



Semiannual Report

January through June 2022

Penta Wood Products Superfund Site

Wisconsin Department of Natural Resources

September 08, 2022

GHD

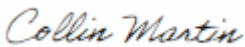


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Contents

| | | |
|-----------|--|----------|
| 1. | Introduction | 1 |
| 1.1 | Purpose of this report | 1 |
| 1.2 | Scope and limitations | 1 |
| 2. | Groundwater Monitoring and Sampling | 1 |
| 2.1 | Groundwater and LNAPL level monitoring | 2 |
| 2.1.1 | Vertical Gradients | 2 |
| 2.2 | Groundwater sampling | 2 |
| 2.2.1 | Naphthalene and BTEX analytical data | 3 |
| 2.2.2 | PCP analytical data | 3 |
| 2.2.3 | Arsenic analytical data | 3 |
| 2.2.4 | Other metals analytical data | 3 |
| 2.2.5 | Natural attenuation parameters analytical data | 4 |
| 3. | Residential Well and Onsite Supply Well Sampling | 4 |
| 3.1 | Residential well and onsite supply well sample analytical data | 4 |
| 4. | Waste management and disposal | 5 |
| 5. | Continuing Obligations and Inspections | 5 |
| 5.1 | Continuing obligations | 5 |
| 5.2 | Inspections | 6 |
| 6. | Conclusions and Recommendations | 6 |
| 7. | Certification | 7 |

Table index

| | |
|-----------|---|
| Table 2.1 | Groundwater Monitoring and Sampling Plan |
| Table 2.2 | Groundwater and LNAPL Level Monitoring Data |
| Table 2.3 | Groundwater Purging and Sampling Data |
| Table 2.4 | Groundwater Analytical Data – Monitoring and Extraction Wells |
| Table 3.1 | Groundwater Analytical Data – Residential Wells |

Figure index

| | |
|------------|--|
| Figure 1.1 | Site Location |
| Figure 1.2 | Site Plan |
| Figure 2.1 | Unconfined (Upper) Aquifer Groundwater Contours April 2022 |
| Figure 2.2 | Semiconfined (Lower) Aquifer Groundwater Contours April 2022 |
| Figure 2.3 | LNAPL Thickness April 2022 |
| Figure 2.4 | Unconfined (Upper) Aquifer Pentachlorophenol Concentrations April 2022 |
| Figure 2.5 | Semiconfined (Lower) Aquifer Pentachlorophenol Concentrations April 2022 |
| Figure 2.6 | Unconfined (Upper) Aquifer Arsenic Concentrations April 2022 |
| Figure 2.7 | Semiconfined (Lower) Aquifer Arsenic Concentrations April 2022 |
| Figure 3.1 | Residential Well Locations |

Appendices

| | |
|------------|--|
| Appendix A | Historical Site Data |
| Appendix B | Groundwater Sample Laboratory Reports – Monitoring, Extraction, Residential, and Onsite Supply Wells |
| Appendix C | Residential Well and Onsite Supply Well Water Sample Data Validation |
| Appendix D | Site Inspection Forms |

1. Introduction

1.1 Purpose of this report

GHD Services Inc. (GHD) prepared this Semiannual Report (Report) for the Penta Wood 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 June 2022 including:

- Groundwater monitoring and sampling (Section 2)
- Residential well and onsite supply well sampling (Section 3)
- Waste management and disposal (Section 4)
- Continuing obligations and inspections (Section 5)
- Conclusions and recommendations (Section 6)
- Certification (Section 7)

1.2 Scope and limitations

This report has been prepared by GHD for Wisconsin Department of Natural Resources and may only be used and relied on by Wisconsin Department of Natural Resources for the purpose agreed between GHD and Wisconsin Department of Natural Resources.

GHD otherwise disclaims responsibility to any person other than Wisconsin Department of Natural Resources arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

2. Groundwater Monitoring and Sampling

Groundwater monitoring and sampling was conducted at the Site in April 2022 based on the modified scope of work provided in a GHD letter to EPA dated June 30, 2016. Wells MW4 and MW14 were subsequently added to the sampling scope to assess semi confined aquifer (lower portion) groundwater quality southeast of the LNAPL source area. Wells MW2 and MW5 were also added to the sampling scope to assess the groundwater quality in the vicinity of well MW30. A new well (MW32) was installed in May 2019 and added to the sampling scope to assess groundwater quality along the eastern property boundary. In January 2021, USEPA approved modifying the frequency of groundwater monitoring from a quarterly basis to a semiannual basis as recommended in the Semiannual Report – July through December 2020 (GHD; February 10, 2021). The groundwater monitoring and sampling plan is summarized in Table 2.1. Sampling was completed in general accordance with the Field Sampling Plan (FSP) (CH2M HILL, November 1999, and November 2010) and Quality Assurance Project Plan (QAPP) (CH2M HILL, February 2005) with subsequent addendums (most recent is Addendum No. 6 dated July 2014). The objectives of the groundwater monitoring at the Site include:

- To monitor flow direction and hydraulic gradient through the measurement and assessment of groundwater levels.
- To monitor the natural attenuation of the plume through collection and chemical analysis of groundwater samples from monitoring wells.
- To monitor long term improvement in groundwater quality through the collection and chemical analysis of groundwater samples from monitoring wells.
- To monitor compliance with groundwater cleanup standards for the Site (State of Wisconsin ch. NR 140 Enforcement Standards)
- To monitor potential impact to residential wells through collection and chemical analysis of water samples from targeted residential wells.

2.1 Groundwater and LNAPL level monitoring

Groundwater and Light Non-Aqueous Phase Liquid (LNAPL) levels were measured in thirty-four (34) monitoring wells and twenty-two (22) extraction well casings at the Site on April 8, 2022. The groundwater and LNAPL elevation data along with well survey data are summarized in Table 2.2. Historical LNAPL thickness data are included in Appendix A.

Groundwater elevation contours were inferred from the April 2022 measurement data. Unconfined aquifer (upper portion) contours are shown on Figure 2.1. Semiconfined aquifer (lower portion) groundwater contours are shown on Figure 2.2. The contours indicate that the groundwater gradient is relatively flat at approximately 0.0007 ft/ft (as calculated between wells MW26 and MW27) and represent non pumping conditions following shutdown of the remediation system and groundwater extraction pumps (November 2015). The groundwater flow direction in both aquifers is primarily toward the west/northwest with potential minor radial flow components.

During the April 2022 event, LNAPL was present in monitoring wells MW10S, MW18, MW19, MW20 and MW29 at measurable thicknesses. LNAPL was present in extraction wells EW03S, EW05S, EW06S, EW07S, EW10S, EW12S, and EW14S with casings screened in the unconfined (upper) aquifer. The general location of LNAPL is consistent with recent monitoring. LNAPL was not detected at any wells in the semiconfined (lower) aquifer during the April 2022 monitoring events. LNAPL thickness measurements are shown on Figure 2.3.

2.1.1 Vertical Gradients

Vertical hydraulic gradients were calculated between the semiconfined and unconfined aquifers to evaluate vertical flow between the two aquifers. The vertical gradient was calculated at monitoring wells MW10/MW10S, MW12/MW16, and MW23/MW9 (see Figures 2.1 and 2.2). The vertical gradient was determined by taking the difference in groundwater elevations divided by the difference in mid screen elevations of the wells listed above.

Groundwater at the Site flows from the unconfined aquifer downward to the semiconfined aquifer. The vertical gradients at the site ranged between 0.014 ft/ft (MW12/MW16) and 0.043 ft/ft (MW10/MW10S), which is generally consistent with recent monitoring events and represents non-pumping conditions.

2.2 Groundwater sampling

This semiannual groundwater sampling event was conducted from April 11 through 14, 2021 and consisted of collecting groundwater samples from nineteen (19) monitoring wells (MW1, MW2, MW3, MW4, MW5, MW6S, MW10, MW12, MW13, MW14, MW16, MW17, MW22, MW23, MW25, MW28, MW30, MW31, and MW32) and three (3) extraction wells (EW11D, EW11S, and EW13S). Wells MW10S, MW20, and MW29 were not sampled due to the presence of LNAPL in the wells. Well MW21 was not sampled due to insufficient water in the well casing to collect a sample. Groundwater samples were collected using low flow purge and sample protocol. As part of the well stabilization process, the groundwater was measured in the field for the following parameters: pH, temperature, specific conductance, dissolved oxygen (DO), and oxidation reduction potential (ORP), iron, and sulfide. The

parameters DO ORP, iron, and sulfide are used to help evaluate the groundwater geochemical conditions at the well. The groundwater purging and sampling data are summarized in Table 2.3.

The groundwater samples were collected and analyzed for the following compounds: pentachlorophenol (PCP); naphthalene; benzene, toluene, ethylbenzene, and xylene (BTEX); natural attenuation parameters; and select dissolved and total metals. The natural attenuation parameters included alkalinity, chloride, hardness, nitrate, sulfate, total organic carbon, and methane. The results of the natural attenuation parameters were evaluated to confirm the groundwater reduction oxidation conditions at the Site and if the groundwater conditions are favorable for biodegradation. The select dissolved metals included arsenic, copper, iron, manganese, and zinc. The metals samples were filtered in the field through a 0.45-micron filter. The groundwater sample analytical data are summarized in Table 2.4.

All groundwater samples were shipped via commercial courier under standard chain of custody procedures to Eurofins Environment Testing America (Eurofins) in University Park, Illinois for analysis. Copies of laboratory reports are included in Appendix B.

The following sections present a discussion of the groundwater sample analytical data and the Wisconsin Chapter NR140 enforcement standards (ES). Historical data and PCP concentration charts are included in Appendix A.

2.2.1 Naphthalene and BTEX analytical data

The April 2022 naphthalene and BTEX analytical data are summarized in Table 2.4. Naphthalene and BTEX was not detected at concentrations that exceeded the ESs.

2.2.2 PCP analytical data

The April 2022 PCP analytical data are summarized in Table 2.4. PCP was detected in ten (10) wells (MW2, MW4, MW5, MW10D, MW12, MW22, MW30, MW32, EW11S, and EW13S) at concentrations that exceeded the ES (1.0 µg/L). Figure 2.4 shows the PCP concentrations in the unconfined (upper) aquifer wells. Figure 2.5 shows the PCP concentrations in the semiconfined (lower) aquifer wells.

Consistent with monitoring data since prior to shutdown of the remediation system in 2015, elevated PCP concentrations (i.e., greater than 1,000 µg/L) are limited to the immediate vicinity of the LNAPL area in the unconfined and semiconfined aquifers.

2.2.3 Arsenic analytical data

The April 2022 dissolved and total arsenic analytical data are summarized in Table 2.4. Dissolved arsenic was detected in one (1) well (EW13S) at a concentration that exceeded the ES (10 µg/L). Total arsenic was not detected at a concentration that exceeded the ES at that well (EW13S). However, the laboratory noted that arsenic was found in the blank and samples. Figure 2.6 shows the dissolved arsenic concentrations in the unconfined (upper) aquifer wells. Figure 2.7 shows the dissolved arsenic concentrations in the semiconfined (lower) aquifer wells.

Consistent with monitoring data since prior to shutdown of the remediation system in 2015, arsenic concentrations (i.e., greater than 1 µg/L) are limited to isolated areas within the Site property boundaries in the unconfined and semiconfined aquifers, which indicates the plume remained stable.

2.2.4 Other metals analytical data

The April 2022 dissolved and total metals analytical data are summarized in Table 2.4. Zinc and copper were not detected at concentrations that exceeded the ESs.

Total iron was detected in eleven (11) wells at concentrations exceeding the ES (300 µg/L), with dissolved iron detected at concentrations exceeding the ES in nine (9) of those wells. Total manganese was detected in nine (9) wells at concentrations exceeding the ES (50 µg/L), with dissolved manganese detected in concentrations exceeding

the ES in five (5) of those wells. The ES for iron and manganese are considered secondary health-based standards that are based on aesthetics (i.e., odor and taste).

2.2.5 Natural attenuation parameters analytical data

The natural attenuation results are provided in Table 2.4. The results generally show elevated levels of nitrate and sulfate and low concentrations of TOC and methane. These results in combination with the field stabilization parameters of DO, ORP, iron, and sulfide (Table 2.3) show that the groundwater beneath the Site is aerobic to slightly anaerobic because DO values are greater than 1 mg/L and ORP values are positive at the majority of wells outside the immediate vicinity of the LNAPL area in both the unconfined and semiconfined aquifers.

3. Residential Well and Onsite Supply Well Sampling

During April 2022, water samples were collected from six residential wells located near the Site in general accordance with the FSP and QAPP. The residential wells include:

- 8713 Daniels 70 (RW1)
- 8627 Daniels 70 (RW2)
- 8454 Daniels 70 (RW3)
- 8526 Daniels 70 (RW4)
- 8783 Daniels 70 (RW5)
- 8542 West Doctor Lake Road (RW6 and RW6 Shop)
- (DW01)

The onsite water supply well (DW01) serves the remediation equipment building. The water was previously used for sanitary facilities in the building and maintaining the remediation equipment but is not ingested by workers. During January 2018, the building heater malfunctioned, and the water supply pipes were damaged due to freezing. The water supply piping was subsequently disconnected at the building. The onsite water supply well no longer provides a water supply to the building and is currently only used as a supply for sampling equipment decontamination water. The pump within the supply well was not functioning and a sample could not be collected during April 2022. Additionally, the spigot used to collect a sample from well RW1 had not yet been turned on; therefore, a sample could not be collected from well RW1 during April 2022.

The residential well and onsite water supply well locations are shown on Figure 3.1. Residential well water samples were collected on April 14, 2022 and analyzed for PCP, BTEX, and naphthalene. A second round of samples for select residential wells (RW1, RW2, and RW5) was collected on June 20, 2022 and analyzed for PCP, BTEX, and naphthalene.

3.1 Residential well and onsite supply well sample analytical data

BTEX and naphthalene were not detected in the residential wells, which is similar with historical data. PCP was detected in RW2 and RW5 in the April sampling event (at concentrations of 0.31 µg/L and 0.19 µg/L, respectively), which are below the ES (1.0 µg/L). The wells were resampled on June 20, 2022, and PCP was not detected at either location. The residential well sample analytical data are summarized in Table 3.1. Copies of the laboratory reports are included in Appendix B, and the data validation memorandum is included in Appendix C. Historical residential and

onsite water supply well PCP data are included in Appendix A. Semiannual sampling will continue at all residential wells to identify and track potential PCP concentration trends.

4. Waste management and disposal

No waste was disposed during January through June 2022. GHD continues to collect and containerize PPE and other waste produced during sampling events onsite. Historical hazardous waste disposal is summarized in Appendix A.

5. 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).

5.1 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 ROD 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 landowners or lessees, and continuing education for landowners and property users through annual updates and information.

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:
 - The selected remedy (i.e., remediation system shutdown pilot study and associated monitoring) remains in place and remains effective.
 - 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:
 - Removal of the existing barrier or cover,
 - Replacement with another barrier or cover,
 - Excavating or grading of the land surface,

- Filling on covered or paved areas,
- Plowing for agricultural cultivation,
- Construction or placement of a building or other structure, or
- 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.

An inspection of continuing obligations items was completed on April 8, 2022 and a copy of the continuing obligations inspection form is included in Appendix D.

5.2 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 remain closed and locked when GHD and/or WDNR are not at the Site.
- The CAMU area surface soils/vegetation were in good condition during this monitoring period and did not require repairs; erosion, subsidence, and ponding water were not observed on the CAMU.

Site well inspections were completed on April 8, 2022 and a copy of the well inspection form is included in Appendix D.

6. Conclusions and Recommendations

Based on the January through June 2022 monitoring and sampling data, the following conclusions are made and represent lines of evidence supporting selection of an alternate remedy:

- LNAPL limits indicate that the LNAPL did not migrate following shutdown of the remediation system in 2015 and indicate overall stability of the LNAPL body.
- NSZD is occurring within the LNAPL body at this Site.
- Dissolved PCP concentrations greater than 1,000 µg/L are limited to the immediate vicinity of the LNAPL area.
- Dissolved PCP degrades naturally in the aerobic zone outside of the LNAPL area, which helps stabilize the plume and prevent migration.
- Dissolved PCP degrades in the anaerobic zone (LNAPL source area) at a slow rate.
- The rate that dissolved PCP partitions from the LNAPL is slow enough and the rate of natural degradation is fast enough that migration is limited.

Following USEPA's review of the Semiannual Report and Alternate Remedy Recommendation (GHD; March 17, 2020), USEPA, WDNR, and GHD held discussions regarding potential future remedial actions at the Site. Additional investigation including drilling and groundwater sampling is planned for the Site following USEPA funding.

While future potential actions are assessed, WDNR recommends monitoring and sampling at the Site as summarized in Table 2.1 and as follows:

- Semiannual groundwater and LNAPL level monitoring during April and October.
- Semiannual groundwater sampling during April and October.
- Semiannual residential well sampling during April and October.
- Semiannual report preparation and submittal in January and July.

Two modifications to the previous monitoring and sampling plan are recommended as follows:

- Analyze groundwater samples collected from monitoring and extraction wells for total metals in addition to dissolved metals
- Exclude groundwater sampling and analysis at the onsite water supply well (DW01) during future semiannual sampling events since the well no longer provides a water supply to the building and the pump is no longer functioning
- Conduct residential well water sampling on a quarterly basis in January, April, July, and October

The recommended contingency remedy includes keeping the existing remediation system infrastructure in place for potential future groundwater and/or LNAPL extraction and treatment while potential future remedial actions are assessed.

7. 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 contingency remedy discussed above is not necessary at this time.

Tables

**Groundwater Monitoring and Sampling Plan
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Well ID | Semiannual Groundwater/LNAPL Level Monitoring ¹ | Semiannual Groundwater Sampling ^{2, 3, 4} |
|-------------------------------------|--|--|
| Unconfined (Upper) Aquifer | | |
| MW1 | X | X |
| MW2 | X | X |
| MW5 | X | X |
| MW6S | X | X |
| MW9 | X | |
| MW10S | X | X |
| MW13 | X | X |
| MW16 | X | X |
| MW18 | X | |
| MW19 | X | |
| MW20 | X | X |
| MW21 | X | X |
| MW22 | X | X |
| MW24 | X | |
| MW25 | X | X |
| MW26 | X | |
| MW27 | X | |
| MW28 | X | X |
| MW29 | X | X |
| MW30 | X | X |
| MW31 | X | X |
| MW32 | X | X |
| EW02S | X | |
| EW03S | X | |
| Unconfined (Upper) Aquifer | | |
| EW04S | X | |
| EW05S | X | |
| EW06S | X | |
| EW07S | X | |
| EW10S | X | |
| EW11S | X | X |
| EW12S | X | |
| EW13S | X | X |
| EW14S | X | |
| Semiconfined (Lower) Aquifer | | |
| MW3 | X | X |
| MW4 | X | X |
| MW6 | X | |
| MW7 | X | |
| MW8 | X | |
| MW10 | X | X |
| MW11 | X | |
| MW12 | X | X |
| MW14 | X | X |
| MW15 | X | |
| MW17 | X | X |
| MW23 | X | X |
| EW02D | X | |

**Groundwater Monitoring and Sampling Plan
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Well ID | Semiannual Groundwater/LNAPL Level Monitoring ¹ | Semiannual Groundwater Sampling ^{2, 3, 4} |
|-------------------------------------|--|--|
| Semiconfined (Lower) Aquifer | | |
| EW03D | X | |
| EW04D | X | |
| EW05D | X | |
| EW06D | X | |
| EW07D | X | |
| EW10D | X | |
| EW11D | X | X |
| EW12D | X | |
| EW13D | X | |
| EW14D | X | |

Notes:

- 1 Groundwater/LNAPL level monitoring conducted on a semiannual basis in April and October.
- 2 Groundwater sampling conducted on an annual basis in April
- 3 Groundwater sample laboratory analyses include the following parameters: Pentachlorophenol (PCP); naphthalene; benzene, toluene, ethylbenzene, and xylenes (BTEX); natural attenuation parameters (alkalinity, chloride, hardness, nitrate, sulfate, total organic carbon, and methane); and select dissolved and total metals (arsenic, copper, iron, manganese, and zinc). Field parameter measurements include the following parameters: pH, temperature, specific conductance, dissolved oxygen (DO), oxidation-reduction potential (ORP), iron, and sulfide.
- 4 Groundwater samples will not be collected if LNAPL is present in the well casing.

Table 2.2

**Groundwater and LNAPL Level Monitoring Data
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Well ID | Date | Top of Casing Elevation (feet) | Depth to Groundwater (feet btoc) | Depth to LNAPL (feet btoc) | Groundwater Elevation (feet AMSL) | LNAPL Elevation (feet AMSL) | LNAPL Thickness (feet) |
|-------------------------------------|------------|--------------------------------|----------------------------------|----------------------------|-----------------------------------|-----------------------------|------------------------|
| Semiconfined Aquifer (Lower) | | | | | | | |
| MW3 | 04/08/2022 | 1129.44 | 145.42 | ND | 984.02 | NA | 0.00 |
| MW4 | 04/08/2022 | 1087.72 | 104.06 | ND | 983.66 | NA | 0.00 |
| MW6 | 04/08/2022 | 1109.11 | 125.22 | ND | 983.89 | NA | 0.00 |
| MW7 | 04/08/2022 | 1096.25 | 112.58 | ND | 983.67 | NA | 0.00 |
| MW8 | 04/08/2022 | 1091.13 | 107.24 | ND | 983.89 | NA | 0.00 |
| MW10 | 04/08/2022 | 1089.01 | 105.04 | ND | 983.97 | NA | 0.00 |
| MW11 | 04/08/2022 | 1085.48 | 102.14 | ND | 983.34 | NA | 0.00 |
| MW12 | 04/08/2022 | 1080.91 | 97.07 | ND | 983.84 | NA | 0.00 |
| MW14 | 04/08/2022 | 1078.25 | 94.56 | ND | 983.69 | NA | 0.00 |
| MW15 | 04/08/2022 | 1127.09 | 142.85 | ND | 984.24 | NA | 0.00 |
| MW17 | 04/08/2022 | 1084.43 | 100.54 | ND | 983.89 | NA | 0.00 |
| MW23 | 04/08/2022 | 1017.16 | 33.80 | ND | 983.36 | NA | 0.00 |
| EW02D | 04/08/2022 | 1083.00 | 98.87 | ND | 984.13 | NA | 0.00 |
| EW03D | 04/08/2022 | 1089.48 | 105.33 | ND | 984.15 | NA | 0.00 |
| EW04D | 04/08/2022 | 1101.09 | 116.85 | ND | 984.24 | NA | 0.00 |
| EW05D | 04/08/2022 | 1076.99 | 92.77 | ND | 984.22 | NA | 0.00 |
| EW06D | 04/08/2022 | 1083.39 | 99.09 | ND | 984.30 | NA | 0.00 |
| EW07D | 04/08/2022 | 1087.52 | 103.13 | ND | 984.39 | NA | 0.00 |
| EW10D | 04/08/2022 | 1088.55 | 104.33 | ND | 984.22 | NA | 0.00 |
| EW11D | 04/08/2022 | 1048.19 | 63.90 | ND | 984.29 | NA | 0.00 |
| EW12D | 04/08/2022 | 1086.41 | 102.17 | ND | 984.24 | NA | 0.00 |
| EW13D | 04/08/2022 | 1092.88 | 108.62 | ND | 984.26 | NA | 0.00 |
| EW14D | 04/08/2022 | 1098.28 | 114.06 | ND | 984.22 | NA | 0.00 |
| Unconfined Aquifer (Upper) | | | | | | | |
| MW1 | 04/08/2022 | 1072.27 | 87.83 | ND | 984.44 | NA | 0.00 |
| MW2 | 04/08/2022 | 1065.03 | 80.72 | ND | 984.31 | NA | 0.00 |
| MW5 | 04/08/2022 | 1071.42 | 87.46 | ND | 983.96 | NA | 0.00 |
| MW6S | 04/08/2022 | 1108.35 | 123.88 | ND | 984.47 | NA | 0.00 |
| MW9 | 04/08/2022 | 1019.58 | 35.23 | ND | 984.35 | NA | 0.00 |
| MW10S | 04/08/2022 | 1090.12 | 107.50 | 106.10 | 982.62 | 984.02 | 1.40 |
| MW13 | 04/08/2022 | 1005.81 | 21.53 | ND | 984.28 | NA | 0.00 |
| MW16 | 04/08/2022 | 1081.95 | 97.63 | ND | 984.32 | NA | 0.00 |
| MW18 | 04/08/2022 | 1071.96 | 88.13 | 87.59 | 983.83 | 984.37 | 0.54 |
| MW19 | 04/08/2022 | 1087.96 | 104.46 | 103.88 | 983.50 | 984.08 | 0.58 |
| MW20 | 04/08/2022 | 1098.16 | 114.76 | 113.82 | 983.40 | 984.34 | 0.94 |
| MW21 | 04/08/2022 | 1095.82 | 111.29 | ND | 984.53 | NA | 0.00 |
| MW22 | 04/08/2022 | 1084.65 | 100.25 | ND | 984.40 | NA | 0.00 |
| MW24 | 04/08/2022 | 1084.04 | 100.17 | ND | 983.87 | NA | 0.00 |

Table 2.2

**Groundwater and LNAPL Level Monitoring Data
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Well ID | Date | Top of Casing Elevation (feet) | Depth to Groundwater (feet btoc) | Depth to LNAPL (feet btoc) | Groundwater Elevation (feet AMSL) | LNAPL Elevation (feet AMSL) | LNAPL Thickness (feet) |
|---|------------|--------------------------------|----------------------------------|----------------------------|-----------------------------------|-----------------------------|------------------------|
| Unconfined Aquifer (Upper) continued | | | | | | | |
| MW25 | 04/08/2022 | 1095.25 | 111.33 | ND | 983.92 | NA | 0.00 |
| MW26 | 04/08/2022 | 1086.87 | 103.02 | ND | 983.85 | NA | 0.00 |
| MW27 | 04/08/2022 | 1110.96 | 126.43 | ND | 984.53 | NA | 0.00 |
| MW28 | 04/08/2022 | 1083.52 | 99.02 | ND | 984.50 | NA | 0.00 |
| MW29 | 04/08/2022 | 1070.24 | 87.37 | 85.81 | 982.87 | 984.43 | 1.56 |
| MW30 | 04/08/2022 | 1048.98 | 64.59 | ND | 984.39 | NA | 0.00 |
| MW31 | 04/08/2022 | 1076.34 | 92.00 | ND | 984.34 | NA | 0.00 |
| MW32 | 04/08/2022 | 1021.02 | 36.71 | ND | 984.31 | NA | 0.00 |
| EW02S | 04/08/2022 | 1082.25 | 98.06 | ND | 984.19 | NA | 0.00 |
| EW03S | 04/08/2022 | 1088.66 | 105.05 | 104.45 | 983.61 | 984.21 | 0.60 |
| EW04S | 04/08/2022 | 1101.01 | 116.84 | ND | 984.17 | NA | 0.00 |
| EW05S | 04/08/2022 | 1077.04 | 93.98 | 92.71 | 983.06 | 984.33 | 1.27 |
| EW06S | 04/08/2022 | 1083.61 | 102.58 | 99.29 | 981.03 | 984.32 | 3.29 |
| EW07S | 04/08/2022 | 1087.49 | 103.91 | 103.18 | 983.58 | 984.31 | 0.73 |
| EW10S | 04/08/2022 | 1088.72 | 109.61 | 104.38 | 979.11 | 984.34 | 5.23 |
| EW11S | 04/08/2022 | 1047.23 | 62.99 | ND | 984.24 | NA | 0.00 |
| EW12S | 04/08/2022 | 1086.31 | 106.14 | 102.01 | 980.17 | 984.30 | 4.13 |
| EW13S | 04/08/2022 | 1092.88 | 108.68 | ND | 984.20 | NA | 0.00 |
| EW14S | 04/08/2022 | 1098.32 | 114.51 | 114.21 | 983.81 | 984.11 | 0.30 |

Notes:

- feet btoc - Feet below top of casing
- feet AMSL - Feet above mean sea level
- NA - Not applicable
- ND - LNAPL was not detected in a measureable quantity
- NM - Not measured

Table 2.3

**Groundwater Purging and Sampling Data
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Location | Date | Sample Identification | Time | Purge Volume (gallons) | pH | Temperature (°C) | Specific Conductance (µS) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | ORP (mV) | Total Iron (mg/L) | Total Sulfide (mg/L) |
|----------|-----------|-----------------------|-------|---------------------------|------|---------------------|---------------------------------|--------------------|-------------------------------|-------------|----------------------|-------------------------|
| EW11d | 4/12/2022 | W-220412-RA-05 | 10:08 | 0.0 | 6.93 | 6.52 | 313 | 125 | 0.07 | 64 | | |
| | 4/12/2022 | Sample Time: 10:29 | 10:15 | 0.1 | 7.28 | 6.91 | 323 | 121 | 0 | 0 | | |
| | 4/12/2022 | | 10:18 | 0.3 | 7.37 | 7.14 | 324 | 117 | 0 | -17 | | |
| | 4/12/2022 | | 10:23 | 0.4 | 7.38 | 7.25 | 332 | 114 | 0 | -22 | | |
| | 4/12/2022 | | 10:28 | 0.5 | 7.34 | 7.28 | 340 | 112 | 0 | -24 | 5.5 | ND |
| EW11s | 4/12/2022 | W-220412-RA-06 | 10:55 | 0.0 | 7.53 | 7.7 | 304 | 14 | 1.67 | 38 | | |
| | 4/12/2022 | Sample Time: 11:14 | 11:00 | 0.1 | 7.38 | 8.06 | 289 | 10.2 | 1.42 | 58 | | |
| | 4/12/2022 | | 11:04 | 0.2 | 7.28 | 8.13 | 280 | 8.4 | 1.65 | 68 | | |
| | 4/12/2022 | | 11:09 | 0.3 | 7.26 | 8.16 | 274 | 5.1 | 1.73 | 70 | | |
| | 4/12/2022 | | 11:13 | 0.4 | 7.29 | 8.23 | 273 | 3.5 | 1.74 | 71 | 0.5 | ND |
| MW1 | 4/11/2022 | W-220411-RA-03 | 13:02 | 0.0 | 8.02 | 9.15 | 294 | 4 | 9.17 | 102 | | |
| | 4/11/2022 | Sample Time: 13:20 | 13:07 | 0.1 | 8.09 | 9.18 | 293 | 1.7 | 9.07 | 103 | | |
| | 4/11/2022 | | 13:12 | 0.3 | 8.13 | 9.21 | 294 | 1.3 | 8.98 | 105 | ND | ND |
| MW10d | 4/14/2022 | W-220414-RA-26 | 13:54 | 0.0 | 7.09 | 11.79 | 434 | 81.1 | 0 | -132 | | |
| | 4/14/2022 | Sample Time: 13:30 | 13:58 | 0.1 | 7.00 | 12.82 | 432 | 58.7 | 0 | -38 | | |
| | 4/14/2022 | | 14:02 | 0.3 | 6.97 | 12.96 | 429 | 72.2 | 0 | -37 | | |
| | 4/14/2022 | | 14:05 | 0.4 | 6.95 | 13.04 | 427 | 38 | 0 | -36 | | |
| | 4/14/2022 | | 14:12 | 0.5 | 6.93 | 13 | 427 | 70 | 0 | -35 | | |
| | 4/14/2022 | | 14:15 | 0.7 | 6.94 | 12.75 | 428 | 75 | 0 | -35 | | |
| | 4/14/2022 | | 14:20 | 0.8 | 6.94 | 13.13 | 427 | 72.3 | 0 | -36 | 1 | ND |
| MW12 | 4/13/2022 | W-220413-RA-20 | 14:05 | 0.0 | 6.89 | 13.34 | 420 | 25.4 | 1.55 | 102 | | |
| | 4/13/2022 | Sample Time: 14:23 | 14:14 | 0.1 | 6.93 | 13.25 | 424 | 6 | 0.27 | 85 | | |
| | 4/13/2022 | | 14:20 | 0.2 | 6.95 | 13.26 | 426 | 0 | 0.05 | 79 | | |
| | 4/13/2022 | | 14:24 | 0.3 | 6.95 | 13.27 | 430 | 0 | 0 | 75 | ND | ND |
| MW13 | 4/11/2022 | W-220411-RA-01 | 9:43 | 0.0 | 8.00 | 7.91 | 141 | 2.8 | 3.55 | 86 | | |
| | 4/11/2022 | Sample Time: 10:10 | 9:48 | 0.1 | 7.51 | 7.96 | 141 | 3.1 | 3.32 | 98 | | |
| | 4/11/2022 | | 9:53 | 0.2 | 7.31 | 8.02 | 141 | 1.9 | 3.11 | 103 | | |
| | 4/11/2022 | | 9:58 | 0.3 | 7.17 | 8.03 | 141 | 0.6 | 3.08 | 108 | | |
| | 4/11/2022 | | 10:04 | 0.5 | 7.08 | 8.05 | 141 | 0.2 | 3.15 | 112 | | |
| | 4/11/2022 | | 10:07 | 0.6 | 7.05 | 8.04 | 141 | 0.1 | 2.89 | 114 | ND | ND |

Table 2.3

**Groundwater Purging and Sampling Data
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Location | Date | Sample Identification | Time | Purge Volume (gallons) | pH | Temperature (°C) | Specific Conductance (µS) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | ORP (mV) | Total Iron (mg/L) | Total Sulfide (mg/L) |
|----------|-----------|--------------------------------------|-------|---------------------------|-------|---------------------|---------------------------------|--------------------|-------------------------------|-------------|----------------------|-------------------------|
| EW13s | 4/12/2022 | W-220412-RA-15 Sample Time: 14:33 | 13:30 | 0.0 | 6.82 | 10.15 | 764 | 325 | 6.98 | -71 | NA | NA |
| MW14 | 4/13/2022 | W-220413-RA-17 | 11:30 | 0.0 | 8.63 | 9.86 | 334 | 0.5 | 6.42 | -22 | | |
| | 4/13/2022 | Sample Time: 11:40 | 11:34 | 0.1 | 8.60 | 10.17 | 336 | 0 | 6.8 | -16 | | |
| | 4/13/2022 | | 11:38 | 0.2 | 8.57 | 10.27 | 338 | 0 | 7.45 | -12 | ND | ND |
| MW16 | 4/13/2022 | W-220413-RA-19 | 13:02 | 0.0 | 7.92 | 11.15 | 260 | 13 | 5.75 | 32 | | |
| | 4/13/2022 | Sample Time: 13:21 | 13:06 | 0.1 | 7.69 | 12.64 | 254 | 22.4 | 5.75 | 47 | | |
| | 4/13/2022 | | 13:11 | 0.2 | 7.51 | 12.67 | 252 | 17.3 | 5.72 | 56 | | |
| | 4/13/2022 | | 13:15 | 0.2 | 7.41 | 12.67 | 251 | 7.9 | 5.69 | 70 | | |
| | 4/13/2022 | | 13:20 | 0.3 | 7.31 | 12.73 | 252 | 3.4 | 5.64 | 76 | NR | NR |
| MW17 | 4/11/2022 | W-220411-RA-08 | 12:30 | 0.0 | 9.56 | 11.34 | 585 | 0 | 7.69 | 169 | | |
| | 4/11/2022 | Sample Time: 12:50 | 12:35 | 0.1 | 9.23 | 12.13 | 596 | 0 | 7.94 | 181 | | |
| | 4/11/2022 | | 12:40 | 0.2 | 9.03 | 12.6 | 595 | 0 | 8.01 | 191 | | |
| | 4/11/2022 | | 12:45 | 0.2 | 9.02 | 12.62 | 594 | 0 | 7.96 | 192 | | |
| | 4/11/2022 | | 12:05 | 0.3 | 9.00 | 12.64 | 594 | 0 | 7.95 | 193 | Trace | ND |
| MW2 | 4/14/2022 | W-220413-RA-21 Sample Time: 19:22 | 19:20 | 0.0 | 6.66 | 8.34 | 198 | 507 | 11.4 | 101 | 0.5 | ND |
| MW22 | 4/12/2022 | W-220412-RA-16 Sample Time: 14:34 | 14:34 | 0.0 | 6.87 | 11.66 | 90 | 243 | 10.63 | 38 | 0.5 | ND |
| MW23 | 4/11/2022 | W-220411-RA-07 | 12:00 | 0.0 | 10.88 | 9.39 | 567 | 0 | 5.26 | 136 | | |
| | 4/11/2022 | Sample Time: 12:15 | 12:05 | 0.1 | 10.35 | 9.64 | 563 | 0 | 4.94 | 136 | | |
| | 4/11/2022 | | 12:10 | 0.3 | 10.32 | 9.65 | 563 | 0 | 4.91 | 136 | | |
| | 4/11/2022 | | 12:15 | 0.4 | 10.30 | 9.67 | 563 | 0 | 4.89 | 136 | 0.5 | ND |
| MW25 | 4/11/2022 | W-220411-RA-09 | 13:10 | 0.5 | 8.34 | 12.25 | 358 | 80.1 | 6.02 | 133 | | |
| | 4/11/2022 | Sample Time: 13:35 | 13:15 | 0.7 | 7.89 | 14.51 | 367 | 21.6 | 6.56 | 121 | | |
| | 4/11/2022 | | 13:20 | 0.8 | 7.83 | 14.89 | 368 | 23.7 | 6.72 | 120 | | |
| | 4/11/2022 | | 13:25 | 0.9 | 7.66 | 14.75 | 366 | 23.9 | 6.87 | 122 | | |
| | 4/11/2022 | | 13:30 | 1.1 | 7.64 | 14.77 | 366 | 23.7 | 6.79 | 122 | | |
| | 4/11/2022 | | 13:35 | 1.2 | 7.64 | 14.75 | 366 | 23.1 | 6.77 | 122 | 0.5 | ND |

Table 2.3

**Groundwater Purging and Sampling Data
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Location | Date | Sample Identification | Time | Purge Volume (gallons) | pH | Temperature (°C) | Specific Conductance (µS) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | ORP (mV) | Total Iron (mg/L) | Total Sulfide (mg/L) |
|----------|-----------|---------------------------|-------|---------------------------|------|---------------------|---------------------------------|--------------------|-------------------------------|-------------|----------------------|-------------------------|
| MW28 | 4/14/2022 | W-220414-RA-23 | 11:30 | 0.0 | 6.62 | 9.38 | 378 | 5.4 | 7.38 | 142 | | |
| | 4/14/2022 | Sample Time: 12:22 | 11:37 | 0.1 | 6.84 | 11.13 | 376 | 6.7 | 6.95 | 136 | | |
| | 4/14/2022 | Duplicate: W-220414-RA-24 | 11:42 | 0.3 | 6.98 | 13.67 | 379 | 18.5 | 7.73 | 132 | | |
| | 4/14/2022 | | 11:47 | 0.4 | 7.06 | 12.97 | 380 | 8.4 | 7.92 | 132 | | |
| | 4/14/2022 | | 11:54 | 0.5 | 7.13 | 12.39 | 381 | 8.9 | 7.48 | 134 | | |
| | 4/14/2022 | | 12:00 | 0.7 | 7.17 | 13.35 | 382 | 10.4 | 7.63 | 135 | | |
| | 4/14/2022 | | 12:04 | 0.8 | 7.09 | 12.57 | 373 | 9.9 | 7.8 | 137 | ND | ND |
| MW3 | 4/14/2022 | W-220414-RA-25 | 12:34 | 0.0 | 6.81 | 11.67 | 864 | 14 | 2.49 | -60 | | |
| | 4/14/2022 | Sample Time: 13:07 | 12:39 | 0.1 | 6.73 | 12.26 | 871 | 9.2 | 1.52 | -56 | | |
| | 4/14/2022 | | 12:44 | 0.3 | 6.69 | 12.44 | 873 | 14.3 | 2.01 | -56 | | |
| | 4/14/2022 | | 12:49 | 0.4 | 6.65 | 12.55 | 869 | 11.1 | 2.32 | -51 | | |
| | 4/14/2022 | | 12:54 | 0.5 | 6.63 | 12.49 | 867 | 7.8 | 2.41 | -48 | | |
| | 4/14/2022 | | 13:03 | 0.7 | 6.61 | 12.58 | 859 | 6.3 | 2.45 | -48 | | |
| | 4/14/2022 | | 13:06 | 0.8 | 6.61 | 12.57 | 856 | 5.4 | 2.49 | -47 | 1.5 | ND |
| MW30 | 4/12/2022 | W-220412-RA-12 | 15:07 | 0.0 | 6.72 | 10.23 | 211 | 95 | 6 | -24 | | |
| | 4/12/2022 | Sample Time: 15:08 | 15:10 | 0.1 | 6.47 | 9.91 | 206 | 28.2 | 1.6 | -1 | 2 | ND |
| MW31 | 4/11/2022 | W-220411-RA-04 | 14:07 | 0.0 | 7.73 | 10.01 | 292 | 30 | 7.15 | 96 | | |
| | 4/11/2022 | Sample Time: 14:24 | 14:10 | 0.1 | 7.68 | 9.99 | 288 | 13 | 7.19 | 101 | | |
| | 4/11/2022 | | 14:14 | 0.3 | 7.74 | 9.97 | 288 | 12.5 | 7.84 | 105 | | |
| | 4/11/2022 | | 14:19 | 0.4 | 7.61 | 9.75 | 288 | 6.2 | 7.71 | 111 | | |
| | 4/11/2022 | | 14:20 | 0.5 | 7.59 | 9.4 | 286 | 2.9 | 7.64 | 114 | ND | ND |
| MW32 | 4/11/2022 | W-220411-RA-02 | 10:40 | 0.0 | 7.24 | 7.79 | 87 | 107 | 12.45 | 95 | | |
| | 4/11/2022 | Sample Time 12:30 | 10:46 | 0.1 | 7.28 | 7.78 | 88 | 59.5 | 12.1 | 106 | | |
| | 4/11/2022 | | 10:51 | 0.3 | 7.26 | 7.82 | 88 | 33.5 | 11.88 | 113 | | |
| | 4/11/2022 | | 10:56 | 0.4 | 7.25 | 7.75 | 88 | 23 | 10.7 | 118 | 2 | ND |
| MW4 | 4/13/2022 | W-220413-RA-13 | 10:40 | 0.0 | 8.03 | 9.36 | 361 | 11.6 | 0 | -97 | | |
| | 4/13/2022 | Sample Time: 11:04 | 10:45 | 0.1 | 8.44 | 9.4 | 359 | 8.1 | 2.92 | -133 | | |
| | 4/13/2022 | Duplicate: W-220413-RA-14 | 10:50 | 0.3 | 8.69 | 9.27 | 356 | 0.3 | 8.63 | -143 | | |
| | 4/13/2022 | | 10:55 | 0.4 | 8.80 | 9.48 | 354 | 0 | 2.41 | -147 | | |
| | 4/13/2022 | | 11:01 | 0.5 | 8.88 | 9.57 | 345 | 0 | 3.85 | -151 | ND | ND |

Table 2.3

**Groundwater Purging and Sampling Data
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Location | Date | Sample Identification | Time | Purge Volume (gallons) | pH | Temperature (°C) | Specific Conductance (µS) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | ORP (mV) | Total Iron (mg/L) | Total Sulfide (mg/L) |
|-----------|-----------|--|-------|---------------------------|------|---------------------|---------------------------------|--------------------|-------------------------------|-------------|----------------------|-------------------------|
| MW5 | 4/12/2022 | W-220412-RA-11 | 13:14 | 0.0 | 5.59 | 10.7 | 720 | 129 | 2.35 | -79 | | |
| | 4/12/2022 | Sample Time: 14:08 | 13:19 | 0.1 | 5.20 | 11.03 | 724 | 106 | 1.62 | -87 | | |
| | 4/12/2022 | | 13:25 | 0.3 | 5.64 | 11.08 | 722 | 102 | 1.2 | -92 | | |
| | 4/12/2022 | | 13:30 | 0.4 | 5.67 | 11.08 | 720 | 103 | 0.73 | -95 | | |
| | 4/12/2022 | | 13:36 | 0.5 | 5.68 | 11.08 | 720 | 112 | 0.3 | -98 | | |
| | 4/12/2022 | | 13:39 | 0.7 | 5.70 | 11.17 | 719 | 113 | 0 | -99 | | |
| | 4/12/2022 | | 13:43 | 0.8 | 5.70 | 11.29 | 719 | 110 | 0.02 | -99 | 6.5 | 0.2 |
| MW6s | 4/14/2022 | W-220414-RA-22 | 10:24 | 0.0 | 5.66 | 13.32 | 676 | 80 | 3.4 | 163 | | |
| | 4/14/2022 | Sample Time: 11:12 | 10:30 | 0.1 | 5.68 | 15.5 | 669 | 82.4 | 3.97 | 142 | | |
| | 4/14/2022 | | 10:36 | 0.3 | 5.67 | 15.38 | 663 | 58.5 | 3.95 | 132 | | |
| | 4/14/2022 | | 10:41 | 0.4 | 5.80 | 15.87 | 672 | 41.1 | 1.67 | 129 | | |
| | 4/14/2022 | | 10:48 | 0.5 | 5.57 | 14.42 | 662 | 45.1 | 0.75 | 118 | | |
| | 4/14/2022 | | 10:56 | 0.7 | 5.55 | 13.68 | 662 | 5.5 | 0.4 | 140 | | |
| | 4/14/2022 | | 11:02 | 0.8 | 5.55 | 13.67 | 662 | 4.5 | 0.36 | 147 | | |
| | 4/14/2022 | | 11:05 | 0.9 | 5.55 | 13.71 | 661 | 3.7 | 0.35 | 152 | ND | ND |
| RW02 | 4/14/2022 | W-220414-RA-104 Sample Time 13:20 | 13:20 | 0.0 | 7.67 | 9.04 | 304 | 0 | 0 | 0 | NA | NA |
| RW03 | 4/14/2022 | W-220414-RA-106 Sample Time 13:50 | 13:50 | 0.0 | 7.84 | 9.74 | 214 | 0 | 0 | 0 | NA | NA |
| RW04 | 4/14/2022 | W-220414-RA-107 Sample Time: 13:35 | 13:35 | 0.0 | 7.33 | 11.68 | 434 | 0 | 0 | 0 | NA | NA |
| RW05 | 4/14/2022 | W-220414-RA-105 Sample Time: 13:10 | 13:10 | 0.0 | 7.46 | 9.92 | 323 | 0 | 0 | 0 | NA | NA |
| RW06 | 4/14/2022 | W-220414-RA-100 Sample Time: 10:45 Duplicate: W220414-RA-101 | 10:53 | 0.0 | 6.50 | 8.95 | 255 | 0 | 0 | 0 | NA | NA |
| RW06 shop | 4/14/2022 | W-220414-RA-102 Sample Time: 10:53 | 10:53 | 0.0 | 6.44 | 9317 | 295 | 0 | 0 | 0 | NA | NA |

Table 2.3

**Groundwater Purging and Sampling Data
Penta Wood Products Superfund Site
Siren, Wisconsin**

| Location | Date | Sample Identification | Time | Purge Volume (gallons) | pH | Temperature (°C) | Specific Conductance (µS) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | ORP (mV) | Total Iron (mg/L) | Total Sulfide (mg/L) |
|----------|------|-----------------------|------|---------------------------|----|---------------------|---------------------------------|--------------------|-------------------------------|-------------|----------------------|-------------------------|
|----------|------|-----------------------|------|---------------------------|----|---------------------|---------------------------------|--------------------|-------------------------------|-------------|----------------------|-------------------------|

Notes:

- °C - Degrees Celcius
 - µS - Micro-Siemens
 - mg/L - Milligrams per liter
 - MS/MSD - Matrix Spike Sample & Matrix Spike Duplicate Sample
 - mV - Millivolts
 - ND - Not Detected
 - NM - Not Measured
 - NTU - National Turbidity Units
 - ORP - Oxidation Reduction Potential (ORP) reported in millivolts (mV)
- Wells MW10S, MW20, and MW29 were not sampled due to the presence of LNAPL
Well MW21 was not sampled due to insufficient water for sampling

Table 2.4

Groundwater Analytical Data - Monitoring and Extraction Wells
Penta Wood Products Superfund Site
Siren, Wisconsin

| Sample Location | Sample Identification | Sample Date | ES ¹ PAL ² | Hardness, carbonate mg/L | Chloride ³ mg/L | Nitrate (as N) mg/L | Sulfate ³ mg/L | TOC averages mg/L | Alkalinity, total (as CaCO ₃) mg/L | Methane (dissolved) ug/L | Arsenic (dissolved) ug/L | Copper (dissolved) ug/L | Iron (dissolved) ug/L | Manganese (dissolved) ug/L | Zinc (dissolved) ug/L | Pentachlorophenol ug/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L |
|---|--------------------------|-------------|-------------------------------------|-----------------------------|-------------------------------|------------------------|------------------------------|----------------------|---|-----------------------------|-----------------------------|----------------------------|--------------------------|-------------------------------|--------------------------|---------------------------|---------------------|-----------------|----------------------|-----------------|-------------------------|
| Semiconfined Aquifer (Lower) | | | | | | | | | | | | | | | | | | | | | |
| EW11D | W-220412-RA-05 | 04/12/2022 | | 97.6 | 2.3 | 1.8 | 8.3 | 3.7 | 164 | 870 | 2.0 | 0.77 J | 346 | 35.5 | 20.0 U | 0.44 | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW3 | W-220414-RA-25 | 04/14/2022 | | 225 | 27.9 | 2.8 | 5.5 | 0.90 J | 354 | 70 | 1.0 U | 1.1 J | 778 | 14.3 | 20.0 U | 0.45 | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW4 | W-220413-RA-13 | 04/13/2022 | | 93.7 | 48.3 | 0.10 J | 13.4 | 0.51 J | 79.6 | 35 | 1.1 | 2.0 U | 100 U | 35.7 | 8.6 J | 1.0 | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW4 | Duplicate W-220413-RA-14 | 04/13/2022 | | 99.2 | 52.5 | 0.10 J | 14.5 | 0.53 J | 85.9 | 37 | 1.1 | 2.0 U | 100 U | 34.6 | 10.7 J | 0.098 U | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW10 | W-220414-RA-27 | 04/14/2022 | | 113 | 23.4 | 0.20 U | 9.2 | 15.5 | 152 | 68 | 1.4 | 2.6 | 1090 | 1040 | 20.0 U | 3.200 | 3.5 | 0.50 U | 0.84 | 0.71 | 4.9 |
| MW12 | W-220413-RA-20 | 04/13/2022 | | 118 | 15.9 | 0.20 | 22.2 | 17.7 | 160 | 0.47 J | 0.71 J | 2.5 | 100 U | 393 | 20.0 U | 2700 | 4.4 | 0.50 U | 0.83 | 0.30 J | 4.6 |
| MW14 | W-220413-RA-17 | 04/13/2022 | | 101 | 17.7 | 0.95 | 6.0 | 1.0 U | 115 | 1.0 U | 1.1 | 2.0 U | 100 U | 0.83 J | 20.0 U | 0.098 U | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW17 | W-220411-RA-08 | 04/11/2022 | | 192 | 11.6 | 1.3 | 108 | 1.0 U | 200 | 1.0 U | 0.52 J | 0.65 J | 100 U | 2.5 U | 20.0 U | 0.098 U | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW23 | W-220411-RA-07 | 04/11/2022 | | 174 | 61.5 | 2.3 | 8.2 | 0.76 J | 185 | 1.0 U | 0.52 J | 0.78 J | 100 U | 2.5 U | 20.0 U | 0.10 U | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| Unconfined Aquifer (Upper) | | | | | | | | | | | | | | | | | | | | | |
| EW11S | W-220412-RA-06 | 04/12/2022 | | 65.1 | 2.2 | 4.3 | 11.0 | 1.4 | 104 | 0.94 J | 2.1 | 1.7 J | 100 U | 4.5 | 20.0 U | 1.2 | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| EW13S | W-220412-RA-15 | 04/12/2022 | | 205 | 36.8 | 0.20 U | 17.7 | 45.0 | 279 | 6.2 | 12.1 B | 59.6 | 24900 | 4260 | 20.7 | 19000 | 18 | 0.50 U | 1.1 | 1.0 | 18 |
| MW1 | W-220411-RA-03 | 04/11/2022 | | 82.5 | 14.2 | 3.9 | 5.9 | 1.0 | 116 | 1.0 U | 0.25 J | 2.3 | 100 U | 2.5 U | 20.0 U | 0.50 | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW2 | W-220413-RA-21 | 04/13/2022 | | 49.1 | 0.30 | 0.21 | 1.2 | 0.60 J | 79.6 | 1.0 U | 0.25 J | 3.7 | 869 | 33.4 | 22.0 | 17 | 0.85 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW5 | W-220412-RA-11 | 04/12/2022 | | 179 | 25.1 | 0.20 U | 18.9 | 37.7 | 288 | 51 | 3.3 | 4.5 | 20100 | 8180 | 20.0 U | 10000 | 26 | 0.50 U | 0.83 | 0.79 | 9.3 |
| MW6S | W-220414-RA-22 | 04/14/2022 | | 166 | 14.4 | 6.3 | 9.4 | 2.0 | 250 | 1.0 U | 1.0 U | 3.1 | 100 U | 1.8 J | 20.0 U | 0.75 | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW13 | W-220411-RA-01 | 04/11/2022 | | 37.9 | 0.30 | 0.33 | 2.5 | 2.3 | 66.0 | 1.0 U | 1.0 U | 11.7 | 100 U | 2.5 U | 20.0 U | 0.37 | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW16 | W-220413-RA-19 | 04/13/2022 | | 53.9 | 0.52 | 0.33 | 1.6 | 1.0 U | 131 | 1.0 U | 0.23 J | 1.5 J | 100 U | 2.5 U | 20.0 U | 0.45 | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW22 | W-220412-RA-16 | 04/12/2022 | | 46.8 | 7.3 | 0.57 | 3.2 | 0.63 J | 69.8 | 1.0 U | 1.3 | 3.3 | 561 | 35.8 | 10.6 J | 9.4 | 0.91 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW25 | W-220411-RA-09 | 04/11/2022 | | 103 | 26.2 | 1.9 | 3.1 | 0.78 J | 138 | 1.0 U | 0.28 J | 2.6 | 316 | 5.6 | 20.0 U | 0.095 U | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW28 | W-220414-RA-23 | 04/14/2022 | | 86.2 | 27.9 | 1.9 | 4.0 | 0.81 J | 113 | 1.0 U | 0.40 J | 0.88 J | 100 U | 2.5 U | 20.0 U | 0.84 | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| Unconfined Aquifer (Upper) Cont. | | | | | | | | | | | | | | | | | | | | | |
| MW28 | Duplicate W-220414-RA-24 | 04/14/2022 | | 88.5 | 28.9 | 1.9 | 4.5 | 0.77 J | 113 | 1.0 U | 0.44 J | 0.78 J | 100 U | 2.5 U | 20.0 U | 0.10 U | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW30 | W-220412-RA-12 | 04/12/2022 | | 63.4 | 0.46 | 0.20 | 1.7 | 1.3 | 96.1 | 3.2 | 0.72 J | 8.0 | 2250 | 247 | 10.7 J | 30 | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW31 | W-220411-RA-04 | 04/11/2022 | | 90.9 | 0.20 | 0.55 | 1.3 | 0.62 J | 145 | 1.0 U | 1.0 U | 4.6 | 100 U | 1.3 J | 20.0 U | 0.24 | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| MW32 | W-220411-RA-02 | 04/11/2022 | | 24.1 | 0.46 | 0.40 | 2.8 | 1.6 | 36.1 | 0.67 J | 1.0 U | 8.7 | 154 | 4.2 | 20.0 U | 2.0 | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |

Notes:

- 1 - Enforcement Standard (ES) criteria adapted from Table 1 referred to and incorporated by NR 140.10 with except of Iron, Manganese, Zinc, Chloride, and Sulfate (see note 3 below)
- 2 - Preventive Action Limit (PAL) criteria adapted from Table 1 referred to and incorporated by NR 140.10 with except of Iron, Manganese, Zinc, Chloride, and Sulfate (see note 3 below)
- 3 - Enforcement Standard (ES) and Preventive Action Limit (PAL) criteria adapted from Table 2 referred to and incorporated by NR 140.12
- mg/L - Concentrations listed with units of milligrams per liter
- ug/L - Concentrations listed with units of micrograms per liter
- J - Concentration was between the limit of detection and the limit of quantitation
- B - Compound was found in the blank and sample
- H - Sample was prepped or analyzed beyond the specified holding time
- U - Compound was not detected

☐ - Concentration exceeds the ES
 ☐ - Concentration exceeds the PAL

Wells MW10S, MW20, and MW29 were not sampled due to the presence of LNAPL
 Well MW21 was not sampled due to insufficient water for sampling

Table 3.1

**Groundwater Analytical Data - Residential Wells
Penta Wood Products Superfund Site
Siren, Wisconsin**

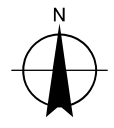
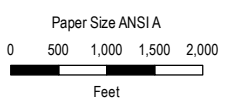
| Sample Location | Sample Identification | ES ¹ PAL ² Date | Pentachlorophenol | Naphthalene | Benzene | Ethylbenzene | Toluene | Xylenes (total) |
|--------------------|-----------------------|---|-------------------|-------------------|------------------|--------------------|--------------------|---------------------|
| | | | 1 0.1 ug/L | 100 10 ug/L | 5 0.5 ug/L | 700 140 ug/L | 800 160 ug/L | 2000 400 ug/L |
| 1 RW01 | W-220620-RA-01 | 06/20/2022 | 0.14 U | 0.23 U | 0.15 U | 0.15 U | 0.18 U | 0.22 U |
| 2 RW02 | W-220414-RA-104 | 04/14/2022 | 0.31 J | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| 3 RW02 | W-220620-RA-02 | 06/20/2022 | 0.15 U | 0.23 U | 0.15 U | 0.15 U | 0.18 U | 0.22 U |
| 4 RW03 | W-220414-RA-106 | 04/14/2022 | 0.095 U | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| 5 RW04 | W-220414-RA-107 | 04/14/2022 | 0.11 U | 0.89 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| 6 RW05 | W-220414-RA-105 | 04/14/2022 | 0.19 J | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| 7 RW05 | W-220620-RA-03 | 06/20/2022 | 0.14 U | 0.24 U | 0.15 U | 0.15 U | 0.18 U | 0.22 U |
| 8 RW06 | W-220414-RA-100 | 04/14/2022 | 0.099 U | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| 9 RW06 (duplicate) | W-220414-RA-101 | 04/14/2022 | 0.14 U | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |
| 10 RW06 SHOP | W-220414-RA-102 | 04/14/2022 | 0.097 U | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U |

Notes:

- ¹ - Enforcement Standard (ES) criteria adapted from Table 1 referred to and incorporated by NR 140.10
- ² - Preventive Action Limit (PAL) criteria adapted from Table 1 referred to and incorporated by NR 140.10
- ug/L - Concentrations listed with units of micrograms per liter
- U - Compound was not detected above the limit of detection
- Dup - Duplicate sample

Figures

LEGEND
 SITE BOUNDARY



**PENTA WOOD PRODUCTS SUPERFUND SITE
 SIREN, WISCONSIN**

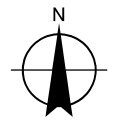
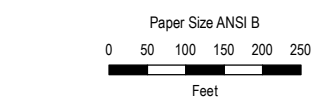
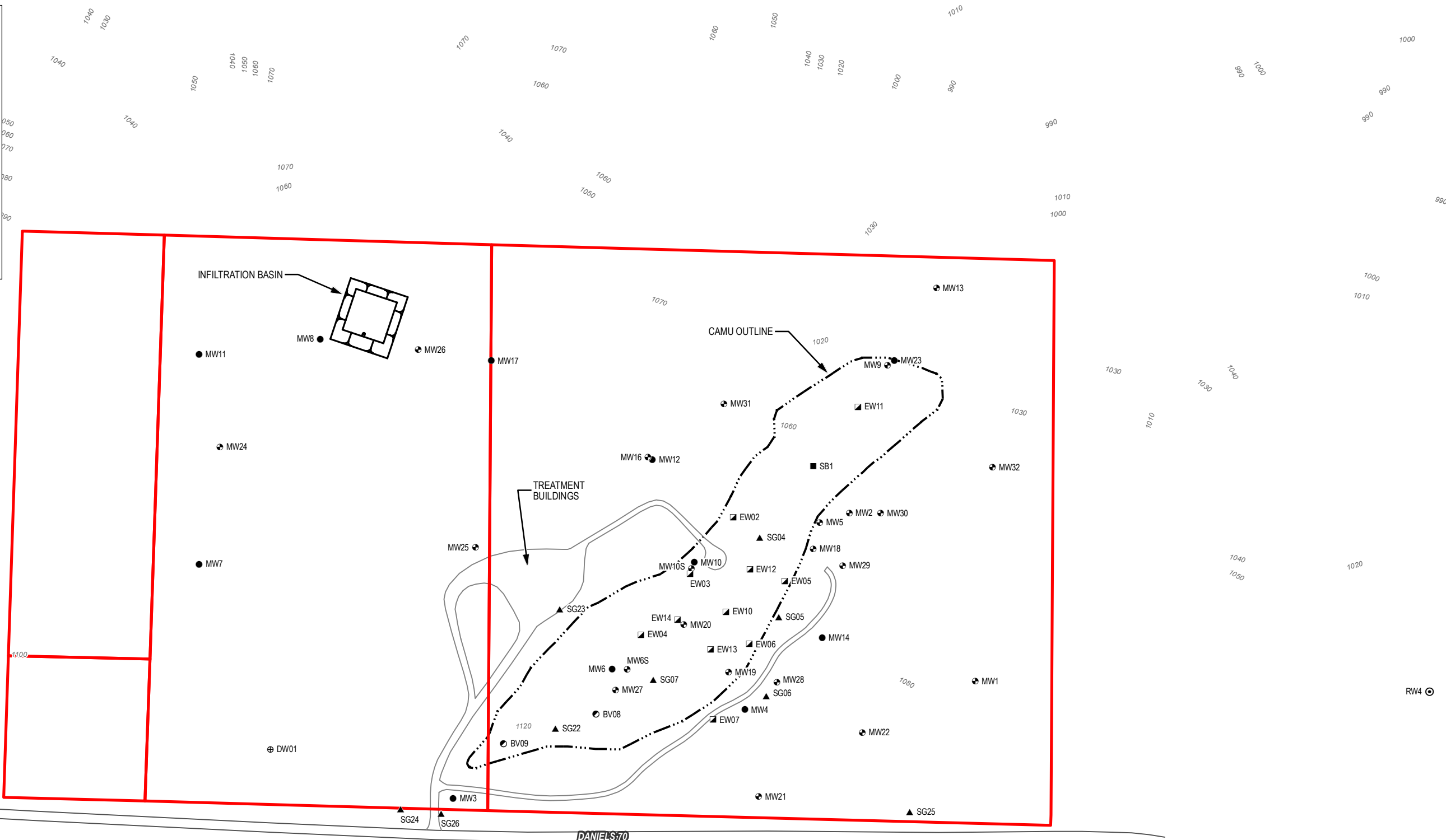
Project No. 11222418-03
 Revision No. -
 Date 06/10/2022

Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983 HARN
 Grid: NAD 1983 HARN WISCRS Burnett County Feet

SITE LOCATION

FIGURE 1.1

- LEGEND**
- ▣ EXTRACTION WELL NEST
 - ⊕ UNCONFINED MONITORING WELL
 - SEMICONFINED MONITORING WELL
 - ⊕ WATER SUPPLY WELL
 - ⊙ BIOVENTING WELL
 - ▲ SOIL GAS WELL NEST
 - SOIL BORING
 - ⊙ RESIDENTIAL WELL
 - APPROXIMATE CAMU LIMIT
 - ▭ SITE PARCEL BOUNDARY



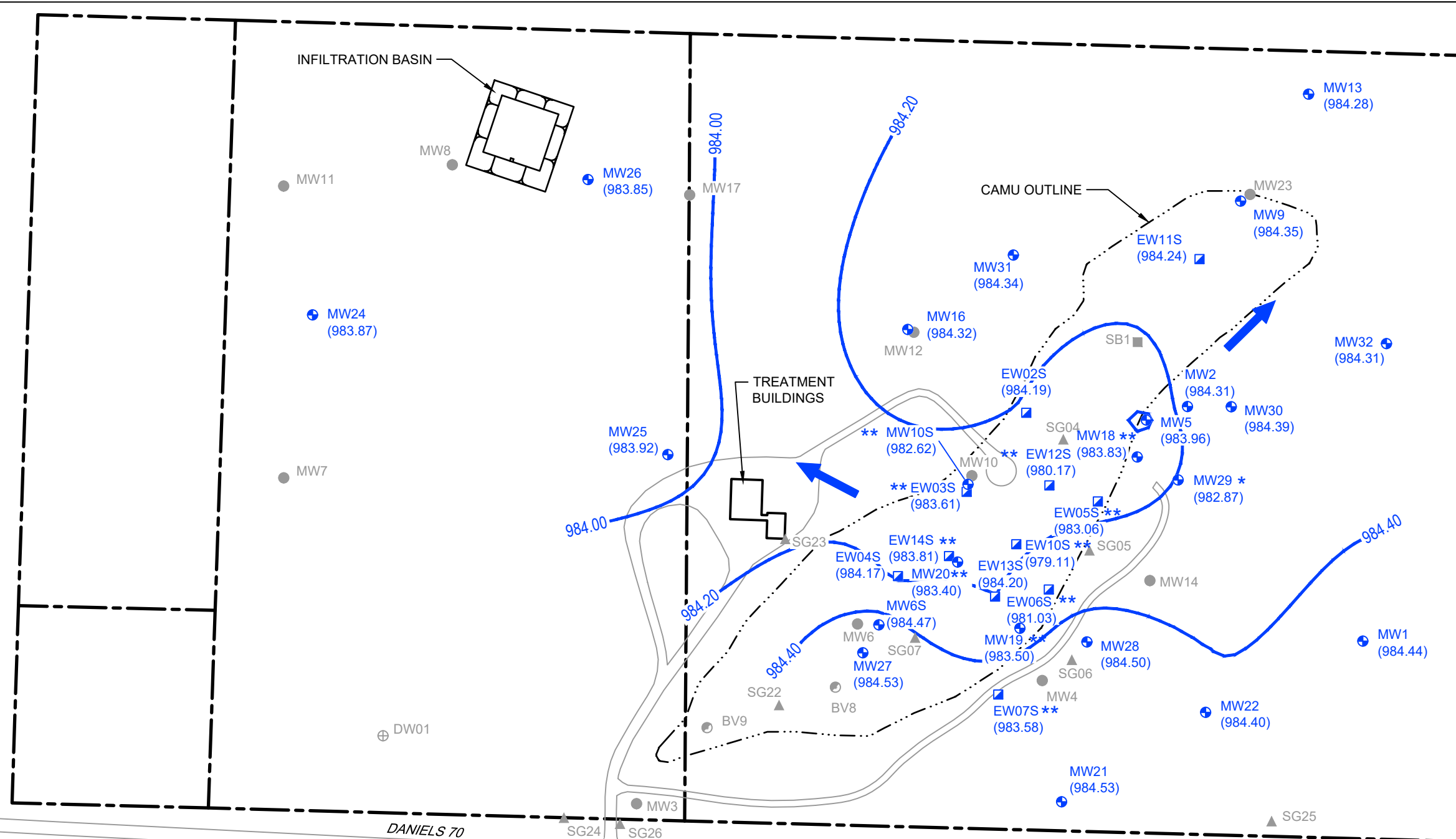
Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983 HARN
 Grid: NAD 1983 HARN WISCRS Burnett County Feet

**PENTA WOOD PRODUCTS SUPERFUND SITE
 SIREN, WISCONSIN**

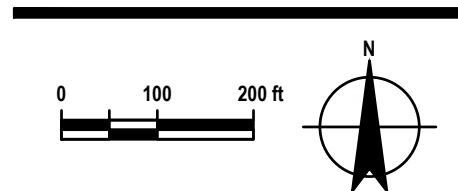
Project No. 11222418-03
 Revision No. -
 Date 06/10/2022

SITE PLAN

FIGURE 1.2



- LEGEND**
- PARCEL BOUNDARY
 - EW11 EXTRACTION WELL NEST
 - BV09 BIOVENTING WELL
 - ▲ SG05 SOIL GAS WELL NEST
 - MW27 UNCONFINED MONITORING WELL LOCATION
 - MW7 SEMICONFINED MONITORING WELL LOCATION
 - ⊕ DW01 WATER SUPPLY WELL LOCATION
 - SB1 SOIL BORING LOCATION
 - RW1 RESIDENTIAL WELL
 - (983.87) GROUNDWATER ELEVATION
 - 985.20 GROUNDWATER ELEVATION CONTOUR
 - GROUNDWATER FLOW DIRECTION
 - * WELL NOT UTILIZED TO INFER GROUNDWATER ELEVATION CONTOURS
 - ** LNAPL PRESENT IN WELL, WELL NOT UTILIZED TO INFER GROUNDWATER ELEVATION CONTOURS

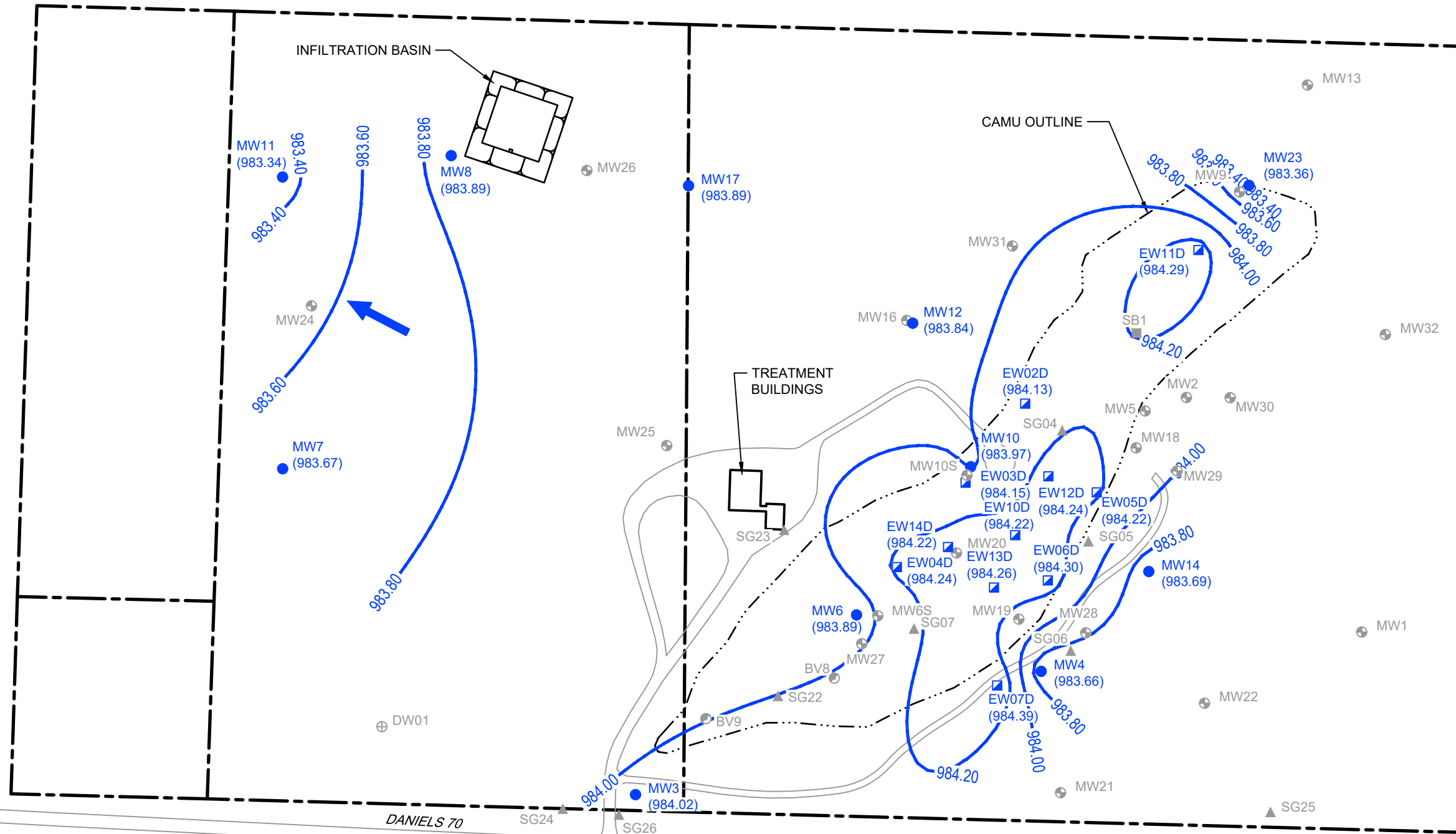


PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

**UNCONFINED (UPPER) AQUIFER
GROUNDWATER CONTOURS**
- APRIL 2022

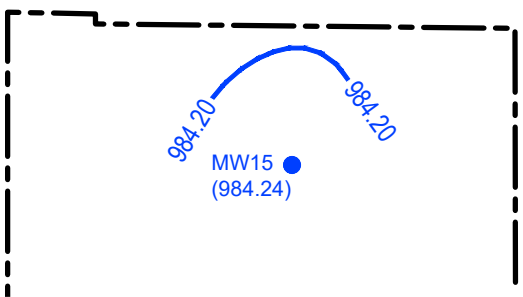
Project No. 11222418
Date June 2022

FIGURE 2.1



LEGEND

| | |
|--|---------------------------------------|
| | PARCEL BOUNDARY |
| | EXTRACTION WELL NEST |
| | BIOVENTING WELL |
| | SOIL GAS WELL NEST |
| | UNCONFINED MONITORING WELL LOCATION |
| | SEMICONFINED MONITORING WELL LOCATION |
| | WATER SUPPLY WELL LOCATION |
| | SOIL BORING LOCATION |
| | RESIDENTIAL WELL |
| | GROUNDWATER ELEVATION |
| | GROUNDWATER ELEVATION CONTOUR |
| | GROUNDWATER FLOW DIRECTION |

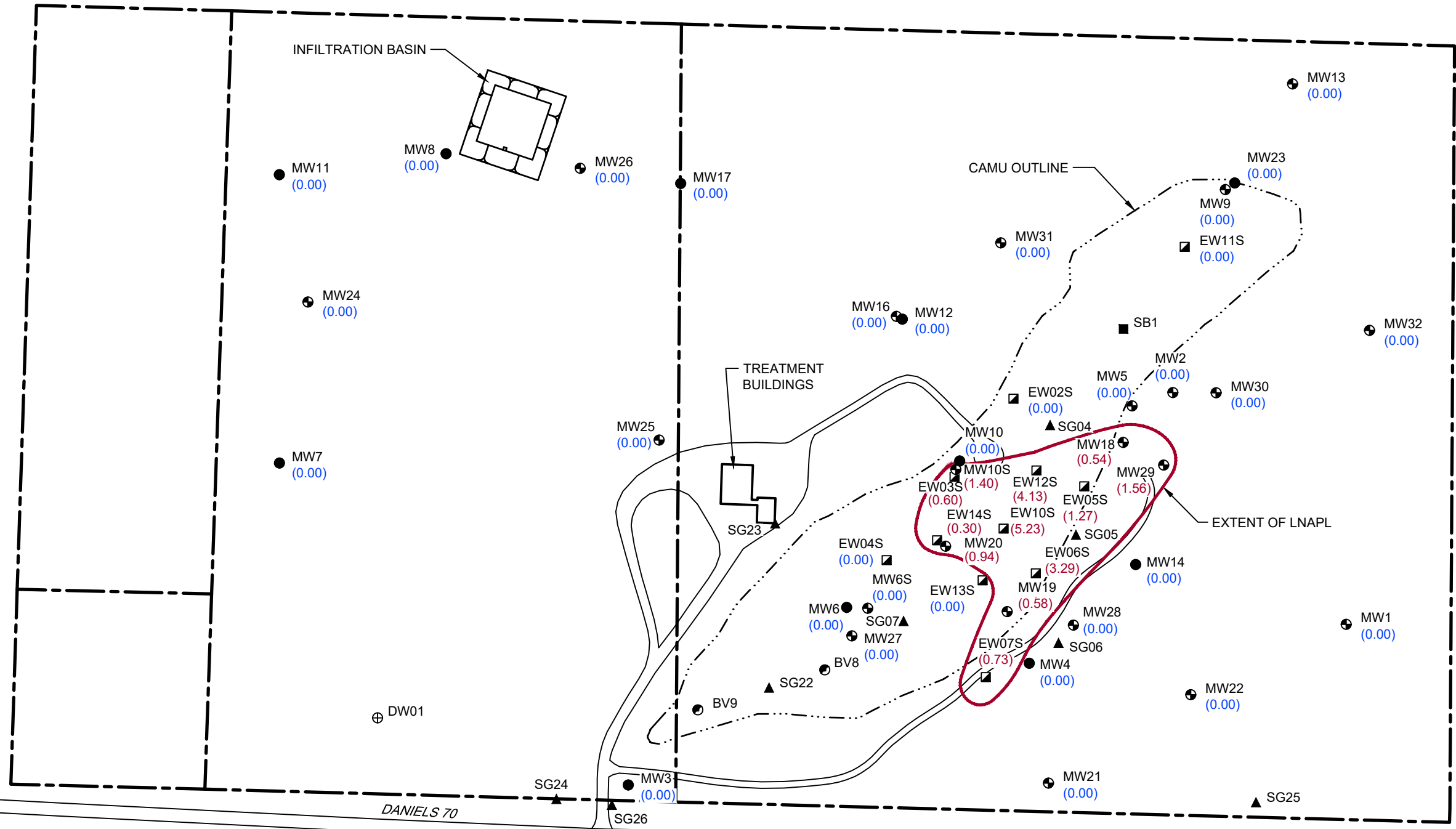


| | | | |
|------|--|---|--|
| | | <p>PENTA WOOD PRODUCTS SUPERFUND SITE SIREN, WISCONSIN</p> <p>SEMICONFINED (LOWER) AQUIFER GROUNDWATER CONTOURS - APRIL 2022</p> | <p>Project No. 11222418 Date June 2022</p> |
|------|--|---|--|

FIGURE 2.2

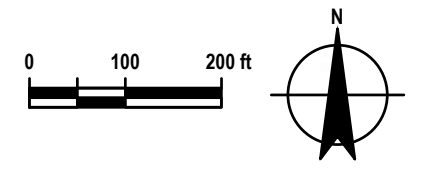
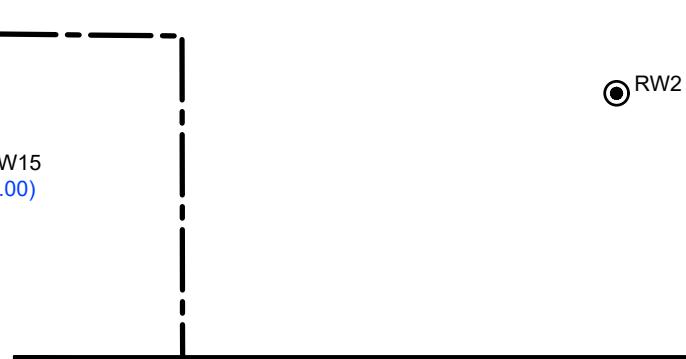
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Plot Date: 16 June 2022 8:19 AM

DATA SOURCE: KEMPER AND ASSOCIATES, INC. SURVEY DATED MAY 2016 (WISCONSIN BURNETT COUNTY COORDINATE SYSTEM NAD83, 1996).



LEGEND

| | |
|--------|---------------------------------------|
| --- | PARCEL BOUNDARY |
| ■ EW11 | EXTRACTION WELL NEST |
| ● BV09 | BIOVENTING WELL |
| ▲ SG05 | SOIL GAS WELL NEST |
| ⊕ MW27 | UNCONFINED MONITORING WELL LOCATION |
| ● MW7 | SEMICONFINED MONITORING WELL LOCATION |
| ⊕ DW01 | WATER SUPPLY WELL LOCATION |
| ■ SB1 | SOIL BORING LOCATION |
| ⊙ RW1 | RESIDENTIAL WELL |
| (0.00) | LNAPL NOT PRESENT |
| (0.60) | LNAPL THICKNESS (FEET) |
| — | EXTENT OF LNAPL |

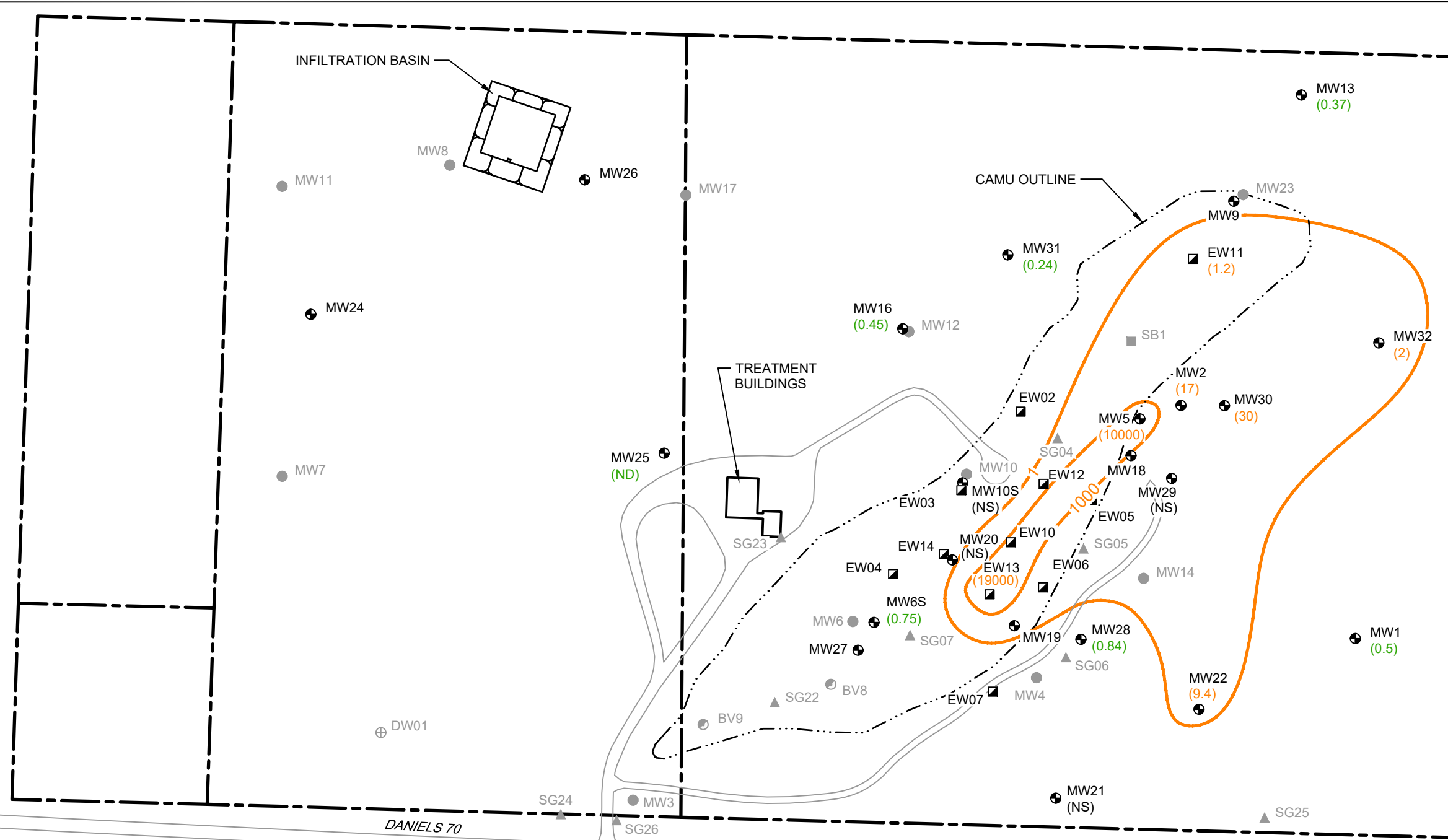


PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

LNAPL THICKNESS - APRIL 2022

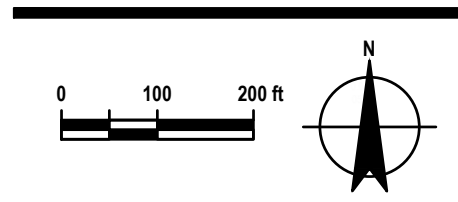
Project No. 11222418
Date September 2022

FIGURE 2.3



LEGEND

- PARCEL BOUNDARY
- EW11 EXTRACTION WELL NEST
- BV09 BIOVENTING WELL
- ▲ SG05 SOIL GAS WELL NEST
- ⊕ MW27 UNCONFINED MONITORING WELL LOCATION
- MW7 SEMICONFINED MONITORING WELL LOCATION
- ⊕ DW01 WATER SUPPLY WELL LOCATION
- SB1 SOIL BORING LOCATION
- RW1 RESIDENTIAL WELL
- (0.65) PENTACHLOROPHENOL CONCENTRATION (µg/L)
- (0.25/0.26) PENTACHLOROPHENOL / DUPLICATE CONCENTRATION (µg/L)
- 1 PENTACHLOROPHENOL CONCENTRATION CONTOUR (µg/L)
- (NS) NOT SAMPLED DUE TO LNAPL PRESENCE OR INSUFFICIENT WATER
- (ND) NOT DETECTED
- (0.45) PENTACHLOROPHENOL CONCENTRATION (µg/L) MEETS ENFORCEMENT STANDARD OF 1.0 µg/L
- (19000) PENTACHLOROPHENOL CONCENTRATION (µg/L) EXCEEDS ENFORCEMENT STANDARD OF 1.0 µg/L



PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

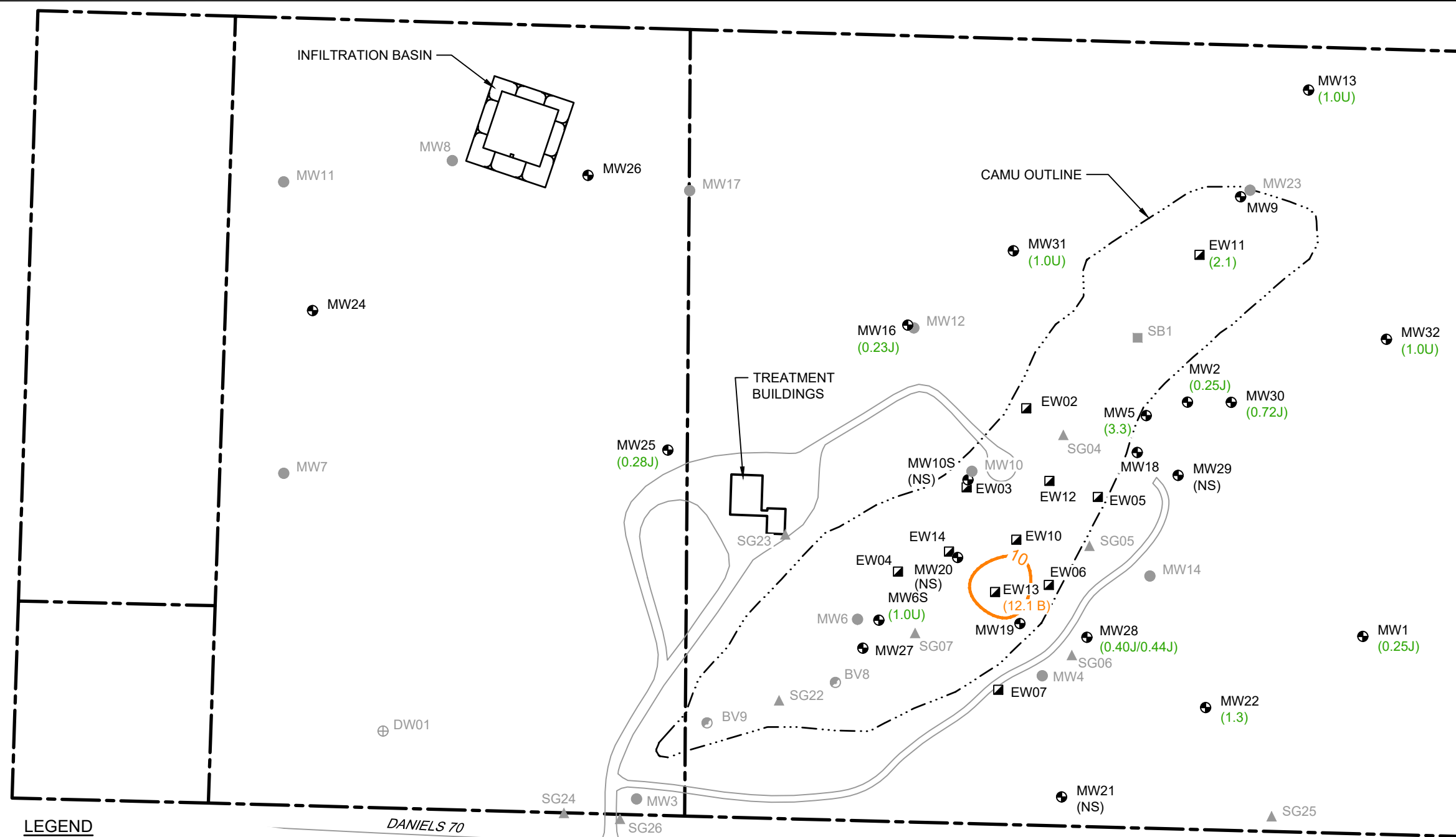
**UNCONFINED (UPPER) AQUIFER
PENTACHLOROPHENOL
CONCENTRATIONS - APRIL 2022**

Project No. 11222418
Date September 2022

FIGURE 2.4

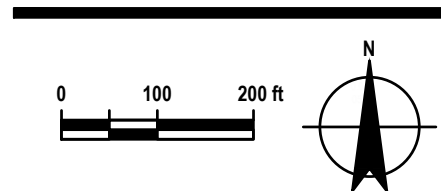
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Plot Date: 06 September 2022 10:09 AM

DATA SOURCE: KEMPER AND ASSOCIATES, INC. SURVEY DATED MAY 2016 (WISCONSIN BURNETT COUNTY COORDINATE SYSTEM NAD83, 1996).



