	5000 =		13		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		49	3.4		50.60	0.76 J	3.9 J		10
MW22	10/16/12	N	0.50 U	0.096 U		0.59 J		10 U		50 U	5000 =		5.7 J		20 U	0.19 U	2.5 UJ	5.0 UJ	5.0 UJ	10 UJ		48	4.1		53.1	0.48 J	5.0 U		36

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Type[3]	Units	Methane	Arsenic (dissolved)	Arsenic	Copper (dissolved)	Copper	Iron (dissolved)	Iron	Magnesium	Manganese (dissolved)	Manganese	Zinc (dissolved)	Zinc	Pentachlorophenol	Naphthalene	Benzene	Ethylbenzene	Toluene	Xylenes (total)	Alkalinity, hydroxide (as CACO3)	Alkalinity, total (as CaCO3)	Chloride	Hardness, carbonate	Hardness	Nitrate (as N)	Sulfate	TOC averages	Total organic carbon (TOC)
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
MW22	5/22/13	N		0.50 U	0.11		2.0 U		10 U		50 U	4000 B		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		41	3.7			1.0 J	3.9		15
MW22	10/8/13	N		0.50 U	0.14		0.24 J		10.0 U		50 U	5200 B		2.8 J		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		45	7.2			1.4 J	4.7		10
MW22	5/14/14	N			0.093 J																									
MW22	9/24/14	N		0.070 U	0.27	0.22 J		0.75 U		25 JB			19		7.3 U		0.060 U	0.24 U	0.23 U	0.22 U	0.43 U		51	1.7	60		0.69	3.6	0.71 J	
MW22	4/21/15	N		0.070 U	0.072 J	0.60 JB		2.8		390 B			23		7.3 U		0.065 U	0.35 U	0.25 U	0.23 U	0.52 U		42 B	1.9		57	0.69	3.7		0.57 J
MW22	10/13/15	N		0.080 U	0.49 U		1.2 J		16.0 U			1.1 U		7.3 U		0.041 J	0.060 U	0.35 U	0.23 U	0.25 U	0.52 U		46.3 B	1.7	52.3		0.65 H	2.8	0.74 J	
MW23	2/26/98	N		57	1 U		2 U		17.6 U		5.5 U			128		43.6		2	1 U	77	2		120	8.7				7.6		0.47 U
MW23	2/26/98	N2			1 U		2 U		14.2 U							6.6		2 =	1 U	77 =	2 =									
MW23	9/11/01	N		10 U	0.49		1.2		6.3 J		630			140		37	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		110	10		140	0.13 U	8.2 U		5.6
MW23	9/11/01	N2					0.62 J		2.2 U		35 U			29		4.7 J														
MW24	2/8/98	N		10 U	4 U		4.3		53		5.5 U			1030		50.7		3 U	2 U	3 U	5 U		253	18.7				5.2		1.8
MW24	2/8/98	N2			4 U		2 U		9.5 U							23		3 U	2 U	3 U	5 U									
MW24	12/6/00	N		0.53 U	123 J		1.6		27		6500			530		11	5.9 U	0.1 U	1 U	0.29	1 U		180	21		310	2.3	7.1		5.5
MW24	12/6/00	N2		0.53 U			0.29		25 U		25 U			15 U		25 U	5.9 U	0.1 U	1 U	0.29	1 U									
MW24	4/24/01	N		0.1 U	0.11		2.4		30		7310			508		23	5.3 U	0.1 U	1 U	1 U	1 U		256	36		348	3.64 =	12		3.36
MW24	4/24/01	N2		0.1 U			0.29		5.2		25 U			2.4		11	5.3 U										3.64			
MW25	2/9/98	N		17	1		6.6		462		30.2 U			4480		321		0.1 U	1 U	1 U	1 U		455	15.6				9.9		0.47 U
MW25	2/9/98	N2			1 =		2 U		9.5 U							16.4		0.1 U	1 U	1 U	1 U									
MW26	12/6/00	N		0.65 U	118 J		1.1		21		25 U			94		17	5 U	0.1 U	1 U	1 U	1 U		230	29		350	2.8	540		8
MW26	12/6/00	N2		0.65 U	115 J		2.8		27		16000			300		35	5 U	0.1 U	1 U	1 U	1 U		270	28		330	2.8	770		6.1
MW26	12/6/00	N3		0.7 U			4		25 U		25 U			89		25 U	5 U	0.1 U	1 U	1 U	1 U									
MW26	12/6/00	N4					1.1		25		16000			290		33														
MW26	4/24/01	N		0.1 U	0.1 U		3		13		6980			132		24	5.4 U	0.1 U	1 U	1 U	1 U		240	22		294	5 =	10		2.79
MW26	4/24/01	N2		0.1 U			0.24		25 U		36			15 U		19700											5			
MW26	6/18/01	N		0.1 U	1		1.1		25 U		25 U			15 U		25 U	5 U	0.1 U	1 U	1 U	1 U		230	27		326	30	13		6.67
MW26	6/18/01	N2		0.1 U			3.6		18		9140			232		28											30 =			
MW26	9/10/01	N		10 U	0.16 J		1.5		10 U		2300			94		24	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		260	30		300	3.2	12		0.34 U
MW26	9/10/01	N2		10 U	0.16 J		0.8 J		4 J		100 J			4 U		3.8 J	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		260	29		310	3.2	12		2.7
MW26	9/10/01	N3					0.75 J		2.9 J		55 J			1.5 U		3.7 U														
MW26	9/10/01	N4					1.6		13		2500			96		24														
MW26	5/14/02	N			0.1		1.4 J		5 J		1530			57.2		9.7 J	5 U	1 U	5 U	5 U	5 U		260	27		300	3 H	15		5
MW26	5/14/02	N2					1.4 U		1.2 J		11.2 U			0.73 J		9.3 J										300				
MW26	8/5/02	N		10.0 U	0.03 J		3		2.5 J		385			17.2		16.3 J	5 U	1 U	5 U	5 U	5 U		270	18		310	0.15 U	14		4.5
MW26	8/5/02	N2		10.0 U	0.035 J		1.4 U		0.3 U		11.2 U			0.56 J		13.7 J	5 U	1 U	5 U	5 U	5 U		280	19		310	0.15 U	11		24
MW26	8/5/02	N3					2.7		3.9 J		728			26		18.7 J														
MW26	8/5/02	N4					3.2		0.3 U		11.2 U			0.42 U		7.4 J														
MW26	4/29/03	N		0.5 U	0.1 U		1 U		4		1290			46		10 U	7.1 U	0.5 U	5 U	5 U	5 U		248	18		262	3.5	14		7
MW26	4/29/03	N2		0.5 U	0.11 U		1 U		2 J		25 U			5 U		10 U	7.1 U	0.5 U	5 U	5 U	5 U		250	18.7		257	3.6	14		12
MW26	4/29/03	N3		0.5 U			2 J		5		1690			48		20														
MW26	4/29/03	N4					1 U		1 U		25 U			5 U		10 U														
MW26	9/23/03	N		0.5 U	0.11 U		1 U		1 J		740			29		10 U	1 U	0.25 U	2.5 U	2.5 U	2.5 U		250	11		90.28	3.74	2 U		6.4
MW26	9/23/03	N2		0.5 U			1 U		1 U		50 U			5 U		10 U														
MW26	5/4/04	FD		10.0 U	0.219 UB		0.295 J		2.37 R		399 R	27400		15.2 R		7.82 R	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		242	17 =		291	4.0 J	44 R		4.35 J
MW26	5/4/04	FD2					0.323 J		1.19 R		49.3 R			2.07 R		4.15 R														
MW26	5/4/04	N		10.0 U	0.242 UB		0.264 J		2.62 R		458 R	26700		17.8 R		10.5 R	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		242	17 =		284	3.9 J	42 R		3.75 J
MW26	5/4/04	N2					0.289 J		1.24 R		39.0 R			1.23 R		4.36 R														
MW26	9/23/04	FD		10.0 U	5.97 BE		1.00 U		3.10 J		542			22.2		6.95 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		280	28		1770	1.5 J	170 =		1.95
MW26	9/23/04	FD2			4.11 =		0.354 J		2.01 J		6.48 J			4.00 J		3.80 J														
MW26	9/23/04	N		10.0 U	0.393 =		1.00 U		3.73 J		620			24.8		7.86 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		280	28		1670	1.5 J	120 =		2.40

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Type[3] / Units	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW26	9/23/04	N2				0.314 J		1.57 J		8.81 J			19.3		4.70 J														
MW26	5/10/05	FD	2.0 U	0.11 U		1.0 U		10 U		50 U			0.59 J		20 U	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		240 J	26 J		370 J	2.2 J	180 R		1.1 R
MW26	5/10/05	FD2				1.0 U		2.2 J		510			14		17 J														
MW26	5/10/05	N	2.0 U	0.061 J		1.0 U		10 U		50 U			1.8 J		20 U	0.94 U	0.50 U	5.0 U	5.0 U	5.0 U		250 J	26 J		340 J	2.8 J	200 R		2.1 R
MW26	5/10/05	N2				1.0 U		2.4 J		680			18		7.5 J														
MW26	9/27/05	FD	2.0 UJ	0.024 J		1.0 UJ		10 U		50 U			1.7 J		20 U	0.92 U						250 J	25 J		380	2.0 J	160 J		0.68 J
MW26	9/27/05	FD2				1.0 UJ		2.6 J		50 UJ			10 U		20 U														
MW26	9/27/05	N	2.0 UJ	0.027 J		1.0 UJ		10 U		50 U			2.3 J		20 U	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		240 J	25 J		350	1.9 J	170 =		0.72 J
MW26	9/27/05	N2				1.0 UJ		2.2 J		50 U			10 U		20 U														
MW26	6/7/06	FD	2.0 U	0.091 J		1.0 UJ		10 UJ		50 UJ			1.0 UJ		20 UJ	0.94 U	0.50 U	5.0 U	5.0 U	5.0 U		250 J	29 J		350 J	1.8 J	150 =		0.94 J
MW26	6/7/06	N	2.0 U	0.11 UJ		1.0 UJ		10 UJ		50 UJ			2.5 UJ		20 UJ	0.95 U	0.50 U	5.0 U	5.0 U	5.0 U		260 J	29 J		320 J	1.8 J	140 =		1.4 J
MW26	9/26/06	N	2.0 UJ	0.11 U		1.0 UJ		10 UJ		50 UJ			10 UJ		20 UJ	0.91 U	0.50 U	5.0 U	5.0 U	5.0 U		270 J	23 J		350	1.5 J	87 J		2.0
MW26	5/8/07	FD	2.0 UJ	0.095 UJ		1.0 UJ		10 UJ		100 UJ			10 UJ		20 UJ	0.92 R	1.0 U	1.0 U	1.0 U	2.0 U		270 =	21 J		360	1.6	250 J		0.76 J
MW26	5/8/07	N	2.0 UJ	0.093 UJ		1.0 UJ		10 UJ		100 UJ			10 UJ		20 UJ	0.92 R	1.0 U	1.0 U	1.0 U	2.0 U		260 =	21 J		360	1.5	210 J		0.68 J
MW26	9/19/07	N	2.0 UJ	0.095 U		1.0 UJ		10 UJ		100 R			10 UJ		20 UJ	0.93 U	1.0 U	1.0 U	1.0 U	2.0 U		240	25		500 J	1.3	220 J		0.84 J
MW26	5/20/08	N	2.0 UJ	0.096 UJ		0.34 J		0.47 J		100 UJ			2.5 U		20 U	0.96 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ		240 =	22		430	1.8	230		0.65 J
MW26	10/22/08	N	2.0 UJ	0.1 U		2 UJ		6.2 J		777 J	35100 J		10 UJ		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5.0 U		256 J	21.7		432 J	2.36 J	235		18.6
MW26	6/2/09	N	0.8 UJ	0.1 UJ		2 U		10 UJ		341 =	33400 =		10 U		20 U	1.0 UJ	0.5 UB	0.3 J	2.0 UB	5.0 U	229 J		203		414.7082	1.83 J	2360		1.7 UJ
MW26	10/6/09	N	0.83 UJ	0.1 UJ		2 UJ		3.8 J		325 J	42900 J		10 UJ		20 UJ	0.997 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		227 J	20.7 J		491.28 J	1.7 J	212 J		1 UJ
MW26	5/19/10	N	1.3 U	0.13 J		1.8 J		10 UJ		236. J	39800. J		10 UJ		15. J	1.0 U	0.5 U	5 U	5 U	5 U		230	20.4		486	2.41 J	279		20.1 J
MW26	10/5/10	N	1.3 U	0.1 UJ		2 U		10 U		376	37900		10 U		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		236	20.0 J		478	1.77	232		0.6 J
MW26	6/29/11	N	0.9 U	0.1 U		2 UJ		10 U		274	41600		10 U		20 U	0.992 U	0.1 U	0.4 U	0.4 U	1 U		202	18.3 J		463.00	1.83 J	230		1 U
MW26	10/19/11	N	0.50 U	0.099 U		0.87 J		2 U		50 U	29000 B		10 U		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		230	19		329.00	1.6 J	200		0.88 J
MW26	5/22/12	N	0.50 U	0.10 U		2.0 U		10 U		50 U	28000 =		10 U		20 U	0.19 UJ	0.50 U	1.0 U	1.0 U	2.0 U		200	19		325.00	1.7	210		0.43 J
MW26	10/16/12	N	0.50 U	0.095 U		0.99 J		10 U		50 U	29000 =		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 UJ	2.0 U		190	19		344	1.8 J	200 =		0.30 J
MW26	5/22/13	N	0.50 U	0.094 U		2.0 U		10 U		50 U	25000 B		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		170	18			1.9 J	230		0.55 J
MW26	10/8/13	N	0.50 U	0.095 U		0.37 J		10.0 U		50 U	26000 B		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		160	18			1.5 J	110 J		1.0 U
MW26	5/14/14	N		0.095 U																									
MW26	9/24/14	FD	0.070 U	0.015 U	0.32 J		0.75 U		16 U			1.1 U		7.3 U		0.060 U	0.24 U	0.23 U	0.22 U	0.43 U		150	17	280		1.2	160	0.50 U	
MW26	9/24/14	N	0.070 U	0.015 U	0.43 J		0.75 U		16 U			1.1 U		7.3 U		0.060 U	0.24 U	0.23 U	0.22 U	0.43 U		150	17	290		1.2	160	0.50 U	
MW26	4/21/15	FD		0.015 U	0.76 JB		0.75 U		16 U			1.1 U		7.3 U		0.060 U													
MW26	4/21/15	N	0.070 U	0.015 U	0.71 JB		0.75 U		16 U			4.4 J		7.3 U		0.060 U	0.35 U	0.25 U	0.23 U	0.52 U		160 B	16		240	2.4	82		0.26 U
MW26	10/13/15	FD	0.080 U	0.50 J		0.75 U		16.0 U			1.1 U		7.3 U		0.015 U	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		194 B	15.5	235		1.9 H	75.7	0.33 J	
MW26	10/13/15	N	0.080 U	0.76 J		0.75 U		16.0 U			1.1 U		7.3 U		0.015 U	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		198 B	15.3	229		1.9 H	74.6	0.32 J	
MW27	10/20/11	N	0.10 J	0.17		1.7 J		2.3 J+		50 U	2300 B		10 U		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		63	10		28.70	3.1	9.1		1.6
MW28	10/20/11	N	0.19 J	690		0.55 J		2 U		50 U	12000 B		6.0 J		10 U	0.19 U	0.50 U	1.0 U	1.0 U	0.38 J		130	5.5		132.00	1.3	5.2		2.7
MW28	10/17/12	N	0.50 U	0.095 U		0.48 J		10 U		50 U	12000 =		10 U		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		120	11		134	1.8	5.0 U		0.81 J
MW28	10/9/13	N	0.50 U	0.049 J		2.0 UJ		10.0 UJ		50 UJ	12000 J		10 UJ		20 UJ	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U *		120 J	21			2.2 J	6.5		0.49 J
MW28	10/9/13	N2																								2.2 J			
MW28	9/25/14	N	0.070 U	0.099	0.31 J		0.75 U		16 U			1.1 U		7.3 U		0.060 U*	0.24 U	0.23 U	0.22 U	0.43 U		120	18	150		1.3	5.1	0.85 J	
MW28	10/14/15	N	0.080 U	0.49 U		0.75 U		16.0 U			1.1 U		7.3 U		0.32	0.060 U	0.35 U	0.23 U	0.25 U	0.52 U		126 B	15.5	155		2	5.4	0.69 J	
MW3	10/8/97	N	10 U	1 U		2 U		2 U		257			10.9		2 U		0.1 U	1 U	1 U	1 U		370	42 J			4.4 J	16		1.2
MW3	10/8/97	N2		1 U													0.1 U	1 U	1 U	1 U									
MW3	4/4/00	N		0.6 U												12 U													
MW3	4/25/01	N		0.11 U		1 U		25 U		147			7.3		25 U	6.1 U	0.1 U	1 U	0.46	1 U		442	47		544	4.42	11		1 U
MW3	4/25/01	N2				1 U		25 U		142			7.9		25 U	6.1 U										4.42 =			
MW3	9/13/01	N	10 U	0.092 J		0.29 U		2.2 U		930			31		3.7 U	0.26 U	0.44 U	0.5 U	0.4 U	1.2 U		440	58		480	4	14		1.1
MW3	9/13/01	N2				0.35 J		2.2 U		2400			31		3.7 U														
MW3	8/7/02	N	10.0 U	0.11		1.7 J		2.3 J		480			15 J		1.4 J	5 U	1 U	5 U	5 U	5 U		420	69		540	0.15 U	16		1.4

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW3	8/7/02	N2				1.9 J		0.58 J		160			12 J		4.8 J														
MW3	9/23/03	N	2.5	0.31		1 U		1 J		150			5 U		10 U	1.1 U	0.25 U	2.5 U	2.5 U	2.5 U		357	52.4		160	4.43	2 U		1.6
MW3	9/23/03	N2	2.5																										
MW3	9/24/03	N				1 U		1 U		1 U			8 J		10 U														
MW3	9/21/04	N	5.71 J	0.367		0.189 J		356 J		278 J			6.45 J		273 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		430 J	62 J		3250 J	3.5 J	8.9 R		2.16 R
MW3	9/21/04	N2				0.119 J		1.91 J		137 J			4.99 J		4.61 J														
MW3	9/28/05	FD															0.50 U	5.0 U	5.0 U	5.0 U									
MW3	9/28/05	N	2.0 U	0.20 J		1.0 U		4.9 J		23000 J			93 J		20 UJ	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		370 J	62 J		490 J	3.3 J	24 R		1.4 J
MW3	9/28/05	N2				1.0 U		3.0 J		120 J			6.7 J		20 UJ														
MW3	10/21/08	N	4.90 J	0.10 UJ		2.00 U		10 UJ		2140	58700		15.20 J		20 U	3.13 U	0.50 U	2.0 U	2.0 U	5.0 U		513	60.50		836	2.73 J	15.20		18 J
MW3	10/7/09	N	21 J	0.1 UJ		2 UJ		10 UJ		722 J	46000 J		12.4 J		20 UJ	0.997 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ		482 J	53.8 J		581.46 J	2.55 J	11 J		3.42 J
MW3	10/5/10	N	1.6	0.1 U		2 U		10 U		805	69100		12 J		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		510	67.2		906	3.62	19.8 J		2.2 J
MW3	10/18/11	N	140	0.58		0.76 J		2 U		510	44000 B		41		10 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		510	64		531.00	3.3	16		2.9
MW3	10/16/12	N	13	0.46		0.59 J		10 U		260	41000 =		8.3 J		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		460	69		493	3.6 J	17 =		2.4
MW3	10/8/13	N	4.3	0.38		0.088 J		10.0 U		50 U	42000 B		8.3 J		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		390	70			3.5 J	16		1.6
MW3	9/25/14	N	15	0.35	0.18 U		0.75 U		160 B			7.6		7.3 U		0.060 U*	0.24 U	0.23 U	0.22 U	0.43 U		290	72	360		2.1	12	0.91 J	
MW3	10/15/15	FD	5.7	0.49 U		1.2 J		56.6 J			7.9		7.3 U		0.23	0.060 U	0.35 U	0.23 U	0.25 U	0.52 U		258 B	52.3	312		1.7 J	11.2 F1	1.2	
MW3	10/15/15	N	5.1	0.49 U		0.93 J		58.2 J			7.4		7.3 U		0.15	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		258 B	52.5	322		1.7 J	11.1	1.1	
MW4	10/9/97	N	139	1 U		2 J		2 U		35.9 J			55.9		2 U		2	3	1	3		94	7.3			0.1 U	6.3		12.3
MW4	10/9/97	N2		1 U		2 U		2.4 U							4.5		2	3	1	3									
MW4	4/4/00	N		0.5 U												10 U													
MW5	10/10/97	FD	10 U	31000 J		4.3		26.2 J		5070			15500		2		0.1 U	2	4	18		370	50			0.1 U	16		160
MW5	10/10/97	FD2				4.6		4835 J							2.7														
MW5	10/10/97	N	10 U	28000 J		3.8		48.5 J		4860			12900		3.7		0.1 U	3	5	21		370	50			0.1 U	15		115
MW5	10/10/97	N2		28000 E		3.2		24 J							2 J		0.1 U	3	5	21									
MW5	4/7/00	N		20600 =												76 U													
MW5	4/26/01	N	0.4	20600		5.6		74		20400			11200		25 U	38	0.22	0.84	1.8	8.1		352	42		349	0.13 U	28		43
MW5	4/26/01	N2	0.4			3.9		25 U		7630			11300		25 U														
MW5	9/13/01	N	10 U	6300		3.7		5.1 J		4100			8500		6.2 J	23	0.44 U	0.54 J	0.78 J	4.3		270	29		240	0.17 J	22		27
MW5	9/13/01	N2				8.2		100		26000			8500		4.2 J														
MW5	8/7/02	N		510 J		4.1		28		34500			8130		104	3.2 J	1 U	5 U	5 U	5 U		220	26		4 U	0.15 U	21		25
MW5	8/7/02	N2				2 J		1.5 J		7900			7840		26.9 J														
MW5	9/25/03	N	0.47 J	1100		4		50		35100			9450		10 U	2.5	0.25 U	2.5 U	2.5 U	2.5 U		228	22.1		78.48	0.05 U	20		6.2
MW5	9/25/03	N2	0.47 J			3		7		13400			8320		10 U														
MW5	9/22/04	N	10.0 UJ	194		0.488 J		17.3 J		30500			7150		13.7 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		250 J	29 J		1490 J	0.01 R	24 R		18.8 R
MW5	9/22/04	N2		214 E		0.612 J		1.44 J		7480 J			5650 J		5.91 J														
MW5	9/28/05	N	2.3	1100 =		1.0 UJ		6.0 J		18000 J			7600 J		20 UJ	1.8	0.50 U	5.0 U	5.0 U	5.0 U		260 J	18 J		480 J	0.10 UJ	35 R		7.4 J
MW5	9/28/05	N2				1.0 UJ		10 UJ		19000 J			7600 J		20 UJ														
MW5	9/26/06	N	8.7 J	460 =		1.0 UJ		10 UJ		23000 J			8000 J		20 UJ	1.4 U	0.50 U	5.0 U	5.0 U	5.0 U		290 J	16 J		370	0.10 J	27 J		6.6
MW5	9/20/07	N	9.8	31 J		1.0 UJ		10 UJ		25000			7600		20 UJ	0.74 R	1.0 U	1.0 U	1.0 U	2.0 U		230 J	13		270 J	0.10 U	39 J		4.1 J
MW5	10/22/08	N	11 J	206		2 UJ		10 UJ		10500 J	31400 J		9700 J		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5.0 U		267 J	8.68		357 J	0.05 U	24.8		30.5
MW5	10/7/09	N	17 J	33.3 J		2 UJ		10 UJ		6000 J	33600 J		11800 J		20 UJ	0.998 UJ	0.1 UJ	0.4 UJ	0.4 UJ	0.14 J		256 J	8.59 J		344.62 J	0.05 UJ	55.1 J		3.5 J
MW5	10/6/10	N	4.1	39.8 J		3.36 J		8 U		3030	43600		12600		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		274	11.4 J		437	0.10 UJ	79.4		4.2
MW5	10/19/11	N	38 J	0.97		1.0 J		2 U		2600	40000 B		11000		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		260	15		397.00	0.10 U	150		2.6
MW5	10/17/12	N	17	0.59 J		0.57 J		10 U		2700	29000 =		7000		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		180	11		302	0.10 U H	130 =		1.8
MW5	10/10/13	N	19	0.60		0.39 J		10.0 UJ		2200 J	20000 J		4700 J		20 UJ	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		150 B	9.2 J			0.10 UJ	140 J		1.8
MW5	9/24/14	FD	10	12	0.42 J		0.75 U		1200 B			2200		7.3 U		0.061 U	0.24 U	0.23 U	0.22 U	0.43 U		97	4.3	150		0.12	48	0.50 U	
MW5	9/24/14	N	12	12	0.41 J		0.75 U		1200 B			2200		7.3 U		0.061 U	0.24 U	0.23 U	0.22 U	0.43 U		100	4.3	150		0.14	48	2.3	
MW5	10/14/15	N	1.8 B	0.49 U		0.75 U		954			2230		7.3 U		64	0.060 U	0.35 U	0.23 U	0.25 U	0.52 U		98.7 B	12.7	159		0.053 J	48.9	3.3	

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Type[3] / Units	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW6S	10/9/97	N	10 U	1 U		5.1		473		20 U			4720		258		0.1 U	1 U	1 U	1 U		62	72 J			4.5	0.9		1.6
MW6S	10/9/97	N2		1 U		2 U		2 U							2.2		0.1 U	1 U	1 U	1 U									
MW6S	4/26/01	N	0.12 U	2.5		15		202		82800			1950		131	5.4 U	0.1 U	1 U	1 U	1 U		148	14		285	0.87	12		5.29
MW6S	4/26/01	N2	0.12 U			0.26		25 U		25 U			347		25 U														
MW6S	9/12/01	N	10 U	1.1		7.4		190		42000			1900		110	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		160	12		290	1.1	16		6.3
MW6S	9/12/01	N2				0.58 J		3.1 J		35 U			800		5 J														
MW6S	8/7/02	N	270	88 J		5.5		69.1		7570			2210		18.3 J	5 U	1 U	5 U	5 U	5 U		270	17		4 U	0.15 U	18		5.8
MW6S	8/7/02	N2				2.7		9.9 J		3330			1790		9.7 J														
MW6S	9/25/03	N	130	0.33		1 J		22		5900			1190		10 J	1 U	0.25 U	2.5 U	2.5 U	2.5 U		282	23.9		104	1.01	17		8.2
MW6S	9/25/03	N2	130			1 J		9		1100			961		10 U														
MW6S	9/27/06	N	3.5 J	0.21		1.0 U		2.6 J		50 U			590		20 U	1.1 U	0.50 U	5.0 U	5.0 U	5.0 U		320 J	18		350	3.9 =	18		4.1
MW6S	9/20/07	FD	2.7	0.14 J		1.0 UJ		10 UJ		390			190		7.0 J	0.93 R	1.0 U	1.0 U	1.0 U	2.0 U		230 J	29		330 J	4.7	36 J		5.2 J
MW6S	9/20/07	N	3.0	0.099 J		1.0 UJ		10 UJ		510			200		7.0 J	0.93 R	1.0 U	1.0 U	1.0 U	2.0 U		230 J	30		320 J	4.7	34 J		4.7 J
MW6S	10/23/08	N	2.0 UJ	2.65		2 UJ		4.4 J		438 J	6260 J		65.3 J		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5.0 U		4.98 J	28.3		90 J	7.11 J	11		8.3
MW6S	10/7/10	N	1.3 U	0.1 UJ		2 U		5 J		531	4780		19.7 J		20 U	1.0 UJ	0.5 UJ	2 U	2 U	5 U		11 UB	21.3		56.9	6.94 J	11 J		6.8
MW6S	10/19/11	N	0.50 U	0.10 U		2.0 U		3.7 J		50 U	4400 B		14		10 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		15	17		45.60	5.3	9.8		1.0 U
MW6S	10/17/12	N	0.50 U	0.10 U		0.54 J		10 U		50 U	4600 =		3.9 J		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		18	16		51.4	5.5 H	11 J		3.2
MW6S	10/9/13	N	0.50 U	0.52 J		2.0 UJ		10.0 UJ		1500 J	6000 J		32 J		20 UJ	0.21 U	0.50 U	1.0 U	1.0 U	2.0 U *		5.0 UJ	29			9.0 J	9.5		8.0 J
MW6S	10/9/13	N2																								8.9 J			
MW6S	9/24/14	N	0.082 J	0.27	1.3 J		27		6000 B			110		41 B		0.062 U	0.24 U	0.23 U	0.22 U	0.43 U		22	9.3	100		3.6	7.3	0.50 U	
MW6S	10/14/15	N	0.080 U	0.49 U		2.5		16.8			1.4 J		7.3 U		0.17	0.061 U	0.35 U	0.23 U	0.25 U	0.52 U		12.5 B	10.8	76.4		3.6	6.7	3.4	
MW7	10/14/97	N	10 U	1 U		2 U		6.2		622			13.4		11.4		0.1 U	1 U	1 U	1 U		350	7.6			4.9	6		1.6
MW7	10/14/97	N2		1 U		2 U		2 U							3.5		0.1 U	1 U	1 U	1 U									
MW7	4/4/00	FD		0.5 U												10 U													
MW7	4/4/00	N		0.5 U												10 U													
MW7	4/25/01	N	4.65	0.1 U		1 U		25 U		352			5.4		25 U	5.2 U	0.1 U	1 U	1 U	1 U		352	8.36		388	3.63	6.54		2.8
MW7	4/25/01	N2	4.65			1 U		25 U		154			6.6		25 U	5.2 U										3.63 =			
MW7	9/11/01	N	12	0.083 J		0.4 J		2.2 U		560			6.4		3.7 U	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		340	23		410	3	10		2
MW7	9/11/01	N2	10 U	0.13 J		0.29 U		2.2 U		230			4.4		5.2 J	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		350	24		400	3	10		1.8
MW7	9/11/01	N3				0.47 J		2.2 U		560			5.7		4.8 J														
MW7	9/11/01	N4				0.29 U		2.2 U		230			4.6		3.9 J														
MW7	8/7/02	N	10.0 U	0.03 J		1.5 J		0.3 U		730			6.5 J		2.8 J	5 U	1 U	5 U	5 U	5 U		390	21		450	0.15 U	10		1.5
MW7	8/7/02	N2				1.4 U		0.3 U		300			4 J		0.98 U														
MW7	9/24/03	N	4.9	0.044 J		1 U		1 U		280 J			6 J		10 UJ	0.96 U	0.25 U	2.5 U	2.5 U	2.5 U		346	12.2		133.3	2.97	2 U		1.2
MW7	9/24/03	N2	4.9			1 U		1 U		90 J			5 U		10 UJ														
MW7	9/22/04	N	10.0 UJ	9.18 E		1.00 UJ		1.09 J		1640 J			9.86 J		4.06 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		300 J	7.2 J		1560 J	3.4 J	6.8 R		1.98 R
MW7	9/22/04	N2		5.75		0.108 J		0.847 J		25.0 UJ			9.75 J		2.96 J														
MW7	9/27/05	N	2.0 UJ	0.12 U		1.0 U		10 U		1300			18		20 U	0.91 UJ	0.50 U	5.0 U	5.0 U	5.0 U		260 J	18 J		450	1.8 J	130 J		0.96 J
MW7	9/27/05	N2				1.0 U		10 U		880			16 J		20 U														
MW7	9/26/06	N	4.3 J	0.087 J		1.0 U		10 U		50 U			68 J		20 U	0.92 U	0.50 U	5.0 U	5.0 U	5.0 U		280 J	15		390	1.8 =	110 =		2.4
MW7	9/20/07	N	3.7	0.093 U		1.0 UJ		10 UJ		260			22		5.9 J	0.93 R	1.0 U	1.0 U	1.0 U	2.0 U		270 J	16		370 J	1.5	170 J		1.1 J
MW7	10/22/08	N	110 J	0.1 U		2 UJ		4 J		926 J	37700 J		41.6 J		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5 U		277 J	14.1		535 J	1.54 J	98.9		4.16
MW7	10/22/08	N2																											4.41
MW7	10/7/09	N	2.4 J	0.403 J		2 UJ		10 UJ		687 J	32600 J		109 J		20 UJ	0.999 UJ	0.1 UJ	0.4 UJ	0.4 UJ	0.14 J		245 J	12.2 J		396.43 J	1.91 J	152 J		14.5 J
MW7	10/6/10	N	28	0.1 U		2 U		8 U		989	38900		63.2		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		226	13.8 J		482	2.24 J	168		10.4
MW7	10/19/11	N	15	0.098 U		0.48 J		2 U		81	21000 B		21		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		230	12		249.00	1.9 J	92		1.5 J
MW7	10/17/12	N	2.2	0.096 U		2.0 U		10 U		230	21000 =		22		20 U	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U		210	11		254	1.5 H	120 =		0.97 J
MW7	10/9/13	N	2.2 B	0.094 U		0.34 J		10.0 UJ		10000 J	21000 J		74 J		20 UJ	0.19 U	0.50 U	1.0 U	1.0 U	2.0 U *		200 J	12			1.8 J	120		0.75 J
MW7	10/9/13	N2																								1.8 J			