LEGEND

- PARCEL BOUNDARY
- EW11 EXTRACTION WELL NEST
- BV09 BIOVENTING WELL
- ▲ SG05 SOIL GAS WELL NEST
- ⊕ MW27 UNCONFINED MONITORING WELL LOCATION
- MW7 SEMICONFINED MONITORING WELL LOCATION
- ⊕ DW01 WATER SUPPLY WELL LOCATION
- SB1 SOIL BORING LOCATION
- RW1 RESIDENTIAL WELL
- (0.31 J) ARSENIC CONCENTRATION (µg/L)
- (12.1B) ARSENIC CONCENTRATION (µg/L) EXCEEDS ENFORCEMENT STANDARD OF 10µg/L
- (ND/ND) ARSENIC / DUPLICATE CONCENTRATION (µg/L)
- 10 — DISSOLVED ARSENIC CONCENTRATION CONTOUR (µg/L)
- (ND) NOT DETECTED
- (NS) NOT SAMPLED DUE TO LNAPL PRESENCE OR INSUFFICIENT WATER
- J CONCENTRATION WAS BETWEEN THE LIMIT OF DETECTION AND LIMIT OF QUANTITATION
- B COMPOUND WAS FOUND IN THE BLANK AND SAMPLE
- (1.9) ARSENIC CONCENTRATION (µg/L) MEETS ENFORCEMENT STANDARD OF 10 µg/L

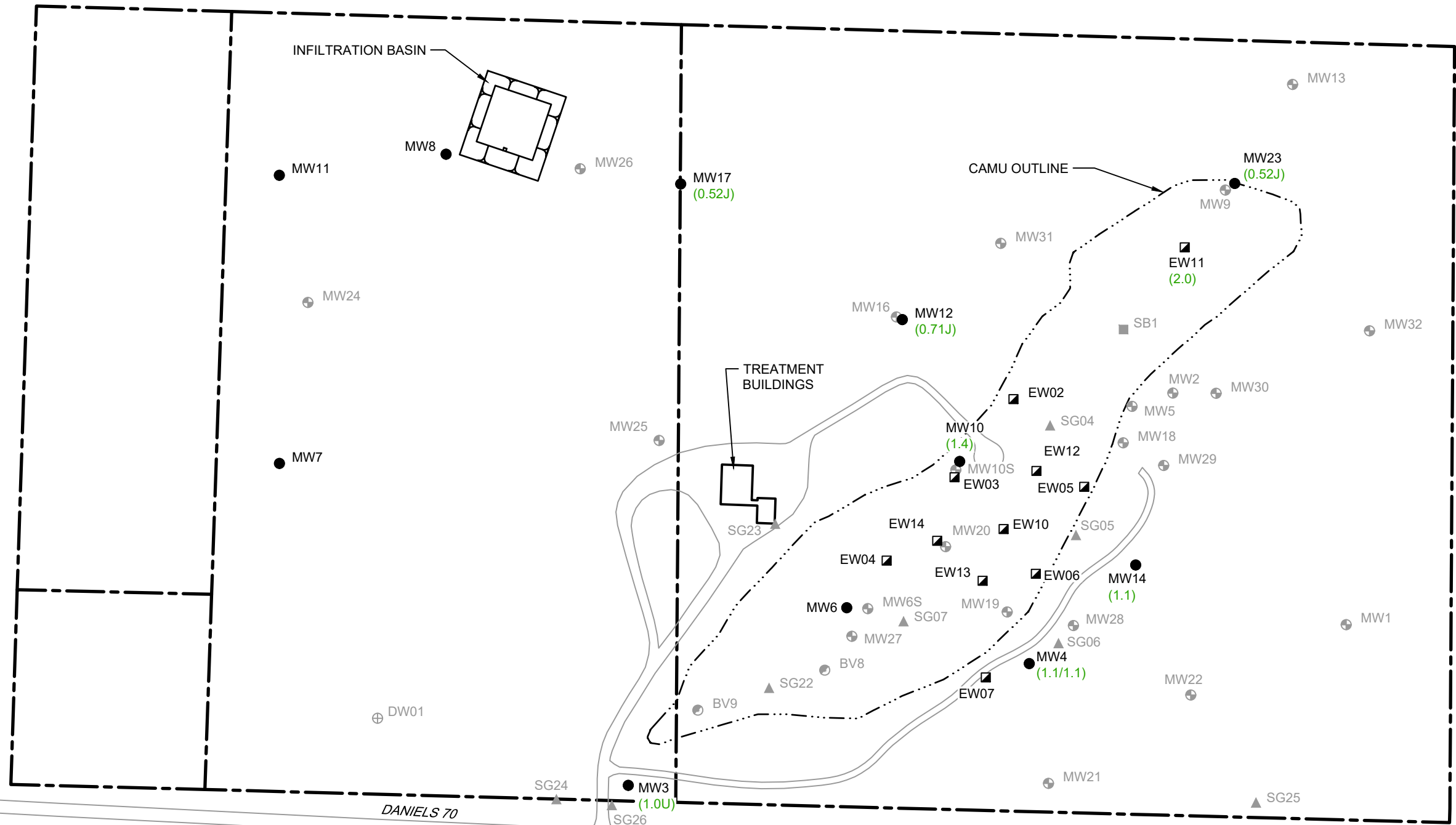


PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

**UNCONFINED (UPPER) AQUIFER
ARSENIC CONCENTRATIONS
- APRIL 2022**

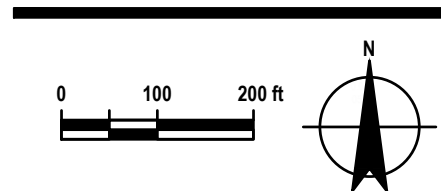
Project No. 11222418
Date September 2022

FIGURE 2.6



LEGEND

- PARCEL BOUNDARY
- EW11 EXTRACTION WELL NEST
- BV09 BIOVENTING WELL
- ▲ SG05 SOIL GAS WELL NEST
- ⊕ MW27 UNCONFINED MONITORING WELL LOCATION
- MW7 SEMICONFINED MONITORING WELL LOCATION
- ⊕ DW01 WATER SUPPLY WELL LOCATION
- SB1 SOIL BORING LOCATION
- ⊙ RW1 RESIDENTIAL WELL
- (1.1) ARSENIC CONCENTRATION (µg/L)
- (1.0/1.0) ARSENIC / DUPLICATE CONCENTRATION (µg/L)
- (ND) NOT DETECTED
- J CONCENTRATION WAS BETWEEN THE LIMIT OF DETECTION AND LIMIT OF QUANTITATION
- B COMPOUND WAS FOUND IN THE BLANK AND SAMPLE
- (1.1) ARSENIC CONCENTRATION (µg/L) MEETS ENFORCEMENT STANDARD OF 10 µg/L






PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

**SEMICONFINED (LOWER) AQUIFER
ARSENIC CONCENTRATIONS
- APRIL 2022**

Project No. 11222418
Date September 2022

FIGURE 2.7

LEGEND

-  ON-SITE WATER WELL
-  RESIDENTIAL WELL
-  PARCEL BOUNDARY

DANIEL JOHNSON RD

RW6 SHOP
RW6

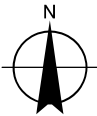
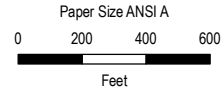
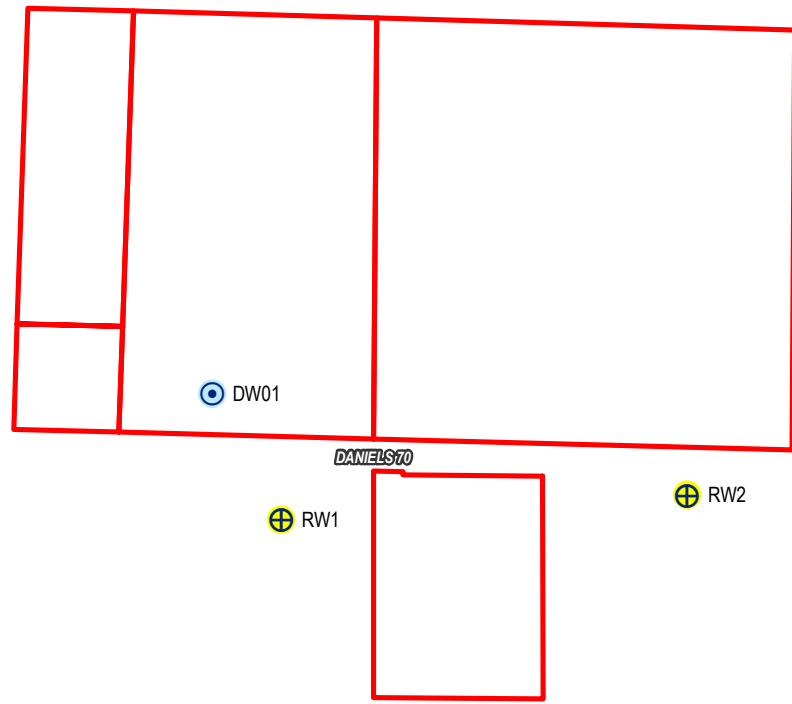
W DOCTOR LAKE RD

DOCTOR LAKE

RW3

RW4

STATE RD 70



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Burnett County Feet



PENTA WOOD PRODUCTS SUPERFUND SITE
SIREN, WISCONSIN

Project No. 11222418-03
Revision No. -
Date 06/10/2022

RESIDENTIAL WELL LOCATIONS

FIGURE 3.1

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| DW01 | 9/24/2003 | 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 | 9/24/2003 | N2 | 0.5 U | | 1 U | 1 U | 50 UJ | | 5 U | 40 | | | | | | | | | | | | | |
| DW01 | 5/4/2004 | 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 | 5/4/2004 | N2 | | | 0.280 J | 49.5 R | 29.2 R | | 58.0 R | 2590 R | | | | | | | | | | | | | |
| DW01 | 9/22/2004 | N | | | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| DW01 | 9/28/2004 | N | | 1.08 = | | | | | | | | | | | | | | | | | | | |
| DW01 | 11/1/2004 | N | | 0.0962 U | | | | | | | | | | | | | | | | | | | |
| DW01 | 5/11/2005 | 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 | 9/27/2005 | N | | 0.040 J | | | | | | | | 0.93 UJ | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| DW01 | 5/31/2006 | 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 | 9/26/2006 | 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 | 5/10/2007 | 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 | 9/19/2007 | 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 | 5/20/2008 | N | | 0.094 UJ | | | | | | | | 0.94 U | 1.0 UJ | 1.0 U | 1.0 U | 2.0 UJ | | | | | | | |
| DW01 | 10/23/2008 | 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 | 6/3/2009 | N | | 0.1 U | | | | | | | | 1.0 UJ | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| DW01 | 10/8/2009 | N | | 0.1 UJ | | | | | | | | 0.994 UJ | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| DW01 | 5/19/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.4 U | 5 U | 5 U | 5 U | | | | | | | |
| DW01 | 10/7/2010 | N | | 0.1 UJ | | | | | | | | 0.995 UJ | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| DW01 | 6/30/2011 | N | | 0.1 U | | | | | | | | 0.999 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| DW01 | 10/18/2011 | N | | 0.032 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 5/23/2012 | N | | 0.028 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 10/18/2012 | N | | 0.032 J | | | | | | | | 0.19 U H | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 5/21/2013 | N | | 0.029 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 10/8/2013 | N | | 0.027 J | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 5/13/2014 | N | | 0.057 J | | | | | | | | | | | | | | | | | | | |
| DW01 | 9/25/2014 | N | | 0.54 J | | | | | | | | 0.19 UJ | | | | | | | | | | | |
| DW01 | 4/21/2015 | N | | 0.023 J | | | | | | | | 0.19 U | | | | | | | | | | | |
| DW01 | 10/15/2015 | FD | | 0.096 U | | | | | | | | 0.19 U | | | | | | | | | | | |
| DW01 | 10/15/2015 | N | | 0.095 U | | | | | | | | 0.19 U | | | | | | | | | | | |
| DW01 | 4/5/2016 | FD | | 0.097 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 4/5/2016 | N | | 0.095 U | | | | | | | | 0.14 J | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 10/10/2016 | FD | | 0.024 J | | | | | | | | 0.20 U | 0.50 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| DW01 | 10/10/2016 | N | | 0.025 J | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 4/18/2017 | FD | | 0.022 J | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 4/18/2017 | N | | 0.020 J | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| DW01 | 10/20/2017 | FD | | 0.10 U | | | | | | | | 0.88 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| DW01 | 10/20/2017 | N | | 0.10 U | | | | | | | | 0.83 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| DW01 | 6/5/2018 | N | | 0.095 U | | | | | | | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| DW01 | 10/16/2018 | N | | 0.095 U | | | | | | | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| DW01 | 4/22/2019 | N | | 0.099 U | | | | | | | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| DW01 | 10/1/2019 | N | | 0.087 U | | | | | | | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.23 J | | | | | | | |
| EW02D | 8/22/2014 | N | | 52 | | | | | | | 0.28 | | | | | | | | | | 2.1 J | | |
| EW02D | 4/23/2015 | N | | 17 | | | | | | | | | | | | | | | | | | | |
| EW02D | 4/14/2016 | N | 0.15 J | 370 | 0.49 J | 3.8 | 299 | | 384 | 46.7 | | 1.7 | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 55.0 | 12.1 | 70.6 | 0.70 | | 8.7 | 4.8 |
| EW02S | 4/14/2016 | N | 0.094 J | 690 | 5.0 U | 1.4 J | 50.2 J | | 39.3 | 20.0 U | | 2.5 | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 30.0 | 10.5 | 41.2 | 1.0 | | 7.0 | 2.7 |
| EW03D | 8/22/2014 | N | | 260 | | | | | | | 0.87 | | | | | | | | | | 1.6 J | | |
| EW03D | 4/18/2016 | N | 1.3 | 3500 | 2.7 J | 9.8 | 12500 | | 1780 | 398 | | 2.4 | 0.50 U | 0.33 J | 1.0 U | 3.6 | 184 | 13.4 | 169 | 0.10 U | | 25.6 | 10 |
| EW03S | 4/18/2016 | N | 0.15 J | 14000 | 0.53 J | 10.8 | 1050 | | 3530 | 20.0 U | | 12 | 1.0 U | 2.0 U | 2.0 U | 5.2 | 88.0 | 73.8 | 220 | 0.29 | | 39.1 | 59.1 |
| EW04D | 8/22/2014 | N | | 150 | | | | | | | 0.65 | | | | | | | | | | 4.8 U | | |
| EW04D | 2/3/2015 | N | | 200 | | | | | | | 0.71 | | | | | | | | | | 4.9 U | | |
| EW04D | 4/23/2015 | N | | 430 | | | | | | | | | | | | | | | | | | | |
| EW04D | 4/18/2016 | N | 0.33 J | 24 | 5.0 U | 2.2 | 3060 | | 316 | 172 | | 0.16 J | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 129 | 16.5 | 131 | 1.9 | | 6.0 | 5.3 |
| EW04S | 4/18/2016 | N | 0.12 J | 210 | 5.0 U | 2.4 | 567 | | 385 | 20.0 U | | 0.25 | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 81.0 | 9.9 | 98.0 | 0.92 | | 8.1 | 7.2 |
| EW05D | 8/22/2014 | N | | 4400 | | | | | | | 6.8 | | | | | | | | | | 6.3 | | |
| EW05D | 2/3/2015 | N | | 3100 | | | | | | | 11 | | | | | | | | | | 2.0 J | | |
| EW05D | 4/20/2016 | N | 0.44 J | 7500 | 2.7 J | 8.6 | 8430 | | 1980 | 372 | | 19 | 0.50 U | 0.79 J | 0.95 J | 6.7 | 145 | 14.4 | 171 | 0.10 U | | 17.0 | 36.7 |
| EW06D | 8/22/2014 | N | | 910 | | | | | | | 1.8 | | | | | | | | | | 1.9 J | | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| EW06D | 2/3/2015 | N | | 4900 | | | | | | | 12 | | | | | | | | | | 1.6 J | | |
| EW06D | 1/24/2017 | N | 0.25 J | 840 | 0.35 | 0.70 J | 398 | | 163 | 15.4 J | | 1.7 | 0.28 | 0.26 | 0.23 | 1.2 J | 124 | 12.3 | 144 | 1.0 | | 5.9 | 6.4 |
| EW07D | 8/22/2014 | N | | 280 | | | | | | | 0.68 | | | | | | | | | | 1.3 J | | |
| EW07D | 2/3/2015 | N | | 170 | | | | | | | 0.28 | | | | | | | | | | 4.9 U | | |
| EW07D | 4/23/2015 | N | | 2400 | | | | | | | | | | | | | | | | | | | |
| EW07D | 4/12/2016 | N | 0.59 | 0.31 | 5.0 U | 1.1 J | 122 | | 210 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 127 | 23.7 | 174 | 6.6 | | 8.4 | 1.2 |
| EW10D | 8/22/2014 | N | | 7000 | | | | | | | 11 | | | | | | | | | | 11 | | |
| EW10D | 2/3/2015 | N | | 2800 | | | | | | | 7.7 | | | | | | | | | | 4.9 U | | |
| EW10D | 4/20/2016 | FD | 1.3 | 4800 | 7.6 | 12.1 | 3720 | | 2170 | 114 | | 19 | 0.50 U | 1.3 | 1.9 | 12 | 136 | 23.9 | 184 | 0.060 J | | 20.3 | 41.0 |
| EW10D | 4/20/2016 | N | 1.1 | 5000 | 6.5 | 10.3 | 3350 | | 2200 | 81.0 | | 19 | 0.50 U | 1.4 | 1.8 | 12 | 135 | 25.7 | 180 | 0.057 J | | 21.8 | 41.8 |
| EW11D | 4/14/2016 | FD | 0.080 J | 2.5 | 5.0 U | 2.0 U | 825 | | 27.4 | 55.9 | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 190 | 12.8 | 276 | 2.0 | | 198 | 1.2 |
| EW11D | 4/14/2016 | N | 0.50 U | 3.4 | 5.0 U | 1.1 J | 657 | | 22.6 | 46.4 | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 187 | 12.7 | 282 | 2.0 | | 155 | 1.0 |
| EW11D | 7/19/2016 | N | 1.1 | 7.4 | 5.0 U | 2.7 | 292 | | 54.5 | 50.0 | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 151 | 9.1 | 242 | 2.2 | | 112 | 1.9 |
| EW11D | 10/10/2016 | N | 3.2 | 8.4 | 5.0 U | 0.67 J | 793 | | 23.6 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 190 | 13.6 | 272 | 2.7 | | 159 | 1.0 |
| EW11D | 1/19/2017 | N | 8.9 | 0.15 | 0.35 | 0.51 J | 897 | | 40.4 | 10.8 J | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 168 | 12.2 | 70.0 | 3.3 | | 129 | 1.9 |
| EW11D | 4/19/2017 | N | 35 | 0.13 | 5.0 U | 0.58 J | 2930 | | 129 | 19.0 J | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 152 | 11.4 | 238 | 5.2 | | 97.3 | 3.2 |
| EW11D | 10/4/2017 | N | 14 | 0.18 | 0.31 J | 1.4 J | 1290 | | 66.9 | 11.9 J | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 159 | 11.5 | 220 | 7.7 | | 79.4 | 2.5 |
| EW11D | 5/31/2018 | FD | 2.4 | 0.12 | 0.35 J | 1.2 J | 2690 | | 126 | 10.2 J | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 137 | 8.9 | 204 | 13.4 | | 51.7 | 3.4 |
| EW11D | 5/31/2018 | N | 2.5 | 0.10 U | 0.36 J | 0.87 J | 2600 | | 124 | 10.2 J | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 137 | 9.0 | 202 | 13.0 | | 49.5 | 3.4 |
| EW11D | 10/19/2018 | N | 1.0 U | 0.096 U | 1.0 U | 13.1 | 144 | | 34.5 | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 0.44 J | 131 | 7.2 | 121 | 9.9 | | 40.3 | 4.3 |
| EW11D | 4/24/2019 | N | 0.17 U | 0.20 | 1.1 | 7.0 | 23400 | | 217 | 282 | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 48.2 | 0.94 | 95.1 | 5.7 | | 19.5 B | 5.5 |
| EW11D | 10/17/2019 | N | 0.31 J | 2.7 | 0.24 J | 2.1 | 1260 | | 66.1 | 15.2 J | | 0.24 U | 0.15 U | 0.18 U | 0.15 J | 0.22 U | 149 H | 3.9 | 172 | 5.4 | | 29.5 | 6.4 |
| EW11D | 4/13/2020 | N | 0.22 J | 0.86 | 0.30 JB | 4.6 | 2180 | | 162 | 27.3 | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 44.9 | 0.46 | 66.1 | 3.7 | | 14.2 | 5.6 |
| EW11D | 10/7/2020 | N | 12 | 0.091 U | 0.55 J | 15.0 | 4880 | | 57.3 | 12.4 J | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 201 | 5.2 | 228 | 6.8 H | | 27.6 | 3.4 |
| EW11D | 4/13/2021 | N | 1.0 U | 3.2 | 0.50 J | 18.9 | 3470 | | 208 | 37.8 | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 75.8 | 1.3 | 101 | 2.3 | | 20.8 | 7.4 |
| EW11D | 10/12/2021 | N | 550 | 0.60 | 0.27 J | 1.9 J | 23500 | | 692 | 15.6 J | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 83.7 | 3.6 | 90.8 | 1.6 | | 6.1 | 6.8 |
| EW11D | 4/12/2022 | N | 870 | 0.44 | 2.3 | 9.0 | 49200 | | 157 | 276 | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 164 | 2.3 | 97.6 | 1.8 | | 8.3 | 3.7 |
| EW11S | 4/14/2016 | N | 0.50 U | 0.37 | 5.0 U | 3.4 | 451 | | 63.5 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 48.6 | 7.0 | 100 | 8.9 | | 45.1 | 5.2 |
| EW11S | 7/19/2016 | N | 0.50 U | 1.2 | 5.0 U | 2.3 | 84.2 J | | 37.3 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 65.7 | 7.9 | 106 | 6.0 | | 36.5 | 2.7 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| EW11S | 10/10/2016 | N | 0.50 U | 0.70 | 0.40 J | 3.0 | 114 | | 97.9 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 64.7 | 7.9 | 118 | 7.9 | | 39.1 | 4.7 |
| EW11S | 1/19/2017 | N | 0.20 J | 0.96 | 0.40 J | 2.2 | 211 | | 157 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 50.5 | 9.8 | 108 | 7.7 | | 36.3 | 4.3 |
| EW11S | 4/19/2017 | N | 0.26 J | 0.20 | 5.0 U | 1.8 J | 445 | | 185 | 20.0 U | | 0.23 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 45.9 | 9.2 | 122 | 8.6 | | 36.8 | 3.5 |
| EW11S | 10/4/2017 | N | 0.22 J | 0.25 | 0.31 J | 2.9 | 164 | | 65.0 | 7.9 J | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 65.2 | 9.4 | 129 | 8.0 | | 39.1 | 3.9 |
| EW11S | 6/1/2018 | N | 1.0 U | 0.25 | 0.24 J | 2.7 | 242 | | 74.7 | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 53.5 | 10.6 | 127 | 13.2 | | 36.3 | 3.3 |
| EW11S | 10/19/2018 | N | 1.0 U | 0.099 U | 1.0 U | 9.6 | 213 | | 63.5 | 12.8 J | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 0.23 J | 56.4 | 7.4 | 182 | 11.9 | | 29.2 | 2.7 |
| EW11S | 4/24/2019 | N | 0.17 U | 0.16 | 0.23 U | 2.2 | 94.7 J | | 10.7 | 8.2 J | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 53.0 | 2.7 | 96.5 | 6.0 | | 23.7 B | 2.5 |
| EW11S | 10/17/2019 | N | 0.21 J | 2.1 | 0.23 U | 2 | 46.7 U | | 24.6 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 J | 0.22 U | 93.6 H | 3.2 | 128 | 7.3 | | 22 | 3.6 |
| EW11S | 4/13/2020 | N | 0.17 U | 0.98 | 0.30 JB | 9.1 | 46.7 U | | 2.2 J | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 72.7 | 2.2 | 96 | 4.5 | | 20.7 | 2.2 |
| EW11S | 10/7/2020 | N | 1.9 | 0.087 U | 0.28 J | 20.6 | 241 | | 59.3 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 97.4 | 5.1 | 127 | 5.7 H | | 24.8 | 3.1 |
| EW11S | 4/13/2021 | N | 1.0 U | 1.2 | 1.0 U | 20.9 | 100 U | | 5.4 | 12.5 JB | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 97.3 | 4.5 | 134 | 6.5 H | | 21 | 2.5 |
| EW11S | 10/12/2021 | N | 0.30 J | 0.18 | 1.0 U | 15.0 | 49.7 J | | 6.1 | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 94.7 | 2.8 | 128 | 6.4 | | 15.5 | 1.5 |
| EW11S | 4/12/2022 | N | 0.94 J | 1.2 | 1.2 | 2.8 | 734 | | 48.6 | 8.2 J | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 104 | 2.2 | 65.1 | 4.3 | | 11.0 | 1.4 |
| EW12D | 8/22/2014 | N | | 4600 | | | | | | | 5.7 | | | | | | | | | | 5.1 | | |
| EW12D | 2/3/2015 | N | | 880 | | | | | | | 4.1 | | | | | | | | | | 4.9 U | | |
| EW12D | 4/20/2016 | N | 4.0 | 2500 | 2.2 J | 1.3 J | 3820 | | 1620 | 20.0 U | | 12 | 0.50 U | 0.58 J | 0.50 J | 7.2 | 90.0 | 5.4 | 80.4 | 0.10 U | | 6.4 | 15.7 |
| EW13D | 8/22/2014 | N | | 780 | | | | | | | 1.2 | | | | | | | | | | 1.5 J | | |
| EW13D | 2/3/2015 | N | | 660 | | | | | | | 1.6 | | | | | | | | | | 4.7 U | | |
| EW13D | 4/23/2015 | N | | 18000 | | | | | | | | | | | | | | | | | | | |
| EW13D | 4/19/2016 | N | 1100 | 2100 | 1.6 J | 2.0 U | 7660 | | 956 | 11.7 J | | 13 | 0.50 U | 0.27 J | 0.32 J | 4.8 | 180 | 15.1 | 167 | 0.093 J | | 2.0 | 20.7 |
| EW13S | 4/19/2016 | N | 4.9 | 770 | 23.2 | 37.7 | 14100 | | 2340 | 13.8 J | | 2.0 | 0.50 U | 0.26 J | 1.0 U | 4.2 | 370 | 20.7 | 229 | 0.10 U | | 9.6 | 36.6 |
| EW13S | 7/26/2016 | N | 20 | 1900 | 58.9 | 133 | 45600 | | 2580 | 52.2 | | 4.0 | 0.50 U | 0.31 J | 0.35 J | 4.4 | 312 | 21.2 | 292 | 0.10 U | | 7.8 | 32.6 |
| EW13S | 10/14/2016 | N | 40 | 4200 | 18.5 | 30.6 | 15600 | | 2360 | 8.4 J | | 6.8 | 0.50 U | 0.53 J | 0.54 J | 7.1 | 296 | 25.1 | 236 | 0.10 U | | 11.8 | 34.7 |
| EW13S | 1/24/2017 | N | 48 | 6400 | 11.4 | 3.2 | 8700 | | 2220 | 6.2 | | 11 | 0.28 | 0.70 J | 0.62 J | 9.3 | 297 | 28.0 | 304 | 4.8 | | 12.1 | 35.8 |
| EW13S | 4/20/2017 | N | 32 | 5100 | 13.7 | 2.2 | 10600 | | 2260 | 20.0 U | | 20 | 0.50 U | 0.96 J | 0.90 J | 13 | 240 | 29.1 | 294 | 0.10 U | | 16.1 | 37.2 |
| EW13S | 10/5/2017 | N | 52 | 8700 | 12.4 | 0.93 J | 10400 | | 2010 | 20.0 U | | 16 | 0.50 U | 1.0 | 1.0 | 14 | 276 | 34.5 | 276 | 0.075 J | | 13.6 | 34.9 |
| EW13S | 6/1/2018 | N | 24 | 6000 | 14.9 | 3.6 | 13400 | | 2540 | 20.0 U | | 19 | 0.50 U | 0.93 | 1.0 | 13 | 271 | 34.2 | 253 | 0.085 J | | 13.6 | 33.8 |
| EW13S | 10/19/2018 | FD | 17 | 9800 | 16.3 | 17.3 | 16300 | | 2610 | 20.0 U | | 33 | 0.50 U | 1.3 | 1.3 | 19 | 241 | 32.6 | 255 | 0.20 U | | 17.0 | 34.7 |
| EW13S | 10/19/2018 | N | 16 | 10000 | 16.0 | 12.5 | 16400 | | 2620 | 11.5 J | | 34 | 0.23 J | 1.2 | 1.2 | 21 | 242 | 33.4 | 251 | 0.20 U | | 17.4 | 35.3 |
| EW13S | 4/23/2019 | N | 8.4 | 8900 | 5.5 B | 1.8 JB | 18700 | | 3040 B | 6.9 U | | 17 | 0.15 U | 0.83 | 0.84 | 15 | 243 | 32.2 | 340 | 0.068 U | | 19.9 | 31.5 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| EW13S | 10/15/2019 | N | 6.3 | 11000 | 8.9 | 2.2 | 19800 | | 3150 | 6.9 U | | 20 | 0.15 U | 1.3 | 0.97 | 18 | 265 | 33.1 | 268 | 0.068 U | | 15.5 | 36.6 |
| EW13S | 4/8/2020 | N | 5.5 | 3700 | 3.8 | 8.1 | 10200 | | 1310 | 9.0 J | | 27 | 0.15 U | 0.74 | 0.81 | 12 | 257 | 32.1 | 258 | 0.068 U | | 13.6 | 35.8 |
| EW13S | 10/7/2020 | FD | 4.6 | 7900 | 15.5 | 1.1 J | 14800 | | 2590 | 6.9 U | | 33 | 0.15 U | 1.5 | 1.2 | 21 | 234 | 36.7 | 276 | 0.076 JH | | 18.4 | 29.0 |
| EW13S | 10/7/2020 | N | 5.2 | 8300 | 14.8 | 1.4 J | 14200 | | 2440 | 6.9 U | | 33 | 0.15 U | 1.2 | 0.89 | 17 | 233 | 34.3 | 270 | 0.11 JH | | 16.9 | 29.1 |
| EW13S | 4/15/2021 | N | 5.5 | 9400 | 3.6 | 1.2 JB | 18900 | | 3410 | 11.0 J | | 20 | 0.50 U | 0.99 | 0.94 | 16 | 278 | 27.1 | 301 | 0.088 J | | 13.5 | 4.5 |
| EW13S | 10/14/2021 | N | 4.1 | 9400 | 7.7 | 33.3 | 25400 | | 3340 | 12.8 J | | 21 | 0.50 U | 0.93 | 0.84 | 18 | 290 | 35.4 | 305 | 0.20 U* | | 12.6 | 57.1 |
| EW13S | 4/12/2022 | N | 6.2 | 19000 | 7.3 | 3.0 | 20700 | | 4190 | 20.0 U | | 18 | 0.50 U | 1.1 | 1.0 | 18 | 279 | 36.8 | 205 | 0.20 U | | 17.7 | 45.0 |
| EW14D | 8/22/2014 | N | | 290 | | | | | | | 0.99 | | | | | | | | | | 1.4 J | | |
| EW14D | 2/3/2015 | N | | 660 | | | | | | | 1.5 | | | | | | | | | | 4.9 U | | |
| EW14D | 4/23/2015 | N | | 2100 | | | | | | | | | | | | | | | | | | | |
| EW14D | 4/19/2016 | FD | 3.5 | 2700 | 5.0 U | 2.0 U | 292 | | 77.8 | 17.2 J | | 3.1 | 0.50 U | 1.0 U | 1.0 U | 2.4 | 136 | 11.9 | 145 | 0.48 | | 7.1 | 6.3 |
| EW14D | 4/19/2016 | N | 4.2 | 2800 | 5.0 U | 3.4 | 301 | | 77.4 | 17.5 J | | 3.5 | 0.50 U | 1.0 U | 1.0 U | 2.4 | 137 | 12.0 | 139 | 0.48 | | 7.2 | 6.5 |
| MW1 | 10/9/1997 | 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 | 10/9/1997 | FD2 | | | 2 U | 70.9 | | | | 36 | | | | | | | | | | | | | |
| MW1 | 10/9/1997 | 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 | 10/9/1997 | N2 | | 2 | 2 U | 2 U | | | | 3 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW1 | 4/24/2001 | 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 | 4/24/2001 | N2 | 0.11 U | | 1 U | 25 U | 25 U | | 15 U | 25 U | | | | | | | | | | 6.5 | | | |
| MW1 | 9/11/2001 | 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 | 9/11/2001 | N2 | | | 1.3 | 25 U | 4000 | | 450 | 20 | | | | | | | | | | | | | |
| MW1 | 5/14/2002 | N | | | 1.4 U | 1.6 J | 11.2 U | | 0.48 J | 5.4 J | | | | | | | | | | | | | |
| MW1 | 8/6/2002 | N | 0.01 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 | 8/6/2002 | N2 | 0.01 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 | 8/6/2002 | N3 | | | 1.8 J | 9.5 J | 2200 | | 230 | 6.5 J | | | | | | | | | | | | | |
| MW1 | 8/6/2002 | N4 | | | 1.4 U | 0.3 U | 11 U | | 2.2 J | 2.9 J | | | | | | | | | | | | | |
| MW1 | 4/29/2003 | 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 | 4/29/2003 | N2 | 0.5 U | | 1 U | 1 U | 25 U | | 5 U | 10 U | | | | | | | | | | | | | |
| MW1 | 9/24/2003 | 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 | 9/24/2003 | N2 | 0.5 U | | 1 U | 1 J | 100 J | | 36 | 10 U | | | | | | | | | | | | | |
| MW1 | 5/4/2004 | 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 | 5/4/2004 | N2 | | | 0.190 J | 0.785 R | 29.9 R | | 15.0 R | 2.74 R | | | | | | | | | | | | | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW1 | 9/21/2004 | 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 | 9/21/2004 | FD2 | | | 0.227 J | 0.707 J | 21.0 J | | 3.07 J | 3.31 J | | | | | | | | | | | | | |
| MW1 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.218 J | 0.605 J | 18.0 J | | 2.60 J | 4.06 J | | | | | | | | | | | | | |
| MW1 | 5/10/2005 | 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 | 5/10/2005 | N2 | | | 1.0 U | 10 U | 50 U | | 10 U | 20 U | | | | | | | | | | | | | |
| MW1 | 9/29/2005 | 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 | 9/29/2005 | N2 | | | 1.0 UJ | 10 UJ | 50 UJ | | 3.8 J | 20 UJ | | | | | | | | | | | | | |
| MW1 | 5/31/2006 | 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 | 5/8/2007 | 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 | 9/18/2007 | 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 | 10/21/2008 | 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 |
| MW1 | 4/12/2016 | N | 0.50 U | 0.15 | 5.0 U | 2.0 U | 19.9 J | | 1.4 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 79.9 | 5.1 | 102 | 0.53 | | 5.2 | 0.73 J |
| MW1 | 7/20/2016 | N | 0.50 U | 1.1 | 5.0 U | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 82.4 | 5.6 | 30.0 | 0.53 | | 5.2 | 0.83 J |
| MW1 | 10/12/2016 | N | 0.16 J | 0.12 | 0.46 J | 0.67 J | 100 U | | 0.96 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 86.2 | 7.5 | 92.0 | 0.45 | | 5.2 | 0.59 J |
| MW1 | 1/19/2017 | FD | 0.080 | 0.30 | 0.51 J | 0.73 J | 5.7 J | | 0.25 | 6.2 | | 0.061 | 0.28 | 0.26 | 0.23 | 0.24 | 71.9 | 6.8 | 88.0 | 0.54 | | 4.8 | 0.73 J |
| MW1 | 1/19/2017 | N | 0.080 | 0.19 | 0.77 J | 0.76 J | 8.1 J | | 0.25 | 6.2 | | 0.063 | 0.28 | 0.26 | 0.23 | 0.24 | 71.9 | 6.7 | 88.0 | 0.54 | | 4.7 | 0.65 J |
| MW1 | 4/18/2017 | N | 0.50 U | 0.12 | 0.37 J | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 64.4 | 3.9 | 84.0 | 0.39 | | 5.5 | 0.91 J |
| MW1 | 10/4/2017 | N | 0.15 J | 0.17 | 1.0 U | 1.1 J | 100 U | | 2.5 U | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 78.5 | 8.1 | 81.3 | 1.1 | | 5.5 | 0.63 J |
| MW1 | 10/18/2018 | N | 1.0 U | 0.096 U | 0.34 J | 1.3 J | 100 U | | 2.5 U | 8.8 J | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 85.5 | 13.1 | 109 | 2.9 | | 5.9 | 1.0 |
| MW1 | 4/24/2019 | FD | 0.17 U | 0.14 | 0.45 J | 1.5 JB | 69.1 J | | 3.7 | 7.3 J | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 84.0 | 10.7 | 116 | 3.4 | | 6.0 B | 0.89 J |
| MW1 | 4/24/2019 | N | 0.17 U | 0.12 | 0.24 J | 1.2 JB | 53.2 J | | 3.5 | 8.2 J | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 85.1 | 11.3 | 116 | 3.4 | | 5.9 B | 0.47 U |
| MW1 | 10/14/2019 | N | 0.17 U | 0.085 U | 0.37 J | 1.5 J | 76.5 J | | 4.7 | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 99.1 | 14.7 | 116 | 3.7 H | | 5.7 | 0.55 J |
| MW1 | 4/9/2020 | N | 0.17 U | 0.086 U | 0.47 J | 1.6 J | 46.7 U | | 0.79 U | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 72.9 | 6 | 83.4 | 1.4 | | 5.5 | 0.54 J |
| MW1 | 10/6/2020 | N | 0.17 U | 0.17 | 0.36 J | 3.6 | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 82.0 | 9.7 | 105 | 3.0 | | 7.1 | 1.2 |
| MW1 | 4/12/2021 | N | 1.0 U | 0.41 | 0.34 J | 16.6 B | 100 U | | 1.0 JB | 8.0 J | | 0.88 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 75.5 | 6.6 | 87.7 | 1.3 | | 5 | 0.87 J |
| MW1 | 10/11/2021 | N | 1.0 U | 0.10 U^c | 0.52 J | 52.6 | 100 U | | 2.5 U | 20.0 U | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 93.6 | 11.4 F1 | 113 | 2.9 | | 5.4 | 0.50 JF1 |
| MW1 | 4/11/2022 | N | 1.0 U | 0.50 | 0.33 J | 2.4 | 100 U | | 2.7 | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 116 | 14.2 | 82.5 | 3.9 | | 5.9 | 1.0 |
| MW2 | 10/9/1997 | 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 | 10/9/1997 | N2 | | 1 U | 2 U | 11.4 J | | | | 10.7 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW2 | 4/5/2000 | N | | 0.5 U | | | | | | | | 10 U | | | | | | | | | | | |
| MW2 | 6/18/2001 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW2 | 6/18/2001 | N2 | 0.14 | | 6.7 | 109 | 39900 | | 1230 | 64 | | | | | | | | | | 38 | | | |
| MW2 | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 0.29 U | 2.2 U | 35 U | | 57 | 5.2 J | | | | | | | | | | | | | |
| MW2 | 8/6/2002 | N | 0.01 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 | 8/6/2002 | N2 | | | 1.4 U | 0.3 U | 48 | | 18 | 9.1 J | | | | | | | | | | | | | |
| MW2 | 9/24/2003 | 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 | 9/24/2003 | N2 | 0.5 U | | 1 U | 16 | 3030 J | | 443 | 20 J | | | | | | | | | | | | | |
| MW2 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.237 J | 3.10 J | 662 | | 22.2 J | 7.73 J | | | | | | | | | | | | | |
| MW2 | 9/28/2005 | 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 | 9/28/2005 | N2 | | | 1.0 UJ | 2.5 J | 65 J | | 9.3 J | 20 UJ | | | | | | | | | | | | | |
| MW2 | 9/26/2006 | 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 | 9/19/2007 | 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 | 10/21/2008 | 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 | 10/6/2009 | 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 | 10/6/2010 | 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 | 10/19/2011 | 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 | 10/16/2012 | 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 | 10/9/2013 | 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 | 10/9/2013 | N2 | | | | | | | | | | | | | | | | | | 2.9 J | | | |
| MW2 | 9/24/2014 | N | 0.50 U | 0.32 | 5.0 U | 2.0 U | 100 U | | 1.4 J | 20 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 62 | 0.69 J | 68 | 0.73 | | 2.4 | 1.0 U |
| MW2 | 10/14/2015 | N | 0.50 U | 0.13 | 5.0 U | 0.75 J | 56.7 J | | 2.9 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 50.7 | 0.55 J | 60.3 | 0.63 | | 2.1 | 1.3 |
| MW2 | 4/14/2016 | N | 0.50 U | 0.080 J | 1.3 J | 20.1 | 6580 | | 171 | 19.7 J | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 34.4 | 0.51 J | 49.0 | 0.38 | | 1.8 | 3.6 |
| MW2 | 10/29/2018 | N | 1.0 U | 0.21 | 1.0 U | 2.8 | 100 U | | 1.8 J | 10.9 J | | 0.86 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 66.6 | 0.42 | 87.2 | 0.51 | | 1.6 | 2.1 |
| MW2 | 4/25/2019 | N | 0.17 U | 0.37 | 0.23 U | 1.8 J | 230 | | 7.5 | 9.7 J | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 61.5 | 0.48 | 80.5 | 0.30 | | 1.7 B | 1.3 |
| MW2 | 10/18/2019 | N | 0.17 U | 0.094 U | 0.33 J | 5.2 | 1170 | | 40.9 | 12.1 J | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 67.9 H | 0.34 | 75.6 | 0.3 | | 1.4 B | 5.3 |
| MW2 | 4/9/2020 | N | 0.17 U | 0.093 U | 1.4 | 28.2 | 6900 | | 292 | 30.5 | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 73.3 | 0.3 | 160 | 0.24 | | 1.4 | 0.70 J |
| MW2 | 10/8/2020 | N | 0.17 U | 0.10 U | 0.23 U | 0.79 J | 46.7 U | | 3.3 | 6.9 U | | 0.32 J | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 68.2 | 0.26 | 87.8 | 0.27 H | | 1.3 | 0.90 J |
| MW2 | 4/13/2021 | N | 1.0 U | 0.10 U | 0.39 J | 10.5 | 2540 | | 108 | 20 | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 86.6 | 0.33 | 106 | 0.33 | | 1.4 | 0.91 J |
| MW2 | 10/14/2021 | N | 1.0 U | 0.12 U | 1.0 U | 2.3 | 398 | | 13.9 | 17.7 J | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 86.0 | 0.35 | 92.7 | 0.31 | | 1.7 | 0.53 J |
| MW2 | 4/13/2022 | N | 1.0 U | 17 | 1.9 | 29.8 | 9390 | | 336 | 40.1 | | 0.85 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 79.6 | 0.30 | 49.1 | 0.21 | | 1.2 | 0.60 J |
| MW2 | | | | | | | | | | | | | | | | | | | | | | | |
| MW3 | 10/8/1997 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW3 | 10/8/1997 | N2 | | 1 U | | | | | | | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW3 | 4/4/2000 | N | | 0.6 U | | | | | | | | 12 U | | | | | | | | | | | |
| MW3 | 4/25/2001 | 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 | 4/25/2001 | N2 | | | 1 U | 25 U | 142 | | 7.9 | 25 U | | 6.1 U | | | | | | | | 4.42 = | | | |
| MW3 | 9/13/2001 | 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 | 9/13/2001 | N2 | | | 0.35 J | 2.2 U | 2400 | | 31 | 3.7 U | | | | | | | | | | | | | |
| MW3 | 8/7/2002 | N | 0.01 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 |
| MW3 | 8/7/2002 | N2 | | | 1.9 J | 0.58 J | 160 | | 12 J | 4.8 J | | | | | | | | | | | | | |
| MW3 | 9/23/2003 | 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 | 9/23/2003 | N2 | 2.5 | | | | | | | | | | | | | | | | | | | | |
| MW3 | 9/24/2003 | N | | | 1 U | 1 U | 1 U | | 8 J | 10 U | | | | | | | | | | | | | |
| MW3 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.119 J | 1.91 J | 137 J | | 4.99 J | 4.61 J | | | | | | | | | | | | | |
| MW3 | 9/28/2005 | FD | | | | | | | | | | | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| MW3 | 9/28/2005 | 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 | 9/28/2005 | N2 | | | 1.0 U | 3.0 J | 120 J | | 6.7 J | 20 UJ | | | | | | | | | | | | | |
| MW3 | 10/21/2008 | 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 | 10/7/2009 | 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 | 10/5/2010 | 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 | 10/18/2011 | 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 | 10/16/2012 | 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 | 10/8/2013 | 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 | 9/25/2014 | N | 15 | 0.35 | 5.0 U | 2.0 U | 160 | | 7.6 | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 290 | 72 | 360 | 2.1 | | 12 | 0.91 J |
| MW3 | 10/15/2015 | FD | 5.7 | 0.23 | 5.0 U | 1.2 J | 56.6 J | | 7.9 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 258 | 52.3 | 312 | 1.7 | | 11.2 | 1.2 |
| MW3 | 10/15/2015 | N | 5.1 | 0.15 | 5.0 U | 0.93 J | 58.2 J | | 7.4 | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 258 | 52.5 | 322 | 1.7 | | 11.1 | 1.1 |
| MW3 | 4/5/2016 | FD | 4.2 | 0.40 | 5.0 U | 0.99 J | 514 | | 18.6 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 221 | 48.6 | 283 | 1.4 | | 10.0 | 0.94 J |
| MW3 | 4/5/2016 | N | 4.4 | 0.46 | 5.0 U | 1.4 J | 716 | | 20.4 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 224 | 48.2 | 299 | 1.4 | | 10.1 | 0.98 J |
| MW3 | 7/21/2016 | N | 2.5 | 0.35 | 5.0 U | 2.0 U | 317 | | 16.2 | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 215 | 45.5 | 248 | 1.4 | | 9.2 | 1.0 |
| MW3 | 10/11/2016 | N | 1.5 | 0.45 | 5.0 U | 1.7 J | 171 | | 14.8 | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 233 | 46.8 | 268 | 1.8 | | 12.7 | 1.1 |
| MW3 | 1/20/2017 | N | 1.9 | 0.93 | 0.35 | 2.0 | 812 | | 16.4 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 230 | 47.3 | 284 | 1.9 | | 14.5 | 1.6 |
| MW3 | 4/20/2017 | N | 1.3 | 0.47 | 5.0 U | 1.7 J | 83.6 J | | 23.0 | 20.0 U | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 232 | 45.5 | 358 | 1.8 | | 15.0 | 1.4 |
| MW3 | 10/13/2017 | N | 2.1 | 0.55 | 1.0 U | 2.0 | 59.7 J | | 12.5 | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 272 | 50.1 | 298 | 2.0 | | 13.9 | 1.4 |
| MW3 | 6/1/2018 | N | 1.0 U | 0.25 | 0.29 J | 1.7 J | 50.6 J | | 9.4 | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 698 | 31.5 | 246 | 1.9 | | 10.8 | 1.2 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW3 | 10/18/2018 | N | 1.0 U | 0.50 | 1.0 U | 1.7 J | 77.2 J | | 9.2 | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 227 | 23.9 | 231 | 1.7 | | 10.2 | 1.3 |
| MW3 | 4/25/2019 | N | 200 | 0.27 | 0.23 U | 2.0 | 372 | | 21.7 | 9.7 J | | 0.24 U | 0.24 J | 0.18 U | 0.15 U | 0.22 U | 200 | 35.4 | 215 | 1.5 | | 7.8 B | 1.0 |
| MW3 | 10/14/2019 | N | 86 | 0.091 U | 0.23 U | 0.73 J | 482 | | 52.1 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 209 | 30.1 | 235 | 1.3 H | | 8.3 | 0.69 J |
| MW3 | 4/6/2020 | FD | 21 | 0.089 U | 0.25 J | 0.86 J | 675 | | 32 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 203 | 25.4 | 219 | 1.4 H | | 7 | 0.57 J |
| MW3 | 4/6/2020 | N | 22 | 0.090 U | 0.23 U | 0.91 J | 685 | | 31.9 | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 199 | 24.9 | 213 | 1.4 H | | 7 | 0.58 J |
| MW3 | 10/7/2020 | N | 6.6 | 0.49 | 0.24 J | 0.60 J | 1770 | | 25.7 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 256 | 25.2 | 280 | 2.3 H | | 7.7 | 1.1 |
| MW3 | 4/14/2021 | N | 5.4 | 0.097 U | 0.27 J | 1.0 J | 731 | | 15.7 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 406 | 73.8 | 465 | 1.9 | | 6.7 | 1.1 |
| MW3 | 4/14/2021 | FD | 4.4 | 0.098 U | 0.30 J | 0.81 J | 759 | | 16.3 | 8.0 JB | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 412 | 74.9 | 456 | 1.9 | | 6.7 | 1.1 |
| MW3 | 10/13/2021 | N | 49 | 0.096 U | 0.43 J | 1.0 J | 1660 | | 25.4 | 20.0 U | | 0.74 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 410 | 50.6 | 380 | 1.1 | | 12.5 | 0.73 J |
| MW3 | 4/14/2022 | N | 70 | 0.45 | 1.0 U | 0.91 J | 890 | | 15.2 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 354 | 27.9 | 225 | 2.8 | | 5.5 | 0.90 J |
| MW4 | 10/9/1997 | 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 | 10/9/1997 | N2 | | 1 U | 2 U | 2.4 U | | | | 4.5 | | | 2 | 3 | 1 | 3 | | | | | | | |
| MW4 | 4/4/2000 | N | | 0.5 U | | | | | | | | 10 U | | | | | | | | | | | |
| MW4 | 1/20/2017 | N | 0.92 | 3.0 | 1.5 J | 0.36 | 124 | | 37.9 | 6.2 | | 0.063 | 0.28 | 0.26 | 0.23 | 0.24 | 87.9 | 22.7 | 132 | 0.23 | | 11.6 | 0.53 J |
| MW4 | 4/21/2017 | N | 10 | 0.11 | 1.2 J | 2.0 U | 85.4 J | | 39.0 | 20.0 U | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 82.8 | 32.9 | 170 | 0.15 | | 13.2 | 0.60 J |
| MW4 | 10/3/2017 | N | 7.2 | 0.097 U | 1.2 | 1.2 J | 501 | | 41.8 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 93.7 | 37.0 | 134 | 0.26 | | 30.0 | 1.0 U |
| MW4 | 5/31/2018 | N | 300 | 0.11 U | 1.1 | 2.0 U | 149 | | 38.6 | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 76.8 | 47.9 | 145 | 0.096 J | | 14.1 | 0.85 J |
| MW4 | 10/17/2018 | FD | 6.7 | 0.10 U | 1.2 | 2.0 U | 100 U | | 36.0 | 6.9 J | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 87.1 | 40.3 | 138 | 0.22 | | 13.1 | 0.68 J |
| MW4 | 10/17/2018 | N | 5.9 | 0.097 U | 1.2 | 2.0 U | 100 U | | 33.8 | 20.0 U | | 0.55 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 86.5 | 40.9 | 138 | 0.20 | | 13.0 | 0.72 J |
| MW4 | 4/24/2019 | FD | 50 | 0.089 U | 0.97 J | 0.50 U | 82.6 J | | 35.7 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.16 J | 0.22 U | 75.1 | 49.7 | 142 | 0.086 J | | 12.5 B | 0.84 J |
| MW4 | 4/24/2019 | N | 45 | 0.085 U | 0.89 J | 1.3 J | 118 | | 33.6 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.16 J | 0.22 U | 74.7 | 52.1 | 144 | 0.070 J | | 13.0 B | 0.65 J |
| MW4 | 10/16/2019 | N | 25 | 5.7 | 1 | 0.50 U | 214 | | 134 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 80.3 H | 50.4 | 147 | 0.090 J | | 13.6 B | 0.47 U |
| MW4 | 4/7/2020 | N | 18 | 0.87 | 1.1 | 0.68 J | 67.9 J | | 36 | 10 J | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 73.8 | 49.5 | 143 | 0.24 | | 14 | 0.47 U |
| MW4 | 10/5/2020 | N | 4.7 | 0.086 U | 1.1 | 0.50 U | 46.7 U | | 37.4 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 74.1 | 44.3 | 151 | 0.28 | | 13.7 | 0.81 J |
| MW4 | 4/15/2021 | N | 18 | 0.099 U | 1.1 | 2.0 U | 138 | | 36.8 | 18.7 JF3 | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 78.4 | 46.7 | 146 | 0.2 | | 13.1 | 0.67 J |
| MW4 | 10/13/2021 | | 20 | 0.11 U | 1.2 | 2.0 U | 62.8 J | | 38.4 | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 80.7 | 54.8 | 148 | 0.17 J | | 15.0 | 1.0 U |
| MW4 | 4/13/2022 | N | 35 | 1.0 | 1.2 | 2.0 U | 74.5 J | | 33.8 | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 79.6 | 48.3 | 93.7 | 0.10 J | | 13.4 | 0.51 J |
| MW4 | 4/13/2022 | FD | 37 | 0.098 U | 1.1 | 2.0 U | 68.6 J | | 36.6 | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 85.9 | 52.5 | 99.2 | 0.10 J | | 14.5 | 0.53 J |
| MW5 | 10/10/1997 | 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 | 10/10/1997 | FD2 | | | 4.6 | 4835 J | | | | 2.7 | | | | | | | | | | | | | |
| MW5 | 10/10/1997 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW5 | 10/10/1997 | N2 | | 28000 E | 3.2 | 24 J | | | | 2 J | | | 0.1 U | 3 | 5 | 21 | | | | | | | |
| MW5 | 4/7/2000 | N | | 20600 = | | | | | | | | 76 U | | | | | | | | | | | |
| MW5 | 4/26/2001 | 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 | 4/26/2001 | N2 | 0.4 | | 3.9 | 25 U | 7630 | | 11300 | 25 U | | | | | | | | | | | | | |
| MW5 | 9/13/2001 | 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 | 9/13/2001 | N2 | | | 8.2 | 100 | 26000 | | 8500 | 4.2 J | | | | | | | | | | | | | |
| MW5 | 8/7/2002 | 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 | 8/7/2002 | N2 | | | 2 J | 1.5 J | 7900 | | 7840 | 26.9 J | | | | | | | | | | | | | |
| MW5 | 9/25/2003 | 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 | 9/25/2003 | N2 | 0.47 J | | 3 | 7 | 13400 | | 8320 | 10 U | | | | | | | | | | | | | |
| MW5 | 9/22/2004 | 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 | 9/22/2004 | N2 | | 214 E | 0.612 J | 1.44 J | 7480 J | | 5650 J | 5.91 J | | | | | | | | | | | | | |
| MW5 | 9/28/2005 | 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 | 9/28/2005 | N2 | | | 1.0 UJ | 10 UJ | 19000 J | | 7600 J | 20 UJ | | | | | | | | | | | | | |
| MW5 | 9/26/2006 | 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 | 9/20/2007 | 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 | 10/22/2008 | 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 | 10/7/2009 | 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 | 10/6/2010 | 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 | 10/19/2011 | 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 | 10/17/2012 | 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 | 10/10/2013 | 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 | 9/24/2014 | FD | 10 | 12 | 0.42 J | 2.0 U | 1200 | | 2200 | 20 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 97 | 4.3 | 150 | 0.12 | | 48 | 1.0 U |
| MW5 | 9/24/2014 | N | 12 | 12 | 0.41 J | 2.0 U | 1200 | | 2200 | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 100 | 4.3 | 150 | 0.14 | | 48 | 2.3 |
| MW5 | 10/14/2015 | N | 1.8 | 64 | 5.0 U | 2.0 U | 954 | | 2230 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 98.7 | 12.7 | 159 | 0.053 J | | 48.9 | 3.3 |
| MW5 | 4/7/2016 | FD | 4.9 | 16 | 5.0 U | 2.0 U | 940 | | 2070 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 71.3 | 12.5 | 113 | 0.96 | | 37.6 | 4.5 |
| MW5 | 4/7/2016 | N | 4.3 | 17 | 5.0 U | 2.0 U | 931 | | 1990 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 72.0 | 12.7 | 113 | 0.97 | | 38.0 | 4.6 |
| MW5 | 10/29/2018 | N | 15 | 5600 | 0.71 J | 1.5 J | 7920 | | 6730 | 20.0 U | | 23 | 0.50 U | 0.57 | 0.53 | 6.5 | 249 | 28.5 | 292 | 0.084 J | | 28.5 | 39.6 |
| MW5 | 4/25/2019 | N | 96 | 5100 | 0.79 J | 0.97 J | 10200 | | 6250 | 6.9 U | | 24 | 0.15 U | 0.47 J | 0.52 | 5.8 | 262 | 27.0 | 305 | 0.068 U | | 27.7 B | 33.3 F1 |
| MW5 | 10/17/2019 | FD | 32 | 5500 | 0.69 J | 0.84 J | 21900 | | 6870 | 6.9 U | | 20 | 0.15 U | 0.62 | 0.43 J | 6.4 | 265 | 25.7 | 283 | 0.068 U | | 24.4 | 38.4 |
| MW5 | 10/17/2019 | N | 34 | 6000 | 0.75 J | 0.70 J | 22300 | | 7140 | 6.9 U | | 22 | 0.15 U | 0.62 | 0.46 J | 6.3 | 452 | 28.2 | 273 | 0.068 U | | 25.6 | 38.7 |
| MW5 | 4/13/2020 | N | 13 | 6200 | 0.92 JB | 1.1 J | 17000 | | 7190 B | 6.9 U | | 22 | 0.15 U | 0.72 | 0.6 | 7 | 253 | 27 | 286 | 0.068 U | | 23.8 | 42.5 |
| MW5 | 10/8/2020 | FD | 8.9 | 4800 | 1.0 | 1.3 J | 14200 | | 7310 | 6.9 U | | 26 | 0.15 U | 0.57 | 0.57 | 7.7 | 244 | 31.6 | 283 | 0.076 JH | | 29.2 | 45.8 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW5 | 10/8/2020 | N | 9.8 | 5000 | 0.93 J | 1.5 J | 14300 | | 7470 | 6.9 U | | 25 | 0.15 U | 0.71 | 0.62 | 7.2 | 242 | 26.7 | 296 | 0.084 JH | | 24.6 | 47.0 |
| MW5 | 4/13/2021 | N | 9.7 | 4700 | 0.70 J | 2.1 | 16100 | | 8010 | 10.6 JB | | 35 | 0.50 U | 0.81 | 0.85 | 7.7 | 258 | 25.2 | 310 | 0.069 J | | 22.6 | 63.7 |
| MW5 | 10/14/2021 | N | 9.5 | 2800 | 0.98 J | 1.8 J | 12900 | | 7970 | 20.0 U | | 38 | 0.50 U | 1.0 | 0.89 | 10 | 282 | 24.8 | 309 | 0.20 U | | 21.4 | 54.6 |
| MW5 | 10/14/2021 | FD | 8.3 | 6100 | 0.87 J | 1.6 J | 12900 | | 8130 | 20.0 U | | 36 | 0.50 U | 0.95 | 0.89 | 10 | 286 | 25.4 | 310 | 0.068 J | | 21.8 | 55.2 |
| MW5 | 4/12/2022 | N | 51 | 10000 | 3.6 | 6.9 | 16500 | | 7440 | 20.0 U | | 26 | 0.50 U | 0.83 | 0.79 | 9.3 | 288 | 25.1 | 179 | 0.20 U | | 18.9 | 37.7 |
| MW6 | 4/19/2016 | FD | | 0.050 J | 5.0 U | 2.0 U | 100 U | | 3.2 J | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| MW6 | 4/19/2016 | N | 0.78 | 170 | 5.0 U | 5.2 | 282 | | 5.6 | 9.0 J | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 183 | 35.0 | 245 | 10.2 | | 26.3 | 6.2 |
| MW6S | 10/9/1997 | 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 | 10/9/1997 | N2 | | 1 U | 2 U | 2 U | | | | 2.2 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW6S | 4/26/2001 | 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 | 4/26/2001 | N2 | 0.12 U | | 0.26 | 25 U | 25 U | | 347 | 25 U | | | | | | | | | | | | | |
| MW6S | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 0.58 J | 3.1 J | 35 U | | 800 | 5 J | | | | | | | | | | | | | |
| MW6S | 8/7/2002 | N | 0.27 | 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 | 8/7/2002 | N2 | | | 2.7 | 9.9 J | 3330 | | 1790 | 9.7 J | | | | | | | | | | | | | |
| MW6S | 9/25/2003 | 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 | 9/25/2003 | N2 | 130 | | 1 J | 9 | 1100 | | 961 | 10 U | | | | | | | | | | | | | |
| MW6S | 9/27/2006 | 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 | 9/20/2007 | 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 | 9/20/2007 | 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 | 10/23/2008 | 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 | 10/7/2010 | 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 | 10/19/2011 | 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 | 10/17/2012 | 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 | 10/9/2013 | 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 | 10/9/2013 | N2 | | | | | | | | | | | | | | | | | | 8.9 J | | | |
| MW6S | 9/24/2014 | N | 0.082 J | 0.27 | 1.3 J | 27 | 6000 | | 110 | 41 | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 22 | 9.3 | 100 | 3.6 | | 7.3 | 1.0 U |
| MW6S | 10/14/2015 | N | 0.50 U | 0.17 | 5.0 U | 2.5 | 16.8 J | | 1.4 J | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 12.5 | 10.8 | 76.4 | 3.6 | | 6.7 | 3.4 |
| MW6S | 4/19/2016 | N | 0.50 U | 0.20 | 0.51 J | 4.7 | 831 | | 15.4 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 42.0 | 7.4 | 70.6 | 4.8 | | 6.3 | 18.2 |
| MW6S | 7/25/2016 | N | 0.50 U | 0.19 | 5.0 U | 3.4 | 118 | | 6.1 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 49.4 | 13.8 | 86.0 | 7.0 | | 8.0 | 3.7 |
| MW6S | 10/13/2016 | N | 0.50 U | 0.20 | 0.71 J | 19.7 | 2290 | | 52.7 | 11.7 J | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 126 | 14.5 | 152 | 6.9 | | 8.1 | 4.2 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW6S | 1/23/2017 | N | 0.080 | 0.059 J | 0.35 | 2.8 | 5.3 | | 6.0 | 6.2 | | 0.063 | 0.28 | 0.26 | 0.23 | 0.24 | 188 | 6.6 | 212 | 3.1 | | 6.0 | 3.8 |
| MW6S | 4/24/2017 | N | 0.089 J | 0.13 | 5.0 U | 3.3 | 8.3 J | | 7.4 | 20.0 U | | 0.23 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 198 | 6.5 | 268 | 3.8 | | 8.1 | 2.3 |
| MW6S | 10/5/2017 | N | 0.50 U | 0.32 | 1.0 U | 5.5 | 100 U | | 4.0 | 7.2 J | | 0.86 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 225 | 18.2 | 283 | 6.6 | | 8.0 | 1.8 |
| MW6S | 6/1/2018 | N | 1.0 U | 0.11 U | 0.37 J | 3.1 | 58.6 J | | 4.7 | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 250 | 14.1 | 320 | 11.6 | | 11.9 | 2.3 |
| MW6S | 10/19/2018 | N | 1.0 U | 0.097 U | 0.28 J | 15.7 | 100 U | | 5.2 | 12.4 J | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 0.24 J | 249 | 13.1 | 306 | 5.1 | | 8.0 | 3.2 |
| MW6S | 4/25/2019 | N | 0.17 U | 0.095 U | 0.27 J | 2.6 | 121 | | 4.8 | 10.3 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 275 | 12.1 | 336 | 10 | | 13.2 B | 2.0 |
| MW6S | 10/17/2019 | N | 0.17 U | 2.7 | 0.27 J | 3.4 | 271 | | 11 | 11.0 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 J | 0.22 U | 444 H | 8.9 | 259 | 3.8 | | 7.4 | 2.6 |
| MW6S | 4/9/2020 | N | 0.17 U | 0.089 U | 0.41 J | 3.7 | 89.8 J | | 5.1 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 245 | 11 | 297 | 7.3 | | 11.1 | 2.8 |
| MW6S | 10/7/2020 | N | 0.17 U | 0.095 U | 0.71 J | 2.8 | 46.7 U | | 9.9 | 6.9 U | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 196 | 11.9 | 207 | 2.7 | | 6.7 | 2.8 |
| MW6S | 10/14/2021 | N | 1.0 U | 1.1 U | 0.35 J | 3.5 | 100 U | | 2.9 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 282 | 17.2 | 297 | 7.2 | | 12.2 | 2.8 |
| MW6S | 4/14/2022 | N | 1.0 U | 0.75 | 1.0 U | 2.8 | 100 U | | 1.9 J | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 250 | 14.4 | 166 | 6.3 | | 9.4 | 2.0 |
| MW7 | 10/14/1997 | 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 | 10/14/1997 | N2 | | 1 U | 2 U | 2 U | | | | 3.5 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW7 | 4/4/2000 | FD | | 0.5 U | | | | | | | | 10 U | | | | | | | | | | | |
| MW7 | 4/4/2000 | N | | 0.5 U | | | | | | | | 10 U | | | | | | | | | | | |
| MW7 | 4/25/2001 | 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 | 4/25/2001 | N2 | 4.65 | | 1 U | 25 U | 154 | | 6.6 | 25 U | | 5.2 U | | | | | | | | 3.63 = | | | |
| MW7 | 9/11/2001 | 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 | 9/11/2001 | 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 | 9/11/2001 | N3 | | | 0.47 J | 2.2 U | 560 | | 5.7 | 4.8 J | | | | | | | | | | | | | |
| MW7 | 9/11/2001 | N4 | | | 0.29 U | 2.2 U | 230 | | 4.6 | 3.9 J | | | | | | | | | | | | | |
| MW7 | 8/7/2002 | N | 0.01 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 | 8/7/2002 | N2 | | | 1.4 U | 0.3 U | 300 | | 4 J | 0.98 U | | | | | | | | | | | | | |
| MW7 | 9/24/2003 | 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 | 9/24/2003 | N2 | 4.9 | | 1 U | 1 U | 90 J | | 5 U | 10 UJ | | | | | | | | | | | | | |
| MW7 | 9/22/2004 | 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 | 9/22/2004 | N2 | | 5.75 | 0.108 J | 0.847 J | 25.0 UJ | | 9.75 J | 2.96 J | | | | | | | | | | | | | |
| MW7 | 9/27/2005 | 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 | 9/27/2005 | N2 | | | 1.0 U | 10 U | 880 | | 16 J | 20 U | | | | | | | | | | | | | |
| MW7 | 9/26/2006 | 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 | 9/20/2007 | 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 | 10/22/2008 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW7 | 10/22/2008 | N2 | | | | | | | | | | | | | | | | | | | | | 4.41 |
| MW7 | 10/7/2009 | 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 | 10/6/2010 | 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 | 10/19/2011 | 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 | 10/17/2012 | 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 | 10/9/2013 | 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 | 10/9/2013 | N2 | | | | | | | | | | | | | | | | | | 1.8 J | | | |
| MW7 | 9/23/2014 | N | 15 | 0.034 J | 0.28 J | 2.0 U | 260 | | 33 | 30 | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 200 | 9.0 | 240 | 1.9 | | 110 | 0.96 J |
| MW7 | 10/12/2015 | N | 6.5 | 0.094 U | 0.88 J | 1.6 J | 100 U | | 423 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 228 | 8.3 | 229 | 1.5 | | 46.2 | 0.85 J |
| MW7 | 4/6/2016 | N | 13 | 0.098 U | 5.0 U | 1.9 J | 5270 | | 117 | 36.2 | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 212 | 10.3 | 237 | 1.7 | | 25.7 | 0.58 J |
| MW8 | 10/14/1997 | 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 | 10/14/1997 | N2 | | 1 U | 2 J | 2 U | | | | 4.6 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW8 | 4/5/2000 | N | | 0.5 U | | | | | | | | 10 U | | | | | | | | | | | |
| MW8 | 4/25/2001 | 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 | 4/25/2001 | N2 | 11.6 | | 0.75 | 25 U | 25 U | | 27 | 25 U | | | | | | | | | | | | | |
| MW8 | 4/25/2001 | N3 | | | 0.57 | 25 U | 25 U | | 22 | 25 U | | | | | | | | | | | | | |
| MW8 | 9/11/2001 | 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 | 9/11/2001 | N2 | | | 1.2 | 2.2 U | 350 | | 19 | 3.7 U | | | | | | | | | | | | | |
| MW8 | 8/8/2002 | N | 0.01 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 | 8/8/2002 | N2 | | | 1.8 J | 0.27 U | 11 J | | 5.3 J | 2.3 J | | | | | | | | | | | | | |
| MW8 | 9/25/2003 | 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 | 9/25/2003 | 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 | 9/25/2003 | N3 | 9.2 | | 1 U | 1 U | 240 | | 8 J | 10 U | | | | | | | | | | | | | |
| MW8 | 9/25/2003 | N4 | | | 1 U | 1 U | 50 U | | 6 J | 10 U | | | | | | | | | | | | | |
| MW8 | 9/23/2004 | 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 | 9/23/2004 | N2 | | | 0.539 J | 0.660 J | 11.0 J | | 12.0 J | 2.09 J | | | | | | | | | | | | | |
| MW8 | 9/28/2005 | 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 | 9/28/2005 | FD2 | | | 1.0 UJ | 10 UJ | 120 J | | 13 J | 20 UJ | | | | | | | | | | | | | |
| MW8 | 9/28/2005 | 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 | 9/28/2005 | N2 | | | 1.0 UJ | 10 UJ | 130 J | | 16 J | 20 UJ | | | | | | | | | | | | | |
| MW8 | 9/20/2007 | 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 | 10/22/2008 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW8 | 4/11/2016 | N | 1.5 | 0.016 J | 0.60 J | 2.0 U | 197 | | 10.9 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 174 | 18.0 | 421 | 1.3 | | 201 | 0.26 J |
| MW9 | 10/8/1997 | 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 | 10/8/1997 | N2 | | 1 U | | | | | | | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW9 | 4/5/2000 | N | | 0.6 = | | | | | | | | 10 U | | | | | | | | | | | |
| MW9 | 4/23/2001 | 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 | 4/23/2001 | N2 | 0.12 U | | | | | | | | | | | | | | | | | 2.46 | | | |
| MW9 | 4/24/2001 | N | | | 0.28 | 25 U | 25 U | | 34 | 25 U | | | | | | | | | | | | | |
| MW9 | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 0.34 J | 2.2 U | 110 | | 16 | 6.6 J | | | | | | | | | | | | | |
| MW9 | 8/6/2002 | N | 0.01 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 | 8/6/2002 | N2 | | | 1.4 U | 0.3 U | 11 U | | 6.3 J | 9.6 J | | | | | | | | | | | | | |
| MW9 | 9/25/2003 | 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 | 9/25/2003 | N2 | 0.5 U | | 1 U | 1 U | 240 | | 16 | 10 U | | | | | | | | | | | | | |
| MW9 | 9/22/2004 | 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 | 9/22/2004 | N2 | | | 0.265 J | 2.88 J | 125 U | | 8.51 J | 14.9 J | | | | | | | | | | | | | |
| MW9 | 9/27/2005 | 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 | 9/27/2005 | N2 | | | 1.0 UJ | 10 U | 50 U | | 5.4 J | 20 U | | | | | | | | | | | | | |
| MW9 | 10/18/2005 | N | | 0.57 | | | | | | | | | | | | | | | | | | | |
| MW9 | 9/21/2007 | 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 | 10/22/2008 | 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 | 5/18/2010 | 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 | 10/6/2010 | 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 | 10/19/2011 | 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 | 10/16/2012 | 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 | 10/9/2013 | 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 | 10/9/2013 | N2 | | | | | | | | | | | | | | | | | | 3.8 J | | | |
| MW9 | 9/24/2014 | N | 0.50 U | 1.6 | 5.0 U | 2.0 U | 100 U | | 5.0 U | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 14 | 1.1 | 41 | 2.4 | | 10 | 2.5 |
| MW9 | 10/13/2015 | N | 0.50 U | 0.17 | 5.0 U | 1.3 J | 21.1 J | | 5.0 U | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 31.0 | 0.70 J | 40.2 | 1.5 | | 7.4 | 4.4 |
| MW9 | 4/13/2016 | N | 0.50 U | 0.28 | 5.0 U | 1.4 J | 33.6 J | | 1.5 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 26.6 | 0.99 J | 37.2 | 1.4 | | 7.3 | 30.2 |
| MW10 | 10/15/1997 | 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 | 10/15/1997 | N2 | | 8200 E | 2 J | 2.8 U | | | | 9.2 | | | 0.2 | 2 | 3 | 17 | | | | | | | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW10 | 4/6/2000 | N | | 9530 J | | | | | | | | 60 = | | | | | | | | | | | |
| MW10 | 4/6/2000 | N2 | | 12900 = | | | | | | | | 5410 U | | | | | | | | | | | |
| MW10 | 4/26/2001 | 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 | 4/26/2001 | N2 | 2.9 | | 2.4 | 5.9 | 5650 | | 2380 | 25 U | | | | | | | | | | | | | |
| MW10 | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 4.5 | 40 | 20000 | | 3300 | 13 | | | | | | | | | | | | | |
| MW10 | 8/7/2002 | N | 0.011 | 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 | 8/7/2002 | N2 | | | 7.3 | 10.1 J | 10700 | | 2540 | 6.1 J | | | | | | | | | | | | | |
| MW10 | 10/1/2003 | 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 | 10/1/2003 | N2 | 0.62 | | 2 J | 8 | 2590 | | 1850 | 10 U | | | | | | | | | | | | | |
| MW10 | 9/23/2004 | 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 | 9/23/2004 | N2 | | | 3.01 | 12.4 J | 24.1 J | | 1810 | 4.23 J | | 160 | | | | | | | | | | | |
| MW10 | 9/27/2006 | 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 | 9/21/2007 | 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 | 10/23/2008 | 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 | 10/23/2008 | 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 | 10/7/2009 | 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 | 10/7/2009 | 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 | 10/7/2010 | 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 | 10/7/2010 | 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 | 10/20/2011 | 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 | 10/20/2011 | 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 | 10/17/2012 | 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 | 10/17/2012 | 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 | 10/10/2013 | 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 | 10/10/2013 | 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 | 9/25/2014 | N | 8.1 | 37 | 0.21 J | 2.0 U | 250 | | 1300 | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 180 | 6.1 | 270 | 0.10 | | 77 | 1.0 U |
| MW10 | 10/15/2015 | N | 8.2 | 150 | 5.0 U | 1.0 J | 188 | | 861 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 178 | 6.5 | 244 | 0.10 U | | 71.8 | 1.8 |
| MW10 | 4/7/2016 | N | 290 | 1900 | 5.0 U | 2.0 U | 1350 | | 719 | 20.0 U | | 4.8 | 0.50 U | 0.46 J | 0.53 J | 2.9 | 162 | 9.8 | 189 | 0.10 U | | 46.1 | 8.6 |
| MW10 | 7/25/2016 | N | 8.6 | 1700 | 5.0 U | 3.7 | 826 | | 744 | 20.0 U | | 5.2 | 0.50 U | 0.66 J | 0.64 J | 5.2 | 160 | 12.3 | 188 | 0.10 U | | 31.7 | 11.6 |
| MW10 | 10/13/2016 | N | 5.5 | 7300 | 0.46 J | 1.7 J | 434 | | 777 | 20.0 U | | 6.2 | 0.50 U | 0.79 J | 0.79 J | 5.7 | 156 | 14.6 | 186 | 0.10 U | | 24.3 | 11.1 |
| MW10 | 1/24/2017 | N | 8.5 | 6200 | 0.46 J | 1.9 J | 539 | | 831 | 6.2 | | 10 | 0.28 | 0.96 J | 0.91 J | 8.1 | 158 | 17.4 | 220 | 0.035 | | 24.0 | 19.4 |
| MW10 | 4/24/2017 | N | 3.7 | 7600 | 0.76 J | 5.9 | 756 | | 897 | 20.0 U | | 20 | 0.50 U | 1.6 | 1.8 | 14 | 142 | 19.1 | 234 | 0.10 U | | 25.0 | 27.9 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW10 | 10/5/2017 | FD | 15 | 5000 | 0.53 J | 3.7 | 609 | | 898 | 20.0 U | | 19 | 0.50 U | 1.3 | 1.5 | 9.5 | 157 | 25.9 | 182 | 0.081 J | | 20.1 | 32.0 |
| MW10 | 10/5/2017 | N | 13 | 4800 | 0.53 J | 3.0 | 626 | | 903 | 20.0 U | | 20 | 0.50 U | 1.2 | 1.5 | 9.4 | 157 | 26.2 | 184 | 0.083 J | | 20.2 | 30.8 |
| MW10 | 6/1/2018 | N | 23 | 2500 | 1.0 | 3.6 | 796 | | 951 | 20.0 U | | 24 | 0.50 U | 1.4 | 1.5 | 10 | 470 | 27.6 | 197 | 0.084 J | | 19.9 | 2.1 |
| MW10 | 10/19/2018 | N | 40 | 2500 | 1.1 | 13.6 | 1310 | | 907 | 20.0 U | | 21 | 0.50 U | 1.2 | 1.1 | 8.6 | 146 | 19.9 | 182 | 0.20 U | | 15.3 | 26.2 |
| MW10 | 4/22/2019 | N | 550 | 1600 H | 1.1 B | 2.2 B | 769 | | 740 B | 6.9 U | | 9.3 | 0.15 U | 0.80 | 0.90 | 6.0 | 130 | 24.8 | 173 | 0.068 U | | 12.9 | 23.3 |
| MW10 | 10/16/2019 | FD | 180 | 1800 | 1.1 | 2.4 | 1640 | | 937 | 6.9 U | | 7 | 0.15 U | 0.18 U | 0.98 | 7.7 | 144 B | 30.3 | 183 | 0.068 U | | 14.4 B | 26.6 |
| MW10 | 10/16/2019 | N | 81 | 1700 | 1.1 | 2.7 | 1800 | | 937 | 6.9 U | | 7.5 | 0.15 U | 0.69 | 0.15 U | 7.4 | 143 B | 31.2 | 186 | 0.068 U | | 14.4 B | 27.1 |
| MW10 | 4/8/2020 | N | 230 | 3600 | 1.3 | 2.9 | 1150 | | 1070 | 6.9 U | | 26 | 0.15 U | 1.8 | 1.6 | 13 | 136 | 37.5 | 196 | 0.068 U | | 20 | 42.1 |
| MW10 | 10/6/2020 | N | 81 | 3200 | 1.5 | 8.6 | 2340 | | 1180 | 6.9 U | | 22 | 0.15 U | 1.7 | 1.3 | 13 | 150 | 41.6 | 203 | 0.068 U | | 21.2 | 40.1 |
| MW10 | 4/14/2021 | N | 120 | 840 | 0.91 J | 1.6 J | 1070 | | 882 | 20.0 U | | 3.1 | 0.50 U | 0.42 J | 0.55 | 3.4 | 135 | 25.2 | 165 | 0.20 U | | 8.8 | 13.6 |
| MW10 | 10/14/2021 | N | 49 | 660 | 0.85 J | 4.7 | 1280 | | 569 | 20.0 U | | 1.2 | 0.50 U | 0.36 J | 0.34 J | 2.6 | 139 | 23.7 | 156 | 0.20 U | | 4.8 | 11.8 |
| MW10 | 4/14/2022 | N | 68 | 3200 | 1.2 | 9.6 | 2730 | | 989 | 20.0 U | | 3.5 | 0.50 U | 0.84 | 0.71 | 4.9 | 152 | 23.4 | 113 | 0.20 U | | 9.2 | 15.5 |
| MW10S | 10/15/1997 | 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 | 10/15/1997 | N2 | | 30000 J | 2 J | 10.9 J | | | | 8.4 | | | 0.4 | 0.9 J | 1 | 8 | | | | | | | |
| MW10S | 4/7/2000 | N | | 56100 J | | | | | | | | 512 = | | | | | | | | | | | |
| MW10S | 4/7/2000 | N2 | | 34800 = | | | | | | | | 393 F | | | | | | | | | | | |
| MW10S | 12/5/2000 | 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 | 12/5/2000 | N2 | 0.57 | 3810 J | 9.36 | 160 | 11000 | | 7100 | 35 | | 152 | | | | | | | 570 | | | | |
| MW10S | 4/25/2001 | 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 |
| MW10S | 4/25/2001 | N2 | 0.55 | | 2.3 | 46 | 11300 | | 6030 | 45 | | | 10 U | 100 U | 100 U | 100 U | | | | 1.49 | | | |
| MW10S | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 0.29 U | 3.2 J | 48 J | | 7600 | 3.7 U | | | | | | | | | | | | | |
| MW10S | 8/7/2002 | N | 0.01 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 | 8/7/2002 | N2 | | | 3.1 | 2.3 J | 67.3 | | 7070 | 0.98 U | | | | | | | | | | | | | |
| MW10S | 9/25/2003 | 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 | 9/25/2003 | N2 | 0.5 U | | 1 U | 1 J | 50 U | | 5900 | 10 U | | | | | | | | | | | | | |
| MW10S | 9/22/2004 | 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 | 9/22/2004 | N2 | | | 0.190 J | 1.79 J | 22.7 J | | 3740 J | 6.07 J | | | | | | | | | | | | | |
| MW10S | 9/29/2005 | 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 | 9/29/2005 | N2 | | | 1.0 UJ | 10 UJ | 50 UJ | | 3900 J | 20 UJ | | | | | | | | | | | | | |
| MW10S | 9/26/2006 | 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 | 9/21/2007 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW10S | 10/24/2008 | N | 2.0 UJ | | | | | | | | | 3.36 | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| MW10S | 4/18/2016 | N | 0.50 U | 3500 | 0.59 J | 2.6 | 190 | | 388 | 20.0 U | | 4.7 | 0.50 U | 1.0 U | 1.0 U | 2.7 | 102 | 7.8 | 92.1 | 0.10 U | | 9.1 | 9.5 |
| MW10S | 7/25/2016 | N | 0.50 U | 5200 | 0.68 J | 9.2 | 183 | | 315 | 20.0 U | | 13 | 0.50 U | 0.39 J | 1.0 U | 5.6 | 107 | 7.7 | 124 | 0.10 U | | 11.8 | 15.6 |
| MW10S | 10/13/2016 | N | 0.12 J | 6600 | 0.44 J | 4.6 | 124 | | 399 | 20.0 U | | 9.6 | 0.50 U | 0.30 J | 1.0 U | 4.6 | 83.7 | 6.1 | 100 | 0.10 U | | 11.9 | 12.3 |
| MW10S | 1/24/2017 | N | 0.12 J | 9800 | 0.80 J | 2.5 | 254 | | 624 | 6.2 | | 10 | 0.28 | 0.40 J | 0.23 | 5.7 | 164 | 12.3 | 220 | 0.035 | | 17.3 | 23.4 |
| MW10S | 4/24/2017 | FD | 0.36 J | 3300 | 0.65 J | 3.3 | 406 | | 1380 | 20.0 U | | 10 | 0.50 U | 0.40 J | 1.0 U | 5.8 | 195 | 25.7 | 350 | 0.082 J | | 23.1 | 32.1 |
| MW10S | 4/24/2017 | N | 0.35 J | 4300 | 0.74 J | 3.3 | 394 | | 1340 | 20.0 U | | 11 | 0.50 U | 0.40 J | 1.0 U | 5.9 | 195 | 25.6 | 332 | 0.10 U | | 23.1 | 33.0 |
| MW10S | 10/5/2017 | N | 0.29 J | 4400 | 0.50 J | 2.9 | 770 | | 1260 | 8.1 J | | 9.9 | 0.50 U | 0.46 J | 0.50 U | 6.0 | 314 | 41.1 | 378 | 0.13 J | | 26.7 | 29.8 |
| MW10S | 6/1/2018 | N | 1.0 U | 1500 | 0.91 J | 5.2 | 1010 | | 2880 | 20.0 U | | 11 | 0.50 U | 0.42 J | 0.22 J | 5.2 | 322 | 69.8 | 456 | 0.083 J | | 39.7 | 5.5 |
| MW10S | 10/19/2018 | N | 1.0 U | 1900 | 0.51 J | 8.2 | 716 | | 2030 | 20.0 U | | 5.9 J | 0.50 U | 0.84 | 0.34 J | 10 | 311 | 32.9 | 388 | 0.76 | | 23.5 | 26.1 |
| MW10S | 4/23/2019 | FD | 0.17 U | 1500 | 2.1 B | 6.0 B | 886 | | 3470 B | 6.9 U | | 10 | 0.15 U | 0.36 J | 0.28 J | 5.9 | 313 | 63.6 | 464 | 0.073 J | | 42.5 | 56.3 |
| MW10S | 4/23/2019 | N | 0.17 U | 1400 ^ | 0.67 JB | 8.8 B | 861 | | 3450 B | 6.9 U | | 10 | 0.15 U | 0.38 J | 0.30 J | 6.1 | 312 | 64.8 | 471 | 0.074 J | | 43.1 | 60.9 |
| MW10S | 10/16/2019 | N | 0.31 J | 2500 | 0.49 J | 1.8 J | 551 | | 3010 | 6.9 U | | 13 | 0.15 U | 0.18 U | 0.15 U | 14 | 345 B | 20.5 | 379 | 0.19 J | | 18.8 | 27.7 |
| MW10S | 4/8/2020 | FD | 0.17 U | 2300 | 0.57 J | 2.8 | 571 | | 3670 | 6.9 U | | 16 | 0.15 U | 0.91 | 0.26 J | 12 | 301 | 19.4 | 341 | 0.068 U | | 21.1 | 34.5 |
| MW10S | 4/8/2020 | N | 0.17 U | 2800 | 0.54 J | 2.3 | 563 | | 3530 | 6.9 U | | 17 | 0.15 U | 0.82 | 0.25 J | 11 | 312 | 21.7 | 345 | 0.068 U | | 22.6 | 34 |
| MW10S | 10/7/2020 | N | 0.17 U | 2100 | 1.1 | 8.2 | 819 | | 4880 | 6.9 U | | 19 | 0.15 U | 0.80 | 0.22 J | 11 | 344 | 20.6 | 388 | 0.076 J | | 22.0 | 29.7 |
| MW10S | 4/14/2021 | N | 0.51 J | 2000 | 0.77 J | 2.8 | 980 | | 6360 | 20.0 U | | 15 | 0.50 U | 0.69 | 0.21 J | 10 | 317 | 42.7 | 401 | 0.20 U | | 34.8 | 60.8 |
| MW10S | 10/14/2021 | N | 0.22 J | 3100 | 0.94 J | 3.4 | 1510 | | 6430 | 20.0 U | | 17 | 0.50 U | 0.81 | 0.16 J | 11 | 310 | 52.3 | 402 | 0.085 J | | 37.6 | 61.5 |
| MW11 | 10/15/1997 | 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 | 10/15/1997 | N2 | | 1 U | 2 J | 4.2 U | | | | 10.3 | | | 0.3 | 1 J | 0.2 J | 0.5 J | | | | | | | |
| MW11 | 4/4/2000 | N | | 0.6 U | | | | | | | | 11 U | | | | | | | | | | | |
| MW11 | 4/24/2001 | 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 | 4/24/2001 | 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 | 4/24/2001 | N3 | 0.11 U | | 1.4 | 25 U | 151 | | 15 U | 126 | | 5.4 U | | | | | | | | | 3.74 = | | |
| MW11 | 4/24/2001 | N4 | | | 1.3 | 25 U | 25 U | | 15 U | 25 U | | 5.4 U | | | | | | | | | 3.74 | | |
| MW11 | 9/10/2001 | 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 | 9/10/2001 | N2 | | | 1.1 | 2.2 U | 35 U | | 0.45 J | 3.7 U | | | | | | | | | | | | | |
| MW11 | 8/6/2002 | N | 0.01 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 | 8/6/2002 | N2 | 0.01 U | | 1.5 J | 0.3 U | 11.2 U | | 1.2 J | 8.5 J | | | | | | | | | | | | | |
| MW11 | 9/23/2003 | 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 | 9/23/2003 | N2 | 0.5 U | | 1 U | 1 U | 50 U | | 5 U | 10 U | | | | | | | | | | | | | |
| MW11 | 9/21/2004 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW11 | 9/21/2004 | N2 | | | 0.948 J | 0.366 J | 6.05 J | | 1.40 J | 4.05 J | | | | | | | | | | | | | |
| MW11 | 9/29/2005 | 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 | 9/29/2005 | N2 | | | 1.0 UJ | 10 UJ | 50 UJ | | 3.0 J | 20 UJ | | | | | | | | | | | | | |
| MW11 | 9/27/2006 | 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 | 9/20/2007 | 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 | 10/22/2008 | 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 |
| MW11 | 4/11/2016 | N | 0.50 U | 0.10 U | 0.75 J | 2.0 U | 32.1 J | | 1.9 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 229 | 18.0 | 470 | 1.6 | | 200 | 0.32 J |
| MW12 | 10/15/1997 | 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 | 10/15/1997 | N2 | | 13000 J | 2 U | 6.1 U | | | | 16.3 | | | 1 | 2 | 3 | 14 | | | | | | | |
| MW12 | 4/6/2000 | FD | | 10600 J | | | | | | | | 45 = | | | | | | | | | | | |
| MW12 | 4/6/2000 | FD2 | | 14100 = | | | | | | | | 5150 U | | | | | | | | | | | |
| MW12 | 4/6/2000 | N | | 15000 = | | | | | | | | 5210 U | | | | | | | | | | | |
| MW12 | 4/6/2000 | N2 | | 10300 J | | | | | | | | 47 = | | | | | | | | | | | |
| MW12 | 4/26/2001 | 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 | 4/26/2001 | N2 | 0.99 | | 0.91 | 25 U | 131 | | 1570 | 25 U | | | | | | | | | | | | | |
| MW12 | 9/13/2001 | 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 | 9/13/2001 | N2 | | | 0.95 U | 6.8 J | 740 | | 1400 | 12 | | | | | | | | | | | | | |
| MW12 | 5/14/2002 | FD | | 4000 | | | | | | | | | | | | | | | | | | | |
| MW12 | 5/14/2002 | 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 | 5/14/2002 | N2 | | 4300 | 1.5 J | 5 J | 11.2 U | | 1670 | 9.3 J | | | | | | | | | 520 | | | | |
| MW12 | 5/14/2002 | N3 | | | 1.4 U | 4.9 J | 11.2 U | | 1680 | 12 J | | | | | | | | | | | | | |
| MW12 | 8/8/2002 | N | 0.01 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 |
| MW12 | 8/8/2002 | N2 | | | 1.4 U | 2.9 J | 105 | | 1600 | 3.3 J | | | | | | | | | | | | | |
| MW12 | 4/29/2003 | 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 | 4/29/2003 | N2 | 0.5 U | | 1 U | 4 | 25 U | | 1560 | 10 U | | | | | | | | | | | | | |
| MW12 | 9/23/2003 | 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 | 9/23/2003 | 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 | 9/23/2003 | N3 | 0.64 | | 1 U | 4 | 80 J | | 1490 | 10 U | | | | | | | | | | | | | |
| MW12 | 9/23/2003 | N4 | | | 1 U | 3 | 50 U | | 1490 | 10 U | | | | | | | | | | | | | |
| MW12 | 5/4/2004 | 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 | 5/4/2004 | N2 | | | 0.600 J | 3.95 R | 33.6 R | | 1480 R | 8.80 R | | | | | | | | | | | | | |
| MW12 | 9/22/2004 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW12 | 9/22/2004 | N2 | | 3730 E | 0.672 J | 3.91 J | 22.7 J | | 1230 J | 8.10 J | | | | | | | | | | | | | |
| MW12 | 5/10/2005 | 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 | 5/10/2005 | N2 | | | 1.0 U | 4.8 J | 50 U | | 1400 | 20 U | | | | | | | | | | | | | |
| MW12 | 9/27/2005 | 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 | 9/27/2005 | N2 | | | 1.0 UJ | 3.9 J | 50 U | | 1300 | 20 U | | | | | | | | | | | | | |
| MW12 | 6/7/2006 | 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 | 9/26/2006 | 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 | 9/26/2006 | 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 | 5/9/2007 | 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 | 9/19/2007 | 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 | 9/19/2007 | 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 | 5/20/2008 | 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 | 5/20/2008 | 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 | 10/21/2008 | 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 | 10/21/2008 | 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 | 6/2/2009 | 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 | 6/2/2009 | 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 | 10/6/2009 | 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 | 10/6/2009 | 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 | 5/19/2010 | 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 | 5/19/2010 | 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 | 10/5/2010 | 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 | 10/5/2010 | 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 | 6/29/2011 | 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 | 6/29/2011 | 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 | 10/18/2011 | 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 | 10/18/2011 | 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 | 5/22/2012 | 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 | 5/22/2012 | 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 | 10/16/2012 | 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 | 10/16/2012 | 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 | 5/22/2013 | 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 | 5/22/2013 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L | |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|--|
| MW12 | 10/8/2013 | 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 | 10/8/2013 | 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 | 5/14/2014 | N | | 19 | | | | | | | | | | | | | | | | | | | | |
| MW12 | 9/23/2014 | N | 0.076 J | 24 | 0.66 J | 2.0 U | 100 U | | 450 | 20 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 240 | 11 | 360 | 1.7 | | 130 | 1.0 U | |
| MW12 | 4/20/2015 | N | 0.50 U | 16 | 1.1 J | 1.4 J | 100 U | | 530 | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 220 | 11 | 410 | 1.7 | | 140 | 0.95 J | |
| MW12 | 10/13/2015 | N | 0.080 J | 25 | 5.0 U | 2.0 U | 362 | | 27.4 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 279 | 11.7 | 74.4 | 1.6 | | 159 | 1.2 | |
| MW12 | 4/6/2016 | N | 0.12 J | 5.2 | 0.77 J | 1.4 J | 60.1 J | | 148 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 236 | 10.6 | 358 | 1.6 | | 135 | 0.67 J | |
| MW12 | 7/19/2016 | N | 0.50 U | 14 | 0.61 J | 1.6 J | 100 U | | 388 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 238 | 10.1 | 358 | 1.4 | | 134 | 0.96 J | |
| MW12 | 10/12/2016 | N | 0.092 J | 14 | 0.50 J | 1.6 J | 10 J | | 439 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 239 | 10.8 | 340 | 1.2 | | 124 | 0.71 J | |
| MW12 | 1/18/2017 | N | 0.13 J | 18 | 0.87 J | 1.4 J | 8.5 J | | 427 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 203 | 10.7 | 326 | 1.1 | | 122 | 0.89 J | |
| MW12 | 4/19/2017 | N | 0.13 J | 14 | 0.46 J | 1.2 J | 10.8 J | | 362 | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 201 | 10.1 | 346 | 1.0 | | 112 | 1.0 | |
| MW12 | 10/2/2017 | N | 0.48 J | 32 | 0.49 J | 1.9 J | 100 U | | 328 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 199 | 11.7 | 282 | 0.90 | | 105 | 1.1 | |
| MW12 | 10/16/2018 | N | 1.0 U | 110 | 0.53 J | 1.3 J | 100 U | | 72.2 | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 173 | 8.1 | 231 | 0.61 | | 59.9 | 2.1 | |
| MW12 | 4/23/2019 | N | 0.17 U | 290 | 0.55 JB | 1.5 JB | 46.7 U | | 55.0 B | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 J | 0.22 U | 165 | 9.1 | 218 | 0.53 | | 45.5 | 2.4 | |
| MW12 | 10/14/2019 | N | 0.25 J | 300 | 0.89 J | 0.85 J | 46.7 U | | 8.4 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 158 | 8.7 | 197 | 0.61 H | | 43.5 | 1.2 | |
| MW12 | 4/7/2020 | N | 0.17 U | 880 | 0.78 J | 1.9 J | 46.7 U | | 70 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.70 J | 160 | 9.3 | 192 | 0.31 | | 37.6 | 4.2 | |
| MW12 | 10/5/2020 | N | 0.17 U | 0.089 U | 0.92 J | 1.8 J | 46.7 U | | 81.1 | 6.9 U | | 0.45 J | 0.15 U | 0.19 J | 0.15 U | 0.82 J | 153 | 8.6 | 172 | 0.35 | | 34.2 | 3.1 | |
| MW12 | 4/14/2021 | N | 1.0 U | 480 | 0.65 J | 1.5 J | 100 U | | 143 | 20.0 U | | 0.31 J | 0.50 U | 0.50 U | 0.50 U | 1.2 | 155 | 11.3 | 188 | 0.31 | | 27.9 | 5.3 | |
| MW12 | 10/14/2021 | N | 0.20 J | 1200 | 0.75 J | 1.7 J | 100 U | | 238 F1F2 | 20.0 U | | 2.6 F2 | 0.50 U | 0.48 J | 0.23 J | 3.1 | 109 | 8.4 F1 | 189 | 0.30 | | 15.2 F1 | 12.3 | |
| MW12 | 4/13/2022 | N | 0.47 J | 2700 | 0.59 J | 3.2 | 94.2 J | | 294 | 20.0 U | | 4.4 | 0.50 U | 0.83 | 0.30 J | 4.6 | 160 | 15.9 | 118 | 0.20 | | 22.2 | 17.7 | |
| MW13 | 10/8/1997 | 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 | 10/8/1997 | N2 | | 0.7 J | | | | | | | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | | |
| MW13 | 4/5/2000 | N | | 0.8 = | | | | | | | | 10 U | | | | | | | | | | | | |
| MW13 | 12/5/2000 | 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 | 12/5/2000 | N2 | 0.58 U | | | 92 | 26000 | | 870 | 52 | | 5.5 U | 0.1 U | 1 U | 1 U | 1 U | | | 140 | | | | | |
| MW13 | 4/23/2001 | 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 | 4/23/2001 | N2 | 0.12 U | | 0.24 | 25 U | 25 U | | 110 | 25 U | | | | | | | | | | | | | | |
| MW13 | 6/19/2001 | 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 | 6/19/2001 | N2 | 0.12 U | | 9.1 | 6.1 J | 141 | | 26 | 25 U | | | | | | | | | | 2.87 | | | | |
| MW13 | 9/10/2001 | 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 | 9/10/2001 | N2 | | | 0.54 J | 2.8 J | 52 J | | 27 | 4.7 J | | | | | | | | | | | | | | |
| MW13 | 8/5/2002 | N | 0.01 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 | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW13 | 8/5/2002 | N2 | | | 2.2 J | 2.5 J | 1300 | | 45 | 9.1 J | | | | | | | | | | | | | |
| MW13 | 9/23/2003 | 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 | 9/23/2003 | N2 | 0.5 U | | 1 U | 8 | 960 | | 182 | 10 U | | | | | | | | | | | | | |
| MW13 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.259 J | 1.96 J | 125 UJ | | 3.67 J | 5.28 J | | | | | | | | | | | | | |
| MW13 | 9/27/2005 | 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 | 9/27/2005 | N2 | | | 1.0 UJ | 2.5 J | 50 U | | 7.1 J | 20 U | | | | | | | | | | | | | |
| MW13 | 9/18/2007 | 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 | 10/21/2008 | 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 | 10/7/2009 | 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 |
| MW13 | 4/13/2016 | N | 0.50 U | 0.34 | 5.0 U | 3.2 | 449 | | 13.4 | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 51.0 | 1.4 | 54.9 | 0.70 | | 3.4 | 4.2 |
| MW13 | 7/20/2016 | N | 0.50 U | 1.1 | 5.0 U | 1.5 J | 19.4 J | | 5.0 U | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 39.5 | 0.91 J | 86.0 | 1.0 | | 2.2 | 2.1 |
| MW13 | 10/10/2016 | N | 0.50 U | 0.37 | 0.87 J | 2.3 | 23.2 J | | 0.94 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 49.3 | 0.98 J | 56.0 | 0.58 | | 3.1 | 1.9 |
| MW13 | 1/19/2017 | N | 0.080 | 0.33 | 0.35 J | 3.1 | 17.1 J | | 1.1 J | 6.2 | | 0.064 | 0.28 | 0.26 | 0.23 | 0.24 | 50.8 | 0.71 J | 52.0 | 0.49 | | 3.6 | 2.2 |
| MW13 | 4/19/2017 | N | 0.50 U | 0.24 | 5.0 U | 1.1 J | 100 U | | 0.28 J | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 53.7 | 0.76 J | 60.0 | 0.50 | | 4.4 | 2.2 |
| MW13 | 9/29/2017 | N | 0.25 J | 0.27 J | 1.0 U | 1.6 J | 53.5 J | | 1.4 J | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 59.0 | 1.4 | 47.6 | 0.56 | | 3.3 | 2.0 |
| MW13 | 10/16/2018 | N | 1.0 U | 0.35 | 1.0 U | 1.8 J | 100 U | | 3.2 | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.15 J | 1.0 U | 54.9 | 0.83 | 47.7 | 0.41 | | 2.8 | 2.4 |
| MW13 | 4/23/2019 | N | 0.17 U | 0.30 ^ | 0.28 JB | 2.3 B | 46.7 U | | 1.6 JB | 11.2 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 54.2 | 0.89 | 49.8 | 0.41 | | 3.0 | 2.3 |
| MW13 | 10/14/2019 | N | 0.17 U | 0.086 U | 0.28 J | 2.3 | 149 | | 4.3 | 6.9 J | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 44.7 | 1.2 | 40.1 | 0.29 H | | 1.8 | 1.9 |
| MW13 | 4/9/2020 | N | 0.17 U | 0.089 U | 0.35 J | 3.9 | 46.7 U | | 1.0 J | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 51.7 | 0.72 | 50.3 | 0.41 | | 2.6 | 1.7 |
| MW13 | 10/6/2020 | N | 0.17 U | 0.20 | 0.27 J | 3.3 | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 53.6 | 0.81 | 48.9 | 0.31 | | 2.6 | 2.1 |
| MW13 | 4/12/2021 | N | 1.0 U | 0.25 | 1.0 U | 13.0 B | 97.6 J | | 1.8 JB | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 55.1 | 0.61 | 52.5 | 0.37 | | 2.5 | 1.8 |
| MW13 | 4/12/2021 | FD | 1.0 U | 0.26 | 1.0 U | 10.4 B | 58.2 J | | 1.7 JB | 20.0 U | | 0.83 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 62.3 | 0.61 | 52.8 | 0.37 | | 2.5 | 1.9 |
| MW13 | 10/12/2021 | N | 1.0 U | 0.30 | 0.23 J | 6.7 | 100 U | | 2.1 J | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 66.6 | 0.51 | 55.9 | 0.30 | | 2.5 | 1.9 |
| MW13 | 4/11/2022 | N | 1.0 U | 0.37 | 0.25 J | 7.5 | 100 U | | 1.8 J | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 66.0 | 0.30 | 37.9 | 0.33 | | 2.5 | 2.3 |
| MW14 | 10/9/1997 | 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 | 10/9/1997 | N2 | | 1 U | 2 U | 2 U | | | | 2 U | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW14 | 4/6/2000 | N | | 0.5 U | | | | | | | | 11 U | | | | | | | | | | | |
| MW14 | 6/19/2001 | 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 | 6/19/2001 | N2 | 0.11 U | | 2 | 25 U | 25 U | | 4.4 | 25 U | | | | | | | | | | 2.06 = | | | |
| MW14 | 1/23/2017 | N | 0.080 | 0.12 | 1.1 J | 0.62 J | 5.3 | | 1.6 J | 6.2 | | 0.061 | 0.28 | 0.26 | 0.23 | 0.24 | 129 | 15.8 | 146 | 1.7 | | 6.6 | 0.51 J |
| MW14 | 10/3/2017 | FD | 0.11 J | 0.099 U | 1.0 | 0.74 J | 100 U | | 0.93 J | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 128 | 17.1 | 148 | 1.9 | | 6.7 | 1.0 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW14 | 10/3/2017 | N | 0.087 J | 0.098 U | 0.95 J | 0.72 J | 100 U | | 1.1 J | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 129 | 16.1 | 166 | 1.9 | | 6.9 | 0.47 J |
| MW14 | 5/31/2018 | N | 1.0 U | 0.10 U | 1.2 | 0.79 J | 100 U | | 3.1 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 585 | 16.4 | 143 | 1.7 | | 6.3 | 0.71 J |
| MW14 | 10/17/2018 | N | 1.0 U | 0.097 U | 1.1 | 2.0 U | 100 U | | 1.3 J | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 122 | 15.6 | 142 | 1.8 | | 6.4 | 0.68 J |
| MW14 | 4/25/2019 | N | 0.17 U | 0.14 | 1.1 | 0.95 J | 46.7 U | | 6.3 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 122 | 15.0 | 140 | 1.5 | | 6.0 B | 0.64 J |
| MW14 | 10/16/2019 | N | 0.17 U | 0.086 U | 1.1 | 0.50 U | 46.7 U | | 9.0 F2 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 123 H | 17.5 F1 | 146 | 1.7 | | 6.6 B | 0.47 U |
| MW14 | 4/8/2020 | N | 0.17 U | 0.096 U | 1.1 | 0.66 J | 46.7 U | | 2.5 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 115 | 18.1 | 140 | 1.4 | | 6 | 0.60 J |
| MW14 | 10/5/2020 | N | 0.17 U | 0.086 U | 1.2 | 0.55 J | 46.7 U | | 3.4 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 119 | 22.4 | 143 | 1.6 | | 6.6 | 0.72 J |
| MW14 | 4/15/2021 | N | 1.0 U | 0.095 U | 1 | 0.53 JB | 100 U | | 1.2 J | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 122 | 20.2 | 145 | 1.5 | | 5.6 | 0.69 J |
| MW14 | 4/15/2021 | FD | 1.0 U | 0.095 U | 1 | 2.0 U | 100 U | | 1.2 J | 20.4 | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 121 | 18.1 | 143 | 1.5 | | 6.2 | 0.68 J |
| MW14 | 10/14/2021 | N | 1.0 U | 0.096 U | 1.2 | 0.50 J | 100 U | | 2.9 | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 123 | 23.4 | 152 | 4.0 * | | 6.2 | 1.0 U |
| MW14 | 10/14/2021 | FD | 1.0 U | 0.096 U | 1.2 | 0.64 J | 100 U | | 3.0 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 128 | 21.3 | 148 | 1.4 * | | 12.4 | 1.0 U |
| MW14 | 4/13/2022 | N | 1.0 U | 0.098 U | 1.1 | 0.50 J | 100 U | | 1.3 J | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 115 | 17.7 | 101 | 0.95 | | 6.0 | 1.0 U |
| MW15 | 10/16/1997 | 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 | 10/16/1997 | N2 | | 1 U | 2 U | 3.5 U | | | | 13.9 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW15 | 4/4/2000 | N | | 0.5 U | | | | | | | | 11 U | | | | | | | | | | | |
| MW15 | 4/25/2001 | 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 | 4/25/2001 | 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 | 4/25/2001 | N3 | 0.12 U | | 0.56 | 25 U | 174 | | 4.1 | 25 U | | 5.6 U | | | | | | | | 3.92 | | | |
| MW15 | 4/25/2001 | N4 | | | 0.42 | 25 U | 25 U | | 15 U | 16 | | | | | | | | | | 3.92 = | | | |
| MW15 | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 0.95 U | 5.7 J | 63 J | | 2.7 | 36 | | | | | | | | | | | | | |
| MW15 | 8/6/2002 | N | 0.01 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 | 8/6/2002 | N2 | | | 2.6 | 0.3 U | 11 U | | 0.42 U | 11 J | | | | | | | | | | | | | |
| MW15 | 9/23/2003 | 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 | 9/23/2003 | N2 | 0.5 U | | 1 U | 1 U | 50 U | | 5 U | 10 U | | | | | | | | | | | | | |
| MW15 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.482 J | 0.648 J | 5.57 J | | 0.976 J | 8.97 J | | | | | | | | | | | | | |
| MW15 | 9/29/2005 | 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 | 9/29/2005 | N2 | | | 1.0 UJ | 10 UJ | 50 UJ | | 1.6 J | 20 UJ | | | | | | | | | | | | | |
| MW15 | 9/27/2006 | 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 | 9/19/2007 | 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 | 5/20/2008 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L | |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|--|
| MW15 | 10/21/2008 | 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 | 6/2/2009 | 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 | |
| MW15 | 10/7/2009 | 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 | 5/18/2010 | 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 | 10/7/2010 | 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 | 6/28/2011 | 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 | 10/18/2011 | 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 | 5/22/2012 | 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 | 10/16/2012 | 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 | 5/21/2013 | 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 | 10/8/2013 | 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 | 5/13/2014 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | | |
| MW15 | 9/23/2014 | N | 0.50 U | 0.054 J | 1.1 J | 2.0 U | 28 J | | 1.9 J | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 210 | 11 | 250 | 5.3 | | 5.6 | 0.85 J | |
| MW15 | 4/20/2015 | N | 0.50 U | 0.094 U | 0.78 J | 2.0 U | 100 U | | 1.1 J | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 190 | 11 | 270 | 5.6 | | 5.7 | 0.44 J | |
| MW15 | 10/12/2015 | N | 0.50 U | 0.094 U | 0.54 J | 1.0 J | 100 U | | 5.0 U | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 224 | 12.0 | 302 | 6.7 | | 5.8 | 0.55 J | |
| MW15 | 4/5/2016 | N | 0.50 U | 0.078 J | 0.70 J | 1.7 J | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 207 | 12.5 | 312 | 0.45 | | 6.3 | 0.49 J | |
| MW16 | 10/14/1997 | 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 | 10/14/1997 | N2 | | 1 U | 2 U | 2.7 U | | | | 1.9 J | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | | |
| MW16 | 4/6/2000 | N | | 0.5 U | | | | | | | | 10 U | | | | | | | | | | | | |
| MW16 | 4/23/2001 | 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 | 4/23/2001 | N2 | 0.12 U | | 1 U | 25 U | 26 | | 9.4 | 23 | | | | | | | | | | 8.69 | | | | |
| MW16 | 9/10/2001 | 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 | 9/10/2001 | N2 | | | 0.29 U | 2.2 U | 35 U | | 0.82 J | 4.5 J | | | | | | | | | | | | | | |
| MW16 | 8/6/2002 | N | 0.01 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 | 8/6/2002 | N2 | | | 1.4 U | 0.3 U | 78 | | 9.1 J | 13 J | | | | | | | | | | | | | | |
| MW16 | 9/23/2003 | 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 | 9/23/2003 | N2 | 0.5 U | | 1 U | 1 U | 50 U | | 5 U | 10 U | | | | | | | | | | | | | | |
| MW16 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.135 J | 0.509 J | 25.0 U | | 0.617 J | 2.79 J | | | | | | | | | | | | | | |
| MW16 | 9/29/2005 | 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 | 9/29/2005 | N2 | | | 1.0 UJ | 2.9 J | 50 UJ | | 2.1 J | 20 UJ | | | | | | | | | | | | | | |
| MW16 | 9/27/2006 | 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 | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW16 | 9/18/2007 | 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 | 10/22/2008 | 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 | 10/6/2009 | 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 | 10/5/2010 | 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 | 10/19/2011 | 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 | 10/16/2012 | 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 | 10/8/2013 | 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 | 9/23/2014 | N | 0.50 U | 0.036 J | 0.41 J | 2.0 U | 100 U | | 5.0 U | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 31 | 5.4 | 60 | 0.54 | | 2.8 | 1.1 |
| MW16 | 10/13/2015 | N | 0.50 U | 0.098 U | 5.0 U | 1.0 J | 45.2 J | | 2.1 J | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 48.4 | 4.3 | 84.4 | 0.61 | | 5.9 | 0.70 J |
| MW16 | 4/6/2016 | N | 0.50 U | 0.096 U | 5.0 U | 1.9 J | 168 | | 14.6 | 20.0 U | | 0.11 J | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 32.6 | 2.2 | 31.8 | 0.41 | | 2.6 | 2.3 |
| MW16 | 7/19/2016 | N | 0.50 U | 0.094 U | 5.0 U | 2.2 | 114 | | 11.5 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 32.4 | 2.2 | 34.0 | 0.42 | | 2.6 | 5.8 |
| MW16 | 10/12/2016 | N | 0.50 U | 0.18 | 0.40 J | 1.7 J | 61.7 J | | 5.3 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 33.1 | 2.4 | 24.0 | 0.30 | | 2.2 | 0.58 J |
| MW16 | 1/18/2017 | N | 0.080 | 0.015 | 0.47 J | 1.3 J | 11.5 J | | 1.2 J | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 31.3 | 3.2 | 46.0 | 0.46 | | 3.6 | 1.1 |
| MW16 | 4/19/2017 | N | 0.50 U | 0.10 U | 5.0 U | 1.6 J | 7.7 J | | 0.80 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 39.0 | 3.3 | 60.0 | 0.57 | | 4.5 | 2.0 |
| MW16 | 10/2/2017 | N | 0.11 J | 0.096 U | 1.0 U | 2.5 | 100 U | | 2.0 J | 8.8 J | | 0.90 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 43.7 | 4.0 | 45.7 | 0.73 | | 6.6 | 0.82 J |
| MW16 | 10/16/2018 | N | 1.0 U | 0.10 U | 0.26 J | 3.2 | 100 U | | 2.5 U | 13.0 J | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 32.0 | 4.5 | 28.6 | 0.74 | | 3.5 | 1.8 |
| MW16 | 4/24/2019 | N | 0.17 U | 0.24 | 0.37 J | 1.9 J | 169 | | 15.7 | 9.0 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 34.1 | 4.7 | 39.4 | 0.63 | | 4.7 B | 0.74 J |
| MW16 | 10/14/2019 | FD | 0.17 U | 0.087 U | 0.26 J | 2.4 | 105 | | 4.2 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 43.2 | 3.8 | 37.9 | 0.55 H | | 4.4 | 0.47 U |
| MW16 | 10/14/2019 | N | 0.17 U | 0.086 U | 0.27 J | 1.6 J | 60.3 J | | 4 | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 42.8 | 3.9 | 37.5 | 0.55 H | | 4.4 | 0.47 U |
| MW16 | 4/7/2020 | N | 0.17 U | 0.52 | 0.34 J | 5.3 | 46.7 U | | 0.79 U | 8.6 J | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 44.1 | 2.2 | 35.4 | 0.56 | | 3.3 | 0.47 U |
| MW16 | 10/5/2020 | N | 0.17 U | 0.087 U | 0.24 J | 3.5 | 46.7 U | | 0.79 U | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 56.3 | 2.0 | 49.9 | 0.59 | | 3.8 | 0.94 J |
| MW16 | 4/14/2021 | N | 1.0 U | 0.096 U | 0.31 J | 3.6 | 100 U | | 2.5 U | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 76.6 | 0.91 | 61.5 | 0.55 | | 2.6 | 0.84 J |
| MW16 | 10/14/2021 | N | 1.0 U | 0.095 U^c | 0.37 J | 1.9 J | 100 U | | 2.5 U | 20.0 U | | 0.83 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 106 | 0.63 | 77.4 | 0.48 | | 4.3 | 1.0 U |
| MW16 | 4/13/2022 | N | 1.0 U | 0.45 | 0.29 J | 1.3 J | 100 U | | 2.5 U | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 131 | 0.52 | 53.9 | 0.33 | | 1.6 | 1.0 U |
| MW17 | 10/15/1997 | 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 | 10/15/1997 | N2 | | 1 U | 2 U | 2.3 U | | | | 2.5 | | | 0.1 U | 1 J | 1 U | 0.6 J | | | | | | | |
| MW17 | 10/28/1997 | N | | 5 | | | | | | | | | | | | | | | | | | | |
| MW17 | 4/6/2000 | N | | 0.5 U | | | | | | | | 11 U | | | | | | | | | | | |
| MW17 | 4/26/2001 | 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 | 4/26/2001 | N2 | 0.12 U | | 0.69 | 25 U | 25 U | | 15 U | 25 U | | | | | | | | | | 4.98 = | | | |
| MW17 | 9/11/2001 | 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 | 9/11/2001 | N2 | | | 1 | 2.2 U | 310 | | 0.27 U | 3.7 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW17 | 8/8/2002 | N | 0.01 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 | 8/8/2002 | N2 | | | 1.9 J | 0.3 U | 11 U | | 0.42 U | 15 J | | | | | | | | | | | | | |
| MW17 | 9/25/2003 | 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 |
| MW17 | 9/25/2003 | N2 | 0.5 U | | 1 U | 1 U | 50 U | | 5 U | 10 U | | | | | | | | | | | | | |
| MW17 | 9/22/2004 | 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 | 9/22/2004 | N2 | | | 0.782 J | 0.847 J | 13.9 J | | 45.0 J | 2.09 J | | | | | | | | | | | | | |
| MW17 | 9/27/2005 | 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 | 9/27/2005 | N2 | | | 1.0 UJ | 10 U | 50 U | | 10 U | 20 U | | | | | | | | | | | | | |
| MW17 | 9/26/2006 | 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 | 9/19/2007 | 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 | 10/22/2008 | 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 | 10/6/2009 | 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 | 10/5/2010 | 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 | 10/18/2011 | 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 | 10/16/2012 | 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 | 10/8/2013 | 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 | 9/24/2014 | N | 0.50 U | 0.097 U | 0.83 J | 2.0 U | 100 U | | 1.3 J | 20 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 150 | 15 | 250 | 4.8 | | 40 | 0.72 J |
| MW17 | 10/13/2015 | N | 0.50 U | 0.095 U | 1.1 J | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 184 | 14.8 | 265 | 4.2 | | 45.3 | 0.59 J |
| MW17 | 4/5/2016 | N | 0.50 U | 0.095 U | 0.81 J | 1.8 J | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 173 | 13.6 | 289 | 3.5 | | 85.4 | 0.46 J |
| MW17 | 7/19/2016 | N | 0.50 U | 0.095 U | 0.84 J | 1.4 J | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 195 | 14.7 | 336 | 2.8 | | 142 | 0.52 J |
| MW17 | 10/11/2016 | N | 0.50 U | 0.094 U | 0.80 J | 0.76 J | 100 U | | 0.28 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 208 | 17.0 | 348 | 2.7 | | 136 | 0.36 J |
| MW17 | 1/23/2017 | FD | 0.080 | 0.015 | 0.76 J | 0.66 J | 5.3 | | 0.25 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 213 | 17.4 | 380 | 2.1 | | 167 | 0.50 J |
| MW17 | 1/23/2017 | N | 0.13 J | 0.099 | 0.73 J | 1.4 J | 5.3 | | 0.25 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 202 | 17.4 | 390 | 2.1 | | 167 | 0.81 J |
| MW17 | 4/20/2017 | FD | 0.50 U | 0.10 U | 0.68 J | 0.65 J | 100 U | | 0.58 J | 20.0 U | | 0.24 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 223 | 16.1 | 470 | 2.2 | | 165 | 0.43 J |
| MW17 | 4/20/2017 | N | 0.50 U | 0.10 U | 0.71 J | 0.77 J | 100 U | | 0.45 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 201 | 16.1 | 460 | 2.2 | | 164 | 0.48 J |
| MW17 | 10/3/2017 | N | 0.096 J | 0.099 U | 0.74 J | 1.8 J | 100 U | | 2.5 U | 20.0 U | | 0.85 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 212 | 17.2 | 390 | 3.5 | | 125 | 1.0 U |
| MW17 | 5/31/2018 | N | 1.0 U | 0.096 U | 0.79 J | 1.7 J | 100 U | | 2.5 U | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 194 | 14.9 | 311 | 3.3 | | 98.2 | 0.77 J |
| MW17 | 10/17/2018 | N | 1.0 U | 0.11 U | 0.63 J | 1.1 J | 100 U | | 2.5 U | 20.0 U | | 0.81 U | 0.50 U | 0.50 U | 0.15 J | 1.0 U | 185 | 13.6 | 317 | 2.9 | | 106 | 0.61 J |
| MW17 | 4/22/2019 | N | 0.17 U | 0.087 U | 0.80 JB | 1.3 JB | 46.7 U | | 1.2 JB | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 187 | 12.4 | 335 | 2.2 | | 140 | 1.2 |
| MW17 | 10/15/2019 | N | 0.17 U | 0.087 U | 0.55 J | 1.0 J | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 193 | 13.8 | 338 | 2 | | 128 | 0.47 U |
| MW17 | 4/7/2020 | N | 0.17 U | 0.085 U | 0.88 J | 1.3 J | 46.7 U | | 0.79 U | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 181 | 12.6 | 310 | 1.8 | | 131 | 0.47 U |
| MW17 | 10/5/2020 | N | 0.17 U | 0.095 U | 0.70 J | 1.9 J | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 191 | 13.1 | 335 | 1.8 | | 151 | 0.68 J |
| MW17 | 4/15/2021 | N | 1.0 U | 0.3 | 0.68 J | 1.3 JB | 100 U | | 2.5 U | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 188 | 11 | 317 | 1.5 | | 113 | 0.56 J |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L | |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|--|
| MW17 | 10/13/2021 | N | 1.0 U | 0.095 U | 0.87 J | 1.0 J | 100 U | | 1.2 J | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 196 | 7.4 | 294 | 1.4 H | | 108 | 1.0 U | |
| MW17 | 4/11/2022 | N | 1.0 U | 0.098 U | 0.58 J | 0.55 J | 100 U | | 2.5 U | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 200 | 11.6 | 192 | 1.3 | | 108 | 1.0 U | |
| MW18 | 10/10/1997 | 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 | 10/10/1997 | N2 | | 27000 E | 8.9 | 62.5 | | | | 5.3 | | | 0.1 U | 2 | 16 | 19 | | | | | | | | |
| MW18 | 6/19/2001 | 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 | 6/19/2001 | N2 | 0.13 U | | 5 | 43 | 15200 | | 6540 | 25 U | | | | | | | | | | | | | | |
| MW19 | 10/16/1997 | 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 | 10/16/1997 | N2 | | 19000 E | 2 U | 3.4 U | | | | 2 U | | | 0.2 | 1 U | 1 U | 0.2 J | | | | | | | | |
| MW19 | 4/7/2000 | N | | 11800 = | | | | | | | | 5260 U | | | | | | | | | | | | |
| MW19 | 4/7/2000 | N2 | | 11000 J | | | | | | | | 22 = | | | | | | | | | | | | |
| MW19 | 4/26/2001 | 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 | 4/26/2001 | N2 | 0.5 | | 1 U | 25 U | 25 U | | 1790 | 25 U | | 325 | 10 U | 100 U | 100 U | 100 U | | | | 3.37 | | | | |
| MW19 | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 1.7 J | 44 | 5600 | | 2100 | 53 J | | | | | | | | | | | | | | |
| MW19 | 5/13/2002 | N | | 14000 | 1.4 U | 5.1 J | 11.2 U | | 2070 | 9.4 J | | 190 | | | | | | | | | | | | |
| MW19 | 8/8/2002 | N | 0.01 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 | 8/8/2002 | N2 | | | 1.4 U | 7.1 J | 218 | | 3110 | 5.7 J | | | | | | | | | | | | | | |
| MW19 | 4/29/2003 | 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 | 4/29/2003 | N2 | 2.4 | | 1 U | 5 | 25 U | | 3590 | 10 U | | | | | | | | | | | | | | |
| MW19 | 9/25/2003 | 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 | 9/25/2003 | N2 | 5.7 | | 1 U | 9 | 50 J | | 4470 | 10 U | | | | | | | | | | 2 J | | | | |
| MW19 | 5/4/2004 | 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 | 5/4/2004 | N2 | | | 0.169 J | 5.77 R | 31.4 | | 3360 R | 6.93 R | | | | | | | | | | | | | | |
| MW19 | 9/22/2004 | 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 | 9/22/2004 | N2 | | | 0.159 J | 6.26 J | 125 U | | 2650 | 16.0 J | | | | | | | | | | | | | | |
| MW19 | 5/10/2005 | 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 | 5/10/2005 | N2 | | | 1.0 U | 15 | 630 | | 2100 | 8.4 J | | | | | | | | | | | | | | |
| MW19 | 9/29/2005 | 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 | 9/29/2005 | N2 | | | 1.0 UJ | 5.0 J | 50 UJ | | 2700 J | 20 UJ | | | | | | | | | | | | | | |
| MW19 | 6/7/2006 | 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 | 9/27/2006 | 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 | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW19 | 5/9/2007 | 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 | 9/21/2007 | 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 | 5/20/2008 | 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 | 10/24/2008 | 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 | 6/2/2009 | 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 |
| MW19 | 10/7/2009 | 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 | 5/20/2010 | 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 | 10/7/2010 | 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 | 6/29/2011 | 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 | 10/20/2011 | 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 | 5/22/2012 | 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 | 10/17/2012 | 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 | 5/22/2013 | 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 | 10/10/2013 | 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 | 5/14/2014 | N | | 18000 | | | | | | | | | | | | | | | | | | | |
| MW20 | 10/15/1997 | N | 10 U | 29000 J | | | | | | | | | 0.1 U | 1 U | 1 U | 0.1 U | | | | | | | |
| MW20 | 4/26/2001 | 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 | 4/26/2001 | N2 | 2.73 | | 1.1 | 14 | 841 | | 2250 | 23 | | 9970 | 10 U | 100 U | 100 U | 71 | | | | | | | |
| MW20 | 9/12/2001 | 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 | 9/12/2001 | N2 | | | 1.5 | 15 U | 35 U | | 2800 | 12 U | | | | | | | | | | | | | |
| MW20 | 8/7/2002 | N | 0.01 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 | 8/7/2002 | N2 | | | 2.6 | 5.8 J | 206 | | 3280 | 15.4 J | | | | | | | | | | | | | |
| MW20 | 9/25/2003 | 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 | 9/25/2003 | N2 | 5.4 | | 1 U | 11 | 350 | | 3250 | 10 J | | | | | | | | | | 1.25 U | | | |
| MW20 | 9/22/2004 | 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 | 9/22/2004 | N2 | | | 0.498 J | 35.2 J | 2070 | | 2320 | 47.0 J | | | | | | | | | | | | | |
| MW20 | 10/25/2005 | 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 | 10/25/2005 | N2 | | | 1.0 UJ | 2.7 UJ | 140 J | | 2400 J | 20 UJ | | | | | | | | | | | | | |
| MW20 | 9/27/2006 | 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 | 9/27/2006 | 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 | 9/21/2007 | 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 | 10/23/2008 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L | |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|--|
| MW20 | 4/20/2017 | FD | 0.50 U | 0.10 U | 0.99 J | 2.0 U | 100 U | | 0.64 J | 20.0 U | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 133 | 14.7 | 188 | 1.7 | | 7.0 | 0.49 J | |
| MW20 | 4/20/2017 | N | 0.50 U | 0.10 U | 1.0 J | 0.37 J | 100 U | | 0.33 J | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 131 | 14.8 | 186 | 3.5 | | 7.0 | 0.47 J | |
| MW21 | 2/9/1998 | 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 | 2/9/1998 | FD2 | | | 2 U | 9.5 U | | | | 33.8 | | | | | | | | | | | | | | |
| MW21 | 2/9/1998 | 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 | 2/9/1998 | N2 | | 1 U | 2 U | 9.5 U | | | | 32.6 U | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | | |
| MW21 | 5/14/2002 | N | | | 1.9 J | 1.3 J | 130 | | 9.7 J | 11 J | | | | | | | | | | | | | | |
| MW21 | 8/6/2002 | 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 | 8/6/2002 | N2 | | | 1.6 J | 0.3 U | 11 U | | 0.63 J | 6.8 J | | | | | | | | | | | | | | |
| MW21 | 4/29/2003 | 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 | 4/29/2003 | N2 | 0.5 U | | 1 U | 1 U | 25 U | | 5 U | 10 U | | | | | | | | | | | | | | |
| MW21 | 9/24/2003 | 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 | 9/24/2003 | N2 | 0.5 U | | 1 U | 1 U | 50 UJ | | 5 U | 10 U | | | | | | | | | | | | | | |
| MW21 | 5/4/2004 | 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 | 5/4/2004 | N2 | | | 0.122 J | 1.28 R | 28.6 R | | 0.718 R | 4.48 R | | | | | | | | | | | | | | |
| MW21 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.130 J | 0.955 J | 25.0 UJ | | 0.484 J | 3.30 J | | | | | | | | | | | | | | |
| MW21 | 5/10/2005 | 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 | 5/10/2005 | N2 | | | 1.0 U | 25 | 6200 | | 480 | 16 J | | | | | | | | | | | | | | |
| MW21 | 9/27/2005 | 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 | 9/27/2005 | N2 | | | 1.0 UJ | 2.6 J | 36 J | | 9.8 J | 20 U | | | | | | | | | | | | | | |
| MW21 | 6/1/2006 | 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 | 5/8/2007 | 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 | 9/18/2007 | 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 | 10/21/2008 | 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 | |
| MW21 | 4/6/2016 | N | 0.092 J | 0.016 J | 0.70 J | 1.0 J | 22.8 J | | 1.7 J | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 25.9 | 101 | 83.6 | 1.8 | | 6.8 | 0.63 J | |
| MW21 | 7/20/2016 | FD | 0.50 U | 5.5 | 5.0 U | 0.86 J | 23.5 J | | 5.0 U | 20.0 U | | 0.24 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 29.9 | 84.9 | 78.0 | 1.7 | | 6.6 | 0.90 J | |
| MW21 | 7/20/2016 | N | 0.11 J | 8.5 | 5.0 U | 1.3 J | 29.4 J | | 5.0 U | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 29.4 | 84.5 | 84.0 | 1.7 | | 6.8 | 0.93 J | |
| MW21 | 10/11/2016 | N | 0.50 U | 5.7 | 0.38 J | 1.8 J | 6.2 J | | 0.44 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 30.5 | 74.4 | 82.0 | 1.8 | | 6.6 | 0.61 J | |
| MW21 | 1/18/2017 | N | 0.080 | 2.9 | 0.39 J | 2.2 | 6.8 J | | 0.25 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 25.4 | 86.8 | 88.0 | 1.8 | | 7.4 | 0.75 J | |
| MW21 | 4/18/2017 | N | 0.50 U | 0.017 J | 5.0 U | 0.44 J | 100 U | | 5.0 U | 20.0 U | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 26.7 | 78.6 | 92.0 | 1.8 | | 7.5 | 0.77 J | |
| MW21 | 10/3/2017 | N | 0.082 J | 0.096 U | 0.28 J | 1.2 J | 100 U | | 2.5 U | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 35.2 | 72.6 | 70.5 | 1.8 | | 7.1 | 0.76 J | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW21 | 10/17/2018 | N | 1.0 U | 0.099 U | 1.0 U | 1.2 J | 100 U | | 2.5 U | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 35.4 | 66.6 | 65.6 | 1.9 | | 6.0 | 1.1 |
| MW21 | 4/24/2019 | N | 0.17 U | 0.086 U | 0.23 J | 1.5 J | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 32.6 | 78.4 | 72.8 | 1.6 | | 6.4 B | 0.94 J |
| MW21 | 10/15/2019 | N | 0.17 U | 0.088 U | 0.23 J | 0.72 J | 46.7 U | | 0.79 U | 7.0 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 35.1 | 87.1 | 83.1 | 1.6 | | 5.9 | 0.47 U |
| MW21 | 4/9/2020 | N | 0.17 U | 0.088 U | 0.39 J | 1.4 J | 488 | | 7.3 | 8.0 J | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 37.1 | 77.3 | 85.4 | 1.6 | | 5.8 | 0.47 U |
| MW21 | 10/6/2020 | N | 0.17 U | 0.091 U | 0.27 J | 0.73 J | 46.7 U | | 0.79 U | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 47.0 | 81.5 | 95.4 | 1.9 | | 6.7 | 0.99 J |
| MW21 | 4/12/2021 | N | 1.0 U | 0.65 | 1.0 U | 71.0 B | 77.7 J | | 3.8 B | 20.0 U | | 0.90 U | 0.27 J | 0.50 U | 0.50 U | 1.0 U | 48.5 | 76.5 | 89.7 | 1.8 | | 5.5 | 0.82 J |
| MW21 | 10/11/2021 | N | 1.0 U | 0.095 U^c | 0.43 J | 2.1 | 100 U | | 4.2 | 20.0 U | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 62.3 | 60.4 | 76.6 | 2.2 | | 5.3 | 0.58 J |
| MW21 | 10/11/2021 | FD | 1.0 U | 0.096 U^c | 0.41 J | 1.8 J | 100 U | | 4.1 | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 63.8 | 59.8 | 76.9 | 2.2 | | 5.4 | 0.55 J |
| MW22 | 2/9/1998 | 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 | 2/9/1998 | N2 | | 1 U | 2 U | 9.5 U | | | | 12.6 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW22 | 5/14/2002 | N | | | 1.4 U | 0.3 U | 22.9 J | | 3.5 J | 2.7 J | | | | | | | | | | | | | |
| MW22 | 8/6/2002 | N | 0.01 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 | 8/6/2002 | N2 | | | 1.4 U | 0.3 U | 25 J | | 0.42 U | 4.9 J | | | | | | | | | | | | | |
| MW22 | 9/24/2003 | 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 | 9/24/2003 | N2 | 0.5 U | | 1 U | 20 | 2770 | | 542 | 20 J | | | | | | | | | | | | | |
| MW22 | 9/21/2004 | 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 | 9/21/2004 | N2 | | | 0.164 J | 0.473 J | 25.0 UJ | | 15.0 UJ | 2.31 J | | | | | | | | | | | | | |
| MW22 | 9/28/2005 | 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 | 9/28/2005 | N2 | | | 1.0 UJ | 10 UJ | 50 UJ | | 1.3 J | 20 UJ | | | | | | | | | | | | | |
| MW22 | 9/18/2007 | 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 | 5/20/2008 | 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 | 10/21/2008 | 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 | 6/2/2009 | 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 | 10/6/2009 | 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 | 5/18/2010 | 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 | 10/6/2010 | 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 | 6/29/2011 | 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 | 10/18/2011 | 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 | 5/22/2012 | 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 | 10/16/2012 | 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 |
| MW22 | 5/22/2013 | 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 | 10/8/2013 | 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 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L | |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|--|
| MW22 | 5/14/2014 | N | | 0.093 J | | | | | | | | | | | | | | | | | | | | |
| MW22 | 9/24/2014 | N | 0.50 U | 0.27 | 0.22 J | 2.0 U | 25 J | | 19 | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 51 | 1.7 | 60 | 0.69 | | 3.6 | 0.71 J | |
| MW22 | 4/21/2015 | N | 0.50 U | 0.072 J | 0.60 J | 2.8 | 390 | | 23 | 20 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 42 | 1.9 | 57 | 0.69 | | 3.7 | 0.57 J | |
| MW22 | 10/13/2015 | N | 0.50 U | 0.041 J | 5.0 U | 1.2 J | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 46.3 | 1.7 | 52.3 | 0.65 | | 2.8 | 0.74 J | |
| MW22 | 4/6/2016 | N | 0.50 U | 0.025 J | 5.0 U | 0.92 J | 17.5 J | | 2.2 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 50.8 | 1.3 | 57.7 | 0.61 | | 2.9 | 5.3 | |
| MW22 | 7/20/2016 | N | 0.50 U | 0.030 J | 5.0 U | 3.4 | 235 | | 10 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 58.6 | 1.2 | 64.0 | 0.60 | | 3.1 | 1.7 | |
| MW22 | 10/12/2016 | N | 0.50 U | 0.043 J | 0.41 J | 1.7 J | 85.4 J | | 5.4 | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 67.2 | 1.7 | 70.0 | 0.53 | | 3.5 | 0.96 J | |
| MW22 | 1/18/2017 | N | 0.080 J | 0.058 J | 0.44 J | 3.4 | 186 | | 10.6 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 58.4 | 2.1 | 94.0 | 0.65 | | 3.8 | 1.1 | |
| MW22 | 4/21/2017 | N | 0.50 U | 0.090 J | 5.0 U | 2.6 | 100 U | | 0.31 J | 20.0 U | | 0.23 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 62.9 | 2.8 | 110 | 0.77 | | 4.4 | 0.93 J | |
| MW22 | 10/4/2017 | N | 0.39 J | 0.049 J | 1.0 U | 2.6 | 198 | | 11.9 | 8.5 J | | 0.89 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 74.1 | 2.7 | 77.9 | 0.71 | | 3.7 | 0.90 J | |
| MW22 | 10/17/2018 | N | 1.0 U | 0.10 U | 1.0 U | 3.2 | 100 U | | 2.5 U | 16.3 J | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 61.7 | 2.5 | 70.2 | 0.71 | | 3.8 | 0.78 J | |
| MW22 | 4/24/2019 | N | 0.17 U | 0.085 U | 0.27 J | 1.8 J | 166 | | 9.6 | 9.6 J | | 0.28 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 60.3 | 4.1 | 102 | 0.75 | | 4.1 B | 0.84 J | |
| MW22 | 10/16/2019 | N | 0.17 U | 0.095 U | 0.35 J | 3.3 | 509 | | 99 | 11.5 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 62.6 H | 3.6 | 71.2 | 0.71 | | 4.5 B | 12.4 | |
| MW22 | 4/9/2020 | N | 0.17 U | 0.092 U | 0.53 J | 6.1 | 1160 | | 67.8 | 11.3 J | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 72.9 | 3.9 | 116 | 0.61 | | 5.4 | 1.3 | |
| MW22 | 10/8/2020 | N | 0.17 U | 0.095 U | 0.43 J | 2.6 | 507 | | 32.2 | 6.9 U | | 0.27 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 79.6 | 4.0 | 91.9 | 0.62 H | | 3.6 | 0.70 J | |
| MW22 | 4/13/2021 | N | 1.0 U | 0.10 U | 0.23 J | 4.8 | 389 | | 22.9 | 9.6 JB | | 0.84 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 74.3 | 6.5 | 117 | 0.68 | | 3.3 | 0.75 J | |
| MW22 | 10/14/2021 | N | 1.0 U | 0.12 U | 0.23 J | 2.3 | 307 | | 15.6 | 11.2 J | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 74.5 | 4.0 | 83.9 | 0.34 | | 1.7 | 1.0 U | |
| MW22 | 4/12/2022 | N | 1.0 U | 9.4 | 3.1 | 32.3 | 7830 | | 403 | 36.9 | | 0.91 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 69.8 | 7.3 | 46.8 | 0.57 | | 3.2 | 0.63 J | |
| MW23 | 2/26/1998 | 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 | 2/26/1998 | N2 | | 1 U | 2 U | 14.2 U | | | | 6.6 | | | 2 = | 1 U | 77 = | 2 = | | | | | | | | |
| MW23 | 9/11/2001 | 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 | 9/11/2001 | N2 | | | 0.62 J | 2.2 U | 35 U | | 29 | 4.7 J | | | | | | | | | | | | | | |
| MW23 | 4/13/2016 | N | 0.50 U | 0.095 U | 0.58 J | 2.0 U | 35.1 J | | 5.0 U | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 197 | 29.5 | 255 | 1.8 | | 7.1 | 0.62 J | |
| MW23 | 7/20/2016 | N | 0.50 U | 0.31 | 0.70 J | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 195 | 30.6 | 230 | 1.8 | | 7.2 | 0.66 J | |
| MW23 | 10/11/2016 | N | 0.50 U | 0.094 U | 0.71 J | 0.90 J | 100 U | | 0.38 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 194 | 32.3 | 230 | 1.9 | | 8.1 | 0.54 J | |
| MW23 | 1/19/2017 | N | 0.080 | 0.015 | 0.75 J | 0.64 J | 5.3 | | 0.25 | 6.2 | | 0.061 | 0.28 | 0.26 | 0.23 | 0.24 | 177 | 35.1 | 238 | 1.8 | | 8.2 | 0.81 J | |
| MW23 | 4/19/2017 | N | 0.50 U | 0.095 U | 0.59 J | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 179 | 34.7 | 304 | 1.9 | | 9.1 | 0.76 J | |
| MW23 | 10/2/2017 | N | 0.50 U | 0.098 U | 0.66 J | 1.5 J | 100 U | | 2.5 U | 20.0 U | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 197 | 40.3 | 240 | 2.0 | | 9.1 | 0.68 J | |
| MW23 | 6/1/2018 | N | 1.0 U | 0.10 U | 0.74 J | 0.90 J | 100 U | | 2.5 U | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 194 | 42.3 | 256 | 2.0 | | 8.8 | 0.81 J | |
| MW23 | 10/17/2018 | N | 1.0 U | 0.099 U | 0.58 J | 0.82 J | 100 U | | 2.5 U | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.18 J | 1.0 U | 191 | 39.7 | 239 | 2.1 | | 8.7 | 0.90 J | |
| MW23 | 4/23/2019 | N | 0.17 U | 0.087 U | 0.65 JB | 0.99 JB | 46.7 U | | 0.79 U | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 187 | 44.6 | 255 | 2.1 | | 9.0 | 0.86 J | |
| MW23 | 10/14/2019 | N | 6.4 | 0.085 U | 0.64 J | 0.67 J | 46.7 U | | 2.6 | 6.9 U | | 0.65 J | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 195 | 46.2 | 250 | 2.1 H | | 8.1 | 0.47 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW23 | 4/8/2020 | N | 0.17 U | 0.087 U | 0.58 J | 0.89 J | 46.7 U | | 0.79 U | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 185 | 46.2 | 243 | 2 | | 8.4 | 1.5 |
| MW23 | 10/6/2020 | N | 0.17 U | 0.089 U | 0.77 J | 0.58 J | 46.7 U | | 1.1 J | 7.1 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 184 | 54.1 | 239 | 2.3 | | 9.2 | 0.95 J |
| MW23 | 4/15/2021 | N | 1.0 U | 0.096 U | 0.53 J | 0.54 JB | 100 U | | 2.5 U | 11.6 J | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 190 | 45.4 | 255 | 2.2 | | 8.8 | 0.76 J |
| MW23 | 10/13/2021 | N | 1.0 U | 0.095 U | 0.75 J | 2.0 U | 100 U | | 2.5 U | 20.0 U | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 195 | 61.0 | 249 | 1.4 H | | 5.4 | 1.0 U |
| MW23 | 4/11/2022 | N | 1.0 U | 0.10 U | 0.59 J | 2.0 U | 100 U | | 2.5 U | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 185 | 61.5 | 174 | 2.3 | | 8.2 | 0.76 J |
| MW24 | 2/8/1998 | 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 | 2/8/1998 | N2 | | 4 U | 2 U | 9.5 U | | | | 23 | | | 3 U | 2 U | 3 U | 5 U | | | | | | | |
| MW24 | 12/6/2000 | 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 | 12/6/2000 | 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 | 4/24/2001 | 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 | 4/24/2001 | N2 | 0.1 U | | 0.29 | 5.2 | 25 U | | 2.4 | 11 | | 5.3 U | | | | | | | | 3.64 | | | |
| MW24 | 4/7/2016 | N | 0.11 J | 0.044 J | 5.0 U | 3.0 | 420 | | 28.4 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 168 | 9.1 | 135 | 1.9 | | 17.4 | 0.79 J |
| MW25 | 2/9/1998 | 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 | 2/9/1998 | N2 | | 1 = | 2 U | 9.5 U | | | | 16.4 | | | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW25 | 4/11/2016 | N | 0.50 U | 0.024 J | 1.1 J | 17.6 | 6090 | | 148 | 12.4 J | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 33.7 | 37.8 | 137 | 2.4 | | 3.8 | 1.5 |
| MW25 | 7/26/2016 | N | 0.50 U | 0.30 | 5.0 U | 1.3 J | 28.8 J | | 1.0 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 40.3 | 49.1 | 108 | 3.2 | | 5.0 | 0.70 J |
| MW25 | 10/10/2016 | FD | 0.50 U | 0.17 | 5.0 U | 0.71 J | 100 U | | 0.27 J | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 31.1 | 16.9 | 54.0 | 1.6 | | 2.7 | 0.44 J |
| MW25 | 10/10/2016 | N | 0.50 U | 0.23 | 5.0 U | 0.62 J | 5.4 J | | 0.46 J | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 31.1 | 17.5 | 52.0 | 1.6 | | 2.8 | 0.44 J |
| MW25 | 1/18/2017 | N | 0.080 | 4.9 | 0.35 | 1.2 J | 28.2 J | | 0.70 J | 6.2 | | 0.063 | 0.28 | 0.26 | 0.23 | 0.24 | 46.0 | 45.2 | 112 | 2.8 | | 4.9 | 0.78 J |
| MW25 | 4/18/2017 | N | 0.50 U | 0.094 U | 5.0 U | 1.4 J | 100 U | | 5.0 U | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 81.3 | 29.0 | 108 | 2.9 | | 7.3 | 0.82 J |
| MW25 | 10/13/2017 | N | 1.0 U | 0.051 J | 1.0 U | 1.3 J | 100 U | | 2.5 U | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 79.5 | 36.1 | 125 | 3.2 | | 7.0 | 0.84 J |
| MW25 | 10/13/2017 | N | 1.0 U | 0.083 J | 1.0 U | 1.1 J | 100 U | | 2.5 U | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 78.7 | 35.0 | 122 | 3.2 | | 7.0 | 0.81 J |
| MW25 | 5/31/2018 | N | 1.0 U | 0.096 U | 0.28 J | 1.3 J | 100 U | | 2.5 U | 20.0 U | | 0.84 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 112 | 12.5 | 123 | 2.4 | | 6.0 | 1.1 |
| MW25 | 10/19/2018 | N | 1.0 U | 0.095 U | 1.0 U | 4.7 | 100 U | | 1.3 J | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 0.41 J | 98.2 | 30.1 | 138 | 2.8 | | 5.9 | 0.95 J |
| MW25 | 4/24/2019 | N | 5.0 | 0.091 U | 0.27 J | 1.3 J | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 92.3 | 27.2 | 117 | 2.6 | | 5.5 B | 1.7 |
| MW25 | 10/15/2019 | N | 0.17 U | 0.088 U | 0.24 J | 1.5 J | 46.7 U | | 0.79 U | 7.6 J | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 404 | 20.2 | 205 | 2.1 | | 3.9 | 0.47 U |
| MW25 | 4/7/2020 | N | 0.17 U | 0.090 U | 0.47 J | 6.2 | 103 | | 3.4 | 6.9 U | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 268 | 11.7 | 286 | 2.3 | | 5.5 | 0.87 J |
| MW25 | 10/6/2020 | N | 0.17 U | 0.091 U | 0.40 J | 1.1 J | 133 | | 3.2 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 226 | 21.8 | 251 | 2.3 | | 4.5 | 1.0 |
| MW25 | 4/14/2021 | N | 1.0 U | 0.095 U | 0.31 J | 1.4 J | 100 U | | 2.5 U | 9.4 JB | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 354 | 4.3 | 363 | 1.6 | | 3.5 | 1.2 |
| MW25 | 10/13/2021 | N | 1.0 U | 0.098 U | 0.51 J | 2.0 | 61.9 J | | 1.2 J | 20.0 U | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 392 | 7.1 | 369 | 1.4 | | 3.4 | 0.64 J |
| MW25 | 4/11/2022 | N | 1.0 U | 0.095 U | 0.25 J | 2.4 | 504 | | 7.8 | 20.0 U | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 138 | 26.2 | 103 | 1.9 | | 3.1 | 0.78 J |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW26 | 12/6/2000 | 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 | 12/6/2000 | 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 | 12/6/2000 | N3 | 0.7 U | | 4 | 25 U | 25 U | | 89 | 25 U | | 5 U | 0.1 U | 1 U | 1 U | 1 U | | | | | | | |
| MW26 | 12/6/2000 | N4 | | | 1.1 | 25 | 16000 | | 290 | 33 | | | | | | | | | | | | | |
| MW26 | 4/24/2001 | 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 | 4/24/2001 | N2 | 0.1 U | | 0.24 | 25 U | 36 | | 15 U | 19700 | | | | | | | | | | 5 | | | |
| MW26 | 6/18/2001 | 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 | 6/18/2001 | N2 | 0.1 U | | 3.6 | 18 | 9140 | | 232 | 28 | | | | | | | | | | 30 = | | | |
| MW26 | 9/10/2001 | 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 | 9/10/2001 | 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 | 9/10/2001 | N3 | | | 0.75 J | 2.9 J | 55 J | | 1.5 U | 3.7 U | | | | | | | | | | | | | |
| MW26 | 9/10/2001 | N4 | | | 1.6 | 13 | 2500 | | 96 | 24 | | | | | | | | | | | | | |
| MW26 | 5/14/2002 | 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 | 5/14/2002 | N2 | | | 1.4 U | 1.2 J | 11.2 U | | 0.73 J | 9.3 J | | | | | | | | | 300 | | | | |
| MW26 | 8/5/2002 | N | 0.01 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 | 8/5/2002 | N2 | 0.01 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 | 8/5/2002 | N3 | | | 2.7 | 3.9 J | 728 | | 26 | 18.7 J | | | | | | | | | | | | | |
| MW26 | 8/5/2002 | N4 | | | 3.2 | 0.3 U | 11.2 U | | 0.42 U | 7.4 J | | | | | | | | | | | | | |
| MW26 | 4/29/2003 | 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 | 4/29/2003 | 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 | 4/29/2003 | N3 | 0.5 U | | 2 J | 5 | 1690 | | 48 | 20 | | | | | | | | | | | | | |
| MW26 | 4/29/2003 | N4 | | | 1 U | 1 U | 25 U | | 5 U | 10 U | | | | | | | | | | | | | |
| MW26 | 9/23/2003 | 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 | 9/23/2003 | N2 | 0.5 U | | 1 U | 1 U | 50 U | | 5 U | 10 U | | | | | | | | | | | | | |
| MW26 | 5/4/2004 | 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 | 5/4/2004 | FD2 | | | 0.323 J | 1.19 R | 49.3 R | | 2.07 R | 4.15 R | | | | | | | | | | | | | |
| MW26 | 5/4/2004 | 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 | 5/4/2004 | N2 | | | 0.289 J | 1.24 R | 39.0 R | | 1.23 R | 4.36 R | | | | | | | | | | | | | |
| MW26 | 9/23/2004 | 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 | 9/23/2004 | FD2 | | 4.11 = | 0.354 J | 2.01 J | 6.48 J | | 4.00 J | 3.80 J | | | | | | | | | | | | | |
| MW26 | 9/23/2004 | 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 |
| MW26 | 9/23/2004 | N2 | | | 0.314 J | 1.57 J | 8.81 J | | 19.3 | 4.70 J | | | | | | | | | | | | | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW26 | 5/10/2005 | 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 | 5/10/2005 | FD2 | | | 1.0 U | 2.2 J | 510 | | 14 | 17 J | | | | | | | | | | | | | |
| MW26 | 5/10/2005 | 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 | 5/10/2005 | N2 | | | 1.0 U | 2.4 J | 680 | | 18 | 7.5 J | | | | | | | | | | | | | |
| MW26 | 9/27/2005 | 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 | 9/27/2005 | FD2 | | | 1.0 UJ | 2.6 J | 50 UJ | | 10 U | 20 U | | | | | | | | | | | | | |
| MW26 | 9/27/2005 | 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 | 9/27/2005 | N2 | | | 1.0 UJ | 2.2 J | 50 U | | 10 U | 20 U | | | | | | | | | | | | | |
| MW26 | 6/7/2006 | 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 | 6/7/2006 | 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 | 9/26/2006 | 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 | 5/8/2007 | 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 | 5/8/2007 | 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 | 9/19/2007 | 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 | 5/20/2008 | 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 | 10/22/2008 | 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 | 6/2/2009 | 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 | 10/6/2009 | 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 | 5/19/2010 | 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 | 10/5/2010 | 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 | 6/29/2011 | 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 | 10/19/2011 | 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 | 5/22/2012 | 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 | 10/16/2012 | 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 | 5/22/2013 | 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 | 10/8/2013 | 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 | 5/14/2014 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| MW26 | 9/24/2014 | FD | 0.50 U | 0.095 U | 0.32 J | 2.0 U | 100 U | | 5.0 U | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 150 | 17 | 280 | 1.2 | | 160 | 1.0 U |
| MW26 | 9/24/2014 | N | 0.50 U | 0.095 U | 0.43 J | 2.0 U | 100 U | | 5.0 U | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 150 | 17 | 290 | 1.2 | | 160 | 1.0 U |
| MW26 | 4/21/2015 | FD | | 0.094 U | 0.76 J | 2.0 U | 100 U | | 5.0 U | 20 U | | 0.19 U | | | | | | | | | | | |
| MW26 | 4/21/2015 | N | 0.50 U | 0.094 U | 0.71 J | 2.0 U | 100 U | | 4.4 J | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 160 | 16 | 240 | 2.4 | | 82 | 1.0 U |
| MW26 | 10/13/2015 | N | 0.50 U | 0.096 U | 0.76 J | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 198 | 15.3 | 229 | 1.9 | | 74.6 | 0.32 J |
| MW26 | 10/13/2015 | N | 0.50 U | 0.096 U | 0.50 J | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 194 | 15.5 | 235 | 1.9 | | 75.7 | 0.33 J |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW26 | 4/5/2016 | N | 0.15 J | 0.095 U | 0.57 J | 1.5 J | 21.4 J | | 58.7 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 154 | 9.4 | 183 | 1.4 | | 36.1 | 0.26 J |
| MW27 | 10/20/2011 | 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 |
| MW27 | 4/7/2016 | FD | | 0.094 U | 5.0 U | 2.0 U | 29.9 J | | 2.3 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| MW27 | 4/7/2016 | N | 0.092 J | 0.15 | 0.59 J | 1.9 J | 21.1 J | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 137 | 20.0 | 113 | 6.5 | | 14.2 | 1.9 |
| MW28 | 10/20/2011 | 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 | 10/17/2012 | 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 | 10/9/2013 | 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 | 10/9/2013 | N2 | | | | | | | | | | | | | | | | | | 2.2 J | | | |
| MW28 | 9/25/2014 | N | 0.50 U | 0.099 | 0.31 J | 2.0 U | 100 U | | 5.0 U | 20 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 120 | 18 | 150 | 1.3 | | 5.1 | 0.85 J |
| MW28 | 10/14/2015 | N | 0.50 U | 0.32 | 5.0 U | 2.0 U | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 126 | 15.5 | 155 | 2.0 | | 5.4 | 0.69 J |
| MW28 | 4/6/2016 | N | 0.20 J | 47 | 5.0 U | 0.76 J | 29.7 J | | 2.7 J | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 122 | 9.4 | 125 | 1.2 | | 4.8 | 1.6 |
| MW28 | 7/21/2016 | N | 0.10 J | 100 | 0.49 J | 2.0 U | 25.9 J | | 10.8 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 127 | 11.4 | 138 | 1.9 | | 5.4 | 1.9 |
| MW28 | 10/13/2016 | FD | 0.36 J | 1200 | 0.38 J | 0.61 J | 100 U | | 7.9 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 1.4 J | 125 | 11.4 | 142 | 1.7 | | 5.6 | 12.3 |
| MW28 | 10/13/2016 | N | 0.28 J | 1900 | 0.39 J | 0.76 J | 9.8 J | | 8.5 | 20.0 U | | 0.12 J | 0.50 U | 1.0 U | 1.0 U | 1.4 J | 128 | 11.4 | 148 | 1.7 | | 5.8 | 12.3 |
| MW28 | 1/20/2017 | N | 0.20 J | 290 | 0.47 J | 1.0 J | 5.3 | | 10.3 | 6.2 | | 0.063 | 0.28 | 0.26 | 0.23 | 0.24 | 113 | 13.4 | 138 | 2.0 | | 6.1 | 4.9 |
| MW28 | 4/20/2017 | N | 0.50 U | 22 | 0.55 J | 1.0 J | 11.9 J | | 4.0 J | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 123 | 22.5 | 186 | 3.3 | | 7.1 | 1.6 |
| MW28 | 10/3/2017 | N | 0.18 J | 0.16 | 0.38 J | 1.4 J | 100 U | | 2.5 U | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 116 | 31.8 | 171 | 2.3 | | 6.6 | 0.83 J |
| MW28 | 10/17/2018 | N | 1.0 U | 0.10 U | 0.38 J | 1.0 J | 100 U | | 2.5 U | 7.1 J | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 106 | 21.2 | 126 | 2.2 | | 5.4 | 0.97 J |
| MW28 | 4/23/2019 | N | 0.17 U | 0.20 ^ | 0.39 JB | 2.0 B | 62.7 J | | 2.1 JB | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 106 | 19.3 F1 | 128 | 2.1 | | 5.4 | 0.67 J |
| MW28 | 10/16/2019 | N | 0.17 U | 0.086 U | 0.31 J | 0.50 U | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 105 H | 22.9 | 120 | 2.1 | | 5.3 B | 0.51 J |
| MW28 | 4/7/2020 | N | 0.17 U | 0.085 U | 0.51 J | 1.0 J | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 99.3 | 17 | 107 | 2 | | 4.8 | 0.48 J |
| MW28 | 10/6/2020 | FD | 0.17 U | 0.085 U | 0.47 J | 0.50 U | 46.7 U | | 1.0 J | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 103 | 24.9 | 123 | 18.0 | | 48.9 | 0.92 J |
| MW28 | 10/6/2020 | N | 0.17 U | 0.089 U | 0.49 J | 0.50 U | 46.7 U | | 1.5 J | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 103 | 25.4 | 118 | 1.9 | | 5.0 | 0.90 J |
| MW28 | 4/15/2021 | N | 1.0 U | 0.098 U | 0.30 J | 0.90 JB | 100 U | | 2.5 U | 12.4 J | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 101 | 35 | 128 | 1.5 | | 3.8 | 0.89 J |
| MW28 | 10/13/2021 | N | 1.0 U | 1600 | 0.71 J | 1.7 J | 100 U | | 239 | 19.7 J | | 2.6 | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 165 | 12.6 | 188 | 0.28 H | | 23.9 | 1.0 U |
| MW28 | 4/14/2022 | N | 1.0 U | 0.84 | 0.32 J | 0.61 J | 100 U | | 2.5 U | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 113 | 27.9 | 86.2 | 1.9 | | 4.0 | 0.81 J |
| MW28 | 4/14/2022 | FD | 1.0 U | 0.10 U | 0.28 J | 0.77 J | 100 U | | 2.5 U | 20.0 U | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 113 | 28.9 | 88.5 | 1.9 | | 4.5 | 0.77 J |
| MW29 | 4/13/2016 | N | 1.4 | 14000 | 5.0 U | 6.7 | 1660 | | 2270 | 20.0 U | | 34 | 0.50 U | 0.58 J | 0.90 J | 7.2 | 87.0 | 4.5 | 120 | 0.10 U | | 6.4 | 70.2 |
| MW29 | 7/21/2016 | FD | 0.69 | 9100 | 5.0 U | 2.1 | 1250 | | 2740 | 20.0 U | | 30 | 0.50 U | 0.83 J | 1.2 | 9.3 | 83.8 | 9.2 | 110 | 0.10 U | | 10.5 | 51.6 |
| MW29 | 7/21/2016 | N | 0.67 | 11000 | 5.0 U | 2.1 | 1290 | | 2800 | 20.0 U | | 35 | 0.50 U | 0.74 J | 1.3 | 9.1 | 84.0 | 9.2 | 110 | 0.10 U | | 10.4 | 50.5 |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| MW29 | 10/14/2016 | N | 0.32 J | 20000 | 0.35 J | 2.6 | 1970 | | 3220 | 20.0 U | | 32 | 0.50 U | 0.98 J | 1.6 | 11 | 83.0 | 15.9 | 124 | 0.10 U | | 16.3 | 56.9 |
| MW29 | 1/24/2017 | FD | 0.37 J | 67000 | 0.35 | 3.3 | 1380 | | 3170 | 6.2 | | 41 | 0.28 | 0.90 J | 1.3 | 12 | 112 | 4.3 | 122 | 0.035 | | 6.9 | 49.9 |
| MW29 | 1/24/2017 | N | 0.40 J | 56000 | 0.35 | 1.9 J | 1400 | | 3290 | 6.2 | | 40 | 0.28 | 0.98 J | 1.2 | 12 | 113 | 4.3 | 120 | 0.035 | | 6.8 | 51.4 |
| MW30 | 4/13/2016 | N | 0.50 U | 0.72 | 5.0 U | 0.81 J | 46.1 J | | 147 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 42.0 | 3.2 | 82.3 | 3.4 | | 32.8 | 1.2 |
| MW30 | 7/21/2016 | N | 0.50 U | 1.7 | 5.0 U | 2.0 U | 100 U | | 52.9 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 44.5 | 2.9 | 82.0 | 4.0 | | 29.9 | 1.4 |
| MW30 | 10/12/2016 | N | 0.084 J | 3.8 | 5.0 U | 1.1 J | 13.8 J | | 67.3 | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 52.2 | 3.8 | 86.0 | 1.6 | | 30.5 | |
| MW30 | 1/20/2017 | N | 0.080 | 5.5 | 0.35 | 1.0 J | 9.4 J | | 52.8 | 6.2 | | 0.060 | 0.28 | 0.26 | 0.23 | 0.24 | 45.9 | 2.4 | 60.0 | 0.80 | | 9.9 | 1.4 |
| MW30 | 4/21/2017 | N | 0.50 U | 3.6 | 5.0 U | 0.95 J | 8.1 J | | 37.7 | 20.0 U | | 0.21 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 46.2 | 0.57 J | 250 | 1.1 | | 5.4 | 0.93 J |
| MW30 | 10/5/2017 | N | 0.11 J | 2.1 | 1.0 U | 1.1 J | 49.4 J | | 31.5 | 20.0 U | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 48.4 | 0.55 | 52.3 | 2.0 | | 4.6 | 1.6 |
| MW30 | 5/31/2018 | N | 1.0 U | 630 | 1.0 U | 1.1 J | 100 U | | 23.3 | 20.0 U | | 1.7 | 0.50 U | 0.50 U | 0.50 U | 0.39 J | 67.3 | 0.66 | 69.1 | 1.6 | | 3.7 | 1.7 |
| MW30 | 10/18/2018 | N | 1.0 U | 640 | 1.0 U | 0.94 J | 100 U | | 15.4 | 7.9 J | | 1.3 | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 77.5 | 1.7 | 82.9 | 2.2 | | 3.7 | 2.6 |
| MW30 | 4/25/2019 | N | 0.17 U | 800 | 0.23 U | 1.1 J | 46.7 U | | 25.1 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 66.9 | 1.4 | 69.9 | 0.55 | | 3.8 B | 5.3 |
| MW30 | 10/17/2019 | N | 0.17 U | 41 | 0.23 U | 1.2 J | 46.7 U | | 22.6 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.28 J | 88.8 H | 0.62 | 92 | 0.53 | | 2.4 | 0.85 J |
| MW30 | 4/13/2020 | N | 0.25 J | 270 | 0.29 JB | 5.4 | 46.7 U | | 24.1 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 97.3 | 0.98 | 102 | 1.5 | | 3.3 | 1.4 |
| MW30 | 10/7/2020 | N | 0.17 U | 10 | 0.23 U | 16.8 | 78.1 J | | 15.6 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 90.0 | 0.45 | 88.5 | 0.37 | | 2.2 | 0.89 J |
| MW30 | 4/13/2021 | N | 1.0 U | 190 | 1.0 U | 36 | 59.2 J | | 22.2 | 20.0 U | | 3.1 | 0.50 U | 0.50 U | 0.50 U | 0.56 J | 123 | 0.74 | 115 | 1.1 | | 2.9 | 2.2 |
| MW30 | 10/11/2021 | N | 1.0 U | 2100 | 0.42 J | 34.2 | 149 | | 50.7 | 20.0 U | | 1.5 | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 125 | 3.0 | 139 | 0.12 J | | 5.4 | 14.9 |
| MW30 | 4/12/2022 | N | 3.2 | 30 | 0.68 J | 13.7 | 3720 | | 209 | 12.6 J | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 96.1 | 0.46 | 63.4 | 0.20 | | 1.7 | 1.3 |
| MW31 | 4/12/2016 | N | 0.50 U | 0.030 J | 5.0 U | 2.0 U | 20.9 J | | 7.7 | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 122 | 0.99 J | 125 | 0.68 | | 4.0 | 0.59 J |
| MW31 | 7/20/2016 | N | 0.50 U | 4.6 | 5.0 U | 0.86 J | 100 U | | 2.2 J | 20.0 U | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 105 | 0.76 J | 100 | 0.49 | | 1.9 | 0.68 J |
| MW31 | 10/13/2016 | N | 0.11 J | 3.7 | 5.0 U | 0.76 J | 100 U | | 5.0 U | 20.0 U | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 110 | 0.63 J | 104 | 0.46 | | 1.5 | 0.29 J |
| MW31 | 1/17/2017 | N | 0.20 J | 0.69 | 0.59 J | 1.4 J | 10.5 J | | 0.52 J | 6.2 | | 0.061 | 0.28 | 0.26 | 0.23 | 0.24 | 113 | 0.53 J | 118 | 0.51 | | 1.7 | 0.74 J |
| MW31 | 4/18/2017 | N | 0.21 J | 0.026 J | 5.0 U | 0.58 J | 100 U | | 0.63 J | 20.0 U | | 0.22 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | 111 | 0.68 J | 136 | 0.73 | | 2.8 | 0.72 J |
| MW31 | 10/2/2017 | N | 1.9 | 0.095 U | 0.51 J | 5.0 | 1630 | | 34.5 | 9.7 J | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 104 | 1.4 | 93.9 | 0.54 | | 1.3 | 0.50 J |
| MW31 | 10/16/2018 | N | 1.0 U | 0.097 U | 1.0 U | 0.63 J | 100 U | | 1.0 J | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 0.46 J | 187 | 0.67 | 181 | 0.55 | | 1.5 | 0.70 J |
| MW31 | 4/24/2019 | N | 3.0 | 0.086 U | 0.23 J | 1.1 J | 46.7 U | | 1.9 J | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 178 | 0.61 | 191 | 0.63 | | 1.6 B | 0.67 J |
| MW31 | 10/14/2019 | N | 0.17 U | 0.086 U | 0.23 U | 1.3 J | 46.7 U | | 0.79 U | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 240 | 0.52 | 231 | 0.33 F1 | | 0.84 | 0.47 U |
| MW31 | 4/13/2020 | N | 0.21 J | 6 | 0.23 JB | 18.7 | 46.7 U | | 2.6 | 6.9 U | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 210 | 0.33 | 207 | 0.42 | | 1.1 | 1.3 |
| MW31 | 10/6/2020 | N | 0.43 J | 0.089 U | 0.23 U | 24.3 | 46.7 U | | 1.9 J | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 168 | 0.39 | 163 | 0.37 | | 0.94 | 0.52 J |
| MW31 | 4/12/2021 | N | 1.0 U | 0.19 | 1.0 U | 42.3 B | 100 U | | 2.2 JB | 9.4 J | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 194 | 0.48 | 201 | 0.66 | | 1.8 | 0.62 J |
| MW31 | 10/12/2021 | N | 1.0 U | 0.20 | 0.24 J | 73.8 | 100 U | | 1.5 J | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 154 | 0.34 | 148 | 0.48 | | 1.2 | 1.0 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L | |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|--|
| MW31 | 4/11/2022 | N | 1.0 U | 0.24 | 1.0 U | 4.5 | 100 U | | 3.8 | 20.0 U | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 145 | 0.20 | 90.9 | 0.55 | | 1.3 | 0.62 J | |
| MW32 | 5/17/2019 | N | 0.17 U | 0.14 | 0.23 U | 1.6 J | 46.8 J | | 135 | 17.0 J | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 35.9 | 1.7 | 40.3 | 1.3 H | | 11.3 | 1.1 | |
| MW32 | 10/14/2019 | N | 0.17 U | 0.088 U | 0.23 U | 0.77 J | 134 | | 14.8 | 6.9 U | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 33.3 | 0.74 | 35.7 | 0.64 H | | 3.8 | 0.69 J | |
| MW32 | 4/13/2020 | N | 0.17 U | 0.092 U | 0.23 JB | 2.7 | 46.7 U | | 3.9 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 31.5 | 0.67 | 30.6 | 0.69 | | 4.4 | 0.47 U | |
| MW32 | 10/8/2020 | N | 0.17 U | 0.091 U | 0.23 U | 6.7 | 60.1 J | | 4.2 | 6.9 U | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | 30.0 | 0.70 | 33.9 | 0.70 H | | 4.4 | 0.95 J | |
| MW32 | 4/12/2021 | N | 8.9 | 0.2 | 1.0 U | 10.6 B | 62.2 J | | 2.2 JB | 20.0 U | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 28.2 | 0.59 | 34.9 | 0.57 | | 3.7 | 0.88 J | |
| MW32 | 10/12/2021 | N | 5.9 | 0.42 | 1.0 U | 16.0 | 117 | | 4.0 | 20.0 U | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 32.6 | 0.54 | 33.4 | 0.53 | | 3.6 | 1.0 U | |
| MW32 | 4/11/2022 | N | 0.67 J | 2.0 | 2.6 | 49.9 | 17400 | | 302 | 32.9 | | 0.82 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 36.1 | 0.46 | 24.1 | 0.40 | | 2.8 | 1.6 | |
| MW6S | 4/15/2021 | N | 1.0 U | 1.1 | 1.0 U | 4.6 B | 100 U | | 3.2 | 17.3 J | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 257 | 10.5 | 280 | 4.9 H | | 7.3 | 1.4 | |
| RW01 | 10/9/1997 | N | | 1 U | | | | | | | | | | | | | | | | | | | | |
| RW01 | 4/23/2001 | N | | 0.1 U | | | | | | | | 5.3 U | 0.5 U | 5 U | 5 U | | | | | | | | | |
| RW01 | 9/11/2001 | N | | 0.071 J | | | | | | | | 0.26 U | 0.44 U | 0.5 U | 0.4 U | 1.2 U | | | | | | | | |
| RW01 | 9/28/2001 | N | | 0.1 U | | | | | | | | | | | | | | | | | | | | |
| RW01 | 9/28/2001 | N2 | | 0.05 U | | | | | | | | | | | | | | | | | | | | |
| RW01 | 5/14/2002 | N | | 0.23 | | | | | | | | 5 U | 1 U | 5 U | 2 J | 2 J | | | | | | | | |
| RW01 | 8/6/2002 | N | | 0.04 | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | | |
| RW01 | 4/29/2003 | N | | 0.1 J | | | | | | | | 7.1 U | 0.5 U | 5 U | 5 U | 5 U | | | | | | | | |
| RW01 | 9/23/2003 | N | | 0.28 | | | | | | | | 0.97 U | 0.25 U | 2.5 U | 2.5 U | 2.5 U | | | | | | | | |
| RW01 | 11/20/2003 | N | | 0.24 | | | | | | | | | | | | | | | | | | | | |
| RW01 | 5/4/2004 | FD | | 0.134 UB | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | | |
| RW01 | 5/4/2004 | N | | 0.140 UB | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | | |
| RW01 | 9/22/2004 | FD | | 1.51 | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | | |
| RW01 | 9/22/2004 | N | | 0.201 | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | | |
| RW01 | 11/1/2004 | N | | 0.0952 U | | | | | | | | | | | | | | | | | | | | |
| RW01 | 5/10/2005 | FD | | 0.053 J | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | | |
| RW01 | 5/10/2005 | N | | 0.068 J | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | | |
| RW01 | 7/7/2005 | FD | | 0.035 J | | | | | | | | 0.96 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | | |
| RW01 | 7/7/2005 | N | | 0.043 J | | | | | | | | 0.95 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | | |
| RW01 | 9/27/2005 | FD | | 0.049 J | | | | | | | | 0.93 UJ | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | | |
| RW01 | 9/27/2005 | N | | 0.050 J | | | | | | | | 0.92 UJ | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | | |
| RW01 | 5/31/2006 | FD | | 0.055 J | | | | | | | | 0.94 U | 0.50 U | 5.0 U | 5.0 U | 5.0 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW01 | 5/31/2006 | N | | 0.048 J | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW01 | 9/25/2006 | FD | | 0.023 J | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW01 | 9/25/2006 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW01 | 5/9/2007 | FD | | 0.048 J | | | | | | | | 0.95 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 5/9/2007 | N | | 0.035 J | | | | | | | | 0.95 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 9/18/2007 | FD | | 0.27 R | | | | | | | | 0.93 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 9/18/2007 | N | | 0.093 UJ | | | | | | | | 0.93 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 5/20/2008 | FD | | 0.066 J | | | | | | | | 0.95 U | 1.0 UJ | 1.0 U | 1.0 U | 2.0 UJ | | | | | | | |
| RW01 | 5/20/2008 | N | | 0.060 J | | | | | | | | 0.95 U | 1.0 UJ | 1.0 U | 1.0 U | 2.0 UJ | | | | | | | |
| RW01 | 10/23/2008 | FD | | | | | | | | | | 1 U | | | | | | | | | | | |
| RW01 | 10/23/2008 | N | | | | | | | | | | 1 U | | | | | | | | | | | |
| RW01 | 12/11/2008 | FD | | 0.1 U | | | | | | | | | 0.1 U | 0.4 U | 0.4 U | 1.0 U | | | | | | | |
| RW01 | 12/11/2008 | N | | 0.1 UJ | | | | | | | | | 0.1 U | 0.4 U | 0.4 U | 1.0 U | | | | | | | |
| RW01 | 6/2/2009 | FD | | 0.1 UJ | | | | | | | | 1.0 UJ | 0.5 UB | 2.0 UB | 2.0 UB | 5.0 UB | | | | | | | |
| RW01 | 6/2/2009 | N | | 0.1 UJ | | | | | | | | 1.0 UJ | 0.5 UB | 2.0 UB | 2.0 UB | 5.0 U | | | | | | | |
| RW01 | 7/6/2009 | FD | | | | | | | | | | | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| RW01 | 7/6/2009 | N | | | | | | | | | | | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| RW01 | 10/7/2009 | FD | | 0.1 UJ | | | | | | | | 0.997 UJ | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| RW01 | 10/7/2009 | N | | 0.1 UJ | | | | | | | | 1 UJ | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| RW01 | 5/19/2010 | FD | | 0.1 U | | | | | | | | 1.0 U | 0.4 U | 5 U | 5 U | 5 U | | | | | | | |
| RW01 | 5/19/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.4 UJ | 5 UJ | 5 UJ | 5 UJ | | | | | | | |
| RW01 | 10/5/2010 | FD | | 0.1 U | | | | | | | | 1.0 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW01 | 10/5/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| RW01 | 11/30/2010 | N | | | | | | | | | | | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW01 | 6/30/2011 | FD | | 0.1 U | | | | | | | | 1 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW01 | 6/30/2011 | N | | 0.1 U | | | | | | | | 0.997 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW01 | 10/20/2011 | FD | | 0.039 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 10/20/2011 | N | | 0.040 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 12/16/2011 | FD | | 0.031 R | | | | | | | | | | | | | | | | | | | |
| RW01 | 12/16/2011 | N | | 0.096 UJ | | | | | | | | | | | | | | | | | | | |
| RW01 | 5/23/2012 | FD | | 0.017 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 5/23/2012 | N | | 0.019 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 7/11/2012 | FD | | 0.035 J | | | | | | | | | | | | | | | | | | | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW01 | 7/11/2012 | FD2 | | 0.033 J | | | | | | | | | | | | | | | | | | | |
| RW01 | 7/11/2012 | N | | 0.027 J | | | | | | | | | | | | | | | | | | | |
| RW01 | 10/17/2012 | FD | | 0.035 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 10/17/2012 | N | | 0.045 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 12/3/2012 | FD | | 0.094 UJ | | | | | | | | | | | | | | | | | | | |
| RW01 | 12/3/2012 | FD2 | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW01 | 12/3/2012 | N | | 0.094 UJ | | | | | | | | | | | | | | | | | | | |
| RW01 | 12/3/2012 | N2 | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW01 | 5/21/2013 | FD | | 0.029 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 5/21/2013 | N | | 0.031 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 10/8/2013 | N | | 0.040 J | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 10/8/2013 | N2 | | 0.097 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 5/13/2014 | N | | 0.051 J | | | | | | | | | | | | | | | | | | | |
| RW01 | 9/25/2014 | N | | 0.043 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 4/21/2015 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 10/15/2015 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 4/5/2016 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 10/10/2016 | N | | 0.020 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 4/19/2017 | N | | 0.015 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW01 | 10/20/2017 | N | | 0.10 U | | | | | | | | 0.87 U | 0.50 U | 0.50 U | 0.37 J | 1.0 U | | | | | | | |
| RW01 | 6/5/2018 | N | | 0.095 U | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW01 | 10/15/2018 | N | | 0.10 U | | | | | | | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW01 | 4/22/2019 | N | | 0.087 U | | | | | | | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW01 | 10/1/2019 | N | | 0.093 U | | | | | | | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW01 | 4/15/2021 | N | | 0.10 U | | | | | | | | 0.83 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW01 | 10/13/2021 | N | | 0.096 U | | | | | | | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW01 | 6/20/2022 | N | | 0.14 U | | | | | | | | 0.23 U | 0.15 U | 0.15 U | 0.18 U | 0.22 U | | | | | | | |
| RW02 | 10/9/1997 | FD | | 2 | | | | | | | | | | | | | | | | | | | |
| RW02 | 10/9/1997 | N | | 0.9 J | | | | | | | | | | | | | | | | | | | |
| RW02 | 10/24/1997 | N | | 1 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 4/8/1998 | N | | 1 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 4/24/2001 | N | | 0.1 U | | | | | | | | 5.4 U | 0.1 U | 1 U | 1 U | 1 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW02 | 9/11/2001 | N | | 9.5 | | | | | | | | 0.25 U | 0.44 U | 0.5 U | 0.4 U | 1.2 U | | | | | | | |
| RW02 | 9/28/2001 | N | | 0.1 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 9/28/2001 | N2 | | 0.1 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 9/28/2001 | N3 | | 0.05 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 9/28/2001 | N4 | | 0.05 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 5/14/2002 | N | | 0.1 | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | |
| RW02 | 8/6/2002 | N | | 0.04 U | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | |
| RW02 | 8/6/2002 | N2 | | 0.04 U | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | |
| RW02 | 4/29/2003 | N | | 0.11 U | | | | | | | | 6.8 U | 0.5 U | 5 U | 5 U | 5 U | | | | | | | |
| RW02 | 9/24/2003 | N | | 0.11 U | | | | | | | | 0.97 U | 0.25 U | 2.5 U | 2.5 U | 2.5 U | | | | | | | |
| RW02 | 9/24/2003 | N2 | | 0.11 U | | | | | | | | 0.96 U | 0.25 U | 2.5 U | 2.5 U | 2.5 U | | | | | | | |
| RW02 | 5/4/2004 | N | | 0.0252 UB | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| RW02 | 9/22/2004 | N | | 0.398 | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| RW02 | 11/1/2004 | N | | 0.0962 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 5/10/2005 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW02 | 9/27/2005 | N | | 0.11 U | | | | | | | | 0.92 UJ | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW02 | 5/31/2006 | N | | 0.11 UJ | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW02 | 9/25/2006 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW02 | 5/9/2007 | N | | 0.092 UJ | | | | | | | | 0.97 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 9/18/2007 | N | | 0.093 UJ | | | | | | | | 0.93 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 5/20/2008 | N | | 0.095 UJ | | | | | | | | 0.95 U | 1.0 UJ | 1.0 U | 1.0 U | 2.0 UJ | | | | | | | |
| RW02 | 10/23/2008 | N | | | | | | | | | | 1.33 U | | | | | | | | | | | |
| RW02 | 12/10/2008 | N | | 0.1 U | | | | | | | | | 0.1 U | 0.4 U | 0.4 U | 1.0 U | | | | | | | |
| RW02 | 6/2/2009 | N | | 0.1 UJ | | | | | | | | 1.0 UJ | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| RW02 | 10/7/2009 | N | | 0.1 UJ | | | | | | | | 0.997 UJ | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| RW02 | 5/19/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.4 U | 5 U | 5 U | 5 U | | | | | | | |
| RW02 | 10/5/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW02 | 6/30/2011 | N | | 0.1 U | | | | | | | | 0.999 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW02 | 10/20/2011 | N | | 0.095 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 5/23/2012 | N | | 0.097 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 10/17/2012 | N | | 0.037 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 10/17/2012 | N2 | | 0.057 J | | | | | | | | | | | | | | | | | | | |
| RW02 | 10/17/2012 | N3 | | 0.094 UJ | | | | | | | | | | | | | | | | | | | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW02 | 12/3/2012 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 12/3/2012 | N2 | | 0.094 UJ | | | | | | | | | | | | | | | | | | | |
| RW02 | 5/21/2013 | N | | 0.097 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 10/8/2013 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 5/13/2014 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW02 | 9/25/2014 | N | | 0.096 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 4/21/2015 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 10/15/2015 | N | | 0.096 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 4/5/2016 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 10/10/2016 | N | | 0.097 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 4/17/2017 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW02 | 10/20/2017 | N | | 0.10 U | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.33 J | 1.0 U | | | | | | | |
| RW02 | 4/17/2018 | N | | 0.024 U | | | | | | | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW02 | 10/16/2018 | FD | | 0.099 U | | | | | | | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW02 | 10/16/2018 | N | | 0.097 U | | | | | | | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW02 | 4/22/2019 | FD | | 0.085 U | | | | | | | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW02 | 4/22/2019 | N | | 0.085 U | | | | | | | | 0.23 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW02 | 10/1/2019 | N | | 0.089 U | | | | | | | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW02 | 4/15/2021 | N | | 0.096 U | | | | | | | | 0.79 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW02 | 10/13/2021 | N | | 0.097 U | | | | | | | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW02 | 10/13/2021 | FD | | 0.095 U | | | | | | | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW02 | 4/14/2022 | N | | 0.31 J | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW02 | 6/20/2022 | N | | 0.15 U | | | | | | | | 0.23 U | 0.15 U | 0.15 U | 0.18 U | 0.22 U | | | | | | | |
| RW03 | 10/9/1997 | N | | 1 U | | | | | | | | | | | | | | | | | | | |
| RW03 | 9/11/2001 | N | | 0.1 J | | | | | | | | 0.28 U | 0.44 U | 0.5 U | 0.4 U | 1.2 U | | | | | | | |
| RW03 | 9/28/2001 | N | | 0.1 U | | | | | | | | | | | | | | | | | | | |
| RW03 | 9/28/2001 | N2 | | 0.05 U | | | | | | | | | | | | | | | | | | | |
| RW03 | 5/14/2002 | N | | 0.094 J | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | |
| RW03 | 8/6/2002 | N | | 0.04 U | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | |
| RW03 | 4/29/2003 | N | | 0.11 U | | | | | | | | 6.8 U | 0.5 U | 5 U | 5 U | 5 U | | | | | | | |
| RW03 | 9/23/2003 | N | | 0.11 U | | | | | | | | 0.96 U | 0.25 U | 2.5 U | 2.5 U | 2.5 U | | | | | | | |
| RW03 | 5/4/2004 | N | | 0.0952 U | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW03 | 9/22/2004 | N | | 2.18 | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| RW03 | 11/1/2004 | N | | 0.0962 U | | | | | | | | | | | | | | | | | | | |
| RW03 | 5/10/2005 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW03 | 9/27/2005 | N | | 0.11 U | | | | | | | | 0.93 UJ | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW03 | 5/31/2006 | N | | 0.11 UJ | | | | | | | | 0.94 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW03 | 9/25/2006 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW03 | 5/9/2007 | N | | 0.092 UJ | | | | | | | | 0.95 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 9/18/2007 | N | | 0.093 UJ | | | | | | | | 0.93 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 5/20/2008 | N | | 0.097 UJ | | | | | | | | 0.96 U | 1.0 UJ | 1.0 U | 1.0 U | 2.0 UJ | | | | | | | |
| RW03 | 10/23/2008 | N | | | | | | | | | | 1 U | | | | | | | | | | | |
| RW03 | 12/10/2008 | N | | 0.1 U | | | | | | | | | 0.1 U | 0.4 U | 0.4 U | 1.0 U | | | | | | | |
| RW03 | 6/2/2009 | N | | 0.1 UJ | | | | | | | | 1.0 UJ | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| RW03 | 10/7/2009 | N | | 0.1 UJ | | | | | | | | 0.997 UJ | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| RW03 | 5/19/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.4 UJ | 5 UJ | 5 UJ | 5 UJ | | | | | | | |
| RW03 | 10/5/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW03 | 6/30/2011 | N | | 0.1 U | | | | | | | | 0.994 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW03 | 10/20/2011 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 5/23/2012 | N | | 0.097 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 10/17/2012 | N | | 0.015 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 12/3/2012 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW03 | 12/3/2012 | N2 | | 0.095 UJ | | | | | | | | | | | | | | | | | | | |
| RW03 | 5/21/2013 | N | | 0.053 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 10/8/2013 | N | | 0.096 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 5/13/2014 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW03 | 9/25/2014 | FD | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 9/25/2014 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 4/21/2015 | N | | 0.097 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 10/15/2015 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 4/5/2016 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 10/10/2016 | N | | 0.095 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 4/17/2017 | N | | 0.095 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW03 | 10/20/2017 | N | | 0.096 U | | | | | | | | 0.79 U | 0.50 U | 0.50 U | 0.29 J | 1.0 U | | | | | | | |
| RW03 | 4/17/2018 | N | | 0.025 U | | | | | | | | 0.84 U | 0.50 U | 0.50 U | 0.50 U | 1.0 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW03 | 10/16/2018 | N | | 0.098 U | | | | | | | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW03 | 4/22/2019 | N | | 0.085 U | | | | | | | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW03 | 10/1/2019 | N | | 0.088 U | | | | | | | | 0.27 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW03 | 4/14/2021 | N | | 0.10 U | | | | | | | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW03 | 4/14/2021 | FD | | 0.098 U | | | | | | | | 0.85 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW03 | 10/13/2021 | N | | 0.11 U | | | | | | | | 0.89 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW03 | 4/14/2022 | N | | 0.097 U | | | | | | | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW04 | 10/9/1997 | N | | 1 U | | | | | | | | | | | | | | | | | | | |
| RW04 | 4/23/2001 | N | | 0.1 U | | | | | | | | 5 U | 0.5 U | 5 U | 5 U | | | | | | | | |
| RW04 | 9/11/2001 | N | | 0.073 J | | | | | | | | 0.25 U | 0.44 U | 0.5 U | 0.4 U | 1.2 U | | | | | | | |
| RW04 | 9/28/2001 | N | | 0.1 U | | | | | | | | | | | | | | | | | | | |
| RW04 | 9/28/2001 | N2 | | 0.05 U | | | | | | | | | | | | | | | | | | | |
| RW04 | 5/14/2002 | N | | 0.13 | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | |
| RW04 | 8/6/2002 | N | | 0.04 U | | | | | | | | 5 U | 1 U | 5 U | 5 U | 5 U | | | | | | | |
| RW04 | 4/29/2003 | N | | 0.11 U | | | | | | | | 7.4 U | 0.5 U | 5 U | 5 U | 5 U | | | | | | | |
| RW04 | 9/23/2003 | N | | 0.11 U | | | | | | | | 0.99 U | 0.25 U | 2.5 U | 2.5 U | 2.5 U | | | | | | | |
| RW04 | 5/4/2004 | N | | 0.100 U | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| RW04 | 9/22/2004 | N | | 0.266 | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| RW04 | 10/1/2004 | N | | 0.0962 R | | | | | | | | | | | | | | | | | | | |
| RW04 | 5/10/2005 | N | | 0.11 U | | | | | | | | 0.94 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW04 | 9/27/2005 | N | | 0.11 U | | | | | | | | 0.91 UJ | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW04 | 5/31/2006 | N | | 0.11 UJ | | | | | | | | 0.97 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW04 | 9/25/2006 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW04 | 5/9/2007 | N | | 0.093 UJ | | | | | | | | 0.96 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 9/18/2007 | N | | 0.093 UJ | | | | | | | | 0.93 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 5/20/2008 | N | | 0.093 UJ | | | | | | | | 0.96 U | 1.0 UJ | 1.0 U | 1.0 U | 2.0 UJ | | | | | | | |
| RW04 | 10/23/2008 | N | | | | | | | | | | 1 U | | | | | | | | | | | |
| RW04 | 12/10/2008 | N | | 0.1 U | | | | | | | | | 0.1 U | 0.4 U | 0.4 U | 1.0 U | | | | | | | |
| RW04 | 6/2/2009 | N | | 0.1 UJ | | | | | | | | 1.0 UJ | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| RW04 | 10/7/2009 | N | | 0.15 J | | | | | | | | 0.994 UJ | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| RW04 | 10/20/2009 | N | | 0.1 UJ | | | | | | | | | | | | | | | | | | | |
| RW04 | 5/19/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.4 UJ | 5 UJ | 5 UJ | 5 UJ | | | | | | | |

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW04 | 10/5/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW04 | 6/30/2011 | N | | 0.1 U | | | | | | | | 0.992 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW04 | 10/20/2011 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 5/23/2012 | N | | 0.094 U | | | | | | | | 0.20 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 10/17/2012 | N | | 0.071 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 12/3/2012 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW04 | 12/3/2012 | N2 | | 0.094 UJ | | | | | | | | | | | | | | | | | | | |
| RW04 | 5/21/2013 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 10/8/2013 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 5/13/2014 | N | | 0.023 J | | | | | | | | | | | | | | | | | | | |
| RW04 | 9/25/2014 | N | | 0.096 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 4/21/2015 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 10/15/2015 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 4/5/2016 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 10/10/2016 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 4/17/2017 | N | | 0.094 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW04 | 10/20/2017 | N | | 0.096 U | | | | | | | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW04 | 4/17/2018 | N | | 0.024 U | | | | | | | | 0.92 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW04 | 10/15/2018 | N | | 0.11 U | | | | | | | | 0.90 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW04 | 4/22/2019 | N | | 0.11 U | | | | | | | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW04 | 10/1/2019 | N | | 0.085 U | | | | | | | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.29 J | | | | | | | |
| RW04 | 4/14/2021 | N | | 0.096 U | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW04 | 10/13/2021 | N | | 0.10 U^c | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW04 | 4/14/2022 | N | | 0.11 U | | | | | | | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW05 | 5/4/2004 | N | | 0.0935 U | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| RW05 | 9/22/2004 | N | | 0.293 | | | | | | | | 5.00 U | 0.500 U | 5.00 U | 5.00 U | 5.00 U | | | | | | | |
| RW05 | 11/1/2004 | N | | 0.0962 U | | | | | | | | | | | | | | | | | | | |
| RW05 | 5/10/2005 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW05 | 9/27/2005 | N | | 0.11 U | | | | | | | | 0.92 UJ | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW05 | 5/31/2006 | N | | 0.11 UJ | | | | | | | | 0.94 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW05 | 9/25/2006 | N | | 0.11 U | | | | | | | | 0.93 U | 0.50 U | 5.0 U | 5.0 U | 5.0 U | | | | | | | |
| RW05 | 5/9/2007 | N | | 0.092 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| RW05 | 9/18/2007 | N | | 0.093 UJ | | | | | | | | 1.0 R | 1.0 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 5/20/2008 | N | | 0.095 UJ | | | | | | | | 0.95 U | 1.0 UJ | 1.0 U | 1.0 U | 2.0 UJ | | | | | | | |
| RW05 | 10/23/2008 | N | | | | | | | | | | 1 U | | | | | | | | | | | |
| RW05 | 12/10/2008 | N | | 0.1 U | | | | | | | | | 0.1 U | 0.4 U | 0.4 U | 1.0 U | | | | | | | |
| RW05 | 6/2/2009 | N | | 0.1 UJ | | | | | | | | 1.0 UJ | 0.5 U | 2.0 U | 2.0 U | 5.0 U | | | | | | | |
| RW05 | 10/7/2009 | N | | 0.1 UJ | | | | | | | | 0.997 UJ | 0.1 UJ | 0.4 UJ | 0.4 UJ | 1 UJ | | | | | | | |
| RW05 | 5/19/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.4 U | 5 U | 5 U | 5 U | | | | | | | |
| RW05 | 10/5/2010 | N | | 0.1 U | | | | | | | | 1.0 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW05 | 6/30/2011 | N | | 0.1 U | | | | | | | | 0.991 U | 0.1 U | 0.4 U | 0.4 U | 1 U | | | | | | | |
| RW05 | 10/20/2011 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 5/23/2012 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 10/17/2012 | N | | 0.030 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 12/4/2012 | N | | 0.095 UJ | | | | | | | | | | | | | | | | | | | |
| RW05 | 12/4/2012 | N2 | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW05 | 5/21/2013 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 10/8/2013 | N | | 0.098 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 5/13/2014 | N | | 0.095 U | | | | | | | | | | | | | | | | | | | |
| RW05 | 9/25/2014 | N | | 0.096 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 4/21/2015 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 10/15/2015 | N | | 0.10 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 4/5/2016 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 10/10/2016 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 4/17/2017 | N | | 0.097 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | |
| RW05 | 10/20/2017 | N | | 0.095 U | | | | | | | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW05 | 4/17/2018 | FD | | 0.024 U | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW05 | 4/17/2018 | N | | 0.024 U | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW05 | 10/15/2018 | N | | 0.16 | | | | | | | | 0.87 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW05 | 4/22/2019 | N | | 0.085 U | | | | | | | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW05 | 10/1/2019 | FD | | 0.091 U | | | | | | | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW05 | 10/1/2019 | N | | 0.090 U | | | | | | | | 0.26 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | |
| RW05 | 4/14/2021 | N | | 0.099 U | | | | | | | | 0.80 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW05 | 10/13/2021 | N | | 0.099 U | | | | | | | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | |
| RW05 | 4/14/2022 | N | | 0.19 J | | | | | | | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L | |
|-----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|--|
| RW05 | 6/20/2022 | N | | 0.14 U | | | | | | | | 0.24 U | 0.15 U | 0.15 U | 0.18 U | 0.22 U | | | | | | | | |
| RW06 | 9/25/2014 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | | |
| RW06 | 4/21/2015 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | | |
| RW06 | 10/15/2015 | N | | 0.018 J | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | | |
| RW06 | 4/5/2016 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | | |
| RW06 | 10/10/2016 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | | |
| RW06 | 4/18/2017 | N | | 0.095 U | | | | | | | | 0.19 U | 0.50 U | 1.0 U | 1.0 U | 2.0 U | | | | | | | | |
| RW06 | 10/20/2017 | N | | 0.095 U | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 | 4/17/2018 | N | | 0.024 U | | | | | | | | 0.83 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 | 10/16/2018 | N | | 0.099 U | | | | | | | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 | 4/22/2019 | N | | 0.086 U | | | | | | | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | | |
| RW06 | 10/1/2019 | N | | 0.086 U | | | | | | | | 0.24 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | | |
| RW06 | 4/26/2021 | N | | 0.096 U | | | | | | | | 0.76 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 | 10/13/2021 | N | | 0.10 U ^c | | | | | | | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 | 4/14/2022 | N | | 0.098 U | | | | | | | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 | 4/14/2022 | FD | | 0.096 U | | | | | | | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 SHOP | 4/17/2018 | N | | 0.024 U | | | | | | | | 0.79 U | 0.50 U | 0.50 U | 1.5 | 1.0 U | | | | | | | | |
| RW06 SHOP | 10/16/2018 | N | | 0.095 U | | | | | | | | 0.75 U | 0.50 U | 0.50 U | 1.7 | 1.0 U | | | | | | | | |
| RW06 SHOP | 4/22/2019 | N | | 0.095 U | | | | | | | | 0.23 U | 0.15 U | 0.18 U | 0.50 U | 0.22 U | | | | | | | | |
| RW06 SHOP | 10/1/2019 | N | | 0.086 U | | | | | | | | 0.25 U | 0.15 U | 0.18 U | 0.15 U | 0.22 U | | | | | | | | |
| RW06 SHOP | 4/26/2021 | N | | 0.097 U | | | | | | | | 0.77 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 SHOP | 10/13/2021 | N | | 0.097 U | | | | | | | | 0.81 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |
| RW06 SHOP | 4/14/2022 | N | | 0.10 U | | | | | | | | 0.78 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | | | | | | | | |

Notes:

- ¹ Only compounds currently sampled 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.