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound [1] / Type[3] / Units	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW7	9/23/14	N	15	0.034 J	0.28 JB		0.75 U		260			33		30 B		0.060 U	0.24 U	0.23 U	0.22 U	0.43 U		200	9.0	240		1.9 H	110	0.96 J	
MW7	10/12/15	N	6.5 B	0.88 J		1.6 J		16.0 U			423		7.3 U		0.015 U	0.060 U	0.35 U	0.23 U	0.25 U	0.52 U		228 B	8.3	229		1.5	46.2	0.85 J	
MW8	10/14/97	N	36.5	1 U		2 U		2 U		148			17.8		7.4		0.1 U	1 U	1 U	1 U		170	4.2			1.4	4.5		2.3
MW8	10/14/97	N2		1 U		2 J		2 U							4.6		0.1 U	1 U	1 U	1 U									
MW8	4/5/00	N		0.5 U												10 U													
MW8	4/25/01	N	11.6	0.2		0.99		25 U		829			32		25 U	5 U	0.1 U	1 U	1 U	1 U		154	3.25		181	1.52	7.47		1.46
MW8	4/25/01	N2	11.6			0.75		25 U		25 U			27		25 U														
MW8	4/25/01	N3				0.57		25 U		25 U			22		25 U														
MW8	9/11/01	N	10 U	0.062 J		1		2.2 U		70 J			18		4.3 J	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		150	3.8		170	1.5	7.6 U		1 J
MW8	9/11/01	N2				1.2		2.2 U		350			19		3.7 U														
MW8	8/8/02	N	10.0 U	0.04 U		1.4 U		0.3 U		98			6.4 J		12 J	5 U	1 U	5 U	5 U	5 U		180	4.2		310	0.15 U	6		1.1
MW8	8/8/02	N2				1.8 J		0.27 U		11 J			5.3 J		2.3 J														
MW8	9/25/03	N	8.9	0.047 J		1 U		1 U		140			8 J		10 U	0.95 U	0.25 U	2.5 U	2.5 U	2.5 U		182	11		69.57	2.61	2 U		1.7
MW8	9/25/03	N2	9.2	0.11 U		1 U		1 U		50 U			8 J		10 U	1 U	0.25 U	2.5 U	2.5 U	2.5 U		184	11		69.44	2.6	2 U		2.3
MW8	9/25/03	N3	9.2			1 U		1 U		240			8 J		10 U														
MW8	9/25/03	N4				1 U		1 U		50 U			6 J		10 U														
MW8	9/23/04	N	3.75 J	1.94 =		0.127 J		0.465 J		256			15.1		2.25 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		200	15		1160	2.4 J	5.8 J		1.40
MW8	9/23/04	N2				0.539 J		0.660 J		11.0 J			12.0 J		2.09 J														
MW8	9/28/05	FD	2.0 U	0.12 U		1.0 UJ		2.3 J		4500 J			56 J		20 UJ	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		160 J	19 J		200 J	2.0 J	19 R		1.0 J
MW8	9/28/05	FD2				1.0 UJ		10 UJ		120 J			13 J		20 UJ														
MW8	9/28/05	N	2.6	0.031 J		1.0 UJ		3.8 J		4700 J			63 J		20 UJ	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		160 J	20 J		240 J	2.0 J	19 R		1.2 J
MW8	9/28/05	N2				1.0 UJ		10 UJ		130 J			16 J		20 UJ														
MW8	9/20/07	N	2.0 UJ	0.093 U		0.61 J		10 UJ		210			13 J		20 UJ	0.93 U	1.0 U	1.0 U	1.0 U	2.0 U		180	21		260 J	1.5	76 J		1.1 J
MW8	10/22/08	N	0.78 J	0.1 U		2 UJ		10 UJ		707 J	40400 J		13.1 J		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5 U		178 J	24.3		496 J	1.92 J	73.1		16.1
MW9	10/8/97	N	10 U	1 U		2 U		4.2 U		20 U			19.7		5.6		0.1 U	1 U	1 U	1 U		60	45			4.2	3.4		6.5
MW9	10/8/97	N2		1 U													0.1 U	1 U	1 U	1 U									
MW9	4/5/00	N		0.6 =												10 U													
MW9	4/23/01	N	0.12 U	0.12		0.38		25 U		470			46		25 U	5.3 U	0.1 U	1 U	1 U	1 U		60	3.22		59	2.46 =	27		9.94
MW9	4/23/01	N2	0.12 U																						2.46				
MW9	4/24/01	N				0.28		25 U		25 U			34		25 U														
MW9	9/12/01	N	10 U	0.76		0.43 J		6.1 J		300			27		11 J	0.24 U	0.44 U	0.5 U	0.4 U	1.2 U		62	6.5		64	3.3	6.8 U		5.1
MW9	9/12/01	N2				0.34 J		2.2 U		110			16		6.6 J														
MW9	8/6/02	N	10.0 U	0.54		1.4 U		1.6 J		200			14 J		6.4 J	5 U	1 U	5 U	5 U	5 U		64	11		95	0.15 U	22		8.4
MW9	8/6/02	N2				1.4 U		0.3 U		11 U			6.3 J		9.6 J														
MW9	9/25/03	N	0.5 U	2.3		1 J		20		7400			229		20 J	1 U	0.25 U	2.5 U	2.5 U	2.5 U		59	4.4		32.83	2.36	24		6.5
MW9	9/25/03	N2	0.5 U			1 U		1 U		240			16		10 U														
MW9	9/22/04	N	10.0 UJ	2.92		0.134 J		2.07 J		231 J			16.5 J		4.60 J	5.00 U	0.500 U	5.00 U	5.00 U	5.00 U		58 J	3.2 J		776 J	1.8 J	26 R		6.48 R
MW9	9/22/04	N2				0.265 J		2.88 J		125 U			8.51 J		14.9 J														
MW9	9/27/05	N	2.0 UJ			1.0 UJ		10 U		50 U			6.3 J		20 U	0.93 U	0.50 U	5.0 U	5.0 U	5.0 U		55 J	2.6 J		70	1.9 J	20 J		2.0
MW9	9/27/05	N2				1.0 UJ		10 U		50 U			5.4 J		20 U														
MW9	10/18/05	N		0.57																									
MW9	9/21/07	N	2.0 U	0.37 J		1.0 UJ		5.9 J		100 UJ			4.1 J		20 UJ	0.97 R	1.0 U	1.0 U	1.0 U	2.0 U		58 J	2.6		86 J	3.8	15 J		3.3 J
MW9	10/22/08	N	2.0 UJ	0.1 U		2 UJ		6 J		166 J	11600 J		10 UJ		20 UJ	1 U	0.5 U	2.0 U	2.0 U	5 U		55 J	3.44		113 J	2.48 J	14.9		11.2
MW9	5/18/10	N	1.3 U	0.073 J		2 UJ		10 UJ		120. UJ	6230. J		7.1 J		20 UJ	1.0 U	0.5 U	5 U	5 U	5 U		63 UB	2.63		67.9	2.42 J	11		25.7 UB
MW9	10/6/10	N	1.3 U	0.1 U		2 U		8 U		109 J	8540		16.7 U		20 U	1.0 U	0.1 U	0.4 U	0.4 U	1 U		27	3.3 J		88.1	3.35	14 J		7.6
MW9	10/19/11	N	0.50 U	0.098 U		2.0 U		3.5 J+		50 U	8400 B		2.9 J		10 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		69	1.0 U		82.00	3.1	8.9		1.0 U
MW9	10/16/12	N	0.50 U	0.39		0.91 J		10 U		50 U	8400 =		10 U		20 U	0.20 U	0.50 U	1.0 U	1.0 U	2.0 U		63	2.8 J		82	5.9 J	10 J		3.8
MW9	10/9/13	N	0.50 U	0.41 J		2.0 UJ		10.0 UJ		50 UJ	6200 J		10 UJ		20 UJ	0.21 U	0.50 U	1.0 U	1.0 U	2.0 U *		47 J	1.2			3.8 J	12		1.6 J
MW9	10/9/13	N2																								3.8 J			

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
MW9	9/24/14	N	0.070 U	1.6	0.18 U		0.75 U		16 U			1.1 U		7.3 U		0.061 U	0.24 U	0.23 U	0.22 U	0.43 U		14	1.1	41		2.4	10	2.5	
MW9	10/13/15	N	0.080 U	0.49 U		1.3 J		21.1 J			1.1 U		7.3 U		0.17	0.066 U	0.35 U	0.23 U	0.25 U	0.52 U		31.0 B	0.70 J	40.2		1.5 H	7.4	4.4	
RW01	10/9/97	N		1 U																									
RW01	4/23/01	N		0.1 U												5.3 U	0.5 U	5 U	5 U										
RW01	9/11/01	N		0.071 J												0.26 U	0.44 U	0.5 U	0.4 U	1.2 U									
RW01	9/28/01	N		0.1 U																									
RW01	9/28/01	N2		0.05 U																									
RW01	5/14/02	N		0.23												5 U	1 U	5 U	2 J	2 J									
RW01	8/6/02	N		0.04												5 U	1 U	5 U	5 U	5 U									
RW01	4/29/03	N		0.1 J												7.1 U	0.5 U	5 U	5 U	5 U									
RW01	9/23/03	N		0.28												0.97 U	0.25 U	2.5 U	2.5 U	2.5 U									
RW01	11/20/03	N		0.24																									
RW01	5/4/04	FD		0.134 UB												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW01	5/4/04	N		0.140 UB												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW01	9/22/04	FD		1.51												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW01	9/22/04	N		0.201												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW01	11/1/04	N		0.0952 U																									
RW01	5/10/05	FD		0.053 J												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	5/10/05	N		0.068 J												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	7/7/05	FD		0.035 J												0.96 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	7/7/05	N		0.043 J												0.95 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	9/27/05	FD		0.049 J												0.93 UJ	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	9/27/05	N		0.050 J												0.92 UJ	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	5/31/06	FD		0.055 J												0.94 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	5/31/06	N		0.048 J												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	9/25/06	FD		0.023 J												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	9/25/06	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW01	5/9/07	FD		0.048 J												0.95 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW01	5/9/07	N		0.035 J												0.95 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW01	9/18/07	FD		0.27 R												0.93 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW01	9/18/07	N		0.093 UJ												0.93 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW01	5/20/08	FD		0.066 J												0.95 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ									
RW01	5/20/08	N		0.060 J												0.95 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ									
RW01	10/23/08	FD														1 U													
RW01	10/23/08	N														1 U													
RW01	12/11/08	FD		0.1 U													0.1 U	0.4 U	0.4 U	1.0 U									
RW01	12/11/08	N		0.1 UJ													0.1 U	0.4 U	0.4 U	1.0 U									
RW01	6/2/09	FD		0.1 UJ												1.0 UJ	0.5 UB	2.0 UB	2.0 UB	5.0 UB									
RW01	6/2/09	N		0.1 UJ												1.0 UJ	0.5 UB	2.0 UB	2.0 UB	5.0 U									
RW01	7/6/09	FD															0.5 U	2.0 U	2.0 U	5.0 U									
RW01	7/6/09	N															0.5 U	2.0 U	2.0 U	5.0 U									
RW01	10/7/09	FD		0.1 UJ												0.997 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
RW01	10/7/09	N		0.1 UJ												1 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
RW01	5/19/10	FD		0.1 U												1.0 U	0.4 U	5 U	5 U	5 U									
RW01	5/19/10	N		0.1 U												1.0 U	0.4 UJ	5 UJ	5 UJ	5 UJ									
RW01	10/5/10	FD		0.1 U												1.0 U	0.1 U	0.4 U	0.4 U	1 U									
RW01	10/5/10	N		0.1 U												1.0 U	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
RW01	11/30/10	N															0.1 U	0.4 U	0.4 U	1 U									
RW01	6/30/11	FD		0.1 U												1 U	0.1 U	0.4 U	0.4 U	1 U									

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
RW01	6/30/11	N		0.1 U												0.997 U	0.1 U	0.4 U	0.4 U	1 U									
RW01	10/20/11	FD		0.039 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	10/20/11	N		0.040 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	12/16/11	FD		0.031 R																									
RW01	12/16/11	N		0.096 UJ																									
RW01	5/23/12	FD		0.017 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	5/23/12	N		0.019 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	7/11/12	FD		0.035 J																									
RW01	7/11/12	FD2		0.033 J																									
RW01	7/11/12	N		0.027 J																									
RW01	10/17/12	FD		0.035 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	10/17/12	N		0.045 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	12/3/12	FD		0.094 UJ																									
RW01	12/3/12	FD2		0.095 U																									
RW01	12/3/12	N		0.094 UJ																									
RW01	12/3/12	N2		0.095 U																									
RW01	5/21/13	FD		0.029 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	5/21/13	N		0.031 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	10/8/13	N		0.040 J												0.20 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	10/8/13	N2		0.097 U												0.20 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW01	5/13/14	N		0.051 J																									
RW01	9/25/14	N		0.043 J												0.060 U	0.24 U	0.23 U	0.22 U	0.43 U									
RW01	4/21/15	N		0.015 U												0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW01	10/15/15	N		0 U											0.015 U	0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW02	10/9/97	FD		2																									
RW02	10/9/97	N		0.9 J																									
RW02	10/24/97	N		1 U																									
RW02	4/8/98	N		1 U																									
RW02	4/24/01	N		0.1 U												5.4 U	0.1 U	1 U	1 U	1 U									
RW02	9/11/01	N		9.5												0.25 U	0.44 U	0.5 U	0.4 U	1.2 U									
RW02	9/28/01	N		0.1 U																									
RW02	9/28/01	N2		0.1 U																									
RW02	9/28/01	N3		0.05 U																									
RW02	9/28/01	N4		0.05 U																									
RW02	5/14/02	N		0.1												5 U	1 U	5 U	5 U	5 U									
RW02	8/6/02	N		0.04 U												5 U	1 U	5 U	5 U	5 U									
RW02	8/6/02	N2		0.04 U												5 U	1 U	5 U	5 U	5 U									
RW02	4/29/03	N		0.11 U												6.8 U	0.5 U	5 U	5 U	5 U									
RW02	9/24/03	N		0.11 U												0.97 U	0.25 U	2.5 U	2.5 U	2.5 U									
RW02	9/24/03	N2		0.11 U												0.96 U	0.25 U	2.5 U	2.5 U	2.5 U									
RW02	5/4/04	N		0.0252 UB												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW02	9/22/04	N		0.398												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW02	11/1/04	N		0.0962 U																									
RW02	5/10/05	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW02	9/27/05	N		0.11 U												0.92 UJ	0.50 U	5.0 U	5.0 U	5.0 U									
RW02	5/31/06	N		0.11 UJ												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW02	9/25/06	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW02	5/9/07	N		0.092 UJ												0.97 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW02	9/18/07	N		0.093 UJ												0.93 R	1.0 U	1.0 U	1.0 U	2.0 U									

Appendix A.1

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
RW02	5/20/08	N		0.095 UJ												0.95 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ									
RW02	10/23/08	N														1.33 U													
RW02	12/10/08	N		0.1 U													0.1 U	0.4 U	0.4 U	1.0 U									
RW02	6/2/09	N		0.1 UJ												1.0 UJ	0.5 U	2.0 U	2.0 U	5.0 U									
RW02	10/7/09	N		0.1 UJ												0.997 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
RW02	5/19/10	N		0.1 U												1.0 U	0.4 U	5 U	5 U	5 U									
RW02	10/5/10	N		0.1 U												1.0 U	0.1 U	0.4 U	0.4 U	1 U									
RW02	6/30/11	N		0.1 U												0.999 U	0.1 U	0.4 U	0.4 U	1 U									
RW02	10/20/11	N		0.095 U												0.20 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW02	5/23/12	N		0.097 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW02	10/17/12	N		0.037 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW02	10/17/12	N2		0.057 J																									
RW02	10/17/12	N3		0.094 UJ																									
RW02	12/3/12	N		0.095 U																									
RW02	12/3/12	N2		0.094 UJ																									
RW02	5/21/13	N		0.097 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW02	10/8/13	N		0.094 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW02	5/13/14	N		0.095 U																									
RW02	9/25/14	N		0.015 U												0.060 U	0.24 U	0.23 U	0.22 U	0.43 U									
RW02	4/21/15	N		0.015 U												0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW02	10/15/15	N		0 U											0.015 U	0.061 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW03	10/9/97	N		1 U																									
RW03	9/11/01	N		0.1 J												0.28 U	0.44 U	0.5 U	0.4 U	1.2 U									
RW03	9/28/01	N		0.1 U																									
RW03	9/28/01	N2		0.05 U																									
RW03	5/14/02	N		0.094 J												5 U	1 U	5 U	5 U	5 U									
RW03	8/6/02	N		0.04 U												5 U	1 U	5 U	5 U	5 U									
RW03	4/29/03	N		0.11 U												6.8 U	0.5 U	5 U	5 U	5 U									
RW03	9/23/03	N		0.11 U												0.96 U	0.25 U	2.5 U	2.5 U	2.5 U									
RW03	5/4/04	N		0.0952 U												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW03	9/22/04	N		2.18												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW03	11/1/04	N		0.0962 U																									
RW03	5/10/05	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW03	9/27/05	N		0.11 U												0.93 UJ	0.50 U	5.0 U	5.0 U	5.0 U									
RW03	5/31/06	N		0.11 UJ												0.94 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW03	9/25/06	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW03	5/9/07,	N		0.092 UJ												0.95 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW03	9/18/07	N		0.093 UJ												0.93 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW03	5/20/08	N		0.097 UJ												0.96 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ									
RW03	10/23/08	N														1 U													
RW03	12/10/08	N		0.1 U													0.1 U	0.4 U	0.4 U	1.0 U									
RW03	6/2/09	N		0.1 UJ												1.0 UJ	0.5 U	2.0 U	2.0 U	5.0 U									
RW03	10/7/09	N		0.1 UJ												0.997 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
RW03	5/19/10	N		0.1 U												1.0 U	0.4 UJ	5 UJ	5 UJ	5 UJ									
RW03	10/5/10	N		0.1 U												1.0 U	0.1 U	0.4 U	0.4 U	1 U									
RW03	6/30/11	N		0.1 U												0.994 U	0.1 U	0.4 U	0.4 U	1 U									
RW03	10/20/11	N		0.095 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW03	5/23/12	N		0.097 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW03	10/17/12	N		0.015 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound [1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
RW03	12/3/12	N		0.095 U																									
RW03	12/3/12	N2		0.095 UJ																									
RW03	5/21/13	N		0.053 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW03	10/8/13	N		0.096 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW03	5/13/14	N		0.095 U																									
RW03	9/25/14	FD		0.015 U												0.060 U	0.24 U	0.23 U	0.22 U	0.43 U									
RW03	9/25/14	N		0.015 U												0.060 U	0.24 U	0.23 U	0.22 U	0.43 U									
RW03	4/21/15	N		0.015 U												0.063 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW03	10/15/15	N		0 U											0.015 U	0.061 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW04	10/9/97	N		1 U																									
RW04	4/23/01	N		0.1 U												5 U	0.5 U	5 U	5 U										
RW04	9/11/01	N		0.073 J												0.25 U	0.44 U	0.5 U	0.4 U	1.2 U									
RW04	9/28/01	N		0.1 U																									
RW04	9/28/01	N2		0.05 U																									
RW04	5/14/02	N		0.13												5 U	1 U	5 U	5 U	5 U									
RW04	8/6/02	N		0.04 U												5 U	1 U	5 U	5 U	5 U									
RW04	4/29/03	N		0.11 U												7.4 U	0.5 U	5 U	5 U	5 U									
RW04	9/23/03	N		0.11 U												0.99 U	0.25 U	2.5 U	2.5 U	2.5 U									
RW04	5/4/04	N		0.100 U												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW04	9/22/04	N		0.266												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW04	10/1/04	N		0.0962 R																									
RW04	5/10/05	N		0.11 U												0.94 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW04	9/27/05	N		0.11 U												0.91 UJ	0.50 U	5.0 U	5.0 U	5.0 U									
RW04	5/31/06	N		0.11 UJ												0.97 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW04	9/25/06	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW04	5/9/07	N		0.093 UJ												0.96 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW04	9/18/07	N		0.093 UJ												0.93 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW04	5/20/08	N		0.093 UJ												0.96 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ									
RW04	10/23/08	N														1 U													
RW04	12/10/08	N		0.1 U													0.1 U	0.4 U	0.4 U	1.0 U									
RW04	6/2/09	N		0.1 UJ												1.0 UJ	0.5 U	2.0 U	2.0 U	5.0 U									
RW04	10/7/09	N		0.15 J												0.994 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
RW04	10/20/09	N		0.1 UJ																									
RW04	5/19/10	N		0.1 U												1.0 U	0.4 UJ	5 UJ	5 UJ	5 UJ									
RW04	10/5/10	N		0.1 U												1.0 U	0.1 U	0.4 U	0.4 U	1 U									
RW04	6/30/11	N		0.1 U												0.992 U	0.1 U	0.4 U	0.4 U	1 U									
RW04	10/20/11	N		0.095 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW04	5/23/12	N		0.094 U												0.20 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW04	10/17/12	N		0.071 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW04	12/3/12	N		0.095 U																									
RW04	12/3/12	N2		0.094 UJ																									
RW04	5/21/13	N		0.094 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW04	10/8/13	N		0.095 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW04	5/13/14	N		0.023 J																									
RW04	9/25/14	N		0.015 U												0.060 U	0.24 U	0.23 U	0.22 U	0.43 U									
RW04	4/21/15	N		0.015 U												0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW04	10/15/15	N		0 U											0.015 U	0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW05	5/4/04	N		0.0935 U												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									
RW05	9/22/04	N		0.293												5.00 U	0.500 U	5.00 U	5.00 U	5.00 U									

Historical Groundwater Analytical Data
Penta Wood Products Superfund Site
Siren, Wisconsin