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 | Pentachlorophenol ug/L | Arsenic ug/L | Copper ug/L | Iron ug/L | Magnesium ug/L | Manganese ug/L | Zinc ug/L | Total Petroleum Hydrocarbons (C10-C28) DRO mg/L | Naphthalene ug/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L | Alkalinity, total (as CaCO3) mg/L | Chloride mg/L | Hardness mg/L | Nitrate (as N) mg/L | Oil and grease (HEM), polar mg/L | Sulfate mg/L | Total organic carbon (TOC) mg/L |
|----------|-------------------|---|-----------------|---------------------------|-----------------|----------------|--------------|-------------------|-------------------|--------------|---|---------------------|-----------------|----------------------|-----------------|-------------------------|--------------------------------------|------------------|------------------|------------------------|-------------------------------------|-----------------|------------------------------------|
| ug/L | | | | | | | | | | | | | | | | | | | | | | | |
| * | | | | | | | | | | | | | | | | | | | | | | | |
| B | | | | | | | | | | | | | | | | | | | | | | | |
| F1 | | | | | | | | | | | | | | | | | | | | | | | |
| H | | | | | | | | | | | | | | | | | | | | | | | |
| J | | | | | | | | | | | | | | | | | | | | | | | |
| P | | | | | | | | | | | | | | | | | | | | | | | |
| U | | | | | | | | | | | | | | | | | | | | | | | |
| UJ | | | | | | | | | | | | | | | | | | | | | | | |

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 | MW29 |
|----------|-------|------|------|------|------|
| Sep-01 | 0.01 | 0.27 | 0.51 | 0.11 | NA |
| May-02 | 0.00 | 0.29 | 0.23 | 0.00 | NA |
| Aug-02 | 0.00 | 0.33 | 0.22 | 0.00 | NA |
| May-03 | 0.00 | 0.00 | 0.00 | 0.00 | NA |
| Sep-03 | 0.00 | 0.32 | 0.24 | 0.04 | NA |
| May-04 | 0.00 | 0.45 | 0.36 | 0.35 | NA |
| Sep-04 | 0.21 | 0.54 | 0.67 | 0.52 | NA |
| May-05 | 0.29 | 0.48 | 0.63 | 0.36 | NA |
| Sep-05 | 0.87 | 0.06 | 0.83 | 1.15 | NA |
| May-06 | 0.00 | 0.00 | 0.29 | 0.00 | NA |
| Sep-06 | 0.00 | 0.05 | 0.80 | 0.69 | NA |
| Apr-07 | 0.58 | 0.04 | 0.74 | 1.22 | NA |
| May-07 | 0.58 | 0.03 | 0.54 | 1.20 | NA |
| Sep-07 | 0.04 | 0.16 | 1.07 | 0.00 | NA |
| May-08 | 0.40 | 1.19 | 0.90 | 1.71 | NA |
| Oct-08 | 0.14 | 0.04 | 0.00 | 0.00 | NA |
| Jun-09 | 0.54 | 1.58 | 1.60 | 1.45 | NA |
| Oct-09 | 0.63 | 1.92 | 1.46 | 1.02 | NA |
| May-10 | 0.51 | 2.01 | 1.10 | 0.85 | NA |
| Oct-10 | 0.00 | 0.57 | 0.59 | 0.00 | NA |
| Jun-11 | 0.00 | 0.42 | 0.79 | 0.00 | NA |
| Oct-11 | 0.00 | 0.53 | 1.07 | 0.00 | NA |
| May-12 | 0.69 | 0.79 | 0.80 | 2.17 | NA |
| Aug-12 | 0.04 | 0.43 | 0.89 | 0.30 | NA |
| Oct-12 | 0.00 | 0.45 | 0.91 | 0.88 | NA |
| Dec-12 | 0.02 | 0.44 | 1.06 | 0.95 | NA |
| May-13 | 0.17 | 0.53 | 0.94 | 1.08 | NA |
| Oct-13 | 0.00 | 0.70 | 1.25 | 0.81 | NA |
| May-14 | 0.00 | 0.79 | 0.22 | 0.22 | NA |
| Sep-14 | 0.00 | 0.56 | 0.30 | 0.00 | NA |
| 2/13/15 | 0.00 | 0.56 | 0.24 | 0.00 | NA |
| 2/20/15 | 0.00 | 0.53 | 0.23 | 0.00 | NA |
| 3/24/15 | 0.00 | 0.34 | 0.52 | 0.00 | NA |
| 4/16/15 | 0.00 | 0.58 | NM | 0.00 | NA |
| 5/14/15 | 0.00 | 0.57 | NM | 0.00 | NA |
| 10/12/15 | 0.00 | 0.42 | 0.07 | 0.01 | NA |
| 4/4/16 | 0.00 | 0.66 | 0.25 | 0.01 | 0.00 |
| 7/18/16 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 |
| 10/7/16 | 0.00 | 0.67 | 0.01 | 0.01 | 0.00 |
| 1/11/17 | 0.00 | NM | 0.18 | 0.02 | 0.00 |
| 4/17/17 | 0.00 | 0.53 | 0.27 | 0.01 | 0.47 |
| 7/13/17 | 0.00 | 0.51 | 0.10 | 0.01 | 0.15 |
| 9/28/17 | 0.00 | NM | NM | 0.01 | 0.45 |
| 1/3/18 | 0.00 | 0.45 | 0.26 | 0.01 | 0.70 |
| 5/25/18* | 0.00 | 0.53 | 0.62 | 0.01 | 0.88 |
| 7/11/18 | 0.00 | 0.50 | 0.19 | 0.01 | 0.48 |
| 10/15/18 | 0.00 | 0.48 | 0.41 | 0.01 | 0.63 |
| 1/2/19 | 0.00 | 0.51 | 0.37 | 0.34 | 0.76 |
| 4/17/19 | 0.00 | 0.50 | 0.20 | 0.01 | 0.33 |
| 7/22/19 | 0.00 | 0.49 | 0.00 | 0.03 | 0.00 |
| 10/2/19 | 0.00 | 0.51 | 0.03 | 0.07 | 0.00 |
| 1/9/20 | 0.00 | 0.48 | 0.00 | 0.04 | 0.00 |
| 4/6/20 | 0.00 | 0.45 | 0.01 | 0.30 | 0.01 |
| 10/5/20 | 0.00 | 0.43 | 0.02 | 0.06 | 0.01 |
| 4/9/21 | 0.00 | 0.50 | 0.41 | 0.10 | 0.85 |
| 10/8/21 | 0.00 | 0.59 | 0.53 | 0.77 | 1.31 |
| 4/8/22 | 1.40 | 0.54 | 0.58 | 0.94 | 1.56 |

Notes:

NM - Not Measured

NA - Not Applicable

* - MW10S measured on 6/1/18 and MW29 measured on 5/24/18

**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 |
| Total Gallons Extracted | 255,427,611 |

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 |

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) | Liquids[‡] (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 |
| 2017 | 0 | 0 | 0 | 0 | 2,759 | 2,759 |
| 2018 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2019 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 | 0 | 0 |

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, filter cake, and drill cuttings from system decommissioning.

‡ - Prior to 2017, all liquids disposed were water. In 2017, liquids disposed were ferric sulfate water treatment chemicals.

lb - pounds

**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 | Groundwater extraction rate increased to 13.5 gpm |
| 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 | |
| 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 | Groundwater extraction pump turned off for pilot study |
| EW02 | 11/2/2015 | 97.58 | NP | 0.00 | NA | |
| EW02 | 11/23/2015 | NM | NM | NM | NA | |
| | | | Total LNAPL Recovered | | 0.0 | |
| EW04 | 11/4/2014 | 114.30 | NP | 0.00 | NA | Groundwater extraction system shutdown pending carbon change-out Groundwater extraction system remained shutdown pending carbon change-out Groundwater extraction system remained shutdown pending carbon change-out Groundwater extraction system restarted after carbon change-out |
| EW04 | 12/11/2014 | 115.39 | NP | 0.00 | NA | |
| EW04 | 12/23/2014 | 115.34 | NP | 0.00 | NA | |
| EW04 | 12/30/2014 | 115.26 | NP | 0.00 | NA | |
| EW04 | 1/8/2015 | 115.22 | NP | 0.00 | NA | |
| EW04 | 1/19/2015 | 115.23 | NP | 0.00 | NA | |
| 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 | |
| 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 | Groundwater extraction rate increased to 10 gpm |
| 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 | |
| EW04 | 5/21/2015 | 115.74 | NP | 0.00 | NA | |

**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 | 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 | |
| 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 | |

**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 | 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 | |
| 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 |

**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 | 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 | |
| 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 | |

**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 | 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 | |
| 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 | |

**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 | 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 | |
| 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 | |

**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 | 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 | |
| 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 | |

**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 | 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 |

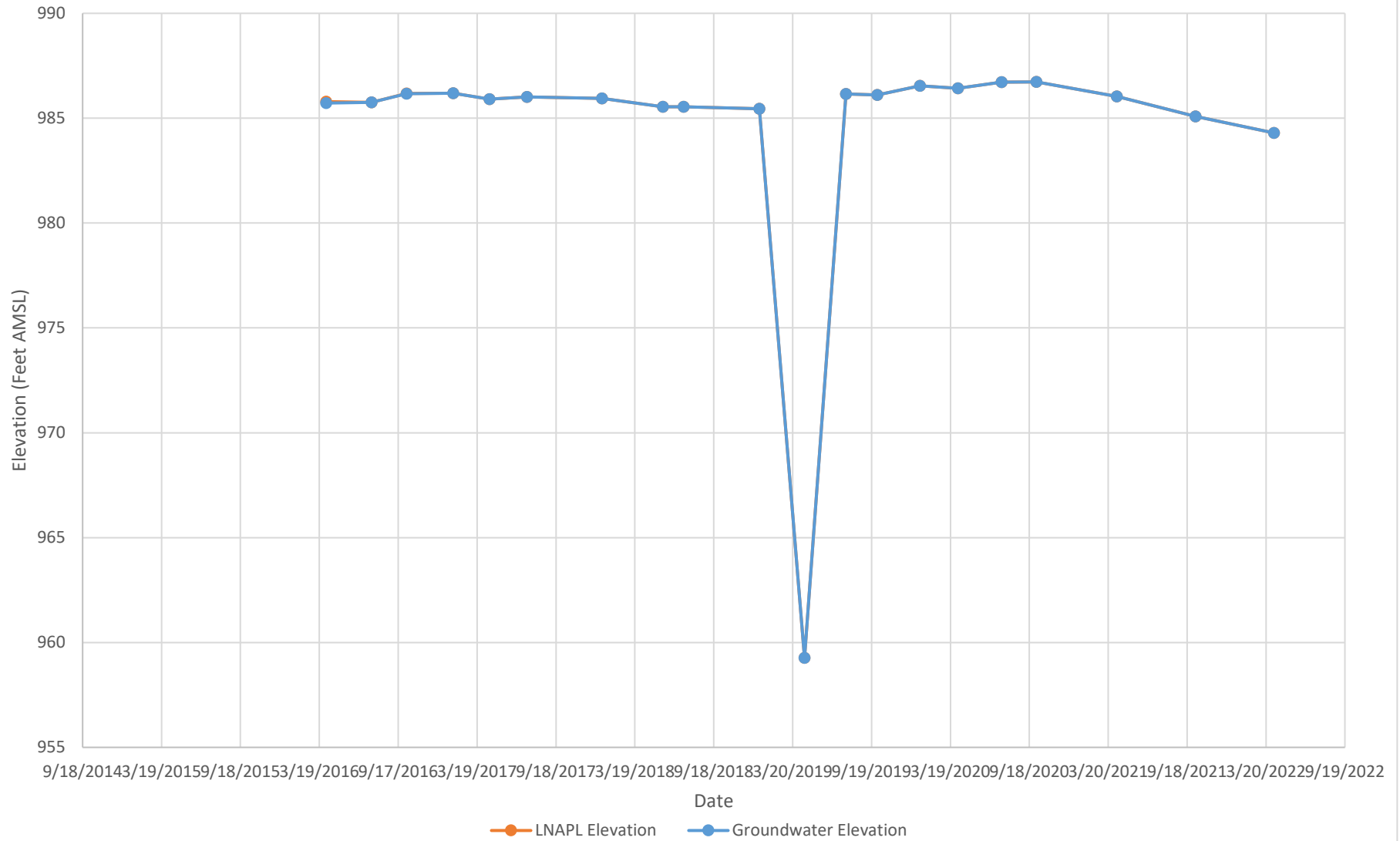
Notes:

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

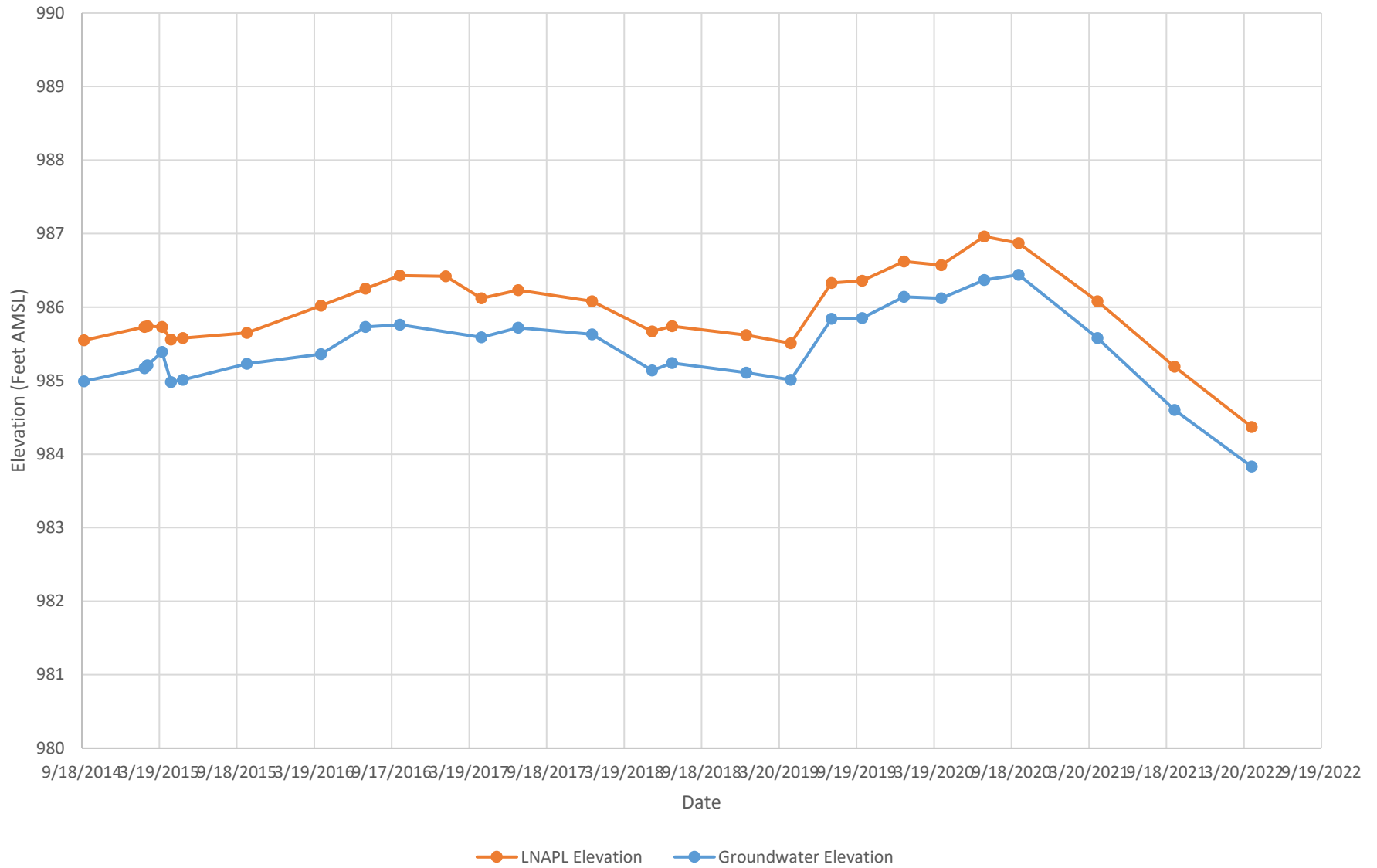
Groundwater and LNAPL Elevation vs Time Chart - EW06D

Penta Wood Products Superfund Site

Siren, Wisconsin



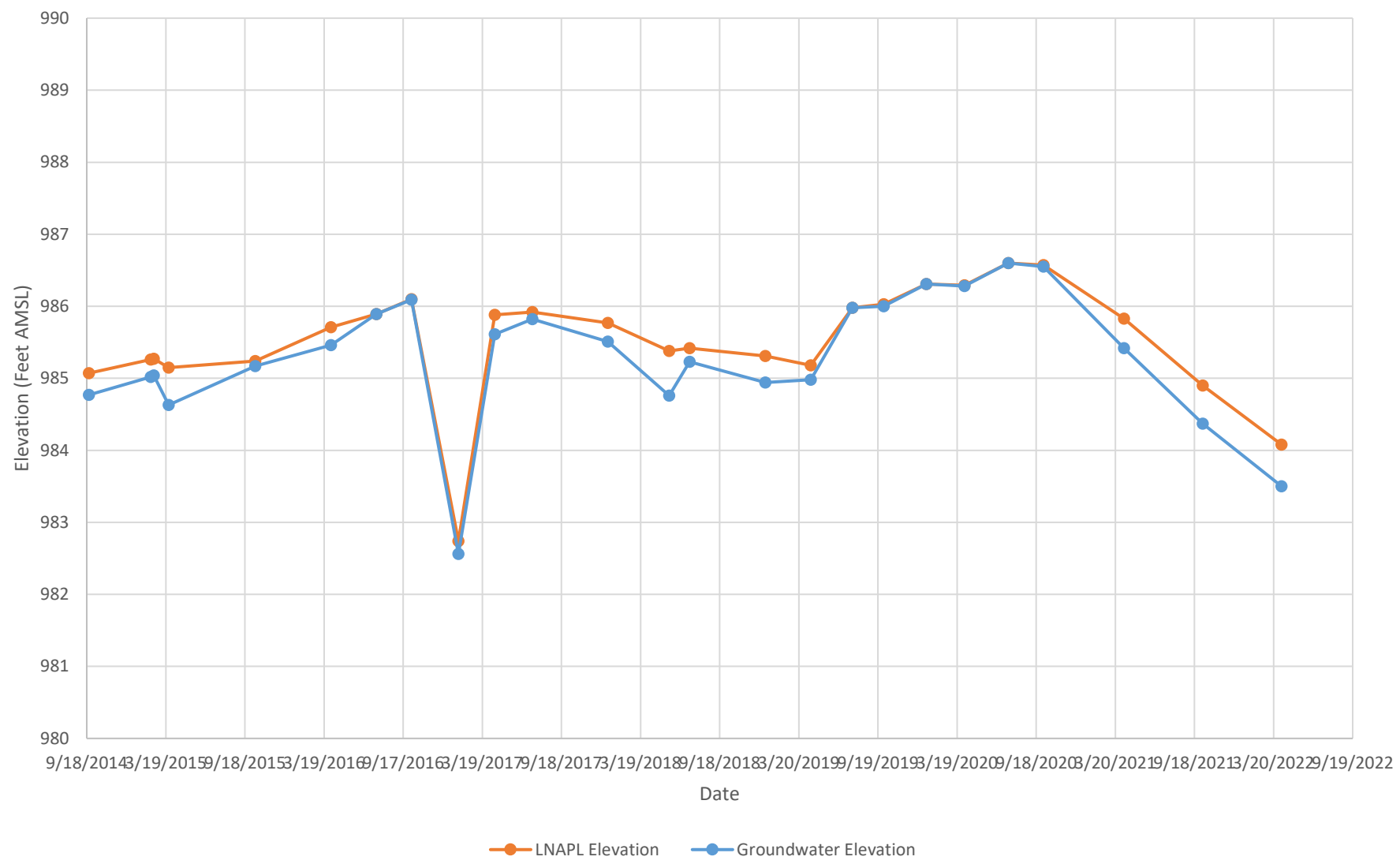
Groundwater and LNAPL Elevation vs Time Chart - MW18
Penta Wood Products Superfund Site
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - MW19

Penta Wood Products Superfund Site

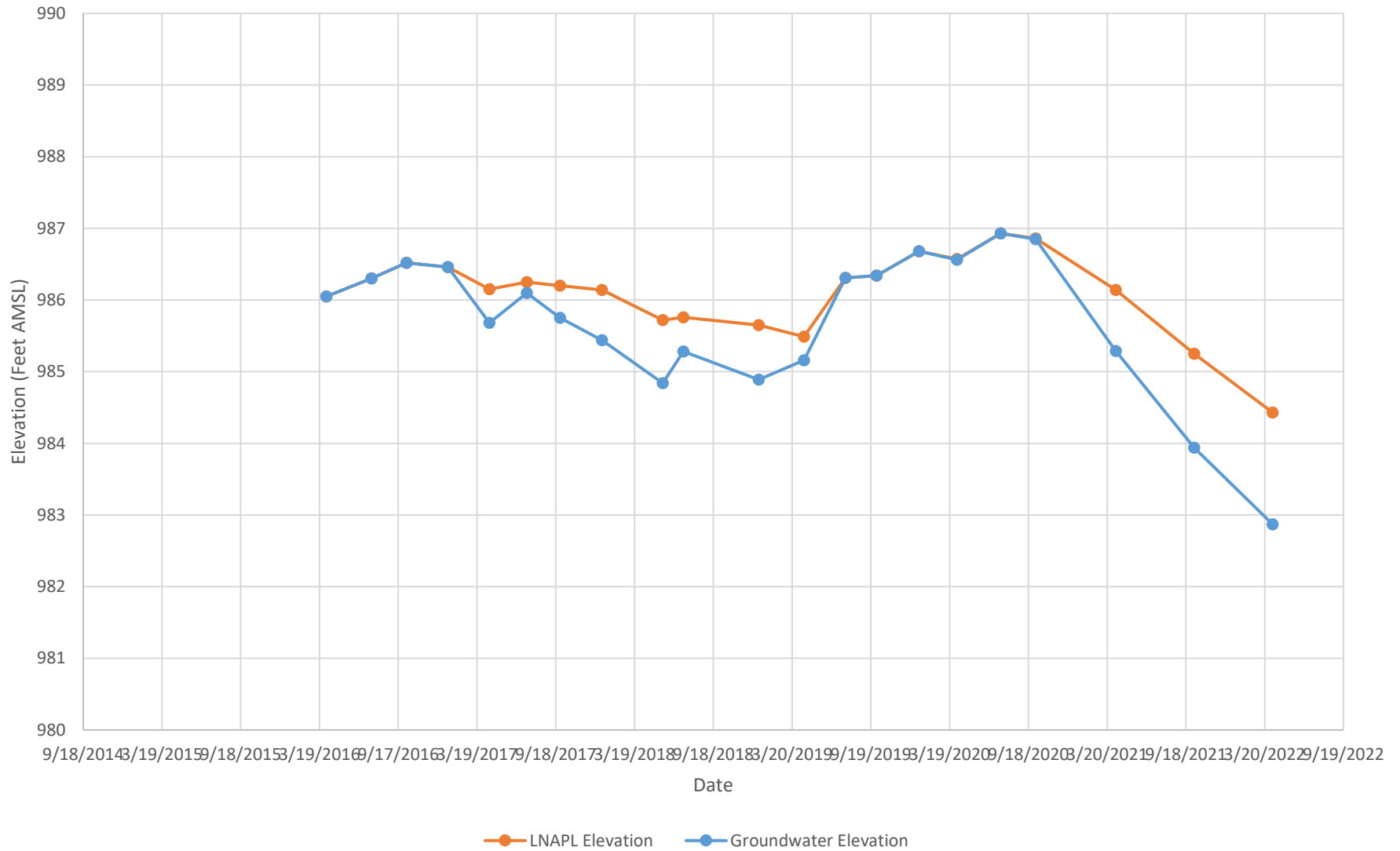
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - MW29

Penta Wood Products Superfund Site

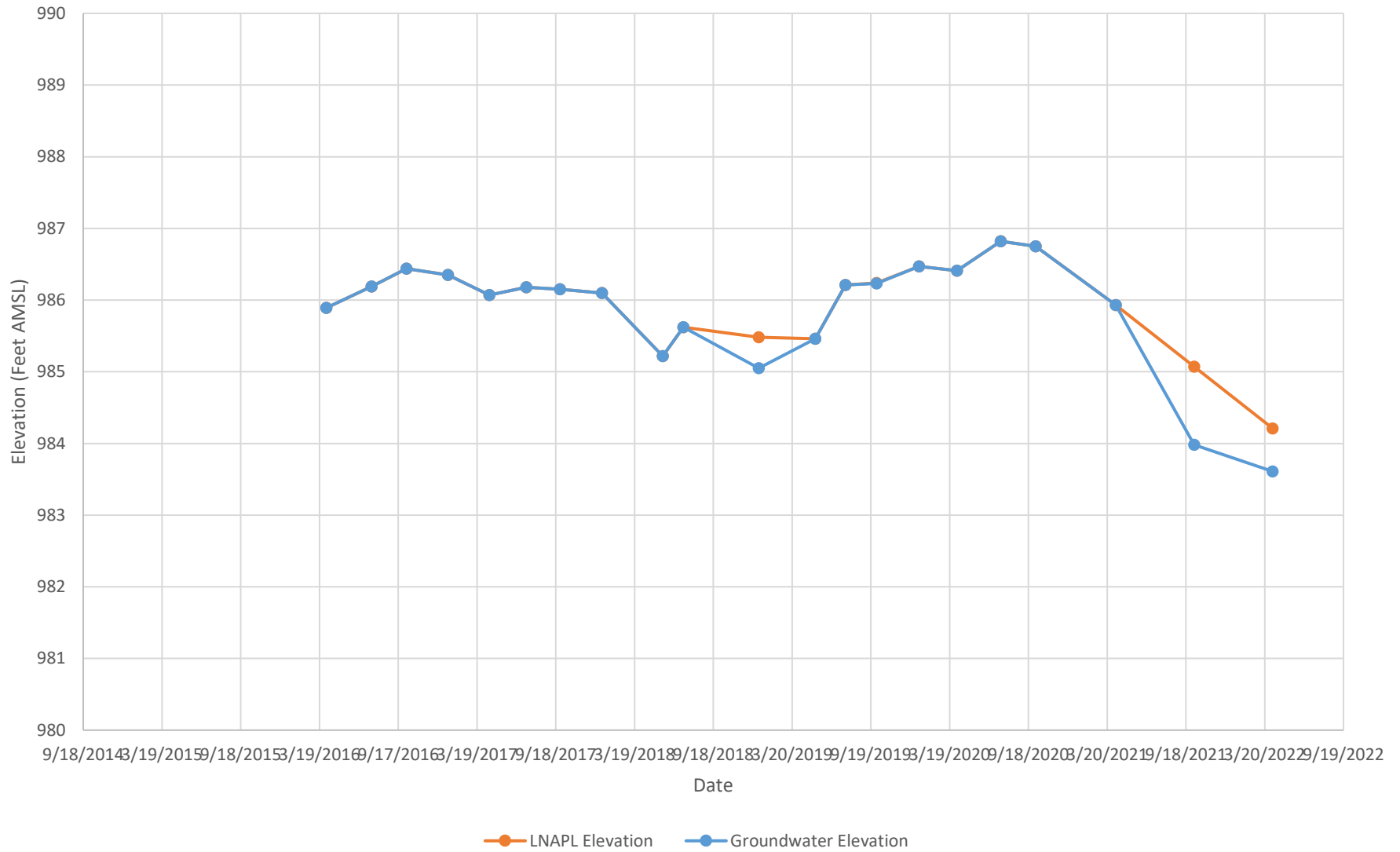
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - EW03S

Penta Wood Products Superfund Site

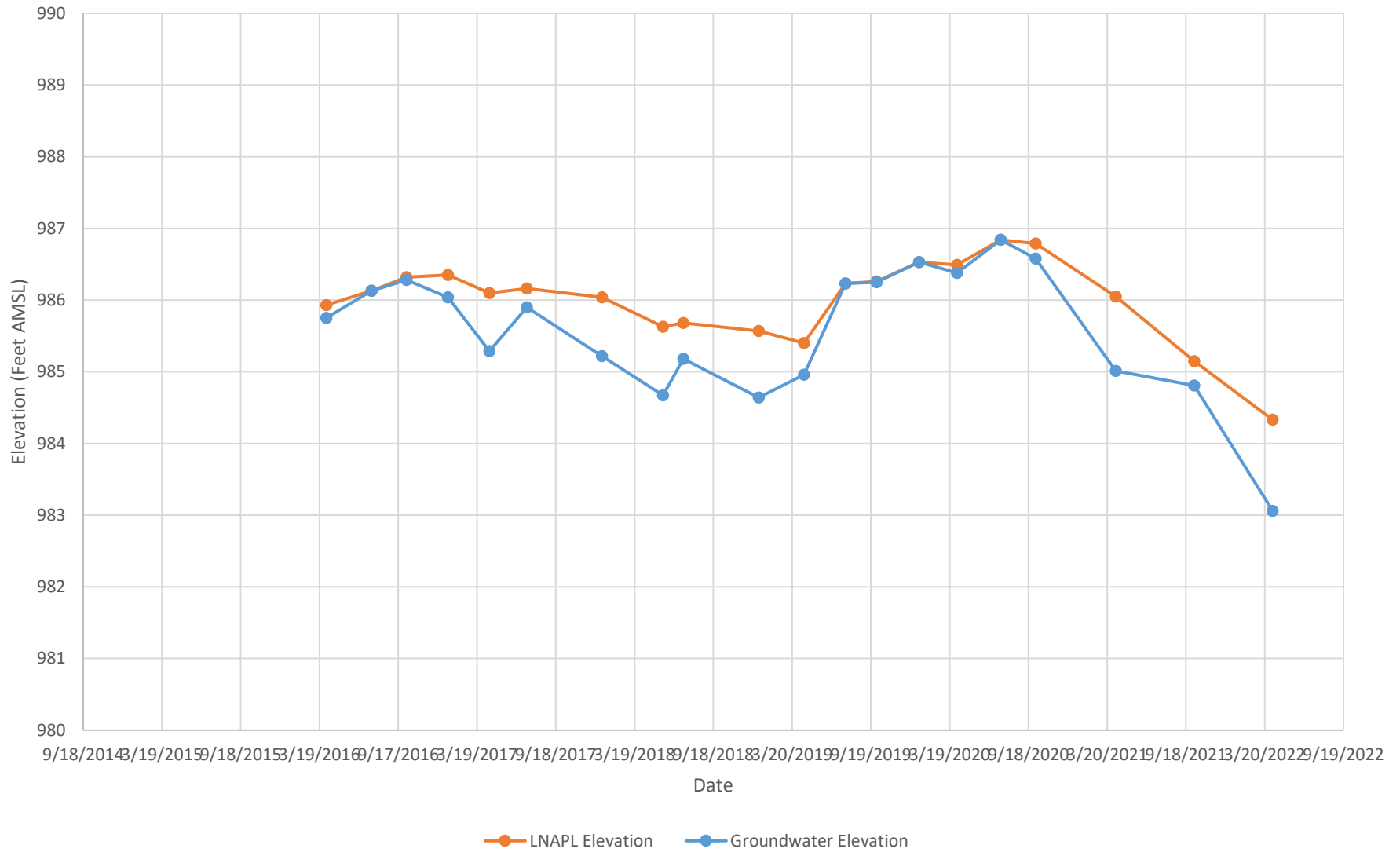
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - EW05S

Penta Wood Products Superfund Site

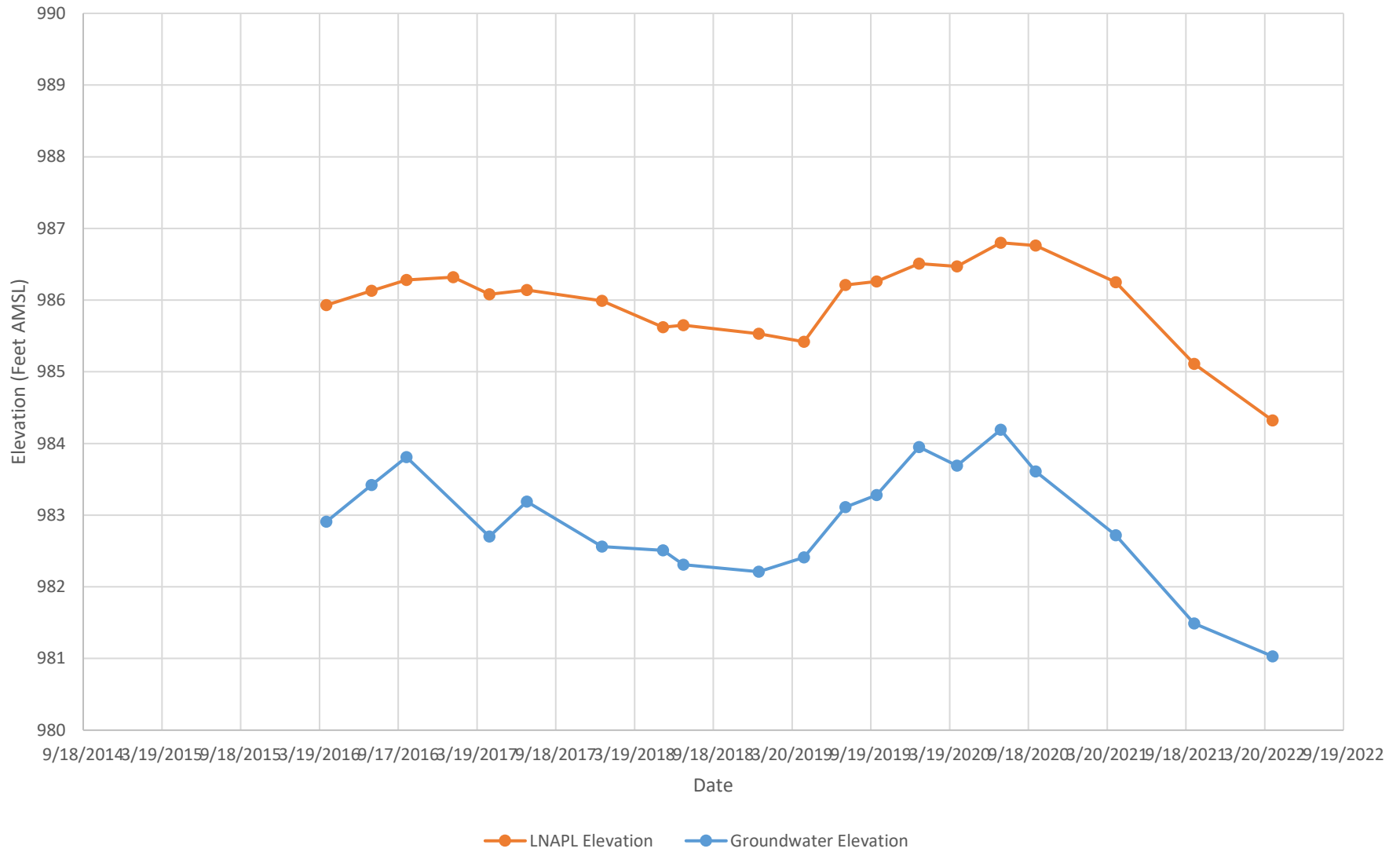
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - EW06S

Penta Wood Products Superfund Site

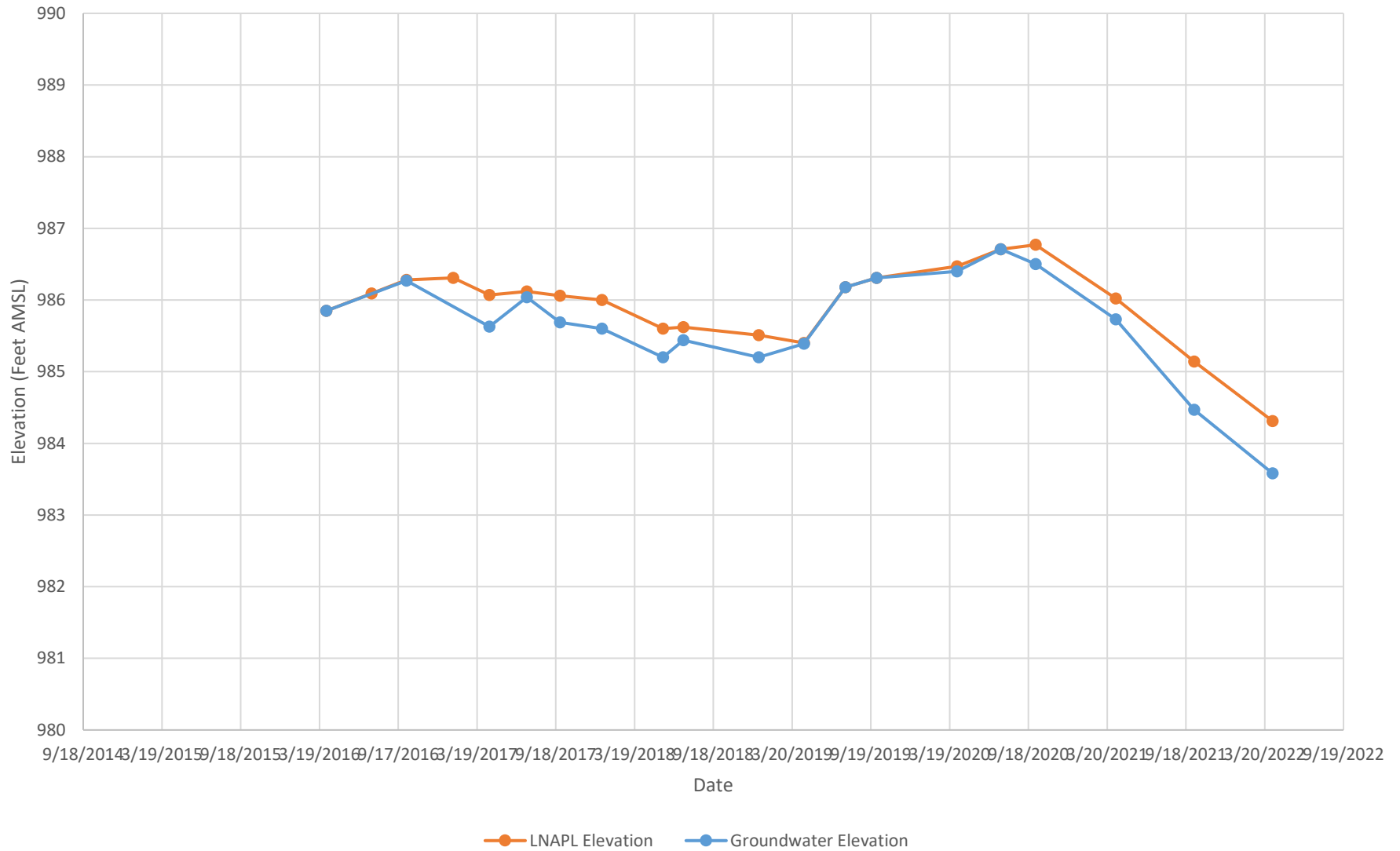
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - EW07S

Penta Wood Products Superfund Site

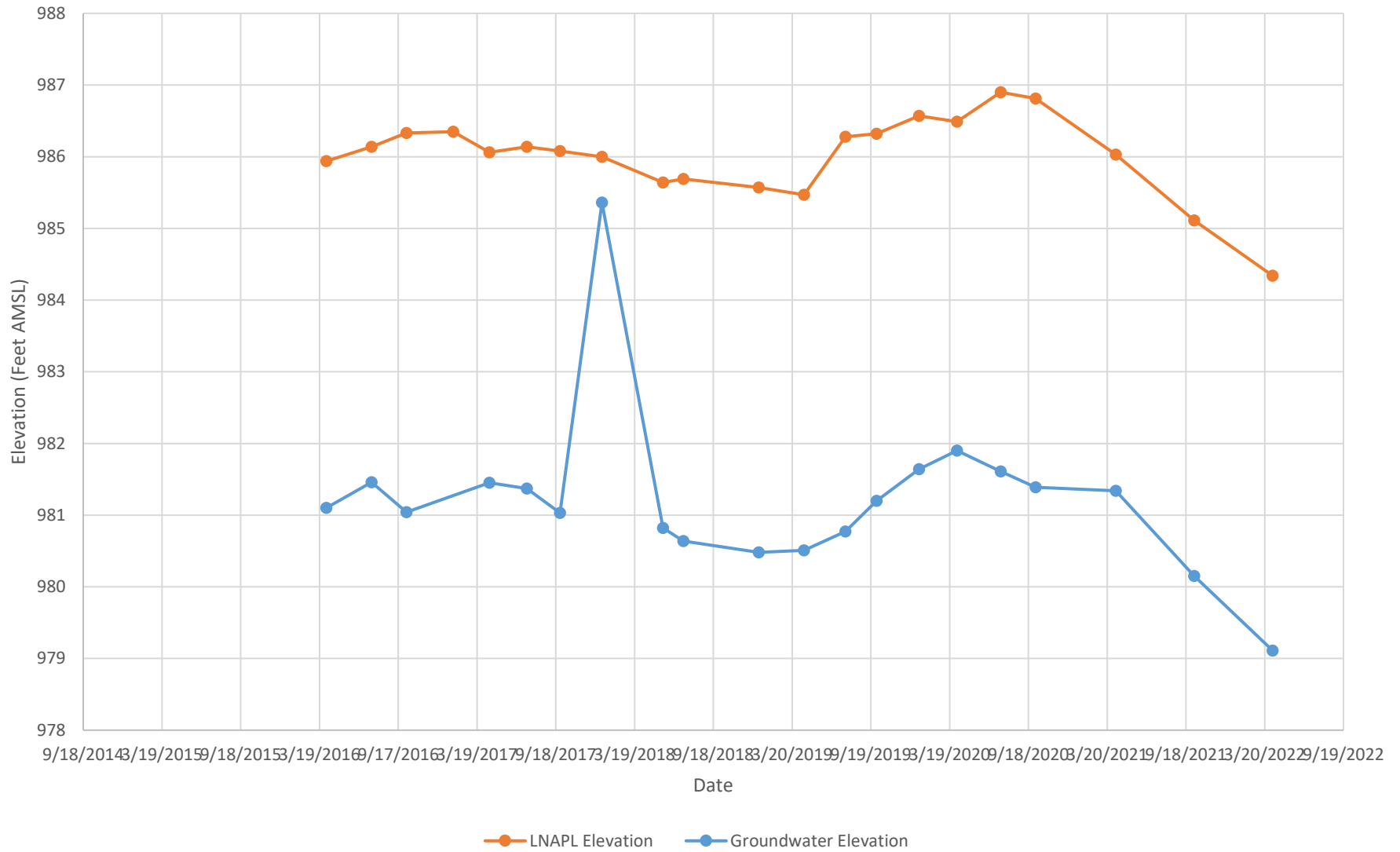
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - EW10S

Penta Wood Products Superfund Site

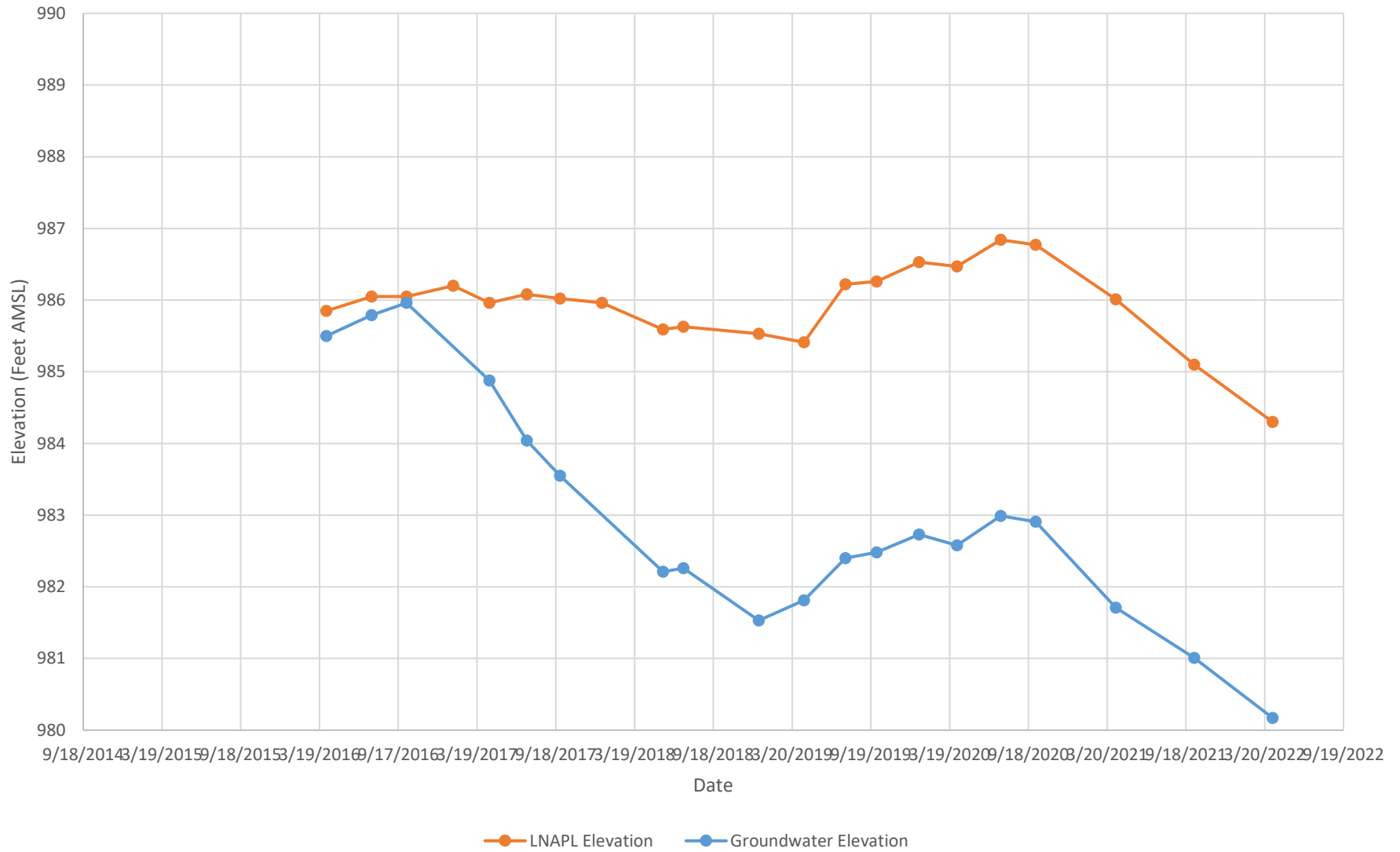
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - EW12S

Penta Wood Products Superfund Site

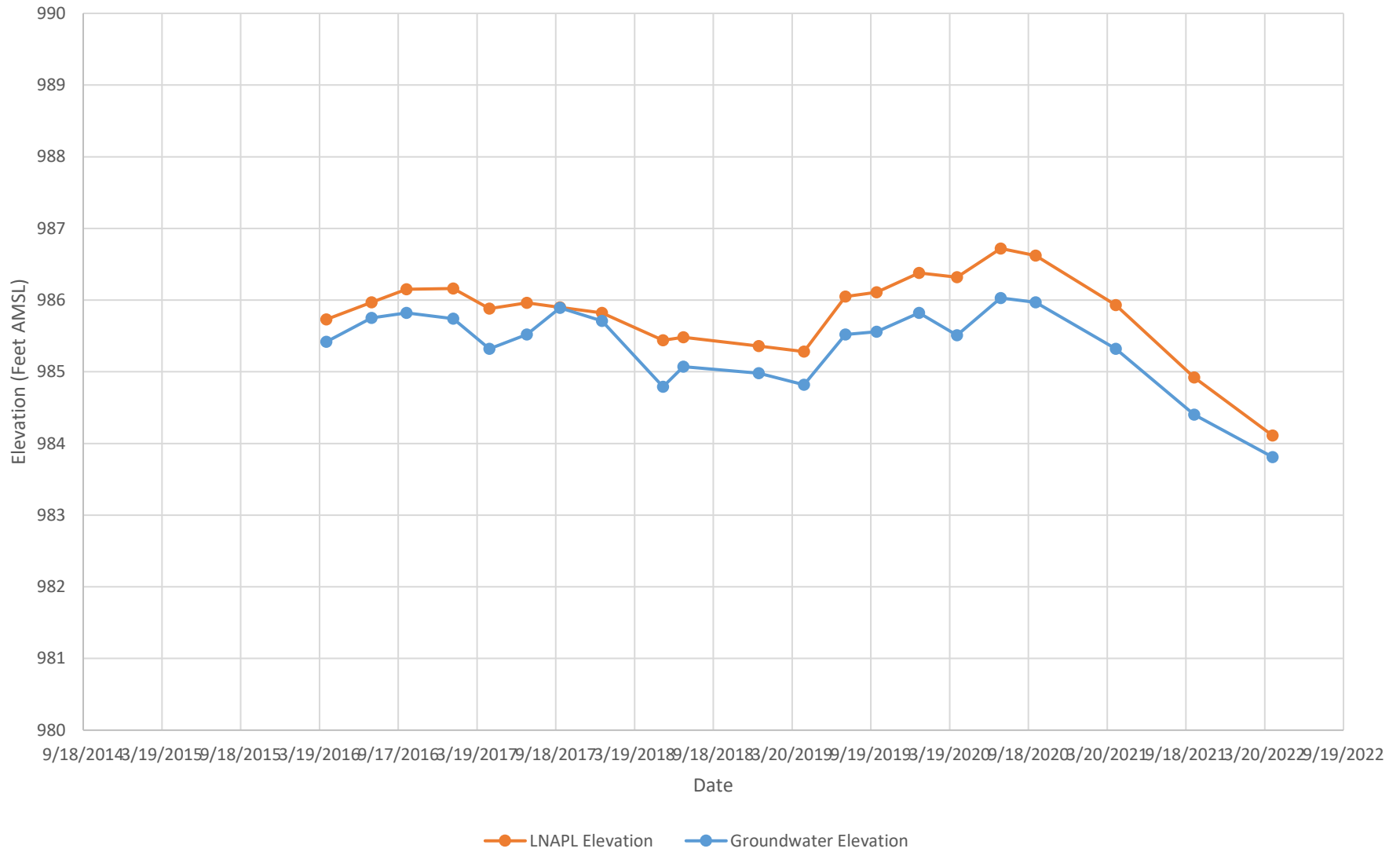
Siren, Wisconsin



Groundwater and LNAPL Elevation vs Time Chart - EW14S

Penta Wood Products Superfund Site

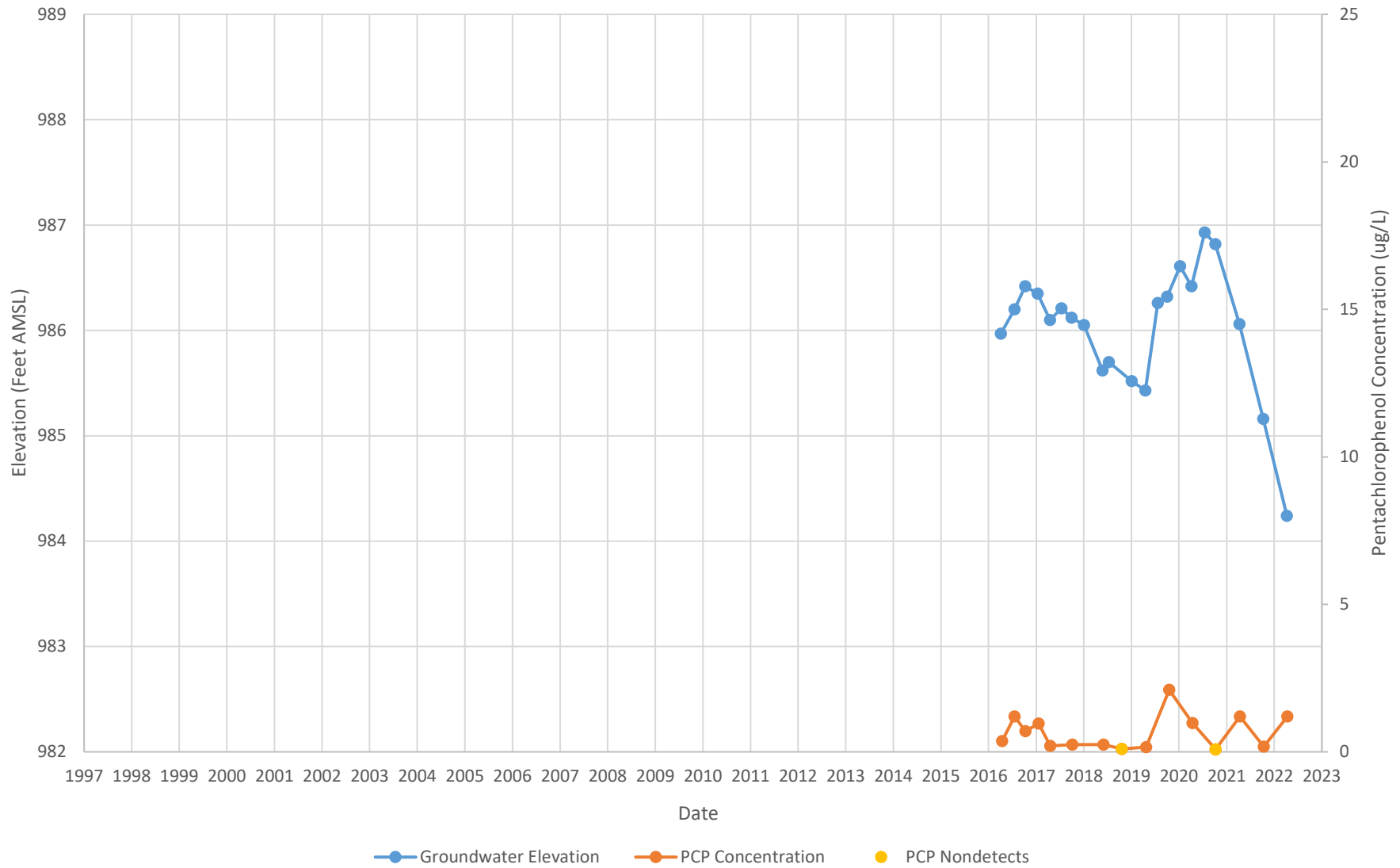
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - EW11S

Penta Wood Products Superfund Site

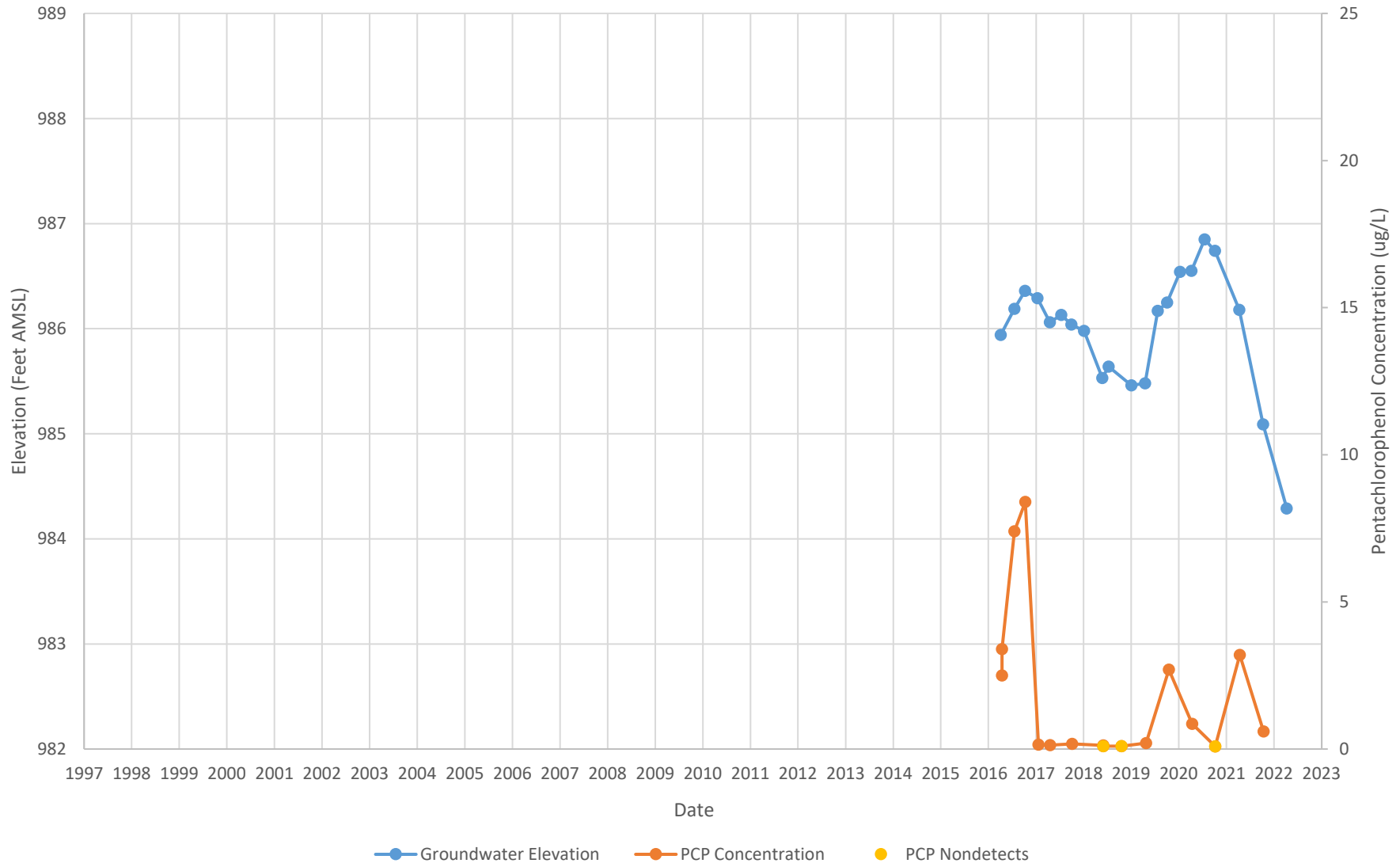
Siren, Wisconsin



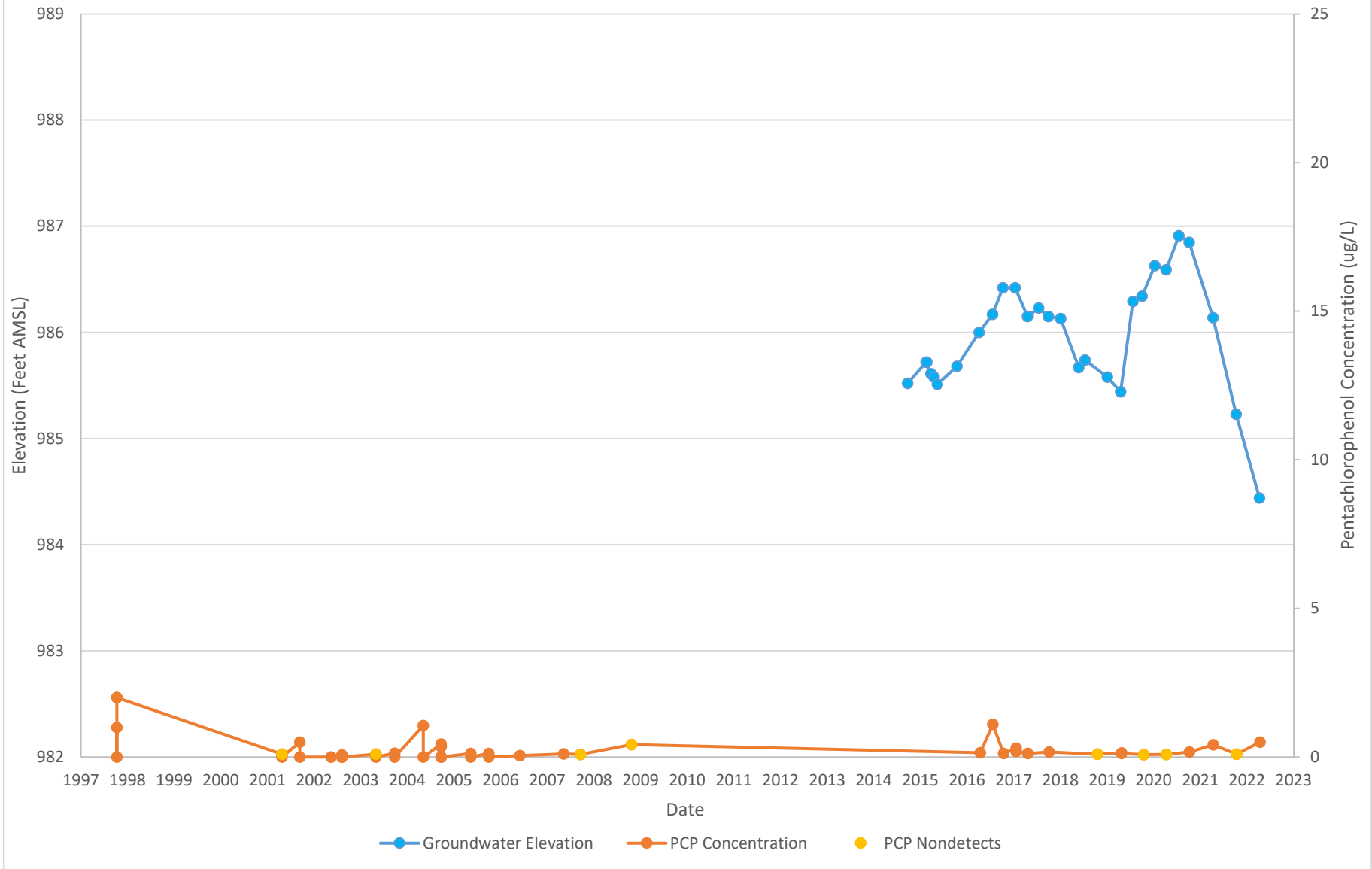
Pentachlorophenol and Groundwater Elevation vs Time Chart - EW11D

Penta Wood Products Superfund Site

Siren, Wisconsin



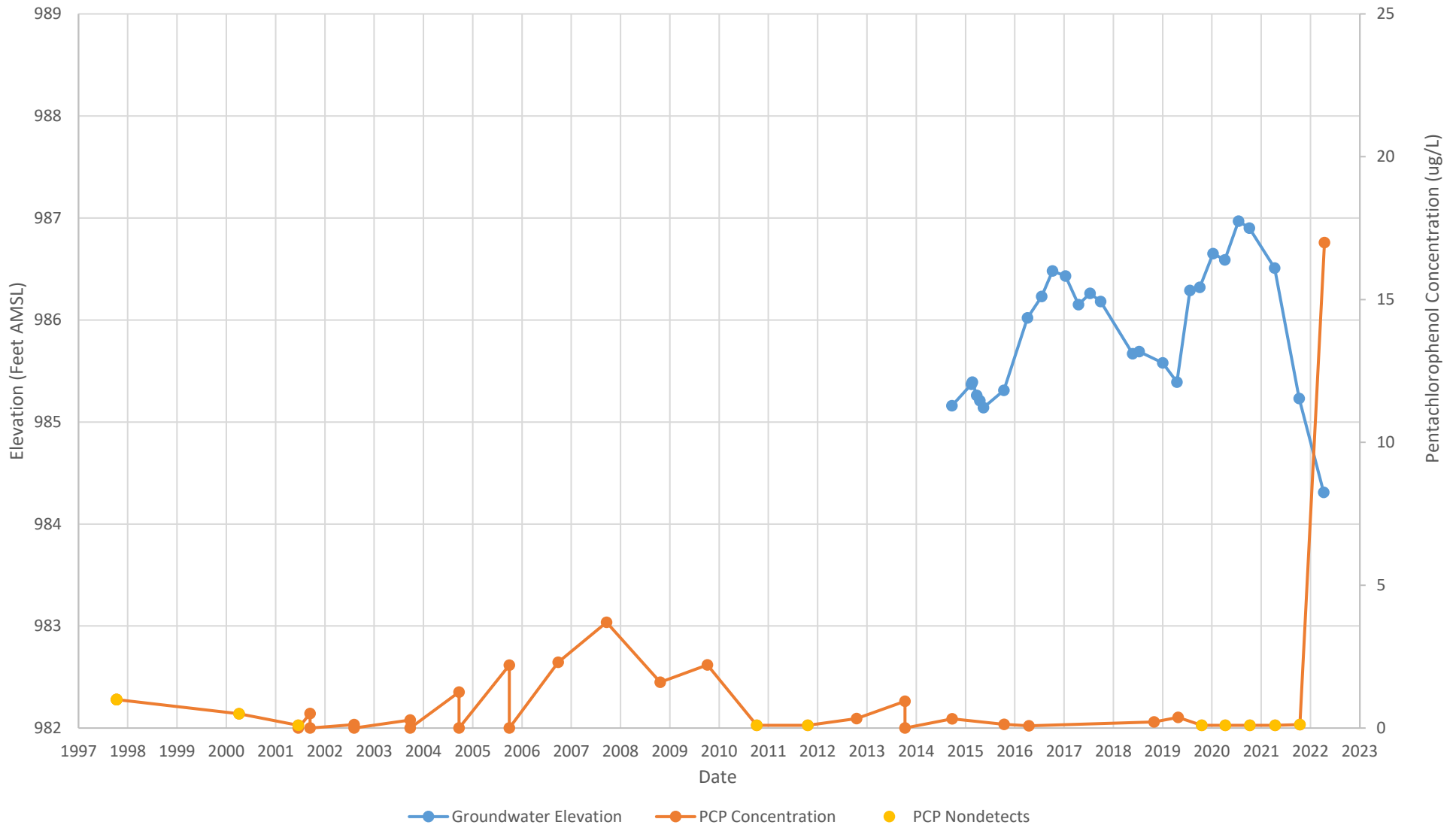
Pentachlorophenol and Groundwater Elevation vs Time Chart - MW1
Penta Wood Products Superfund Site
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW2

Penta Wood Products Superfund Site

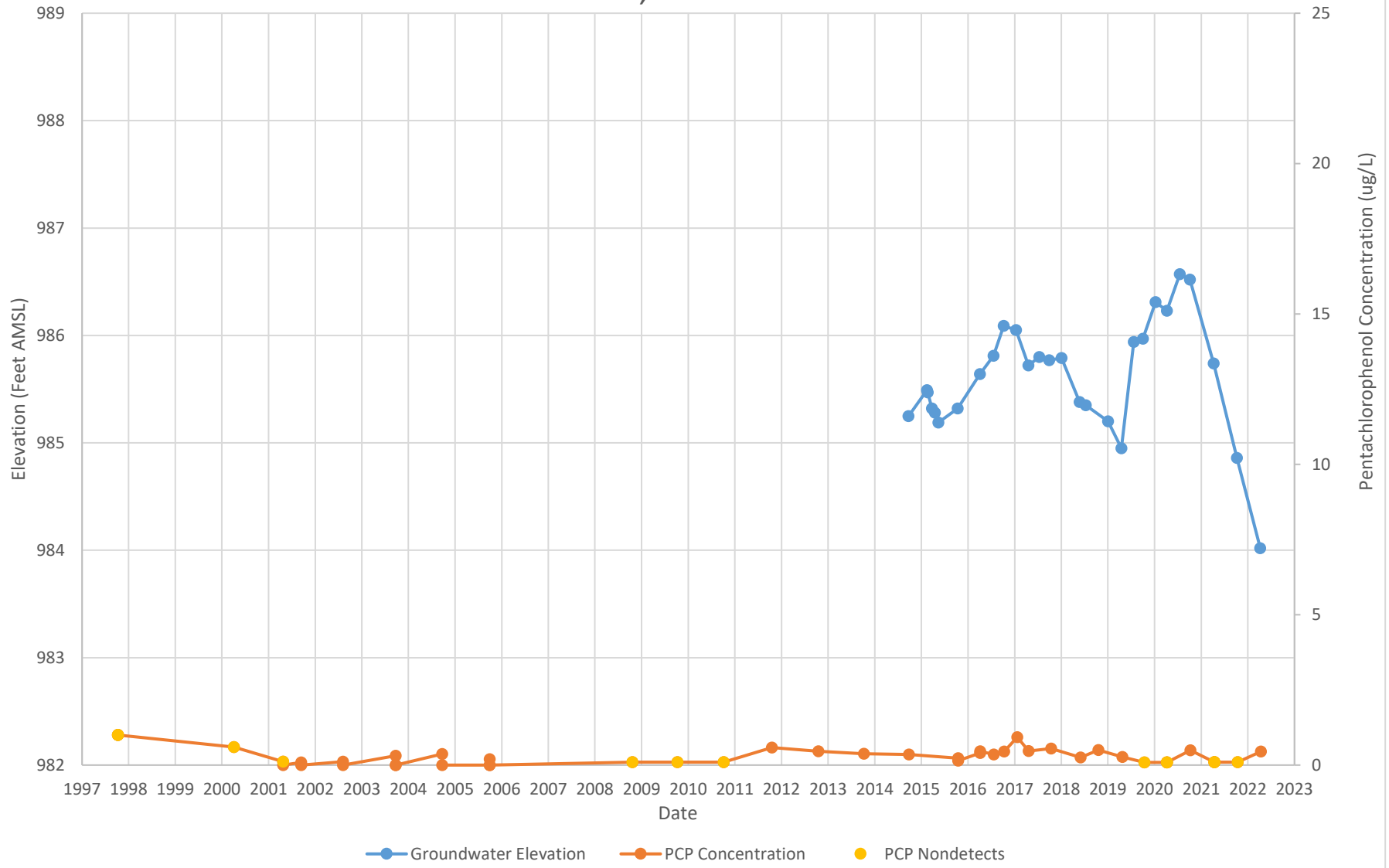
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW3

Penta Wood Products Superfund Site

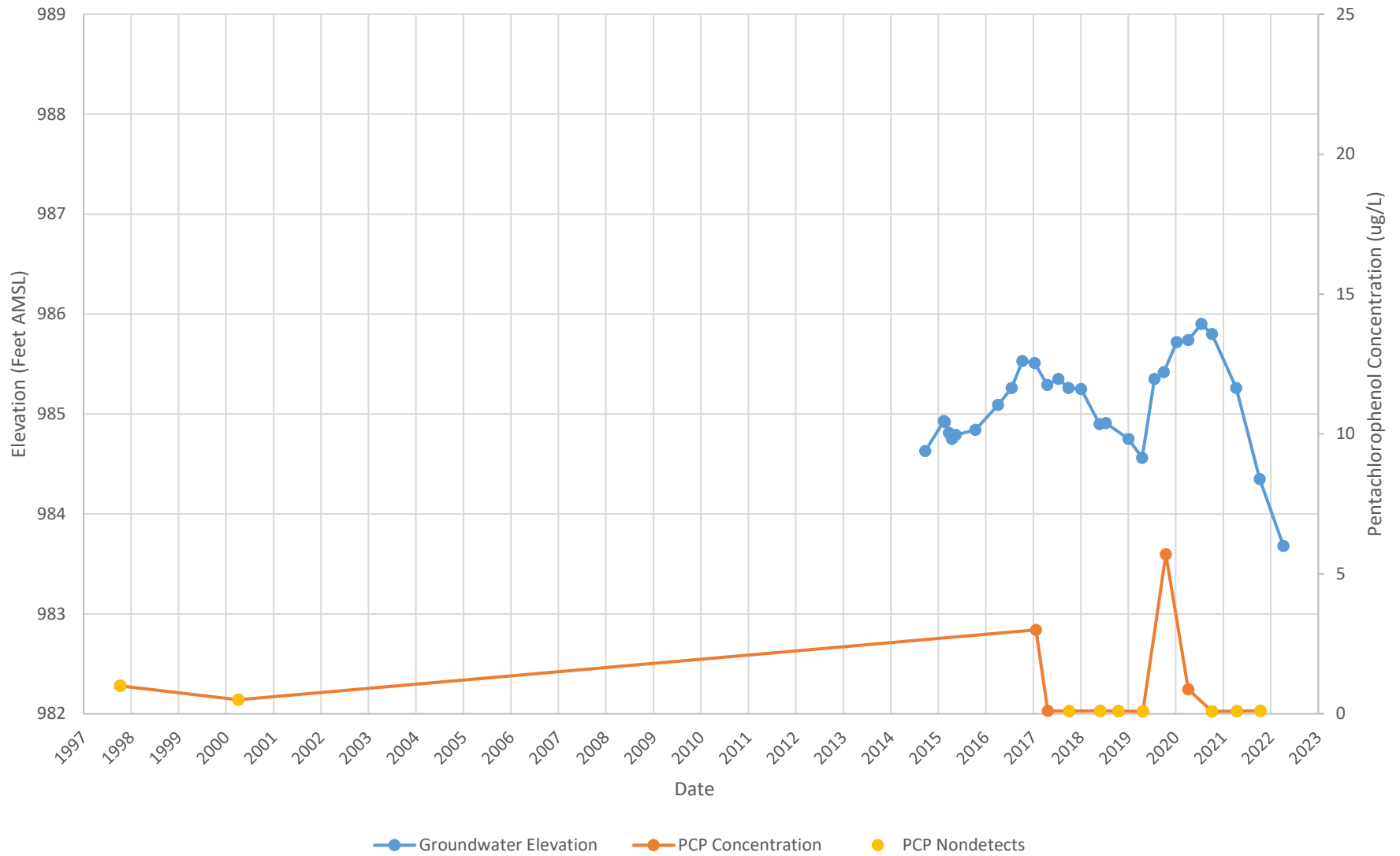
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW4

Penta Wood Products Superfund Site

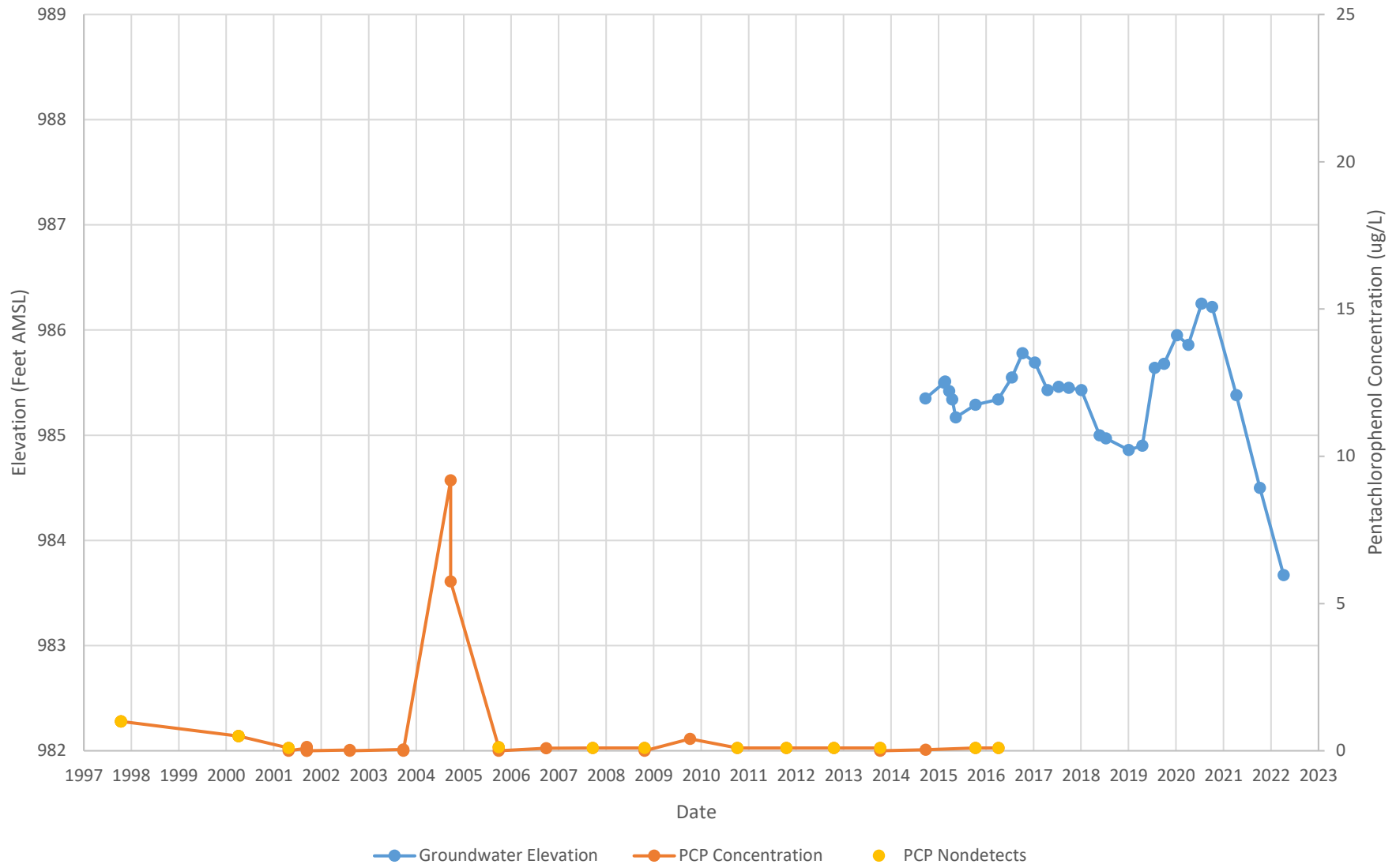
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW7

Penta Wood Products Superfund Site

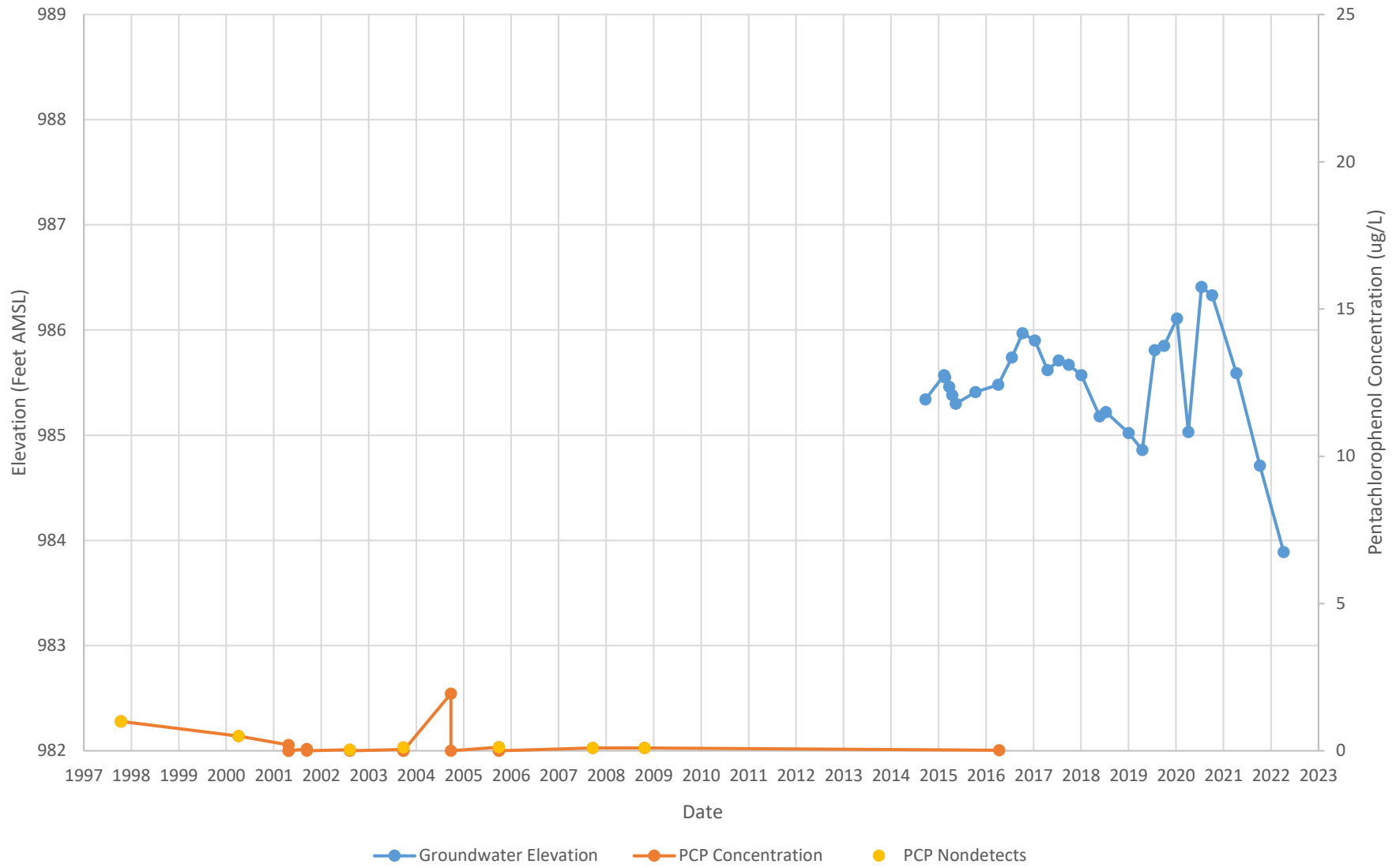
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW8

Penta Wood Products Superfund Site

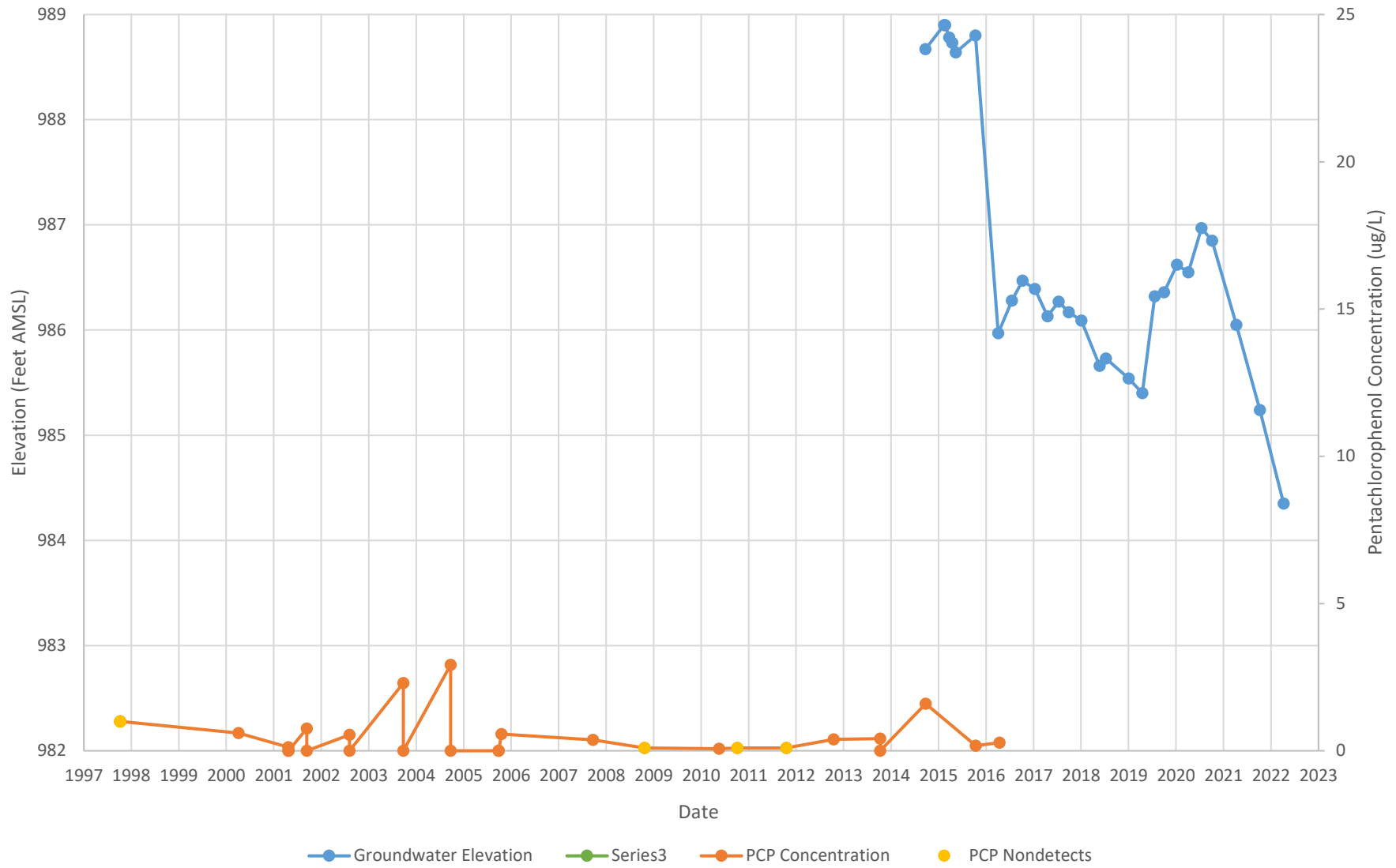
Siren, Wisconsin



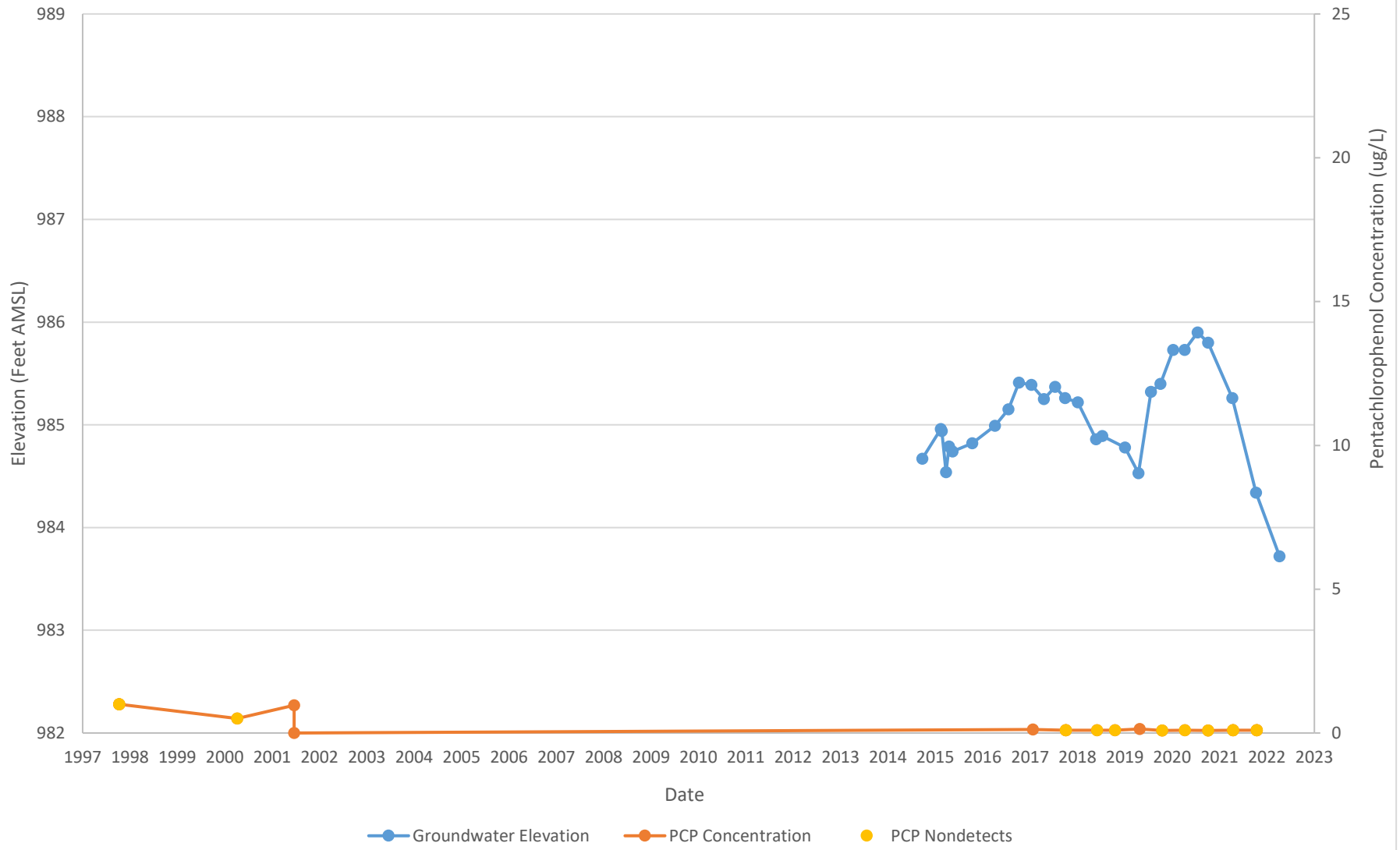
Pentachlorophenol and Groundwater Elevation vs Time Chart - MW9

Penta Wood Products Superfund Site

Siren, Wisconsin



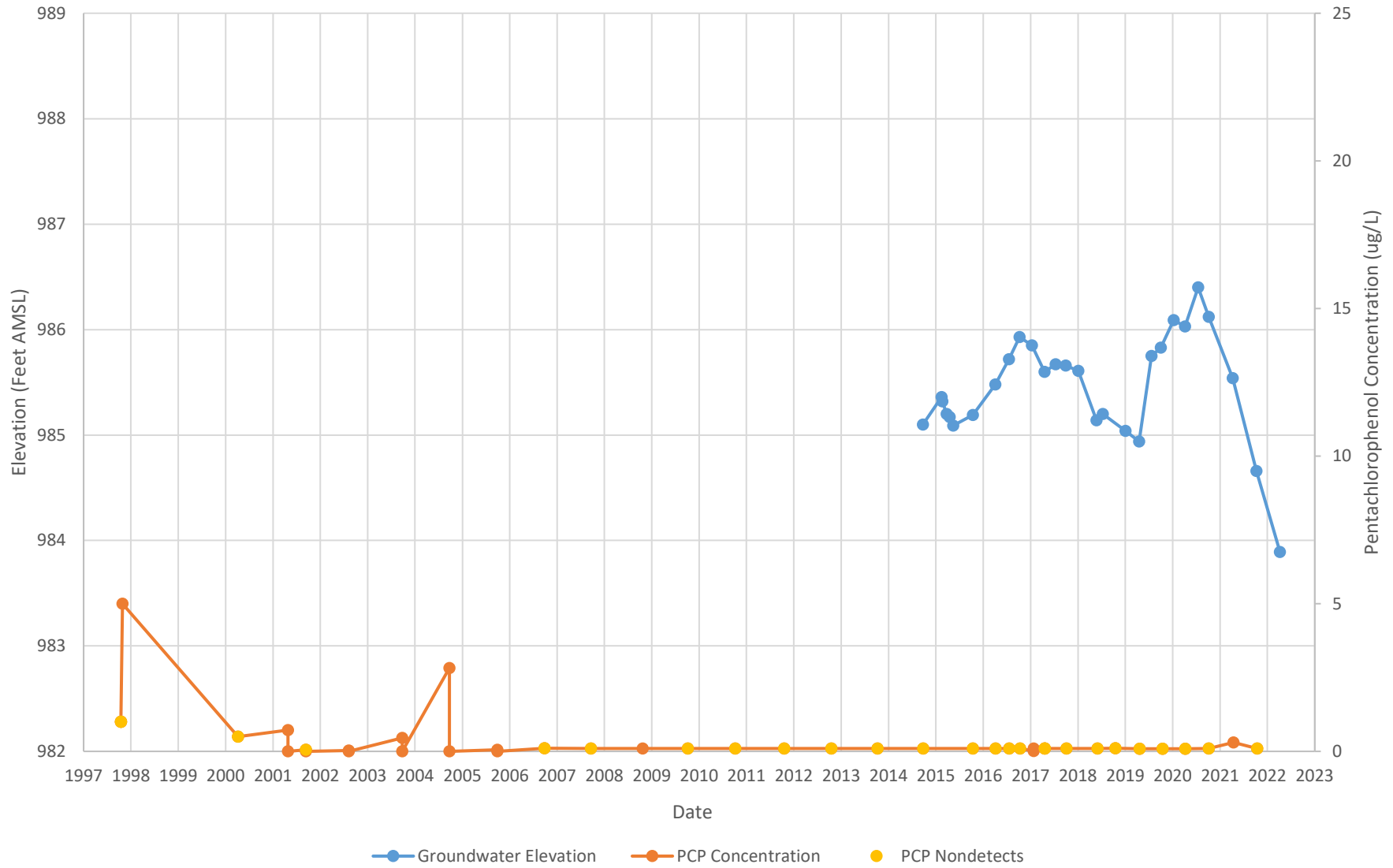
Pentachlorophenol and Groundwater Elevation vs Time Chart - MW14 Penta Wood Products Superfund Site Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW17

Penta Wood Products Superfund Site

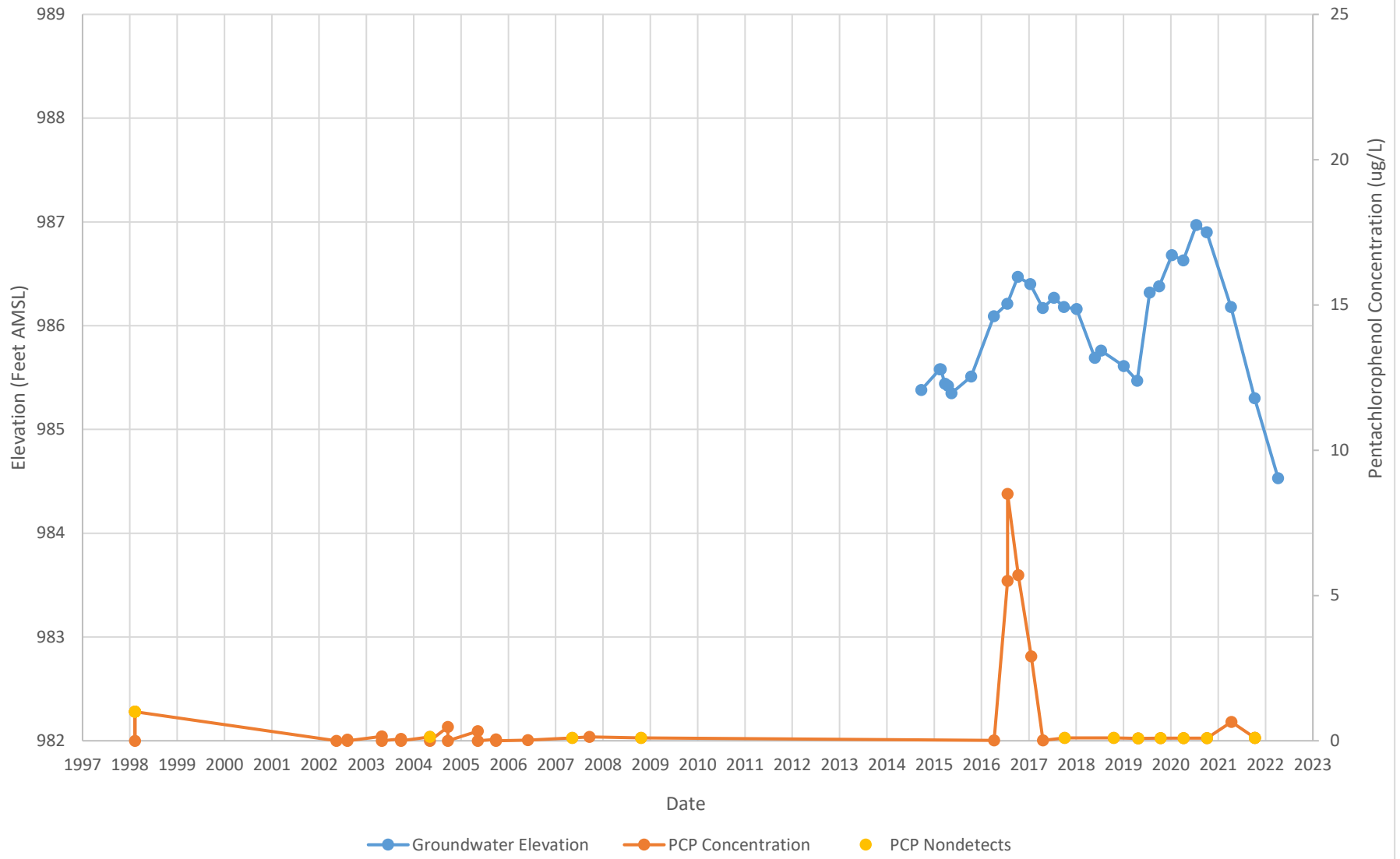
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW21

Penta Wood Products Superfund Site

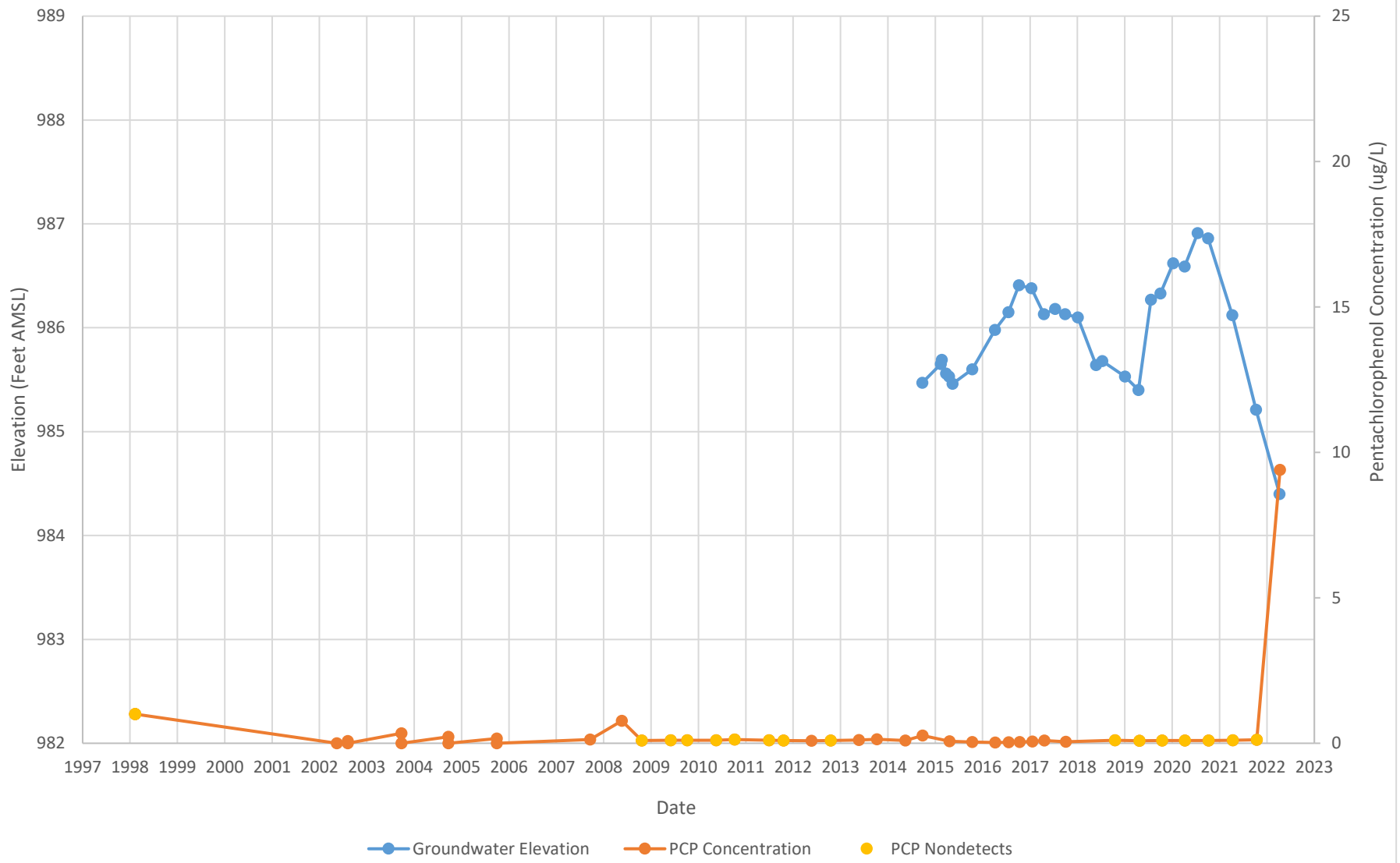
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW1

Penta Wood Products Superfund Site

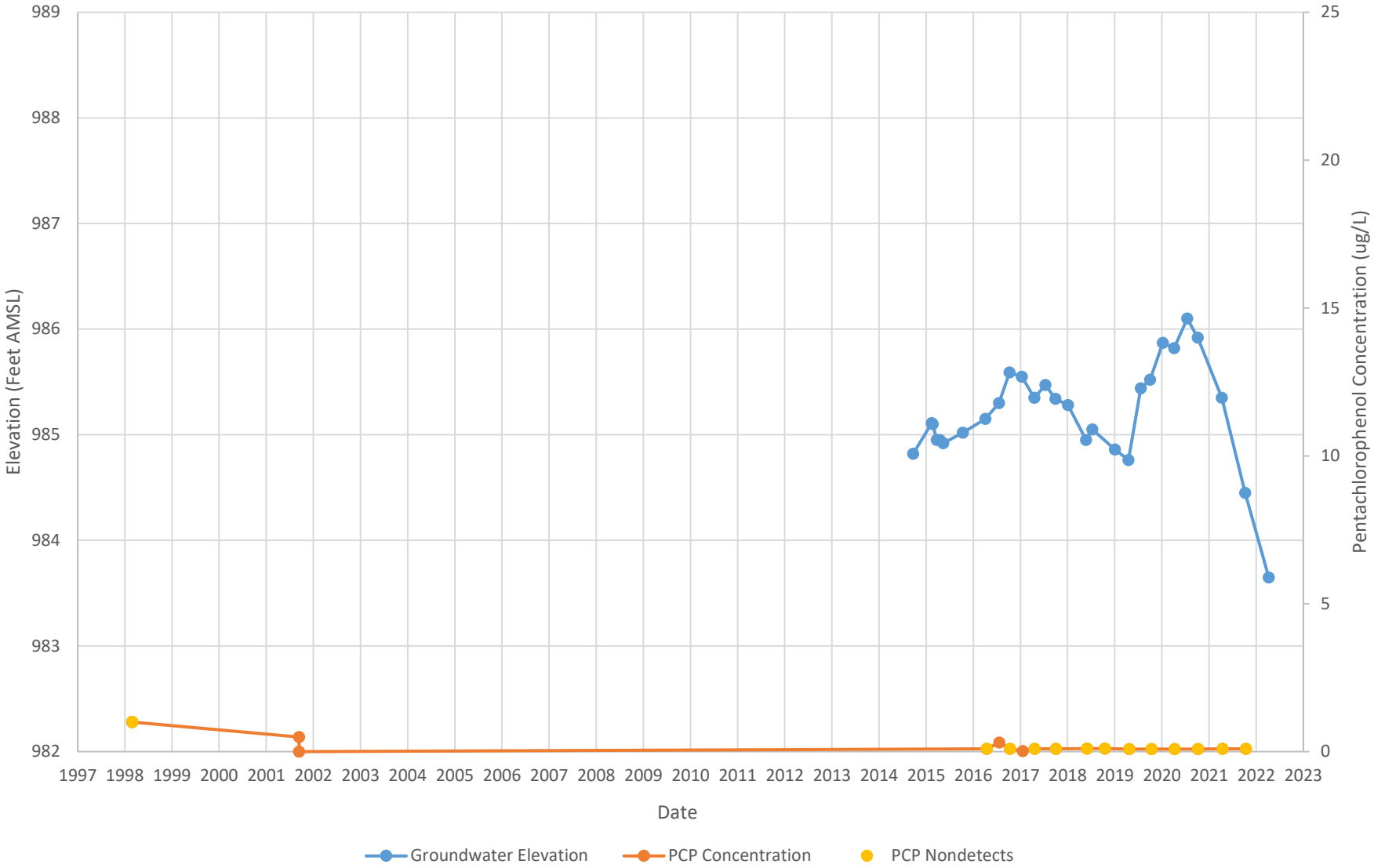
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW23

Penta Wood Products Superfund Site

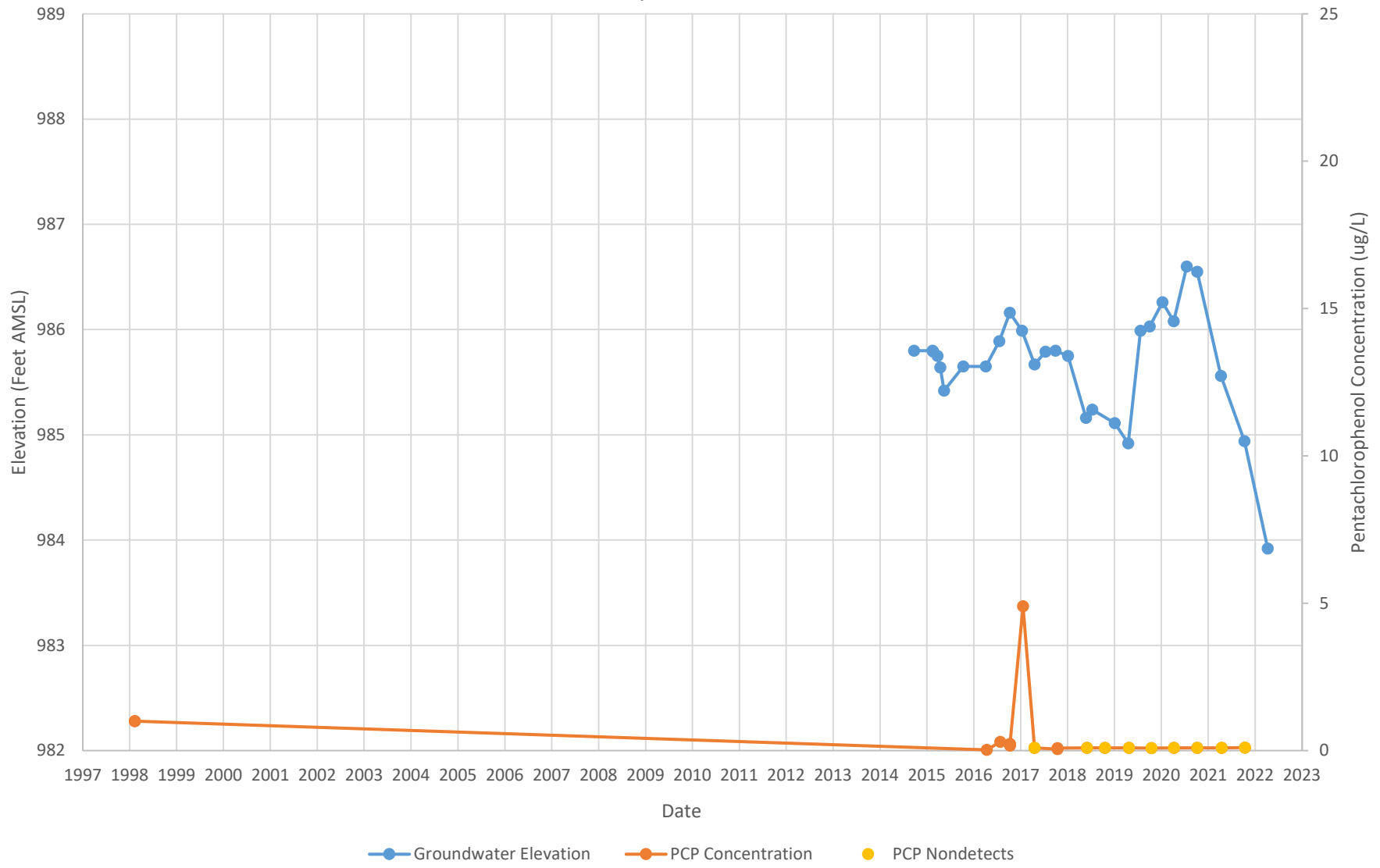
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW25

Penta Wood Products Superfund Site

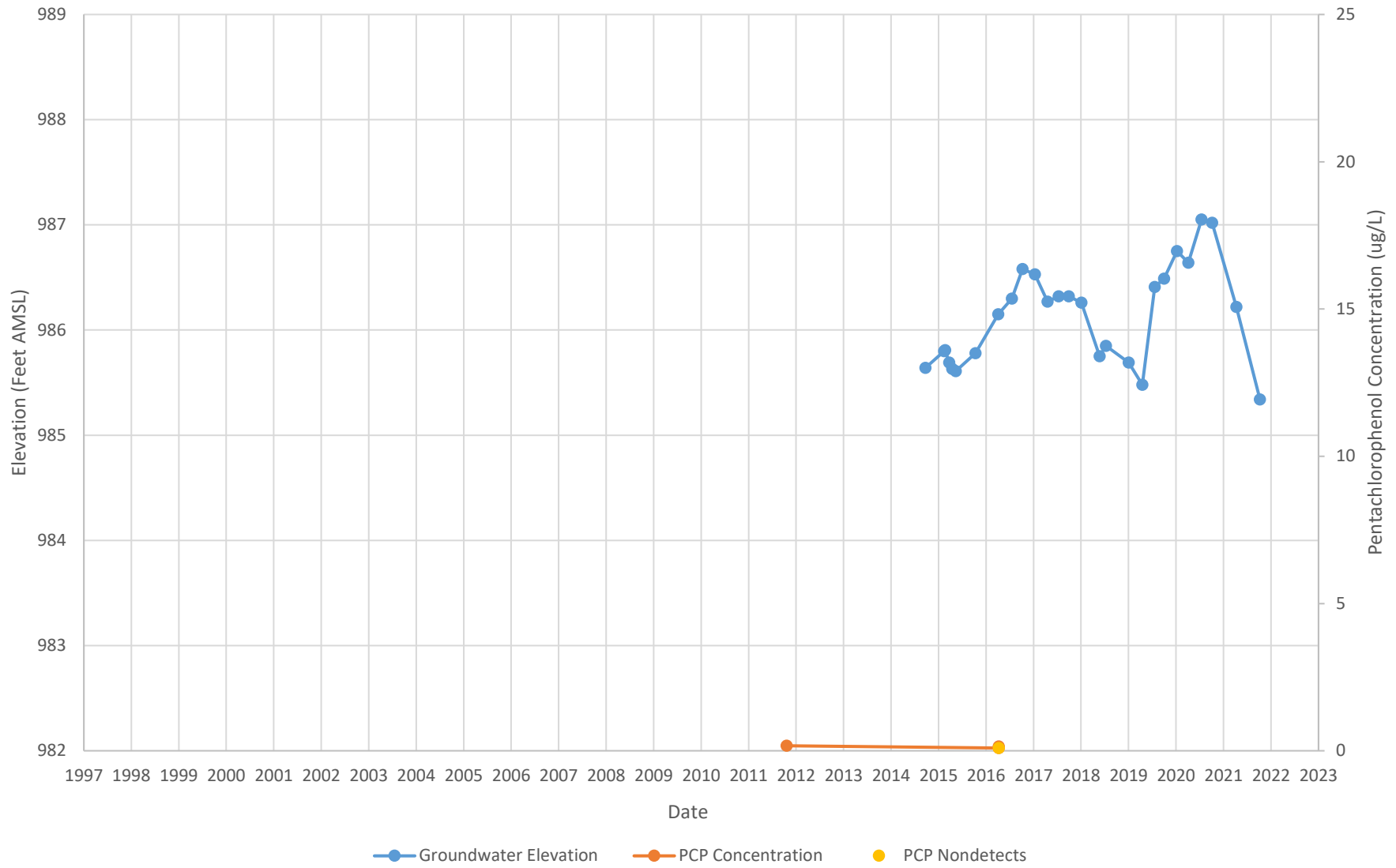
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW27

Penta Wood Products Superfund Site

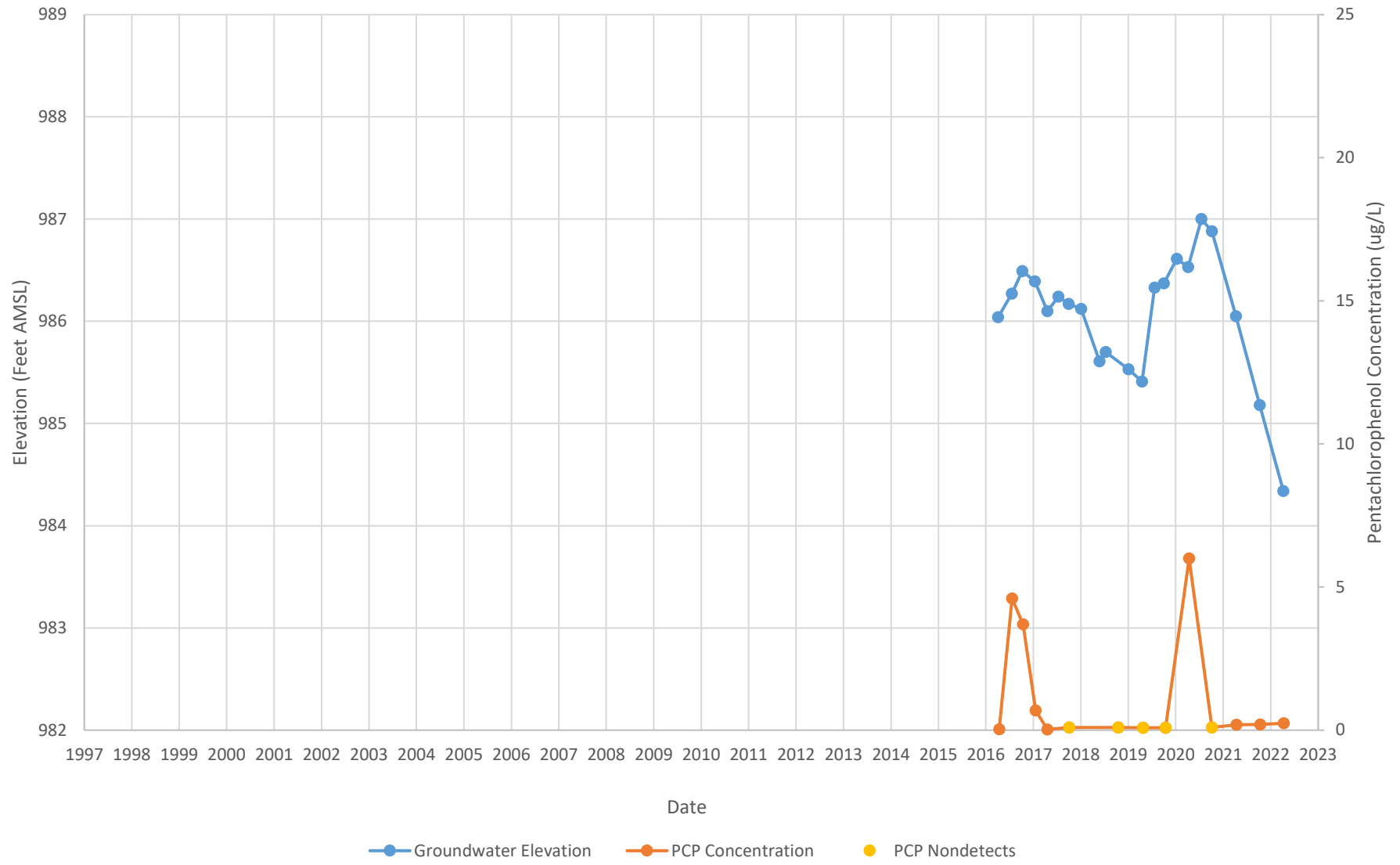
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW31

Penta Wood Products Superfund Site

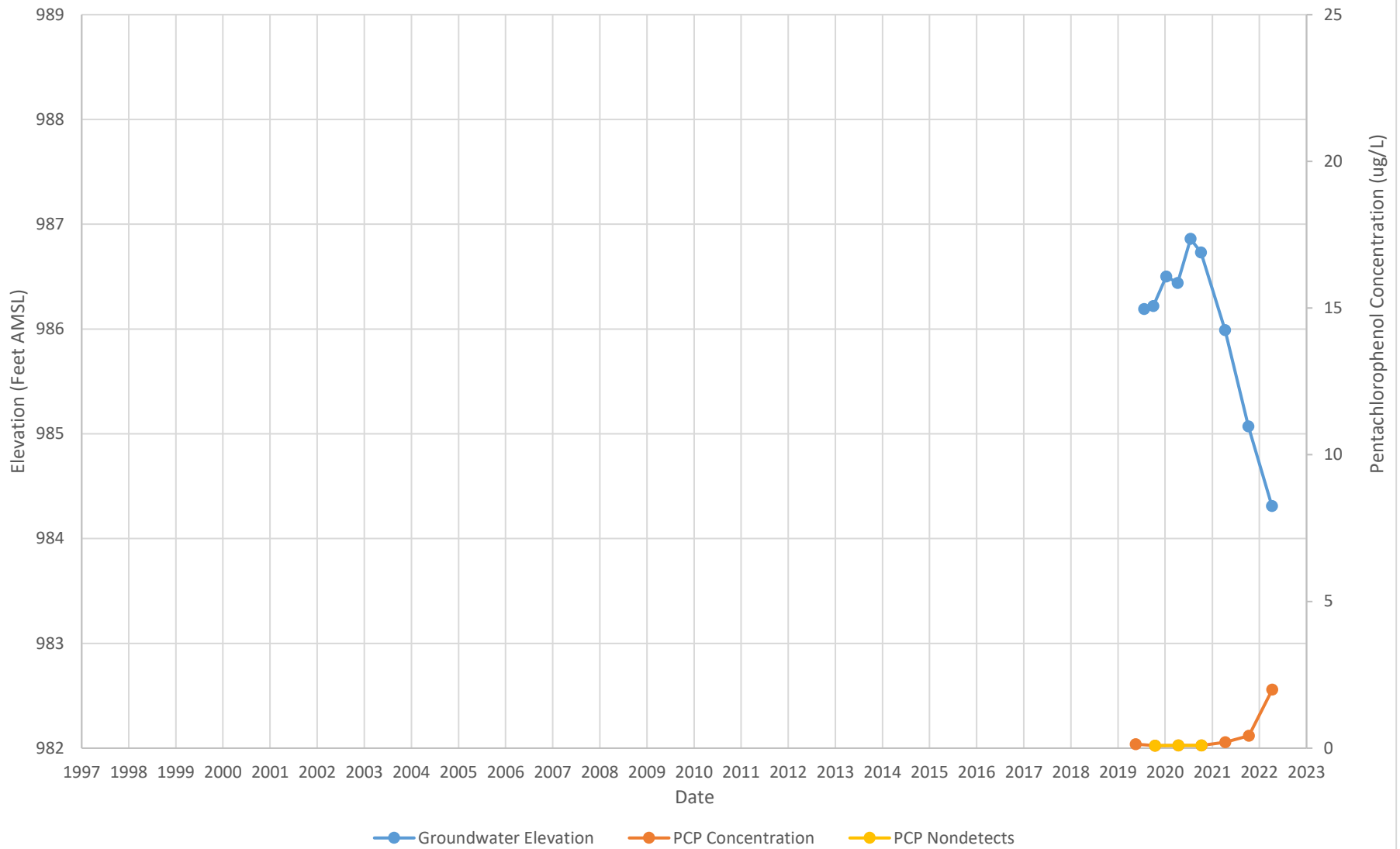
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW32

Penta Wood Products Superfund Site

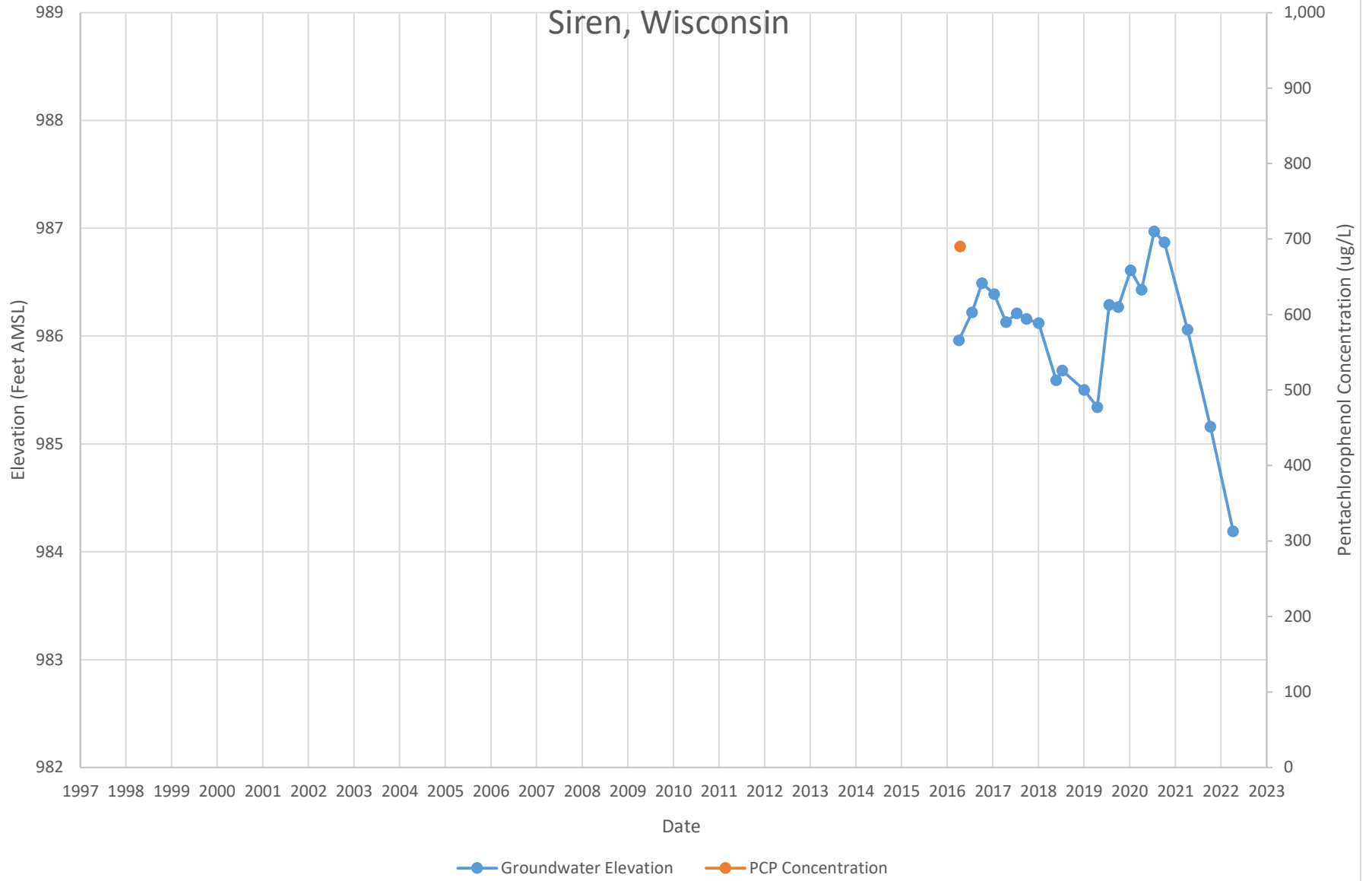
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - EW02S

Penta Wood Products Superfund Site

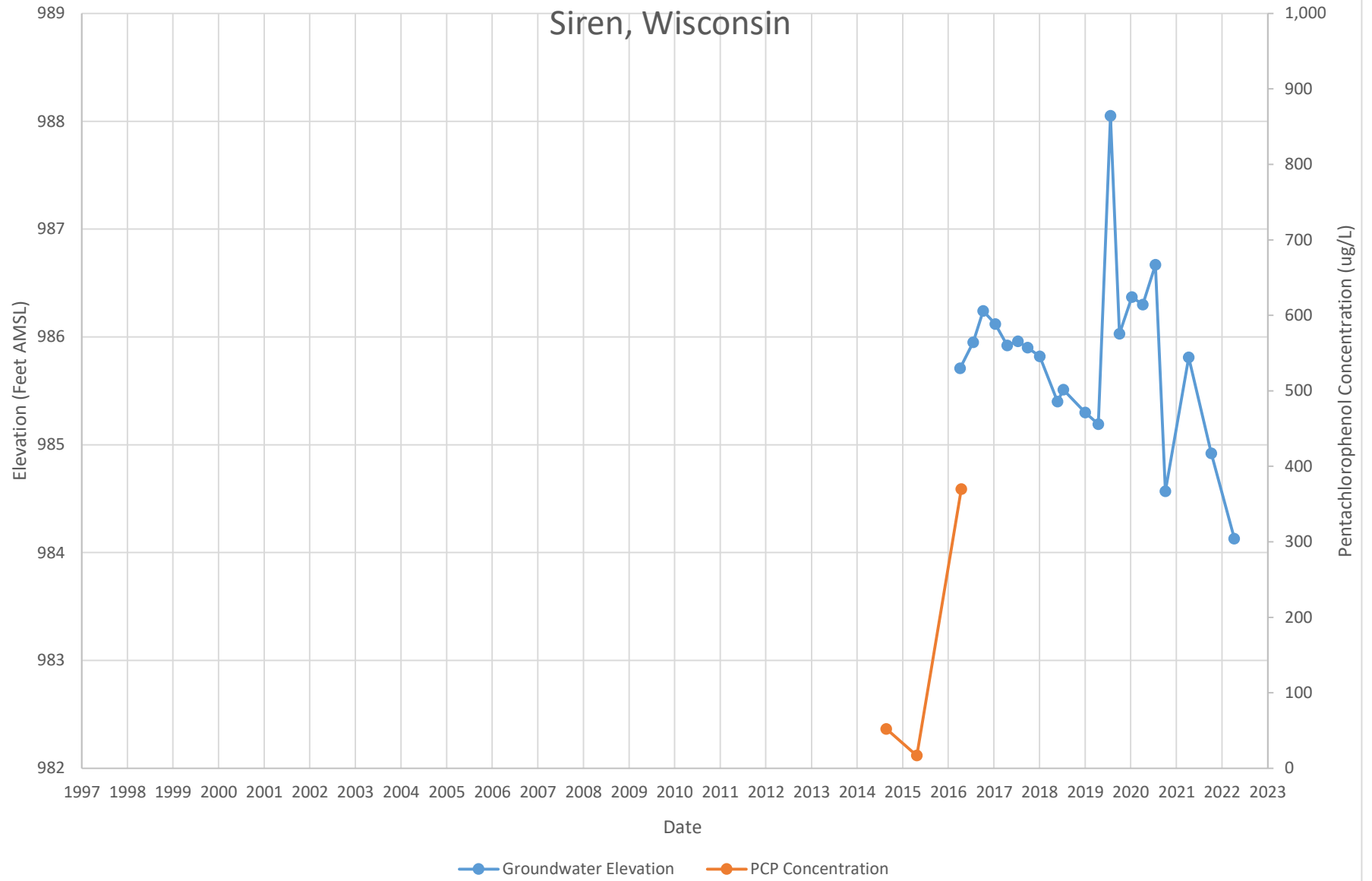
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - EW02D

Penta Wood Products Superfund Site

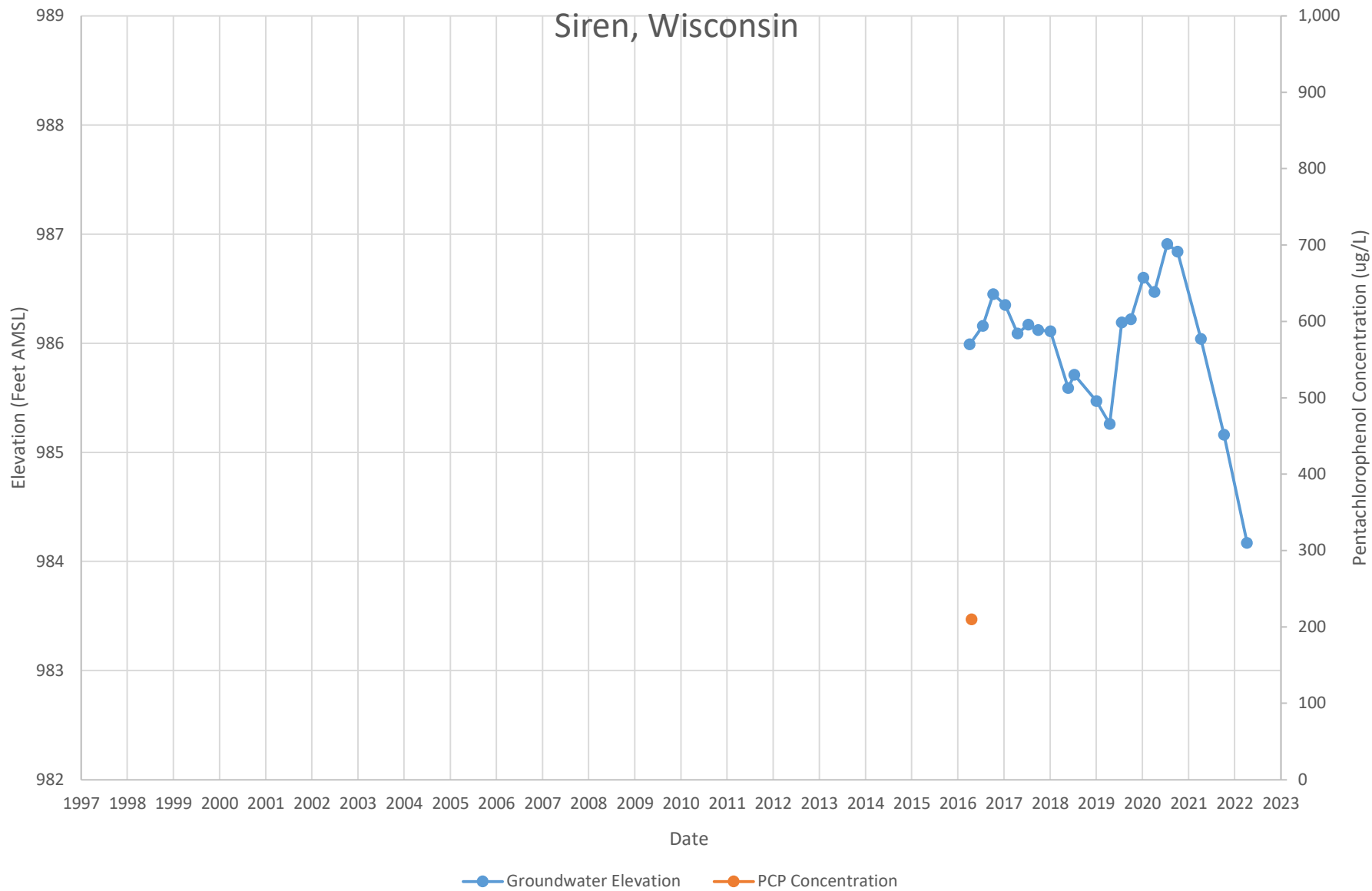
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - EW04S

Penta Wood Products Superfund Site

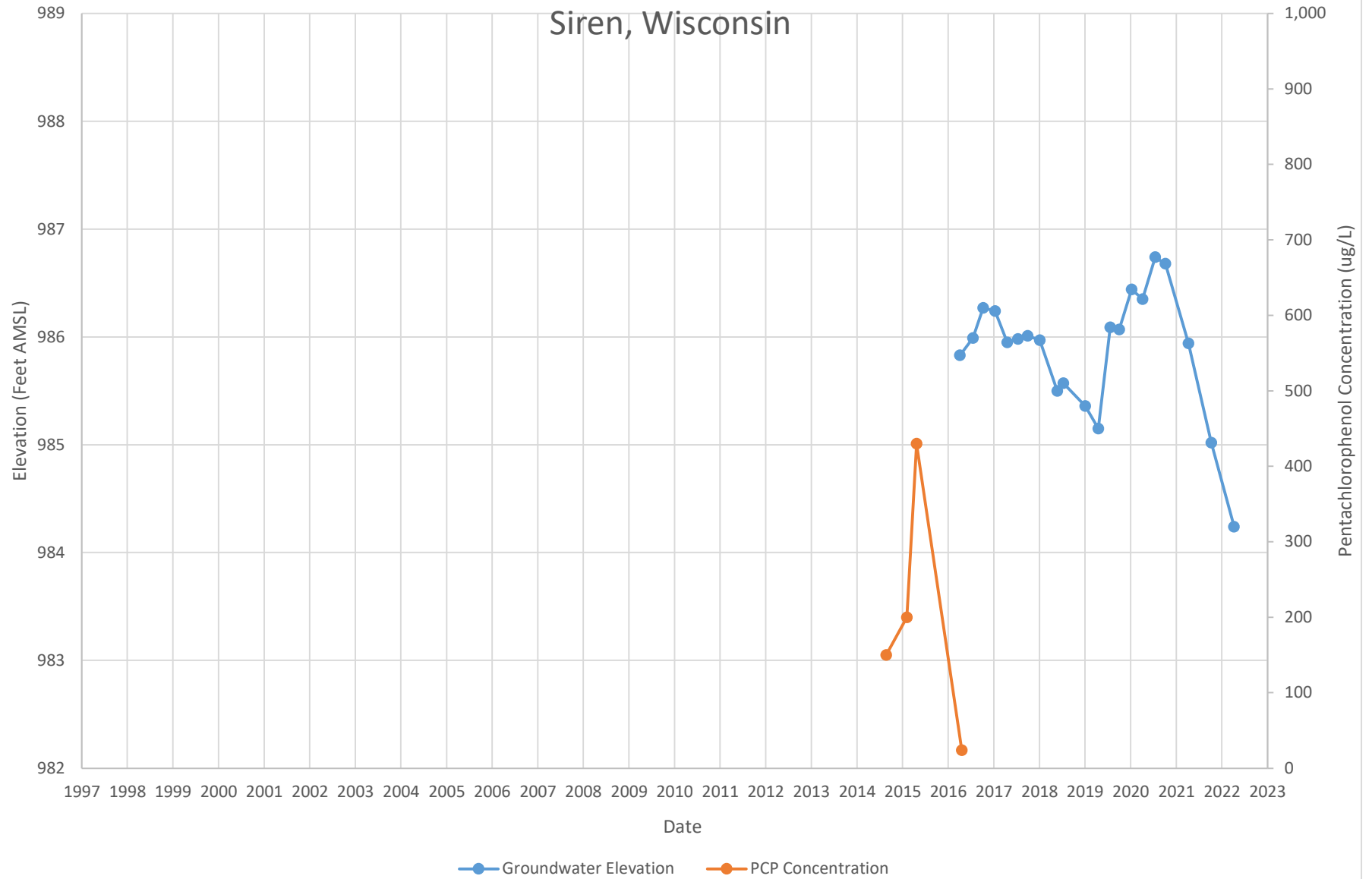
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - EW04D

Penta Wood Products Superfund Site

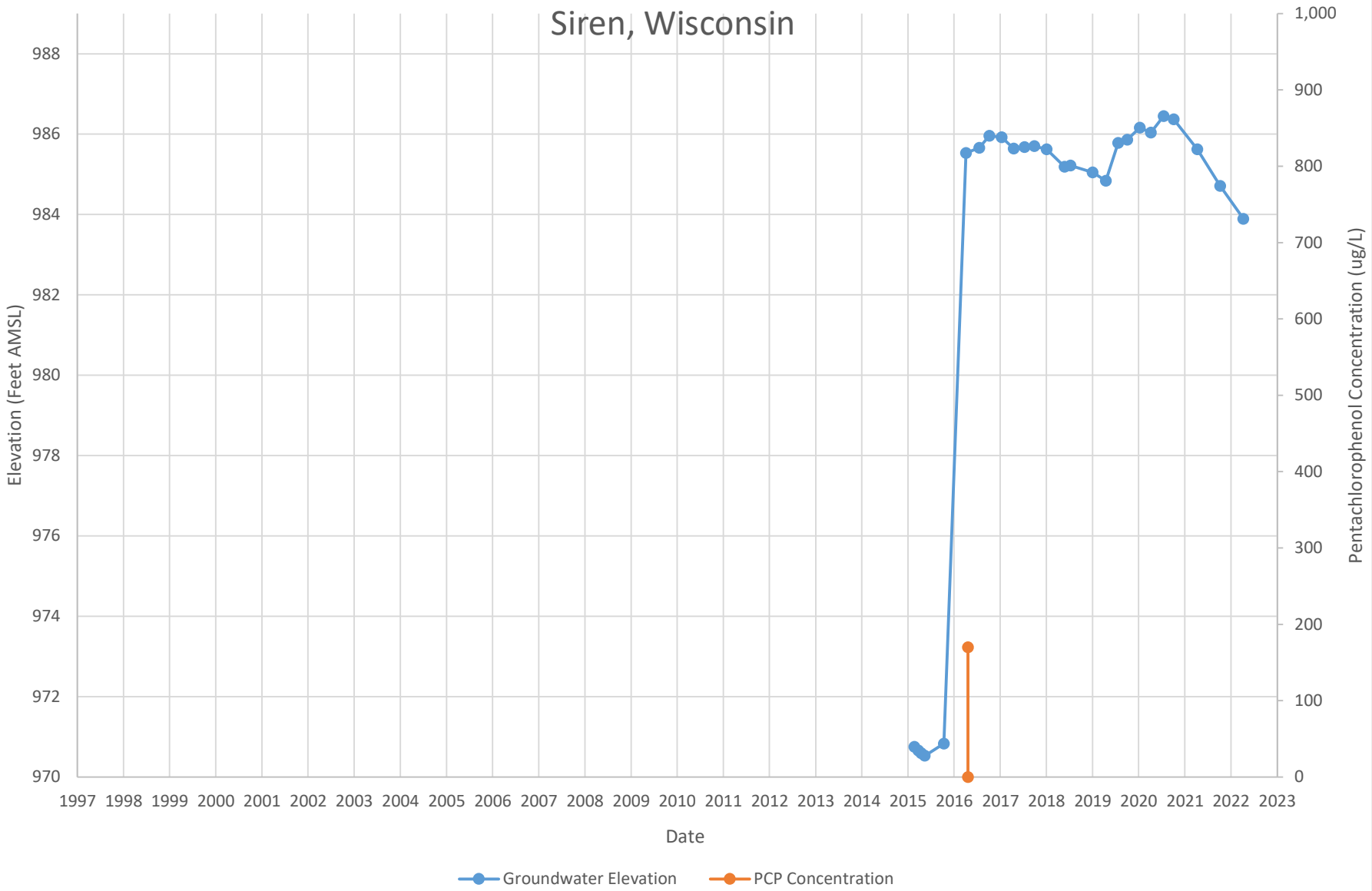
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW6

Penta Wood Products Superfund Site

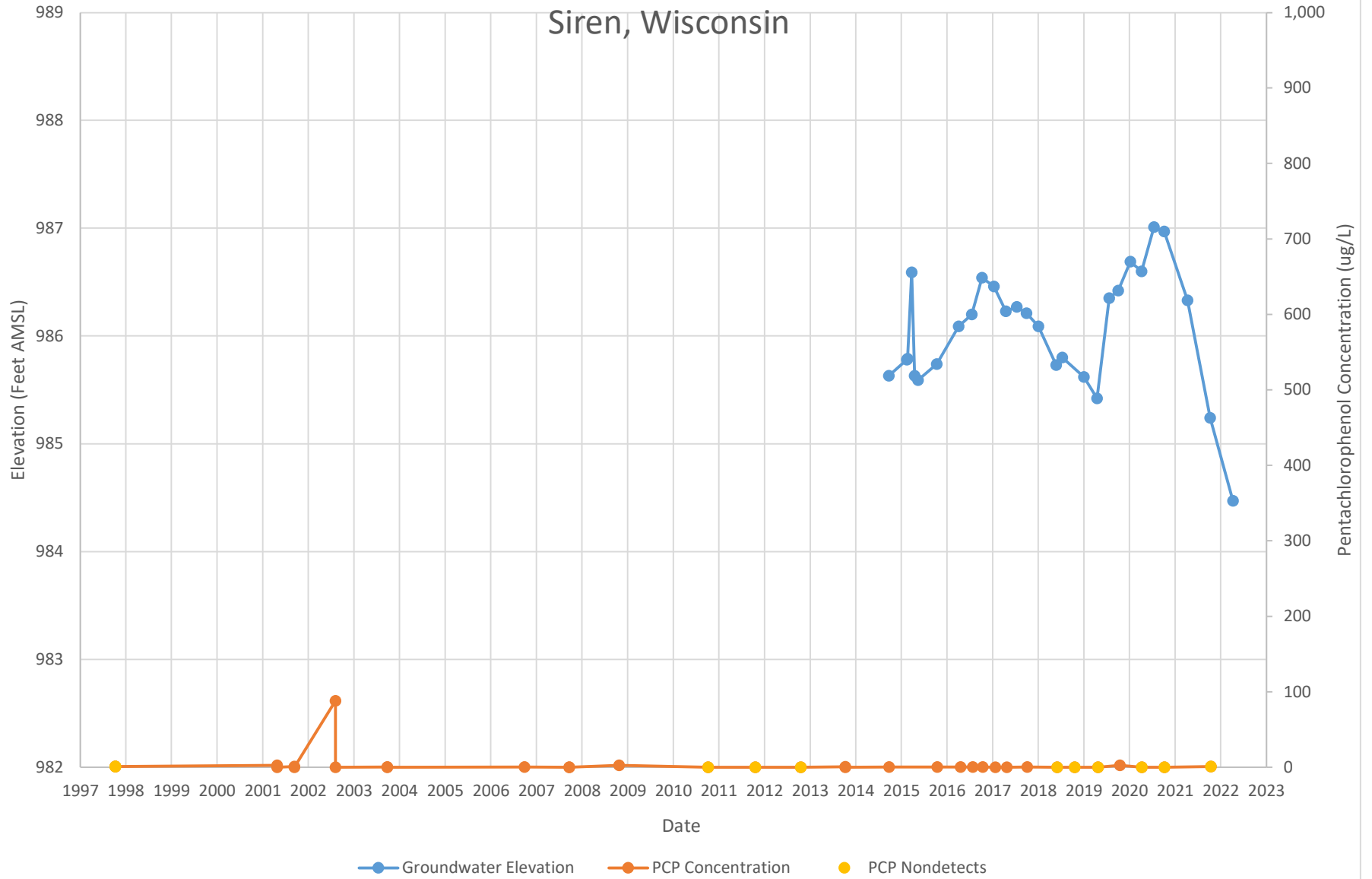
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW6S

Penta Wood Products Superfund Site

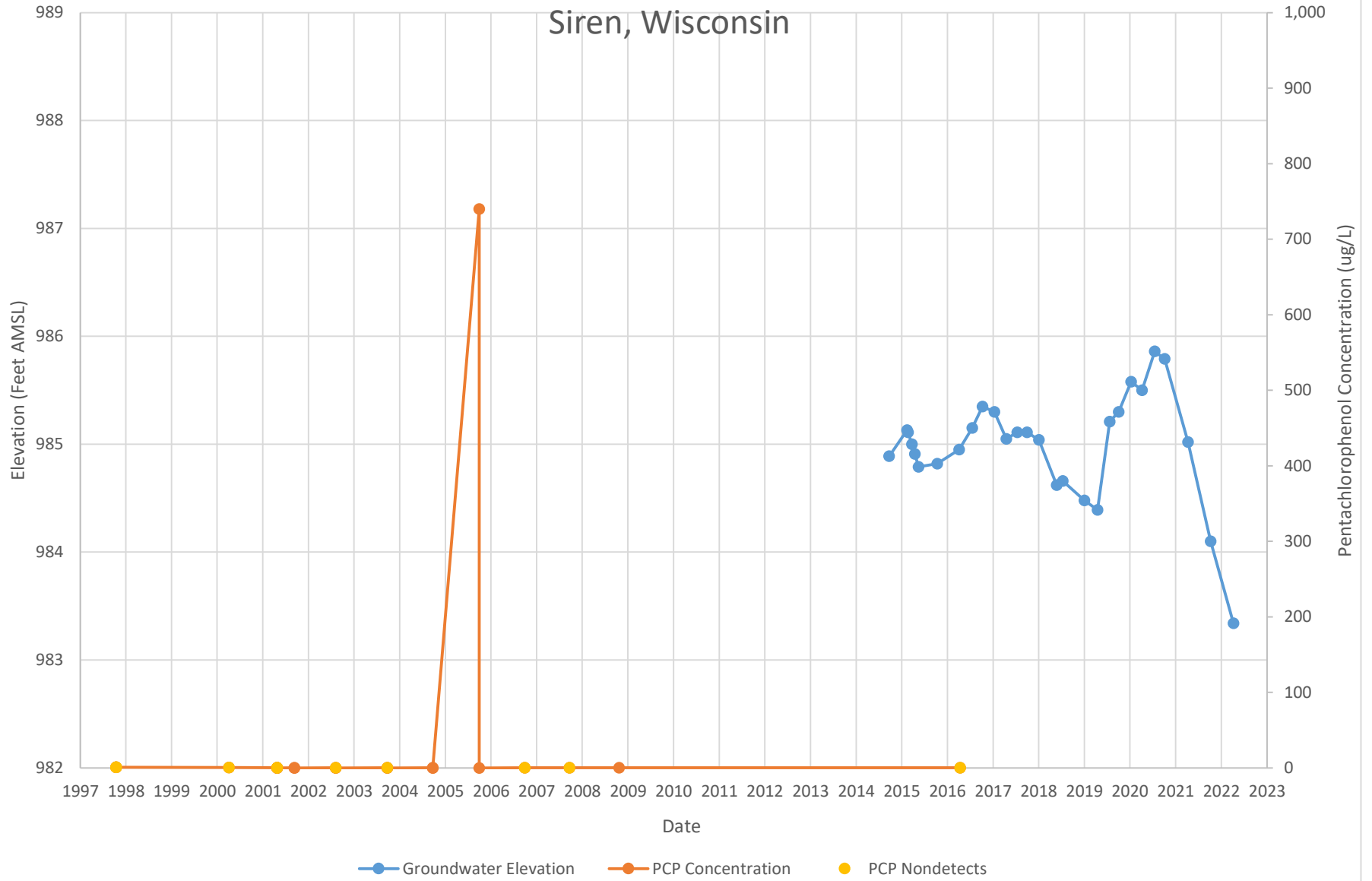
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW11

Penta Wood Products Superfund Site

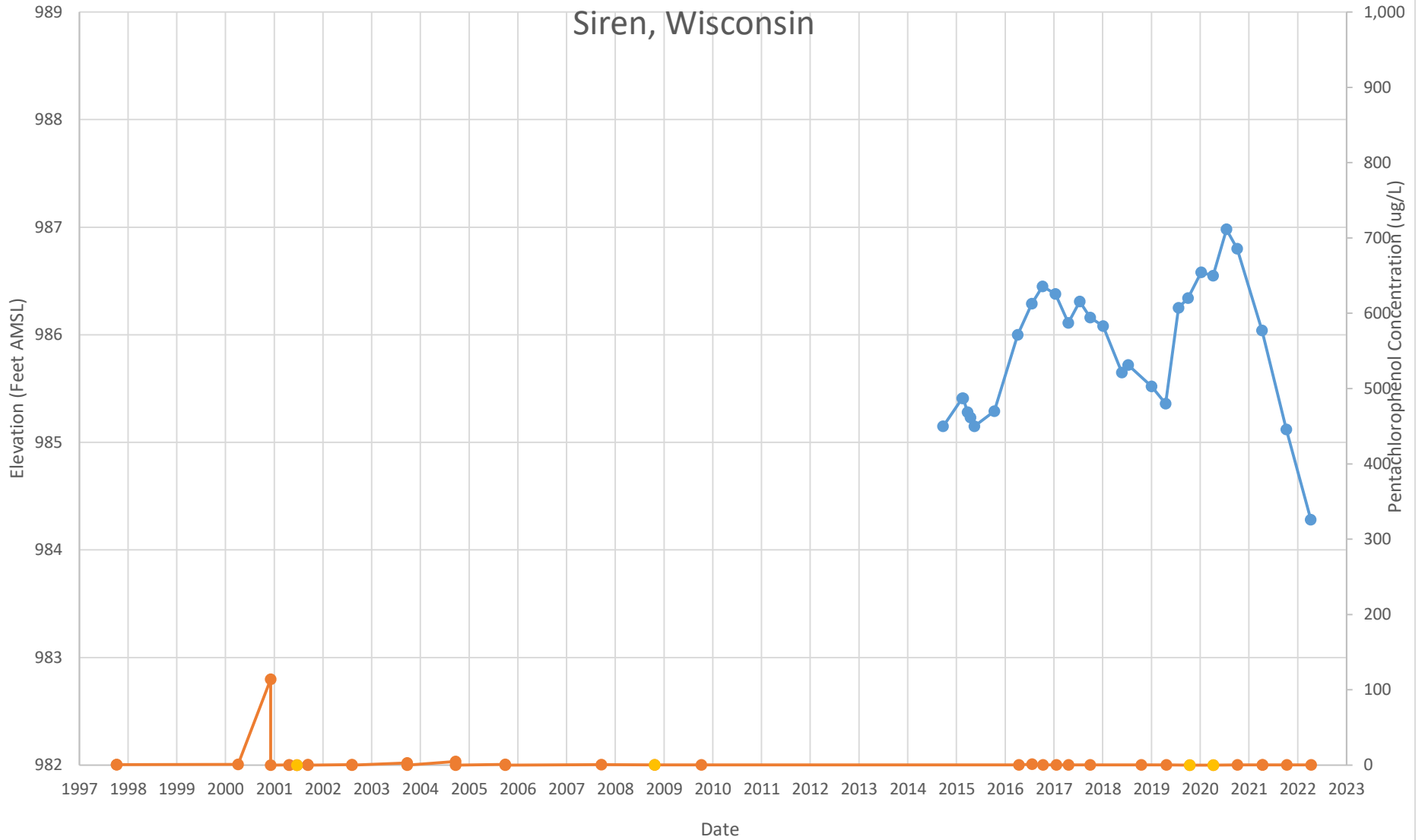
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW13

Penta Wood Products Superfund Site

Siren, Wisconsin

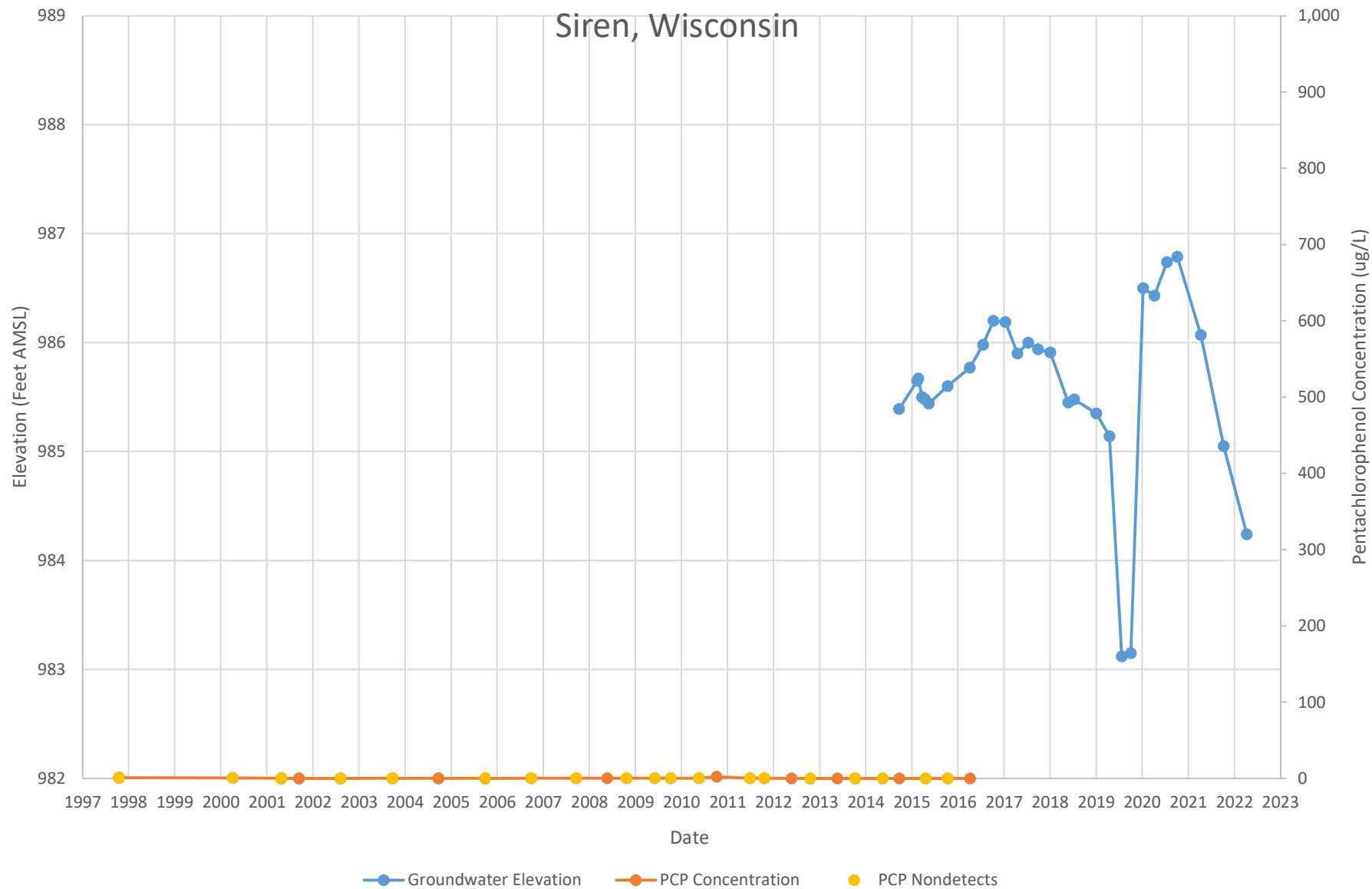


● Groundwater Elevation ● PCP Concentration ● PCP Nondetects

Pentachlorophenol and Groundwater Elevation vs Time Chart - MW15

Penta Wood Products Superfund Site

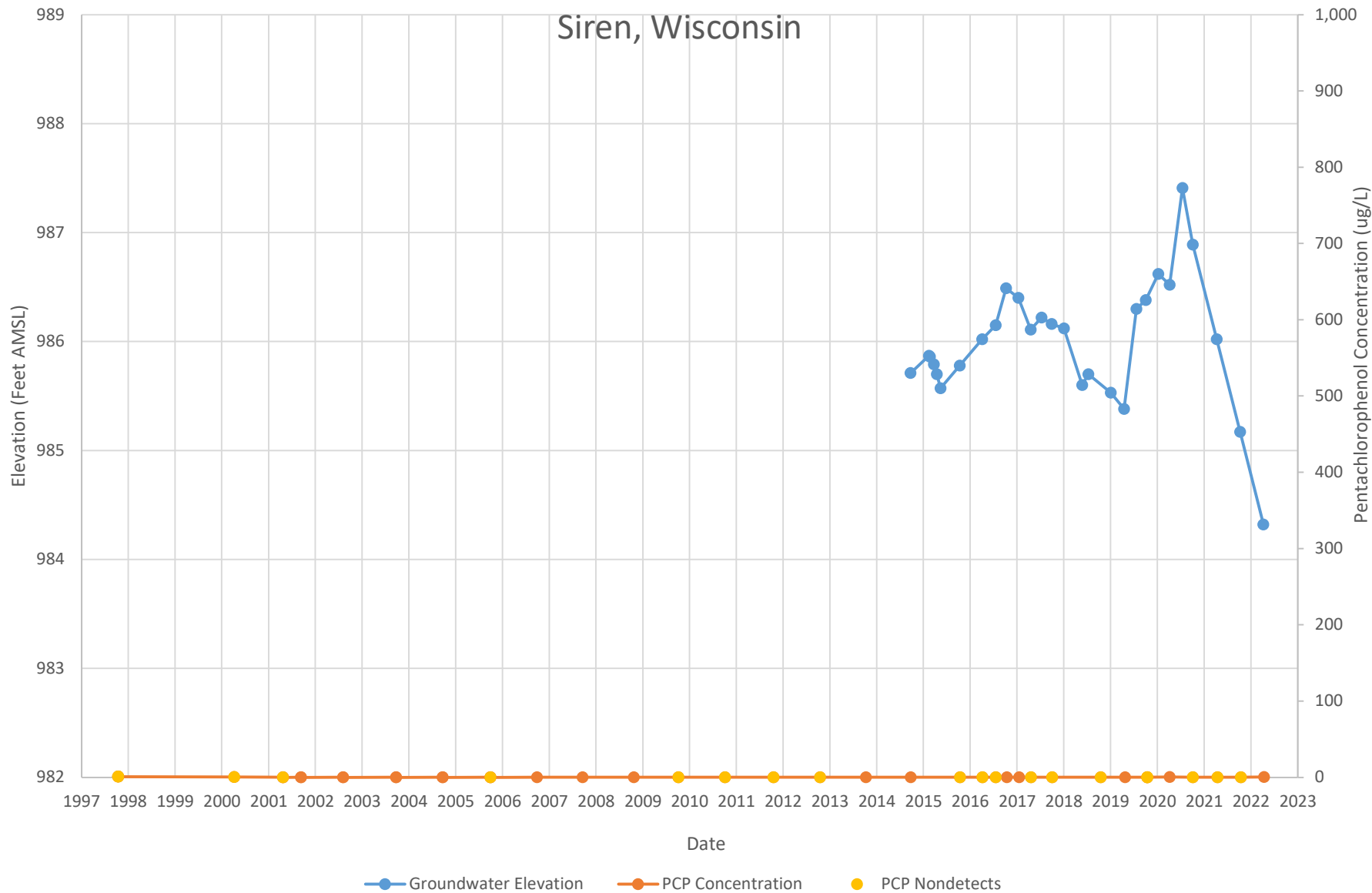
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW16

Penta Wood Products Superfund Site

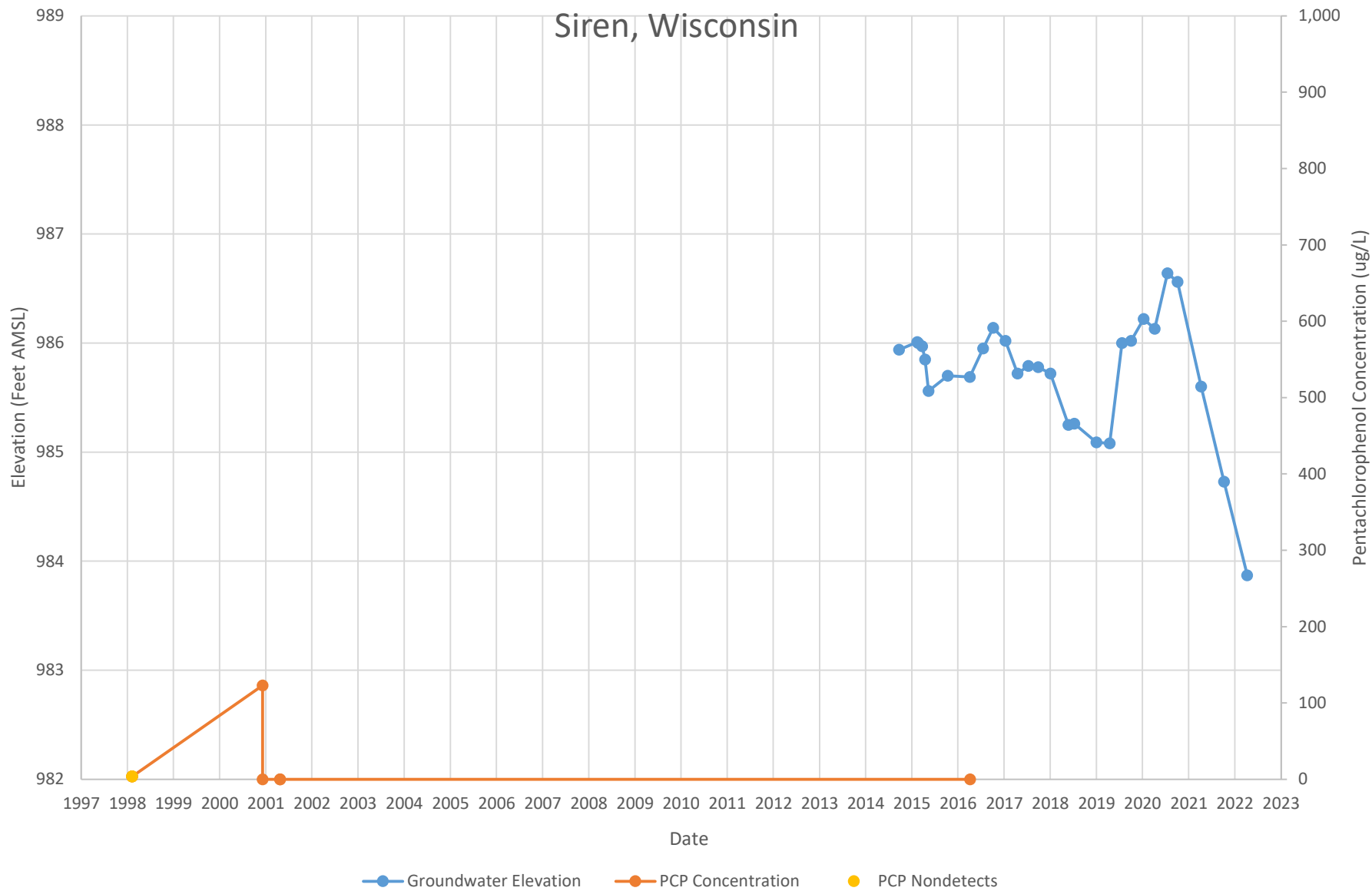
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW24

Penta Wood Products Superfund Site

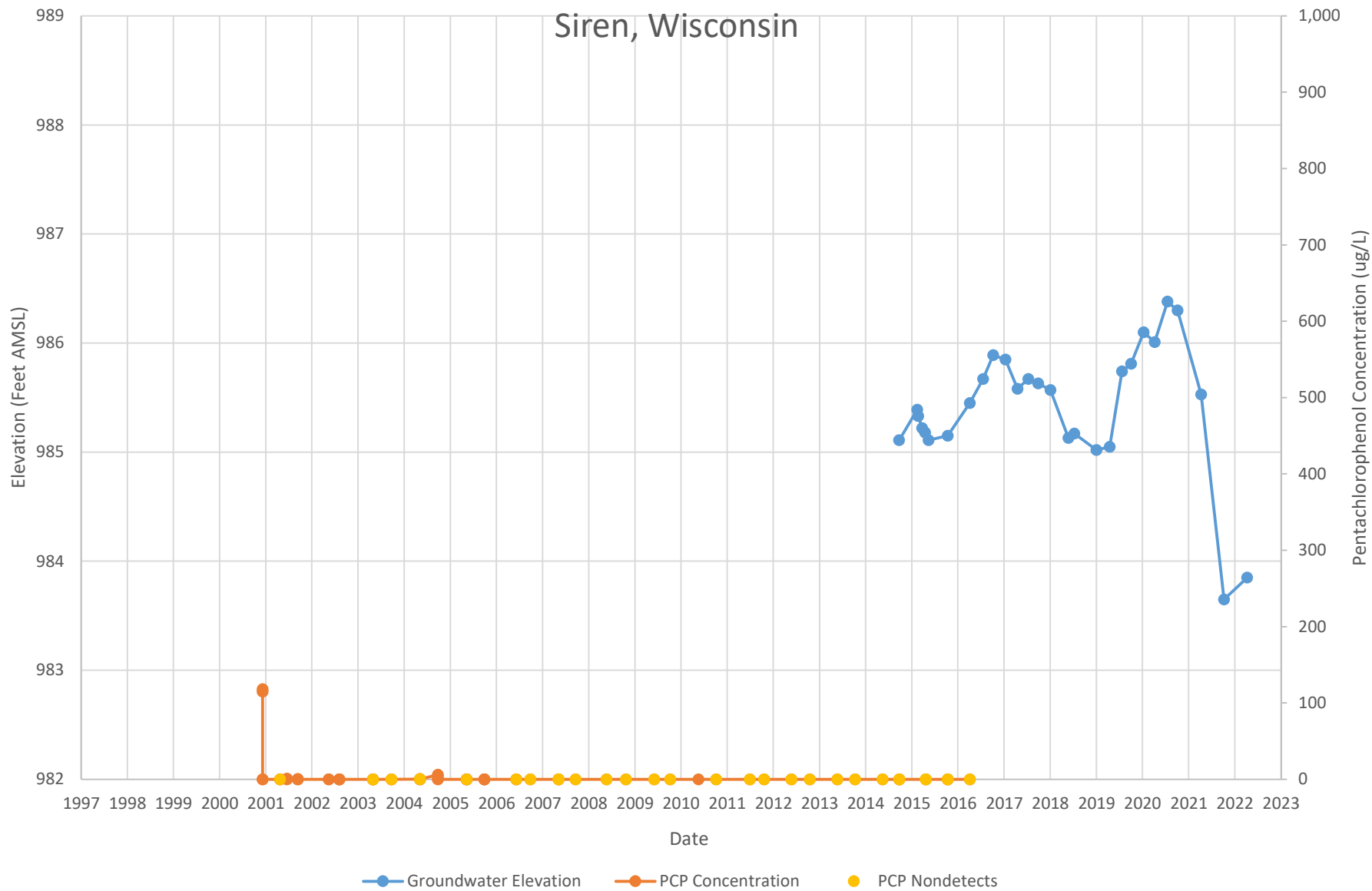
Siren, Wisconsin



Pentachlorophenol and Groundwater Elevation vs Time Chart - MW26

Penta Wood Products Superfund Site

Siren, Wisconsin



Appendix B

**Groundwater Sample Laboratory
Reports – Monitoring, Extraction,
Residential, and Onsite Supply Wells**

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-214946-1
Client Project/Site: Penta Wood 11222418

For:
GHD Services Inc.
900 Long Lake Road
Suite 200
New Brighton, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
4/26/2022 3:04:35 PM

Richard Wright, Senior Project Manager
(708)746-0045
Richard.Wright@et.eurofinsus.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 7 |
| Sample Summary | 8 |
| Client Sample Results | 9 |
| Definitions | 24 |
| QC Association | 25 |
| Surrogate Summary | 29 |
| QC Sample Results | 31 |
| Chronicle | 37 |
| Certification Summary | 41 |
| Chain of Custody | 42 |
| Receipt Checklists | 49 |

Case Narrative

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Job ID: 500-214946-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-214946-1

Receipt

The samples were received on 4/12/2022 3:55 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4° C, 2.1° C, 4.3° C and 4.8° C.

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). Added to COC and logged.

GC/MS VOA

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

GC/MS Semi VOA

Method 8270D: 1,4-Dichlorobenzene-d4 Internal standard (ISTD) response for the following sample was outside of acceptance limits: W-220411-RA-03 (500-214946-3) and W-220411-RA-04 (500-214946-4). This internal standard is not associated to the reported analytes; therefore, re-analysis was not performed.

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

GC VOA

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

GC Semi VOA

Method 8151A: The laboratory control sample duplicate (LCSD) for preparation batch 500-651971 and analytical batch 500-652398 recovered outside control limits for the following analytes: Pentachlorophenol. These analytes were within limits for the laboratory control sample (LCS); therefore, the data have been reported.

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

Metals

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-01

Lab Sample ID: 500-214946-1

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|-------|-------|------|---------|---|----------|-------------------|
| Pentachlorophenol | 0.37 | * | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 7.5 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 1.8 | J | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 11.7 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 37.9 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 0.30 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.33 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 2.5 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 2.3 | | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 66.0 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220411-RA-02

Lab Sample ID: 500-214946-2

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|-------|-------|------|---------|---|----------|-------------------|
| Methane | 0.67 | J | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 2.0 | * | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 2.6 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 49.9 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 17400 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 302 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Zinc | 32.9 | | 20.0 | 6.9 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 8.7 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 154 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 4.2 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 24.1 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 0.46 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.40 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 2.8 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 1.6 | | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 36.1 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220411-RA-03

Lab Sample ID: 500-214946-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-------------------|--------|-----------|-------|------|------|---------|---|--------|-------------------|
| Pentachlorophenol | 0.50 | * | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 0.33 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 2.4 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 2.7 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 2.3 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-03 (Continued)

Lab Sample ID: 500-214946-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Calcium hardness as CaCO3 | 82.5 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 14.2 | | 0.40 | 0.34 | mg/L | 2 | | 300.0 | Total/NA |
| Nitrate as N | 3.9 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 5.9 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 1.0 | | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 116 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220411-RA-04

Lab Sample ID: 500-214946-4

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|-------|-------|------|---------|---|----------|----------------------|
| Pentachlorophenol | 0.24 | * | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Copper | 4.5 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 3.8 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 4.6 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 1.3 | J | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 90.9 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 0.20 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.55 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 1.3 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.62 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 145 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220411-RA-08

Lab Sample ID: 500-214946-5

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Arsenic | 0.58 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 0.55 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.52 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 0.65 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 192 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 11.6 | | 0.40 | 0.34 | mg/L | 2 | | 300.0 | Total/NA |
| Nitrate as N | 1.3 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 108 | | 4.0 | 1.9 | mg/L | 20 | | 300.0 | Total/NA |
| Alkalinity | 200 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220411-RA-07

Lab Sample ID: 500-214946-6

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Arsenic | 0.59 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.52 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 0.78 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 174 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 61.5 | | 4.0 | 3.4 | mg/L | 20 | | 300.0 | Total/NA |
| Nitrate as N | 2.3 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 8.2 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.76 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-07 (Continued)

Lab Sample ID: 500-214946-6

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|------------|--------|-----------|-----|-----|------|---------|---|----------|-----------|
| Alkalinity | 185 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220411-RA-09

Lab Sample ID: 500-214946-7

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|-------------------|
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 2.4 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 504 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 7.8 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.28 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 2.6 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 316 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 5.6 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 103 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 26.2 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Nitrate as N | 1.9 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3.1 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.78 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 138 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: Trip Blank

Lab Sample ID: 500-214946-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

| Method | Method Description | Protocol | Laboratory |
|----------|--|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| RSK-175 | Dissolved Gases (GC) | RSK | TAL CAN |
| 8151A | Herbicides (GC) | SW846 | TAL CHI |
| 6020A | Metals (ICP/MS) | SW846 | TAL CHI |
| SM 2340B | Total Hardness (as CaCO3) by calculation | SM | TAL CHI |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL CHI |
| 9060A | Organic Carbon, Total (TOC) | SW846 | TAL CHI |
| SM 2320B | Alkalinity | SM | TAL CHI |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL CHI |
| 3510C | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL CHI |
| 5030B | Purge and Trap | SW846 | TAL CHI |
| 8151A | Extraction (Herbicides) | SW846 | TAL CHI |

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-214946-1 | W-220411-RA-01 | Water | 04/11/22 10:10 | 04/12/22 15:55 |
| 500-214946-2 | W-220411-RA-02 | Water | 04/11/22 12:30 | 04/12/22 15:55 |
| 500-214946-3 | W-220411-RA-03 | Water | 04/11/22 13:20 | 04/12/22 15:55 |
| 500-214946-4 | W-220411-RA-04 | Water | 04/11/22 14:24 | 04/12/22 15:55 |
| 500-214946-5 | W-220411-RA-08 | Water | 04/11/22 12:50 | 04/12/22 15:55 |
| 500-214946-6 | W-220411-RA-07 | Water | 04/11/22 12:15 | 04/12/22 15:55 |
| 500-214946-7 | W-220411-RA-09 | Water | 04/11/22 13:35 | 04/12/22 15:55 |
| 500-214946-8 | Trip Blank | Water | 04/11/22 00:00 | 04/12/22 15:55 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-01

Lab Sample ID: 500-214946-1

Date Collected: 04/11/22 10:10

Matrix: Water

Date Received: 04/12/22 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 14:41 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 14:41 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 14:41 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 14:41 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 75 - 126 | | 04/13/22 14:41 | 1 |
| Toluene-d8 (Surr) | 100 | | 75 - 120 | | 04/13/22 14:41 | 1 |
| 4-Bromofluorobenzene (Surr) | 90 | | 72 - 124 | | 04/13/22 14:41 | 1 |
| Dibromofluoromethane | 95 | | 75 - 120 | | 04/13/22 14:41 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.25 | | 0.82 | 0.25 | ug/L | | 04/18/22 07:30 | 04/20/22 19:50 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 69 | | 36 - 120 | 04/18/22 07:30 | 04/20/22 19:50 | 1 |
| 2-Fluorobiphenyl (Surr) | 62 | | 34 - 110 | 04/18/22 07:30 | 04/20/22 19:50 | 1 |
| Terphenyl-d14 (Surr) | 96 | | 40 - 145 | 04/18/22 07:30 | 04/20/22 19:50 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 17:52 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 98 | | 60 - 140 | | 04/15/22 17:52 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.37 | * | 0.095 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 16:00 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 108 | | 25 - 130 | 04/15/22 13:55 | 04/19/22 16:00 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:21 | 1 |
| Copper | 7.5 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:21 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:21 | 1 |
| Manganese | 1.8 | J | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:21 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:21 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:52 | 1 |
| Copper | 11.7 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:52 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:52 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:52 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:52 | 1 |

Eurofins Chicago

Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-01

Lab Sample ID: 500-214946-1

Date Collected: 04/11/22 10:10

Matrix: Water

Date Received: 04/12/22 15:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 37.9 | | 0.50 | 0.25 | mg/L | | 04/19/22 08:34 | 04/21/22 13:10 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 0.30 | | 0.20 | 0.17 | mg/L | | | 04/12/22 19:44 | 1 |
| Nitrate as N | 0.33 | | 0.20 | 0.068 | mg/L | | | 04/12/22 19:44 | 1 |
| Sulfate | 2.5 | | 0.20 | 0.095 | mg/L | | | 04/12/22 19:44 | 1 |
| Total Organic Carbon - Duplicates | 2.3 | | 1.0 | 0.47 | mg/L | | | 04/16/22 12:38 | 1 |
| Alkalinity | 66.0 | | 5.0 | 3.7 | mg/L | | | 04/14/22 15:16 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-02

Lab Sample ID: 500-214946-2

Date Collected: 04/11/22 12:30

Matrix: Water

Date Received: 04/12/22 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 15:04 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 15:04 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 15:04 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 15:04 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 75 - 126 | | 04/13/22 15:04 | 1 |
| Toluene-d8 (Surr) | 98 | | 75 - 120 | | 04/13/22 15:04 | 1 |
| 4-Bromofluorobenzene (Surr) | 91 | | 72 - 124 | | 04/13/22 15:04 | 1 |
| Dibromofluoromethane | 93 | | 75 - 120 | | 04/13/22 15:04 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.25 | | 0.82 | 0.25 | ug/L | | 04/18/22 07:30 | 04/20/22 20:13 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 74 | | 36 - 120 | 04/18/22 07:30 | 04/20/22 20:13 | 1 |
| 2-Fluorobiphenyl (Surr) | 69 | | 34 - 110 | 04/18/22 07:30 | 04/20/22 20:13 | 1 |
| Terphenyl-d14 (Surr) | 111 | | 40 - 145 | 04/18/22 07:30 | 04/20/22 20:13 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | 0.67 | J | 1.0 | 0.17 | ug/L | | | 04/15/22 18:09 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 98 | | 60 - 140 | | 04/15/22 18:09 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 2.0 | * | 0.095 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 16:19 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 110 | | 25 - 130 | 04/15/22 13:55 | 04/19/22 16:19 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 2.6 | | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:25 | 1 |
| Copper | 49.9 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:25 | 1 |
| Iron | 17400 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:25 | 1 |
| Manganese | 302 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:25 | 1 |
| Zinc | 32.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:25 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:55 | 1 |
| Copper | 8.7 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:55 | 1 |
| Iron | 154 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:55 | 1 |
| Manganese | 4.2 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:55 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:55 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-02

Lab Sample ID: 500-214946-2

Date Collected: 04/11/22 12:30

Matrix: Water

Date Received: 04/12/22 15:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 24.1 | | 0.50 | 0.25 | mg/L | | 04/19/22 08:34 | 04/21/22 13:10 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 0.46 | | 0.20 | 0.17 | mg/L | | | 04/12/22 20:25 | 1 |
| Nitrate as N | 0.40 | | 0.20 | 0.068 | mg/L | | | 04/12/22 20:25 | 1 |
| Sulfate | 2.8 | | 0.20 | 0.095 | mg/L | | | 04/12/22 20:25 | 1 |
| Total Organic Carbon - Duplicates | 1.6 | | 1.0 | 0.47 | mg/L | | | 04/16/22 13:06 | 1 |
| Alkalinity | 36.1 | | 5.0 | 3.7 | mg/L | | | 04/14/22 10:29 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-03

Lab Sample ID: 500-214946-3

Date Collected: 04/11/22 13:20

Matrix: Water

Date Received: 04/12/22 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 15:28 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 15:28 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 15:28 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 15:28 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 75 - 126 | | 04/13/22 15:28 | 1 |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | 04/13/22 15:28 | 1 |
| 4-Bromofluorobenzene (Surr) | 94 | | 72 - 124 | | 04/13/22 15:28 | 1 |
| Dibromofluoromethane | 94 | | 75 - 120 | | 04/13/22 15:28 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/18/22 07:30 | 04/20/22 20:35 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 76 | | 36 - 120 | 04/18/22 07:30 | 04/20/22 20:35 | 1 |
| 2-Fluorobiphenyl (Surr) | 72 | | 34 - 110 | 04/18/22 07:30 | 04/20/22 20:35 | 1 |
| Terphenyl-d14 (Surr) | 127 | | 40 - 145 | 04/18/22 07:30 | 04/20/22 20:35 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 18:26 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 98 | | 60 - 140 | | 04/15/22 18:26 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.50 | * | 0.095 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 16:58 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 115 | | 25 - 130 | 04/15/22 13:55 | 04/19/22 16:58 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.33 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:28 | 1 |
| Copper | 2.4 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:28 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:28 | 1 |
| Manganese | 2.7 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:28 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:28 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:59 | 1 |
| Copper | 2.3 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:59 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:59 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:59 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:59 | 1 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-03

Lab Sample ID: 500-214946-3

Date Collected: 04/11/22 13:20

Matrix: Water

Date Received: 04/12/22 15:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 82.5 | | 0.50 | 0.25 | mg/L | | 04/19/22 08:34 | 04/21/22 13:10 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 14.2 | | 0.40 | 0.34 | mg/L | | | 04/15/22 17:03 | 2 |
| Nitrate as N | 3.9 | | 0.20 | 0.068 | mg/L | | | 04/12/22 20:38 | 1 |
| Sulfate | 5.9 | | 0.20 | 0.095 | mg/L | | | 04/12/22 20:38 | 1 |
| Total Organic Carbon - Duplicates | 1.0 | | 1.0 | 0.47 | mg/L | | | 04/16/22 13:34 | 1 |
| Alkalinity | 116 | | 5.0 | 3.7 | mg/L | | | 04/14/22 15:24 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-04

Lab Sample ID: 500-214946-4

Date Collected: 04/11/22 14:24

Matrix: Water

Date Received: 04/12/22 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 15:51 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 15:51 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 15:51 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 15:51 | 1 |
| <hr/> | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 86 | | 75 - 126 | | | | | 04/13/22 15:51 | 1 |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | | | | 04/13/22 15:51 | 1 |
| 4-Bromofluorobenzene (Surr) | 89 | | 72 - 124 | | | | | 04/13/22 15:51 | 1 |
| Dibromofluoromethane | 95 | | 75 - 120 | | | | | 04/13/22 15:51 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.79 | 0.24 | ug/L | | 04/18/22 07:30 | 04/20/22 20:58 | 1 |
| <hr/> | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Nitrobenzene-d5 (Surr) | 81 | | 36 - 120 | | | | 04/18/22 07:30 | 04/20/22 20:58 | 1 |
| 2-Fluorobiphenyl (Surr) | 75 | | 34 - 110 | | | | 04/18/22 07:30 | 04/20/22 20:58 | 1 |
| Terphenyl-d14 (Surr) | 124 | | 40 - 145 | | | | 04/18/22 07:30 | 04/20/22 20:58 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 18:43 | 1 |
| <hr/> | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,1,1-Trifluoroethane | 96 | | 60 - 140 | | | | | 04/15/22 18:43 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.24 | * | 0.095 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 17:17 | 1 |
| <hr/> | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCAA | 109 | | 25 - 130 | | | | 04/15/22 13:55 | 04/19/22 17:17 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:31 | 1 |
| Copper | 4.5 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:31 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:31 | 1 |
| Manganese | 3.8 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:31 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:31 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 19:02 | 1 |
| Copper | 4.6 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 19:02 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 19:02 | 1 |
| Manganese | 1.3 | J | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 19:02 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 19:02 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-04

Lab Sample ID: 500-214946-4

Date Collected: 04/11/22 14:24

Matrix: Water

Date Received: 04/12/22 15:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 90.9 | | 0.50 | 0.25 | mg/L | | 04/19/22 08:34 | 04/21/22 13:10 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 0.20 | | 0.20 | 0.17 | mg/L | | | 04/12/22 20:52 | 1 |
| Nitrate as N | 0.55 | | 0.20 | 0.068 | mg/L | | | 04/12/22 20:52 | 1 |
| Sulfate | 1.3 | | 0.20 | 0.095 | mg/L | | | 04/12/22 20:52 | 1 |
| Total Organic Carbon - Duplicates | 0.62 | J | 1.0 | 0.47 | mg/L | | | 04/16/22 14:02 | 1 |
| Alkalinity | 145 | | 5.0 | 3.7 | mg/L | | | 04/14/22 15:31 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-08

Lab Sample ID: 500-214946-5

Date Collected: 04/11/22 12:50

Matrix: Water

Date Received: 04/12/22 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 16:14 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 16:14 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 16:14 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 16:14 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 85 | | 75 - 126 | | 04/13/22 16:14 | 1 |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | 04/13/22 16:14 | 1 |
| 4-Bromofluorobenzene (Surr) | 90 | | 72 - 124 | | 04/13/22 16:14 | 1 |
| Dibromofluoromethane | 96 | | 75 - 120 | | 04/13/22 16:14 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/18/22 07:30 | 04/20/22 21:21 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 82 | | 36 - 120 | 04/18/22 07:30 | 04/20/22 21:21 | 1 |
| 2-Fluorobiphenyl (Surr) | 78 | | 34 - 110 | 04/18/22 07:30 | 04/20/22 21:21 | 1 |
| Terphenyl-d14 (Surr) | 139 | | 40 - 145 | 04/18/22 07:30 | 04/20/22 21:21 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 19:00 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 96 | | 60 - 140 | | 04/15/22 19:00 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.098 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 17:36 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 114 | | 25 - 130 | 04/15/22 13:55 | 04/19/22 17:36 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.58 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:42 | 1 |
| Copper | 0.55 | J | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:42 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:42 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:42 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:42 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.52 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 19:05 | 1 |
| Copper | 0.65 | J | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 19:05 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 19:05 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 19:05 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 19:05 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-08

Lab Sample ID: 500-214946-5

Date Collected: 04/11/22 12:50

Matrix: Water

Date Received: 04/12/22 15:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 192 | | 0.50 | 0.25 | mg/L | | 04/19/22 08:34 | 04/21/22 13:10 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 11.6 | | 0.40 | 0.34 | mg/L | | | 04/15/22 17:15 | 2 |
| Nitrate as N | 1.3 | | 0.20 | 0.068 | mg/L | | | 04/12/22 21:06 | 1 |
| Sulfate | 108 | | 4.0 | 1.9 | mg/L | | | 04/15/22 17:28 | 20 |
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/16/22 15:33 | 1 |
| Alkalinity | 200 | | 5.0 | 3.7 | mg/L | | | 04/14/22 15:39 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-07