Location	Date[2]	Compound[1] / Units / Type[3]	Methane ug/L	Arsenic (dissolved) ug/L	Arsenic ug/L	Copper (dissolved) ug/L	Copper ug/L	Iron (dissolved) ug/L	Iron ug/L	Magnesium ug/L	Manganese (dissolved) ug/L	Manganese ug/L	Zinc (dissolved) ug/L	Zinc ug/L	Pentachlorophenol ug/L	Naphthalene ug/L	Benzene ug/L	Ethylbenzene ug/L	Toluene ug/L	Xylenes (total) ug/L	Alkalinity, hydroxide (as CACO3) mg/l	Alkalinity, total (as CaCO3) mg/l	Chloride mg/l	Hardness, carbonate mg/l	Hardness mg/l	Nitrate (as N) mg/l	Sulfate mg/l	TOC averages mg/l	Total organic carbon (TOC) mg/l
RW05	11/1/04	N		0.0962 U																									
RW05	5/10/05	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW05	9/27/05	N		0.11 U												0.92 UJ	0.50 U	5.0 U	5.0 U	5.0 U									
RW05	5/31/06	N		0.11 UJ												0.94 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW05	9/25/06	N		0.11 U												0.93 U	0.50 U	5.0 U	5.0 U	5.0 U									
RW05	5/9/07	N		0.092 UJ												0.93 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW05	9/18/07	N		0.093 UJ												1.0 R	1.0 U	1.0 U	1.0 U	2.0 U									
RW05	5/20/08	N		0.095 UJ												0.95 U	1.0 UJ	1.0 U	1.0 U	2.0 UJ									
RW05	10/23/08	N														1 U													
RW05	12/10/08	N		0.1 U													0.1 U	0.4 U	0.4 U	1.0 U									
RW05	6/2/09	N		0.1 UJ												1.0 UJ	0.5 U	2.0 U	2.0 U	5.0 U									
RW05	10/7/09	N		0.1 UJ												0.997 UJ	0.1 UJ	0.4 UJ	0.4 UJ	1 UJ									
RW05	5/19/10	N		0.1 U												1.0 U	0.4 U	5 U	5 U	5 U									
RW05	10/5/10	N		0.1 U												1.0 U	0.1 U	0.4 U	0.4 U	1 U									
RW05	6/30/11	N		0.1 U												0.991 U	0.1 U	0.4 U	0.4 U	1 U									
RW05	10/20/11	N		0.095 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW05	5/23/12	N		0.095 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW05	10/17/12	N		0.030 J												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW05	12/4/12	N		0.095 UJ																									
RW05	12/4/12	N2		0.095 U																									
RW05	5/21/13	N		0.095 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW05	10/8/13	N		0.098 U												0.19 U	0.50 U	1.0 U	1.0 U	2.0 U									
RW05	5/13/14	N		0.095 U																									
RW05	9/25/14	N		0.015 U												0.060 U	0.24 U	0.23 U	0.22 U	0.43 U									
RW05	4/21/15	N		0.015 U												0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW05	10/15/15	N		0 U											0.016 U	0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW06	9/25/14	N		0.015 U												0.060 U	0.24 U	0.23 U	0.22 U	0.43 U									
RW06	4/21/15	N		0.015 U												0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									
RW06	10/15/15	N		0.018 J											0.018 J	0.060 U	0.35 U	0.25 U	0.23 U	0.52 U									

Appendix A.1

Historical Groundwater Sampling Results
Penta Wood Products Superfund Site
Siren, Wisconsin

Notes:

[1] Only compounds currently analyzed are included on this table.
[2] Samples collected before September 2014 were not collected by GHD. GHD has no ability to verify data or data qualifiers.
[3] Sample type is listed for normal samples (N) and field duplicates (FD), numbers differentiate from multiple samples of similar sample type during the same sampling event.
mg/l Concentrations listed with units of milligrams per liter.
ug/L Concentrations listed with units of micrograms per liter.
* LCS or LCSD exceeds the control limits.
B Compound was detected in the method blank.
F1 MS and/or MSD Recovery exceeds the control limits
H Analysis was performed after holding time.
J Concentration was estimated below the reporting limit.
p The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U Compound was not detected above the reporting limit.
UJ Compound was not detected above the estimated reporting limit.

Appendix A.2

Historical LNAPL Thickness - Monitoring Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

	Monitoring Well LNAPL Thickness (feet)			
Date	MW10S	MW18	MW19	MW20
Sep-01	0.01	0.27	0.51	0.11
May-02	0.00	0.29	0.23	0.00
Aug-02	0.00	0.33	0.22	0.00
May-03	0.00	0.00	0.00	0.00
Sep-03	0.00	0.32	0.24	0.04
May-04	0.00	0.45	0.36	0.35
Sep-04	0.21	0.54	0.67	0.52
May-05	0.29	0.48	0.63	0.36
Sep-05	0.87	0.06	0.83	1.15
May-06	0.00	0.00	0.29	0.00
Sep-06	0.00	0.05	0.80	0.69
Apr-07	0.58	0.04	0.74	1.22
May-07	0.58	0.03	0.54	1.20
Sep-07	0.04	0.16	1.07	0.00
May-08	0.40	1.19	0.90	1.71
Oct-08	0.14	0.04	0.00	0.00
Jun-09	0.54	1.58	1.60	1.45
Oct-09	0.63	1.92	1.46	1.02
May-10	0.51	2.01	1.10	0.85
Oct-10	0.00	0.57	0.59	0.00
Jun-11	0.00	0.42	0.79	0.00
Oct-11	0.00	0.53	1.07	0.00
May-12	0.69	0.79	0.80	2.17
Aug-12	0.04	0.43	0.89	0.30
Oct-12	0.00	0.45	0.91	0.88
Dec-12	0.02	0.44	1.06	0.95
May-13	0.17	0.53	0.94	1.08
Oct-13	0.00	0.70	1.25	0.81
May-14	0.00	0.79	0.22	0.22
Sep-14	0.00	0.56	0.30	0.00
2/13/15	0.00	0.56	0.24	0.00
2/20/15	0.00	0.53	0.23	0.00
3/24/15	0.00	0.34	0.52	0.00
4/16/15	0.00	0.58	NM	0.00
5/14/15	0.00	0.57	NM	0.00
10/12/15	0.00	0.42	0.07	0.01

Notes:

NM - Not Measured

Appendix A.3

Historical Groundwater Extraction Summary
Penta Wood Products Superfund Site
Siren, Wisconsin

Operation Period	Volume of Groundwater Extracted (gallons)
09/27/00 to 12/18/00	11,712,960
02/02/01 to 02/08/01	691,200
03/16/01 to 06/10/01	9,288,000
06/15/01 to 09/27/01	6,822,720
02/27/04 to 12/31/04	18,548,154
01/01/05 to 12/31/05	21,374,796
01/01/06 to 12/31/06	14,759,392
01/01/07 to 12/31/07	16,551,336
01/01/08 to 12/31/08	18,118,696
01/01/09 to 12/31/09	18,533,648
01/01/10 to 12/31/10	18,561,632
01/01/11 to 12/31/11	17,796,668
01/01/12 to 12/31/12	23,051,892
01/01/13 to 12/31/13	29,793,563
01/01/14 to 12/31/14	18,415,098
01/01/15 to 06/30/15	6,282,127
07/01/15 to 11/23/15	5,125,729
01/05/16 to 01/08/16	12,458
Total Gallons Extracted	255,440,069

Appendix A.4

Historical Influent Pentachlorophenol Concentrations
Penta Wood Products Superfund Site
Siren, Wisconsin

Date	Influent PCP Concentration (ug/L)
02/27/2004 to 12/31/2004*	9,227
01/01/2005 to 12/31/2005*	7,300
01/01/2006 to 12/31/2006*	6,425
01/01/2007 to 12/31/2007*	3,557
01/01/2008 to 12/31/2008*	3,255
March 2009	3,560
July 2009	3,140
September 2009	2,800
December 2009	2,030
March 2010	2050 J
June 2010	1,970
September 2010	1,830
December 2010	1,940
March 2011	2,470
June 2011	2,170
August 2011	1,700
October 2011	1,600
February 2012	2,600
May 2012	2,200
July 2012	1,900
October 2012	1,800
February 2013	1,100
May 2013	1,100
July 2013	1,800
October 2013	1,400
February 2014	1,800
May 2014	1,600
August 2014	2,100
September 2014	2,400
October 2014	2,400
November 2014	2,100
December 2014	4,600
January 2015	1,800
February 2015	480
March 2015	390
April 2015*	1,767
May 2015*	355
June 2015	550
July 2015*	1,100
August 2015	370
September 2015	750
October 2015	600
November 2015	1,100
January 2016	35

Note:

* Average PCP influent concentration for that time period.

Appendix A.5

Historical Hazardous Waste Generation Summary
Penta Wood Products Superfund Site
Siren, Wisconsin

Date	Filter Cake (lb)	Misc. Debris (lb)	Carbon (lb)	LNAPL (lb)	Water (gallons)	Yearly Total (lb)
2000	0	200	6,000	5,009*	0	11,209
2001	0	400	56,100	6,166*	0	62,666
2002	0	1,400	48,000	10,790*	27,756	87,946
2003	0	600	0	3,083*	1,376	5,059
2004	155,960	3,200	102,000	53,522*	0	314,682
2005	178,784	1,290	104,860	23,847*	0	308,924
2006	112,640	1,200	136,520	52,892*	0	303,252
2007	174,020	2,200	245,377	77,615*	0	517,387
2008	211,402	3,176	70,007	28,036	0	312,621
2009	233,840	1,116	49,757	35,659	0	320,372
2010	210,940	0	81,227	34,937	0	327,104
2011	292,903	0	74,247	0	0	367,150
2012	182,280	0	65,420	25,493	0	273,193
2013	156,760	0	46,571	27,252	0	230,582
2014	110,754	13,513	65,995	11,720	0	201,982
2015	0	0	22,248	0	0	22,248
2016	0	15,212†	34,877	14,374	0	49,251

Note:

* - Volume shows the amount of waste disposed offsite and is estimated to be approximately 50 percent pure LNAPL and 50 percent mixture of water and emulsified LNAPL.

† - Miscellaneous debris includes sludge and debris from system decommissioning and drill cuttings from drilling and well installation.

lb - pounds

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW02	2/18/2015	97.51	NP	0.00	NA	Groundwater extraction rate increased to 10 gpm
EW02	2/20/2015	97.52	NP	0.00	NA	
EW02	2/24/2015	97.59	NP	0.00	NA	
EW02	3/10/2015	97.67	NP	0.00	NA	
EW02	3/24/2015	97.76	NP	0.00	NA	
EW02	4/10/2015	97.79	NP	0.00	NA	
EW02	4/16/2015	97.76	NP	0.00	NA	
EW02	5/8/2015	97.77	NP	0.00	NA	Groundwater extraction rate increased to 12 gpm on 4/30/2015
EW02	5/21/2015	97.89	NP	0.00	NA	
EW02	6/3/2015	97.92	NP	0.00	NA	
EW02	6/16/2015	97.99	NP	0.00	NA	
EW02	7/8/2015	98.12	NP	0.00	NA	
EW02	7/21/2015	98.11	NP	0.00	NA	
EW02	7/29/2015	98.11	NP	0.00	NA	Groundwater extraction rate increased to 13.5 gpm
EW02	8/5/2015	98.18	NP	0.00	NA	
EW02	8/19/2015	98.11	NP	0.00	NA	
EW02	9/4/2015	97.83	NP	0.00	NA	
EW02	9/21/2015	97.76	NP	0.00	NA	
EW02	10/8/2015	97.72	NP	0.00	NA	
EW02	10/22/2015	97.64	NP	0.00	NA	
EW02	11/2/2015	97.58	NP	0.00	NA	
EW02	11/23/2015	NM	NM	NM	NA	Groundwater extraction pump turned off for pilot study
				Total LNAPL Recovered	0.0	

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW04	11/4/2014	114.30	NP	0.00	NA	
EW04	12/11/2014	115.39	NP	0.00	NA	
EW04	12/23/2014	115.34	NP	0.00	NA	Groundwater extraction system shutdown pending carbon change-out
EW04	12/30/2014	115.26	NP	0.00	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW04	1/8/2015	115.22	NP	0.00	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW04	1/19/2015	115.23	NP	0.00	NA	Groundwater extraction system restarted after carbon change-out
EW04	1/22/2015	115.36	NP	0.00	NA	
EW04	1/30/2015	115.47	NP	0.00	NA	
EW04	2/3/2015	115.48	NP	0.00	NA	
EW04	2/13/2015	115.51	NP	0.00	NA	
EW04	2/17/2015	115.48	NP	0.00	NA	Groundwater extraction rate increased to 10 gpm
EW04	2/18/2015	115.51	NP	0.00	NA	
EW04	2/20/2015	115.43	NP	0.00	NA	
EW04	2/24/2015	115.53	NP	0.00	NA	
EW04	3/10/2015	115.58	NP	0.00	NA	
EW04	3/24/2015	115.67	NP	0.00	NA	
EW04	4/10/2015	115.69	NP	0.00	NA	
EW04	4/16/2015	115.69	NP	0.00	NA	
EW04	5/8/2015	115.69	NP	0.00	NA	Groundwater extraction rate increased to 12 gpm on 4/30/2015
EW04	5/21/2015	115.74	NP	0.00	NA	
EW04	6/3/2015	115.75	NP	0.00	NA	
EW04	6/16/2015	115.82	NP	0.00	NA	
EW04	7/8/2015	115.93	NP	0.00	NA	
EW04	7/21/2015	115.92	NP	0.00	NA	
EW04	7/29/2015	115.91	NP	0.00	NA	Groundwater extraction rate increased to 13.5 gpm
EW04	8/5/2015	115.97	NP	0.00	NA	
EW04	8/19/2015	115.95	NP	0.00	NA	
EW04	9/4/2015	115.78	NP	0.00	NA	
EW04	9/21/2015	115.61	NP	0.00	NA	
EW04	10/8/2015	115.58	NP	0.00	NA	
EW04	10/22/2015	115.58	NP	0.00	NA	
EW04	11/2/2015	115.45	NP	0.00	NA	
EW04	11/23/2015	NM	NM	NM	NA	Groundwater extraction pump turned off for pilot study
				Total LNAPL Recovered	0.0	

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW05	11/4/2014	83.35	83.25	0.10	NA	
EW05	11/6/2014	NM	NM	NM	<0.1	
EW05	11/7/2014	91.51	91.44	0.07	NA	
EW05	11/11/2014	91.75	91.56	0.19	NA	
EW05	11/12/2014	91.65	91.48	0.17	NA	Temporary system shutdown due to alarm condition
EW05	11/17/2014	91.64	91.51	0.13	NA	
EW05	12/1/2014	91.58	91.46	0.12	NA	
EW05	12/8/2014	91.55	91.51	0.04	NA	
EW05	12/11/2014	91.65	91.52	0.13	NA	
EW05	12/23/2014	91.40	91.39	0.01	NA	Groundwater extraction system shutdown pending carbon change-out
EW05	12/30/2014	91.37	91.36	0.01	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW05	1/8/2015	91.31	NP	0.00	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW05	1/19/2015	91.32	NP	0.00	NA	Groundwater extraction system restarted after carbon change-out
EW05	1/22/2015	91.95	91.45	0.50	NA	
EW05	1/30/2015	92.00	91.49	0.51	0.1	Measurements recorded prior to LNAPL removal
EW05	2/3/2015	92.17	91.54	0.63	NA	
EW05	2/13/2015	92.14	91.54	0.60	NA	Groundwater extraction pump turned off
EW05	2/17/2015	91.72	91.49	0.23	NA	
EW05	2/20/2015	91.96	91.54	0.42	NA	
EW05	2/24/2015	91.91	91.56	0.35	NA	
EW05	2/27/2015	NM	NM	NM	0.3	Measurements recorded prior to LNAPL removal
EW05	3/10/2015	92.30	91.58	0.72	0.1	Measurements recorded prior to LNAPL removal
EW05	3/26/2015	92.42	91.62	0.80	NA	
EW05	3/31/2015	NM	NM	NM	0.5	
EW05	4/10/2015	92.50	91.71	0.79	NA	
EW05	4/16/2015	92.51	91.69	0.82	NA	
EW05	4/27/2015	NM	NM	NM	1.0	
EW05	5/8/2015	92.03	91.70	0.33	NA	
EW05	5/21/2015	92.34	91.76	0.58	1.0	
EW05	6/3/2015	92.29	91.79	0.50	0.4	
EW05	6/16/2015	92.40	91.86	0.54	0.3	
EW05	7/8/2015	92.34	91.95	0.39	NA	
EW05	7/10/2015	NM	NM	NM	0.5	
EW05	7/21/2015	92.58	91.93	0.65	NA	
EW05	7/23/2015	NM	NM	NM	0.5	
EW05	7/29/2015	92.69	91.96	0.73	NA	
EW05	8/5/2015	92.60	92.04	0.56	NA	
EW05	8/7/2015	NM	NM	NM	0.3	
EW05	8/19/2015	92.45	91.94	0.51	NA	
EW05	8/21/2015	NM	NM	NM	0.3	
EW05	9/4/2015	92.02	91.82	0.20	NA	
EW05	9/11/2015	NM	NM	NM	<0.1	
EW05	9/21/2015	91.67	91.66	0.01	NA	
EW05	10/8/2015	91.87	91.67	0.20	NA	
EW05	10/22/2015	91.66	91.65	0.01	NA	
EW05	11/2/2015	91.51	91.50	0.01	NA	
				Total LNAPL Recovered	5.5	