Lab Sample ID: 500-214946-6

Date Collected: 04/11/22 12:15

Matrix: Water

Date Received: 04/12/22 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 16:38 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 16:38 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 16:38 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 16:38 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 87 | | 75 - 126 | | 04/13/22 16:38 | 1 |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | 04/13/22 16:38 | 1 |
| 4-Bromofluorobenzene (Surr) | 89 | | 72 - 124 | | 04/13/22 16:38 | 1 |
| Dibromofluoromethane | 98 | | 75 - 120 | | 04/13/22 16:38 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/18/22 07:30 | 04/20/22 21:43 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 90 | | 36 - 120 | 04/18/22 07:30 | 04/20/22 21:43 | 1 |
| 2-Fluorobiphenyl (Surr) | 81 | | 34 - 110 | 04/18/22 07:30 | 04/20/22 21:43 | 1 |
| Terphenyl-d14 (Surr) | 114 | | 40 - 145 | 04/18/22 07:30 | 04/20/22 21:43 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 19:17 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 96 | | 60 - 140 | | 04/15/22 19:17 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.10 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 17:56 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 115 | | 25 - 130 | 04/15/22 13:55 | 04/19/22 17:56 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.59 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:45 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:45 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:45 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:45 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:45 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.52 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 19:09 | 1 |
| Copper | 0.78 | J | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 19:09 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 19:09 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 19:09 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 19:09 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-07

Lab Sample ID: 500-214946-6

Date Collected: 04/11/22 12:15

Matrix: Water

Date Received: 04/12/22 15:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 174 | | 0.50 | 0.25 | mg/L | | 04/19/22 08:34 | 04/21/22 13:10 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 61.5 | | 4.0 | 3.4 | mg/L | | | 04/15/22 17:41 | 20 |
| Nitrate as N | 2.3 | | 0.20 | 0.068 | mg/L | | | 04/12/22 21:19 | 1 |
| Sulfate | 8.2 | | 0.20 | 0.095 | mg/L | | | 04/12/22 21:19 | 1 |
| Total Organic Carbon - Duplicates | 0.76 | J | 1.0 | 0.47 | mg/L | | | 04/16/22 16:01 | 1 |
| Alkalinity | 185 | | 5.0 | 3.7 | mg/L | | | 04/14/22 15:50 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-09

Lab Sample ID: 500-214946-7

Date Collected: 04/11/22 13:35

Matrix: Water

Date Received: 04/12/22 15:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 17:01 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 17:01 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 17:01 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 17:01 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 85 | | 75 - 126 | | 04/13/22 17:01 | 1 |
| Toluene-d8 (Surr) | 100 | | 75 - 120 | | 04/13/22 17:01 | 1 |
| 4-Bromofluorobenzene (Surr) | 89 | | 72 - 124 | | 04/13/22 17:01 | 1 |
| Dibromofluoromethane | 93 | | 75 - 120 | | 04/13/22 17:01 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.78 | 0.24 | ug/L | | 04/18/22 07:30 | 04/20/22 22:06 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 84 | | 36 - 120 | 04/18/22 07:30 | 04/20/22 22:06 | 1 |
| 2-Fluorobiphenyl (Surr) | 77 | | 34 - 110 | 04/18/22 07:30 | 04/20/22 22:06 | 1 |
| Terphenyl-d14 (Surr) | 119 | | 40 - 145 | 04/18/22 07:30 | 04/20/22 22:06 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 19:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 96 | | 60 - 140 | | 04/15/22 19:34 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.095 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 18:15 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 109 | | 25 - 130 | 04/15/22 13:55 | 04/19/22 18:15 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:48 | 1 |
| Copper | 2.4 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:48 | 1 |
| Iron | 504 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:48 | 1 |
| Manganese | 7.8 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:48 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:48 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.28 | J | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 19:12 | 1 |
| Copper | 2.6 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 19:12 | 1 |
| Iron | 316 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 19:12 | 1 |
| Manganese | 5.6 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 19:12 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 19:12 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-09

Lab Sample ID: 500-214946-7

Date Collected: 04/11/22 13:35

Matrix: Water

Date Received: 04/12/22 15:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 103 | | 0.50 | 0.25 | mg/L | | 04/19/22 08:34 | 04/21/22 13:10 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 26.2 | | 1.0 | 0.85 | mg/L | | | 04/15/22 17:53 | 5 |
| Nitrate as N | 1.9 | | 0.20 | 0.068 | mg/L | | | 04/12/22 21:33 | 1 |
| Sulfate | 3.1 | | 0.20 | 0.095 | mg/L | | | 04/12/22 21:33 | 1 |
| Total Organic Carbon - Duplicates | 0.78 | J | 1.0 | 0.47 | mg/L | | | 04/16/22 16:53 | 1 |
| Alkalinity | 138 | | 5.0 | 3.7 | mg/L | | | 04/14/22 15:56 | 1 |

Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: Trip Blank
Date Collected: 04/11/22 00:00
Date Received: 04/12/22 15:55

Lab Sample ID: 500-214946-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/21/22 12:15 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/21/22 12:15 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/21/22 12:15 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/21/22 12:15 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 75 - 126 | | 04/21/22 12:15 | 1 |
| Toluene-d8 (Surr) | 106 | | 75 - 120 | | 04/21/22 12:15 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 72 - 124 | | 04/21/22 12:15 | 1 |
| Dibromofluoromethane | 85 | | 75 - 120 | | 04/21/22 12:15 | 1 |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Qualifiers

GC VOA

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| * | LCS or LCSD is outside acceptance limits. |

Metals

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| 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) |
| TNTC | Too Numerous To Count |

QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

GC/MS VOA

Analysis Batch: 651546

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | 8260B | |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | 8260B | |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 8260B | |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | 8260B | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 8260B | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 8260B | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 8260B | |
| MB 500-651546/6 | Method Blank | Total/NA | Water | 8260B | |
| LCS 500-651546/4 | Lab Control Sample | Total/NA | Water | 8260B | |

Analysis Batch: 652675

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-214946-8 | Trip Blank | Total/NA | Water | 8260B | |
| MB 500-652675/6 | Method Blank | Total/NA | Water | 8260B | |
| LCS 500-652675/8 | Lab Control Sample | Total/NA | Water | 8260B | |

GC/MS Semi VOA

Prep Batch: 652082

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | 3510C | |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | 3510C | |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 3510C | |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | 3510C | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 3510C | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 3510C | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 3510C | |
| MB 500-652082/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 500-652082/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 500-652082/3-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |

Analysis Batch: 652583

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | 8270D | 652082 |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | 8270D | 652082 |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 8270D | 652082 |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | 8270D | 652082 |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 8270D | 652082 |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 8270D | 652082 |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 8270D | 652082 |

Analysis Batch: 652762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| MB 500-652082/1-A | Method Blank | Total/NA | Water | 8270D | 652082 |
| LCS 500-652082/2-A | Lab Control Sample | Total/NA | Water | 8270D | 652082 |
| LCSD 500-652082/3-A | Lab Control Sample Dup | Total/NA | Water | 8270D | 652082 |

GC VOA

Analysis Batch: 522916

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | RSK-175 | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

GC VOA (Continued)

Analysis Batch: 522916 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|---------|------------|
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | RSK-175 | |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | RSK-175 | |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | RSK-175 | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | RSK-175 | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | RSK-175 | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | RSK-175 | |
| MB 240-522916/3 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 240-522916/4 | Lab Control Sample | Total/NA | Water | RSK-175 | |

GC Semi VOA

Prep Batch: 651971

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | 8151A | |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | 8151A | |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 8151A | |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | 8151A | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 8151A | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 8151A | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 8151A | |
| MB 500-651971/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-651971/2-A | Lab Control Sample | Total/NA | Water | 8151A | |
| LCSD 500-651971/3-A | Lab Control Sample Dup | Total/NA | Water | 8151A | |

Analysis Batch: 652398

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | 8151A | 651971 |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | 8151A | 651971 |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 8151A | 651971 |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | 8151A | 651971 |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 8151A | 651971 |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 8151A | 651971 |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 8151A | 651971 |
| MB 500-651971/1-A | Method Blank | Total/NA | Water | 8151A | 651971 |
| LCS 500-651971/2-A | Lab Control Sample | Total/NA | Water | 8151A | 651971 |
| LCSD 500-651971/3-A | Lab Control Sample Dup | Total/NA | Water | 8151A | 651971 |

Metals

Prep Batch: 652331

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Dissolved | Water | 3005A | |
| 500-214946-1 | W-220411-RA-01 | Total Recoverable | Water | 3005A | |
| 500-214946-2 | W-220411-RA-02 | Dissolved | Water | 3005A | |
| 500-214946-2 | W-220411-RA-02 | Total Recoverable | Water | 3005A | |
| 500-214946-3 | W-220411-RA-03 | Dissolved | Water | 3005A | |
| 500-214946-3 | W-220411-RA-03 | Total Recoverable | Water | 3005A | |
| 500-214946-4 | W-220411-RA-04 | Dissolved | Water | 3005A | |
| 500-214946-4 | W-220411-RA-04 | Total Recoverable | Water | 3005A | |
| 500-214946-5 | W-220411-RA-08 | Dissolved | Water | 3005A | |
| 500-214946-5 | W-220411-RA-08 | Total Recoverable | Water | 3005A | |
| 500-214946-6 | W-220411-RA-07 | Dissolved | Water | 3005A | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Metals (Continued)

Prep Batch: 652331 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-214946-6 | W-220411-RA-07 | Total Recoverable | Water | 3005A | |
| 500-214946-7 | W-220411-RA-09 | Dissolved | Water | 3005A | |
| 500-214946-7 | W-220411-RA-09 | Total Recoverable | Water | 3005A | |
| MB 500-652331/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 500-652331/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |

Analysis Batch: 652553

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Dissolved | Water | 6020A | 652331 |
| 500-214946-1 | W-220411-RA-01 | Total Recoverable | Water | 6020A | 652331 |
| 500-214946-2 | W-220411-RA-02 | Dissolved | Water | 6020A | 652331 |
| 500-214946-2 | W-220411-RA-02 | Total Recoverable | Water | 6020A | 652331 |
| 500-214946-3 | W-220411-RA-03 | Dissolved | Water | 6020A | 652331 |
| 500-214946-3 | W-220411-RA-03 | Total Recoverable | Water | 6020A | 652331 |
| 500-214946-4 | W-220411-RA-04 | Dissolved | Water | 6020A | 652331 |
| 500-214946-4 | W-220411-RA-04 | Total Recoverable | Water | 6020A | 652331 |
| 500-214946-5 | W-220411-RA-08 | Dissolved | Water | 6020A | 652331 |
| 500-214946-5 | W-220411-RA-08 | Total Recoverable | Water | 6020A | 652331 |
| 500-214946-6 | W-220411-RA-07 | Dissolved | Water | 6020A | 652331 |
| 500-214946-6 | W-220411-RA-07 | Total Recoverable | Water | 6020A | 652331 |
| 500-214946-7 | W-220411-RA-09 | Dissolved | Water | 6020A | 652331 |
| 500-214946-7 | W-220411-RA-09 | Total Recoverable | Water | 6020A | 652331 |
| MB 500-652331/1-A | Method Blank | Total Recoverable | Water | 6020A | 652331 |
| LCS 500-652331/2-A | Lab Control Sample | Total Recoverable | Water | 6020A | 652331 |

Analysis Batch: 652810

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|----------|------------|
| 500-214946-1 | W-220411-RA-01 | Total Recoverable | Water | SM 2340B | 652331 |
| 500-214946-2 | W-220411-RA-02 | Total Recoverable | Water | SM 2340B | 652331 |
| 500-214946-3 | W-220411-RA-03 | Total Recoverable | Water | SM 2340B | 652331 |
| 500-214946-4 | W-220411-RA-04 | Total Recoverable | Water | SM 2340B | 652331 |
| 500-214946-5 | W-220411-RA-08 | Total Recoverable | Water | SM 2340B | 652331 |
| 500-214946-6 | W-220411-RA-07 | Total Recoverable | Water | SM 2340B | 652331 |
| 500-214946-7 | W-220411-RA-09 | Total Recoverable | Water | SM 2340B | 652331 |

General Chemistry

Analysis Batch: 651350

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | 300.0 | |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | 300.0 | |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 300.0 | |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | 300.0 | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 300.0 | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 300.0 | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 300.0 | |
| MB 500-651350/35 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-651350/36 | Lab Control Sample | Total/NA | Water | 300.0 | |

QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

General Chemistry

Analysis Batch: 651803

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|----------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | SM 2320B | |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | SM 2320B | |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | SM 2320B | |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | SM 2320B | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | SM 2320B | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | SM 2320B | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | SM 2320B | |
| MB 500-651803/28 | Method Blank | Total/NA | Water | SM 2320B | |
| MB 500-651803/3 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 500-651803/29 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCS 500-651803/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| 500-214946-7 DU | W-220411-RA-09 | Total/NA | Water | SM 2320B | |

Analysis Batch: 651961

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 300.0 | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 300.0 | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 300.0 | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 300.0 | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 300.0 | |
| MB 500-651961/9 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-651961/10 | Lab Control Sample | Total/NA | Water | 300.0 | |

Analysis Batch: 652211

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-214946-1 | W-220411-RA-01 | Total/NA | Water | 9060A | |
| 500-214946-2 | W-220411-RA-02 | Total/NA | Water | 9060A | |
| 500-214946-3 | W-220411-RA-03 | Total/NA | Water | 9060A | |
| 500-214946-4 | W-220411-RA-04 | Total/NA | Water | 9060A | |
| 500-214946-5 | W-220411-RA-08 | Total/NA | Water | 9060A | |
| 500-214946-6 | W-220411-RA-07 | Total/NA | Water | 9060A | |
| 500-214946-7 | W-220411-RA-09 | Total/NA | Water | 9060A | |
| MB 500-652211/27 | Method Blank | Total/NA | Water | 9060A | |
| MB 500-652211/55 | Method Blank | Total/NA | Water | 9060A | |
| LCS 500-652211/28 | Lab Control Sample | Total/NA | Water | 9060A | |
| LCS 500-652211/56 | Lab Control Sample | Total/NA | Water | 9060A | |
| 500-214946-6 MS | W-220411-RA-07 | Total/NA | Water | 9060A | |
| 500-214946-6 MSD | W-220411-RA-07 | Total/NA | Water | 9060A | |

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|------------------|--------------------|--|-----------------|-----------------|------------------|
| | | DCA (75-126) | TOL (75-120) | BFB (72-124) | DBFM (75-120) |
| 500-214946-1 | W-220411-RA-01 | 83 | 100 | 90 | 95 |
| 500-214946-2 | W-220411-RA-02 | 83 | 98 | 91 | 93 |
| 500-214946-3 | W-220411-RA-03 | 83 | 99 | 94 | 94 |
| 500-214946-4 | W-220411-RA-04 | 86 | 99 | 89 | 95 |
| 500-214946-5 | W-220411-RA-08 | 85 | 95 | 90 | 96 |
| 500-214946-6 | W-220411-RA-07 | 87 | 95 | 89 | 98 |
| 500-214946-7 | W-220411-RA-09 | 85 | 100 | 89 | 93 |
| 500-214946-8 | Trip Blank | 79 | 106 | 97 | 85 |
| LCS 500-651546/4 | Lab Control Sample | 81 | 101 | 92 | 92 |
| LCS 500-652675/8 | Lab Control Sample | 80 | 107 | 88 | 85 |
| MB 500-651546/6 | Method Blank | 83 | 96 | 100 | 94 |
| MB 500-652675/6 | Method Blank | 84 | 105 | 97 | 86 |

Surrogate Legend
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

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

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|---------------------|------------------------|--|-----------------|------------------|
| | | NBZ (36-120) | FBP (34-110) | TPHL (40-145) |
| 500-214946-1 | W-220411-RA-01 | 69 | 62 | 96 |
| 500-214946-2 | W-220411-RA-02 | 74 | 69 | 111 |
| 500-214946-3 | W-220411-RA-03 | 76 | 72 | 127 |
| 500-214946-4 | W-220411-RA-04 | 81 | 75 | 124 |
| 500-214946-5 | W-220411-RA-08 | 82 | 78 | 139 |
| 500-214946-6 | W-220411-RA-07 | 90 | 81 | 114 |
| 500-214946-7 | W-220411-RA-09 | 84 | 77 | 119 |
| LCS 500-652082/2-A | Lab Control Sample | 75 | 85 | 97 |
| LCSD 500-652082/3-A | Lab Control Sample Dup | 85 | 97 | 109 |
| MB 500-652082/1-A | Method Blank | 70 | 84 | 105 |

Surrogate Legend
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|---------------|------------------|--|
| | | TFE1 (60-140) |
| 500-214946-1 | W-220411-RA-01 | 98 |
| 500-214946-2 | W-220411-RA-02 | 98 |
| 500-214946-3 | W-220411-RA-03 | 98 |
| 500-214946-4 | W-220411-RA-04 | 96 |

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TFE1 (60-140) |
|------------------|--------------------|------------------|
| 500-214946-5 | W-220411-RA-08 | 96 |
| 500-214946-6 | W-220411-RA-07 | 96 |
| 500-214946-7 | W-220411-RA-09 | 96 |
| LCS 240-522916/4 | Lab Control Sample | 99 |
| MB 240-522916/3 | Method Blank | 99 |

Surrogate Legend

TFE = 1,1,1-Trifluoroethane

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCPAA2 (25-130) |
|---------------------|------------------------|--------------------|
| 500-214946-1 | W-220411-RA-01 | 108 |
| 500-214946-2 | W-220411-RA-02 | 110 |
| 500-214946-3 | W-220411-RA-03 | 115 |
| 500-214946-4 | W-220411-RA-04 | 109 |
| 500-214946-5 | W-220411-RA-08 | 114 |
| 500-214946-6 | W-220411-RA-07 | 115 |
| 500-214946-7 | W-220411-RA-09 | 109 |
| LCS 500-651971/2-A | Lab Control Sample | 114 |
| LCSD 500-651971/3-A | Lab Control Sample Dup | 120 |
| MB 500-651971/1-A | Method Blank | 120 |

Surrogate Legend

DCPAA = DCAA

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-651546/6
Matrix: Water
Analysis Batch: 651546

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 13:31 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/13/22 13:31 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/13/22 13:31 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/13/22 13:31 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 75 - 126 | | 04/13/22 13:31 | 1 |
| Toluene-d8 (Surr) | 96 | | 75 - 120 | | 04/13/22 13:31 | 1 |
| 4-Bromofluorobenzene (Surr) | 100 | | 72 - 124 | | 04/13/22 13:31 | 1 |
| Dibromofluoromethane | 94 | | 75 - 120 | | 04/13/22 13:31 | 1 |

Lab Sample ID: LCS 500-651546/4
Matrix: Water
Analysis Batch: 651546

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

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Benzene | 50.0 | 46.3 | | ug/L | | 93 | 70 - 120 |
| Toluene | 50.0 | 51.0 | | ug/L | | 102 | 70 - 125 |
| Ethylbenzene | 50.0 | 46.5 | | ug/L | | 93 | 70 - 123 |
| Xylenes, Total | 100 | 88.1 | | ug/L | | 88 | 70 - 125 |

| Surrogate | LCS LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 81 | | 75 - 126 |
| Toluene-d8 (Surr) | 101 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 92 | | 72 - 124 |
| Dibromofluoromethane | 92 | | 75 - 120 |

Lab Sample ID: MB 500-652675/6
Matrix: Water
Analysis Batch: 652675

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/21/22 11:49 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/21/22 11:49 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/21/22 11:49 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/21/22 11:49 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 75 - 126 | | 04/21/22 11:49 | 1 |
| Toluene-d8 (Surr) | 105 | | 75 - 120 | | 04/21/22 11:49 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 72 - 124 | | 04/21/22 11:49 | 1 |
| Dibromofluoromethane | 86 | | 75 - 120 | | 04/21/22 11:49 | 1 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-652675/8
Matrix: Water
Analysis Batch: 652675

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|------------|---------------|------|---|------|-------------|
| Benzene | 50.0 | 45.2 | | ug/L | | 90 | 70 - 120 |
| Toluene | 50.0 | 51.3 | | ug/L | | 103 | 70 - 125 |
| Ethylbenzene | 50.0 | 53.5 | | ug/L | | 107 | 70 - 123 |
| Xylenes, Total | 100 | 98.6 | | ug/L | | 99 | 70 - 125 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 75 - 126 |
| Toluene-d8 (Surr) | 107 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 88 | | 72 - 124 |
| Dibromofluoromethane | 85 | | 75 - 120 |

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

Lab Sample ID: MB 500-652082/1-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652082

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/18/22 07:30 | 04/21/22 12:51 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 70 | | 36 - 120 | 04/18/22 07:30 | 04/21/22 12:51 | 1 |
| 2-Fluorobiphenyl (Surr) | 84 | | 34 - 110 | 04/18/22 07:30 | 04/21/22 12:51 | 1 |
| Terphenyl-d14 (Surr) | 105 | | 40 - 145 | 04/18/22 07:30 | 04/21/22 12:51 | 1 |

Lab Sample ID: LCS 500-652082/2-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652082

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|------------|---------------|------|---|------|-------------|
| Naphthalene | 32.0 | 24.9 | | ug/L | | 78 | 36 - 110 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------------|---------------|---------------|----------|
| Nitrobenzene-d5 (Surr) | 75 | | 36 - 120 |
| 2-Fluorobiphenyl (Surr) | 85 | | 34 - 110 |
| Terphenyl-d14 (Surr) | 97 | | 40 - 145 |

Lab Sample ID: LCSD 500-652082/3-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652082

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Naphthalene | 32.0 | 27.7 | | ug/L | | 86 | 36 - 110 | 11 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------------|----------------|----------------|----------|
| Nitrobenzene-d5 (Surr) | 85 | | 36 - 120 |
| 2-Fluorobiphenyl (Surr) | 97 | | 34 - 110 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

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

Lab Sample ID: LCSD 500-652082/3-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652082

| Surrogate | LCS D %Recovery | LCS D Qualifier | Limits |
|----------------------|-----------------|-----------------|----------|
| Terphenyl-d14 (Surr) | 109 | | 40 - 145 |

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 240-522916/3
Matrix: Water
Analysis Batch: 522916

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|--------------|--------------|----------|----------|----------------|---------|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 13:01 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac | | | |
| 1,1,1-Trifluoroethane | 99 | | 60 - 140 | | 04/15/22 13:01 | 1 | | | |

Lab Sample ID: LCS 240-522916/4
Matrix: Water
Analysis Batch: 522916

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------|---------------|---------------|---------------|------|---|------|-------------|
| Methane | 485 | 413 | | ug/L | | 85 | 80 - 120 |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | |
| 1,1,1-Trifluoroethane | 99 | | 60 - 140 | | | | |

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-651971/1-A
Matrix: Water
Analysis Batch: 652398

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 651971

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------------|--------------|----------|----------|----------------|----------------|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 04/15/22 13:55 | 04/19/22 13:25 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac | | | |
| DCAA | 120 | | 25 - 130 | | 04/15/22 13:55 | 04/19/22 13:25 | 1 | | |

Lab Sample ID: LCS 500-651971/2-A
Matrix: Water
Analysis Batch: 652398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 651971

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|---------------|---------------|---------------|------|---|------|-------------|
| Pentachlorophenol | 2.50 | 3.06 | | ug/L | | 122 | 40 - 122 |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | |
| DCAA | 114 | | 25 - 130 | | | | |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

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

Lab Sample ID: LCSD 500-651971/3-A
Matrix: Water
Analysis Batch: 652398

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 651971

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|-------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-------|
| Pentachlorophenol | 2.50 | 3.64 | * | ug/L | | 146 | 40 - 122 | 8 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|-----------|----------------|----------------|-------------|
| DCAA | 120 | | 25 - 130 |

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-652331/1-A
Matrix: Water
Analysis Batch: 652553

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652331

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/19/22 08:34 | 04/19/22 18:01 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/19/22 08:34 | 04/19/22 18:01 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/19/22 08:34 | 04/19/22 18:01 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/19/22 08:34 | 04/19/22 18:01 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/19/22 08:34 | 04/19/22 18:01 | 1 |

Lab Sample ID: LCS 500-652331/2-A
Matrix: Water
Analysis Batch: 652553

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652331

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| Arsenic | 100 | 102.8 | | ug/L | | 103 | 80 - 120 |
| Copper | 250 | 249.0 | | ug/L | | 100 | 80 - 120 |
| Iron | 1000 | 1045 | | ug/L | | 105 | 80 - 120 |
| Manganese | 500 | 515.2 | | ug/L | | 103 | 80 - 120 |
| Zinc | 500 | 508.5 | | ug/L | | 102 | 80 - 120 |

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-651350/35
Matrix: Water
Analysis Batch: 651350

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/12/22 19:03 | 1 |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/12/22 19:03 | 1 |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/12/22 19:03 | 1 |

Lab Sample ID: LCS 500-651350/36
Matrix: Water
Analysis Batch: 651350

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 2.74 | | mg/L | | 91 | 90 - 110 |
| Nitrate as N | 2.00 | 2.04 | | mg/L | | 102 | 90 - 110 |
| Sulfate | 5.00 | 4.73 | | mg/L | | 95 | 90 - 110 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 500-651961/9
Matrix: Water
Analysis Batch: 651961

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/15/22 10:49 | 1 |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/15/22 10:49 | 1 |

Lab Sample ID: LCS 500-651961/10
Matrix: Water
Analysis Batch: 651961

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 3.06 | | mg/L | | 102 | 90 - 110 |
| Sulfate | 5.00 | 4.90 | | mg/L | | 98 | 90 - 110 |

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 500-652211/27
Matrix: Water
Analysis Batch: 652211

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/16/22 03:19 | 1 |

Lab Sample ID: MB 500-652211/55
Matrix: Water
Analysis Batch: 652211

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/16/22 14:30 | 1 |

Lab Sample ID: LCS 500-652211/28
Matrix: Water
Analysis Batch: 652211

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 10.0 | 10.23 | | mg/L | | 102 | 86 - 116 |

Lab Sample ID: LCS 500-652211/56
Matrix: Water
Analysis Batch: 652211

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 10.0 | 10.31 | | mg/L | | 103 | 86 - 116 |

Lab Sample ID: 500-214946-6 MS
Matrix: Water
Analysis Batch: 652211

Client Sample ID: W-220411-RA-07
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 0.76 | J | 10.0 | 11.41 | | mg/L | | 106 | 75 - 125 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 500-214946-6 MSD
Matrix: Water
Analysis Batch: 652211

Client Sample ID: W-220411-RA-07
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Total Organic Carbon - Duplicates | 0.76 | J | 10.0 | 11.40 | | mg/L | | 106 | 75 - 125 | 0 | 20 |

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-651803/28
Matrix: Water
Analysis Batch: 651803

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | <3.7 | | 5.0 | 3.7 | mg/L | | | 04/14/22 13:26 | 1 |

Lab Sample ID: MB 500-651803/3
Matrix: Water
Analysis Batch: 651803

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | <3.7 | | 5.0 | 3.7 | mg/L | | | 04/14/22 09:49 | 1 |

Lab Sample ID: LCS 500-651803/29
Matrix: Water
Analysis Batch: 651803

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------|-------------|------------|---------------|------|---|------|-------------|
| Alkalinity | 100 | 108.3 | | mg/L | | 108 | 90 - 110 |

Lab Sample ID: LCS 500-651803/4
Matrix: Water
Analysis Batch: 651803

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------|-------------|------------|---------------|------|---|------|-------------|
| Alkalinity | 100 | 104.3 | | mg/L | | 104 | 90 - 110 |

Lab Sample ID: 500-214946-7 DU
Matrix: Water
Analysis Batch: 651803

Client Sample ID: W-220411-RA-09
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Alkalinity | 138 | | 138.4 | | mg/L | | 0.2 | 20 |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-01
Date Collected: 04/11/22 10:10
Date Received: 04/12/22 15:55

Lab Sample ID: 500-214946-1
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 651546 | 04/13/22 14:41 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652082 | 04/18/22 07:30 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 19:50 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522916 | 04/15/22 17:52 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 651971 | 04/15/22 13:55 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652398 | 04/19/22 16:00 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:52 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:21 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 652810 | 04/21/22 13:10 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651350 | 04/12/22 19:44 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652211 | 04/16/22 12:38 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 651803 | 04/14/22 15:16 | SMO | TAL CHI |

Client Sample ID: W-220411-RA-02
Date Collected: 04/11/22 12:30
Date Received: 04/12/22 15:55

Lab Sample ID: 500-214946-2
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 651546 | 04/13/22 15:04 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652082 | 04/18/22 07:30 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 20:13 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522916 | 04/15/22 18:09 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 651971 | 04/15/22 13:55 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652398 | 04/19/22 16:19 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:55 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:25 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 652810 | 04/21/22 13:10 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651350 | 04/12/22 20:25 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652211 | 04/16/22 13:06 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 651803 | 04/14/22 10:29 | SMO | TAL CHI |

Client Sample ID: W-220411-RA-03
Date Collected: 04/11/22 13:20
Date Received: 04/12/22 15:55

Lab Sample ID: 500-214946-3
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 651546 | 04/13/22 15:28 | JDD | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-03

Lab Sample ID: 500-214946-3

Date Collected: 04/11/22 13:20

Matrix: Water

Date Received: 04/12/22 15:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3510C | | | 652082 | 04/18/22 07:30 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 20:35 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522916 | 04/15/22 18:26 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 651971 | 04/15/22 13:55 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652398 | 04/19/22 16:58 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:59 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:28 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 652810 | 04/21/22 13:10 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651350 | 04/12/22 20:38 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 2 | 651961 | 04/15/22 17:03 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652211 | 04/16/22 13:34 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 651803 | 04/14/22 15:24 | SMO | TAL CHI |

Client Sample ID: W-220411-RA-04

Lab Sample ID: 500-214946-4

Date Collected: 04/11/22 14:24

Matrix: Water

Date Received: 04/12/22 15:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 651546 | 04/13/22 15:51 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652082 | 04/18/22 07:30 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 20:58 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522916 | 04/15/22 18:43 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 651971 | 04/15/22 13:55 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652398 | 04/19/22 17:17 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652553 | 04/19/22 19:02 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:31 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 652810 | 04/21/22 13:10 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651350 | 04/12/22 20:52 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652211 | 04/16/22 14:02 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 651803 | 04/14/22 15:31 | SMO | TAL CHI |

Client Sample ID: W-220411-RA-08

Lab Sample ID: 500-214946-5

Date Collected: 04/11/22 12:50

Matrix: Water

Date Received: 04/12/22 15:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 651546 | 04/13/22 16:14 | JDD | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-08

Lab Sample ID: 500-214946-5

Date Collected: 04/11/22 12:50

Matrix: Water

Date Received: 04/12/22 15:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3510C | | | 652082 | 04/18/22 07:30 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 21:21 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522916 | 04/15/22 19:00 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 651971 | 04/15/22 13:55 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652398 | 04/19/22 17:36 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652553 | 04/19/22 19:05 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:42 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 652810 | 04/21/22 13:10 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651350 | 04/12/22 21:06 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 2 | 651961 | 04/15/22 17:15 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 20 | 651961 | 04/15/22 17:28 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652211 | 04/16/22 15:33 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 651803 | 04/14/22 15:39 | SMO | TAL CHI |

Client Sample ID: W-220411-RA-07

Lab Sample ID: 500-214946-6

Date Collected: 04/11/22 12:15

Matrix: Water

Date Received: 04/12/22 15:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 651546 | 04/13/22 16:38 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652082 | 04/18/22 07:30 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 21:43 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522916 | 04/15/22 19:17 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 651971 | 04/15/22 13:55 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652398 | 04/19/22 17:56 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652553 | 04/19/22 19:09 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:45 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 652810 | 04/21/22 13:10 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651350 | 04/12/22 21:19 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 20 | 651961 | 04/15/22 17:41 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652211 | 04/16/22 16:01 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 651803 | 04/14/22 15:50 | SMO | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Client Sample ID: W-220411-RA-09

Lab Sample ID: 500-214946-7

Date Collected: 04/11/22 13:35

Matrix: Water

Date Received: 04/12/22 15:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 651546 | 04/13/22 17:01 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652082 | 04/18/22 07:30 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 22:06 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522916 | 04/15/22 19:34 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 651971 | 04/15/22 13:55 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652398 | 04/19/22 18:15 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652553 | 04/19/22 19:12 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652553 | 04/19/22 18:48 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652331 | 04/19/22 08:34 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 652810 | 04/21/22 13:10 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651350 | 04/12/22 21:33 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 651961 | 04/15/22 17:53 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652211 | 04/16/22 16:53 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 651803 | 04/14/22 15:56 | SMO | TAL CHI |

Client Sample ID: Trip Blank

Lab Sample ID: 500-214946-8

Date Collected: 04/11/22 00:00

Matrix: Water

Date Received: 04/12/22 15:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 652675 | 04/21/22 12:15 | JDD | TAL CHI |

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-214946-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Wisconsin | State | 999580010 | 08-31-22 |

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------------------|---------|-----------------------|-----------------|
| California | State | 2927 | 02-27-23 |
| Connecticut | State | PH-0590 | 12-31-23 |
| Florida | NELAP | E87225 | 06-30-22 |
| Georgia | State | 4062 | 02-23-22 * |
| Illinois | NELAP | 200004 | 07-31-22 |
| Iowa | State | 421 | 06-01-23 |
| Kansas | NELAP | E-10336 | 04-30-22 |
| Kentucky (UST) | State | 112225 | 02-23-22 * |
| Kentucky (WW) | State | KY98016 | 12-31-22 |
| Minnesota | NELAP | 039-999-348 | 12-31-22 |
| Minnesota (Petrofund) | State | 3506 | 08-01-23 |
| New Jersey | NELAP | OH001 | 11-06-22 |
| New York | NELAP | 10975 | 04-01-23 |
| Ohio | State | 8303 | 02-23-23 |
| Ohio VAP | State | CL0024 | 04-20-22 |
| Oregon | NELAP | 4062 | 04-20-22 |
| Pennsylvania | NELAP | 68-00340 | 04-24-22 |
| Texas | NELAP | T104704517-22-16 | 08-31-22 |
| Virginia | NELAP | 11570 | 09-14-22 |
| Washington | State | C971 | 01-12-23 |
| West Virginia DEP | State | 210 | 12-31-22 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Chain of Custody Record

547C35



Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

| | | | | | | | | | |
|---|--|--|--|--|--|---|--|--|--|
| Client Contact Company Name: <u>GHD</u> Address: <u>900 Long Lake Rd #200</u> City/State/Zip: <u>St. Paul, MN 55112</u> Phone: <u>651.639.0913</u> Fax: _____ Project Name: <u>Penta Wood</u> Site: <u>11222718</u> P O #: _____ | | Project Manager <u>Ree</u> Tel/Email: <u>T.M. Ree @ GHD.com</u> | | Site Contact <u>Grant Anderson</u> Lab Contact: _____ | | Date: <u>4/11/22</u> Carrier: _____ | | COC No: _____ of _____ COCs | |
| Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day | | Sample Identification 500-214946 COC | | Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix # of Cont. | | Filtered Sample (Y/N) Perform MS / MSD (Y/N) PCP PTEX Neg. H. L. one Dissolved Metals All Anions Total Metals (Hardness) TOC Methane | | Sampler For Lab Use Only: Walk-in Client Lab Sampling Job / SDG No <u>500-214946</u> | |
| 1 <u>W-220411-PA-01</u> 2 <u>W-220411-PA-02</u> 3 <u>W-220411-PA-03</u> 4 <u>W-220411-PA-04</u> 5 <u>W-220411-PA-08</u> 6 <u>W-220411-PA-07</u> 7 <u>W-220411-PA-09</u> 8 Trip Blank | | 4/11/22 1010 1230 1320 1424 1250 1215 1335 | | 6 6V 15 15 15 15 15 | | Y Y Y Y Y Y Y | | Y Y Y Y Y Y Y | |
| 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 <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months | | Special Instructions/QC Requirements & Comments: <u>5.3 → 4.3, 1.9 → 1.4, 3.1 → 2.1, 5.8 → 4.8</u> | | Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No _____ Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No _____ | |
| Relinquished by: _____ Company: <u>GHD</u> Date/Time: <u>1530</u> | | Received by: _____ Company: _____ Date/Time: _____ | | Relinquished by: _____ Company: _____ Date/Time: _____ | | Received by: _____ Company: _____ Date/Time: _____ | | Relinquished by: _____ Company: _____ Date/Time: _____ | |
| Relinquished by: _____ Company: _____ Date/Time: _____ | | Received in Laboratory by: <u>Shirley Hottel</u> Company: <u>EETA</u> Date/Time: <u>4/12/22 1555</u> | | | | | | | |

- 1
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- 11
- 12
- 13
- 14
- 15



500-214946 Wayb

FedEx Express *Package US Airbill*

FedEx Tracking Number

8174 6502 5948

Form 101 No.

0215

1 From

Date 1/11/12

Sender's Name 15 - + ex Phone x 2 5

Company bt

Address 9100 ... Dept./Floor/Suite/Room

City St. Louis State MO ZIP 63114

2 Your Internal Billing Reference

1234567890

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address _____
Use this line for the HOLD location address or for continuation of your shipping address.

City _____ State _____ ZIP _____

Hold Weekday
FedEx location address REQUIRED NOT available for FedEx First Overnight.

Hold Saturday
FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.



8174 6502 5948

4 Express Package Service * To most locations. **Packages up to 150 lbs.**
For packages over 150 lbs. use the FedEx Express Freight US Airbill.

| Next Business Day | 2 or 3 Business Days |
|---|---|
| <input type="checkbox"/> FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day A.M. Second business morning.* Saturday Delivery NOT available. |
| <input type="checkbox"/> FedEx Priority Overnight Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected. |
| <input type="checkbox"/> FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available. | <input type="checkbox"/> FedEx Express Saver Third business day. Saturday Delivery NOT available. |

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes
As per attached Shipper's Declaration. Yes
Shipper's Declaration not required.

Dry Ice
Dry Ice, 9, UN 1845 _____ x _____ kg

Restrictions apply for dangerous goods see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below _____ Obtain recip. Fed-x Ac No

Sender Acct. No. in Section 1 will be billed. Recipient Third Party

Total Packages _____ Total Weight _____ lbs.

*Our ability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

611

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FedEx Express *Package US Airbill*

FedEx Tracking Number

8174 6502 5926

Form ID No. 0215

1 From
Date 4/11/22

Sender's Name Ryan Arnold Phone 612-222-2418

Company GHD

Address 930 Lon, Lake Rd

City St Paul State MN ZIP 55112

2 Your Internal Billing Reference
11222418

3 To
Recipient's Name
Phone

Company

Address
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address
Use this line for the HOLD location address or for continuation of you shipping address.

City State ZIP



8174 6502 5926

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs, use the FedEx Express Freight US Airbill.

| | |
|---|---|
| Next Business Day | 2 or 3 Business Days |
| <input type="checkbox"/> FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day A.M. Second business morning.* Saturday Delivery NOT available. |
| <input type="checkbox"/> FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected. |
| <input type="checkbox"/> FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available. | <input type="checkbox"/> FedEx Express Saver Third business day.* Saturday Delivery NOT available. |

5 Packaging *Declared value limit \$500.
 FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.
 Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?
On box must be checked.
 No Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required. Dry Ice Dry Ice, 3, UN 1845 x kg
Restrictions apply for dangerous goods — see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to: Enter FedEx Acct. No. below
 Sender Acct. No. in Section 1 will be billed. Recipient Third Party
Obtain rec.p. FedEx A. N

Total Packages Total Weight lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.



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FedEx Express *Package US Airbill*

FedEx Tracking Number

8174 6502 5937

Form ID No. 0215

1 From

Date 4/11/22

Sender's Name Ryan Ariot Phone 612 527 6855

Company GHD

Address 900 Long Lake Rd 200
Dept./Floor/Suite/Room

City St Paul State MN ZIP 55112

2 Your Internal Billing Reference 11222418-03-04

3 To

Recipient's Name _____ Phone 102 970-323

Company _____

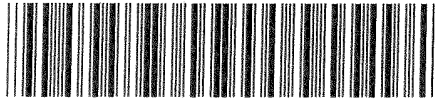
Address _____
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address _____
Use this line for the HOLD location address or for continuation of your shipping address.

City _____ State _____ ZIP 55112

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8174 6502 5937

4 Express Package Service * To most locations. **Packages up to 150 lbs.**
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes Yes Dry Ice

One box must be checked. As per attached Shipper's Declaration. Shipper's Declaration not required. Dry Ice, 3, UN 1845 _____ x _____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below

Sender Acct. No. in Section I will be billed. Recipient Third Party

Obtain recip. FedEx Acct No.

Total Packages _____ Total Weight _____ lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

611

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FedEx
Express
Package
US Airbill

FedEx
Tracking
Number

8174 6502 5959

0215

1 From
Date 4/11/22
Sender's Name Ryan Amat Phone 612 501 6855
Company 6HD
Address 950 L... Rd Dept./Floor/Suite/Room 203
City SAP... State MN ZIP 55112

2 Your Internal Billing Reference 11222418 23 01

3 To
Recipient's Name _____ Phone _____
Company _____
Address _____ Dept./Floor/Suite/Room _____
We cannot deliver to PO boxes or PO ZIP codes.
Address _____ Dept./Floor/Suite/Room _____
Use this line for the HOLD location address or to continuation of your shipping address.
City _____ State _____ ZIP _____

Hold Weekday
FedEx location address
REQUIRED NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8174 6502 5959

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day
 FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days
 FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.
 FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.
 FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?
One box must be checked.
 No Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required. Dry Ice Dry ice, 9 UN 1845 _____ x _____ kg
Restrictions apply for dangerous goods see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below Obtain FedEx Acct. No.
 Sender (Select No. in Section 1 will be billed) Recipient Third Party
Total Packages _____ Total Weight _____ lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.



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Chain of Custody Record



| | | | | | | |
|---|-------------------------------------|-------------------------------------|---|------------------------------|--|--------------------|
| Client Information (Sub Contract Lab) | | Sampler: | Lab PM: | Carrier Tracking No(s): | COC No: | |
| Shipping/Receiving | | Phone: | Wright, Richard | State of Origin: | 500-159443.1 | |
| Company: | | E-Mail: | Richard.Wright@et.eurofins.com | Page: | Page 1 of 1 | |
| Eurofins Environment Testing North Cent | | Accreditations Required (See note): | | Job #: | 500-214946-1 | |
| Address: | | Due Date Requested: | Preservation Codes: | | | |
| 180 S. Van Buren Avenue, | | 4/25/2022 | A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2OAS E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water U - Acetone K - EDTA V - MCAA W - pH 4-5 L - EDA Z - other (specify) Other: | | | |
| City: | Barberton | TAT Requested (days): | Analysis Requested | | | |
| State, Zip: | OH, 44203 | PO #: | Total Number of Containers | | | |
| Phone: | 330-497-9396(Tel) 330-497-0772(Fax) | WO #: | Field Filtered Sample (Yes or No) | | | |
| Email: | | Project #: | Perform MS/MSD (Yes or No) | | | |
| | | 50013796 | RSK_175f (MOD) Methane | | | |
| Project Name: | Pentia Wood 11222418 | SSOW#: | Special Instructions/Note: | | | |
| Site: | | | Risk | | | |
| Sample Identification - Client ID (Lab ID) | | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=water/soil, BT=leach, A=Air) | Preservation Code: |
| W-220411-RA-01 (500-214946-1) | 4/11/22 | 10:10 Central | Water | Water | Water | WI |
| W-220411-RA-02 (500-214946-2) | 4/11/22 | 12:30 Central | Water | Water | Water | WI |
| W-220411-RA-03 (500-214946-3) | 4/11/22 | 13:20 Central | Water | Water | Water | WI |
| W-220411-RA-04 (500-214946-4) | 4/11/22 | 14:24 Central | Water | Water | Water | WI |
| W-220411-RA-08 (500-214946-5) | 4/11/22 | 12:50 Central | Water | Water | Water | WI |
| W-220411-RA-07 (500-214946-6) | 4/11/22 | 12:15 Central | Water | Water | Water | WI |
| W-220411-RA-09 (500-214946-7) | 4/11/22 | 13:35 Central | Water | Water | Water | WI |
| <p>Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.</p> | | | | | | |
| Possible Hazard Identification | | | | | | |
| Unconfirmed | | | | | | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | | | | | |
| Primary Deliverable Rank: 2 | | | | | | |
| Date: _____ Time: _____ | | | | | | |
| Relinquished by: _____ Date/Time: _____ Company: _____ | | | | | | |
| Relinquished by: _____ Date/Time: _____ Company: _____ | | | | | | |
| Relinquished by: _____ Date/Time: _____ Company: _____ | | | | | | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | |
| Custody Seal No.: | | | | | | |


1.8 / 1.1



Client ETA Site Name _____ Cooler unpacked by: Matt
 Cooler Received on 4-14-22 Opened on 4-14-22
 FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

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

TestAmerica Cooler # 77A 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 See Multiple Cooler Form
 IR GUN# IR-14 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #IR-15 (CF -0.7°C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 1.1 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No NA
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
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 (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. 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)

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 500-214946-1

Login Number: 214946

List Source: Eurofins Chicago

List Number: 1

Creator: Scott, Sherri L

| 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 | 4.3,1.4,2.1,4.8 |
| 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. | False | Received Trip Blank(s) not listed on COC. |
| Samples are received within Holding Time (excluding tests with immediate HTs) | 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 | |

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-215021-1
Client Project/Site: Penta Wood 11222418

For:
GHD Services Inc.
900 Long Lake Road
Suite 200
New Brighton, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
4/27/2022 4:29:00 PM

Richard Wright, Senior Project Manager
(708)746-0045
Richard.Wright@et.eurofinsus.com

LINKS

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 5 |
| Method Summary | 8 |
| Sample Summary | 9 |
| Client Sample Results | 10 |
| Definitions | 22 |
| QC Association | 24 |
| Surrogate Summary | 29 |
| QC Sample Results | 31 |
| Chronicle | 42 |
| Certification Summary | 46 |
| Chain of Custody | 47 |
| Receipt Checklists | 55 |

Case Narrative

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Job ID: 500-215021-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-215021-1

Comments

No additional comments.

Receipt

The samples were received on 4/13/2022 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.7° C, 1.0° C, 1.5° C, 2.9° C and 3.7° C.

Receipt Exceptions

Received 1 1L amber broken for sample 6.

GC/MS VOA

Method 8260B: The method blank for 653066 contained BTEX compounds above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.(MB 500-653066/33)

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

GC/MS Semi VOA

Method 8270D: Internal standard (ISTD) response for the following sample was outside of acceptance limits: W-220412-RA-05 (500-215021-1), W-220412-RA-06 (500-215021-2), W-220412-RA-10 (500-215021-3), W-220412-RA-11 (500-215021-4), W-220412-RA-11 (500-215021-4[MS]), W-220412-RA-11 (500-215021-4[MSD]), W-220412-RA-15 (500-215021-5) and W-220412-RA-16 (500-215021-6). This internal standard is not associated to the reported analytes; therefore, re-analysis was not performed.

Method 8270D: The following sample contained one base surrogate outside acceptance limits: W-220412-RA-05 (500-215021-1), W-220412-RA-06 (500-215021-2), W-220412-RA-10 (500-215021-3), W-220412-RA-11 (500-215021-4), W-220412-RA-11 (500-215021-4[MS]), W-220412-RA-11 (500-215021-4[MSD]), W-220412-RA-15 (500-215021-5) and W-220412-RA-16 (500-215021-6). The laboratory's SOP allows one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: W-220412-RA-11 (500-215021-4), W-220412-RA-11 (500-215021-4[MS]), W-220412-RA-11 (500-215021-4[MSD]) and W-220412-RA-15 (500-215021-5). Elevated reporting limits (RLs) are provided.

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

GC VOA

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

GC Semi VOA

Method 8151A: The laboratory control sample (LCS) for preparation batch 500-652206 and analytical batch 500-652590 recovered above the control limits for the following analyte: Pentachlorophenol. The LCS and associated samples -1 thru -5 were re-extracted past the holding time and re-analyzed with similar results. The original data has been reported. Sample -6 was not re-extracted due to the lack of sample volume.

Method 8151A: The following samples were diluted due to the abundance of target analytes : W-220412-RA-11 (500-215021-4[MS]) and W-220412-RA-11 (500-215021-4[MSD]). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

Metals

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

Case Narrative

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Job ID: 500-215021-1 (Continued)

Laboratory: Eurofins Chicago (Continued)

General Chemistry

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-651585 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Methods 300.0, 9056A: Reanalysis of the following sample was performed outside of the analytical holding time for analyte Nitrate as N due to the sample requiring a higher dilution : W-220412-RA-06 (500-215021-2).

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

Organic Prep

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



Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-05

Lab Sample ID: 500-215021-1

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|-------|-------|------|---------|---|----------|-------------------|
| Methane | 870 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 0.44 | * | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 2.3 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 9.0 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 49200 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 157 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Zinc | 276 | | 20.0 | 6.9 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 2.0 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 0.77 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 346 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 35.5 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 97.6 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 2.3 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 1.8 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 8.3 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 3.7 | | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 164 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220412-RA-06

Lab Sample ID: 500-215021-2

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|-------|------|------|---------|---|----------|-------------------|
| Methane | 0.94 | J | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 1.2 | * | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 1.2 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 2.8 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 734 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 48.6 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Zinc | 8.2 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 2.1 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 1.7 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 4.5 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 65.1 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 2.2 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 4.3 | H | 0.40 | 0.14 | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 11.0 | | 0.40 | 0.19 | mg/L | 2 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 1.4 | | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 104 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220412-RA-10

Lab Sample ID: 500-215021-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|------|---------|---|--------|-------------------|
| Arsenic | 3.9 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-10 (Continued)

Lab Sample ID: 500-215021-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|------|------|------|---------|---|----------|----------------------|
| Copper | 0.87 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Zinc | 9.1 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 4.9 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 0.82 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 0.55 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |

Client Sample ID: W-220412-RA-11

Lab Sample ID: 500-215021-4

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|------|------|---------|---|----------|----------------------|
| Toluene | 0.79 | B | 0.50 | 0.15 | ug/L | 1 | | 8260B | Total/NA |
| Ethylbenzene | 0.83 | B | 0.50 | 0.18 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 9.3 | B | 1.0 | 0.22 | ug/L | 1 | | 8260B | Total/NA |
| Naphthalene | 26 | | 3.8 | 1.2 | ug/L | 5 | | 8270D | Total/NA |
| Methane | 51 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 10000 | * F2 | 480 | 690 | ug/L | 5000 | | 8151A | Total/NA |
| Arsenic | 3.6 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 6.9 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 16500 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 7440 | | 25.0 | 7.9 | ug/L | 10 | | 6020A | Total Recoverable |
| Arsenic | 3.3 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 4.5 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 20100 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 8180 | | 25.0 | 7.9 | ug/L | 10 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 179 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 25.1 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Sulfate | 18.9 | | 1.0 | 0.48 | mg/L | 5 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 37.7 | | 8.0 | 3.8 | mg/L | 8 | | 9060A | Total/NA |
| Alkalinity | 288 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220412-RA-15

Lab Sample ID: 500-215021-5

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-------------------|--------|-----------|------|------|------|---------|---|---------|----------------------|
| Toluene | 1.0 | B | 0.50 | 0.15 | ug/L | 1 | | 8260B | Total/NA |
| Ethylbenzene | 1.1 | B | 0.50 | 0.18 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 18 | B | 1.0 | 0.22 | ug/L | 1 | | 8260B | Total/NA |
| Naphthalene | 18 | | 4.0 | 1.2 | ug/L | 5 | | 8270D | Total/NA |
| Methane | 6.2 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 19000 | * | 500 | 720 | ug/L | 5000 | | 8151A | Total/NA |
| Arsenic | 7.3 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 3.0 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 20700 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 4190 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 12.1 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-15 (Continued)

Lab Sample ID: 500-215021-5

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|------|------|---------|---|----------|-------------------|
| Copper | 59.6 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 24900 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 4260 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Zinc | 20.7 | | 20.0 | 6.9 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 205 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 36.8 | | 2.0 | 1.7 | mg/L | 10 | | 300.0 | Total/NA |
| Sulfate | 17.7 | | 2.0 | 0.95 | mg/L | 10 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 45.0 | | 5.0 | 2.4 | mg/L | 5 | | 9060A | Total/NA |
| Alkalinity | 279 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220412-RA-16

Lab Sample ID: 500-215021-6

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|-------------------|
| Pentachlorophenol | 9.4 | * | 0.99 | 1.4 | ug/L | 10 | | 8151A | Total/NA |
| Arsenic | 3.1 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 32.3 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 7830 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 403 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Zinc | 36.9 | | 20.0 | 6.9 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 1.3 | B | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 3.3 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 561 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 35.8 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Zinc | 10.6 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 46.8 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 7.3 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.57 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3.2 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.63 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 69.8 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: Trip Blank

Lab Sample ID: 500-215021-7

No Detections.

This Detection Summary does not include radiochemical test results.

Euofins Chicago

Method Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

| Method | Method Description | Protocol | Laboratory |
|----------|--|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| RSK-175 | Dissolved Gases (GC) | RSK | TAL CAN |
| 8151A | Herbicides (GC) | SW846 | TAL CHI |
| 6020A | Metals (ICP/MS) | SW846 | TAL CHI |
| SM 2340B | Total Hardness (as CaCO3) by calculation | SM | TAL CHI |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL CHI |
| 9060A | Organic Carbon, Total (TOC) | SW846 | TAL CHI |
| SM 2320B | Alkalinity | SM | TAL CHI |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL CHI |
| 3510C | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL CHI |
| 5030B | Purge and Trap | SW846 | TAL CHI |
| 8151A | Extraction (Herbicides) | SW846 | TAL CHI |

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-215021-1 | W-220412-RA-05 | Water | 04/12/22 10:29 | 04/13/22 09:55 |
| 500-215021-2 | W-220412-RA-06 | Water | 04/12/22 11:14 | 04/13/22 09:55 |
| 500-215021-3 | W-220412-RA-10 | Water | 04/12/22 13:00 | 04/13/22 09:55 |
| 500-215021-4 | W-220412-RA-11 | Water | 04/12/22 14:08 | 04/13/22 09:55 |
| 500-215021-5 | W-220412-RA-15 | Water | 04/12/22 13:30 | 04/13/22 09:55 |
| 500-215021-6 | W-220412-RA-16 | Water | 04/12/22 14:00 | 04/13/22 09:55 |
| 500-215021-7 | Trip Blank | Water | 04/12/22 00:00 | 04/13/22 09:55 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-05

Lab Sample ID: 500-215021-1

Date Collected: 04/12/22 10:29

Matrix: Water

Date Received: 04/13/22 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 18:13 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 18:13 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 18:13 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 18:13 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 122 | | 75 - 126 | | 04/23/22 18:13 | 1 |
| Toluene-d8 (Surr) | 102 | | 75 - 120 | | 04/23/22 18:13 | 1 |
| 4-Bromofluorobenzene (Surr) | 90 | | 72 - 124 | | 04/23/22 18:13 | 1 |
| Dibromofluoromethane | 111 | | 75 - 120 | | 04/23/22 18:13 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.23 | | 0.75 | 0.23 | ug/L | | 04/18/22 09:28 | 04/21/22 20:50 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 78 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 20:50 | 1 |
| 2-Fluorobiphenyl (Surr) | 71 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 20:50 | 1 |
| Terphenyl-d14 (Surr) | 195 X * | | 40 - 145 | 04/18/22 09:28 | 04/21/22 20:50 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | 870 | | 1.0 | 0.17 | ug/L | | | 04/15/22 23:17 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 96 | | 60 - 140 | | 04/15/22 23:17 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.44 | * | 0.095 | 0.14 | ug/L | | 04/18/22 11:37 | 04/20/22 21:46 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 43 | | 25 - 130 | 04/18/22 11:37 | 04/20/22 21:46 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 2.3 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 20:34 | 1 |
| Copper | 9.0 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 20:34 | 1 |
| Iron | 49200 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 20:34 | 1 |
| Manganese | 157 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:11 | 1 |
| Zinc | 276 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 20:34 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 2.0 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:15 | 1 |
| Copper | 0.77 | J | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:15 | 1 |
| Iron | 346 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:15 | 1 |
| Manganese | 35.5 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:52 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:15 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-05

Lab Sample ID: 500-215021-1

Date Collected: 04/12/22 10:29

Matrix: Water

Date Received: 04/13/22 09:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 97.6 | | 0.50 | 0.25 | mg/L | | 04/20/22 08:33 | 04/23/22 11:51 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 2.3 | | 0.20 | 0.17 | mg/L | | | 04/19/22 13:33 | 1 |
| Nitrate as N | 1.8 | | 0.20 | 0.068 | mg/L | | | 04/13/22 17:22 | 1 |
| Sulfate | 8.3 | | 0.20 | 0.095 | mg/L | | | 04/19/22 13:33 | 1 |
| Total Organic Carbon - Duplicates | 3.7 | | 1.0 | 0.47 | mg/L | | | 04/19/22 03:50 | 1 |
| Alkalinity | 164 | | 5.0 | 3.7 | mg/L | | | 04/19/22 11:21 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-06

Lab Sample ID: 500-215021-2

Date Collected: 04/12/22 11:14

Matrix: Water

Date Received: 04/13/22 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 18:36 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 18:36 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 18:36 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 18:36 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 122 | | 75 - 126 | | 04/23/22 18:36 | 1 |
| Toluene-d8 (Surr) | 100 | | 75 - 120 | | 04/23/22 18:36 | 1 |
| 4-Bromofluorobenzene (Surr) | 90 | | 72 - 124 | | 04/23/22 18:36 | 1 |
| Dibromofluoromethane | 111 | | 75 - 120 | | 04/23/22 18:36 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.25 | | 0.81 | 0.25 | ug/L | | 04/18/22 09:28 | 04/21/22 21:12 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 77 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 21:12 | 1 |
| 2-Fluorobiphenyl (Surr) | 78 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 21:12 | 1 |
| Terphenyl-d14 (Surr) | 231 | X * | 40 - 145 | 04/18/22 09:28 | 04/21/22 21:12 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | 0.94 | J | 1.0 | 0.17 | ug/L | | | 04/15/22 23:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 97 | | 60 - 140 | | 04/15/22 23:34 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 1.2 | * | 0.095 | 0.14 | ug/L | | 04/18/22 11:37 | 04/20/22 22:06 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 121 | | 25 - 130 | 04/18/22 11:37 | 04/20/22 22:06 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.2 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 20:38 | 1 |
| Copper | 2.8 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 20:38 | 1 |
| Iron | 734 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 20:38 | 1 |
| Manganese | 48.6 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:14 | 1 |
| Zinc | 8.2 | J | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 20:38 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 2.1 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:19 | 1 |
| Copper | 1.7 | J | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:19 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:19 | 1 |
| Manganese | 4.5 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:55 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:19 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-06

Lab Sample ID: 500-215021-2

Date Collected: 04/12/22 11:14

Matrix: Water

Date Received: 04/13/22 09:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 65.1 | | 0.50 | 0.25 | mg/L | | 04/20/22 08:33 | 04/23/22 11:51 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Chloride | 2.2 | | 0.20 | 0.17 | mg/L | | | 04/15/22 19:54 | 1 |
| Nitrate as N | 4.3 | H | 0.40 | 0.14 | mg/L | | | 04/15/22 20:08 | 2 |
| Sulfate | 11.0 | | 0.40 | 0.19 | mg/L | | | 04/22/22 15:26 | 2 |
| Total Organic Carbon - Duplicates | 1.4 | | 1.0 | 0.47 | mg/L | | | 04/19/22 04:18 | 1 |
| Alkalinity | 104 | | 5.0 | 3.7 | mg/L | | | 04/19/22 11:27 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-10

Lab Sample ID: 500-215021-3

Date Collected: 04/12/22 13:00

Matrix: Water

Date Received: 04/13/22 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 18:59 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 18:59 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 18:59 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 18:59 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 117 | | 75 - 126 | | 04/23/22 18:59 | 1 |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | 04/23/22 18:59 | 1 |
| 4-Bromofluorobenzene (Surr) | 90 | | 72 - 124 | | 04/23/22 18:59 | 1 |
| Dibromofluoromethane | 108 | | 75 - 120 | | 04/23/22 18:59 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.26 | | 0.84 | 0.26 | ug/L | | 04/18/22 09:28 | 04/21/22 21:35 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 79 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 21:35 | 1 |
| 2-Fluorobiphenyl (Surr) | 85 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 21:35 | 1 |
| Terphenyl-d14 (Surr) | 263 | X * | 40 - 145 | 04/18/22 09:28 | 04/21/22 21:35 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.096 | 0.14 | ug/L | | 04/18/22 11:37 | 04/20/22 22:25 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 113 | | 25 - 130 | 04/18/22 11:37 | 04/20/22 22:25 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 3.9 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 20:41 | 1 |
| Copper | 0.87 | J | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 20:41 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 20:41 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:18 | 1 |
| Zinc | 9.1 | J | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 20:41 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 4.9 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:22 | 1 |
| Copper | 0.82 | J | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:22 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:22 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:59 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:22 | 1 |

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 0.55 | | 0.50 | 0.25 | mg/L | | 04/20/22 08:33 | 04/23/22 11:51 | 1 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-11

Lab Sample ID: 500-215021-4

Date Collected: 04/12/22 14:08

Matrix: Water

Date Received: 04/13/22 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|-------------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 19:22 | 1 |
| Toluene | 0.79 | B | 0.50 | 0.15 | ug/L | | | 04/23/22 19:22 | 1 |
| Ethylbenzene | 0.83 | B | 0.50 | 0.18 | ug/L | | | 04/23/22 19:22 | 1 |
| Xylenes, Total | 9.3 | B | 1.0 | 0.22 | ug/L | | | 04/23/22 19:22 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 122 | | 75 - 126 | | 04/23/22 19:22 | 1 |
| Toluene-d8 (Surr) | 100 | | 75 - 120 | | 04/23/22 19:22 | 1 |
| 4-Bromofluorobenzene (Surr) | 90 | | 72 - 124 | | 04/23/22 19:22 | 1 |
| Dibromofluoromethane | 111 | | 75 - 120 | | 04/23/22 19:22 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Naphthalene | 26 | | 3.8 | 1.2 | ug/L | | 04/18/22 09:28 | 04/21/22 21:57 | 5 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 55 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 21:57 | 5 |
| 2-Fluorobiphenyl (Surr) | 52 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 21:57 | 5 |
| Terphenyl-d14 (Surr) | 162 | X * | 40 - 145 | 04/18/22 09:28 | 04/21/22 21:57 | 5 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-----------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | 51 | | 1.0 | 0.17 | ug/L | | | 04/15/22 23:51 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 94 | | 60 - 140 | | 04/15/22 23:51 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------------|-------------|-----|-----|------|---|----------------|----------------|---------|
| Pentachlorophenol | 10000 | * F2 | 480 | 690 | ug/L | | 04/18/22 11:37 | 04/21/22 02:18 | 5000 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 0 | D | 25 - 130 | 04/18/22 11:37 | 04/21/22 02:18 | 5000 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 3.6 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 20:44 | 1 |
| Copper | 6.9 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 20:44 | 1 |
| Iron | 16500 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 20:44 | 1 |
| Manganese | 7440 | | 25.0 | 7.9 | ug/L | | 04/20/22 08:33 | 04/22/22 20:21 | 10 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 20:44 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 3.3 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:25 | 1 |
| Copper | 4.5 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:25 | 1 |
| Iron | 20100 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:25 | 1 |
| Manganese | 8180 | | 25.0 | 7.9 | ug/L | | 04/20/22 08:33 | 04/22/22 21:02 | 10 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:25 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-11

Lab Sample ID: 500-215021-4

Date Collected: 04/12/22 14:08

Matrix: Water

Date Received: 04/13/22 09:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 179 | | 0.50 | 0.25 | mg/L | | 04/20/22 08:33 | 04/23/22 11:51 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 25.1 | | 1.0 | 0.85 | mg/L | | | 04/22/22 15:38 | 5 |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/13/22 18:17 | 1 |
| Sulfate | 18.9 | | 1.0 | 0.48 | mg/L | | | 04/22/22 15:38 | 5 |
| Total Organic Carbon - Duplicates | 37.7 | | 8.0 | 3.8 | mg/L | | | 04/20/22 23:53 | 8 |
| Alkalinity | 288 | | 5.0 | 3.7 | mg/L | | | 04/19/22 10:29 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-15

Lab Sample ID: 500-215021-5

Date Collected: 04/12/22 13:30

Matrix: Water

Date Received: 04/13/22 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|------------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 20:31 | 1 |
| Toluene | 1.0 | B | 0.50 | 0.15 | ug/L | | | 04/23/22 20:31 | 1 |
| Ethylbenzene | 1.1 | B | 0.50 | 0.18 | ug/L | | | 04/23/22 20:31 | 1 |
| Xylenes, Total | 18 | B | 1.0 | 0.22 | ug/L | | | 04/23/22 20:31 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113 | | 75 - 126 | | 04/23/22 20:31 | 1 |
| Toluene-d8 (Surr) | 102 | | 75 - 120 | | 04/23/22 20:31 | 1 |
| 4-Bromofluorobenzene (Surr) | 94 | | 72 - 124 | | 04/23/22 20:31 | 1 |
| Dibromofluoromethane | 109 | | 75 - 120 | | 04/23/22 20:31 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Naphthalene | 18 | | 4.0 | 1.2 | ug/L | | 04/18/22 09:28 | 04/21/22 23:05 | 5 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 80 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 23:05 | 5 |
| 2-Fluorobiphenyl (Surr) | 69 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 23:05 | 5 |
| Terphenyl-d14 (Surr) | 154 | X * | 40 - 145 | 04/18/22 09:28 | 04/21/22 23:05 | 5 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|------------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | 6.2 | | 1.0 | 0.17 | ug/L | | | 04/16/22 00:42 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 95 | | 60 - 140 | | 04/16/22 00:42 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Pentachlorophenol | 19000 | * | 500 | 720 | ug/L | | 04/18/22 11:37 | 04/21/22 00:02 | 5000 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 0 | D | 25 - 130 | 04/18/22 11:37 | 04/21/22 00:02 | 5000 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 7.3 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:08 | 1 |
| Copper | 3.0 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:08 | 1 |
| Iron | 20700 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:08 | 1 |
| Manganese | 4190 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:45 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:08 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 12.1 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:49 | 1 |
| Copper | 59.6 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:49 | 1 |
| Iron | 24900 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:49 | 1 |
| Manganese | 4260 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 21:26 | 1 |
| Zinc | 20.7 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:49 | 1 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-15

Lab Sample ID: 500-215021-5

Date Collected: 04/12/22 13:30

Matrix: Water

Date Received: 04/13/22 09:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 205 | | 0.50 | 0.25 | mg/L | | 04/20/22 08:33 | 04/23/22 11:51 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 36.8 | | 2.0 | 1.7 | mg/L | | | 04/22/22 16:16 | 10 |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/13/22 17:49 | 1 |
| Sulfate | 17.7 | | 2.0 | 0.95 | mg/L | | | 04/22/22 16:16 | 10 |
| Total Organic Carbon - Duplicates | 45.0 | | 5.0 | 2.4 | mg/L | | | 04/19/22 06:01 | 5 |
| Alkalinity | 279 | | 5.0 | 3.7 | mg/L | | | 04/19/22 10:45 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-16

Lab Sample ID: 500-215021-6

Date Collected: 04/12/22 14:00

Matrix: Water

Date Received: 04/13/22 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 20:54 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 20:54 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 20:54 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 20:54 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 115 | | 75 - 126 | | 04/23/22 20:54 | 1 |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | 04/23/22 20:54 | 1 |
| 4-Bromofluorobenzene (Surr) | 94 | | 72 - 124 | | 04/23/22 20:54 | 1 |
| Dibromofluoromethane | 105 | | 75 - 120 | | 04/23/22 20:54 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.28 | | 0.91 | 0.28 | ug/L | | 04/18/22 09:28 | 04/21/22 23:28 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 79 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 23:28 | 1 |
| 2-Fluorobiphenyl (Surr) | 80 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 23:28 | 1 |
| Terphenyl-d14 (Surr) | 172 | X * | 40 - 145 | 04/18/22 09:28 | 04/21/22 23:28 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/16/22 00:59 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 97 | | 60 - 140 | | 04/16/22 00:59 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
| Pentachlorophenol | 9.4 | * | 0.99 | 1.4 | ug/L | | 04/18/22 11:37 | 04/21/22 07:33 | 10 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 119 | | 25 - 130 | 04/18/22 11:37 | 04/21/22 07:33 | 10 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 3.1 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:12 | 1 |
| Copper | 32.3 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:12 | 1 |
| Iron | 7830 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:12 | 1 |
| Manganese | 403 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:49 | 1 |
| Zinc | 36.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:12 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.3 | B | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 21:53 | 1 |
| Copper | 3.3 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 21:53 | 1 |
| Iron | 561 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 21:53 | 1 |
| Manganese | 35.8 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 21:30 | 1 |
| Zinc | 10.6 | J | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 21:53 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-16

Lab Sample ID: 500-215021-6

Date Collected: 04/12/22 14:00

Matrix: Water

Date Received: 04/13/22 09:55

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 46.8 | | 0.50 | 0.25 | mg/L | | 04/20/22 08:33 | 04/23/22 11:51 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 7.3 | | 0.20 | 0.17 | mg/L | | | 04/25/22 13:26 | 1 |
| Nitrate as N | 0.57 | | 0.20 | 0.068 | mg/L | | | 04/13/22 18:03 | 1 |
| Sulfate | 3.2 | | 0.20 | 0.095 | mg/L | | | 04/25/22 13:26 | 1 |
| Total Organic Carbon - Duplicates | 0.63 | J | 1.0 | 0.47 | mg/L | | | 04/19/22 06:29 | 1 |
| Alkalinity | 69.8 | | 5.0 | 3.7 | mg/L | | | 04/19/22 11:34 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-215021-7

Date Collected: 04/12/22 00:00

Matrix: Water

Date Received: 04/13/22 09:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 21:17 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 21:17 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 21:17 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 21:17 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 119 | | 75 - 126 | | 04/23/22 21:17 | 1 |
| Toluene-d8 (Surr) | 98 | | 75 - 120 | | 04/23/22 21:17 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | 04/23/22 21:17 | 1 |
| Dibromofluoromethane | 111 | | 75 - 120 | | 04/23/22 21:17 | 1 |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|--|
| B | Compound was found in the blank and sample. |
| J | Reported value was between the limit of detection and the limit of quantitation. |

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| * | ISTD response or retention time outside acceptable limits |
| X | Surrogate recovery exceeds control limits |

GC VOA

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| * | LCS or LCSD is outside acceptance limits. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |
| F2 | MS/MSD RPD exceeds control limits |

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| B | Compound was found in the blank and sample. |
| J | Reported value was between the limit of detection and the limit of quantitation. |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| H | Sample was prepped or analyzed beyond the specified holding time |
| J | Reported value was between the limit of detection and the limit of quantitation. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|--------------|--|
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| 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) |
| TNTC | Too Numerous To Count |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

GC/MS VOA

Analysis Batch: 653066

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 8260B | |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 8260B | |
| 500-215021-3 | W-220412-RA-10 | Total/NA | Water | 8260B | |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 8260B | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 8260B | |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 8260B | |
| 500-215021-7 | Trip Blank | Total/NA | Water | 8260B | |
| MB 500-653066/33 | Method Blank | Total/NA | Water | 8260B | |
| LCS 500-653066/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 8260B | |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 8260B | |

GC/MS Semi VOA

Prep Batch: 652164

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 3510C | |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 3510C | |
| 500-215021-3 | W-220412-RA-10 | Total/NA | Water | 3510C | |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 3510C | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 3510C | |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 3510C | |
| MB 500-652164/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 500-652164/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 3510C | |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 3510C | |

Analysis Batch: 652762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 500-652164/1-A | Method Blank | Total/NA | Water | 8270D | 652164 |
| LCS 500-652164/2-A | Lab Control Sample | Total/NA | Water | 8270D | 652164 |

Analysis Batch: 652792

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 8270D | 652164 |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 8270D | 652164 |
| 500-215021-3 | W-220412-RA-10 | Total/NA | Water | 8270D | 652164 |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 8270D | 652164 |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 8270D | 652164 |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 8270D | 652164 |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 8270D | 652164 |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 8270D | 652164 |

GC VOA

Analysis Batch: 522930

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | RSK-175 | |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | RSK-175 | |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | RSK-175 | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | RSK-175 | |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | RSK-175 | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

GC VOA (Continued)

Analysis Batch: 522930 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|---------|------------|
| MB 240-522930/33 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 240-522930/34 | Lab Control Sample | Total/NA | Water | RSK-175 | |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | RSK-175 | |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | RSK-175 | |

GC Semi VOA

Prep Batch: 652206

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 8151A | |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 8151A | |
| 500-215021-3 | W-220412-RA-10 | Total/NA | Water | 8151A | |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 8151A | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 8151A | |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 8151A | |
| MB 500-652206/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-652206/2-A | Lab Control Sample | Total/NA | Water | 8151A | |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 8151A | |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 8151A | |

Analysis Batch: 652590

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 8151A | 652206 |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 8151A | 652206 |
| 500-215021-3 | W-220412-RA-10 | Total/NA | Water | 8151A | 652206 |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 8151A | 652206 |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 8151A | 652206 |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 8151A | 652206 |
| MB 500-652206/1-A | Method Blank | Total/NA | Water | 8151A | 652206 |
| LCS 500-652206/2-A | Lab Control Sample | Total/NA | Water | 8151A | 652206 |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 8151A | 652206 |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 8151A | 652206 |

Metals

Prep Batch: 652541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Dissolved | Water | 3005A | |
| 500-215021-1 | W-220412-RA-05 | Total Recoverable | Water | 3005A | |
| 500-215021-2 | W-220412-RA-06 | Dissolved | Water | 3005A | |
| 500-215021-2 | W-220412-RA-06 | Total Recoverable | Water | 3005A | |
| 500-215021-3 | W-220412-RA-10 | Dissolved | Water | 3005A | |
| 500-215021-3 | W-220412-RA-10 | Total Recoverable | Water | 3005A | |
| 500-215021-4 | W-220412-RA-11 | Dissolved | Water | 3005A | |
| 500-215021-4 | W-220412-RA-11 | Total Recoverable | Water | 3005A | |
| 500-215021-5 | W-220412-RA-15 | Dissolved | Water | 3005A | |
| 500-215021-5 | W-220412-RA-15 | Total Recoverable | Water | 3005A | |
| 500-215021-6 | W-220412-RA-16 | Dissolved | Water | 3005A | |
| 500-215021-6 | W-220412-RA-16 | Total Recoverable | Water | 3005A | |
| MB 500-652541/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 500-652541/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 500-215021-4 MS | W-220412-RA-11 | Dissolved | Water | 3005A | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Metals (Continued)

Prep Batch: 652541 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-------------------|--------|--------|------------|
| 500-215021-4 MS | W-220412-RA-11 | Total Recoverable | Water | 3005A | |
| 500-215021-4 MSD | W-220412-RA-11 | Dissolved | Water | 3005A | |
| 500-215021-4 MSD | W-220412-RA-11 | Total Recoverable | Water | 3005A | |
| 500-215021-4 DU | W-220412-RA-11 | Dissolved | Water | 3005A | |
| 500-215021-4 DU | W-220412-RA-11 | Total Recoverable | Water | 3005A | |

Analysis Batch: 652750

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Dissolved | Water | 6020A | 652541 |
| 500-215021-1 | W-220412-RA-05 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-2 | W-220412-RA-06 | Dissolved | Water | 6020A | 652541 |
| 500-215021-2 | W-220412-RA-06 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-3 | W-220412-RA-10 | Dissolved | Water | 6020A | 652541 |
| 500-215021-3 | W-220412-RA-10 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-5 | W-220412-RA-15 | Dissolved | Water | 6020A | 652541 |
| 500-215021-5 | W-220412-RA-15 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-6 | W-220412-RA-16 | Dissolved | Water | 6020A | 652541 |
| 500-215021-6 | W-220412-RA-16 | Total Recoverable | Water | 6020A | 652541 |
| MB 500-652541/1-A | Method Blank | Total Recoverable | Water | 6020A | 652541 |
| LCS 500-652541/2-A | Lab Control Sample | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 MS | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 MS | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 MSD | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 MSD | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 DU | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 DU | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |

Analysis Batch: 653044

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Dissolved | Water | 6020A | 652541 |
| 500-215021-1 | W-220412-RA-05 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-2 | W-220412-RA-06 | Dissolved | Water | 6020A | 652541 |
| 500-215021-2 | W-220412-RA-06 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-3 | W-220412-RA-10 | Dissolved | Water | 6020A | 652541 |
| 500-215021-3 | W-220412-RA-10 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-5 | W-220412-RA-15 | Dissolved | Water | 6020A | 652541 |
| 500-215021-5 | W-220412-RA-15 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-6 | W-220412-RA-16 | Dissolved | Water | 6020A | 652541 |
| 500-215021-6 | W-220412-RA-16 | Total Recoverable | Water | 6020A | 652541 |
| MB 500-652541/1-A | Method Blank | Total Recoverable | Water | 6020A | 652541 |
| LCS 500-652541/2-A | Lab Control Sample | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 MS | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 MS | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 MSD | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 MSD | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |
| 500-215021-4 DU | W-220412-RA-11 | Dissolved | Water | 6020A | 652541 |
| 500-215021-4 DU | W-220412-RA-11 | Total Recoverable | Water | 6020A | 652541 |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Metals

Analysis Batch: 653050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|----------|------------|
| 500-215021-1 | W-220412-RA-05 | Total Recoverable | Water | SM 2340B | 652541 |
| 500-215021-2 | W-220412-RA-06 | Total Recoverable | Water | SM 2340B | 652541 |
| 500-215021-3 | W-220412-RA-10 | Total Recoverable | Water | SM 2340B | 652541 |
| 500-215021-4 | W-220412-RA-11 | Total Recoverable | Water | SM 2340B | 652541 |
| 500-215021-5 | W-220412-RA-15 | Total Recoverable | Water | SM 2340B | 652541 |
| 500-215021-6 | W-220412-RA-16 | Total Recoverable | Water | SM 2340B | 652541 |

General Chemistry

Analysis Batch: 651585

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 300.0 | |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 300.0 | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 300.0 | |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 300.0 | |
| MB 500-651585/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-651585/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 300.0 | |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 300.0 | |

Analysis Batch: 651959

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 300.0 | |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 300.0 | |
| MB 500-651959/9 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-651959/10 | Lab Control Sample | Total/NA | Water | 300.0 | |

Analysis Batch: 652388

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 300.0 | |
| MB 500-652388/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-652388/4 | Lab Control Sample | Total/NA | Water | 300.0 | |

Analysis Batch: 652437

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | SM 2320B | |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | SM 2320B | |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | SM 2320B | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | SM 2320B | |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | SM 2320B | |
| MB 500-652437/3 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 500-652437/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| 500-215021-4 DU | W-220412-RA-11 | Total/NA | Water | SM 2320B | |

Analysis Batch: 652444

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 500-215021-1 | W-220412-RA-05 | Total/NA | Water | 9060A | |
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 9060A | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 9060A | |
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 9060A | |
| MB 500-652444/7 | Method Blank | Total/NA | Water | 9060A | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

General Chemistry (Continued)

Analysis Batch: 652444 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| LCS 500-652444/8 | Lab Control Sample | Total/NA | Water | 9060A | |

Analysis Batch: 652971

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-2 | W-220412-RA-06 | Total/NA | Water | 300.0 | |
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 300.0 | |
| 500-215021-5 | W-220412-RA-15 | Total/NA | Water | 300.0 | |
| MB 500-652971/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-652971/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 300.0 | |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 300.0 | |

Analysis Batch: 652982

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-4 | W-220412-RA-11 | Total/NA | Water | 9060A | |
| MB 500-652982/7 | Method Blank | Total/NA | Water | 9060A | |
| LCS 500-652982/8 | Lab Control Sample | Total/NA | Water | 9060A | |
| 500-215021-4 MS | W-220412-RA-11 | Total/NA | Water | 9060A | |
| 500-215021-4 MSD | W-220412-RA-11 | Total/NA | Water | 9060A | |

Analysis Batch: 653281

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215021-6 | W-220412-RA-16 | Total/NA | Water | 300.0 | |
| MB 500-653281/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-653281/4 | Lab Control Sample | Total/NA | Water | 300.0 | |

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|------------------|--------------------|--|-----------------|-----------------|------------------|
| | | DCA (75-126) | TOL (75-120) | BFB (72-124) | DBFM (75-120) |
| 500-215021-1 | W-220412-RA-05 | 122 | 102 | 90 | 111 |
| 500-215021-2 | W-220412-RA-06 | 122 | 100 | 90 | 111 |
| 500-215021-3 | W-220412-RA-10 | 117 | 99 | 90 | 108 |
| 500-215021-4 | W-220412-RA-11 | 122 | 100 | 90 | 111 |
| 500-215021-4 MS | W-220412-RA-11 | 113 | 101 | 93 | 108 |
| 500-215021-4 MSD | W-220412-RA-11 | 113 | 102 | 95 | 105 |
| 500-215021-5 | W-220412-RA-15 | 113 | 102 | 94 | 109 |
| 500-215021-6 | W-220412-RA-16 | 115 | 99 | 94 | 105 |
| 500-215021-7 | Trip Blank | 119 | 98 | 93 | 111 |
| LCS 500-653066/4 | Lab Control Sample | 113 | 107 | 94 | 105 |
| MB 500-653066/33 | Method Blank | 117 | 101 | 89 | 107 |

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

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

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|--------------------|--------------------|--|-----------------|------------------|
| | | NBZ (36-120) | FBP (34-110) | TPHL (40-145) |
| 500-215021-1 | W-220412-RA-05 | 78 | 71 | 195 X * |
| 500-215021-2 | W-220412-RA-06 | 77 | 78 | 231 X * |
| 500-215021-3 | W-220412-RA-10 | 79 | 85 | 263 X * |
| 500-215021-4 | W-220412-RA-11 | 55 | 52 | 162 X * |
| 500-215021-4 MS | W-220412-RA-11 | 57 | 52 | 153 X * |
| 500-215021-4 MSD | W-220412-RA-11 | 58 | 56 | 152 X * |
| 500-215021-5 | W-220412-RA-15 | 80 | 69 | 154 X * |
| 500-215021-6 | W-220412-RA-16 | 79 | 80 | 172 X * |
| LCS 500-652164/2-A | Lab Control Sample | 73 | 85 | 98 |
| MB 500-652164/1-A | Method Blank | 68 | 78 | 97 |

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|------------------|------------------|--|
| | | TFE1 (60-140) |
| 500-215021-1 | W-220412-RA-05 | 96 |
| 500-215021-2 | W-220412-RA-06 | 97 |
| 500-215021-4 | W-220412-RA-11 | 94 |
| 500-215021-4 MS | W-220412-RA-11 | 95 |
| 500-215021-4 MSD | W-220412-RA-11 | 93 |

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TFE1 (60-140) |
|-------------------|--------------------|------------------|
| 500-215021-5 | W-220412-RA-15 | 95 |
| 500-215021-6 | W-220412-RA-16 | 97 |
| LCS 240-522930/34 | Lab Control Sample | 98 |
| MB 240-522930/33 | Method Blank | 98 |

Surrogate Legend

TFE = 1,1,1-Trifluoroethane

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCPAA2 (25-130) |
|--------------------|--------------------|--------------------|
| 500-215021-1 | W-220412-RA-05 | 43 |
| 500-215021-2 | W-220412-RA-06 | 121 |
| 500-215021-3 | W-220412-RA-10 | 113 |
| 500-215021-4 | W-220412-RA-11 | 0 D |
| 500-215021-4 MS | W-220412-RA-11 | 0 D |
| 500-215021-4 MSD | W-220412-RA-11 | 0 D |
| 500-215021-5 | W-220412-RA-15 | 0 D |
| 500-215021-6 | W-220412-RA-16 | 119 |
| LCS 500-652206/2-A | Lab Control Sample | 128 |
| MB 500-652206/1-A | Method Blank | 117 |

Surrogate Legend

DCPAA = DCAA

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-653066/33
Matrix: Water
Analysis Batch: 653066

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Benzene | 0.260 | J | 0.50 | 0.15 | ug/L | | | 04/23/22 17:50 | 1 |
| Toluene | 0.303 | J | 0.50 | 0.15 | ug/L | | | 04/23/22 17:50 | 1 |
| Ethylbenzene | 0.304 | J | 0.50 | 0.18 | ug/L | | | 04/23/22 17:50 | 1 |
| Xylenes, Total | 0.502 | J | 1.0 | 0.22 | ug/L | | | 04/23/22 17:50 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 117 | | 75 - 126 | | 04/23/22 17:50 | 1 |
| Toluene-d8 (Surr) | 101 | | 75 - 120 | | 04/23/22 17:50 | 1 |
| 4-Bromofluorobenzene (Surr) | 89 | | 72 - 124 | | 04/23/22 17:50 | 1 |
| Dibromofluoromethane | 107 | | 75 - 120 | | 04/23/22 17:50 | 1 |

Lab Sample ID: LCS 500-653066/4
Matrix: Water
Analysis Batch: 653066

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

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Benzene | 50.0 | 53.2 | | ug/L | | 106 | 70 - 120 |
| Toluene | 50.0 | 53.1 | | ug/L | | 106 | 70 - 125 |
| Ethylbenzene | 50.0 | 48.0 | | ug/L | | 96 | 70 - 123 |
| Xylenes, Total | 100 | 108 | | ug/L | | 108 | 70 - 125 |

| Surrogate | LCS LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 113 | | 75 - 126 |
| Toluene-d8 (Surr) | 107 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 94 | | 72 - 124 |
| Dibromofluoromethane | 105 | | 75 - 120 |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 653066

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS MS | | Unit | D | %Rec | %Rec Limits |
|----------------|---------------|------------------|-------------|--------|-----------|------|---|------|-------------|
| | | | | Result | Qualifier | | | | |
| Benzene | <0.15 | | 50.0 | 55.5 | | ug/L | | 111 | 70 - 120 |
| Toluene | 0.79 | B | 50.0 | 54.7 | | ug/L | | 108 | 70 - 125 |
| Ethylbenzene | 0.83 | B | 50.0 | 51.2 | | ug/L | | 101 | 70 - 123 |
| Xylenes, Total | 9.3 | B | 100 | 121 | | ug/L | | 112 | 70 - 125 |

| Surrogate | MS MS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 113 | | 75 - 126 |
| Toluene-d8 (Surr) | 101 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 |
| Dibromofluoromethane | 108 | | 75 - 120 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 653066

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------------|------------------|------------------|---------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Benzene | <0.15 | | 50.0 | 52.7 | | ug/L | | 105 | 70 - 120 | 5 | 20 |
| Toluene | 0.79 | B | 50.0 | 52.1 | | ug/L | | 103 | 70 - 125 | 5 | 20 |
| Ethylbenzene | 0.83 | B | 50.0 | 48.2 | | ug/L | | 95 | 70 - 123 | 6 | 20 |
| Xylenes, Total | 9.3 | B | 100 | 117 | | ug/L | | 108 | 70 - 125 | 3 | 20 |
| MSD MSD | | | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 113 | | 75 - 126 | | | | | | | | |
| Toluene-d8 (Surr) | 102 | | 75 - 120 | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 95 | | 72 - 124 | | | | | | | | |
| Dibromofluoromethane | 105 | | 75 - 120 | | | | | | | | |

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

Lab Sample ID: MB 500-652164/1-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652164

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|------------------|------------------|---------------|------|------|---|-----------------|-----------------|----------------|
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/18/22 09:28 | 04/21/22 12:02 | 1 |
| MB MB | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Nitrobenzene-d5 (Surr) | 68 | | 36 - 120 | | | | 04/18/22 09:28 | 04/21/22 12:02 | 1 |
| 2-Fluorobiphenyl (Surr) | 78 | | 34 - 110 | | | | 04/18/22 09:28 | 04/21/22 12:02 | 1 |
| Terphenyl-d14 (Surr) | 97 | | 40 - 145 | | | | 04/18/22 09:28 | 04/21/22 12:02 | 1 |

Lab Sample ID: LCS 500-652164/2-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652164

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------------|------------------|------------------|---------------|------|---|------|-------------|
| Naphthalene | 32.0 | 22.7 | | ug/L | | 71 | 36 - 110 |
| LCS LCS | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | |
| Nitrobenzene-d5 (Surr) | 73 | | 36 - 120 | | | | |
| 2-Fluorobiphenyl (Surr) | 85 | | 34 - 110 | | | | |
| Terphenyl-d14 (Surr) | 98 | | 40 - 145 | | | | |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 652792

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA
Prep Batch: 652164

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------------|------------------|------------------|---------------|-----------|--------------|------|---|------|-------------|
| Naphthalene | 26 | | 30.5 | 38.4 | | ug/L | | 41 | 36 - 110 |
| MS MS | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | |
| Nitrobenzene-d5 (Surr) | 57 | | 36 - 120 | | | | | | |
| 2-Fluorobiphenyl (Surr) | 52 | | 34 - 110 | | | | | | |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

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

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 652792

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA
Prep Batch: 652164

| | <i>MS</i> | <i>MS</i> | |
|----------------------|------------------|------------------|---------------|
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> |
| Terphenyl-d14 (Surr) | 153 | X * | 40 - 145 |

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 652792

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA
Prep Batch: 652164

| <i>Analyte</i> | <i>Sample Result</i> | <i>Sample Qualifier</i> | <i>Spike Added</i> | <i>MSD</i> | | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec</i> | | |
|-------------------------|----------------------|-------------------------|--------------------|---------------|------------------|-------------|----------|-------------|---------------|------------|--------------|
| | | | | <i>Result</i> | <i>Qualifier</i> | | | | <i>Limits</i> | <i>RPD</i> | <i>Limit</i> |
| Naphthalene | 26 | | 33.9 | 39.7 | | ug/L | | 41 | 36 - 110 | 3 | 20 |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | <i>MSD</i> | | | | | | | |
| Nitrobenzene-d5 (Surr) | 58 | | 36 - 120 | | | | | | | | |
| 2-Fluorobiphenyl (Surr) | 56 | | 34 - 110 | | | | | | | | |
| Terphenyl-d14 (Surr) | 152 | X * | 40 - 145 | | | | | | | | |

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 240-522930/33
Matrix: Water
Analysis Batch: 522930

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

| <i>Analyte</i> | <i>MB Result</i> | <i>MB Qualifier</i> | <i>LOQ</i> | <i>LOD</i> | <i>Unit</i> | <i>D</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-----------------------|------------------|---------------------|---------------|------------|-------------|----------|-----------------|-----------------|----------------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/15/22 21:34 | 1 |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>MB Qualifier</i> | <i>Limits</i> | | | | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
| 1,1,1-Trifluoroethane | 98 | | 60 - 140 | | | | | 04/15/22 21:34 | 1 |

Lab Sample ID: LCS 240-522930/34
Matrix: Water
Analysis Batch: 522930

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

| <i>Analyte</i> | <i>Spike Added</i> | <i>LCS</i> | | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec</i> | |
|-----------------------|--------------------|---------------|------------------|-------------|----------|-------------|---------------|--|
| | | <i>Result</i> | <i>Qualifier</i> | | | | <i>Limits</i> | |
| Methane | 284 | 275 | | ug/L | | 97 | 80 - 120 | |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>LCS</i> | | | | | | |
| 1,1,1-Trifluoroethane | 98 | | | | | | 60 - 140 | |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 522930

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| <i>Analyte</i> | <i>Sample Result</i> | <i>Sample Qualifier</i> | <i>Spike Added</i> | <i>MS</i> | | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec</i> | |
|-----------------------|----------------------|-------------------------|--------------------|---------------|------------------|-------------|----------|-------------|---------------|--|
| | | | | <i>Result</i> | <i>Qualifier</i> | | | | <i>Limits</i> | |
| Methane | 51 | | 284 | 337 | | ug/L | | 101 | 50 - 150 | |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>MS Qualifier</i> | <i>Limits</i> | <i>MS</i> | | | | | | |
| 1,1,1-Trifluoroethane | 95 | | 60 - 140 | | | | | | | |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 522930

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------|------------------|----------------------|-------------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Methane | 51 | | 284 | 320 | | ug/L | | 95 | 50 - 150 | 5 | 30 |
| Surrogate | %Recovery | MSD Qualifier | MSD Limits | | | | | | | | |
| 1,1,1-Trifluoroethane | 93 | | 60 - 140 | | | | | | | | |

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-652206/1-A
Matrix: Water
Analysis Batch: 652590

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652206

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac | |
|-------------------|------------------|---------------------|------------------|------|------|---|----------------|----------------|---------|--|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 04/18/22 11:37 | 04/20/22 21:07 | 1 | |
| Surrogate | %Recovery | MB Qualifier | MB Limits | | | | | | | |
| DCAA | 117 | | 25 - 130 | | | | | | | |
| | | | | | | | 04/18/22 11:37 | 04/20/22 21:07 | 1 | |

Lab Sample ID: LCS 500-652206/2-A
Matrix: Water
Analysis Batch: 652590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652206

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|------------------|----------------------|-------------------|------|---|------|-------------|
| Pentachlorophenol | 2.53 | 3.13 | * | ug/L | | 124 | 40 - 122 |
| Surrogate | %Recovery | LCS Qualifier | LCS Limits | | | | |
| DCAA | 128 | | 25 - 130 | | | | |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 652590

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA
Prep Batch: 652206

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|------------------|---------------------|------------------|-----------|--------------|------|---|------------|-------------|
| Pentachlorophenol | 10000 | * F2 | 2.63 | 8390 | 4 | ug/L | | -7136 5 | 40 - 122 |
| Surrogate | %Recovery | MS Qualifier | MS Limits | | | | | | |
| DCAA | 0 | D | 25 - 130 | | | | | | |

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 652590

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA
Prep Batch: 652206

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------------|------------------|----------------------|-------------------|------------|---------------|------|---|-------|-------------|-----|-----------|
| Pentachlorophenol | 10000 | * F2 | 2.44 | 10700 | 4 F2 | ug/L | | 15936 | 40 - 122 | 24 | 20 |
| Surrogate | %Recovery | MSD Qualifier | MSD Limits | | | | | | | | |
| DCAA | 0 | D | 25 - 130 | | | | | | | | |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-652541/1-A
Matrix: Water
Analysis Batch: 652750

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Arsenic | 0.252 | J | 1.0 | 0.23 | ug/L | | 04/20/22 08:33 | 04/20/22 20:27 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 08:33 | 04/20/22 20:27 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 08:33 | 04/20/22 20:27 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 08:33 | 04/20/22 20:27 | 1 |

Lab Sample ID: MB 500-652541/1-A
Matrix: Water
Analysis Batch: 653044

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 08:33 | 04/22/22 20:04 | 1 |

Lab Sample ID: LCS 500-652541/2-A
Matrix: Water
Analysis Batch: 652750

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| | | | | | | | |
| Copper | 250 | 236.6 | | ug/L | | 95 | 80 - 120 |
| Iron | 1000 | 863.8 | | ug/L | | 86 | 80 - 120 |
| Zinc | 500 | 478.6 | | ug/L | | 96 | 80 - 120 |

Lab Sample ID: LCS 500-652541/2-A
Matrix: Water
Analysis Batch: 653044

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| | | | | | | | |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 652750

Client Sample ID: W-220412-RA-11
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| | | | | | | | | | |
| Copper | 6.9 | | 250 | 241.4 | | ug/L | | 94 | 75 - 125 |
| Iron | 16500 | | 1000 | 22410 | 4 | ug/L | | 596 | 75 - 125 |
| Zinc | <6.9 | | 500 | 462.8 | | ug/L | | 93 | 75 - 125 |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220412-RA-11
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| | | | | | | | | | |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 652750

Client Sample ID: W-220412-RA-11
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | RPD | Limit |
|---------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | |
| Arsenic | 3.6 | B | 100 | 102.2 | | ug/L | | 99 | 75 - 125 | 0 | 20 |
| Copper | 6.9 | | 250 | 238.3 | | ug/L | | 93 | 75 - 125 | 1 | 20 |
| Iron | 16500 | | 1000 | 21750 | 4 | ug/L | | 530 | 75 - 125 | 3 | 20 |
| Zinc | <6.9 | | 500 | 462.8 | | ug/L | | 93 | 75 - 125 | 0 | 20 |

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220412-RA-11
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | RPD | Limit |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | |
| Manganese | 7440 | | 500 | 8724 | 4 | ug/L | | 256 | 75 - 125 | 2 | 20 |

Lab Sample ID: 500-215021-4 DU
Matrix: Water
Analysis Batch: 652750

Client Sample ID: W-220412-RA-11
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Sample | Sample | DU | | Unit | D | RPD | Limit |
|---------|--------|-----------|--------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| Arsenic | 3.6 | B | 3.23 | | ug/L | | 10 | 20 |
| Copper | 6.9 | | 6.80 | | ug/L | | 2 | 20 |
| Iron | 16500 | | 16730 | | ug/L | | 2 | 20 |
| Zinc | <6.9 | | <6.9 | | ug/L | | NC | 20 |

Lab Sample ID: 500-215021-4 DU
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220412-RA-11
Prep Type: Total Recoverable
Prep Batch: 652541

| Analyte | Sample | Sample | DU | | Unit | D | RPD | Limit |
|-----------|--------|-----------|--------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| Manganese | 7440 | | 8247 | | ug/L | | 10 | 20 |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 652750

Client Sample ID: W-220412-RA-11
Prep Type: Dissolved
Prep Batch: 652541

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec | RPD | Limit |
|---------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | |
| Arsenic | 3.3 | B | 100 | 101.2 | | ug/L | | 98 | 75 - 125 | | |
| Copper | 4.5 | | 250 | 232.0 | | ug/L | | 91 | 75 - 125 | | |
| Iron | 20100 | | 1000 | 15380 | 4 | ug/L | | -468 | 75 - 125 | | |
| Zinc | <6.9 | | 500 | 455.7 | | ug/L | | 91 | 75 - 125 | | |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220412-RA-11
Prep Type: Dissolved
Prep Batch: 652541

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec | RPD | Limit |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | |
| Manganese | 8180 | | 500 | 8482 | 4 | ug/L | | 60 | 75 - 125 | | |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 652750

Client Sample ID: W-220412-RA-11
Prep Type: Dissolved
Prep Batch: 652541

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | RPD | Limit |
|---------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | | Result | Qualifier | | | | Limits | | |
| Arsenic | 3.3 | B | 100 | 101.7 | | ug/L | | 98 | 75 - 125 | 0 | 20 |
| Copper | 4.5 | | 250 | 233.1 | | ug/L | | 91 | 75 - 125 | 0 | 20 |
| Iron | 20100 | | 1000 | 14620 | 4 | ug/L | | -544 | 75 - 125 | 5 | 20 |
| Zinc | <6.9 | | 500 | 459.9 | | ug/L | | 92 | 75 - 125 | 1 | 20 |

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220412-RA-11
Prep Type: Dissolved
Prep Batch: 652541

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | RPD | Limit |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | | Result | Qualifier | | | | Limits | | |
| Manganese | 8180 | | 500 | 8003 | 4 | ug/L | | -36 | 75 - 125 | 6 | 20 |

Lab Sample ID: 500-215021-4 DU
Matrix: Water
Analysis Batch: 652750

Client Sample ID: W-220412-RA-11
Prep Type: Dissolved
Prep Batch: 652541

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|---------|--------|-----------|-------|--------|------|---|-----|-------|
| | Result | Qualifier | | Result | | | | |
| Arsenic | 3.3 | B | 3.39 | | ug/L | | 2 | 20 |
| Copper | 4.5 | | 4.21 | | ug/L | | 6 | 20 |
| Iron | 20100 | | 19860 | | ug/L | | 1 | 20 |
| Zinc | <6.9 | | <6.9 | | ug/L | | NC | 20 |

Lab Sample ID: 500-215021-4 DU
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220412-RA-11
Prep Type: Dissolved
Prep Batch: 652541

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|-----------|--------|-----------|------|--------|------|---|-----|-------|
| | Result | Qualifier | | Result | | | | |
| Manganese | 8180 | | 7846 | | ug/L | | 4 | 20 |

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-651585/3
Matrix: Water
Analysis Batch: 651585

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

| Analyte | MB | MB | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/13/22 16:52 | 1 |

Lab Sample ID: LCS 500-651585/4
Matrix: Water
Analysis Batch: 651585

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

| Analyte | Spike | LCS | LCS | Unit | D | %Rec | %Rec |
|--------------|-------|------|-----|------|---|------|----------|
| | | | | | | | Result |
| Nitrate as N | 2.00 | 2.05 | | mg/L | | 102 | 90 - 110 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 651585

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Nitrate as N | <0.068 | | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 |

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 651585

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Nitrate as N | <0.068 | | 1.00 | 1.01 | | mg/L | | 101 | 80 - 120 | 6 | 20 |

Lab Sample ID: MB 500-651959/9
Matrix: Water
Analysis Batch: 651959

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/15/22 11:06 | 1 |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/15/22 11:06 | 1 |

Lab Sample ID: LCS 500-651959/10
Matrix: Water
Analysis Batch: 651959

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 2.98 | | mg/L | | 99 | 90 - 110 |
| Nitrate as N | 2.00 | 2.02 | | mg/L | | 101 | 90 - 110 |
| Sulfate | 5.00 | 4.84 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: MB 500-652388/3
Matrix: Water
Analysis Batch: 652388

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/19/22 11:39 | 1 |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/19/22 11:39 | 1 |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/19/22 11:39 | 1 |

Lab Sample ID: LCS 500-652388/4
Matrix: Water
Analysis Batch: 652388

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 3.11 | | mg/L | | 104 | 90 - 110 |
| Nitrate as N | 2.00 | 2.09 | | mg/L | | 105 | 90 - 110 |
| Sulfate | 5.00 | 5.06 | | mg/L | | 101 | 90 - 110 |

Lab Sample ID: MB 500-652971/3
Matrix: Water
Analysis Batch: 652971

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|------|------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/22/22 11:51 | 1 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 500-652971/3
Matrix: Water
Analysis Batch: 652971

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/22/22 11:51 | 1 |

Lab Sample ID: LCS 500-652971/4
Matrix: Water
Analysis Batch: 652971

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 3.12 | | mg/L | | 104 | 90 - 110 |
| Sulfate | 5.00 | 5.11 | | mg/L | | 102 | 90 - 110 |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 652971

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Chloride | 25.1 | | 5.00 | 32.29 | 4 | mg/L | | 144 | 80 - 120 |
| Sulfate | 18.9 | | 12.5 | 33.31 | | mg/L | | 115 | 80 - 120 |

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 652971

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Chloride | 25.1 | | 5.00 | 32.31 | 4 | mg/L | | 145 | 80 - 120 | 0 | 20 |
| Sulfate | 18.9 | | 12.5 | 33.43 | | mg/L | | 116 | 80 - 120 | 0 | 20 |

Lab Sample ID: MB 500-653281/3
Matrix: Water
Analysis Batch: 653281

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/25/22 12:58 | 1 |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/25/22 12:58 | 1 |

Lab Sample ID: LCS 500-653281/4
Matrix: Water
Analysis Batch: 653281

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 3.13 | | mg/L | | 104 | 90 - 110 |
| Sulfate | 5.00 | 4.95 | | mg/L | | 99 | 90 - 110 |

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 500-652444/7
Matrix: Water
Analysis Batch: 652444

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/18/22 21:19 | 1 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 500-652444/8
Matrix: Water
Analysis Batch: 652444

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 10.0 | 10.04 | | mg/L | | 100 | 86 - 116 |

Lab Sample ID: MB 500-652982/7
Matrix: Water
Analysis Batch: 652982

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/20/22 21:49 | 1 |

Lab Sample ID: LCS 500-652982/8
Matrix: Water
Analysis Batch: 652982

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 10.0 | 10.21 | | mg/L | | 102 | 86 - 116 |

Lab Sample ID: 500-215021-4 MS
Matrix: Water
Analysis Batch: 652982

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 37.7 | | 80.0 | 113.5 | | mg/L | | 95 | 75 - 125 |

Lab Sample ID: 500-215021-4 MSD
Matrix: Water
Analysis Batch: 652982

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Total Organic Carbon - Duplicates | 37.7 | | 80.0 | 114.9 | | mg/L | | 96 | 75 - 125 | 1 | 20 |

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-652437/3
Matrix: Water
Analysis Batch: 652437

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | <3.7 | | 5.0 | 3.7 | mg/L | | | 04/19/22 09:54 | 1 |

Lab Sample ID: LCS 500-652437/4
Matrix: Water
Analysis Batch: 652437

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------|-------------|------------|---------------|------|---|------|-------------|
| Alkalinity | 100 | 103.4 | | mg/L | | 103 | 90 - 110 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 500-215021-4 DU
Matrix: Water
Analysis Batch: 652437

Client Sample ID: W-220412-RA-11
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Alkalinity | 288 | | 294.4 | | mg/L | | 2 | 20 |

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Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-05

Lab Sample ID: 500-215021-1

Date Collected: 04/12/22 10:29

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 18:13 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652164 | 04/18/22 09:28 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652792 | 04/21/22 20:50 | SS | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522930 | 04/15/22 23:17 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652206 | 04/18/22 11:37 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652590 | 04/20/22 21:46 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:15 | FXG | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:52 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652750 | 04/20/22 20:34 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:11 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653050 | 04/23/22 11:51 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651585 | 04/13/22 17:22 | PSP | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 652388 | 04/19/22 13:33 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 03:50 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 11:21 | SMO | TAL CHI |

Client Sample ID: W-220412-RA-06

Lab Sample ID: 500-215021-2

Date Collected: 04/12/22 11:14

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 18:36 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652164 | 04/18/22 09:28 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652792 | 04/21/22 21:12 | SS | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522930 | 04/15/22 23:34 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652206 | 04/18/22 11:37 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652590 | 04/20/22 22:06 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:19 | FXG | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:55 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652750 | 04/20/22 20:38 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:14 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653050 | 04/23/22 11:51 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651959 | 04/15/22 19:54 | EAT | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-06

Lab Sample ID: 500-215021-2

Date Collected: 04/12/22 11:14

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 300.0 | | 2 | 651959 | 04/15/22 20:08 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 2 | 652971 | 04/22/22 15:26 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 04:18 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 11:27 | SMO | TAL CHI |

Client Sample ID: W-220412-RA-10

Lab Sample ID: 500-215021-3

Date Collected: 04/12/22 13:00

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 18:59 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652164 | 04/18/22 09:28 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652792 | 04/21/22 21:35 | SS | TAL CHI |
| Total/NA | Prep | 8151A | | | 652206 | 04/18/22 11:37 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652590 | 04/20/22 22:25 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:22 | FXG | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:59 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652750 | 04/20/22 20:41 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:18 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653050 | 04/23/22 11:51 | FXG | TAL CHI |

Client Sample ID: W-220412-RA-11

Lab Sample ID: 500-215021-4

Date Collected: 04/12/22 14:08

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 19:22 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652164 | 04/18/22 09:28 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 5 | 652792 | 04/21/22 21:57 | SS | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522930 | 04/15/22 23:51 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652206 | 04/18/22 11:37 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 5000 | 652590 | 04/21/22 02:18 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:25 | FXG | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 10 | 653044 | 04/22/22 21:02 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652750 | 04/20/22 20:44 | FXG | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-11

Lab Sample ID: 500-215021-4

Date Collected: 04/12/22 14:08

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 10 | 653044 | 04/22/22 20:21 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653050 | 04/23/22 11:51 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651585 | 04/13/22 18:17 | PSP | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 652971 | 04/22/22 15:38 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 8 | 652982 | 04/20/22 23:53 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 10:29 | SMO | TAL CHI |

Client Sample ID: W-220412-RA-15

Lab Sample ID: 500-215021-5

Date Collected: 04/12/22 13:30

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 20:31 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652164 | 04/18/22 09:28 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 5 | 652792 | 04/21/22 23:05 | SS | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522930 | 04/16/22 00:42 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652206 | 04/18/22 11:37 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 5000 | 652590 | 04/21/22 00:02 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:49 | FXG | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/22/22 21:26 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:08 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:45 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653050 | 04/23/22 11:51 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651585 | 04/13/22 17:49 | PSP | TAL CHI |
| Total/NA | Analysis | 300.0 | | 10 | 652971 | 04/22/22 16:16 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 5 | 652444 | 04/19/22 06:01 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 10:45 | SMO | TAL CHI |

Client Sample ID: W-220412-RA-16

Lab Sample ID: 500-215021-6

Date Collected: 04/12/22 14:00

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 20:54 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652164 | 04/18/22 09:28 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652792 | 04/21/22 23:28 | SS | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 522930 | 04/16/22 00:59 | JBN | TAL CAN |

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Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Client Sample ID: W-220412-RA-16

Lab Sample ID: 500-215021-6

Date Collected: 04/12/22 14:00

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 8151A | | | 652206 | 04/18/22 11:37 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 10 | 652590 | 04/21/22 07:33 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:53 | FXG | TAL CHI |
| Dissolved | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/22/22 21:30 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652750 | 04/20/22 21:12 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 20:49 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652541 | 04/20/22 08:33 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653050 | 04/23/22 11:51 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651585 | 04/13/22 18:03 | PSP | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 653281 | 04/25/22 13:26 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 06:29 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 11:34 | SMO | TAL CHI |

Client Sample ID: Trip Blank

Lab Sample ID: 500-215021-7

Date Collected: 04/12/22 00:00

Matrix: Water

Date Received: 04/13/22 09:55

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 21:17 | JDD | TAL CHI |

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215021-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Wisconsin | State | 999580010 | 08-31-22 |

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------------------|---------|-----------------------|-----------------|
| California | State | 2927 | 02-27-23 |
| Connecticut | State | PH-0590 | 12-31-23 |
| Florida | NELAP | E87225 | 06-30-22 |
| Georgia | State | 4062 | 02-23-22 * |
| Illinois | NELAP | 200004 | 04-25-22 |
| Iowa | State | 421 | 06-01-23 |
| Kansas | NELAP | E-10336 | 04-30-22 |
| Kentucky (UST) | State | 112225 | 02-23-22 * |
| Kentucky (WW) | State | KY98016 | 12-31-22 |
| Minnesota | NELAP | 039-999-348 | 12-31-22 |
| Minnesota (Petrofund) | State | 3506 | 08-01-23 |
| New Jersey | NELAP | OH001 | 06-30-22 |
| New York | NELAP | 10975 | 04-01-23 |
| Ohio | State | 8303 | 02-23-23 |
| Ohio VAP | State | CL0024 | 04-20-22 |
| Oregon | NELAP | 4062 | 04-20-22 |
| Pennsylvania | NELAP | 68-00340 | 04-24-22 |
| Texas | NELAP | T104704517-22-16 | 08-31-22 |
| Virginia | NELAP | 11570 | 04-25-22 |
| Washington | State | C971 | 01-12-23 |
| West Virginia DEP | State | 210 | 12-31-22 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record

547036



Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

| | | | | | | | | | | | |
|---|--|--|--|---|--|----------------------------|--|-----------------------|--|---|--|
| Client Contact | | Project Manager <u>Tim Reece</u> | | Site Contact <u>Grant Anderson</u> | | Date <u>4/14/22</u> | | COC No | | | |
| Company Name <u>GHD</u> | | Tel/Email <u>Tim.Reece@GHD.com</u> | | Lab Contact | | Carrier | | _____ of _____ COCs | | | |
| Address <u>900 Long Lake Rd #200</u> | | Analysis Turnaround Time | | | | | | | | | |
| City/State/Zip <u>St. Paul MN 55112</u> | | <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS | | TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day | | | | | | Sampler For Lab Use Only: Walk-in Client <input type="checkbox"/> Lab Sampling <input type="checkbox"/> Job / SDG No <u>500-215021</u> | |
| Phone <u>6516390913</u> | | | | | | | | | | | |
| Fax | | | | | | | | | | | |
| Project Name <u>PantaWood</u> | | | | | | | | | | | |
| Site <u>11222418-03-04</u> | | | | Perform MS / MSD (Y / N) PCP BTEX Naphthalene Dissolved Metals Alk. Aromatics Total Metals (Hexes) TOL Methane | | 500-215021 COC | | Sample Specific Notes | | | |
| P O # | | | | | | | | | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | PCP | BTEX | Naphthalene | Dissolved Metals | Alk. Aromatics | Total Metals (Hexes) | TOL | Methane | Sample Specific Notes |
|-----------------------|-------------|-------------|---------------------------------|--------|------------|-----------------------|-----|------|-------------|------------------|----------------|----------------------|-----|---------|--------------------------------------|
| 1 W-220412-RA-05 | 4/12/22 | 1029 | G | GW | 15 | Y | / | / | / | / | / | / | / | / | Dissolved metals were field filtered |
| 2 W-220412-RA-06 | | 1114 | | | 15 | Y | / | / | / | / | / | / | / | | |
| 3 W-220412-RA-10 | | 1300 | | | 9 | Y | / | / | / | / | / | / | / | | |
| 4 W-220412-RA-11 | | 1408 | | | 45 | Y | / | / | / | / | / | / | / | | |
| 5 W-220412-RA-15 | | 1330 | | | 15 | Y | / | / | / | / | / | / | / | | |
| 6 W-220412-RA-16 | | 1400 | | | 15 | Y | / | / | / | / | / | / | / | | |
| 7 Trip/Link | | | | | | | X | | | | | | | | |

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

Return to Client
 Disposal by Lab
 Archive for _____ Months

Special Instructions/QC Requirements & Comments: 24→1.0, 4.3→2.9, 5.1→3.7, 2.9→1.5, 2.1→0.7

| | | | | | | | |
|---|--------------------|-------------------------------|--|---|-------------------------------|-------------------|--|
| Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No | | Custody Seal No _____ | | Cooler Temp (°C) Obs'd _____ Corr'd _____ | | Therm ID No _____ | |
| Relinquished by <u>[Signature]</u> | Company <u>GHD</u> | Date/Time <u>4/13/22 1500</u> | Received by _____ | Company _____ | Date/Time _____ | | |
| Relinquished by _____ | Company _____ | Date/Time _____ | Received by _____ | Company _____ | Date/Time _____ | | |
| Relinquished by _____ | Company _____ | Date/Time _____ | Received in Laboratory by <u>[Signature]</u> | Company <u>ERTIA</u> | Date/Time <u>4/13/22 0955</u> | | |



500-215021 Wayb



Package US Airbill

FedEx Tracking Number

8174 6502 5812

Form 10765

0215

1 From

Date 4/11/22

Sender's Name Ryan A... Phone 1

Company SAV

Address 10-10 Dept./Floor/Suite/Room

City SI PA 1 State ZIP

2 Your Internal Billing Reference 112221

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

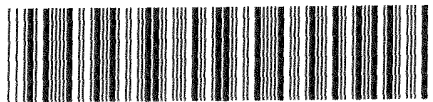
Address _____

Use this line for the HOLD location address or for continuation of your shipping address.

City _____ State ZIP

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8174 6502 5812

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs, use the FedEx Express Freight US Airbill.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes As per attached Shipper's Declaration Yes Shipper's Declaration not required Dry Ice Dry Ice 3, UN 1845 _____ x _____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below

Obtain recip. FedEx Acct. No.

Sender Acct. No. in Section 1 will be billed Recipient Third Party

Total Packages 1 Total Weight 42 lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.



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FedEx Express *Package US Airbill*

FedEx Tracking Number

8174 6502 5823

Form No. 0215

fedex.com 1800.GoFedEx 1800.463.3339

1 From

Date 4/11/21

Sender's Name Ryan Annot Phone 612

Company BHP

Address 700 Lin, Lake K Dept./Floor/Suite/Room 200

City St Paul State MN ZIP 55112

2 Your Internal Billing Reference 1102113

3 To Recipient's Name Phone

Company

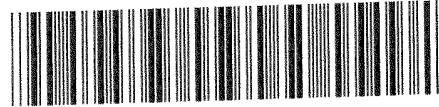
Address Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address
Use this line for the HOLD location address or for continuation of your shipping address.

City State ZIP

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8174 6502 5823

4 Express Package Service *To most locations. **Packages up to 150 lbs.**
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon.* Thursday shipment will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.
 No Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required. Dry Ice Dry ice, 9, UN 1845 _____ x _____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to: Enter FedEx Acct. No. below Obtain recip. FedEx Acct. No.

Sender Acct. No. in Section 1 will be billed. Recipient Third Party

Total Packages 1 Total Weight 20 lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.



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FedEx Express **Package US Airbill**

FedEx Tracking Number

8174 6502 5960

Form ID No.

0215

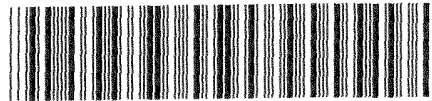
fedex.com 1.800.GoFedEx 1.800.463.3339

1 From
 Date 4/11/22
 Sender's Name K... .. Phone 17
 Company K... ..
 Address 111 Dept./Floor/Suite/Room
 City St Pa State ZIP

2 Your Internal Billing Reference

3 To
 Recipient's Name _____ Phone _____
 Company _____
 Address _____ Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.
 Address _____
Use this line for the HOLD location address or for continuation of your shipping address.
 City _____ State ZIP

Hold Weekday
 FedEx location address REQUIRED. NOT available for FedEx First Overnight.
 Hold Saturday
 FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.



8174 6502 5960

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs. use the FedEx Express Freight US Airbill.

| Next Business Day | 2 or 3 Business Days |
|---|---|
| <input type="checkbox"/> FedEx First Overnight <small>Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.</small> | <input type="checkbox"/> FedEx 2Day A.M. <small>Second business morning* Saturday Delivery NOT available.</small> |
| <input checked="" type="checkbox"/> FedEx Priority Overnight <small>Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.</small> | <input type="checkbox"/> FedEx 2Day <small>Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.</small> |
| <input type="checkbox"/> FedEx Standard Overnight <small>Next business afternoon.* Saturday Delivery NOT available.</small> | <input type="checkbox"/> FedEx Express Saver <small>Third business day* Saturday Delivery NOT available.</small> |

5 Packaging * Declared value limit \$500.

FedEx Envelope*
 FedEx Pak*
 FedEx Box
 FedEx Tube
 Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?
One box must be checked.

No
 Yes As per attached Shipper's Declaration.
 Yes Shipper's Declaration not required.
 Dry Ice Dry Ice, 9 UN 1845 _____ x _____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Sender Acct. No. Section 1 will be billed.
 Recipient
 Third Party

Enter FedEx Acct. No. below _____ Obtain recip. FedEx Acct. No.

Total Packages _____ Total Weight _____ lbs.

Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.



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15

FedEx Package
Express US Airbill

FedEx
Tracking
Number

8174 6502 5834

Form
ID No. 0215

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From
Date 4/10/2022

Sender's Name Ron Agnost Phone 612 927 6855

Company BHD

Address 912 Longlake Rd Dept/Floor/Suite/Room 200

City St Paul State MN ZIP 55112

2 Your Internal Billing Reference 11232418-03-04

3 To
Recipient's Name Paul Deibel Phone 612 4 1231

Company

Address 1750 W 1st St Dept/Floor/Suite/Room

Address Use this line for the HOLD location address or for continuation of your shipping address.

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.
Hold Saturday
FedEx location address
REQUIRED. ONLY for
int and
ocations.

FedEx
TRK#
0215 8174 6502 5834

WED - 13 APR AA
PRIORITY OVERNIGHT

NA JOTA

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IL-US
ORD



80701 12Apr2022

4 Express Package Service *To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day
 FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days
 FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.
 FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
 FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.
 FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?
One box must be checked.
 No Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required.

Dry Ice
Dry Ice, 9 UN 1845 _____ x _____ kg

Cargo Aircraft Only

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

7 Payment Bill to: Enter FedEx Acct. No. below. Ob: * * p
FedEx Ac No.

Sender Acct. No. in Section 1 will be billed. Recipient Third Party

Total Packages 1 Total Weight 40 lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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FedEx Express Package US Airbill

FedEx Tracking Number

8174 6502 5845

Form ID No.

0215

1 From

Date 4/11/02

Sender's Name Ryan A. Amos Phone 112

Company KHID

Address 900 L... Dept./Floor/Suite/Room

City St. Louis State MO ZIP 63101

2 Your Internal Billing Reference 112

3 To Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address _____

Use this line for the HOLD location address or for continuation of your shipping address.

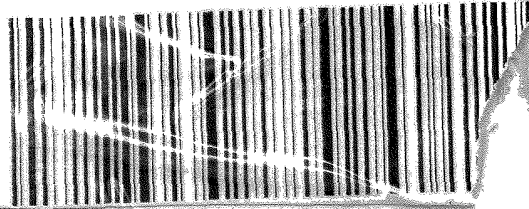
City _____

FedEx
 TRK# 8174 6502 5845
 0215

WED - 13 APR AA
PRIORITY OVERNIGHT

60484

NA JOTA



60484
US
ORD

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs. use the FedEx Express Freight US Airbill.

| Next Business Day | 2 or 3 Business Days |
|--|--|
| <input type="checkbox"/> FedEx First Overnight <small>Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.</small> | <input type="checkbox"/> FedEx 2Day A.M. <small>Second business morning.* Saturday Delivery NOT available.</small> |
| <input checked="" type="checkbox"/> FedEx Priority Overnight <small>Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.</small> | <input type="checkbox"/> FedEx 2Day <small>Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.</small> |
| <input type="checkbox"/> FedEx Standard Overnight <small>Next business afternoon. Saturday Delivery NOT available.</small> | <input type="checkbox"/> FedEx Express Saver <small>Third business day. Saturday Delivery NOT available.</small> |

5 Packaging *Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes
As per attached Shipper's Declaration.

Yes
Shipper's Declaration not required.

Dry Ice
Dry Ice, 9, UN 1845 _____ x _____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below

Sender Acct. No. in Section 1 will be billed. Recipient Third Party

Obtain recip. FedEx Acct. No.

Total Packages 1 Total Weight 40 lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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Chain of Custody Record



| Client Information (Sub Contract Lab) | | Lab PM: Wright, Richard | COC No: 500-159444.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|-----------------------------------|----------------------------|------------------------------|---|-----------------------------------|----------------------------|------------------------|----------------------------|----------------------------|-------------------------------|---------|---------------|--|-------|--|--|---|---|-----|-------------------------------|---------|---------------|--|-------|--|--|---|---|-------------------------------|---------|---------------|--|-------|--|--|---|---|---------------------------------|---------|---------------|----|-------|--|--|---|---|----------------------------------|---------|---------------|-----|-------|--|--|---|---|-------------------------------|---------|---------------|--|-------|--|--|---|---|-------------------------------|---------|---------------|--|-------|--|--|---|---|
| Shipping/Receiving | | E-Mail: Richard.Wright@et.eurofins.com | Page: 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Company: Eurofins Environment Testing North Cent | | Accreditations Required (See note): State Program - Wisconsin | Job #: 500-215021-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: 180 S. Van Buren Avenue, . | | Due Date Requested: 4/26/2022 | Analysis Requested A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water U - Acetone V - MCAA K - EDTA L - PH 4-5 W - pH 4-5 Z - other (specify) Other: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City: Barberton | | TAT Requested (days): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| State, Zip: OH, 44203 | | PO #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone: 330-497-9396(Tel) 330-497-0772(Fax) | | WO #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Email: | | Project #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: Penta Wood 11222418 | | SSOW#: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Sample Identification - Client ID (Lab ID)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=soil, B=biological, BT=tissue, A=Air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>RSK_175/ (MOD) Methane</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>W-220412-RA-05 (500-215021-1)</td> <td>4/12/22</td> <td>10:29 Central</td> <td></td> <td>Water</td> <td></td> <td></td> <td>X</td> <td>3</td> <td rowspan="6">RSK</td> </tr> <tr> <td>W-220412-RA-06 (500-215021-2)</td> <td>4/12/22</td> <td>11:14 Central</td> <td></td> <td>Water</td> <td></td> <td></td> <td>X</td> <td>3</td> </tr> <tr> <td>W-220412-RA-11 (500-215021-4)</td> <td>4/12/22</td> <td>14:08 Central</td> <td></td> <td>Water</td> <td></td> <td></td> <td>X</td> <td>3</td> </tr> <tr> <td>W-220412-RA-11 (500-215021-4MS)</td> <td>4/12/22</td> <td>14:08 Central</td> <td>MS</td> <td>Water</td> <td></td> <td></td> <td>X</td> <td>3</td> </tr> <tr> <td>W-220412-RA-11 (500-215021-4MSD)</td> <td>4/12/22</td> <td>14:08 Central</td> <td>MSD</td> <td>Water</td> <td></td> <td></td> <td>X</td> <td>3</td> </tr> <tr> <td>W-220412-RA-15 (500-215021-5)</td> <td>4/12/22</td> <td>13:30 Central</td> <td></td> <td>Water</td> <td></td> <td></td> <td>X</td> <td>3</td> </tr> <tr> <td>W-220412-RA-16 (500-215021-6)</td> <td>4/12/22</td> <td>14:00 Central</td> <td></td> <td>Water</td> <td></td> <td></td> <td>X</td> <td>3</td> </tr> </tbody> </table> | | | | Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=soil, B=biological, BT=tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | RSK_175/ (MOD) Methane | Total Number of Containers | Special Instructions/Note: | W-220412-RA-05 (500-215021-1) | 4/12/22 | 10:29 Central | | Water | | | X | 3 | RSK | W-220412-RA-06 (500-215021-2) | 4/12/22 | 11:14 Central | | Water | | | X | 3 | W-220412-RA-11 (500-215021-4) | 4/12/22 | 14:08 Central | | Water | | | X | 3 | W-220412-RA-11 (500-215021-4MS) | 4/12/22 | 14:08 Central | MS | Water | | | X | 3 | W-220412-RA-11 (500-215021-4MSD) | 4/12/22 | 14:08 Central | MSD | Water | | | X | 3 | W-220412-RA-15 (500-215021-5) | 4/12/22 | 13:30 Central | | Water | | | X | 3 | W-220412-RA-16 (500-215021-6) | 4/12/22 | 14:00 Central | | Water | | | X | 3 |
| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=soil, B=biological, BT=tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | RSK_175/ (MOD) Methane | Total Number of Containers | Special Instructions/Note: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-220412-RA-05 (500-215021-1) | 4/12/22 | 10:29 Central | | Water | | | X | 3 | RSK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-220412-RA-06 (500-215021-2) | 4/12/22 | 11:14 Central | | Water | | | X | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-220412-RA-11 (500-215021-4) | 4/12/22 | 14:08 Central | | Water | | | X | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-220412-RA-11 (500-215021-4MS) | 4/12/22 | 14:08 Central | MS | Water | | | X | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-220412-RA-11 (500-215021-4MSD) | 4/12/22 | 14:08 Central | MSD | Water | | | X | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-220412-RA-15 (500-215021-5) | 4/12/22 | 13:30 Central | | Water | | | X | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W-220412-RA-16 (500-215021-6) | 4/12/22 | 14:00 Central | | Water | | | X | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements:</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: <i>Min Aosta</i> Date/Time: 4/13/22 1500 Company: <i>ETA</i></p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: _____ Custody Seal No.: _____</p> <p>Δ Yes Δ No</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



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

Client ETA Site Name _____ Cooler unpacked by: Matt
Cooler Received on 4-14-22 Opened on 4-14-22
FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

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

TestAmerica Cooler # VA 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 See Multiple Cooler Form
IR GUN# IR-14 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN #IR-15 (CF -0.7°C) Observed Cooler Temp. 7.8 °C Corrected Cooler Temp. 7.1 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

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 (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC15742
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes ← Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. 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)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 500-215021-1

Login Number: 215021

List Source: Eurofins Chicago

List Number: 1

Creator: Scott, Sherri L

| Question | Answer | Comment |
|---|--------|---------------------|
| Radioactivity wasn't checked or is \leq 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 | 1.0,2.9,3.7,1.5,0.7 |
| 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 (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | False | |
| 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 <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | True | |



ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-215083-1
Client Project/Site: Penta Wood 11222418

For:
GHD Services Inc.
900 Long Lake Road
Suite 200
New Brighton, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
4/28/2022 1:21:55 PM

Richard Wright, Senior Project Manager
(708)746-0045
Richard.Wright@et.eurofinsus.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 7 |
| Sample Summary | 8 |
| Client Sample Results | 9 |
| Definitions | 23 |
| QC Association | 24 |
| Surrogate Summary | 28 |
| QC Sample Results | 30 |
| Chronicle | 35 |
| Certification Summary | 39 |
| Chain of Custody | 40 |
| Receipt Checklists | 47 |

Case Narrative

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Job ID: 500-215083-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-215083-1

Receipt

The samples were received on 4/14/2022 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.6° C, 1.8° C, 2.5° C and 3.2° C.

Receipt Exceptions

One or more containers for the following sample(s) was received broken or leaking: Sample #4 "W-220413-RA-17" received one vial for BTEX broken and one amber 250 glass container for Naphthalene broken.

GC/MS VOA

Method 8260B: The method blank for 653066 contained BTEX compounds above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. (MB 500-653066/33)

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

GC/MS Semi VOA

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

GC VOA

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

GC Semi VOA

Method 8151A: The following sample required a dilution due to the nature of the sample matrix: W-220413-RA-21 (500-215083-7). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8151A: The laboratory control sample (LCS) for preparation batch 500-652206 and analytical batch 500-652590 recovered above the control limits for the following analyte: Pentachlorophenol. The LCS and associated sample was re-extracted past the holding time and re-analyzed with similar results. The original data has been reported.

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

Metals

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220412-RA-12

Lab Sample ID: 500-215083-1

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|-------------------|
| Methane | 3.2 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 30 | * | 9.5 | 14 | ug/L | 100 | | 8151A | Total/NA |
| Arsenic | 0.68 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 13.7 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 3720 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 209 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Zinc | 12.6 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.72 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 8.0 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 2250 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 247 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Zinc | 10.7 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 63.4 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 0.46 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.20 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 1.7 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 1.3 | | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 96.1 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220413-RA-13

Lab Sample ID: 500-215083-2

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|-------|-------|------|---------|---|----------|-------------------|
| Methane | 35 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 1.0 | | 0.096 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 1.2 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 74.5 | J | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 33.8 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 35.7 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Zinc | 8.6 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 93.7 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 48.3 | | 2.0 | 1.7 | mg/L | 10 | | 300.0 | Total/NA |
| Nitrate as N | 0.10 | J | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 13.4 | | 2.0 | 0.95 | mg/L | 10 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.51 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 79.6 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220413-RA-14

Lab Sample ID: 500-215083-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|------|---------|---|---------|-------------------|
| Methane | 37 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 68.6 | J | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-14 (Continued)

Lab Sample ID: 500-215083-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Manganese | 36.6 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 34.6 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Zinc | 10.7 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 99.2 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 52.5 | | 2.0 | 1.7 | mg/L | 10 | | 300.0 | Total/NA |
| Nitrate as N | 0.10 | J | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 14.5 | | 2.0 | 0.95 | mg/L | 10 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.53 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 85.9 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220413-RA-17

Lab Sample ID: 500-215083-4

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 0.50 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 1.3 | J | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 0.83 | J | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 101 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 17.7 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Nitrate as N | 0.95 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 6.0 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Alkalinity | 115 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220413-RA-18

Lab Sample ID: 500-215083-5

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|-----|------|---------|---|--------|-----------|
| Zinc | 8.1 | J | 20.0 | 6.9 | ug/L | 1 | | 6020A | Dissolved |

Client Sample ID: W-220413-RA-19

Lab Sample ID: 500-215083-6

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|-------|-------|------|---------|---|----------|----------------------|
| Pentachlorophenol | 0.45 | | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 0.29 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 1.3 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.23 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 1.5 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 53.9 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 0.52 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.33 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 1.6 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Alkalinity | 131 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-21

Lab Sample ID: 500-215083-7

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Pentachlorophenol | 17 | | 11 | 15 | ug/L | 100 | | 8151A | Total/NA |
| Arsenic | 1.9 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 29.8 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 9390 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 336 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Zinc | 40.1 | | 20.0 | 6.9 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 3.7 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 869 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 33.4 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Zinc | 22.0 | | 20.0 | 6.9 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 49.1 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 0.30 | | 0.20 | 0.17 | mg/L | 1 | | 300.0 | Total/NA |
| Nitrate as N | 0.21 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 1.2 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.60 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 79.6 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: Trip Blank

Lab Sample ID: 500-215083-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

| Method | Method Description | Protocol | Laboratory |
|----------|--|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| RSK-175 | Dissolved Gases (GC) | RSK | TAL CAN |
| 8151A | Herbicides (GC) | SW846 | TAL CHI |
| 6020A | Metals (ICP/MS) | SW846 | TAL CHI |
| SM 2340B | Total Hardness (as CaCO3) by calculation | SM | TAL CHI |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL CHI |
| 9060A | Organic Carbon, Total (TOC) | SW846 | TAL CHI |
| SM 2320B | Alkalinity | SM | TAL CHI |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL CHI |
| 3510C | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL CHI |
| 5030B | Purge and Trap | SW846 | TAL CHI |
| 8151A | Extraction (Herbicides) | SW846 | TAL CHI |

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-215083-1 | W-220412-RA-12 | Water | 04/12/22 15:08 | 04/14/22 10:10 |
| 500-215083-2 | W-220413-RA-13 | Water | 04/13/22 11:04 | 04/14/22 10:10 |
| 500-215083-3 | W-220413-RA-14 | Water | 04/13/22 11:15 | 04/14/22 10:10 |
| 500-215083-4 | W-220413-RA-17 | Water | 04/13/22 11:40 | 04/14/22 10:10 |
| 500-215083-5 | W-220413-RA-18 | Water | 04/13/22 13:08 | 04/14/22 10:10 |
| 500-215083-6 | W-220413-RA-19 | Water | 04/13/22 13:21 | 04/14/22 10:10 |
| 500-215083-7 | W-220413-RA-21 | Water | 04/13/22 13:45 | 04/14/22 10:10 |
| 500-215083-8 | Trip Blank | Water | 04/13/22 00:00 | 04/14/22 10:10 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220412-RA-12

Lab Sample ID: 500-215083-1

Date Collected: 04/12/22 15:08

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 21:40 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 21:40 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 21:40 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 21:40 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116 | | 75 - 126 | | 04/23/22 21:40 | 1 |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | 04/23/22 21:40 | 1 |
| 4-Bromofluorobenzene (Surr) | 95 | | 72 - 124 | | 04/23/22 21:40 | 1 |
| Dibromofluoromethane | 111 | | 75 - 120 | | 04/23/22 21:40 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/18/22 09:28 | 04/21/22 19:16 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 62 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 19:16 | 1 |
| 2-Fluorobiphenyl (Surr) | 67 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 19:16 | 1 |
| Terphenyl-d14 (Surr) | 88 | | 40 - 145 | 04/18/22 09:28 | 04/21/22 19:16 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | 3.2 | | 1.0 | 0.17 | ug/L | | | 04/18/22 17:50 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 95 | | 60 - 140 | | 04/18/22 17:50 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Pentachlorophenol | 30 | * | 9.5 | 14 | ug/L | | 04/18/22 11:37 | 04/20/22 22:44 | 100 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 0 | D | 25 - 130 | 04/18/22 11:37 | 04/20/22 22:44 | 100 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.68 | J | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:19 | 1 |
| Copper | 13.7 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:19 | 1 |
| Iron | 3720 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:19 | 1 |
| Manganese | 209 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:19 | 1 |
| Zinc | 12.6 | J | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:19 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.72 | J | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:50 | 1 |
| Copper | 8.0 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:50 | 1 |
| Iron | 2250 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:50 | 1 |
| Manganese | 247 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:50 | 1 |
| Zinc | 10.7 | J | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:50 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220412-RA-12

Lab Sample ID: 500-215083-1

Date Collected: 04/12/22 15:08

Matrix: Water

Date Received: 04/14/22 10:10

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 63.4 | | 0.50 | 0.25 | mg/L | | 04/20/22 15:56 | 04/22/22 14:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 0.46 | | 0.20 | 0.17 | mg/L | | | 04/25/22 13:39 | 1 |
| Nitrate as N | 0.20 | | 0.20 | 0.068 | mg/L | | | 04/14/22 14:45 | 1 |
| Sulfate | 1.7 | | 0.20 | 0.095 | mg/L | | | 04/14/22 14:45 | 1 |
| Total Organic Carbon - Duplicates | 1.3 | | 1.0 | 0.47 | mg/L | | | 04/19/22 11:41 | 1 |
| Alkalinity | 96.1 | | 5.0 | 3.7 | mg/L | | | 04/19/22 11:41 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-13

Lab Sample ID: 500-215083-2

Date Collected: 04/13/22 11:04

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 22:03 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 22:03 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 22:03 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 22:03 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 120 | | 75 - 126 | | | | | 04/23/22 22:03 | 1 |
| Toluene-d8 (Surr) | 98 | | 75 - 120 | | | | | 04/23/22 22:03 | 1 |
| 4-Bromofluorobenzene (Surr) | 92 | | 72 - 124 | | | | | 04/23/22 22:03 | 1 |
| Dibromofluoromethane | 112 | | 75 - 120 | | | | | 04/23/22 22:03 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 13:25 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Nitrobenzene-d5 (Surr) | 66 | | 36 - 120 | | | | 04/19/22 07:15 | 04/20/22 13:25 | 1 |
| 2-Fluorobiphenyl (Surr) | 65 | | 34 - 110 | | | | 04/19/22 07:15 | 04/20/22 13:25 | 1 |
| Terphenyl-d14 (Surr) | 110 | | 40 - 145 | | | | 04/19/22 07:15 | 04/20/22 13:25 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Methane | 35 | | 1.0 | 0.17 | ug/L | | | 04/18/22 18:07 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,1,1-Trifluoroethane | 96 | | 60 - 140 | | | | | 04/18/22 18:07 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 1.0 | | 0.096 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 10:31 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCAA | 109 | | 25 - 130 | | | | 04/20/22 11:30 | 04/22/22 10:31 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.2 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:22 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:22 | 1 |
| Iron | 74.5 | J | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:22 | 1 |
| Manganese | 33.8 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:22 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:22 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:53 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:53 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:53 | 1 |
| Manganese | 35.7 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:53 | 1 |
| Zinc | 8.6 | J | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:53 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-13

Lab Sample ID: 500-215083-2

Date Collected: 04/13/22 11:04

Matrix: Water

Date Received: 04/14/22 10:10

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 93.7 | | 0.50 | 0.25 | mg/L | | 04/20/22 15:56 | 04/22/22 14:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 48.3 | | 2.0 | 1.7 | mg/L | | | 04/25/22 13:53 | 10 |
| Nitrate as N | 0.10 | J | 0.20 | 0.068 | mg/L | | | 04/14/22 15:36 | 1 |
| Sulfate | 13.4 | | 2.0 | 0.95 | mg/L | | | 04/25/22 13:53 | 10 |
| Total Organic Carbon - Duplicates | 0.51 | J | 1.0 | 0.47 | mg/L | | | 04/19/22 12:09 | 1 |
| Alkalinity | 79.6 | | 5.0 | 3.7 | mg/L | | | 04/19/22 11:48 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-14

Lab Sample ID: 500-215083-3

Date Collected: 04/13/22 11:15

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 22:26 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 22:26 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 22:26 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 22:26 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 119 | | 75 - 126 | | | | | 04/23/22 22:26 | 1 |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | | | | 04/23/22 22:26 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | | | | 04/23/22 22:26 | 1 |
| Dibromofluoromethane | 107 | | 75 - 120 | | | | | 04/23/22 22:26 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 13:48 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Nitrobenzene-d5 (Surr) | 77 | | 36 - 120 | | | | 04/19/22 07:15 | 04/20/22 13:48 | 1 |
| 2-Fluorobiphenyl (Surr) | 71 | | 34 - 110 | | | | 04/19/22 07:15 | 04/20/22 13:48 | 1 |
| Terphenyl-d14 (Surr) | 125 | | 40 - 145 | | | | 04/19/22 07:15 | 04/20/22 13:48 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Methane | 37 | | 1.0 | 0.17 | ug/L | | | 04/18/22 18:24 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,1,1-Trifluoroethane | 94 | | 60 - 140 | | | | | 04/18/22 18:24 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.098 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 10:50 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCAA | 99 | | 25 - 130 | | | | 04/20/22 11:30 | 04/22/22 10:50 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:26 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:26 | 1 |
| Iron | 68.6 | J | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:26 | 1 |
| Manganese | 36.6 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:26 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:26 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:56 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:56 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:56 | 1 |
| Manganese | 34.6 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:56 | 1 |
| Zinc | 10.7 | J | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:56 | 1 |

Eurofins Chicago

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-14

Lab Sample ID: 500-215083-3

Date Collected: 04/13/22 11:15

Matrix: Water

Date Received: 04/14/22 10:10

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 99.2 | | 0.50 | 0.25 | mg/L | | 04/20/22 15:56 | 04/22/22 14:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 52.5 | | 2.0 | 1.7 | mg/L | | | 04/25/22 14:06 | 10 |
| Nitrate as N | 0.10 | J | 0.20 | 0.068 | mg/L | | | 04/14/22 15:50 | 1 |
| Sulfate | 14.5 | | 2.0 | 0.95 | mg/L | | | 04/25/22 14:06 | 10 |
| Total Organic Carbon - Duplicates | 0.53 | J | 1.0 | 0.47 | mg/L | | | 04/19/22 12:37 | 1 |
| Alkalinity | 85.9 | | 5.0 | 3.7 | mg/L | | | 04/19/22 11:56 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-17

Lab Sample ID: 500-215083-4

Date Collected: 04/13/22 11:40

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 22:49 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 22:49 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 22:49 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 22:49 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 122 | | 75 - 126 | | 04/23/22 22:49 | 1 |
| Toluene-d8 (Surr) | 98 | | 75 - 120 | | 04/23/22 22:49 | 1 |
| 4-Bromofluorobenzene (Surr) | 91 | | 72 - 124 | | 04/23/22 22:49 | 1 |
| Dibromofluoromethane | 114 | | 75 - 120 | | 04/23/22 22:49 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.78 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 14:10 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 78 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 14:10 | 1 |
| 2-Fluorobiphenyl (Surr) | 72 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 14:10 | 1 |
| Terphenyl-d14 (Surr) | 115 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 14:10 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/18/22 18:41 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 94 | | 60 - 140 | | 04/18/22 18:41 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.098 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 11:09 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 105 | | 25 - 130 | 04/20/22 11:30 | 04/22/22 11:09 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:29 | 1 |
| Copper | 0.50 | J | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:29 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:29 | 1 |
| Manganese | 1.3 | J | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:29 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:29 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.1 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/22/22 00:00 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/22/22 00:00 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/22/22 00:00 | 1 |
| Manganese | 0.83 | J | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/22/22 00:00 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/22/22 00:00 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-17

Lab Sample ID: 500-215083-4

Date Collected: 04/13/22 11:40

Matrix: Water

Date Received: 04/14/22 10:10

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 101 | | 0.50 | 0.25 | mg/L | | 04/20/22 15:56 | 04/22/22 14:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 17.7 | | 1.0 | 0.85 | mg/L | | | 04/25/22 14:20 | 5 |
| Nitrate as N | 0.95 | | 0.20 | 0.068 | mg/L | | | 04/14/22 16:04 | 1 |
| Sulfate | 6.0 | | 0.20 | 0.095 | mg/L | | | 04/14/22 16:04 | 1 |
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/19/22 13:05 | 1 |
| Alkalinity | 115 | | 5.0 | 3.7 | mg/L | | | 04/19/22 12:03 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-18

Lab Sample ID: 500-215083-5

Date Collected: 04/13/22 13:08

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 23:12 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 23:12 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 23:12 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 23:12 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 121 | | 75 - 126 | | 04/23/22 23:12 | 1 |
| Toluene-d8 (Surr) | 96 | | 75 - 120 | | 04/23/22 23:12 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | 04/23/22 23:12 | 1 |
| Dibromofluoromethane | 111 | | 75 - 120 | | 04/23/22 23:12 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.26 | | 0.84 | 0.26 | ug/L | | 04/19/22 07:15 | 04/20/22 15:18 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 84 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 15:18 | 1 |
| 2-Fluorobiphenyl (Surr) | 75 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 15:18 | 1 |
| Terphenyl-d14 (Surr) | 124 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 15:18 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.096 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 11:29 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 111 | | 25 - 130 | 04/20/22 11:30 | 04/22/22 11:29 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:39 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:39 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:39 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:39 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:39 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/22/22 00:03 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/22/22 00:03 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/22/22 00:03 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/22/22 00:03 | 1 |
| Zinc | 8.1 | J | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/22/22 00:03 | 1 |

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | <0.25 | | 0.50 | 0.25 | mg/L | | 04/20/22 15:56 | 04/22/22 14:59 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-19

Lab Sample ID: 500-215083-6

Date Collected: 04/13/22 13:21

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 23:35 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 23:35 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 23:35 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 23:35 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 123 | | 75 - 126 | | 04/23/22 23:35 | 1 |
| Toluene-d8 (Surr) | 100 | | 75 - 120 | | 04/23/22 23:35 | 1 |
| 4-Bromofluorobenzene (Surr) | 92 | | 72 - 124 | | 04/23/22 23:35 | 1 |
| Dibromofluoromethane | 116 | | 75 - 120 | | 04/23/22 23:35 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 15:41 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 79 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 15:41 | 1 |
| 2-Fluorobiphenyl (Surr) | 69 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 15:41 | 1 |
| Terphenyl-d14 (Surr) | 121 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 15:41 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/18/22 18:58 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 95 | | 60 - 140 | | 04/18/22 18:58 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.45 | | 0.095 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 11:48 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 110 | | 25 - 130 | 04/20/22 11:30 | 04/22/22 11:48 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.29 | J | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:43 | 1 |
| Copper | 1.3 | J | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:43 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:43 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:43 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:43 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.23 | J | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/22/22 00:07 | 1 |
| Copper | 1.5 | J | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/22/22 00:07 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/22/22 00:07 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/22/22 00:07 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/22/22 00:07 | 1 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-19

Lab Sample ID: 500-215083-6

Date Collected: 04/13/22 13:21

Matrix: Water

Date Received: 04/14/22 10:10

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 53.9 | | 0.50 | 0.25 | mg/L | | 04/20/22 15:56 | 04/22/22 14:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 0.52 | | 0.20 | 0.17 | mg/L | | | 04/25/22 14:34 | 1 |
| Nitrate as N | 0.33 | | 0.20 | 0.068 | mg/L | | | 04/14/22 16:17 | 1 |
| Sulfate | 1.6 | | 0.20 | 0.095 | mg/L | | | 04/14/22 16:17 | 1 |
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/19/22 13:33 | 1 |
| Alkalinity | 131 | | 5.0 | 3.7 | mg/L | | | 04/19/22 12:10 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-21

Lab Sample ID: 500-215083-7

Date Collected: 04/13/22 13:45

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 23:58 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/23/22 23:58 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/23/22 23:58 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/23/22 23:58 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 125 | | 75 - 126 | | 04/23/22 23:58 | 1 |
| Toluene-d8 (Surr) | 96 | | 75 - 120 | | 04/23/22 23:58 | 1 |
| 4-Bromofluorobenzene (Surr) | 91 | | 72 - 124 | | 04/23/22 23:58 | 1 |
| Dibromofluoromethane | 113 | | 75 - 120 | | 04/23/22 23:58 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.26 | | 0.85 | 0.26 | ug/L | | 04/19/22 07:15 | 04/20/22 16:03 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 69 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 16:03 | 1 |
| 2-Fluorobiphenyl (Surr) | 64 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 16:03 | 1 |
| Terphenyl-d14 (Surr) | 107 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 16:03 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/18/22 19:15 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 94 | | 60 - 140 | | 04/18/22 19:15 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Pentachlorophenol | 17 | | 11 | 15 | ug/L | | 04/20/22 11:30 | 04/22/22 12:07 | 100 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 0 | D | 25 - 130 | 04/20/22 11:30 | 04/22/22 12:07 | 100 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.9 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:46 | 1 |
| Copper | 29.8 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:46 | 1 |
| Iron | 9390 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:46 | 1 |
| Manganese | 336 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:46 | 1 |
| Zinc | 40.1 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:46 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.25 | J | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/22/22 00:10 | 1 |
| Copper | 3.7 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/22/22 00:10 | 1 |
| Iron | 869 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/22/22 00:10 | 1 |
| Manganese | 33.4 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/22/22 00:10 | 1 |
| Zinc | 22.0 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/22/22 00:10 | 1 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-21

Lab Sample ID: 500-215083-7

Date Collected: 04/13/22 13:45

Matrix: Water

Date Received: 04/14/22 10:10

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 49.1 | | 0.50 | 0.25 | mg/L | | 04/20/22 15:56 | 04/22/22 14:59 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 0.30 | | 0.20 | 0.17 | mg/L | | | 04/25/22 14:47 | 1 |
| Nitrate as N | 0.21 | | 0.20 | 0.068 | mg/L | | | 04/14/22 16:31 | 1 |
| Sulfate | 1.2 | | 0.20 | 0.095 | mg/L | | | 04/14/22 16:31 | 1 |
| Total Organic Carbon - Duplicates | 0.60 | J | 1.0 | 0.47 | mg/L | | | 04/19/22 14:01 | 1 |
| Alkalinity | 79.6 | | 5.0 | 3.7 | mg/L | | | 04/19/22 12:16 | 1 |

Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-215083-8

Date Collected: 04/13/22 00:00

Matrix: Water

Date Received: 04/14/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/24/22 00:21 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/24/22 00:21 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/24/22 00:21 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/24/22 00:21 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 120 | | 75 - 126 | | 04/24/22 00:21 | 1 |
| Toluene-d8 (Surr) | 97 | | 75 - 120 | | 04/24/22 00:21 | 1 |
| 4-Bromofluorobenzene (Surr) | 94 | | 72 - 124 | | 04/24/22 00:21 | 1 |
| Dibromofluoromethane | 114 | | 75 - 120 | | 04/24/22 00:21 | 1 |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| * | LCS or LCSD is outside acceptance limits. |
| D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |
| X | Surrogate recovery exceeds control limits |

Metals

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| 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) |
| TNTC | Too Numerous To Count |

QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

GC/MS VOA

Analysis Batch: 653066

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 8260B | |
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 8260B | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 8260B | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 8260B | |
| 500-215083-5 | W-220413-RA-18 | Total/NA | Water | 8260B | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 8260B | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 8260B | |
| 500-215083-8 | Trip Blank | Total/NA | Water | 8260B | |
| MB 500-653066/33 | Method Blank | Total/NA | Water | 8260B | |
| LCS 500-653066/4 | Lab Control Sample | Total/NA | Water | 8260B | |

GC/MS Semi VOA

Prep Batch: 652164

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 3510C | |
| MB 500-652164/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 500-652164/2-A | Lab Control Sample | Total/NA | Water | 3510C | |

Prep Batch: 652282

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 3510C | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 3510C | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 3510C | |
| 500-215083-5 | W-220413-RA-18 | Total/NA | Water | 3510C | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 3510C | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 3510C | |
| MB 500-652282/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 500-652282/2-A | Lab Control Sample | Total/NA | Water | 3510C | |

Analysis Batch: 652466

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 500-652282/1-A | Method Blank | Total/NA | Water | 8270D | 652282 |
| LCS 500-652282/2-A | Lab Control Sample | Total/NA | Water | 8270D | 652282 |

Analysis Batch: 652583

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 8270D | 652282 |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 8270D | 652282 |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 8270D | 652282 |
| 500-215083-5 | W-220413-RA-18 | Total/NA | Water | 8270D | 652282 |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 8270D | 652282 |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 8270D | 652282 |

Analysis Batch: 652745

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 8270D | 652164 |

Analysis Batch: 652762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| MB 500-652164/1-A | Method Blank | Total/NA | Water | 8270D | 652164 |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

GC/MS Semi VOA (Continued)

Analysis Batch: 652762 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| LCS 500-652164/2-A | Lab Control Sample | Total/NA | Water | 8270D | 652164 |

GC VOA

Analysis Batch: 523078

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|---------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | RSK-175 | |
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | RSK-175 | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | RSK-175 | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | RSK-175 | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | RSK-175 | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | RSK-175 | |
| MB 240-523078/3 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 240-523078/4 | Lab Control Sample | Total/NA | Water | RSK-175 | |

GC Semi VOA

Prep Batch: 652206

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 8151A | |
| MB 500-652206/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-652206/2-A | Lab Control Sample | Total/NA | Water | 8151A | |

Prep Batch: 652581

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 8151A | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 8151A | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 8151A | |
| 500-215083-5 | W-220413-RA-18 | Total/NA | Water | 8151A | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 8151A | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 8151A | |
| MB 500-652581/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-652581/2-A | Lab Control Sample | Total/NA | Water | 8151A | |

Analysis Batch: 652590

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 8151A | 652206 |
| MB 500-652206/1-A | Method Blank | Total/NA | Water | 8151A | 652206 |
| LCS 500-652206/2-A | Lab Control Sample | Total/NA | Water | 8151A | 652206 |

Analysis Batch: 652948

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 8151A | 652581 |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 8151A | 652581 |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 8151A | 652581 |
| 500-215083-5 | W-220413-RA-18 | Total/NA | Water | 8151A | 652581 |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 8151A | 652581 |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 8151A | 652581 |
| MB 500-652581/1-A | Method Blank | Total/NA | Water | 8151A | 652581 |
| LCS 500-652581/2-A | Lab Control Sample | Total/NA | Water | 8151A | 652581 |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Metals

Prep Batch: 652627

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Dissolved | Water | 3005A | |
| 500-215083-1 | W-220412-RA-12 | Total Recoverable | Water | 3005A | |
| 500-215083-2 | W-220413-RA-13 | Dissolved | Water | 3005A | |
| 500-215083-2 | W-220413-RA-13 | Total Recoverable | Water | 3005A | |
| 500-215083-3 | W-220413-RA-14 | Dissolved | Water | 3005A | |
| 500-215083-3 | W-220413-RA-14 | Total Recoverable | Water | 3005A | |
| 500-215083-4 | W-220413-RA-17 | Dissolved | Water | 3005A | |
| 500-215083-4 | W-220413-RA-17 | Total Recoverable | Water | 3005A | |
| 500-215083-5 | W-220413-RA-18 | Dissolved | Water | 3005A | |
| 500-215083-5 | W-220413-RA-18 | Total Recoverable | Water | 3005A | |
| 500-215083-6 | W-220413-RA-19 | Dissolved | Water | 3005A | |
| 500-215083-6 | W-220413-RA-19 | Total Recoverable | Water | 3005A | |
| 500-215083-7 | W-220413-RA-21 | Dissolved | Water | 3005A | |
| 500-215083-7 | W-220413-RA-21 | Total Recoverable | Water | 3005A | |
| MB 500-652627/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 500-652627/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |

Analysis Batch: 652942

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Dissolved | Water | 6020A | 652627 |
| 500-215083-1 | W-220412-RA-12 | Total Recoverable | Water | 6020A | 652627 |
| 500-215083-2 | W-220413-RA-13 | Dissolved | Water | 6020A | 652627 |
| 500-215083-2 | W-220413-RA-13 | Total Recoverable | Water | 6020A | 652627 |
| 500-215083-3 | W-220413-RA-14 | Dissolved | Water | 6020A | 652627 |
| 500-215083-3 | W-220413-RA-14 | Total Recoverable | Water | 6020A | 652627 |
| 500-215083-4 | W-220413-RA-17 | Dissolved | Water | 6020A | 652627 |
| 500-215083-4 | W-220413-RA-17 | Total Recoverable | Water | 6020A | 652627 |
| 500-215083-5 | W-220413-RA-18 | Dissolved | Water | 6020A | 652627 |
| 500-215083-5 | W-220413-RA-18 | Total Recoverable | Water | 6020A | 652627 |
| 500-215083-6 | W-220413-RA-19 | Dissolved | Water | 6020A | 652627 |
| 500-215083-6 | W-220413-RA-19 | Total Recoverable | Water | 6020A | 652627 |
| 500-215083-7 | W-220413-RA-21 | Dissolved | Water | 6020A | 652627 |
| 500-215083-7 | W-220413-RA-21 | Total Recoverable | Water | 6020A | 652627 |
| MB 500-652627/1-A | Method Blank | Total Recoverable | Water | 6020A | 652627 |
| LCS 500-652627/2-A | Lab Control Sample | Total Recoverable | Water | 6020A | 652627 |

Analysis Batch: 653010

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|----------|------------|
| 500-215083-1 | W-220412-RA-12 | Total Recoverable | Water | SM 2340B | 652627 |
| 500-215083-2 | W-220413-RA-13 | Total Recoverable | Water | SM 2340B | 652627 |
| 500-215083-3 | W-220413-RA-14 | Total Recoverable | Water | SM 2340B | 652627 |
| 500-215083-4 | W-220413-RA-17 | Total Recoverable | Water | SM 2340B | 652627 |
| 500-215083-5 | W-220413-RA-18 | Total Recoverable | Water | SM 2340B | 652627 |
| 500-215083-6 | W-220413-RA-19 | Total Recoverable | Water | SM 2340B | 652627 |
| 500-215083-7 | W-220413-RA-21 | Total Recoverable | Water | SM 2340B | 652627 |

General Chemistry

Analysis Batch: 651771

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 300.0 | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

General Chemistry (Continued)

Analysis Batch: 651771 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 300.0 | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 300.0 | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 300.0 | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 300.0 | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 300.0 | |
| MB 500-651771/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-651771/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 500-215083-6 MS | W-220413-RA-19 | Total/NA | Water | 300.0 | |
| 500-215083-6 MSD | W-220413-RA-19 | Total/NA | Water | 300.0 | |

Analysis Batch: 652437

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | SM 2320B | |
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | SM 2320B | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | SM 2320B | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | SM 2320B | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | SM 2320B | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | SM 2320B | |
| MB 500-652437/3 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 500-652437/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |

Analysis Batch: 652444

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 9060A | |
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 9060A | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 9060A | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 9060A | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 9060A | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 9060A | |
| MB 500-652444/39 | Method Blank | Total/NA | Water | 9060A | |
| LCS 500-652444/40 | Lab Control Sample | Total/NA | Water | 9060A | |

Analysis Batch: 653281

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215083-1 | W-220412-RA-12 | Total/NA | Water | 300.0 | |
| 500-215083-2 | W-220413-RA-13 | Total/NA | Water | 300.0 | |
| 500-215083-3 | W-220413-RA-14 | Total/NA | Water | 300.0 | |
| 500-215083-4 | W-220413-RA-17 | Total/NA | Water | 300.0 | |
| 500-215083-6 | W-220413-RA-19 | Total/NA | Water | 300.0 | |
| 500-215083-7 | W-220413-RA-21 | Total/NA | Water | 300.0 | |
| MB 500-653281/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-653281/4 | Lab Control Sample | Total/NA | Water | 300.0 | |

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|------------------|--------------------|--|-----------------|-----------------|------------------|
| | | DCA (75-126) | TOL (75-120) | BFB (72-124) | DBFM (75-120) |
| 500-215083-1 | W-220412-RA-12 | 116 | 99 | 95 | 111 |
| 500-215083-2 | W-220413-RA-13 | 120 | 98 | 92 | 112 |
| 500-215083-3 | W-220413-RA-14 | 119 | 99 | 93 | 107 |
| 500-215083-4 | W-220413-RA-17 | 122 | 98 | 91 | 114 |
| 500-215083-5 | W-220413-RA-18 | 121 | 96 | 93 | 111 |
| 500-215083-6 | W-220413-RA-19 | 123 | 100 | 92 | 116 |
| 500-215083-7 | W-220413-RA-21 | 125 | 96 | 91 | 113 |
| 500-215083-8 | Trip Blank | 120 | 97 | 94 | 114 |
| LCS 500-653066/4 | Lab Control Sample | 113 | 107 | 94 | 105 |
| MB 500-653066/33 | Method Blank | 117 | 101 | 89 | 107 |

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|--------------------|--------------------|--|-----------------|------------------|
| | | NBZ (36-120) | FBP (34-110) | TPHL (40-145) |
| 500-215083-1 | W-220412-RA-12 | 62 | 67 | 88 |
| 500-215083-2 | W-220413-RA-13 | 66 | 65 | 110 |
| 500-215083-3 | W-220413-RA-14 | 77 | 71 | 125 |
| 500-215083-4 | W-220413-RA-17 | 78 | 72 | 115 |
| 500-215083-5 | W-220413-RA-18 | 84 | 75 | 124 |
| 500-215083-6 | W-220413-RA-19 | 79 | 69 | 121 |
| 500-215083-7 | W-220413-RA-21 | 69 | 64 | 107 |
| LCS 500-652164/2-A | Lab Control Sample | 73 | 85 | 98 |
| LCS 500-652282/2-A | Lab Control Sample | 76 | 75 | 102 |
| MB 500-652164/1-A | Method Blank | 68 | 78 | 97 |
| MB 500-652282/1-A | Method Blank | 69 | 59 | 95 |

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|---------------|------------------|--|
| | | TFE1 (60-140) |
| 500-215083-1 | W-220412-RA-12 | 95 |
| 500-215083-2 | W-220413-RA-13 | 96 |
| 500-215083-3 | W-220413-RA-14 | 94 |
| 500-215083-4 | W-220413-RA-17 | 94 |
| 500-215083-6 | W-220413-RA-19 | 95 |

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TFE1 (60-140) |
|------------------|--------------------|------------------|
| 500-215083-7 | W-220413-RA-21 | 94 |
| LCS 240-523078/4 | Lab Control Sample | 97 |
| MB 240-523078/3 | Method Blank | 102 |

Surrogate Legend

TFE = 1,1,1-Trifluoroethane

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCPAA2 (25-130) |
|--------------------|--------------------|--------------------|
| 500-215083-1 | W-220412-RA-12 | 0 D |
| 500-215083-2 | W-220413-RA-13 | 109 |
| 500-215083-3 | W-220413-RA-14 | 99 |
| 500-215083-4 | W-220413-RA-17 | 105 |
| 500-215083-5 | W-220413-RA-18 | 111 |
| 500-215083-6 | W-220413-RA-19 | 110 |
| 500-215083-7 | W-220413-RA-21 | 0 D |
| LCS 500-652206/2-A | Lab Control Sample | 128 |
| LCS 500-652581/2-A | Lab Control Sample | 108 |
| MB 500-652206/1-A | Method Blank | 117 |
| MB 500-652581/1-A | Method Blank | 133 X |

Surrogate Legend

DCPAA = DCAA

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-653066/33
Matrix: Water
Analysis Batch: 653066

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Benzene | 0.260 | J | 0.50 | 0.15 | ug/L | | | 04/23/22 17:50 | 1 |
| Toluene | 0.303 | J | 0.50 | 0.15 | ug/L | | | 04/23/22 17:50 | 1 |
| Ethylbenzene | 0.304 | J | 0.50 | 0.18 | ug/L | | | 04/23/22 17:50 | 1 |
| Xylenes, Total | 0.502 | J | 1.0 | 0.22 | ug/L | | | 04/23/22 17:50 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 117 | | 75 - 126 | | 04/23/22 17:50 | 1 |
| Toluene-d8 (Surr) | 101 | | 75 - 120 | | 04/23/22 17:50 | 1 |
| 4-Bromofluorobenzene (Surr) | 89 | | 72 - 124 | | 04/23/22 17:50 | 1 |
| Dibromofluoromethane | 107 | | 75 - 120 | | 04/23/22 17:50 | 1 |

Lab Sample ID: LCS 500-653066/4
Matrix: Water
Analysis Batch: 653066

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

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Benzene | 50.0 | 53.2 | | ug/L | | 106 | 70 - 120 |
| Toluene | 50.0 | 53.1 | | ug/L | | 106 | 70 - 125 |
| Ethylbenzene | 50.0 | 48.0 | | ug/L | | 96 | 70 - 123 |
| Xylenes, Total | 100 | 108 | | ug/L | | 108 | 70 - 125 |

| Surrogate | LCS LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 113 | | 75 - 126 |
| Toluene-d8 (Surr) | 107 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 94 | | 72 - 124 |
| Dibromofluoromethane | 105 | | 75 - 120 |

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

Lab Sample ID: MB 500-652164/1-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652164

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/18/22 09:28 | 04/21/22 12:02 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| Nitrobenzene-d5 (Surr) | 68 | | 36 - 120 | 04/18/22 09:28 | 04/21/22 12:02 | 1 |
| 2-Fluorobiphenyl (Surr) | 78 | | 34 - 110 | 04/18/22 09:28 | 04/21/22 12:02 | 1 |
| Terphenyl-d14 (Surr) | 97 | | 40 - 145 | 04/18/22 09:28 | 04/21/22 12:02 | 1 |

Lab Sample ID: LCS 500-652164/2-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652164

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Naphthalene | 32.0 | 22.7 | | ug/L | | 71 | 36 - 110 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

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

Lab Sample ID: LCS 500-652164/2-A
Matrix: Water
Analysis Batch: 652762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652164

| Surrogate | LCS LCS | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| Nitrobenzene-d5 (Surr) | 73 | | 36 - 120 |
| 2-Fluorobiphenyl (Surr) | 85 | | 34 - 110 |
| Terphenyl-d14 (Surr) | 98 | | 40 - 145 |

Lab Sample ID: MB 500-652282/1-A
Matrix: Water
Analysis Batch: 652466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652282

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/19/22 07:15 | 04/20/22 13:26 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| Nitrobenzene-d5 (Surr) | 69 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 13:26 | 1 |
| 2-Fluorobiphenyl (Surr) | 59 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 13:26 | 1 |
| Terphenyl-d14 (Surr) | 95 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 13:26 | 1 |

Lab Sample ID: LCS 500-652282/2-A
Matrix: Water
Analysis Batch: 652466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652282

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Naphthalene | 32.0 | 19.1 | | ug/L | | 60 | 36 - 110 |

| Surrogate | LCS LCS | | Limits |
|-------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| Nitrobenzene-d5 (Surr) | 76 | | 36 - 120 |
| 2-Fluorobiphenyl (Surr) | 75 | | 34 - 110 |
| Terphenyl-d14 (Surr) | 102 | | 40 - 145 |

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 240-523078/3
Matrix: Water
Analysis Batch: 523078

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/18/22 12:41 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,1,1-Trifluoroethane | 102 | | 60 - 140 | | 04/18/22 12:41 | 1 |

Lab Sample ID: LCS 240-523078/4
Matrix: Water
Analysis Batch: 523078

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

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|---------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Methane | 284 | 276 | | ug/L | | 97 | 80 - 120 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 240-523078/4
Matrix: Water
Analysis Batch: 523078

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

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-----------------------|------------------|------------------|----------|
| 1,1,1-Trifluoroethane | 97 | | 60 - 140 |

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-652206/1-A
Matrix: Water
Analysis Batch: 652590

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652206

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|-----------------|-----------------|----------|----------------|----------------|---------|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 04/18/22 11:37 | 04/20/22 21:07 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac | | | |
| DCAA | 117 | | 25 - 130 | 04/18/22 11:37 | 04/20/22 21:07 | 1 | | | |

Lab Sample ID: LCS 500-652206/2-A
Matrix: Water
Analysis Batch: 652590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652206

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|------------------|------------------|------------------|------|---|------|----------------|
| Pentachlorophenol | 2.53 | 3.13 | * | ug/L | | 124 | 40 - 122 |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | |
| DCAA | 128 | | 25 - 130 | | | | |

Lab Sample ID: MB 500-652581/1-A
Matrix: Water
Analysis Batch: 652948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652581

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|-----------------|-----------------|----------|----------------|----------------|---------|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 09:52 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac | | | |
| DCAA | 133 | X | 25 - 130 | 04/20/22 11:30 | 04/22/22 09:52 | 1 | | | |

Lab Sample ID: LCS 500-652581/2-A
Matrix: Water
Analysis Batch: 652948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652581

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|------------------|------------------|------------------|------|---|------|----------------|
| Pentachlorophenol | 2.53 | 2.99 | | ug/L | | 118 | 40 - 122 |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | |
| DCAA | 108 | | 25 - 130 | | | | |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-652627/1-A
Matrix: Water
Analysis Batch: 652942

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652627

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/20/22 15:56 | 04/21/22 23:12 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/20/22 15:56 | 04/21/22 23:12 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/20/22 15:56 | 04/21/22 23:12 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/20/22 15:56 | 04/21/22 23:12 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/20/22 15:56 | 04/21/22 23:12 | 1 |

Lab Sample ID: LCS 500-652627/2-A
Matrix: Water
Analysis Batch: 652942

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652627

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| | | | | | | | |
| Copper | 250 | 258.6 | | ug/L | | 103 | 80 - 120 |
| Iron | 1000 | 1016 | | ug/L | | 102 | 80 - 120 |
| Manganese | 500 | 520.3 | | ug/L | | 104 | 80 - 120 |
| Zinc | 500 | 524.7 | | ug/L | | 105 | 80 - 120 |

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-651771/3
Matrix: Water
Analysis Batch: 651771

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/14/22 14:18 | 1 |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/14/22 14:18 | 1 |

Lab Sample ID: LCS 500-651771/4
Matrix: Water
Analysis Batch: 651771

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| | | | | | | | |
| Sulfate | 5.00 | 4.97 | | mg/L | | 99 | 90 - 110 |

Lab Sample ID: 500-215083-6 MS
Matrix: Water
Analysis Batch: 651771

Client Sample ID: W-220413-RA-19
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| | | | | | | | | | |
| Sulfate | 1.6 | | 2.50 | 4.10 | | mg/L | | 101 | 80 - 120 |

Lab Sample ID: 500-215083-6 MSD
Matrix: Water
Analysis Batch: 651771

Client Sample ID: W-220413-RA-19
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| | | | | | | | | | | | |
| Sulfate | 1.6 | | 2.50 | 4.14 | | mg/L | | 103 | 80 - 120 | 1 | 20 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-653281/3
Matrix: Water
Analysis Batch: 653281

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/25/22 12:58 | 1 |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/25/22 12:58 | 1 |

Lab Sample ID: LCS 500-653281/4
Matrix: Water
Analysis Batch: 653281

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 3.13 | | mg/L | | 104 | 90 - 110 |
| Sulfate | 5.00 | 4.95 | | mg/L | | 99 | 90 - 110 |

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 500-652444/39
Matrix: Water
Analysis Batch: 652444

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/19/22 09:18 | 1 |

Lab Sample ID: LCS 500-652444/40
Matrix: Water
Analysis Batch: 652444

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 10.0 | 10.04 | | mg/L | | 100 | 86 - 116 |

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-652437/3
Matrix: Water
Analysis Batch: 652437

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | <3.7 | | 5.0 | 3.7 | mg/L | | | 04/19/22 09:54 | 1 |

Lab Sample ID: LCS 500-652437/4
Matrix: Water
Analysis Batch: 652437

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------|-------------|------------|---------------|------|---|------|-------------|
| Alkalinity | 100 | 103.4 | | mg/L | | 103 | 90 - 110 |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220412-RA-12

Lab Sample ID: 500-215083-1

Date Collected: 04/12/22 15:08

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 21:40 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652164 | 04/18/22 09:28 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652745 | 04/21/22 19:16 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523078 | 04/18/22 17:50 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652206 | 04/18/22 11:37 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 100 | 652590 | 04/20/22 22:44 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:50 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:19 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653010 | 04/22/22 14:59 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 653281 | 04/25/22 13:39 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651771 | 04/14/22 14:45 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 11:41 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 11:41 | SMO | TAL CHI |

Client Sample ID: W-220413-RA-13

Lab Sample ID: 500-215083-2

Date Collected: 04/13/22 11:04

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 22:03 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 13:25 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523078 | 04/18/22 18:07 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 10:31 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:53 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:22 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653010 | 04/22/22 14:59 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 10 | 653281 | 04/25/22 13:53 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651771 | 04/14/22 15:36 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 12:09 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 11:48 | SMO | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-14

Lab Sample ID: 500-215083-3

Date Collected: 04/13/22 11:15

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 22:26 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 13:48 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523078 | 04/18/22 18:24 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 10:50 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:56 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:26 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653010 | 04/22/22 14:59 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 10 | 653281 | 04/25/22 14:06 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651771 | 04/14/22 15:50 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 12:37 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 11:56 | SMO | TAL CHI |

Client Sample ID: W-220413-RA-17

Lab Sample ID: 500-215083-4

Date Collected: 04/13/22 11:40

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 22:49 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 14:10 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523078 | 04/18/22 18:41 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 11:09 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652942 | 04/22/22 00:00 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:29 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653010 | 04/22/22 14:59 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 653281 | 04/25/22 14:20 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651771 | 04/14/22 16:04 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 13:05 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 12:03 | SMO | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-18

Lab Sample ID: 500-215083-5

Date Collected: 04/13/22 13:08

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 23:12 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 15:18 | JSB | TAL CHI |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 11:29 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652942 | 04/22/22 00:03 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:39 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653010 | 04/22/22 14:59 | FXG | TAL CHI |

Client Sample ID: W-220413-RA-19

Lab Sample ID: 500-215083-6

Date Collected: 04/13/22 13:21

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 23:35 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 15:41 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523078 | 04/18/22 18:58 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 11:48 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652942 | 04/22/22 00:07 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:43 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653010 | 04/22/22 14:59 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 653281 | 04/25/22 14:34 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651771 | 04/14/22 16:17 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 13:33 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 12:10 | SMO | TAL CHI |

Client Sample ID: W-220413-RA-21

Lab Sample ID: 500-215083-7

Date Collected: 04/13/22 13:45

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/23/22 23:58 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 16:03 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523078 | 04/18/22 19:15 | JBN | TAL CAN |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Client Sample ID: W-220413-RA-21

Lab Sample ID: 500-215083-7

Date Collected: 04/13/22 13:45

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 100 | 652948 | 04/22/22 12:07 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 652942 | 04/22/22 00:10 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 652942 | 04/21/22 23:46 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652627 | 04/20/22 15:56 | LMB | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653010 | 04/22/22 14:59 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 653281 | 04/25/22 14:47 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651771 | 04/14/22 16:31 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652444 | 04/19/22 14:01 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 12:16 | SMO | TAL CHI |

Client Sample ID: Trip Blank

Lab Sample ID: 500-215083-8

Date Collected: 04/13/22 00:00

Matrix: Water

Date Received: 04/14/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653066 | 04/24/22 00:21 | JDD | TAL CHI |

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215083-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Wisconsin | State | 999580010 | 08-31-22 |

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------------------|---------|-----------------------|-----------------|
| California | State | 2927 | 02-27-23 |
| Connecticut | State | PH-0590 | 12-31-23 |
| Florida | NELAP | E87225 | 06-30-22 |
| Georgia | State | 4062 | 02-23-22 * |
| Illinois | NELAP | 200004 | 04-25-22 |
| Iowa | State | 421 | 06-01-23 |
| Kansas | NELAP | E-10336 | 04-30-22 |
| Kentucky (UST) | State | 112225 | 02-23-22 * |
| Kentucky (WW) | State | KY98016 | 12-31-22 |
| Minnesota | NELAP | 039-999-348 | 12-31-22 |
| Minnesota (Petrofund) | State | 3506 | 08-01-23 |
| New Jersey | NELAP | OH001 | 06-30-22 |
| New York | NELAP | 10975 | 04-01-23 |
| Ohio | State | 8303 | 02-23-23 |
| Ohio VAP | State | CL0024 | 04-20-22 |
| Oregon | NELAP | 4062 | 04-20-22 |
| Pennsylvania | NELAP | 68-00340 | 04-24-22 |
| Texas | NELAP | T104704517-22-16 | 08-31-22 |
| Virginia | NELAP | 11570 | 04-25-22 |
| Washington | State | C971 | 01-12-23 |
| West Virginia DEP | State | 210 | 12-31-22 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record

543314



Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

| Client Contact Company Name: <u>GHD</u> Address: <u>900 Long Lake Rd</u> City/State/Zip: <u>St. Paul, MN 55112</u> Phone: <u>6516390913</u> Fax: _____ Project Name: <u>Patawood</u> Site: <u>HHS 112248</u> P O #: _____ | | Project Manager <u>Tim Ree</u> Tel/Email: <u>Tim.Ree@GHD.com</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day | | Site Contact <u>Grant Anderson</u> Date: <u>4/13/22</u> Lab Contact _____ Carrier: _____ | | COC No: _____ of _____ COCs Sampler: _____ For Lab Use Only 'alk-in Client ab Sampling: _____ ob / SDG No: <u>500-215083</u> 500-215083 COC | | | | | | | | | | | | |
|--|----------------|--|------------------------|---|-----------------------------|---|------------|-----------------------|--|-----|------|----------------------|------------------|--------------|--------------------------------|-----|---------|-----------------------|
| 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 | STEX | Naphthalene | Dissolved Metals | Alk: Arsenic | Total Metals: Hexachlor | TOC | Methane | Sample Specific Notes |
| 1 | W-220412-RA-12 | 4/12/22 | 1508 | 6 | GL | 15 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| 2 | W-220413-RA-13 | 4/13/22 | 1104 | | | 15 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| 3 | W-220413-RA-14 | | 1115 | | | 15 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| 4 | W-220413-RA-17 | | 1140 | | | 15 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| 5 | W-220413-RA-18 | | 1308 | | | 9 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| 6 | W-220413-RA-19 | | 1321 | | | 15 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| 7 | W-220413-RA-21 | | 1345 | | | 15 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| 8 | trip blank | | | | | | | | | | | | | | | | | |
| 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 <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown | | | | | | | | | |
| Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months | | | | | | | | | Special Instructions/QC Requirements & Comments: <p style="text-align: center; font-size: 18pt;">4.6 → 32, 3.9 → 2.5, 1.1 → 0.6, 3.2 + 1.8</p> | | | | | | | | | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | Custody Seal No: _____ | | | Cooler Temp (°C) Obs'd: _____ Corr'd: _____ Therm ID No: _____ | | | | | | | | | | | | |
| Relinquished by: _____ | | | Company: <u>GHD</u> | | | Date/Time: <u>4/13/22</u> | | | Received by: _____ | | | Company: _____ | | | Date/Time: _____ | | | |
| Relinquished by: _____ | | | Company: _____ | | | Date/Time: _____ | | | Received by: _____ | | | Company: _____ | | | Date/Time: _____ | | | |
| Relinquished by: _____ | | | Company: _____ | | | Date/Time: _____ | | | Received in Laboratory by: <u>Stephanie Hernandez</u> | | | Company: <u>EEIA</u> | | | Date/Time: <u>4/14/22 1010</u> | | | |



FedEx Tracking Number

8174 6502 5797

Form ID No.

0215

500-215083 Wayb



1 From

Date _____

Sender's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

City _____ State _____ ZIP _____

2 Your Internal Billing Reference

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

Address _____ Dept./Floor/Suite/Room _____

City _____ State _____ ZIP _____

Hold Weekday
FedEx location address
 REQUIRED, NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
 REQUIRED, Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8174 6502 5797

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs, use the FedEx Express Freight US Airbill.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning. Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes As per attached Shipper's Declaration Yes Shipper's Declaration not required. Dry Ice Dry Ice, 9, UN 1845 x _____ kg

Restrictions apply for dangerous goods see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below _____

Sender Acct. No. in Section 1 will be billed. Recipient Third Party

Total Packages _____ Total Weight _____ lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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- 1
- 2
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- 10
- 11
- 12
- 13
- 14
- 15



Package
US Airbill

FedEx
Tracking
Number

8174 6502 5801

Facet
ID No.

0215

fedex.com 1800 GoFedEx 1800 463.3339

fedex.com 1800 GoFedEx 1800 463.3339

1 From

Date 2/20

Sender's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

City _____ State _____ ZIP _____

2 Your Internal Billing Reference

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address _____ Dept./Floor/Suite/Room _____
Use this line for the HOLD location address or for continuation of your shipping address.

City _____ State _____ ZIP _____

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8174 6502 5801

4 Express Package Service * To most locations. **Packages up to 150 lbs.**
For packages over 150 lbs. use the FedEx Express Freight US Airbill.

| Next Business Day | 2 or 3 Business Days |
|--|--|
| <input type="checkbox"/> FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day A.M. Second business morning.* Saturday Delivery NOT available. |
| <input checked="" type="checkbox"/> FedEx Priority Overnight Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected. |
| <input type="checkbox"/> FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available. | <input type="checkbox"/> FedEx Express Saver Third business day. Saturday Delivery NOT available. |

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes (As per attached Shipper's Declaration) Yes (Shipper's Declaration not required) Dry Ice (Dry Ice, 9, UN 1845) _____ x _____ kg

Restrictions apply for dangerous goods see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below _____

Sender Acct. No. in Section 1 will be billed. **Recipient** **Third Party**

Total Packages _____ Total Weight _____ lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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FedEx Tracking Number

8174 6502 5775

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0215

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1 From

Date 11/1

Sender's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

City _____ State _____ ZIP _____

2 Your Internal Billing Reference

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address _____ Dept./Floor/Suite/Room _____

Use this line for the HOLD locator address or for continuation of your shipping address.

City _____ State _____ ZIP _____

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8174 6502 5775

4 Express Package Service * To most locations. **Packages up to 150 lbs.**
For packages over 150 lbs. use the FedEx Express Freight US Airbill.

| Next Business Day | 2 or 3 Business Days |
|--|---|
| <input type="checkbox"/> FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day A.M. Second business morning. Saturday Delivery NOT available. |
| <input type="checkbox"/> FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected. | <input type="checkbox"/> FedEx 2Day Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected. |
| <input type="checkbox"/> FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available. | <input type="checkbox"/> FedEx Express Saver Third business day.* Saturday Delivery NOT available. |

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at Recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes As per attached Shipper's Declaration Yes Shipper's Declaration not required. Dry Ice Dry Ice, 3, UN 1845 _____ x _____ kg

Restrictions apply for dangerous goods see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. below Other rec. dEx Ac't #

Sender Acct. No. in Section 1 will be billed. Recipient Third Party

Total Packages _____ Total Weight _____ lbs.

¹Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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FedEx Tracking Number

8174 6502 5786

Form ID No.

0215

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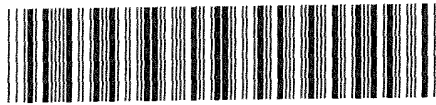
1 From

Date, Sender's Name, Company, Address, City, State, ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name, Company, Address, City, State, ZIP



8174 6502 5786

4 Express Package Service

* To most locations.

Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- FedEx First Overnight, FedEx Priority Overnight, FedEx Standard Overnight

2 or 3 Business Days

- FedEx 2Day A.M., FedEx 2Day, FedEx Express Saver

5 Packaging

* Declared value limit \$500.

- FedEx Envelope*, FedEx Pak*, FedEx Box, FedEx Tube, Other

6 Special Handling and Delivery Signature Options

Fees may apply. See the FedEx Service Guide.

- Saturday Delivery, No Signature Required, Direct Signature, Indirect Signature, Does this shipment contain dangerous goods?, Dry Ice, Cargo Aircraft Only

7 Payment Bill to:

Sender, Recipient, Third Party, Total Packages, Total Weight

Your liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.



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**Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility**


Login # : _____

Client: Eurofins Chicago Site Name _____ Cooler unpacked by: Rachelle Haidet
 Cooler Received on 4-15-22 Opened on 4-15-22
 FedEx: 1st Grd. Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time

Storage Location _____

TestAmerica Cooler # TA 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 See Multiple Cooler Form
 IR GUN# IR-13 (CF 0.0 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 0.6 °C
 IR GUN #IR-15 (CF -0.7°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
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 (ID/Date/Time) be reconciled with the COC? Yes No _____
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No _____
10. Were correct bottle(s) used for the test(s) indicated? Yes No _____
11. Sufficient quantity received to perform indicated analyses? Yes No _____
12. Are these work share samples and all listed on the COC? Yes No _____
 If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
14. Were VOAs on the COC? Yes No _____
15. Were air bubbles >6 mm in any VOA vials? Yes  ← Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No _____
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No _____

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. 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)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 500-215083-1

Login Number: 215083

List Source: Eurofins Chicago

List Number: 1

Creator: Hernandez, Stephanie

| 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 | 3.2,2.5,0.6,1.8 |
| 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 (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | False | |
| 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 | |

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-215148-1
Client Project/Site: Penta Wood 11222418

For:
GHD Services Inc.
900 Long Lake Road
Suite 200
New Brighton, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
4/29/2022 3:23:54 PM

Richard Wright, Senior Project Manager
(708)746-0045
Richard.Wright@et.eurofinsus.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 7 |
| Sample Summary | 8 |
| Client Sample Results | 9 |
| Definitions | 23 |
| QC Association | 25 |
| Surrogate Summary | 30 |
| QC Sample Results | 32 |
| Chronicle | 42 |
| Certification Summary | 46 |
| Chain of Custody | 47 |
| Receipt Checklists | 55 |

Case Narrative

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Job ID: 500-215148-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-215148-1

Receipt

The samples were received on 4/15/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.5° C, 3.9° C, 4.1° C, 4.3° C and 4.7° C.

GC/MS VOA

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

GC/MS Semi VOA

Method 8270D: 1,4-Dichlorobenzene-d4 Internal standard (ISTD) response for the following sample was outside of acceptance limits: W-220414-RA-24 (500-215148-4). This internal standard is not associated to the reported analytes; therefore, re-analysis was not performed.

Method 8270D: Perylene-d12 Internal standard (ISTD) response for the following sample was outside of acceptance limits: W-220413-RA-20 (500-215148-1). This internal standard is not associated to the reported analytes; therefore, re-analysis was not performed.

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

GC VOA

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

GC Semi VOA

Method 8151A: The following samples were diluted due to the abundance of target analytes : W-220413-RA-20 (500-215148-1[MS]) and W-220413-RA-20 (500-215148-1[MSD]). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8151A: The following samples required a dilution due to the nature of the sample matrix: W-220413-RA-20 (500-215148-1), W-220413-RA-20 (500-215148-1[MS]), W-220413-RA-20 (500-215148-1[MSD]) and W-220414-RA-27 (500-215148-7). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8151A: Surrogate recovery for the following sample was outside the upper control limit: (MB 500-652581/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

Metals

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

General Chemistry

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-653896 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits for Chloride.

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

Organic Prep

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

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220413-RA-20

Lab Sample ID: 500-215148-1

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|-------------------|
| Toluene | 0.30 | J | 0.50 | 0.15 | ug/L | 1 | | 8260B | Total/NA |
| Ethylbenzene | 0.83 | | 0.50 | 0.18 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 4.6 | | 1.0 | 0.22 | ug/L | 1 | | 8260B | Total/NA |
| Naphthalene | 4.4 | | 0.78 | 0.24 | ug/L | 1 | | 8270D | Total/NA |
| Methane | 0.47 | J | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 2700 | F2 | 490 | 700 | ug/L | 5000 | | 8151A | Total/NA |
| Arsenic | 0.59 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 3.2 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 94.2 | J | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 294 | F1 | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.71 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 2.5 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 393 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 118 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 15.9 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Nitrate as N | 0.20 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 22.2 | F1 | 1.0 | 0.48 | mg/L | 5 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 17.7 | | 4.0 | 1.9 | mg/L | 4 | | 9060A | Total/NA |
| Alkalinity | 160 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220414-RA-22

Lab Sample ID: 500-215148-2

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|-------------------|
| Pentachlorophenol | 0.75 | | 0.10 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Copper | 2.8 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 1.9 | J | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 3.1 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 1.8 | J | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 166 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 14.4 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Nitrate as N | 6.3 | | 1.0 | 0.34 | mg/L | 5 | | 300.0 | Total/NA |
| Sulfate | 9.4 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 2.0 | | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 250 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220414-RA-23

Lab Sample ID: 500-215148-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|-------|------|------|---------|---|----------|-------------------|
| Pentachlorophenol | 0.84 | | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |
| Arsenic | 0.32 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 0.61 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.40 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 0.88 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 86.2 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-23 (Continued)

Lab Sample ID: 500-215148-3

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|-----------|
| Chloride | 27.9 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Nitrate as N | 1.9 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 4.0 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.81 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 113 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220414-RA-24

Lab Sample ID: 500-215148-4

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Arsenic | 0.28 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 0.77 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 0.44 | J | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 0.78 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 88.5 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 28.9 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Nitrate as N | 1.9 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 4.5 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.77 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 113 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220414-RA-25

Lab Sample ID: 500-215148-5

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|----------------------|
| Methane | 70 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 0.45 | | 0.11 | 0.15 | ug/L | 1 | | 8151A | Total/NA |
| Copper | 0.91 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 890 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 15.2 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 1.1 | J | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 778 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 14.3 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 225 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 27.9 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Nitrate as N | 2.8 | | 0.20 | 0.068 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 5.5 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 0.90 | J | 1.0 | 0.47 | mg/L | 1 | | 9060A | Total/NA |
| Alkalinity | 354 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: W-220414-RA-26

Lab Sample ID: 500-215148-6

No Detections.