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW06	11/5/2014	111.22	98.06	13.16	12.0	
EW06	11/12/2014	107.80	98.30	9.50	NA	Temporary system shutdown due to alarm condition
EW06	11/17/2014	110.34	98.52	11.82	NA	
EW06	11/24/2014	111.05	98.45	12.60	10.0	
EW06	11/25/2014	105.63	98.55	7.08	NA	
EW06	12/1/2014	108.60	98.53	10.07	NA	
EW06	12/4/2014	109.35	98.48	10.87	NA	
EW06	12/8/2014	101.90	97.89	4.01	NA	
EW06	12/11/2014	111.91	98.01	13.90	NA	Measurements recorded prior to LNAPL removal
EW06	12/11/2014	100.35	98.40	1.95	12.0	Measurements recorded immediately after LNAPL removal
EW06	12/15/2014	108.40	98.01	10.39	NA	
EW06	12/23/2014	109.35	98.01	11.34	NA	Measurements recorded prior to LNAPL removal
EW06	12/23/2014	99.50	98.35	1.15	13.0	Measurements recorded immediately after LNAPL removal, groundwater extraction system shutdown pending carbon change-out
EW06	12/30/2014	98.59	97.83	0.76	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW06	1/8/2015	99.00	97.92	1.08	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW06	1/19/2015	99.54	97.80	1.74	NA	Groundwater extraction system restarted after carbon change-out
EW06	1/22/2015	111.10	98.18	12.92	NA	
EW06	1/23/2015	98.90	98.50	0.40	12.0	Measurements recorded immediately after LNAPL removal
EW06	1/30/2015	109.35	98.22	11.13	NA	
EW06	2/3/2015	112.61	98.22	14.39	12.0	Measurements recorded prior to LNAPL removal
EW06	2/13/2015	112.44	98.22	14.22	14.0	Groundwater extraction pump turned off
EW06	2/17/2015	101.95	98.12	3.83	NA	
EW06	2/20/2015	105.20	98.18	7.02	NA	
EW06	2/24/2015	105.37	98.02	7.35	8.0	Measurements recorded prior to LNAPL removal
EW06	3/10/2015	108.36	98.22	10.14	8.0	Measurements recorded prior to LNAPL removal
EW06	3/24/2015	NM	NM	NM	8.0	Not measured due to equipment breakdown
EW06	3/26/2015	105.87	98.21	7.66	NA	
EW06	4/10/2015	105.55	98.39	7.16	10.0	
EW06	4/16/2015	106.02	98.36	7.66	10.0	
EW06	4/30/2015	106.33	98.47	7.86	8.0	Groundwater extraction rate increased to 6 gpm
EW06	5/8/2015	100.72	98.32	2.40	4.0	
EW06	5/21/2015	106.84	98.27	8.57	10.0	
EW06	6/3/2015	106.55	98.41	8.14	NA	
EW06	6/4/2015	NM	NM	NM	10.0	
EW06	6/16/2015	105.85	98.49	7.36	7.0	
EW06	7/8/2015	107.10	98.42	8.68	20.0	
EW06	7/10/2015	107.10	98.60	8.50	17.0	
EW06	7/21/2015	107.90	98.54	9.36	17.0	
EW06	7/29/2015	105.87	98.59	7.28	NA	Groundwater extraction rate decreased to 3 gpm
EW06	8/5/2015	105.98	98.65	7.33	14.0	
EW06	8/7/2015	NM	NM	NM	14.0	
EW06	8/19/2015	103.95	98.51	5.44	10.0	
EW06	9/4/2015	105.31	98.31	7.00	10.0	
EW06	9/21/2015	104.49	98.28	6.21	10.0	
EW06	10/8/2015	100.38	98.25	2.13	5.0	
EW06	10/22/2015	105.54	98.23	7.31	8.0	
EW06	11/2/2015	105.15	98.05	7.10	NA	
EW06	11/5/2015	NM	NM	NM	8.0	
EW06	11/23/2015	NM	NM	NM	NA	Groundwater extraction pump turned off for pilot study
			Total LNAPL Recovered		301.0	

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW10	11/4/2014	108.20	103.92	4.28	NA	
EW10	11/5/2014	108.77	104.70	4.07	4.0	
EW10	11/18/2014	107.60	104.35	3.25	NA	
EW10	11/24/2014	107.45	103.94	3.51	0.0	LNAPL pump inoperable, unable to recover LNAPL
EW10	11/25/2014	107.50	103.91	3.59	NA	
EW10	12/1/2014	107.30	104.14	3.16	NA	
EW10	12/4/2014	107.33	104.11	3.22	NA	Measurements recorded prior to LNAPL removal
EW10	12/4/2014	105.35	104.05	1.30	2.0	Measurements recorded immediately after LNAPL removal
EW10	12/8/2014	104.29	103.17	1.12	NA	
EW10	12/11/2014	106.95	104.05	2.90	NA	Measurements recorded prior to LNAPL removal
EW10	12/11/2014	105.46	104.12	1.34	2.0	Measurements recorded immediately after LNAPL removal
EW10	12/15/2014	106.68	104.00	2.68	NA	
EW10	12/23/2014	107.25	103.91	3.34	NA	Measurements recorded prior to LNAPL removal
EW10	12/23/2014	104.75	104.06	0.69	4.0	Measurements recorded immediately after LNAPL removal, groundwater extraction system shutdown pending carbon change-out
EW10	12/30/2014	104.59	103.00	1.59	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW10	1/8/2015	104.55	103.10	1.45	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW10	1/19/2015	104.70	103.00	1.70	NA	Groundwater extraction system restarted after carbon change-out
EW10	1/22/2015	106.38	104.31	2.07	NA	
EW10	1/23/2015	104.40	104.38	0.02	2.0	Measurements recorded immediately after LNAPL removal
EW10	1/30/2015	105.76	104.28	1.48	NA	
EW10	2/3/2015	106.00	104.27	1.73	2.0	Measurements recorded prior to LNAPL removal
EW10	2/13/2015	106.82	104.24	2.58	3.0	Groundwater extraction pump turned off
EW10	2/17/2015	105.80	103.65	2.15	NA	
EW10	2/20/2015	106.40	103.81	2.59	NA	
EW10	2/24/2015	106.85	103.79	3.06	2.0	Measurements recorded prior to LNAPL removal
EW10	3/10/2015	107.80	103.81	3.99	2.0	Measurements recorded prior to LNAPL removal
EW10	3/24/2015	108.21	103.84	4.37	2.0	Measurements recorded prior to LNAPL removal
EW10	4/10/2015	108.96	103.86	5.10	3.0	
EW10	4/16/2015	108.18	103.90	4.28	2.0	
EW10	4/30/2015	107.81	103.84	3.97	2.0	
EW10	5/8/2015	106.84	103.46	3.38	2.5	
EW10	5/21/2015	107.46	103.62	3.84	2.5	
EW10	6/3/2015	107.51	103.60	3.91	NA	
EW10	6/4/2015	NM	NM	NM	2.5	
EW10	6/16/2015	108.20	103.85	4.35	2.0	
EW10	7/8/2015	108.53	103.96	4.57	3.0	
EW10	7/10/2015	107.85	103.97	3.88	NA	
EW10	7/21/2015	108.48	103.96	4.52	3.0	
EW10	7/29/2015	108.10	104.00	4.10	NA	
EW10	8/5/2015	108.85	104.00	4.85	2.5	
EW10	8/19/2015	108.57	103.74	4.83	3.0	
EW10	9/4/2015	108.91	103.60	5.31	3.0	
EW10	9/21/2015	108.35	103.62	4.73	3.0	
EW10	10/8/2015	107.72	103.33	4.39	2.5	
EW10	10/22/2015	109.10	103.56	5.54	3.0	
EW10	11/2/2015	109.50	103.27	6.23	NA	
EW10	11/5/2015	NM	NM	NM	3.0	
				Total LNAPL Recovered	67.5	

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW12	11/4/2014	105.26	105.04	0.22	NA	
EW12	11/6/2014	NM	NM	NM	<0.1	
EW12	11/7/2014	108.26	108.15	0.11	NA	
EW12	11/11/2014	108.39	108.22	0.17	NA	
EW12	11/12/2014	101.16	101.14	0.02	NA	Temporary system shutdown due to alarm condition
EW12	11/17/2014	108.00	107.98	0.02	NA	
EW12	12/8/2014	100.99	NP	0.00	NA	
EW12	12/11/2014	108.98	108.97	0.01	NA	
EW12	12/23/2014	109.75	NP	0.00	NA	Groundwater extraction system shutdown pending carbon change-out
EW12	12/30/2014	101.10	100.88	0.22	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW12	1/8/2015	101.20	100.84	0.36	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW12	1/19/2015	101.35	100.85	0.50	NA	Groundwater extraction system restarted after carbon change-out
EW12	1/22/2015	108.16	108.15	0.01	NA	
EW12	1/30/2015	108.96	108.96	0.00	NA	
EW12	2/3/2015	109.13	109.13	0.00	NA	
EW12	2/13/2015	109.98	NP	0.00	NA	Groundwater extraction pump turned off
EW12	2/17/2015	101.56	101.08	0.48	NA	
EW12	2/20/2015	101.90	101.32	0.58	NA	
EW12	2/24/2015	102.01	101.31	0.70	NA	
EW12	2/27/2015	NM	NM	NM	0.1	Measurements recorded prior to LNAPL removal
EW12	3/10/2015	102.35	101.35	1.00	0.1	Measurements recorded prior to LNAPL removal
EW12	3/24/2015	102.45	101.33	1.12	NA	
EW12	3/31/2015	NM	NM	NM	1.0	
EW12	4/10/2015	102.22	101.36	0.86	NA	
EW12	4/16/2015	102.32	101.36	0.96	NA	
EW12	4/27/2015	NM	NM	NM	1.0	
EW12	5/8/2015	101.99	101.19	0.80	NA	
EW12	5/21/2015	102.39	101.40	0.99	1.0	
EW12	6/3/2015	102.34	101.45	0.89	0.4	
EW12	6/16/2015	102.27	101.50	0.77	0.3	
EW12	7/8/2015	102.26	101.54	0.72	NA	
EW12	7/10/2015	NM	NM	NM	0.5	
EW12	7/21/2015	102.10	101.61	0.49	NA	
EW12	7/23/2015	NM	NM	NM	0.5	
EW12	7/29/2015	102.11	101.65	0.46	NA	
EW12	8/5/2015	102.39	101.69	0.70	NA	
EW12	8/7/2015	NM	NM	NM	0.3	
EW12	8/19/2015	101.27	100.45	0.82	NA	
EW12	8/21/2015	NM	NM	NM	0.1	
EW12	9/4/2015	101.87	101.47	0.40	NA	
EW12	9/11/2015	NM	NM	NM	0.3	
EW12	9/21/2015	101.60	101.29	0.31	NA	
EW12	10/1/2015	NM	NM	NM	0.2	
EW12	10/8/2015	101.39	101.15	0.24	NA	
EW12	10/22/2015	101.52	101.23	0.29	NA	
EW12	11/2/2015	101.51	101.18	0.33	NA	
				Total LNAPL Recovered	5.9	

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW13	11/4/2014	111.48	NP	0.00	NA	
EW13	12/11/2014	114.81	NP	0.00	NA	
EW13	12/23/2014	115.11	NP	0.00	NA	Groundwater extraction system shutdown pending carbon change-out
EW13	12/30/2014	107.34	NP	0.00	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW13	1/8/2015	107.27	NP	0.00	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW13	1/19/2015	107.33	NP	0.00	NA	Groundwater extraction system restarted after carbon change-out
EW13	1/22/2015	115.05	NP	0.00	NA	
EW13	1/30/2015	115.49	NP	0.00	NA	
EW13	2/3/2015	115.28	NP	0.00	NA	
EW13	2/13/2015	115.74	NP	0.00	NA	
EW13	2/17/2015	117.05	NP	0.00	NA	Groundwater extraction rate increased to 10 gpm
EW13	2/18/2015	119.19	NP	0.00	NA	
EW13	2/20/2015	119.37	NP	0.00	NA	
EW13	2/24/2015	119.50	NP	0.00	NA	
EW13	3/10/2015	120.13	NP	0.00	NA	
EW13	3/24/2015	116.72	NP	0.00	NA	
EW13	4/10/2015	118.55	NP	0.00	NA	
EW13	4/16/2015	120.92	NP	0.00	NA	
EW13	5/8/2015	107.18	NP	0.00	NA	Groundwater extraction pump turned off on 4/30/2015
EW13	5/21/2015	104.94	NP	0.00	NA	
EW13	6/3/2015	105.88	NP	0.00	NA	
EW13	6/16/2015	106.44	NP	0.00	NA	
EW13	7/8/2015	107.42	NP	0.00	NA	
EW13	7/21/2015	107.70	NP	0.00	NA	
EW13	7/29/2015	107.91	NP	0.00	NA	
EW13	8/5/2015	107.89	NP	0.00	NA	
EW13	8/19/2015	107.80	NP	0.00	NA	
EW13	9/4/2015	107.63	NP	0.00	NA	
EW13	9/21/2015	107.63	NP	0.00	NA	
EW13	10/8/2015	107.49	NP	0.00	NA	
EW13	10/22/2015	107.72	NP	0.00	NA	
EW13	11/2/2015	107.48	NP	0.00	NA	
				Total LNAPL Recovered	0.0	

Table A.6

LNAPL Thickness and Recovery Summary - Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

Well ID	Date	Depth to Water (feet) [1]	Depth to LNAPL (feet) [1]	LNAPL Thickness (feet)	Recovered LNAPL Volume (gallons)	Comments
EW14	11/4/2014	112.55	112.45	0.10	NA	
EW14	11/6/2014	NM	NM	NM	<0.1	
EW14	11/7/2014	112.54	112.49	0.05	NA	
EW14	11/11/2014	112.68	112.60	0.08	NA	
EW14	11/12/2014	112.91	112.87	0.04	NA	Temporary system shutdown due to alarm condition
EW14	11/17/2014	111.82	111.55	0.27	NA	
EW14	12/8/2014	112.89	112.85	0.04	NA	
EW14	12/11/2014	113.83	113.75	0.08	NA	
EW14	12/23/2014	113.74	113.65	0.09	NA	Groundwater extraction system shutdown pending carbon change-out
EW14	12/30/2014	112.85	112.76	0.09	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW14	1/8/2015	112.77	112.71	0.06	NA	Groundwater extraction system remained shutdown pending carbon change-out
EW14	1/19/2015	112.92	112.78	0.14	NA	Groundwater extraction system restarted after carbon change-out
EW14	1/22/2015	113.80	113.72	0.08	NA	
EW14	1/30/2015	113.79	113.66	0.13	<0.1	
EW14	2/3/2015	113.74	113.65	0.09	NA	
EW14	2/13/2015	113.90	113.68	0.22	NA	
EW14	2/17/2015	113.85	113.79	0.06	NA	Groundwater extraction rate increased to 10 gpm
EW14	2/18/2015	114.29	114.21	0.08	NA	
EW14	2/20/2015	114.26	114.18	0.08	NA	
EW14	2/24/2015	114.25	114.21	0.04	NA	
EW14	3/10/2015	114.36	114.30	0.06	NA	
EW14	3/24/2015	114.41	114.36	0.05	NA	
EW14	3/31/2015	NM	NM	NM	<0.1	
EW14	4/10/2015	114.43	114.42	0.01	NA	
EW14	4/16/2015	114.47	114.44	0.03	NA	
EW14	5/8/2015	113.30	113.14	0.16	NA	Groundwater extraction pump turned off on 4/30/2015
EW14	5/21/2015	113.71	113.49	0.22	NA	
EW14	6/3/2015	113.72	113.50	0.22	0.2	
EW14	6/16/2015	113.71	113.58	0.13	0.1	
EW14	7/8/2015	113.71	113.62	0.09	NA	
EW14	7/21/2015	113.78	113.68	0.10	NA	
EW14	7/29/2015	113.83	113.72	0.11	NA	
EW14	8/5/2015	113.84	113.72	0.12	NA	
EW14	8/7/2015	NM	NM	NM	<0.1	
EW14	8/19/2015	113.80	113.70	0.10	NA	
EW14	9/4/2015	113.68	113.59	0.09	NA	
EW14	9/11/2015	NM	NM	NM	<0.1	
EW14	9/21/2015	113.43	113.38	0.05	NA	
EW14	10/8/2015	113.12	113.06	0.06	NA	
EW14	10/22/2015	113.48	113.39	0.09	NA	
EW14	11/2/2015	113.44	113.32	0.12	NA	
				Total LNAPL Recovered	0.8	
			Total LNAPL Recovered (all wells)		380.7	Since system modification in October 2014; system shutdown and LNAPL recovery terminated in November 2015

Notes:

[1] Depth to water and depth to LNAPL measurements before December 2014 were not consistently recorded from the same benchmark location/elevation. Measurements were consistently recorded from the same benchmark location at the top of the well vault starting in December 2014.

NM - Not measured
NP - LNAPL was not present in a measurable quantity
NA - Not applicable

Appendix B
Water Treatment System Compliance Sample Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-59685-1
Client Project/Site: 86165-03-03, Penta Wood

For:
GHD Services Inc.
1801 Old Highway 8 NW
Suite 114
St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Denise D Heckler

Authorized for release by:
1/19/2016 2:46:53 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Reported value was between the limit of detection and the limit of quantitation.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-59685-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-03-03, Penta Wood

Report Number: 240-59685-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 01/07/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.4 C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample W-160106-PS-ME (240-59685-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 01/08/2016 and analyzed on 01/11/2016.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

WISCONSIN DRO

Sample W-160106-PS-ME (240-59685-1) was analyzed for Wisconsin DRO in accordance with Wisconsin DNR Modified DRO. The samples were prepared on 01/08/2016 and analyzed on 01/18/2016.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

Job ID: 240-59685-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHLORINATED HERBICIDES

Samples W-160106-PS-ME (240-59685-1) and W-160106-PS-MI (240-59685-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 01/08/2016 and analyzed on 01/11/2016 and 01/12/2016.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Sample W-160106-PS-MI (240-59685-2)[40X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8151A	Herbicides (GC)	SW846	TAL PIT
WI-DRO	Wisconsin - Diesel Range Organics (GC)	WI-DRO	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
WI-DRO = "Modified DRO: Method For Determining Diesel Range Organics", Wisconsin DNR, Publ-SW-141, September, 1995.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-59685-1	W-160106-PS-ME	Water	01/06/16 07:45	01/07/16 09:20
240-59685-2	W-160106-PS-MI	Water	01/06/16 08:00	01/07/16 09:20

Detection Summary

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Client Sample ID: W-160106-PS-ME — Lab Sample ID: 240-59685-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.53		0.094	0.015	ug/L	4		8151A	Total/NA
WI Diesel Range Organics (C10-C28)	0.085	J	0.095	0.048	mg/L	1		WI-DRO	Total/NA

Client Sample ID: W-160106-PS-MI — Lab Sample ID: 240-59685-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	35		0.95	0.15	ug/L	40		8151A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: W-160106-PS-ME
Date Collected: 01/06/16 07:45
Date Received: 01/07/16 09:20

Lab Sample ID: 240-59685-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<0.060		0.19	0.060	ug/L		01/08/16 08:48	01/11/16 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*29 - 110*	*01/08/16 08:48*	*01/11/16 12:33*	*1*
2-Fluorophenol (Surr)	*30*		*15 - 110*	*01/08/16 08:48*	*01/11/16 12:33*	*1*
2,4,6-Tribromophenol (Surr)	*63*		*21 - 128*	*01/08/16 08:48*	*01/11/16 12:33*	*1*
Nitrobenzene-d5 (Surr)	*72*		*31 - 110*	*01/08/16 08:48*	*01/11/16 12:33*	*1*
Phenol-d5 (Surr)	*15*		*10 - 110*	*01/08/16 08:48*	*01/11/16 12:33*	*1*
Terphenyl-d14 (Surr)	*47*		*31 - 115*	*01/08/16 08:48*	*01/11/16 12:33*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	**0.53**		0.094	0.015	ug/L		01/08/16 15:40	01/11/16 15:13	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*77*		*32 - 140*	*01/08/16 15:40*	*01/11/16 15:13*	*4*

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	**0.085**	**J**	0.095	0.048	mg/L		01/08/16 04:58	01/18/16 13:48	1

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Client Sample ID: W-160106-PS-MI
Date Collected: 01/06/16 08:00
Date Received: 01/07/16 09:20

Lab Sample ID: 240-59685-2
Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	35		0.95	0.15	ug/L		01/08/16 15:40	01/12/16 10:23	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*46*	*p*	*32 - 140*	*01/08/16 15:40*	*01/12/16 10:23*	*40*

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(29-110)	(15-110)	(21-128)	(31-110)	(10-110)	(31-115)
240-59685-1	W-160106-PS-ME	75	30	63	72	15	47
LCS 240-213494/15-A	Lab Control Sample	75	69	65	87	57	76
MB 240-213494/14-A	Method Blank	81	72	66	76	56	78

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(32-140)	(32-140)
240-59685-1	W-160106-PS-ME	75	77
240-59685-2	W-160106-PS-MI	75	46 p
LCS 180-165675/2-A	Lab Control Sample	74	72
LCSD 180-165675/3-A	Lab Control Sample Dup	72	69
MB 180-165675/1-A	Method Blank	94	96

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-213494/14-A
Matrix: Water
Analysis Batch: 213636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 213494

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<0.063		0.20	0.063	ug/L		01/08/16 08:48	01/11/16 10:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*29 - 110*	*01/08/16 08:48*	*01/11/16 10:36*	*1*
2-Fluorophenol (Surr)	*72*		*15 - 110*	*01/08/16 08:48*	*01/11/16 10:36*	*1*
2,4,6-Tribromophenol (Surr)	*66*		*21 - 128*	*01/08/16 08:48*	*01/11/16 10:36*	*1*
Nitrobenzene-d5 (Surr)	*76*		*31 - 110*	*01/08/16 08:48*	*01/11/16 10:36*	*1*
Phenol-d5 (Surr)	*56*		*10 - 110*	*01/08/16 08:48*	*01/11/16 10:36*	*1*
Terphenyl-d14 (Surr)	*78*		*31 - 115*	*01/08/16 08:48*	*01/11/16 10:36*	*1*

Lab Sample ID: LCS 240-213494/15-A
Matrix: Water
Analysis Batch: 213636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 213494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	20.0	13.6		ug/L		68	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*29 - 110*
2-Fluorophenol (Surr)	*69*		*15 - 110*
2,4,6-Tribromophenol (Surr)	*65*		*21 - 128*
Nitrobenzene-d5 (Surr)	*87*		*31 - 110*
Phenol-d5 (Surr)	*57*		*10 - 110*
Terphenyl-d14 (Surr)	*76*		*31 - 115*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-165675/1-A
Matrix: Water
Analysis Batch: 165835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165675

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.016		0.10	0.016	ug/L		01/08/16 14:40	01/12/16 09:59	4

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*96*		*32 - 140*	*01/08/16 14:40*	*01/12/16 09:59*	*4*

Lab Sample ID: LCS 180-165675/2-A
Matrix: Water
Analysis Batch: 165772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 165675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	5.00	4.15		ug/L		83	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*74*		*32 - 140*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 180-165675/3-A
Matrix: Water
Analysis Batch: 165772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 165675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	5.00	4.45		ug/L		89	40 - 140	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*72*		*32 - 140*

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Lab Sample ID: MB 240-213457/2-A
Matrix: Water
Analysis Batch: 214388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 213457

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<0.050		0.10	0.050	mg/L		01/08/16 04:58	01/18/16 12:53	1

Lab Sample ID: LCS 240-213457/3-A
Matrix: Water
Analysis Batch: 214388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 213457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
WI Diesel Range Organics (C10-C28)	0.500	0.494		mg/L		99	75 - 115

Lab Sample ID: LCSD 240-213457/4-A
Matrix: Water
Analysis Batch: 214388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 213457

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
WI Diesel Range Organics (C10-C28)	0.500	0.492		mg/L		98	75 - 115	0	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

GC/MS Semi VOA

Prep Batch: 213494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-59685-1	W-160106-PS-ME	Total/NA	Water	3510C	
LCS 240-213494/15-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-213494/14-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 213636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-59685-1	W-160106-PS-ME	Total/NA	Water	8270C	213494
LCS 240-213494/15-A	Lab Control Sample	Total/NA	Water	8270C	213494
MB 240-213494/14-A	Method Blank	Total/NA	Water	8270C	213494

GC Semi VOA

Prep Batch: 165675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-59685-1	W-160106-PS-ME	Total/NA	Water	8151A	
240-59685-2	W-160106-PS-MI	Total/NA	Water	8151A	
LCS 180-165675/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-165675/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-165675/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 165772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-59685-1	W-160106-PS-ME	Total/NA	Water	8151A	165675
LCS 180-165675/2-A	Lab Control Sample	Total/NA	Water	8151A	165675
LCSD 180-165675/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	165675

Analysis Batch: 165835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-59685-2	W-160106-PS-MI	Total/NA	Water	8151A	165675
MB 180-165675/1-A	Method Blank	Total/NA	Water	8151A	165675

Prep Batch: 213457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-59685-1	W-160106-PS-ME	Total/NA	Water	3520C	
LCS 240-213457/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 240-213457/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 240-213457/2-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 214388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-59685-1	W-160106-PS-ME	Total/NA	Water	WI-DRO	213457
LCS 240-213457/3-A	Lab Control Sample	Total/NA	Water	WI-DRO	213457
LCSD 240-213457/4-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	213457
MB 240-213457/2-A	Method Blank	Total/NA	Water	WI-DRO	213457

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Client Sample ID: W-160106-PS-ME

Lab Sample ID: 240-59685-1

Date Collected: 01/06/16 07:45
Matrix: Water
Date Received: 01/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213494	01/08/16 08:48	JDR	TAL CAN
Total/NA	Analysis	8270C		1	213636	01/11/16 12:33	JMG	TAL CAN
Total/NA	Prep	8151A			165675	01/08/16 15:40	CBY	TAL PIT
Total/NA	Analysis	8151A		4	165772	01/11/16 15:13	JMO	TAL PIT
Total/NA	Prep	3520C			213457	01/08/16 04:58	CSC	TAL CAN
Total/NA	Analysis	WI-DRO		1	214388	01/18/16 13:48	DEB	TAL CAN

Client Sample ID: W-160106-PS-MI

Lab Sample ID: 240-59685-2

Date Collected: 01/06/16 08:00
Matrix: Water
Date Received: 01/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			165675	01/08/16 15:40	CBY	TAL PIT
Total/NA	Analysis	8151A		40	165835	01/12/16 10:23	JMO	TAL PIT

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Certification Summary

Client: GHD Services Inc.
Project/Site: 86165-03-03, Penta Wood

TestAmerica Job ID: 240-59685-1

Laboratory: TestAmerica Canton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998027800	08-31-16

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

TestAmerica Canton
4101 Shuffel Street, N. N.
North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

4.7/C4.4

Chain of Custody Record

031642

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

grant.anderson@ghd.com

Client Contact	Project Manager: T. Rea	Site Contact:	Date: 1-6-16	COC No:
Company Name: GHD	Tel/Fax:	Lab Contact:	Carrier: Fed Ex (overnight)	1 of 1 COCs
Address: 8682 Daniels Trail	Analysis Turnaround Time			Sampler:
City/State/Zip: Siren WI 54872	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 651-639-0913	TAT if different from Below _____			Walk-in Client:
Fax: 651-639-0923	☐ 2 weeks			Lab Sampling:
Project Name: 086165-03-03	☐ 1 week			
Site: Penta Wood	☐ 2 days			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PCP-8151	Naphthalene	DRO	Sample Specific Notes:
W-160106-PS-ME	1-6-16	0745	G	W	6	N	N	X	X	X	Monthly Effluent
W-160106-PS-MI	1-6-16	0800	G	W	2	N	N	X			Monthly Influent.

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by:	GHD	1-6-16/1630	Received by:	TA	1-7-16 920
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1/19/2016

TestAmerica Canton Sample Receipt Form/Narrative — Login # : _____
Canton Facility

Client GHD Site Name _____ Cooler unpacked by:

Cooler Received on 1-7-16 Opened on 1-7-16

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. 4.7 °C Corrected Cooler Temp. 4.4 °C ☐ See Multiple Cooler Form

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

IR GUN# 8 (CF -0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were custody seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Were sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC559158
12. Were VOAs on the COC?	Yes	(No)
13. Were air bubbles >6 mm in any VOA vials?	Yes	No (NA)
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
15. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES — Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
W-160106-PS-ME	240-59685-E-1	Amber Glass 1 liter - Hydrochloric	<2	_____	_____
W-160106-PS-ME	240-59685-F-1	Amber Glass 1 liter - Hydrochloric	<2	_____	_____

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-59685-1

Login Number: 59685
List Number: 2
Creator: Neri, Tom

List Source: TestAmerica Pittsburgh
List Creation: 01/08/16 10:12 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix C
Waste Disposal Documentation

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH81542B

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *WID006176945* GENERATOR NAME: *WDNR-Former Pentawood Products Site*

GENERATOR CODE (Assigned by Clean Harbors) *PE1250* CITY *Siren* STATE/PROVINCE *WI* ZIP/POSTAL CODE *54872*

ADDRESS *8682 Daniels 70* PHONE: *(262) 255-4468*

CUSTOMER CODE (Assigned by Clean Harbors) *NOR1722* CUSTOMER NAME: *North Shore Environmental Cons*

ADDRESS *N117 W18493 Fulton Drive* CITY *Germantown* STATE/PROVINCE *WI* ZIP/POSTAL CODE *53022*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *F032 Sludge / Filter Cake/ debris*

PROCESS GENERATING WASTE: **Waste Water Treatment of Pentachlorophenol Contaminated Site**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
- [ ] % FREE LIQUID
- [ ] % SETTLED SOLID
- [ ] % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP *0.00*

MIDDLE *0.00*

BOTTOM *0.00*

VISCOSITY (If liquid present)
- [ ] 1 - 100 (e.g. Water)
- [ ] 101 - 500 (e.g. Motor Oil)
- [ ] 501 - 10,000 (e.g. Molasses)
- [ ] > 10,000

COLOR

brown

ODOR
- [ ] NONE
- [x] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- [ ] <= 95 (<=35)
- [ ] 95 - 100 (35-38)
- [ ] 101 - 129 (38-54)
- [ ] >= 130 (>54)

MELTING POINT °F (°C)
- [ ] < 140 (<60)
- [ ] 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [ ] <= 1%
- [ ] 1-9%
- [x] >= 10%

FLASH POINT °F (°C)
- [ ] < 73 (<23)
- [ ] 73 - 100 (23-38)
- [ ] 101 -140 (38-60)
- [ ] 141 -200 (60-93)
- [ ] > 200 (>93)

pH
- [ ] <= 2
- [ ] 2.1 - 6.9
- [x] 7 (Neutral)
- [ ] 7.1 - 12.4
- [ ] >= 12.5

SPECIFIC GRAVITY
- [ ] < 0.8 (e.g. Gasoline)
- [ ] 0.8-1.0 (e.g. Ethanol)
- [ ] 1.0 (e.g. Water)
- [ ] 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- [ ] < 0.1
- [ ] 0.1 - 1.0
- [ ] 1.1 - 5.0
- [ ] 5.1 - 20.0
- [ ] > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [ ] < 2,000 (<4.6)
- [x] 2,000-5,000 (4.6-11.6)
- [ ] 5,000-10,000 (11.6-23.2)
- [ ] > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
BAG FILTERS	0.0000000	--	5.0000000	%
CARBON	0.0000000	--	3.0000000	%
DEBRIS (PLASTIC, PPE, TRASH, ETC)	25.0000000	--	50.0000000	%
F032 FILTER CAKE W/ UP TO 5% PENTACHLOROPHENOL	45.0000000	--	55.0000000	%
PLASTIC PIPING	0.0000000	--	2.0000000	%
SOIL CUTTINGS	0.0000000	--	5.0000000	%
WATER	0.0000000	--	1.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES [x] NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES [x] NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G43*

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W409*

Clean Harbors Profile No. CH81542B

E. CONSTITUENTS

Are these values based on testing or knowledge? ☑ Knowledge ☐ Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

Sample sent to Sarnia for approval and verification.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0	*100.0000*			
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

CleanHarbors

Clean Harbors Profile No. CH81542B

F. REGULATORY STATUS

☑ YES NO USEPA HAZARDOUS WASTE?
F032

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

☑ YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?
242H

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?
LDR CATEGORY: *This is subject to LDR.*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES ☑ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES ☑ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☑ YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

☑ YES NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES ☑ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III (F032)
UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY ☑ MONTHLY QUARTERLY YEARLY OTHER *Other*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:
CUBIC YARD BOX PALLET
TOTE TANK DRUM
OTHER:
DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL.

☑ **BULK SOLID**

SHIPMENT UOM: ☑ TON YARD

TONS/YARDS/SHIPMENT: *10.00 Min - 20.00 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:
Burton prenote 531818 Line 25 Expires January 05,2016 AOC 01025/11E/14 WS# 14

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
Phil E. Rich	Phil Richard	WDNR Project Manager	2/5/16

CleanHarbors
ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Feb 01, 2016

MANIFEST INFORMATION

Generator : WDNR-Former Pentawood Products Site

Address: 8682 Daniels 70
Siren,WI 54872

EPA ID #: W I D 0 0 6 1 7 6 9 4 5

Manifest Tracking Info.

008772291FLE

Sales Order No: 1600349512

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH81542B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
F032	NONE

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : Phil E. Rhl Print Name Phil Richard

Title : WDNR Project Manager Date : 2/8/16

Mark Norris

From: Clean Harbors <NOREPLY@Cleanharbors.com>
Sent: Saturday, January 23, 2016 3:02 AM
To: Mark Norris
Subject: Clean Harbors Profile Approval Notification

Profile Approval Notification

The profile(s) listed below are approved* and ready for shipment. You can schedule your drum pick up online or
contact your account representative for support.

You can reach us at 1-877-333-4244.

Click here to Login to your account.

Generator code	Generator Name	Profile #	Waste Description	Waste Classification Code
PE1250	WDNR-Former Pentawood Products Site	CH81542B	F032 Sludge / Filter Cake/ debris	CCRT

**Profile approval is based upon information provided, you are required to notify Clean Harbors immediately of any change.*

Thank you for choosing Clean Harbors. We appreciate your business.

This email was sent from a notification only address that cannot accept incoming email. Please do not reply to this
message.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) DO 1600349512 SC PPW 1/27/2016 Form Approved. OMB No. 2050-0

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WID006417694B	1	(800)483-3718	008772291 FLE

GENERATOR

5. Generator's Name and Mailing Address
WDNR-Former Pentawood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4456 ATTN:Mark Norris

Generator's Site Address (if different than mailing address)
8682 Daniels 70
Siren, WI 54872

6. Transporter 1 Company Name: CLEAN HARBORS ENVIRONMENTAL SERVICES
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Canada, Inc.
4090 Telfer Road
Corunna, ON N0N 1G0
Facility's Phone: ~~(519)964-1021~~
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III (F032)	01	CM	10,000	P	F032
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.CH815428 ERG#171
BOX# CHRT 24868

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Phil Richard
Signature: Phil E. Phl
Month: 2 Day: 8 Ye: 16

INT'L

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: Port Huron, MI
Transporter signature (for exports only): Ray VanderLinde Date leaving U.S.: Feb. 19 16

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ray VANDERLINDE
Signature: Ray VanderLinde
Month: 02 Day: 18 Ye: 16

Transporter 2 Printed/Typed Name
Signature
Month: Day: Ye:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Ye:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H129			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month: Day: Ye:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRI

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) [illegible] SC PFW 1/27/2016 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WID006176945	1	(800) 483-3718	008772291 FLE

5. Generator's Name and Mailing Address
WDNR-Former Penta Wood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4463 ATTN Mark Norris

Generator's Site Address (if different than mailing address)
2682 Daniels 70
Siren, WI 54872

6. Transporter 1 Company Name: CLEAN HARBORS ENVIRONMENTAL SERVICES — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada, Inc.
4090 Telfer Road
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III (F032)	01	CM	10,000	P	F032
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information AOC#1 12740/BE/15 CN# 0F912952
1. CH015428 ERG#171
CHESI, EPAID NO. MIR000014530, IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.
BOX CHART 2/8/16

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Phil Richard — Signature: [signature] — Month 2 Day 8 Year 16

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: Port Huron, Mich
Transporter signature (for exports only): [signature] Date leaving U.S.: Feb. 19/16

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: RAY VANDERLINDE — Signature: [signature] — Month 02 Day 18 Year 16
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H129			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name — Signature — Month 02 Day 19 Year 16

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.
DESIGNATED FACILITY TO GENERATOR

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

DF91295-2

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor — Producteur / expéditeur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (1): [illegible]

Company name / Nom de l'entreprise	Clean Harbors Environmental Services Inc
Mailing address / Adresse postale	[illegible] South Beck Highway
City / Ville / Province / Postal code / Code postal	[illegible]
E-mail / Courrier électronique	[illegible]
Tel. No. / N° de tél.	[illegible]
Shipping site address / Adresse du lieu de l'expédition	[illegible] South Beck Highway
City / Ville	[illegible]
Province	MI
Postal code / Code postal	[illegible]

Intended Receiver / consignee — Réceptionnaire / destinataire prévu (2)

Name	Clean Harbors Canada, Inc.
Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial	A-[illegible]
Mailing address / Adresse postale	4090 Telfer Road RR #1
City / Ville	[illegible]
Province	ON
Postal code / Code postal	N0N 1G0
E-mail / Courrier électronique	[illegible]@cleanharbors.com
Tel. No. / N° de tél.	(519) [illegible]
Receiving site address / Adresse du lieu de l'expédition	4090 Telfer Road RR #1
City / Ville	Corunna
Province	ON
Postal code / Code postal	N0N 1G0

B Carrier — Transporteur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (23): [illegible]

Company name / Nom de l'entreprise	Clean Harbors Canada, Inc.
Mailing address / Adresse postale	[illegible]
E-mail / Courrier électronique	[illegible]
Tel. No. / N° de tél.	[illegible]
Vehicle / Véhicule — Trailer - Rail car No. 1 / 1^er remorque - wagon — Registration No. / N° d'immatriculation	T4 [illegible]
Prov. (24)	ON
Trailer - Rail car No. 2 / 2^e remorque - wagon	
Port of entry / Point d'entrée — International use only	[illegible]
Port of exit / Point de sortie (25)	International use only

Carrier Certification: I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.
Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. (26)

Name of authorized person (print): / Nom de l'agent autorisé (caractères d'imprimerie): [handwritten name, illegible] — Tel. No. / N° de tél.: [illegible]

Year / Année: 16 — Month / Mois: [illegible] — Day / Jour: 19 — Signature: [signature]

C Receiver / consignee — Réceptionnaire / destinataire

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés (27)

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (28): [illegible]

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☑ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

CLEAN HARBORS CANADA INC.
R.R. #1, 4090 TELFER ROAD
CORUNNA, ONTARIO N0N 1G0
519-864-1021

Receiving site address / Adresse du lieu de destination: Same

Date received / Date de réception (29): Year / Année: 16 — Month / Mois: 09 — Day / Jour: 19 — Time / Heure: 1432 ☐ A.M. ☑ P.M.

If waste or recyclable material is to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire (30)
Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov. (3)	Shipping name / Appellation réglementaire (4)	Class / Classe Sub. class(es) / Classe(s) sub. (5)	UN No. / N° NU (6)	Packing / risk gr. / Gr. d'emballage/de risque (7)	Quantity shipped / Quantité expédiée	Units L or / ou Kg / Unités (8)	Packaging/Contenant No. / N° (9)	Codes Int.– ext.	Phys. state / État phys. (10)	Quantity received / Quantité reçue	Units L or / ou Kg / Unités (31)	Comments / Commentaires (32)	Handling Code / Code de manutention (33)	Shipment / Envoi Accepted / Accepté (34)	Refused / Refusé	Decont. Pack. Cont. (35)	Veh.
(i) [illegible]	Environmentally Hazardous Substance, Solid, N.O.S. [illegible]	9	UN3077	III	[illegible]	Kg	[illegible]	[illegible]	[illegible]	6900	Kg	Please see attached for manifest weight variance explanation	[illegible]	Yes		NO	NO
(ii)																	
(iii)																	
(iv)																	

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) (36)

	Notice No. / N° de notification (11)	Notice Line No / N° de ligne de la notification (12)	Shipment / Envoi	Of / De (13)	D or R code / Code É ou R	C code / Code C (14)	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE (15)	H code / Code H (16)	Y code / Code Y (17)	National code in country of / Code du pays — Export / Exportation (18)	Import / Importation	Customs code(s) / Code(s) de douanes (19)
(i)	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
(ii)												
(iii)												
(iv)												

International use only

Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets. (37)

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): [illegible]

Signature: [signature] — Tel. No. / N° de tél.: [illegible]

Special handling / Manutention spéciale: ☐ Attached / Ci-joint: ☑ As follows / Ci-contre: [illegible]

Generator / consignor certification: I certify that the information contained in Part A is correct and complete.
Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): [illegible] — Signature — Tel. No. / N° de tél. ( ) (20)

Date shipped / Date d'expédition (21): Year / Année — Month / Mois — Day / Jour: [illegible] — Time / Heure: ☐ A.M. ☐ P.M.

Scheduled arrival date / Date d'arrivée prévue: Year / Année — Month / Mois — Day / Jour

MOE 04-1917 (07/07)

Mailed by Consignee to Consignor - Postée par le destinataire à l'expéditeur

Copy / Copie 6 (brown / brun

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH81546B

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *WID006176945* GENERATOR NAME: *WDNR-Former Pentawood Products Site*

GENERATOR CODE (Assigned by Clean Harbors) *PE1250* CITY *Siren* STATE/PROVINCE *WI* ZIP/POSTAL CODE *54872*

ADDRESS *8682 Daniels 70* PHONE: *(262) 255-4468*

CUSTOMER CODE (Assigned by Clean Harbors) *NOR1722* CUSTOMER NAME: *North Shore Environmental Cons*

ADDRESS *N117 W18493 Fulton Drive* CITY *Germantown* STATE/PROVINCE *WI* ZIP/POSTAL CODE *53022*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *F032 Contaminated Carbon In Vac Boxes*

PROCESS GENERATING WASTE: **Remediation of Pentachlorophenol Site**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
- [ ] % FREE LIQUID
- [ ] % SETTLED SOLID
- [ ] % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

black

ODOR
- [ ] NONE
- [x] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- [x] >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- [x] 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
ARSENIC	0.0000000	--	1.7000000	PPM
BARIUM	0.0000000	--	32.6000000	PPM
CADMIUM		--		Trace
CARBON	80.0000000	--	100.0000000	%
CHROMIUM	0.0000000	--	11.1000000	PPM
LEAD	0.0000000	--	2.0000000	PPM
MERCURY	0.0000000	--	0.0140000	PPM
MOISTURE	0.0000000	--	5.0000000	%
PENTACHLOROPHENOL	0.0000000	--	1.0000000	%
PPE (GLOVES, TYVEKS,ABSORBANT PADS)	0.0000000	--	1.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES [x] NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES [x] NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G43* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W310*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0		*1.7000000*	*PPM*	
D005	BARIUM	100.0		*32.6000000*	*PPM*	
D006	CADMIUM	1.0			*Trace*	
D007	CHROMIUM	5.0		*11.1000000*	*PPM*	
D008	LEAD	5.0		*2.0000000*	*PPM*	
D009	MERCURY	0.2			*Trace*	
D010	SELENIUM	1.0				☑
D011	SILVER	5.0			*Trace*	
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0	*100.0000*			
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

NONE

< 1000 PPM

☑ >= 1000 PPM

PCBs

☑ NONE

< 50 PPM

>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

Clean Harbors Profile No. CH81546B

F. REGULATORY STATUS

☑ YES ☐ NO USEPA HAZARDOUS WASTE?
F032

☐ YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

☑ YES ☐ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?
242H

☑ YES ☐ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *This is subject to LDR.*
VARIANCE INFO:

☐ YES ☑ NO IS THIS A UNIVERSAL WASTE?

☐ YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

☐ YES ☑ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

☐ YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

☐ YES ☑ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☐ YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

☐ YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

☐ YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

☑ YES ☐ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

☐ YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

☐ YES ☑ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? ☐ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III (F032)

UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY ☑ YEARLY OTHER *Other*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE
CUBIC YARD BOX DRUM
OTHER:
DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL.

☑ **BULK SOLID**

SHIPMENT UOM: ☑ TON YARD

TONS/YARDS/SHIPMENT: *10.00 Min - 20.00 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:
Burton Prenote 531994 line 25 C34, Y04 Expires 11/23/2016 AOC 012740/8E/15 WS#14

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
Phil E. Rhl	Phil Richard	WDNR Project Manager	2/5/16

*40 CFR Sec. 264.12 required notice:

As required by Federal Resource Conservation and Recovery Act regulations found in 40 CFR Part 264.12(b) and all equivalent State hazardous waste regulations, notice is hereby provided that all Clean Harbors facilities that may be used to treat, store, and /or dispose of the hazardous waste described on this waste profile have the appropriate permits and the capacity to manage these wastes.

Please note this profile must be submitted for re-evaluation if there has been a change in the waste generating process or when there have been changes in the chemical composition or physical characteristics of the material.

Addendum

D. COMPOSITION

CHEMICAL	MIN	--	MAX	UOM
SILVER	0.0000000	--	0.2100000	PPM

G. DOT/TDG INFORMATION

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 0Q1600350596   SC PPW 1 27 2016   Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number WID006176946	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 008772294 FLE

GENERATOR

5. Generator's Name and Mailing Address
WDNR Former Pentawood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4469   ATTN Mark Norris

Generator's Site Address (if different than mailing address)
9692 Daniels 70
Siren, WI 54872

6. Transporter 1 Company Name
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada, Inc
4090 Telfer Road
Corunna ON N0N 1G0
Facility's Phone: (519)864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III (F032)	01	CM	25000	P	F032		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. CH615466   ERG#171
15x   CHVB 4912

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible]   Signature: [illegible]   Month 2 Day [illegible] Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S.   Port of entry/exit: Port Huron
Transporter signature (for exports only): [illegible]   Date leaving U.S.: [illegible]

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Karl Vanderkamp   Signature: [illegible]   Month 02 Day [illegible] Year 16
Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)   U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)   Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H129			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name   Signature   Month Day Year

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WID006178345	1	(800)483-3718	008772295 FLE

GENERATOR

5. Generator's Name and Mailing Address

WDNR Former Pentawood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4460 ATTN Mark Norris

Generator's Site Address (if different than mailing address)

9032 Daniels Rd
Siren, WI 54872

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Clean Harbors Canada, Inc.
4090 Telfer Road
Corunna ON N0N 1G0
Facility's Phone: (519) 864-1021

MIR000516204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (PENTACHLOROPHENOL), 9, PG III (F032)	01	CM	45,000	LB	F032		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

LC#915466 ERG#171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month 2 — Day 8 — Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H129			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Clean Harbors has the appropriate permits for and will accept the waste this generator is shipping

Mark Norris

From: Clean Harbors <NOREPLY@Cleanharbors.com>
Sent: Saturday, January 30, 2016 3:02 AM
To: Mark Norris
Subject: Clean Harbors Profile Approval Notification

Profile Approval Notification

The profile(s) listed below are approved* and ready for shipment. You can schedule your drum pick up online or
contact your account representative for support.

You can reach us at 1-877-333-4244.

Click here to Login to your account.

Generator code	Generator Name	Profile #	Waste Description	Waste Classification Code
PE1250	WDNR-Former Pentawood Products Site	CH81546B	F032 Contaminated Carbon in Vac Boxes	CCRT

**Profile approval is based upon information provided, you are required to notify Clean Harbors immediately of any change.*

Thank you for choosing Clean Harbors. We appreciate your business.

This email was sent from a notification only address that cannot accept incoming email. Please do not reply to this
message.

Q

CleanHarbors
ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Feb 01, 2016

MANIFEST INFORMATION

Generator :	WDNR-Former Pentawood Products Site	Manifest Tracking Info.	
Address:	8682 Daniels 70 Siren,WI 54872	008772294FLE	
EPA ID #:	W I D 0 0 6 1 7 6 9 4 5	Sales Order No:	1600350995

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH81546B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
F032	NONE

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : Phil E. Rhd Print Name Phil Richard

Title : WDNR Project Manager Date : 2/8/16

CleanHarbors
ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Feb 01, 2016

MANIFEST INFORMATION

Generator : WDNR-Former Pentawood Products Site

Address: 8682 Daniels 70
Siren,WI 54872

EPA ID #: W I D 0 0 6 1 7 6 9 4 5

Manifest Tracking Info.

008772295FLE

Sales Order No: 1600350995

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH81546B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
F032	NONE

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : Phil E. Phil Print Name Phil Richard

Title : WDNR Project Manager Date : 2/8/16

DQ 1600350595 SC PPW 1/27/2016

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WID006176945	1	(800) 483-3718	008772294 FLE

GENERATOR

5. Generator's Name and Mailing Address
WDNR-Former Pentawood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4468 ATTN:Mark Norris

Generator's Site Address (if different than mailing address)
8682 Daniels 70
Siren,WI 54872

6. Transporter 1 Company Name
U.S. EPA ID Number: MA0039322250

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada, Inc.
4090 Telfer Road
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III (F032)	01	CM	15000	P	F032
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. CH815468 ERG#171 AOC#[illegible] CN# [illegible]
CHESI, EPA ID NO. MIR000014530, IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.
BOX CHUB 9972

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Phil Richard Signature: [signature] Month 12 Day 8 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: Port Huron
Transporter signature (for exports only): [signature] Date leaving U.S.: Feb 12/16

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: RAY VANDERLINDE Signature: [signature] Month 02 Day 11 Year 16
Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H129			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible] Signature: Month 02 Day 18 Year 16

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

Movement Document / Manifest Reference No. / N° de référence du document de mouvement/manifeste: **DF91246-5**

A Generator / consignor / Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial: 1

Company name / Nom de l'entreprise: Clean Harbors Environmental Service, Inc.

Mailing address / Adresse postale: 42445 South Dort Highway — City / Ville: Sutton — Province: MI — Postal code / Code postal: 48525

E-mail / Courrier électronique: — Tel. No. / N° de tél.: 810) 715-3700

Shipping site address / Adresse du lieu de l'expédition: 42471 South Dort Highway

City / Ville: Sutton — Province: MI — Postal code / Code postal: 48529

Intended Receiver / consignee / Réceptionnaire / destinataire prévu: Clean Harbors Canada, Inc. — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial: 2-021808

Mailing address / Adresse postale: 4090 Telfer Road RR #1 — City / Ville: Corunna — Province: ON — Postal code / Code postal: N0N 1G0

E-mail / Courrier électronique: — Tel. No. / N° de tél.: 519) 862-1021

Receiving site address / Adresse du lieu de l'expédition: 4090 Telfer Road RR #1

City / Ville: Corunna — Province: ON — Postal code / Code postal: N0N 1G0

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial: 23 — 23541

Company name / Nom de l'entreprise: Clean Harbors Canada, Inc.

Mailing address / Adresse postale: 1790 Industrial Drive — City / Ville: Lasalle — Province: ON — Postal code / Code postal: L7L 5V2

E-mail / Courrier électronique: — Tel. No. / N° de tél.: 905) 332-1111

Vehicle / Véhicule — Trailer - Rail car No. 1 / 1re remorque - wagon: — Registration No. / N° d'immatriculation: T78936 — Prov.: IL

Trailer - Rail car No. 2 / 2e remorque - wagon:

Port of entry / Point d'entrée: International use only — ON

Port of exit / Point de sortie: International use only — 25

Carrier Certification : I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. / Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. — 26

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): Ray Vandelinde — Tel. No. / N° de tél.: 905) 332-1111

Year / Année: 2012 — Month / Mois: 12 — Day / Jour: 12 — Signature: Ray Vandelinde

C Receiver / consignee / Réceptionnaire / destinataire — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial: 28 — AC PRO

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés: 27

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A: ☐ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: CLEAN HARBORS CANADA INC.

Mailing address / Adresse postale: R.R. #1, 4090 TELFER ROAD

City / Ville: CORUNNA, ONTARIO — Province / Postal code / Code postal: N0N 1G0

E-mail / Courrier électronique: — Tel. No. / N° de tél.: 519-862-1021

Receiving site address / Adresse du lieu de destination: Same

Date received / Date de réception — Year / Année: 12 — Month / Mois: 12 — Day / Jour: 12 — Time / Heure: 10 H 00 ☐ A.M. ☒ P.M. — 29

If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire: 30 — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

(i)	Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5 — Sub. class(es) / Classe(s) sub.	UN No. / N° NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée 8	Units / L or / ou Kg / Unités	Packaging/Contenant 9 — No. / N°	Codes	Int. - ext.	Phys. state / État phys. 10
(i)	6645	WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (pentachlorophenol)	9	UN3077	III	1,045	KG	01	DM		900
(ii)											
(iii)											
(iv)											

(i)	Notice No. / N° de notification 11	Notice Line No / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays 18 — Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes 19
(i)	121884	15	3	000	D05	C24	A3020	H12	Y39	CAN	US	3825.69.00.00
(ii)												
(ii)												
(iv)												

International use only

Generator / consignor certification: I certify that the information contained in Part A is correct and complete. / Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) — Signature — Tel. No. / N° de tél. 20

Quantity received / Quantité reçue: 1,045 — Units / L or / ou Kg / Unités: KG — 31

Comments / Commentaires 32: Please see attached for manifest weight variance explanation.

Handling Code / Code de manutention 33: 03

Shipment / Envoi 34 — Accepted / Accepté: 1/1 — Refused / Refusé:

Decont. 35 — Pack. Cont. — Veh.

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier): 36

Receiver / consignee certification : I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets. — Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): 37

Signature — Tel. No. / N° de tél.: 519-862-1021

Special handling / Manutention spéciale: 22 — ☐ Attached / Ci-joint: ☒ As follows / Ci-contre:

21 — Date shipped / Date d'expédition — Year / Année: 12 — Month / Mois: 12 — Day / Jour: 12 — Time / Heure: ☐ A.M. ☒ P.M. — Scheduled arrival date / Date d'arrivée prévue — Year / Année: 12 — Month / Mois: 12 — Day / Jour: 13

MOE 04-1917 (07/07)

Mailed by Consignee to Consignor - Postée par le destinataire à l'expéditeur

Copy / Copie 6 (brown / brun

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) PO 1600350996 SC PPW 1/27/2016 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WID006176945
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 008772295 FLE

5. Generator's Name and Mailing Address:
WDNR-Former Pentawood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4468 ATTN: Mark Norris

Generator's Site Address (if different than mailing address):
8682 Daniels 70
Siren, WI 54872

6. Transporter 1 Company Name: CLEAN HARBORS ENVIRONMENTAL SERVICES INC — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
Clean Harbors Canada, Inc
4090 Telfer Road
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PENTACHLOROPHENOL), 9, PG III (F032)	01	CM	15,000	lbs	F032
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: AOC# 12740/8E/15 CN# DF910575
1. CH815468 ERG#171
CHESI, EPA ID NO MIR000014530 IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR. CHUB 0879

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Phil Richard — Signature: [signature] — Month/Day/Year: 2 / 8 / 16

16. International Shipments: ☐ Import to U.S. ☒ Export from U.S. — Port of entry/exit: PORT HURON, MI
Transporter signature (for exports only): [signature] — Date leaving U.S.: 2/10/16

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: MURRAY BABULA — Signature: [signature] — Month/Day/Year: 2 / 11 / 16
Transporter 2 Printed/Typed Name: — Signature: — Month/Day/Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H129 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [handwritten name] — Signature: [signature] — Month/Day/Year: 02 / 12 / 16

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. **DESIGNATED FACILITY TO GENERATOR**

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

DF91245-7

A — Generator / consignor — Producteur / expéditeur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial: 1 [illegible]

Company name / Nom de l'entreprise: Clean Harbors Environmental Services, Inc.

Mailing address / Adresse postale: [illegible] South Dort Highway — City / Ville: [illegible] — Province: MI — Postal code / Code postal: [illegible]

E-mail / Courrier électronique: [illegible] — Tel. No. / N° de tél.: [illegible]

Shipping site address / Adresse du lieu de l'expédition: [illegible] South Dort Highway

City / Ville: [illegible] — Province: MI — Postal code / Code postal: [illegible]

Intended Receiver / consignee — Réceptionnaire / destinataire prévu (2): Clean Harbors Canada, Inc.

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial: [illegible]

Mailing address / Adresse postale: 4090 Telfer Road RR #1 — City / Ville: Corunna — Province: ON — Postal code / Code postal: N0N 1G0

E-mail / Courrier électronique: [illegible]@cleanharbors.com — Tel. No. / N° de tél.: [illegible]

Receiving site address / Adresse du lieu de l'expédition: 4090 Telfer Road RR #1

City / Ville: Corunna — Province: ON — Postal code / Code postal: N0N 1G0

B — Carrier — Transporteur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (23): [illegible]

Company name / Nom de l'entreprise: Clean Harbors Canada, Inc.

Mailing address / Adresse postale: [illegible] — City / Ville: [illegible] — Province: ON — Postal code / Code postal: [illegible]

E-mail / Courrier électronique: N/A — Tel. No. / N° de tél.: [illegible]

Vehicle / Véhicule — Registration No. / N° d'immatriculation — Prov. (24)
Trailer - Rail car No. 1 / 1re remorque - wagon: 2136 [illegible] — ME
Trailer - Rail car No. 2 / 2e remorque - wagon:

Port of entry / Point d'entrée — International use only (25)
Port of exit / Point de sortie — International use only

Carrier Certification: I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.
Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. (26)

Name of authorized person (print): / Nom de l'agent autorisé (caractères d'imprimerie): MURRAY BARUK — Tel. No. / N° de tél.: [illegible]

Year / Année: 16 — Month / Mois: 02 — Day / Jour: 12 — Signature: [signature]

C — Receiver / consignee — Réceptionnaire / destinataire

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés (27): [illegible]

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial (2): [illegible]

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☑ Yes / Oui — ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: CLEAN HARBORS CANADA INC
Mailing address / Adresse postale: R.R. #1, 4090 TELFER ROAD
City / Ville: CORUNNA, ONTARIO — Province — Postal code / Code postal: N0N 1G0
E-mail / Courrier électronique — Tel. No. / N° de tél.: 519-864-102[illegible]
Receiving site address / Adresse du lieu de destination:

Date received / Date de réception (29): Year / Année: 16 — Month / Mois: 02 — Day / Jour: 15 — Time / Heure: 15:49 ☐ A.M. ☐ P.M.

If waste or recyclable material is to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire (30)
Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov. (3)	Shipping name / Appellation réglementaire (4)	Class / Classe Sub. class(es) / Classe(s) sub. (5)	UN No. / N° NU (6)	Packing / risk gr. / Gr. d'emballage/de risque (7)	Quantity shipped / Quantité expédiée	Units L or / ou Kg / Unités (8)	Packaging / Contenant No. / N° (9)	Codes Int. - ext.	Phys. state / État phys. (10)	Quantity received / Quantité reçue (31)	Units L or / ou Kg / Unités	Comments / Commentaires (32)	Handling Code / Code de manutention (33)	Shipment / Envoi Accepted / Accepté (34)	Refused / Refusé	Decont. Pack. Cont. (35)	Veh.
(i) [illegible]	WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., ([illegible])	9	UN3077	III	[illegible]	KG			SOL	5710	Kg	Please see attached manifest weight variance explanation	03	✓			
(ii)																	
(iii)																	
(iv)																	

Notice No. / N° de notification (11)	Notice Line No / N° de ligne de la notification (12)	Shipment / Envoi	Of / De	D or R code / Code É ou R (13)	C code / Code C (14)	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE (15)	H code / Code H (16)	Y code / Code Y (17)	National code in country of / Code du pays: Export / Exportation (18)	Import / Importation	Customs code(s) / Code(s) de douanes (19)
(i) [illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
(ii)											
(iii)											
(iv)											

International use only

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) (36)

Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets. (37)

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): [illegible]

Signature: [signature] — Tel. No. / N° de tél.: [illegible]

Special handling / Manutention spéciale (22): ☐ Attached / Ci-joint — ☒ As follows / Ci-contre: [illegible]

Generator / consignor certification: I certify that the information contained in Part A is correct and complete.
Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): [illegible] — Signature: [illegible] — Tel. No. / N° de tél.: [illegible] (20)

Date shipped / Date d'expédition (21): Year / Année: 16 — Month / Mois: 02 — Day / Jour: 12 — Time / Heure: ☐ A.M. ☒ P.M.

Scheduled arrival date / Date d'arrivée prévue: Year / Année: 16 — Month / Mois: [illegible] — Day / Jour: [illegible]

MOE 04-1917 (07/07)

Mailed by Consignee to Consignor - Postée par le destinataire à l'expéditeur

Copy / Copie 6 (brown / brun

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH81548B

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *WID006176945* GENERATOR NAME: *WDNR-Former Pentawood Products Site*

GENERATOR CODE (Assigned by Clean Harbors) *PE1250* CITY *Siren* STATE/PROVINCE *WI* ZIP/POSTAL CODE *54872*

ADDRESS *8682 Daniels 70* PHONE: *(262) 255-4468*

CUSTOMER CODE (Assigned by Clean Harbors) *NOR1722* CUSTOMER NAME: *North Shore Environmental Cons*

ADDRESS *N117 W18493 Fulton Drive* CITY *Germantown* STATE/PROVINCE *WI* ZIP/POSTAL CODE *53022*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *F032 Contaminated Liquid*

PROCESS GENERATING WASTE: **Remediation of Wood Preservative Plant**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE

- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE

% FREE LIQUID *98.00 - 100.00*
% SETTLED SOLID *0.00 - 2.00*
% TOTAL SUSPENDED SOLID
SLUDGE
GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 [x] 2 3

% BY VOLUME (Approx.)

TOP *40.00*
MIDDLE *0.00*
BOTTOM *60.00*

VISCOSITY (If liquid present)

- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

brown

ODOR

- NONE
- [x] MILD
- STRONG

Describe:

BOILING POINT °F (°C)

- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- [x] >= 130 (>54)

MELTING POINT °F (°C)

- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON

- <= 1%
- 1-9%
- [x] >= 10%

FLASH POINT °F (°C)

- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- [x] > 200 (>93)

pH

- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY

- < 0.8 (e.g. Gasoline)
- [x] 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH

- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)

- < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- [x] 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
#2 FUEL OIL	40.0000000	--	60.0000000	%
PENTACHLOROPHENOL	0.0000000	--	5.0000000	%
WATER	50.0000000	--	60.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES [x] NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES [x] NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G43*

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W204*

Clean Harbors Profile No. CH81548B

E. CONSTITUENTS

Are these values based on testing or knowledge? ☑ Knowledge ☐ Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

Gen chemical knowledge of process

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0	*100.0000*			
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

- ☐ NONE
- ☐ < 1000 PPM
- ☑ >= 1000 PPM

PCBs

- ☑ NONE
- ☐ < 50 PPM
- ☐ >=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

☐ YES ☐ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

☐ DEA REGULATED SUBSTANCES	☐ EXPLOSIVE	☐ FUMING	☐ OSHA REGULATED CARCINOGENS
☐ POLYMERIZABLE	☐ RADIOACTIVE	☐ REACTIVE MATERIAL	☑ NONE OF THE ABOVE

CleanHarbors

Clean Harbors Profile No. CH81548B

F. REGULATORY STATUS

☑ YES NO USEPA HAZARDOUS WASTE?

D037 F032

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

☑ YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

242H

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *This is subject to LDR.*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES ☑ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES ☑ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☑ YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

☑ YES NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES ☑ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? ____ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

RQ, UN3082, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., (PENTACHLOROPHENOL, FUEL OIL), 9, PG III (D037, F032)

UN3082, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (PENTACHLOROPHENOL, FUEL OIL), 9, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY ☑ YEARLY OTHER *Other*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE
CUBIC YARD BOX DRUM
OTHER: DRUM SIZE:

☑ **BULK LIQUID**

GALLONS/SHIPMENT: *2500.00 Min -5500.00 Max* GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

Burton prenote 531973 Line 1 C36, Y05 Expire Nov 24, 2016 AOC 012424/6E/15 WS#2

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
Phil E. Rich	Phil Richard	WDNR Project Manager	2/5/16

*40 CFR Sec. 264.12 required notice:

As required by Federal Resource Conservation and Recovery Act regulations found in 40 CFR Part 264.12(b) and all equivalent State hazardous waste regulations, notice is hereby provided that all Clean Harbors facilities that may be used to treat, store, and /or dispose of the hazardous waste described on this waste profile have the appropriate permits and the capacity to manage these wastes.

Please note this profile must be submitted for re-evaluation if there has been a change in the waste generating process or when there have been changes in the chemical composition or physical characteristics of the material.

CleanHarbors
ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Feb 01, 2016

MANIFEST INFORMATION

Generator : WDNR-Former Pentawood Products Site

Address: 8682 Daniels 70
Siren,WI 54872

EPA ID #: W I D 0 0 6 1 7 6 9 4 5

Manifest Tracking Info.

008772292FLE

Sales Order No: 1600349920

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH81548B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D037F032	NONE

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : Phil E. Rhl Print Name Phil Richard

Title : WDNR Project Manager Date : 2/9/16

Mark Norris

From: Clean Harbors <NOREPLY@Cleanharbors.com>
Sent: Friday, January 29, 2016 3:02 AM
To: Mark Norris
Subject: Clean Harbors Profile Approval Notification

Profile Approval Notification

The profile(s) listed below are approved* and ready for shipment. You can schedule your drum pick up online or
contact your account representative for support.

You can reach us at 1-877-333-4244.

Click here to Login to your account.

Generator code	Generator Name	Profile #	Waste Description	Waste Classification Code
PE1250	WDNR-Former Pentawood Products Site	CH81548B	F032 Contaminated Liquid	D90K

**Profile approval is based upon information provided, you are required to notify Clean Harbors immediately of any change.*

Thank you for choosing Clean Harbors. We appreciate your business.

This email was sent from a notification only address that cannot accept incoming email. Please do not reply to this
message.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) DQ 1600349920 [illegible] 2016 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WID006176945	1	(800) 483 3718	008772292 FLE

GENERATOR

5. Generator's Name and Mailing Address
WDNR Former Pentawood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4468 ATTN Mark Harris

Generator's Site Address (if different than mailing address)
9982 Daniels 70
Siren, WI 54872

6. Transporter 1 Company Name: CLEAN HARBORS ENVIRONMENTAL SERVICES INC — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address — U.S. EPA ID Number: MIR000035204
Clean Harbors Canada, Inc
4090 Telfer Road
Corunna ON N0N 1G0
Facility's Phone: (519) 864 1021

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN3082, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., (PENTACHLOROPHENOL, FUEL OIL), 9, PG III (D037, F032)	001	TT	2600	G	D037 F032
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
[illegible] CH815468 ERG#171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Phil R[illegible]	[signature]	2	1	16

INT'L

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: [illegible]
Transporter signature (for exports only): [signature] Date leaving U.S.: [illegible]

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	[illegible]	[illegible]	16
Transporter 2 Printed/Typed Name	**Signature**	**Month**	**Day**	**Year**

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. GENERATOR'S INITIAL COPY

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

DO 1600349920 3C PPW 1/27/2016

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WID006176945	1	(800) 483-3718	008772292 FLE

GENERATOR

5. Generator's Name and Mailing Address
WDNR-Former Penswood Products Site
N117 W18493 Fulton Drive
Germantown, WI 53022
Generator's Phone: (262) 255-4460 ATTN:Mark Norris

Generator's Site Address (if different than mailing address)
8662 Daniels 70
Siren,WI 54872

6. Transporter 1 Company Name: CLEAN HARBORS ENVIRONMENTAL SERVICES INC. — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada, Inc.
4090 Telfer Road
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN3082, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., (PENTACHLOROPHENOL, FUEL OIL), 9, PG III (D037, F032)	001	TT	2,600	G	D037	F032	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.CH015498 ERG#171 AOC# 12424/6E/15 CN# [illegible]
CHESI,EPA ID NO.MIR000014530,IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Phil Richard — Signature: [signature] — Month 2 Day 9 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☑ Export from U.S. Port of entry/exit: PORT HURON, MI.
Transporter signature (for exports only): [signature] Date leaving U.S.: FEB. 17 2016.

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JACK VANDENDRIES — Signature: [signature] — Month 02 Day 16 Year 16
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jason Hamm — Signature: [signature] — Month 02 Day 17 Year 16

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. **DESIGNATED FACILITY TO GENERATOR**

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

Movement Document/Manifest Reference No.
N° de référence du document de mouvement/manifeste

DF91273-9

A Generator / consignor — Producteur / expéditeur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial: [illegible]

Company name / Nom de l'entreprise: Clean Harbors Environmental Services, Inc.

Mailing address / Adresse postale: [illegible] South Dort Highway — City / Ville: [illegible] — Province: MI — Postal code / Code postal: [illegible]

E-mail / Courrier électronique: — Tel. No. / N° de tél.: (810) [illegible]

Shipping site address / Adresse du lieu de l'expédition: [illegible] South Dort Highway

City / Ville: [illegible] — Province: MI — Postal code / Code postal: [illegible]

Intended Receiver / consignee — Réceptionnaire / destinataire prévu

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial: A-031813

Clean Harbors Canada, Inc.

Mailing address / Adresse postale: 4090 Telfer Road RR #1 — City / Ville: [illegible] — Province: ON — Postal code / Code postal: [illegible]

E-mail / Courrier électronique: — Tel. No. / N° de tél.: (519) 864-1021

Receiving site address / Adresse du lieu de l'expédition: 4090 Telfer Road RR #1

City / Ville: Corunna — Province: ON — Postal code / Code postal: N0N 1G0

B Carrier — Transporteur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial: [illegible]

Company name / Nom de l'entreprise: Clean Harbors Canada, Inc.

Mailing address / Adresse postale: [illegible] Drive — City / Ville: [illegible] — Province: ON — Postal code / Code postal: [illegible]

E-mail / Courrier électronique: — Tel. No. / N° de tél.: [illegible]

Vehicle / Véhicule — Registration No. / N° d'immatriculation — Prov.

Trailer - Rail car No. 1 / 1re remorque - wagon: #3152 / HA80AM — [illegible]

Trailer - Rail car No. 2 / 2e remorque - wagon:

Port of entry / Point d'entrée — International use only

Port of exit / Point de sortie — International use only

Carrier Certification: I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.
Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): Jack Vandewoude[?] — Tel. No. / N° de tél.: [illegible]

Year / Année: 16 — Month / Mois: 02 — Day / Jour: 17 — Signature: [signature]

C Receiver / consignee — Réceptionnaire / destinataire

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés: [illegible]

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial: A031813

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☒ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: CLEAN HARBORS CANADA INC.
Mailing address / Adresse postale: R.R. #1, 4090 TELFER ROAD
City / Ville — Province — Postal code / Code postal: CORUNNA, ONTARIO N0N 1G0
E-mail / Courrier électronique: 519-864-1021

Receiving site address / Adresse du lieu de destination: [illegible handwriting]

Date received / Date de réception: Year / Année 16 — Month / Mois 02 — Day / Jour 17 — Time / Heure 1903 ☐ A.M. ☒ P.M.

If waste or recyclable material is to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov.	Shipping name / Appellation réglementaire	Class / Classe, Sub. class(es) / Classe(s) sub.	UN No. / N° NU	Packing / risk gr. / Gr. d'emballage / de risque	Quantity shipped / Quantité expédiée	Units L or / ou Kg / Unités	Packaging/Contenant No. / N°	Codes Int. – ext.	Phys. state / État phys.	Quantity received / Quantité reçue	Units L or / ou Kg / Unités	Comments / Commentaires	Handling Code / Code de manutention	Shipment / Envoi Accepted / Accepté	Refused / Refusé	Decont. Pack. Cont.
(i) [illegible]	WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., [illegible]	9	UN3077	III	[illegible]	Kg	[illegible]	[illegible]	LS	6520	Kg	please see attached manifest weight variance explanation	02	yes		N / N
(ii)																
(iii)																
(iv)																

	Notice No. / N° de notification	Notice Line No / N° de ligne de la notification	Shipment / Envoi	Of / De	D or R code / Code E ou R	C code / Code C	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE	H code / Code H	Y code / Code Y	Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes
(i)	[illegible]	1 (1)	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	NA	[illegible]
(ii)												
(iii)												
(iv)												

International use only

National code in country of / Code du pays

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier)

Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): Jason Hamm[?]

Signature: [signature] — Tel. No. / N° de tél.: [illegible]

Special handling / Manutention spéciale: ☐ Attached / Ci-joint ☒ As follows / Ci-contre: [illegible]

Generator / consignor certification: I certify that the information contained in Part A is correct and complete.
Attestation du producteur / expéditeur : J'atteste que tous les renseignements à la partie A sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): [illegible] — Signature: [illegible] — Tel. No. / N° de tél.: [illegible]

Date shipped / Date d'expédition: Year / Année 16 — Month / Mois 02 — Day / Jour [illegible] — Time / Heure: [illegible] ☐ A.M. ☐ P.M.

Scheduled arrival date / Date d'arrivée prévue: Year / Année 16 — Month / Mois 02 — Day / Jour 1[illegible]

MOE 04-1917 (07/07)

Mailed by Consignee to Consignor - Postée par le destinataire à l'expéditeur

Copy / Copie 6 (brown / bru

Clean Harbors Canada, Inc.
4090 Telfer Road
Corunna ON, N0N 1G0
MIR000035204
(519) 864-1021

CERTIFICATE OF DISPOSAL

Manifest Mailing Name :	WDNR-Former Pentawood Products Site		
Manifest Mailing Address:	N117 W18493 Fulton Drive Germantown, WI 53022	Job Address:	8682 Daniels 70 Siren, WI 54872
Customer Contact Name:	Mr Mark Norris	Generator Contact Name:	Mr Mark Norris
Sales Order #:	1600349920	Date Received:	2/17/2016
Generator EPA ID:	WID006176945	Manifest #:	008772292FLE

Line #	Profile/Description		Disposal Date	Method of Disposal	Disposal Facility
1	CH81548B	F032 Contaminated Liquid	2/26/2016	Incineration	Corunna, ON Facility (Sarnia)

Under Civil and Criminal Penalties of Law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Name: Paul A. Wells

Title: VP Environmental Applications

Date: Wednesday, March 23, 2016