Client Sample ID: W-220414-RA-27

Lab Sample ID: 500-215148-7

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|------|------|------|---------|---|--------|-----------|
| Toluene | 0.71 | | 0.50 | 0.15 | ug/L | 1 | | 8260B | Total/NA |
| Ethylbenzene | 0.84 | | 0.50 | 0.18 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 4.9 | | 1.0 | 0.22 | ug/L | 1 | | 8260B | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-27 (Continued)

Lab Sample ID: 500-215148-7

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------------|--------|-----------|------|-------|------|---------|---|----------|-------------------|
| Naphthalene | 3.5 | | 0.76 | 0.23 | ug/L | 1 | | 8270D | Total/NA |
| Methane | 68 | | 1.0 | 0.17 | ug/L | 1 | | RSK-175 | Total/NA |
| Pentachlorophenol | 3200 | | 520 | 750 | ug/L | 5000 | | 8151A | Total/NA |
| Arsenic | 1.2 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Total Recoverable |
| Copper | 9.6 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Total Recoverable |
| Iron | 2730 | | 100 | 46.7 | ug/L | 1 | | 6020A | Total Recoverable |
| Manganese | 989 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Total Recoverable |
| Arsenic | 1.4 | | 1.0 | 0.23 | ug/L | 1 | | 6020A | Dissolved |
| Copper | 2.6 | | 2.0 | 0.50 | ug/L | 1 | | 6020A | Dissolved |
| Iron | 1090 | | 100 | 46.7 | ug/L | 1 | | 6020A | Dissolved |
| Manganese | 1040 | | 2.5 | 0.79 | ug/L | 1 | | 6020A | Dissolved |
| Calcium hardness as CaCO3 | 113 | | 0.50 | 0.25 | mg/L | 1 | | SM 2340B | Total Recoverable |
| Chloride | 23.4 | | 1.0 | 0.85 | mg/L | 5 | | 300.0 | Total/NA |
| Sulfate | 9.2 | | 0.20 | 0.095 | mg/L | 1 | | 300.0 | Total/NA |
| Total Organic Carbon - Duplicates | 15.5 | | 5.0 | 2.4 | mg/L | 5 | | 9060A | Total/NA |
| Alkalinity | 152 | | 5.0 | 3.7 | mg/L | 1 | | SM 2320B | Total/NA |

Client Sample ID: Trip Blank

Lab Sample ID: 500-215148-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

| Method | Method Description | Protocol | Laboratory |
|----------|--|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| RSK-175 | Dissolved Gases (GC) | RSK | TAL CAN |
| 8151A | Herbicides (GC) | SW846 | TAL CHI |
| 6020A | Metals (ICP/MS) | SW846 | TAL CHI |
| SM 2340B | Total Hardness (as CaCO3) by calculation | SM | TAL CHI |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL CHI |
| 9060A | Organic Carbon, Total (TOC) | SW846 | TAL CHI |
| SM 2320B | Alkalinity | SM | TAL CHI |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL CHI |
| 3510C | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL CHI |
| 5030B | Purge and Trap | SW846 | TAL CHI |
| 8151A | Extraction (Herbicides) | SW846 | TAL CHI |

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-215148-1 | W-220413-RA-20 | Water | 04/13/22 14:23 | 04/15/22 09:30 |
| 500-215148-2 | W-220414-RA-22 | Water | 04/14/22 11:12 | 04/15/22 09:30 |
| 500-215148-3 | W-220414-RA-23 | Water | 04/14/22 12:22 | 04/15/22 09:30 |
| 500-215148-4 | W-220414-RA-24 | Water | 04/14/22 12:23 | 04/15/22 09:30 |
| 500-215148-5 | W-220414-RA-25 | Water | 04/14/22 13:07 | 04/15/22 09:30 |
| 500-215148-6 | W-220414-RA-26 | Water | 04/14/22 13:30 | 04/15/22 09:30 |
| 500-215148-7 | W-220414-RA-27 | Water | 04/14/22 14:24 | 04/15/22 09:30 |
| 500-215148-8 | Trip Blank | Water | 04/13/22 00:00 | 04/15/22 09:30 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220413-RA-20

Lab Sample ID: 500-215148-1

Date Collected: 04/13/22 14:23

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|-------------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 15:09 | 1 |
| Toluene | 0.30 | J | 0.50 | 0.15 | ug/L | | | 04/26/22 15:09 | 1 |
| Ethylbenzene | 0.83 | | 0.50 | 0.18 | ug/L | | | 04/26/22 15:09 | 1 |
| Xylenes, Total | 4.6 | | 1.0 | 0.22 | ug/L | | | 04/26/22 15:09 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 75 - 126 | | 04/26/22 15:09 | 1 |
| Toluene-d8 (Surr) | 106 | | 75 - 120 | | 04/26/22 15:09 | 1 |
| 4-Bromofluorobenzene (Surr) | 91 | | 72 - 124 | | 04/26/22 15:09 | 1 |
| Dibromofluoromethane | 82 | | 75 - 120 | | 04/26/22 15:09 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|------------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | 4.4 | | 0.78 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 16:26 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 83 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 16:26 | 1 |
| 2-Fluorobiphenyl (Surr) | 65 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 16:26 | 1 |
| Terphenyl-d14 (Surr) | 110 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 16:26 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | 0.47 | J | 1.0 | 0.17 | ug/L | | | 04/19/22 19:00 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 105 | | 60 - 140 | | 04/19/22 19:00 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|-------------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Pentachlorophenol | 2700 | F2 | 490 | 700 | ug/L | | 04/20/22 11:30 | 04/22/22 12:46 | 5000 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 0 | D | 25 - 130 | 04/20/22 11:30 | 04/22/22 12:46 | 5000 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.59 | J | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/22/22 23:33 | 1 |
| Copper | 3.2 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/22/22 23:33 | 1 |
| Iron | 94.2 | J | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/22/22 23:33 | 1 |
| Manganese | 294 | F1 | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/22/22 23:33 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/22/22 23:33 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.71 | J | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:17 | 1 |
| Copper | 2.5 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:17 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:17 | 1 |
| Manganese | 393 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:17 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:17 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220413-RA-20

Lab Sample ID: 500-215148-1

Date Collected: 04/13/22 14:23

Matrix: Water

Date Received: 04/15/22 09:30

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 118 | | 0.50 | 0.25 | mg/L | | 04/22/22 08:03 | 04/26/22 14:48 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 15.9 | | 1.0 | 0.85 | mg/L | | | 04/15/22 16:30 | 5 |
| Nitrate as N | 0.20 | | 0.20 | 0.068 | mg/L | | | 04/15/22 11:45 | 1 |
| Sulfate | 22.2 | F1 | 1.0 | 0.48 | mg/L | | | 04/25/22 16:36 | 5 |
| Total Organic Carbon - Duplicates | 17.7 | | 4.0 | 1.9 | mg/L | | | 04/21/22 13:42 | 4 |
| Alkalinity | 160 | | 5.0 | 3.7 | mg/L | | | 04/19/22 14:26 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-22

Lab Sample ID: 500-215148-2

Date Collected: 04/14/22 11:12

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 15:35 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 15:35 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 15:35 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 15:35 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 75 - 126 | | 04/26/22 15:35 | 1 |
| Toluene-d8 (Surr) | 105 | | 75 - 120 | | 04/26/22 15:35 | 1 |
| 4-Bromofluorobenzene (Surr) | 94 | | 72 - 124 | | 04/26/22 15:35 | 1 |
| Dibromofluoromethane | 84 | | 75 - 120 | | 04/26/22 15:35 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.23 | | 0.76 | 0.23 | ug/L | | 04/19/22 07:15 | 04/20/22 17:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 59 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 17:34 | 1 |
| 2-Fluorobiphenyl (Surr) | 55 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 17:34 | 1 |
| Terphenyl-d14 (Surr) | 93 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 17:34 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/19/22 19:51 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 102 | | 60 - 140 | | 04/19/22 19:51 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.75 | | 0.10 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 13:44 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 130 | | 25 - 130 | 04/20/22 11:30 | 04/22/22 13:44 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/22/22 23:50 | 1 |
| Copper | 2.8 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/22/22 23:50 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/22/22 23:50 | 1 |
| Manganese | 1.9 J | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/22/22 23:50 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/22/22 23:50 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:34 | 1 |
| Copper | 3.1 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:34 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:34 | 1 |
| Manganese | 1.8 J | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:34 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:34 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-22

Lab Sample ID: 500-215148-2

Date Collected: 04/14/22 11:12

Matrix: Water

Date Received: 04/15/22 09:30

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 166 | | 0.50 | 0.25 | mg/L | | 04/22/22 08:03 | 04/26/22 14:48 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 14.4 | | 1.0 | 0.85 | mg/L | | | 04/15/22 17:11 | 5 |
| Nitrate as N | 6.3 | | 1.0 | 0.34 | mg/L | | | 04/15/22 17:11 | 5 |
| Sulfate | 9.4 | | 0.20 | 0.095 | mg/L | | | 04/15/22 12:26 | 1 |
| Total Organic Carbon - Duplicates | 2.0 | | 1.0 | 0.47 | mg/L | | | 04/21/22 14:33 | 1 |
| Alkalinity | 250 | | 5.0 | 3.7 | mg/L | | | 04/19/22 14:41 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-23

Lab Sample ID: 500-215148-3

Date Collected: 04/14/22 12:22

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:03 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:03 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 16:03 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 16:03 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 78 | | 75 - 126 | | 04/26/22 16:03 | 1 |
| Toluene-d8 (Surr) | 106 | | 75 - 120 | | 04/26/22 16:03 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | 04/26/22 16:03 | 1 |
| Dibromofluoromethane | 81 | | 75 - 120 | | 04/26/22 16:03 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 17:57 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 75 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 17:57 | 1 |
| 2-Fluorobiphenyl (Surr) | 63 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 17:57 | 1 |
| Terphenyl-d14 (Surr) | 103 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 17:57 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/19/22 20:08 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 106 | | 60 - 140 | | 04/19/22 20:08 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.84 | | 0.095 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 14:04 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 128 | | 25 - 130 | 04/20/22 11:30 | 04/22/22 14:04 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.32 | J | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/22/22 23:53 | 1 |
| Copper | 0.61 | J | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/22/22 23:53 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/22/22 23:53 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/22/22 23:53 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/22/22 23:53 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.40 | J | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:38 | 1 |
| Copper | 0.88 | J | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:38 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:38 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:38 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:38 | 1 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-23

Lab Sample ID: 500-215148-3

Date Collected: 04/14/22 12:22

Matrix: Water

Date Received: 04/15/22 09:30

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 86.2 | | 0.50 | 0.25 | mg/L | | 04/22/22 08:03 | 04/26/22 14:48 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 27.9 | | 1.0 | 0.85 | mg/L | | | 04/15/22 17:25 | 5 |
| Nitrate as N | 1.9 | | 0.20 | 0.068 | mg/L | | | 04/15/22 12:40 | 1 |
| Sulfate | 4.0 | | 0.20 | 0.095 | mg/L | | | 04/15/22 12:40 | 1 |
| Total Organic Carbon - Duplicates | 0.81 | J | 1.0 | 0.47 | mg/L | | | 04/21/22 15:01 | 1 |
| Alkalinity | 113 | | 5.0 | 3.7 | mg/L | | | 04/19/22 14:48 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-24

Lab Sample ID: 500-215148-4

Date Collected: 04/14/22 12:23

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:30 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:30 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 16:30 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 16:30 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 75 - 126 | | 04/26/22 16:30 | 1 |
| Toluene-d8 (Surr) | 105 | | 75 - 120 | | 04/26/22 16:30 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | 04/26/22 16:30 | 1 |
| Dibromofluoromethane | 82 | | 75 - 120 | | 04/26/22 16:30 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 18:19 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 68 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 18:19 | 1 |
| 2-Fluorobiphenyl (Surr) | 56 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 18:19 | 1 |
| Terphenyl-d14 (Surr) | 111 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 18:19 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/19/22 20:25 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,1,1-Trifluoroethane | 105 | | 60 - 140 | | 04/19/22 20:25 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.15 | | 0.10 | 0.15 | ug/L | | 04/20/22 11:30 | 04/22/22 14:23 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 120 | | 25 - 130 | 04/20/22 11:30 | 04/22/22 14:23 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.28 | J | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/22/22 23:57 | 1 |
| Copper | 0.77 | J | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/22/22 23:57 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/22/22 23:57 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/22/22 23:57 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/22/22 23:57 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 0.44 | J | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:48 | 1 |
| Copper | 0.78 | J | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:48 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:48 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:48 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:48 | 1 |

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-24

Lab Sample ID: 500-215148-4

Date Collected: 04/14/22 12:23

Matrix: Water

Date Received: 04/15/22 09:30

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 88.5 | | 0.50 | 0.25 | mg/L | | 04/22/22 08:03 | 04/26/22 14:48 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 28.9 | | 1.0 | 0.85 | mg/L | | | 04/15/22 18:05 | 5 |
| Nitrate as N | 1.9 | | 0.20 | 0.068 | mg/L | | | 04/15/22 12:53 | 1 |
| Sulfate | 4.5 | | 0.20 | 0.095 | mg/L | | | 04/15/22 12:53 | 1 |
| Total Organic Carbon - Duplicates | 0.77 | J | 1.0 | 0.47 | mg/L | | | 04/21/22 15:52 | 1 |
| Alkalinity | 113 | | 5.0 | 3.7 | mg/L | | | 04/19/22 14:55 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-25

Lab Sample ID: 500-215148-5

Date Collected: 04/14/22 13:07

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:56 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:56 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 16:56 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 16:56 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 75 - 126 | | | | | 04/26/22 16:56 | 1 |
| Toluene-d8 (Surr) | 106 | | 75 - 120 | | | | | 04/26/22 16:56 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | | | | 04/26/22 16:56 | 1 |
| Dibromofluoromethane | 81 | | 75 - 120 | | | | | 04/26/22 16:56 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.25 | | 0.82 | 0.25 | ug/L | | 04/19/22 07:15 | 04/20/22 18:42 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Nitrobenzene-d5 (Surr) | 64 | | 36 - 120 | | | | 04/19/22 07:15 | 04/20/22 18:42 | 1 |
| 2-Fluorobiphenyl (Surr) | 57 | | 34 - 110 | | | | 04/19/22 07:15 | 04/20/22 18:42 | 1 |
| Terphenyl-d14 (Surr) | 102 | | 40 - 145 | | | | 04/19/22 07:15 | 04/20/22 18:42 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Methane | 70 | | 1.0 | 0.17 | ug/L | | | 04/21/22 17:03 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,1,1-Trifluoroethane | 105 | | 60 - 140 | | | | | 04/21/22 17:03 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.45 | | 0.11 | 0.15 | ug/L | | 04/20/22 11:30 | 04/22/22 14:42 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCAA | 115 | | 25 - 130 | | | | 04/20/22 11:30 | 04/22/22 14:42 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:07 | 1 |
| Copper | 0.91 | J | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:07 | 1 |
| Iron | 890 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:07 | 1 |
| Manganese | 15.2 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:07 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:07 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:51 | 1 |
| Copper | 1.1 | J | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:51 | 1 |
| Iron | 778 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:51 | 1 |
| Manganese | 14.3 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:51 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:51 | 1 |

Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-25

Lab Sample ID: 500-215148-5

Date Collected: 04/14/22 13:07

Matrix: Water

Date Received: 04/15/22 09:30

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 225 | | 0.50 | 0.25 | mg/L | | 04/22/22 08:03 | 04/26/22 14:48 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 27.9 | | 1.0 | 0.85 | mg/L | | | 04/15/22 18:19 | 5 |
| Nitrate as N | 2.8 | | 0.20 | 0.068 | mg/L | | | 04/15/22 13:07 | 1 |
| Sulfate | 5.5 | | 0.20 | 0.095 | mg/L | | | 04/15/22 13:07 | 1 |
| Total Organic Carbon - Duplicates | 0.90 | J | 1.0 | 0.47 | mg/L | | | 04/21/22 16:21 | 1 |
| Alkalinity | 354 | | 5.0 | 3.7 | mg/L | | | 04/19/22 15:03 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-26

Lab Sample ID: 500-215148-6

Date Collected: 04/14/22 13:30

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:22 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:22 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 17:22 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 17:22 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 82 | | 75 - 126 | | 04/26/22 17:22 | 1 |
| Toluene-d8 (Surr) | 106 | | 75 - 120 | | 04/26/22 17:22 | 1 |
| 4-Bromofluorobenzene (Surr) | 95 | | 72 - 124 | | 04/26/22 17:22 | 1 |
| Dibromofluoromethane | 82 | | 75 - 120 | | 04/26/22 17:22 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.78 | 0.24 | ug/L | | 04/19/22 07:15 | 04/20/22 19:05 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 58 | | 36 - 120 | 04/19/22 07:15 | 04/20/22 19:05 | 1 |
| 2-Fluorobiphenyl (Surr) | 57 | | 34 - 110 | 04/19/22 07:15 | 04/20/22 19:05 | 1 |
| Terphenyl-d14 (Surr) | 110 | | 40 - 145 | 04/19/22 07:15 | 04/20/22 19:05 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.095 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 15:02 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 123 | | 25 - 130 | 04/20/22 11:30 | 04/22/22 15:02 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:10 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:10 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:10 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:10 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:10 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:55 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:55 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:55 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:55 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:55 | 1 |

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | <0.25 | | 0.50 | 0.25 | mg/L | | 04/22/22 08:03 | 04/26/22 14:48 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-27

Lab Sample ID: 500-215148-7

Date Collected: 04/14/22 14:24

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-------------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:48 | 1 |
| Toluene | 0.71 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:48 | 1 |
| Ethylbenzene | 0.84 | | 0.50 | 0.18 | ug/L | | | 04/26/22 17:48 | 1 |
| Xylenes, Total | 4.9 | | 1.0 | 0.22 | ug/L | | | 04/26/22 17:48 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 75 - 126 | | | | | 04/26/22 17:48 | 1 |
| Toluene-d8 (Surr) | 107 | | 75 - 120 | | | | | 04/26/22 17:48 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | | | | 04/26/22 17:48 | 1 |
| Dibromofluoromethane | 84 | | 75 - 120 | | | | | 04/26/22 17:48 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|------------|-----------|----------|------|------|---|----------------|----------------|---------|
| Naphthalene | 3.5 | | 0.76 | 0.23 | ug/L | | 04/19/22 07:15 | 04/20/22 19:27 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Nitrobenzene-d5 (Surr) | 66 | | 36 - 120 | | | | 04/19/22 07:15 | 04/20/22 19:27 | 1 |
| 2-Fluorobiphenyl (Surr) | 36 | | 34 - 110 | | | | 04/19/22 07:15 | 04/20/22 19:27 | 1 |
| Terphenyl-d14 (Surr) | 97 | | 40 - 145 | | | | 04/19/22 07:15 | 04/20/22 19:27 | 1 |

Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Methane | 68 | | 1.0 | 0.17 | ug/L | | | 04/21/22 17:20 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,1,1-Trifluoroethane | 107 | | 60 - 140 | | | | | 04/21/22 17:20 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|-------------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Pentachlorophenol | 3200 | | 520 | 750 | ug/L | | 04/20/22 11:30 | 04/22/22 15:21 | 5000 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCAA | 0 | D | 25 - 130 | | | | 04/20/22 11:30 | 04/22/22 15:21 | 5000 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.2 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:14 | 1 |
| Copper | 9.6 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:14 | 1 |
| Iron | 2730 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:14 | 1 |
| Manganese | 989 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:14 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:14 | 1 |

Method: 6020A - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Arsenic | 1.4 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/23/22 00:58 | 1 |
| Copper | 2.6 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/23/22 00:58 | 1 |
| Iron | 1090 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/23/22 00:58 | 1 |
| Manganese | 1040 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/23/22 00:58 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/23/22 00:58 | 1 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-27

Lab Sample ID: 500-215148-7

Date Collected: 04/14/22 14:24

Matrix: Water

Date Received: 04/15/22 09:30

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Calcium hardness as CaCO3 | 113 | | 0.50 | 0.25 | mg/L | | 04/22/22 08:03 | 04/26/22 14:48 | 1 |

General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Chloride | 23.4 | | 1.0 | 0.85 | mg/L | | | 04/15/22 18:33 | 5 |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/15/22 13:21 | 1 |
| Sulfate | 9.2 | | 0.20 | 0.095 | mg/L | | | 04/15/22 13:21 | 1 |
| Total Organic Carbon - Duplicates | 15.5 | | 5.0 | 2.4 | mg/L | | | 04/21/22 16:48 | 5 |
| Alkalinity | 152 | | 5.0 | 3.7 | mg/L | | | 04/21/22 14:31 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-215148-8

Date Collected: 04/13/22 00:00

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 18:14 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 18:14 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 18:14 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 18:14 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 75 - 126 | | 04/26/22 18:14 | 1 |
| Toluene-d8 (Surr) | 103 | | 75 - 120 | | 04/26/22 18:14 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 72 - 124 | | 04/26/22 18:14 | 1 |
| Dibromofluoromethane | 83 | | 75 - 120 | | 04/26/22 18:14 | 1 |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

GC VOA

| Qualifier | Qualifier Description |
|-----------|--|
| J | Reported value was between the limit of detection and the limit of quantitation. |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |
| F2 | MS/MSD RPD exceeds control limits |
| X | Surrogate recovery exceeds control limits |

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| F5 | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both. |
| J | Reported value was between the limit of detection and the limit of quantitation. |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|--|
| F1 | MS and/or MSD recovery exceeds control limits. |
| J | Reported value was between the limit of detection and the limit of quantitation. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|--------------|--|
| RER | Relative Error Ratio (Radiochemistry) |
| 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) |
| TNTC | Too Numerous To Count |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

GC/MS VOA

Analysis Batch: 653419

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 8260B | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 8260B | |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 8260B | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 8260B | |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 8260B | |
| 500-215148-6 | W-220414-RA-26 | Total/NA | Water | 8260B | |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 8260B | |
| 500-215148-8 | Trip Blank | Total/NA | Water | 8260B | |
| MB 500-653419/6 | Method Blank | Total/NA | Water | 8260B | |
| LCS 500-653419/8 | Lab Control Sample | Total/NA | Water | 8260B | |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 8260B | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 8260B | |

GC/MS Semi VOA

Prep Batch: 652282

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 3510C | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 3510C | |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 3510C | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 3510C | |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 3510C | |
| 500-215148-6 | W-220414-RA-26 | Total/NA | Water | 3510C | |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 3510C | |
| MB 500-652282/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 500-652282/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 3510C | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 3510C | |

Analysis Batch: 652466

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 500-652282/1-A | Method Blank | Total/NA | Water | 8270D | 652282 |
| LCS 500-652282/2-A | Lab Control Sample | Total/NA | Water | 8270D | 652282 |

Analysis Batch: 652583

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 8270D | 652282 |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 8270D | 652282 |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 8270D | 652282 |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 8270D | 652282 |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 8270D | 652282 |
| 500-215148-6 | W-220414-RA-26 | Total/NA | Water | 8270D | 652282 |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 8270D | 652282 |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 8270D | 652282 |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 8270D | 652282 |

GC VOA

Analysis Batch: 523193

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | RSK-175 | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | RSK-175 | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

GC VOA (Continued)

Analysis Batch: 523193 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|---------|------------|
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | RSK-175 | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | RSK-175 | |
| MB 240-523193/3 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 240-523193/4 | Lab Control Sample | Total/NA | Water | RSK-175 | |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | RSK-175 | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | RSK-175 | |

Analysis Batch: 523468

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|---------|------------|
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | RSK-175 | |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | RSK-175 | |
| MB 240-523468/3 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 240-523468/4 | Lab Control Sample | Total/NA | Water | RSK-175 | |

GC Semi VOA

Prep Batch: 652581

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 8151A | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 8151A | |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 8151A | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 8151A | |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 8151A | |
| 500-215148-6 | W-220414-RA-26 | Total/NA | Water | 8151A | |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 8151A | |
| MB 500-652581/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-652581/2-A | Lab Control Sample | Total/NA | Water | 8151A | |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 8151A | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 8151A | |

Analysis Batch: 652948

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 8151A | 652581 |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 8151A | 652581 |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 8151A | 652581 |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 8151A | 652581 |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 8151A | 652581 |
| 500-215148-6 | W-220414-RA-26 | Total/NA | Water | 8151A | 652581 |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 8151A | 652581 |
| MB 500-652581/1-A | Method Blank | Total/NA | Water | 8151A | 652581 |
| LCS 500-652581/2-A | Lab Control Sample | Total/NA | Water | 8151A | 652581 |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 8151A | 652581 |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 8151A | 652581 |

Metals

Prep Batch: 652920

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Dissolved | Water | 3005A | |
| 500-215148-1 | W-220413-RA-20 | Total Recoverable | Water | 3005A | |
| 500-215148-2 | W-220414-RA-22 | Dissolved | Water | 3005A | |
| 500-215148-2 | W-220414-RA-22 | Total Recoverable | Water | 3005A | |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Metals (Continued)

Prep Batch: 652920 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-215148-3 | W-220414-RA-23 | Dissolved | Water | 3005A | |
| 500-215148-3 | W-220414-RA-23 | Total Recoverable | Water | 3005A | |
| 500-215148-4 | W-220414-RA-24 | Dissolved | Water | 3005A | |
| 500-215148-4 | W-220414-RA-24 | Total Recoverable | Water | 3005A | |
| 500-215148-5 | W-220414-RA-25 | Dissolved | Water | 3005A | |
| 500-215148-5 | W-220414-RA-25 | Total Recoverable | Water | 3005A | |
| 500-215148-6 | W-220414-RA-26 | Dissolved | Water | 3005A | |
| 500-215148-6 | W-220414-RA-26 | Total Recoverable | Water | 3005A | |
| 500-215148-7 | W-220414-RA-27 | Dissolved | Water | 3005A | |
| 500-215148-7 | W-220414-RA-27 | Total Recoverable | Water | 3005A | |
| MB 500-652920/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 500-652920/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 500-215148-1 MS | W-220413-RA-20 | Dissolved | Water | 3005A | |
| 500-215148-1 MS | W-220413-RA-20 | Total Recoverable | Water | 3005A | |
| 500-215148-1 MSD | W-220413-RA-20 | Dissolved | Water | 3005A | |
| 500-215148-1 MSD | W-220413-RA-20 | Total Recoverable | Water | 3005A | |
| 500-215148-1 DU | W-220413-RA-20 | Dissolved | Water | 3005A | |
| 500-215148-1 DU | W-220413-RA-20 | Total Recoverable | Water | 3005A | |

Analysis Batch: 653044

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Dissolved | Water | 6020A | 652920 |
| 500-215148-1 | W-220413-RA-20 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-2 | W-220414-RA-22 | Dissolved | Water | 6020A | 652920 |
| 500-215148-2 | W-220414-RA-22 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-3 | W-220414-RA-23 | Dissolved | Water | 6020A | 652920 |
| 500-215148-3 | W-220414-RA-23 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-4 | W-220414-RA-24 | Dissolved | Water | 6020A | 652920 |
| 500-215148-4 | W-220414-RA-24 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-5 | W-220414-RA-25 | Dissolved | Water | 6020A | 652920 |
| 500-215148-5 | W-220414-RA-25 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-6 | W-220414-RA-26 | Dissolved | Water | 6020A | 652920 |
| 500-215148-6 | W-220414-RA-26 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-7 | W-220414-RA-27 | Dissolved | Water | 6020A | 652920 |
| 500-215148-7 | W-220414-RA-27 | Total Recoverable | Water | 6020A | 652920 |
| MB 500-652920/1-A | Method Blank | Total Recoverable | Water | 6020A | 652920 |
| LCS 500-652920/2-A | Lab Control Sample | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-1 MS | W-220413-RA-20 | Dissolved | Water | 6020A | 652920 |
| 500-215148-1 MS | W-220413-RA-20 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-1 MSD | W-220413-RA-20 | Dissolved | Water | 6020A | 652920 |
| 500-215148-1 MSD | W-220413-RA-20 | Total Recoverable | Water | 6020A | 652920 |
| 500-215148-1 DU | W-220413-RA-20 | Dissolved | Water | 6020A | 652920 |
| 500-215148-1 DU | W-220413-RA-20 | Total Recoverable | Water | 6020A | 652920 |

Analysis Batch: 653499

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|----------|------------|
| 500-215148-1 | W-220413-RA-20 | Total Recoverable | Water | SM 2340B | 652920 |
| 500-215148-2 | W-220414-RA-22 | Total Recoverable | Water | SM 2340B | 652920 |
| 500-215148-3 | W-220414-RA-23 | Total Recoverable | Water | SM 2340B | 652920 |
| 500-215148-4 | W-220414-RA-24 | Total Recoverable | Water | SM 2340B | 652920 |
| 500-215148-5 | W-220414-RA-25 | Total Recoverable | Water | SM 2340B | 652920 |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Metals (Continued)

Analysis Batch: 653499 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|----------|------------|
| 500-215148-6 | W-220414-RA-26 | Total Recoverable | Water | SM 2340B | 652920 |
| 500-215148-7 | W-220414-RA-27 | Total Recoverable | Water | SM 2340B | 652920 |

General Chemistry

Analysis Batch: 651959

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 300.0 | |
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 300.0 | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 300.0 | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 300.0 | |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 300.0 | |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 300.0 | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 300.0 | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 300.0 | |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 300.0 | |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 300.0 | |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 300.0 | |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 300.0 | |
| MB 500-651959/9 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-651959/10 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 300.0 | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 300.0 | |

Analysis Batch: 652437

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|----------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | SM 2320B | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | SM 2320B | |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | SM 2320B | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | SM 2320B | |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | SM 2320B | |
| MB 500-652437/28 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 500-652437/29 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| 500-215148-1 DU | W-220413-RA-20 | Total/NA | Water | SM 2320B | |

Analysis Batch: 652824

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | SM 2320B | |
| MB 500-652824/3 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 500-652824/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |

Analysis Batch: 652982

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 9060A | |
| 500-215148-2 | W-220414-RA-22 | Total/NA | Water | 9060A | |
| 500-215148-3 | W-220414-RA-23 | Total/NA | Water | 9060A | |
| 500-215148-4 | W-220414-RA-24 | Total/NA | Water | 9060A | |
| 500-215148-5 | W-220414-RA-25 | Total/NA | Water | 9060A | |
| 500-215148-7 | W-220414-RA-27 | Total/NA | Water | 9060A | |
| MB 500-652982/37 | Method Blank | Total/NA | Water | 9060A | |
| LCS 500-652982/38 | Lab Control Sample | Total/NA | Water | 9060A | |

QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

General Chemistry (Continued)

Analysis Batch: 652982 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 9060A | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 9060A | |

Analysis Batch: 653281

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-215148-1 | W-220413-RA-20 | Total/NA | Water | 300.0 | |
| MB 500-653281/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-653281/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 300.0 | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 300.0 | |

Analysis Batch: 653896

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| MB 500-653896/3 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-653896/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 500-215148-1 MS | W-220413-RA-20 | Total/NA | Water | 300.0 | |
| 500-215148-1 MSD | W-220413-RA-20 | Total/NA | Water | 300.0 | |

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|------------------|--------------------|--|-----------------|-----------------|------------------|
| | | DCA (75-126) | TOL (75-120) | BFB (72-124) | DBFM (75-120) |
| 500-215148-1 | W-220413-RA-20 | 79 | 106 | 91 | 82 |
| 500-215148-1 MS | W-220413-RA-20 | 78 | 108 | 91 | 83 |
| 500-215148-1 MSD | W-220413-RA-20 | 79 | 106 | 88 | 85 |
| 500-215148-2 | W-220414-RA-22 | 83 | 105 | 94 | 84 |
| 500-215148-3 | W-220414-RA-23 | 78 | 106 | 93 | 81 |
| 500-215148-4 | W-220414-RA-24 | 80 | 105 | 93 | 82 |
| 500-215148-5 | W-220414-RA-25 | 80 | 106 | 93 | 81 |
| 500-215148-6 | W-220414-RA-26 | 82 | 106 | 95 | 82 |
| 500-215148-7 | W-220414-RA-27 | 80 | 107 | 93 | 84 |
| 500-215148-8 | Trip Blank | 80 | 103 | 93 | 83 |
| LCS 500-653419/8 | Lab Control Sample | 76 | 109 | 90 | 85 |
| MB 500-653419/6 | Method Blank | 78 | 107 | 92 | 81 |

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|--------------------|--------------------|--|-----------------|------------------|
| | | NBZ (36-120) | FBP (34-110) | TPHL (40-145) |
| 500-215148-1 | W-220413-RA-20 | 83 | 65 | 110 |
| 500-215148-1 MS | W-220413-RA-20 | 78 | 60 | 100 |
| 500-215148-1 MSD | W-220413-RA-20 | 77 | 62 | 100 |
| 500-215148-2 | W-220414-RA-22 | 59 | 55 | 93 |
| 500-215148-3 | W-220414-RA-23 | 75 | 63 | 103 |
| 500-215148-4 | W-220414-RA-24 | 68 | 56 | 111 |
| 500-215148-5 | W-220414-RA-25 | 64 | 57 | 102 |
| 500-215148-6 | W-220414-RA-26 | 58 | 57 | 110 |
| 500-215148-7 | W-220414-RA-27 | 66 | 36 | 97 |
| LCS 500-652282/2-A | Lab Control Sample | 76 | 75 | 102 |
| MB 500-652282/1-A | Method Blank | 69 | 59 | 95 |

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|------------------|------------------|--|
| | | TFE1 (60-140) |
| 500-215148-1 | W-220413-RA-20 | 105 |
| 500-215148-1 MS | W-220413-RA-20 | 105 |
| 500-215148-1 MSD | W-220413-RA-20 | 106 |

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | TFE1 (60-140) |
|------------------|--------------------|------------------|
| 500-215148-2 | W-220414-RA-22 | 102 |
| 500-215148-3 | W-220414-RA-23 | 106 |
| 500-215148-4 | W-220414-RA-24 | 105 |
| 500-215148-5 | W-220414-RA-25 | 105 |
| 500-215148-7 | W-220414-RA-27 | 107 |
| LCS 240-523193/4 | Lab Control Sample | 96 |
| LCS 240-523468/4 | Lab Control Sample | 110 |
| MB 240-523193/3 | Method Blank | 103 |
| MB 240-523468/3 | Method Blank | 115 |

Surrogate Legend

TFE = 1,1,1-Trifluoroethane

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCPAA2 (25-130) |
|--------------------|--------------------|--------------------|
| 500-215148-1 | W-220413-RA-20 | 0 D |
| 500-215148-1 MS | W-220413-RA-20 | 0 D |
| 500-215148-1 MSD | W-220413-RA-20 | 0 D |
| 500-215148-2 | W-220414-RA-22 | 130 |
| 500-215148-3 | W-220414-RA-23 | 128 |
| 500-215148-4 | W-220414-RA-24 | 120 |
| 500-215148-5 | W-220414-RA-25 | 115 |
| 500-215148-6 | W-220414-RA-26 | 123 |
| 500-215148-7 | W-220414-RA-27 | 0 D |
| LCS 500-652581/2-A | Lab Control Sample | 108 |
| MB 500-652581/1-A | Method Blank | 133 X |

Surrogate Legend

DCPAA = DCAA

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-653419/6
Matrix: Water
Analysis Batch: 653419

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 12:07 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 12:07 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 12:07 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 12:07 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 78 | | 75 - 126 | | 04/26/22 12:07 | 1 |
| Toluene-d8 (Surr) | 107 | | 75 - 120 | | 04/26/22 12:07 | 1 |
| 4-Bromofluorobenzene (Surr) | 92 | | 72 - 124 | | 04/26/22 12:07 | 1 |
| Dibromofluoromethane | 81 | | 75 - 120 | | 04/26/22 12:07 | 1 |

Lab Sample ID: LCS 500-653419/8
Matrix: Water
Analysis Batch: 653419

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

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Benzene | 50.0 | 44.7 | | ug/L | | 89 | 70 - 120 |
| Toluene | 50.0 | 49.8 | | ug/L | | 100 | 70 - 125 |
| Ethylbenzene | 50.0 | 51.7 | | ug/L | | 103 | 70 - 123 |
| Xylenes, Total | 100 | 98.3 | | ug/L | | 98 | 70 - 125 |

| Surrogate | LCS LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 76 | | 75 - 126 |
| Toluene-d8 (Surr) | 109 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 90 | | 72 - 124 |
| Dibromofluoromethane | 85 | | 75 - 120 |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 653419

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS MS | | Unit | D | %Rec | %Rec Limits |
|----------------|---------------|------------------|-------------|--------|-----------|------|---|------|-------------|
| | | | | Result | Qualifier | | | | |
| Benzene | <0.15 | | 50.0 | 43.8 | | ug/L | | 88 | 70 - 120 |
| Toluene | 0.30 | J | 50.0 | 49.3 | | ug/L | | 98 | 70 - 125 |
| Ethylbenzene | 0.83 | | 50.0 | 49.6 | | ug/L | | 97 | 70 - 123 |
| Xylenes, Total | 4.6 | | 100 | 96.3 | | ug/L | | 92 | 70 - 125 |

| Surrogate | MS MS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 78 | | 75 - 126 |
| Toluene-d8 (Surr) | 108 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 91 | | 72 - 124 |
| Dibromofluoromethane | 83 | | 75 - 120 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 653419

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | RPD | Limit |
|------------------------------|------------------|------------------|---------------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | |
| Benzene | <0.15 | | 50.0 | 43.8 | | ug/L | | 88 | 70 - 120 | 0 | 20 |
| Toluene | 0.30 | J | 50.0 | 48.2 | | ug/L | | 96 | 70 - 125 | 2 | 20 |
| Ethylbenzene | 0.83 | | 50.0 | 50.1 | | ug/L | | 98 | 70 - 123 | 1 | 20 |
| Xylenes, Total | 4.6 | | 100 | 99.2 | | ug/L | | 95 | 70 - 125 | 3 | 20 |
| MSD MSD | | | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 75 - 126 | | | | | | | | |
| Toluene-d8 (Surr) | 106 | | 75 - 120 | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 88 | | 72 - 124 | | | | | | | | |
| Dibromofluoromethane | 85 | | 75 - 120 | | | | | | | | |

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

Lab Sample ID: MB 500-652282/1-A
Matrix: Water
Analysis Batch: 652466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652282

| Analyte | MB | MB | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|------------------|------------------|---------------|------|------|-----------------|-----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/19/22 07:15 | 04/20/22 13:26 | 1 |
| MB MB | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac | |
| Nitrobenzene-d5 (Surr) | 69 | | 36 - 120 | | | 04/19/22 07:15 | 04/20/22 13:26 | 1 | |
| 2-Fluorobiphenyl (Surr) | 59 | | 34 - 110 | | | 04/19/22 07:15 | 04/20/22 13:26 | 1 | |
| Terphenyl-d14 (Surr) | 95 | | 40 - 145 | | | 04/19/22 07:15 | 04/20/22 13:26 | 1 | |

Lab Sample ID: LCS 500-652282/2-A
Matrix: Water
Analysis Batch: 652466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652282

| Analyte | Spike Added | LCS | LCS | Unit | D | %Rec | %Rec |
|-------------------------|------------------|------------------|---------------|------|---|------|----------|
| | | Result | Qualifier | | | | Limits |
| Naphthalene | 32.0 | 19.1 | | ug/L | | 60 | 36 - 110 |
| LCS LCS | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | |
| Nitrobenzene-d5 (Surr) | 76 | | 36 - 120 | | | | |
| 2-Fluorobiphenyl (Surr) | 75 | | 34 - 110 | | | | |
| Terphenyl-d14 (Surr) | 102 | | 40 - 145 | | | | |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 652583

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA
Prep Batch: 652282

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec |
|-------------------------|------------------|------------------|---------------|--------|-----------|------|---|------|----------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits |
| Naphthalene | 4.4 | | 34.0 | 21.7 | | ug/L | | 51 | 36 - 110 |
| MS MS | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | |
| Nitrobenzene-d5 (Surr) | 78 | | 36 - 120 | | | | | | |
| 2-Fluorobiphenyl (Surr) | 60 | | 34 - 110 | | | | | | |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

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

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 652583

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA
Prep Batch: 652282

| | MS | MS | |
|----------------------|-----------|-----------|----------|
| Surrogate | %Recovery | Qualifier | Limits |
| Terphenyl-d14 (Surr) | 100 | | 40 - 145 |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 652583

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA
Prep Batch: 652282

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD | MSD | Unit | D | %Rec | %Rec Limits | RPD | Limit | |
|-------------------------|---------------|------------------|-------------|--------|-----------|------|---|------|-------------|-----|-------|--|
| | | | | Result | Qualifier | | | | | | | |
| Naphthalene | 4.4 | | 30.1 | 19.9 | | ug/L | | 51 | 36 - 110 | 9 | 20 | |
| Surrogate | MSD %Recovery | MSD Qualifier | Limits | | | | | | | | | |
| Nitrobenzene-d5 (Surr) | 77 | | 36 - 120 | | | | | | | | | |
| 2-Fluorobiphenyl (Surr) | 62 | | 34 - 110 | | | | | | | | | |
| Terphenyl-d14 (Surr) | 100 | | 40 - 145 | | | | | | | | | |

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 240-523193/3
Matrix: Water
Analysis Batch: 523193

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

| Analyte | MB | MB | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac | |
|-----------------------|--------------|--------------|----------|----------|----------------|---------|----------|----------------|---------|--|
| | Result | Qualifier | | | | | | | | |
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/19/22 12:43 | 1 | |
| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac | | | | |
| 1,1,1-Trifluoroethane | 103 | | 60 - 140 | | 04/19/22 12:43 | 1 | | | | |

Lab Sample ID: LCS 240-523193/4
Matrix: Water
Analysis Batch: 523193

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

| Analyte | Spike Added | LCS | LCS | Unit | D | %Rec | %Rec Limits |
|-----------------------|---------------|---------------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Methane | 284 | 275 | | ug/L | | 97 | 80 - 120 |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | |
| 1,1,1-Trifluoroethane | 96 | | 60 - 140 | | | | |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 523193

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS | MS | Unit | D | %Rec | %Rec Limits |
|-----------------------|---------------|------------------|-------------|--------|-----------|------|---|------|-------------|
| | | | | Result | Qualifier | | | | |
| Methane | 0.47 | J | 284 | 316 | | ug/L | | 111 | 50 - 150 |
| Surrogate | MS %Recovery | MS Qualifier | Limits | | | | | | |
| 1,1,1-Trifluoroethane | 105 | | 60 - 140 | | | | | | |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 523193

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------|------------------|----------------------|-------------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Methane | 0.47 | J | 284 | 318 | | ug/L | | 112 | 50 - 150 | 1 | 30 |
| Surrogate | %Recovery | MSD Qualifier | MSD Limits | | | | | | | | |
| 1,1,1-Trifluoroethane | 106 | | 60 - 140 | | | | | | | | |

Lab Sample ID: MB 240-523468/3
Matrix: Water
Analysis Batch: 523468

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|------------------|---------------------|---------------|------|------|---|-----------------|-----------------|----------------|
| Methane | <0.17 | | 1.0 | 0.17 | ug/L | | | 04/21/22 11:42 | 1 |
| Surrogate | %Recovery | MB Qualifier | Limits | | | | | | |
| 1,1,1-Trifluoroethane | 115 | | 60 - 140 | | | | | | |
| | | | | | | | Prepared | Analyzed | Dil Fac |
| | | | | | | | | 04/21/22 11:42 | 1 |

Lab Sample ID: LCS 240-523468/4
Matrix: Water
Analysis Batch: 523468

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------|------------------|----------------------|---------------|------|---|------|-------------|
| Methane | 284 | 313 | | ug/L | | 110 | 80 - 120 |
| Surrogate | %Recovery | LCS Qualifier | Limits | | | | |
| 1,1,1-Trifluoroethane | 110 | | 60 - 140 | | | | |

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-652581/1-A
Matrix: Water
Analysis Batch: 652948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652581

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|------------------|---------------------|---------------|------|------|---|-----------------|-----------------|----------------|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 04/20/22 11:30 | 04/22/22 09:52 | 1 |
| Surrogate | %Recovery | MB Qualifier | Limits | | | | | | |
| DCAA | 133 | X | 25 - 130 | | | | | | |
| | | | | | | | Prepared | Analyzed | Dil Fac |
| | | | | | | | 04/20/22 11:30 | 04/22/22 09:52 | 1 |

Lab Sample ID: LCS 500-652581/2-A
Matrix: Water
Analysis Batch: 652948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652581

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|------------------|----------------------|---------------|------|---|------|-------------|
| Pentachlorophenol | 2.53 | 2.99 | | ug/L | | 118 | 40 - 122 |
| Surrogate | %Recovery | LCS Qualifier | Limits | | | | |
| DCAA | 108 | | 25 - 130 | | | | |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

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

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 652948

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA
Prep Batch: 652581

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec | Limits |
|-------------------|------------------|------------------|---------------|-----------|-----------|------|---|-------|------|----------|
| | Result | Qualifier | | Result | Qualifier | | | | | |
| Pentachlorophenol | 2700 | F2 | 2.51 | 2120 | 4 | ug/L | | -2166 | 7 | 40 - 122 |
| Surrogate | %Recovery | Qualifier | Limits | MS | MS | | | | | |
| DCAA | 0 | D | 25 - 130 | | | | | | | |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 652948

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA
Prep Batch: 652581

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | Limits | RPD | Limit |
|-------------------|------------------|------------------|---------------|------------|------------|------|---|-------|------|----------|-----|-------|
| | Result | Qualifier | | Result | Qualifier | | | | | | | |
| Pentachlorophenol | 2700 | F2 | 2.46 | 3230 | 4 F2 | ug/L | | 23271 | | 40 - 122 | 42 | 20 |
| Surrogate | %Recovery | Qualifier | Limits | MSD | MSD | | | | | | | |
| DCAA | 0 | D | 25 - 130 | | | | | | | | | |

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-652920/1-A
Matrix: Water
Analysis Batch: 653044

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652920

| Analyte | MB | MB | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Arsenic | <0.23 | | 1.0 | 0.23 | ug/L | | 04/22/22 08:03 | 04/22/22 23:26 | 1 |
| Copper | <0.50 | | 2.0 | 0.50 | ug/L | | 04/22/22 08:03 | 04/22/22 23:26 | 1 |
| Iron | <46.7 | | 100 | 46.7 | ug/L | | 04/22/22 08:03 | 04/22/22 23:26 | 1 |
| Manganese | <0.79 | | 2.5 | 0.79 | ug/L | | 04/22/22 08:03 | 04/22/22 23:26 | 1 |
| Zinc | <6.9 | | 20.0 | 6.9 | ug/L | | 04/22/22 08:03 | 04/22/22 23:26 | 1 |

Lab Sample ID: LCS 500-652920/2-A
Matrix: Water
Analysis Batch: 653044

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652920

| Analyte | Spike | LCS | LCS | Unit | D | %Rec | %Rec | Limits |
|-----------|-------|-------|-----|------|---|------|------|----------|
| | | | | | | | | |
| Arsenic | 100 | 113.2 | | ug/L | | 113 | | 80 - 120 |
| Copper | 250 | 273.4 | | ug/L | | 109 | | 80 - 120 |
| Iron | 1000 | 1019 | | ug/L | | 102 | | 80 - 120 |
| Manganese | 500 | 519.9 | | ug/L | | 104 | | 80 - 120 |
| Zinc | 500 | 550.4 | | ug/L | | 110 | | 80 - 120 |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220413-RA-20
Prep Type: Total Recoverable
Prep Batch: 652920

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec | Limits |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|------|----------|
| | Result | Qualifier | | Result | Qualifier | | | | | |
| Arsenic | 0.59 | J | 100 | 112.8 | | ug/L | | 112 | | 75 - 125 |
| Copper | 3.2 | | 250 | 274.5 | | ug/L | | 109 | | 75 - 125 |
| Iron | 94.2 | J | 1000 | 975.1 | | ug/L | | 88 | | 75 - 125 |
| Manganese | 294 | F1 | 500 | 907.7 | | ug/L | | 123 | | 75 - 125 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220413-RA-20
Prep Type: Total Recoverable
Prep Batch: 652920

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Zinc | <6.9 | | 500 | 539.8 | | ug/L | | 108 | 75 - 125 |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220413-RA-20
Prep Type: Total Recoverable
Prep Batch: 652920

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Arsenic | 0.59 | J | 100 | 112.9 | | ug/L | | 112 | 75 - 125 | 0 | 20 |
| Copper | 3.2 | | 250 | 274.5 | | ug/L | | 109 | 75 - 125 | 0 | 20 |
| Iron | 94.2 | J | 1000 | 984.6 | | ug/L | | 89 | 75 - 125 | 1 | 20 |
| Manganese | 294 | F1 | 500 | 927.9 | F1 | ug/L | | 127 | 75 - 125 | 2 | 20 |
| Zinc | <6.9 | | 500 | 529.7 | | ug/L | | 106 | 75 - 125 | 2 | 20 |

Lab Sample ID: 500-215148-1 DU
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220413-RA-20
Prep Type: Total Recoverable
Prep Batch: 652920

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Arsenic | 0.59 | J | 0.751 | J F5 | ug/L | | 25 | 20 |
| Copper | 3.2 | | 3.26 | | ug/L | | 0.8 | 20 |
| Iron | 94.2 | J | 86.99 | J | ug/L | | 8 | 20 |
| Manganese | 294 | F1 | 291.0 | | ug/L | | 1 | 20 |
| Zinc | <6.9 | | <6.9 | | ug/L | | NC | 20 |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220413-RA-20
Prep Type: Dissolved
Prep Batch: 652920

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Arsenic | 0.71 | J | 100 | 116.8 | | ug/L | | 116 | 75 - 125 |
| Copper | 2.5 | | 250 | 272.9 | | ug/L | | 108 | 75 - 125 |
| Iron | <46.7 | | 1000 | 1032 | | ug/L | | 103 | 75 - 125 |
| Manganese | 393 | | 500 | 953.7 | | ug/L | | 112 | 75 - 125 |
| Zinc | <6.9 | | 500 | 540.0 | | ug/L | | 108 | 75 - 125 |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220413-RA-20
Prep Type: Dissolved
Prep Batch: 652920

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Arsenic | 0.71 | J | 100 | 108.4 | | ug/L | | 108 | 75 - 125 | 7 | 20 |
| Copper | 2.5 | | 250 | 265.7 | | ug/L | | 105 | 75 - 125 | 3 | 20 |
| Iron | <46.7 | | 1000 | 971.9 | | ug/L | | 97 | 75 - 125 | 6 | 20 |
| Manganese | 393 | | 500 | 886.4 | | ug/L | | 99 | 75 - 125 | 7 | 20 |
| Zinc | <6.9 | | 500 | 517.6 | | ug/L | | 104 | 75 - 125 | 4 | 20 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-215148-1 DU
Matrix: Water
Analysis Batch: 653044

Client Sample ID: W-220413-RA-20
Prep Type: Dissolved
Prep Batch: 652920

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|-----------|--------|-----------|--------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| Arsenic | 0.71 | J | 0.704 | J | ug/L | | 0.6 | 20 |
| Copper | 2.5 | | 2.27 | | ug/L | | 11 | 20 |
| Iron | <46.7 | | <46.7 | | ug/L | | NC | 20 |
| Manganese | 393 | | 387.7 | | ug/L | | 1 | 20 |
| Zinc | <6.9 | | <6.9 | | ug/L | | NC | 20 |

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-651959/9
Matrix: Water
Analysis Batch: 651959

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

| Analyte | MB | MB | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/15/22 11:06 | 1 |
| Nitrate as N | <0.068 | | 0.20 | 0.068 | mg/L | | | 04/15/22 11:06 | 1 |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/15/22 11:06 | 1 |

Lab Sample ID: LCS 500-651959/10
Matrix: Water
Analysis Batch: 651959

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

| Analyte | Spike Added | LCS | LCS | Unit | D | %Rec | %Rec Limits |
|--------------|-------------|--------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Chloride | 3.00 | 2.98 | | mg/L | | 99 | 90 - 110 |
| Nitrate as N | 2.00 | 2.02 | | mg/L | | 101 | 90 - 110 |
| Sulfate | 5.00 | 4.84 | | mg/L | | 97 | 90 - 110 |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 651959

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample | Sample | Spike Added | MS | MS | Unit | D | %Rec | %Rec Limits |
|--------------|--------|-----------|-------------|--------|-----------|------|---|------|-------------|
| | Result | Qualifier | | Result | Qualifier | | | | |
| Nitrate as N | 0.20 | | 1.00 | 1.16 | | mg/L | | 96 | 80 - 120 |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 651959

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample | Sample | Spike Added | MSD | MSD | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|--------------|--------|-----------|-------------|--------|-----------|------|---|------|-------------|-----|-------|
| | Result | Qualifier | | Result | Qualifier | | | | | | |
| Nitrate as N | 0.20 | | 1.00 | 1.15 | | mg/L | | 95 | 80 - 120 | 1 | 20 |

Lab Sample ID: MB 500-653281/3
Matrix: Water
Analysis Batch: 653281

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

| Analyte | MB | MB | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Sulfate | <0.095 | | 0.20 | 0.095 | mg/L | | | 04/25/22 12:58 | 1 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 500-653281/4
Matrix: Water
Analysis Batch: 653281

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Sulfate | 5.00 | 4.95 | | mg/L | | 99 | 90 - 110 |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 653281

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Sulfate | 22.2 | F1 | 25.0 | 42.73 | | mg/L | | 82 | 80 - 120 |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 653281

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Sulfate | 22.2 | F1 | 25.0 | 40.85 | F1 | mg/L | | 75 | 80 - 120 | 5 | 20 |

Lab Sample ID: MB 500-653896/3
Matrix: Water
Analysis Batch: 653896

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|------|------|------|---|----------|----------------|---------|
| Chloride | <0.17 | | 0.20 | 0.17 | mg/L | | | 04/28/22 15:16 | 1 |

Lab Sample ID: LCS 500-653896/4
Matrix: Water
Analysis Batch: 653896

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 3.00 | 3.09 | | mg/L | | 103 | 90 - 110 |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 653896

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Chloride | 15.9 | | 5.00 | 24.08 | F1 | mg/L | | 163 | 80 - 120 |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 653896

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Chloride | 15.9 | | 5.00 | 24.08 | F1 | mg/L | | 163 | 80 - 120 | 0 | 20 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 500-652982/37
Matrix: Water
Analysis Batch: 652982

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon - Duplicates | <0.47 | | 1.0 | 0.47 | mg/L | | | 04/21/22 09:22 | 1 |

Lab Sample ID: LCS 500-652982/38
Matrix: Water
Analysis Batch: 652982

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 10.0 | 10.28 | | mg/L | | 103 | 86 - 116 |

Lab Sample ID: 500-215148-1 MS
Matrix: Water
Analysis Batch: 652982

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| Total Organic Carbon - Duplicates | 17.7 | | 40.0 | 57.29 | | mg/L | | 99 | 75 - 125 |

Lab Sample ID: 500-215148-1 MSD
Matrix: Water
Analysis Batch: 652982

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Total Organic Carbon - Duplicates | 17.7 | | 40.0 | 57.69 | | mg/L | | 100 | 75 - 125 | 1 | 20 |

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-652437/28
Matrix: Water
Analysis Batch: 652437

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | <3.7 | | 5.0 | 3.7 | mg/L | | | 04/19/22 12:59 | 1 |

Lab Sample ID: LCS 500-652437/29
Matrix: Water
Analysis Batch: 652437

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------|-------------|------------|---------------|------|---|------|-------------|
| Alkalinity | 100 | 103.5 | | mg/L | | 103 | 90 - 110 |

Lab Sample ID: 500-215148-1 DU
Matrix: Water
Analysis Batch: 652437

Client Sample ID: W-220413-RA-20
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Alkalinity | 160 | | 167.8 | | mg/L | | 5 | 20 |

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QC Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 500-652824/3
Matrix: Water
Analysis Batch: 652824

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | <3.7 | | 5.0 | 3.7 | mg/L | | | 04/21/22 11:48 | 1 |

Lab Sample ID: LCS 500-652824/4
Matrix: Water
Analysis Batch: 652824

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------|-------------|------------|---------------|------|---|------|-------------|
| Alkalinity | 100 | 103.9 | | mg/L | | 104 | 90 - 110 |



Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220413-RA-20

Lab Sample ID: 500-215148-1

Date Collected: 04/13/22 14:23

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 15:09 | PSP | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 16:26 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523193 | 04/19/22 19:00 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 5000 | 652948 | 04/22/22 12:46 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:17 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 23:33 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653499 | 04/26/22 14:48 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651959 | 04/15/22 11:45 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 651959 | 04/15/22 16:30 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 653281 | 04/25/22 16:36 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 4 | 652982 | 04/21/22 13:42 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 14:26 | SMO | TAL CHI |

Client Sample ID: W-220414-RA-22

Lab Sample ID: 500-215148-2

Date Collected: 04/14/22 11:12

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 15:35 | PSP | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 17:34 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523193 | 04/19/22 19:51 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 13:44 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:34 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 23:50 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653499 | 04/26/22 14:48 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651959 | 04/15/22 12:26 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 651959 | 04/15/22 17:11 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652982 | 04/21/22 14:33 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 14:41 | SMO | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-23

Lab Sample ID: 500-215148-3

Date Collected: 04/14/22 12:22

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 16:03 | PSP | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 17:57 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523193 | 04/19/22 20:08 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 14:04 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:38 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 23:53 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653499 | 04/26/22 14:48 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651959 | 04/15/22 12:40 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 651959 | 04/15/22 17:25 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652982 | 04/21/22 15:01 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 14:48 | SMO | TAL CHI |

Client Sample ID: W-220414-RA-24

Lab Sample ID: 500-215148-4

Date Collected: 04/14/22 12:23

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 16:30 | PSP | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 18:19 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523193 | 04/19/22 20:25 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 14:23 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:48 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/22/22 23:57 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653499 | 04/26/22 14:48 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651959 | 04/15/22 12:53 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 651959 | 04/15/22 18:05 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652982 | 04/21/22 15:52 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 14:55 | SMO | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-25

Lab Sample ID: 500-215148-5

Date Collected: 04/14/22 13:07

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 16:56 | PSP | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 18:42 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523468 | 04/21/22 17:03 | JBN | TAL CAN |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 14:42 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:51 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:07 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653499 | 04/26/22 14:48 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651959 | 04/15/22 13:07 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 651959 | 04/15/22 18:19 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 1 | 652982 | 04/21/22 16:21 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652437 | 04/19/22 15:03 | SMO | TAL CHI |

Client Sample ID: W-220414-RA-26

Lab Sample ID: 500-215148-6

Date Collected: 04/14/22 13:30

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 17:22 | PSP | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 19:05 | JSB | TAL CHI |
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 652948 | 04/22/22 15:02 | JBj | TAL CHI |
| Dissolved | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:55 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:10 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653499 | 04/26/22 14:48 | FXG | TAL CHI |

Client Sample ID: W-220414-RA-27

Lab Sample ID: 500-215148-7

Date Collected: 04/14/22 14:24

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 17:48 | PSP | TAL CHI |
| Total/NA | Prep | 3510C | | | 652282 | 04/19/22 07:15 | GG | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652583 | 04/20/22 19:27 | JSB | TAL CHI |
| Total/NA | Analysis | RSK-175 | | 1 | 523468 | 04/21/22 17:20 | JBN | TAL CAN |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Client Sample ID: W-220414-RA-27

Lab Sample ID: 500-215148-7

Date Collected: 04/14/22 14:24

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 8151A | | | 652581 | 04/20/22 11:30 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 5000 | 652948 | 04/22/22 15:21 | JB | TAL CHI |
| Dissolved | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Dissolved | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:58 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | 6020A | | 1 | 653044 | 04/23/22 00:14 | FXG | TAL CHI |
| Total Recoverable | Prep | 3005A | | | 652920 | 04/22/22 08:03 | BDE | TAL CHI |
| Total Recoverable | Analysis | SM 2340B | | 1 | 653499 | 04/26/22 14:48 | FXG | TAL CHI |
| Total/NA | Analysis | 300.0 | | 1 | 651959 | 04/15/22 13:21 | EAT | TAL CHI |
| Total/NA | Analysis | 300.0 | | 5 | 651959 | 04/15/22 18:33 | EAT | TAL CHI |
| Total/NA | Analysis | 9060A | | 5 | 652982 | 04/21/22 16:48 | TMS | TAL CHI |
| Total/NA | Analysis | SM 2320B | | 1 | 652824 | 04/21/22 14:31 | SMO | TAL CHI |

Client Sample ID: Trip Blank

Lab Sample ID: 500-215148-8

Date Collected: 04/13/22 00:00

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653419 | 04/26/22 18:14 | PSP | TAL CHI |

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215148-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Wisconsin | State | 999580010 | 08-31-22 |

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------------------|---------|-----------------------|-----------------|
| California | State | 2927 | 02-27-23 |
| Connecticut | State | PH-0590 | 12-31-23 |
| Florida | NELAP | E87225 | 06-30-22 |
| Georgia | State | 4062 | 02-23-22 * |
| Illinois | NELAP | 200004 | 04-25-22 |
| Iowa | State | 421 | 06-01-23 |
| Kansas | NELAP | E-10336 | 04-30-22 |
| Kentucky (UST) | State | 112225 | 02-23-22 * |
| Kentucky (WW) | State | KY98016 | 12-31-22 |
| Minnesota | NELAP | 039-999-348 | 12-31-22 |
| Minnesota (Petrofund) | State | 3506 | 08-01-23 |
| New Jersey | NELAP | OH001 | 06-30-22 |
| New York | NELAP | 10975 | 04-01-23 |
| Ohio | State | 8303 | 02-23-23 |
| Ohio VAP | State | CL0024 | 02-27-23 |
| Oregon | NELAP | 4062 | 02-27-23 |
| Pennsylvania | NELAP | 68-00340 | 04-24-22 |
| Texas | NELAP | T104704517-22-16 | 08-31-22 |
| Virginia | NELAP | 11570 | 04-25-22 |
| Washington | State | C971 | 01-12-23 |
| West Virginia DEP | State | 210 | 12-31-22 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record

543324



Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

| Client Contact | | Project Manager | | Site Contact | | Date | | |
|--|----------------|---|-------------|-----------------------------------|--------|-----------------------|-----------------------|--|
| Company Name GAD | | Tel/Email | | Lab Contact | | Carrier | | |
| Address 900 Long Lake Rd | | Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day | | | | | | |
| City/State/Zip St. Paul, MN 55112 | | | | | | | | |
| Phone 651 639 0913 | | Project Name Pentawood | | Job / SDG No 500-215148 | | Sample Specific Notes | | |
| Site 11222418-03-04 | | P O # | | Job / SDG No | | Sample Specific Notes | | |
| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | |
| 1 | W-220413-RA-20 | 4/13 | 1423 | G | Gv | 45 | PCP | |
| 2 | W-220414-RA-22 | 4/14 | 1412 | G | Gv | 15 | PCP | |
| 3 | ↓ RA-23 | ↓ | 1222 | ↓ | ↓ | 15 | PCP | |
| 4 | ↓ RA-24 | ↓ | 1223 | ↓ | ↓ | 15 | PCP | |
| 5 | ↓ RA-25 | ↓ | 1307 | ↓ | ↓ | | PCP | |
| 6 | ↓ RA-26 | ↓ | 1330 | ↓ | ↓ | | PCP | |
| 7 | W-220414-RA-27 | 4/14 | 1424 | G | Gv | | PCP | |
| 8 | trip blank | | | | | | | |

500-215148 COC

PCP
MEX
VOC
Organic Metals
Inorganics
Total Metals
TAC
MEX

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.

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:

5.7+4.7, 5.1+4.1, 5.3+4.3, 3.5+2.5, 4.9+3.9

Custody Seals Intact Yes No

Custody Seal No **1500** Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No _____

| | | | | | |
|-----------------|--------------------|--------------------------|--|--------------------|-------------------------------|
| Relinquished by | Company GAD | Date/Time 4/14/22 | Received by | Company | Date/Time |
| Relinquished by | Company | Date/Time | Received by | Company | Date/Time |
| Relinquished by | Company | Date/Time | Received in Laboratory by Stephanie Hernandez | Company ETA | Date/Time 4/15/22 0930 |

FRI - 10 APR AM
PRIORITY OVERNIGHT

FedEx
TRK# 8174 6502 5753
0215

60484
IL-US
ORD

PEE NA JOTA

FedEx Express Package US Airbill

FedEx Tracking Number 8174 6502 5753



500-215148 Wayt

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From

Date 4/14/22

Sender's Name [Redacted] Phone 612 5246955

Company [Redacted]

Address 910 Longlake Rd 200 Dept./Floor/Suite/Room

City 1st Pa State Mn ZIP 55112

2 Your Internal Billing Reference 11222418-03-05

3 To Recipient's Name [Redacted] Phone 708 534-5200

Company [Redacted]

Address [Redacted] Dept./Floor/Suite/Room

Address [Redacted] Use this line for the HOLD location address or for continuation of your shipping address.

City [Redacted] State [Redacted] ZIP 0040 1771



8174 6502 5753

4 Exp

Next

80701 14Apr2022 JOTA 56D62/BDF9/C088

- FedEx Earliest no. (Friday shipping to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.)
- FedEx Priority Overnight (Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.)
- FedEx Standard Overnight (Next business afternoon. Saturday Delivery NOT available.)

5 Packaging *Declared value limit \$500.

- FedEx Envelope*
- FedEx Pak*

6 Special Handling and Delivery Signature Options

Saturday Delivery (NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Priority Overnight.)

- No Signature Required (Package may be left without obtaining a signature for delivery.)
- Direct Signature (Someone at recipient's address may sign for delivery.)

Does this shipment contain dangerous goods?

- No
- Yes (As per attached Shipper's Declaration.)

Restrictions apply for dangerous goods --- see the current FedEx Service Guide.

7 Payment Bill to:

- Sender (Acct. No. in Section 1 will be billed.)
- Recipient
- Third Party

Total Packages 1 Total Weight 40 lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide.

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Align Open End of FedEx Pouch Here

FedEx
TRK#
0200 8161 0791 7980

FRI - 15 APR AA
PRIORITY OVERNIGHT

NA JOTA

60484
ORD

FedEx Express Package US Airbill
FedEx Tracking Number 8161 0791



50 lbs.
Use the
US Airbill.

1 From
Date _____
Sender's Name _____ Phone _____
Company _____
Address _____ Dept./Floor/Suite/Room _____
City _____ State _____ ZIP _____

80701 14Apr2022 JOTA 560G2 /BDF9/C088
 FedEx Priority Overnight
 Next business morning* Friday delivery
 delivered on Monday unless Saturday Delivery
 is selected.
 FedEx Standard Overnight
 Next business afternoon*
 Saturday Delivery NOT available.
 FedEx Express Saver
 Third business day*
 Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.
 FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

2 Your Internal Billing Reference

3 To
Recipient's Name _____ Phone _____
Company _____
Address _____ Dept./Floor/Suite/Room _____
We cannot deliver to P.O. boxes or P.O. ZIP codes.
Address _____
Use this line for the HOLD location address or for continuation of your shipping address.
City _____ State _____ ZIP _____

6 Special Handling and Delivery Signature Options Fees do apply. See the FedEx Service Guide.
 Saturday Delivery
 NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
 No Signature Required
 Package may be left without
 obtaining a signature for delivery.
 Direct Signature
 Someone at recipient's address
 may sign for delivery.
 Indirect Signature
 If one is available at recipient's
 address, someone at a neighboring
 address may sign for delivery. For
 residential deliveries only.

Does this shipment contain dangerous goods?
 One box must be checked.
 No Yes
 As per attached Shipper's Declaration. Yes
 Shipper's Declaration not required. By Air
 UN 1845 _____ x _____ kg
 Restrictions apply for dangerous goods — see the current FedEx Service Guide. Cargo Aircraft Only

7 Payment Bill to: Enter FedEx Acct. No. below. Obtain recip. FedEx Acct No.
 Sender Acct. No. in Section I will be billed. Recipient Third party

Total Packages _____ Total Weight _____ lbs.
 1 50



8161 0791 7980

fedex.com 1800.GofedEx 1800.463.3339

fedex.com 1800.GofedEx 1800.463.3339

Fe

Please copy & paste this information into the shipping label. Follow the package.

ST 26
RT 519
10:30
A 798
04 15

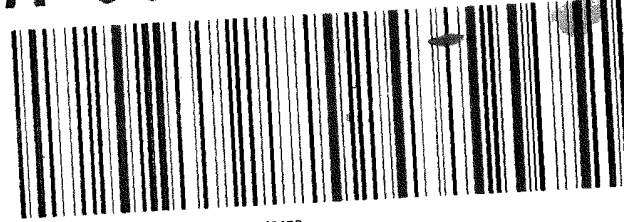
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FedEx
TRK# 8161 0791 7970
0200

FRI - 15 APR AA
PRIORITY OVERNIGHT

60484
IL-US
ORD

NA JOTA



80701 14Apr2022 JOTA 560G2 /BDF9/C088

FedEx Express Package US Airt

1 From

Date _____

Sender's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

City _____ State _____ ZIP _____

2 Your Internal Billing Reference

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

Address _____

City _____ State _____ ZIP _____



8161 0791 7970

4 Delivery Options

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning. * Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon. * Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day. Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

FedEx Envelope FedEx PK* FedEx Box FedEx Tube Other

6 Special Handling and Delivery/Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods? One box must be checked.

No Yes (As per attached Shipper's Declaration.) Shipper's Declaration required.

Dry Ice
Dry Ice, 9 UN 1845 _____ x _____ kg

Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx No. below.

Sender (Acct. No. in Section 1 will be billed) Recipient Third Party Other recip. FedEx acct No.

Total Packages _____ Total Weight _____

Our liability is limited to US\$100 unless you declare value. See the current FedEx Service Guide for details.
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Recipient's Copy

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airtail.

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Align FedEx Pouch Here

644

fedex.com 1800 GoFedEx 1800 463 3339

DO NOT LIFT USING THIS TAB

- 1
- 2
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- 4
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- 7
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- 10
- 11
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- 13
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- 15



FedEx
TRK#
0200 8161 0791 8005

FRI - 15 APR AA
PRIORITY OVERNIGHT

NA JOTA

60484
IL-US
ORD



80701 14Apr/022 JOTA 56DG2 /80F9/C088



1 From

Date 4/11/17

Sender's Name _____ Phone _____

Company _____

Address _____

City _____ State _____ ZIP _____

2 Your Internal Billing Reference

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____
We cannot deliver to P.O. boxes or P.O. ZIP codes.

City _____ State _____ ZIP _____



8161 0791 8005

HERE →

Package Service * To most locations.

1 Business Day

2 or 3 Business Days

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging Declared value limit \$500.

FedEx Envelope FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be released without containing a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods? One of the following must be checked.

No Yes
As per attached Shipper's Declaration. Yes Shipper's Declaration not required.

Dry Ice
Dry Ice, 9, UN 1845 _____ kg

Cargo Aircraft Only

Restrictions apply to dangerous goods - see the current FedEx Service Guide.

7 Payment will to:

Sender Acct. No. in Section 1 will be billed. Recipient Third Party

Obtain recip. FedEx Acct No.

Total Packages 40 Total Weight _____

Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.
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644

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FedEx
TRK# 8161 0791 799
0200

NA JOTA

FedEx Express Package US Airbill

FedEx Tracking Number 8161 0791



Copy

to 150 lbs. or lbs. use the 9th US Airbill.

1 From

Date

Sender's Name

Phone

Company

Address

80701 14Apr2022 JOTA 56062 /BDF9/C088

FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone

Company

Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City

State

ZIP

Hold Weekday
FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Hold Saturday
FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

5 Packaging

* Declared value limit \$500.

FedEx Envelope*

FedEx Pak*

FedEx Box

FedEx Tube

Other

6 Special Handling and Delivery Signature Options

Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.

No

Yes
As per attached Shipper's Declaration.

Yes
Shipper's Declaration not required.

Dry Ice
Dry ice, 9, UN 1845 _____ x _____ kg

Cargo Aircraft Only

Restrictions apply for dangerous goods—see the current FedEx Service Guide.

7 Payment Bill to:

Enter FedEx Acct. No. below.

Sender's Acct. No. (Section 1 will be billed.)

Recipient

Third Party

Obtain recip. FedEx Acct No.

Total Packages

Total Weight

90 lbs.

644



8161 0791 7991

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fedex.com 1.800.GoFedEx 1.800.463.3339

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : _____

Client Eurofins Chicago Site Name _____
 Cooler Received on 4-16-22 Opened on 4-18-22
 FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Cooler unpacked by:

Rachelle Haick

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


TestAmerica Cooler # TA 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 See Multiple Cooler Form
 IR GUN# IR-13 (CF 0.0 °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 3.6 °C
 IR GUN #IR-15 (CF -0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

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 (ID/Date/Time) be reconciled with the COC? Yes No
 9. For each sample, does the COC specify preservatives (Y/N) # of containers (Y/N) and sample type of grab/comp (Y/N)? Yes No
 10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Sufficient quantity received to perform indicated analyses? Yes No
 12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.
 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
 14. Were VOAs on the COC? Yes No
 15. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
 17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. 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)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 500-215148-1

Login Number: 215148

List Source: Eurofins Chicago

List Number: 1

Creator: Scott, Sherri L

| 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 | 4.7,4.1,4.3,2.5,3.9 |
| 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 (excluding tests with immediate HTs) | 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 | |

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-215168-1
Client Project/Site: Penta Wood 11222418
Revision: 1

For:
GHD Services Inc.
900 Long Lake Road
Suite 200
New Brighton, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
7/20/2022 3:27:20 PM

Richard Wright, Senior Project Manager
(708)746-0045
Richard.Wright@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 5 |
| Sample Summary | 6 |
| Client Sample Results | 7 |
| Definitions | 16 |
| QC Association | 17 |
| Surrogate Summary | 19 |
| QC Sample Results | 21 |
| Chronicle | 26 |
| Certification Summary | 29 |
| Chain of Custody | 30 |
| Receipt Checklists | 31 |

Case Narrative

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Job ID: 500-215168-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-215168-1

Revision

The report being provided is a revision of the original report sent on 5/6/2022. The report (revision 1) is being revised due to: Both sets of Pentachlorophenol results are reported labs samples 5 and 6.

Receipt

The samples were received on 4/15/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.8° C, 2.3° C, 3.4° C and 4.8° C.

Receipt Exceptions

For sample "W-220414-RA-102", two of three VOC vials were received broken.

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): All vial vials came packaged together as a set however Sample #7 "W-220414-RA-106" bubble bag had two vial vials with ID "106" and one vial vial with ID "105". Received full set of vials for sample #6 "105"-correct number of containers per COC (7). Labeled vial vial as sample #7 "106" C vial.

GC/MS VOA

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

GC/MS Semi VOA

Method 8270D: The following sample contained one base surrogate outside acceptance limits: W-220414-RA-100 (500-215168-1), W-220414-RA-101 (500-215168-2), W-220414-RA-102 (500-215168-3), W-220414-RA-103 (500-215168-4), W-220414-RA-104 (500-215168-5), W-220414-RA-104 (500-215168-5[MSD]) and W-220414-RA-105 (500-215168-6). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

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

GC Semi VOA

Method 8151A: Surrogate recovery for the following sample was outside the upper control limit: W-220414-RA-100 (500-215168-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8151A: The laboratory control sample (LCS) for preparation batch 500-652773 and analytical batch 500-653227 recovered outside control limits for the following analyte: Pentachlorophenol. This analyte was biased high in the LCS and was not detected in the associated samples except for samples -5 and -6; therefore, the data have been reported. Samples -5 and -6 had associated detections and was re-extracted past the holding time. The re-prep data was non-detect for Pentachlorophenol. Both sets of data has been reported.

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

Organic Prep

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

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-100

Lab Sample ID: 500-215168-1

No Detections.

Client Sample ID: W-220414-RA-101

Lab Sample ID: 500-215168-2

No Detections.

Client Sample ID: W-220414-RA-102

Lab Sample ID: 500-215168-3

No Detections.

Client Sample ID: W-220414-RA-103

Lab Sample ID: 500-215168-4

No Detections.

Client Sample ID: W-220414-RA-104

Lab Sample ID: 500-215168-5

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-------------------|--------|-----------|-------|------|------|---------|---|--------|-----------|
| Pentachlorophenol | 0.31 | * | 0.097 | 0.14 | ug/L | 1 | | 8151A | Total/NA |

Client Sample ID: W-220414-RA-105

Lab Sample ID: 500-215168-6

| Analyte | Result | Qualifier | LOQ | LOD | Unit | Dil Fac | D | Method | Prep Type |
|-------------------|--------|-----------|-------|------|------|---------|---|--------|-----------|
| Pentachlorophenol | 0.19 | * | 0.095 | 0.14 | ug/L | 1 | | 8151A | Total/NA |

Client Sample ID: W-220414-RA-106

Lab Sample ID: 500-215168-7

No Detections.

Client Sample ID: W-220414-RA-107

Lab Sample ID: 500-215168-8

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 500-215168-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

| Method | Method Description | Protocol | Laboratory |
|--------|--|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8151A | Herbicides (GC) | SW846 | TAL CHI |
| 3510C | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL CHI |
| 5030B | Purge and Trap | SW846 | TAL CHI |
| 8151A | Extraction (Herbicides) | SW846 | TAL CHI |

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-215168-1 | W-220414-RA-100 | Water | 04/14/22 10:45 | 04/15/22 09:30 |
| 500-215168-2 | W-220414-RA-101 | Water | 04/14/22 10:45 | 04/15/22 09:30 |
| 500-215168-3 | W-220414-RA-102 | Water | 04/14/22 10:53 | 04/15/22 09:30 |
| 500-215168-4 | W-220414-RA-103 | Water | 04/14/22 10:20 | 04/15/22 09:30 |
| 500-215168-5 | W-220414-RA-104 | Water | 04/14/22 13:20 | 04/15/22 09:30 |
| 500-215168-6 | W-220414-RA-105 | Water | 04/14/22 13:10 | 04/15/22 09:30 |
| 500-215168-7 | W-220414-RA-106 | Water | 04/14/22 13:55 | 04/15/22 09:30 |
| 500-215168-8 | W-220414-RA-107 | Water | 04/14/22 13:50 | 04/15/22 09:30 |
| 500-215168-9 | Trip Blank | Water | 04/14/22 00:00 | 04/15/22 09:30 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-100

Lab Sample ID: 500-215168-1

Date Collected: 04/14/22 10:45

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 15:49 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 15:49 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 15:49 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 15:49 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 75 - 126 | | 04/26/22 15:49 | 1 |
| Toluene-d8 (Surr) | 100 | | 75 - 120 | | 04/26/22 15:49 | 1 |
| 4-Bromofluorobenzene (Surr) | 80 | | 72 - 124 | | 04/26/22 15:49 | 1 |
| Dibromofluoromethane | 93 | | 75 - 120 | | 04/26/22 15:49 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.78 | 0.24 | ug/L | | 04/21/22 07:23 | 04/22/22 22:32 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 70 | | 36 - 120 | 04/21/22 07:23 | 04/22/22 22:32 | 1 |
| 2-Fluorobiphenyl (Surr) | 72 | | 34 - 110 | 04/21/22 07:23 | 04/22/22 22:32 | 1 |
| Terphenyl-d14 (Surr) | 172 | X | 40 - 145 | 04/21/22 07:23 | 04/22/22 22:32 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.098 | 0.14 | ug/L | | 04/21/22 10:40 | 04/25/22 14:28 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 136 | X | 25 - 130 | 04/21/22 10:40 | 04/25/22 14:28 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-101

Lab Sample ID: 500-215168-2

Date Collected: 04/14/22 10:45

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:13 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:13 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 16:13 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 16:13 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 81 | | 75 - 126 | | 04/26/22 16:13 | 1 |
| Toluene-d8 (Surr) | 97 | | 75 - 120 | | 04/26/22 16:13 | 1 |
| 4-Bromofluorobenzene (Surr) | 82 | | 72 - 124 | | 04/26/22 16:13 | 1 |
| Dibromofluoromethane | 95 | | 75 - 120 | | 04/26/22 16:13 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/21/22 07:23 | 04/22/22 22:54 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 57 | | 36 - 120 | 04/21/22 07:23 | 04/22/22 22:54 | 1 |
| 2-Fluorobiphenyl (Surr) | 65 | | 34 - 110 | 04/21/22 07:23 | 04/22/22 22:54 | 1 |
| Terphenyl-d14 (Surr) | 176 | X | 40 - 145 | 04/21/22 07:23 | 04/22/22 22:54 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.096 | 0.14 | ug/L | | 04/21/22 10:40 | 04/25/22 14:47 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 128 | | 25 - 130 | 04/21/22 10:40 | 04/25/22 14:47 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-102

Lab Sample ID: 500-215168-3

Date Collected: 04/14/22 10:53

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:37 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 16:37 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 16:37 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 16:37 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 75 - 126 | | 04/26/22 16:37 | 1 |
| Toluene-d8 (Surr) | 94 | | 75 - 120 | | 04/26/22 16:37 | 1 |
| 4-Bromofluorobenzene (Surr) | 83 | | 72 - 124 | | 04/26/22 16:37 | 1 |
| Dibromofluoromethane | 94 | | 75 - 120 | | 04/26/22 16:37 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.78 | 0.24 | ug/L | | 04/21/22 07:23 | 04/22/22 23:15 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 75 | | 36 - 120 | 04/21/22 07:23 | 04/22/22 23:15 | 1 |
| 2-Fluorobiphenyl (Surr) | 80 | | 34 - 110 | 04/21/22 07:23 | 04/22/22 23:15 | 1 |
| Terphenyl-d14 (Surr) | 171 | X | 40 - 145 | 04/21/22 07:23 | 04/22/22 23:15 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.15 | * | 0.10 | 0.15 | ug/L | | 04/21/22 10:40 | 04/25/22 15:07 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 129 | | 25 - 130 | 04/21/22 10:40 | 04/25/22 15:07 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-103

Lab Sample ID: 500-215168-4

Date Collected: 04/14/22 10:20

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:00 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:00 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 17:00 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 17:00 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 75 - 126 | | 04/26/22 17:00 | 1 |
| Toluene-d8 (Surr) | 94 | | 75 - 120 | | 04/26/22 17:00 | 1 |
| 4-Bromofluorobenzene (Surr) | 83 | | 72 - 124 | | 04/26/22 17:00 | 1 |
| Dibromofluoromethane | 96 | | 75 - 120 | | 04/26/22 17:00 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/21/22 07:23 | 04/22/22 23:37 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 74 | | 36 - 120 | 04/21/22 07:23 | 04/22/22 23:37 | 1 |
| 2-Fluorobiphenyl (Surr) | 75 | | 34 - 110 | 04/21/22 07:23 | 04/22/22 23:37 | 1 |
| Terphenyl-d14 (Surr) | 167 | X | 40 - 145 | 04/21/22 07:23 | 04/22/22 23:37 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.097 | 0.14 | ug/L | | 04/21/22 10:40 | 05/03/22 10:25 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 89 | | 25 - 130 | 04/21/22 10:40 | 05/03/22 10:25 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-104

Lab Sample ID: 500-215168-5

Date Collected: 04/14/22 13:20

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:24 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 17:24 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 17:24 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 17:24 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 75 - 126 | | 04/26/22 17:24 | 1 |
| Toluene-d8 (Surr) | 93 | | 75 - 120 | | 04/26/22 17:24 | 1 |
| 4-Bromofluorobenzene (Surr) | 89 | | 72 - 124 | | 04/26/22 17:24 | 1 |
| Dibromofluoromethane | 92 | | 75 - 120 | | 04/26/22 17:24 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.23 | | 0.75 | 0.23 | ug/L | | 04/21/22 07:23 | 04/22/22 23:59 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 66 | | 36 - 120 | 04/21/22 07:23 | 04/22/22 23:59 | 1 |
| 2-Fluorobiphenyl (Surr) | 72 | | 34 - 110 | 04/21/22 07:23 | 04/22/22 23:59 | 1 |
| Terphenyl-d14 (Surr) | 160 | X | 40 - 145 | 04/21/22 07:23 | 04/22/22 23:59 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.31 | * | 0.097 | 0.14 | ug/L | | 04/21/22 10:40 | 05/03/22 10:44 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 80 | | 25 - 130 | 04/21/22 10:40 | 05/03/22 10:44 | 1 |

Method: 8151A - Herbicides (GC) - RE

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | H F1 * | 0.098 | 0.14 | ug/L | | 05/04/22 11:44 | 05/05/22 22:13 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 104 | | 25 - 130 | 05/04/22 11:44 | 05/05/22 22:13 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-105

Lab Sample ID: 500-215168-6

Date Collected: 04/14/22 13:10

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 18:33 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 18:33 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 18:33 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 18:33 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 78 | | 75 - 126 | | 04/26/22 18:33 | 1 |
| Toluene-d8 (Surr) | 96 | | 75 - 120 | | 04/26/22 18:33 | 1 |
| 4-Bromofluorobenzene (Surr) | 87 | | 72 - 124 | | 04/26/22 18:33 | 1 |
| Dibromofluoromethane | 92 | | 75 - 120 | | 04/26/22 18:33 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.78 | 0.24 | ug/L | | 04/21/22 07:23 | 04/23/22 01:05 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 76 | | 36 - 120 | 04/21/22 07:23 | 04/23/22 01:05 | 1 |
| 2-Fluorobiphenyl (Surr) | 77 | | 34 - 110 | 04/21/22 07:23 | 04/23/22 01:05 | 1 |
| Terphenyl-d14 (Surr) | 163 | X | 40 - 145 | 04/21/22 07:23 | 04/23/22 01:05 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | 0.19 | * | 0.095 | 0.14 | ug/L | | 04/21/22 10:40 | 04/25/22 16:46 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 128 | | 25 - 130 | 04/21/22 10:40 | 04/25/22 16:46 | 1 |

Method: 8151A - Herbicides (GC) - RE

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | H * | 0.097 | 0.14 | ug/L | | 05/04/22 11:44 | 05/05/22 23:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 90 | | 25 - 130 | 05/04/22 11:44 | 05/05/22 23:11 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-106

Lab Sample ID: 500-215168-7

Date Collected: 04/14/22 13:55

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 18:57 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 18:57 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 18:57 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 18:57 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 81 | | 75 - 126 | | 04/26/22 18:57 | 1 |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | 04/26/22 18:57 | 1 |
| 4-Bromofluorobenzene (Surr) | 84 | | 72 - 124 | | 04/26/22 18:57 | 1 |
| Dibromofluoromethane | 94 | | 75 - 120 | | 04/26/22 18:57 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 04/21/22 07:23 | 04/24/22 10:56 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 60 | | 36 - 120 | 04/21/22 07:23 | 04/24/22 10:56 | 1 |
| 2-Fluorobiphenyl (Surr) | 55 | | 34 - 110 | 04/21/22 07:23 | 04/24/22 10:56 | 1 |
| Terphenyl-d14 (Surr) | 97 | | 40 - 145 | 04/21/22 07:23 | 04/24/22 10:56 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | * | 0.097 | 0.14 | ug/L | | 04/21/22 10:41 | 04/25/22 17:24 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 99 | | 25 - 130 | 04/21/22 10:41 | 04/25/22 17:24 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-107

Lab Sample ID: 500-215168-8

Date Collected: 04/14/22 13:50

Matrix: Water

Date Received: 04/15/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 19:20 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 19:20 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 19:20 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 19:20 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 75 - 126 | | 04/26/22 19:20 | 1 |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | 04/26/22 19:20 | 1 |
| 4-Bromofluorobenzene (Surr) | 88 | | 72 - 124 | | 04/26/22 19:20 | 1 |
| Dibromofluoromethane | 93 | | 75 - 120 | | 04/26/22 19:20 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.76 | 0.24 | ug/L | | 04/21/22 07:23 | 04/24/22 11:20 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 58 | | 36 - 120 | 04/21/22 07:23 | 04/24/22 11:20 | 1 |
| 2-Fluorobiphenyl (Surr) | 52 | | 34 - 110 | 04/21/22 07:23 | 04/24/22 11:20 | 1 |
| Terphenyl-d14 (Surr) | 101 | | 40 - 145 | 04/21/22 07:23 | 04/24/22 11:20 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.15 | * | 0.11 | 0.15 | ug/L | | 04/21/22 10:41 | 04/25/22 17:44 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 123 | | 25 - 130 | 04/21/22 10:41 | 04/25/22 17:44 | 1 |

Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: Trip Blank
Date Collected: 04/14/22 00:00
Date Received: 04/15/22 09:30

Lab Sample ID: 500-215168-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 15:26 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 15:26 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 15:26 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 15:26 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 75 - 126 | | 04/26/22 15:26 | 1 |
| Toluene-d8 (Surr) | 96 | | 75 - 120 | | 04/26/22 15:26 | 1 |
| 4-Bromofluorobenzene (Surr) | 83 | | 72 - 124 | | 04/26/22 15:26 | 1 |
| Dibromofluoromethane | 96 | | 75 - 120 | | 04/26/22 15:26 | 1 |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|---|
| X | Surrogate recovery exceeds control limits |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| * | LCS or LCSD is outside acceptance limits. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| H | Sample was prepped or analyzed beyond the specified holding time |
| X | Surrogate recovery exceeds control limits |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| 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) |
| TNTC | Too Numerous To Count |

QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

GC/MS VOA

Analysis Batch: 653397

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 500-215168-1 | W-220414-RA-100 | Total/NA | Water | 8260B | |
| 500-215168-2 | W-220414-RA-101 | Total/NA | Water | 8260B | |
| 500-215168-3 | W-220414-RA-102 | Total/NA | Water | 8260B | |
| 500-215168-4 | W-220414-RA-103 | Total/NA | Water | 8260B | |
| 500-215168-5 | W-220414-RA-104 | Total/NA | Water | 8260B | |
| 500-215168-6 | W-220414-RA-105 | Total/NA | Water | 8260B | |
| 500-215168-7 | W-220414-RA-106 | Total/NA | Water | 8260B | |
| 500-215168-8 | W-220414-RA-107 | Total/NA | Water | 8260B | |
| 500-215168-9 | Trip Blank | Total/NA | Water | 8260B | |
| MB 500-653397/7 | Method Blank | Total/NA | Water | 8260B | |
| LCS 500-653397/20 | Lab Control Sample | Total/NA | Water | 8260B | |
| 500-215168-5 MS | W-220414-RA-104 | Total/NA | Water | 8260B | |
| 500-215168-5 MSD | W-220414-RA-104 | Total/NA | Water | 8260B | |

GC/MS Semi VOA

Prep Batch: 652655

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215168-1 | W-220414-RA-100 | Total/NA | Water | 3510C | |
| 500-215168-2 | W-220414-RA-101 | Total/NA | Water | 3510C | |
| 500-215168-3 | W-220414-RA-102 | Total/NA | Water | 3510C | |
| 500-215168-4 | W-220414-RA-103 | Total/NA | Water | 3510C | |
| 500-215168-5 | W-220414-RA-104 | Total/NA | Water | 3510C | |
| 500-215168-6 | W-220414-RA-105 | Total/NA | Water | 3510C | |
| 500-215168-7 | W-220414-RA-106 | Total/NA | Water | 3510C | |
| 500-215168-8 | W-220414-RA-107 | Total/NA | Water | 3510C | |
| MB 500-652655/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 500-652655/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| 500-215168-5 MS | W-220414-RA-104 | Total/NA | Water | 3510C | |
| 500-215168-5 MSD | W-220414-RA-104 | Total/NA | Water | 3510C | |

Analysis Batch: 652912

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 500-652655/1-A | Method Blank | Total/NA | Water | 8270D | 652655 |
| LCS 500-652655/2-A | Lab Control Sample | Total/NA | Water | 8270D | 652655 |

Analysis Batch: 652984

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 500-215168-1 | W-220414-RA-100 | Total/NA | Water | 8270D | 652655 |
| 500-215168-2 | W-220414-RA-101 | Total/NA | Water | 8270D | 652655 |
| 500-215168-3 | W-220414-RA-102 | Total/NA | Water | 8270D | 652655 |
| 500-215168-4 | W-220414-RA-103 | Total/NA | Water | 8270D | 652655 |
| 500-215168-5 | W-220414-RA-104 | Total/NA | Water | 8270D | 652655 |
| 500-215168-6 | W-220414-RA-105 | Total/NA | Water | 8270D | 652655 |
| 500-215168-5 MS | W-220414-RA-104 | Total/NA | Water | 8270D | 652655 |
| 500-215168-5 MSD | W-220414-RA-104 | Total/NA | Water | 8270D | 652655 |

Analysis Batch: 653093

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 500-215168-7 | W-220414-RA-106 | Total/NA | Water | 8270D | 652655 |
| 500-215168-8 | W-220414-RA-107 | Total/NA | Water | 8270D | 652655 |

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

GC Semi VOA

Prep Batch: 652773

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215168-1 | W-220414-RA-100 | Total/NA | Water | 8151A | |
| 500-215168-2 | W-220414-RA-101 | Total/NA | Water | 8151A | |
| 500-215168-3 | W-220414-RA-102 | Total/NA | Water | 8151A | |
| 500-215168-4 | W-220414-RA-103 | Total/NA | Water | 8151A | |
| 500-215168-5 | W-220414-RA-104 | Total/NA | Water | 8151A | |
| 500-215168-6 | W-220414-RA-105 | Total/NA | Water | 8151A | |
| 500-215168-7 | W-220414-RA-106 | Total/NA | Water | 8151A | |
| 500-215168-8 | W-220414-RA-107 | Total/NA | Water | 8151A | |
| MB 500-652773/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-652773/2-A | Lab Control Sample | Total/NA | Water | 8151A | |
| 500-215168-5 MS | W-220414-RA-104 | Total/NA | Water | 8151A | |
| 500-215168-5 MSD | W-220414-RA-104 | Total/NA | Water | 8151A | |

Analysis Batch: 653227

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-215168-1 | W-220414-RA-100 | Total/NA | Water | 8151A | 652773 |
| 500-215168-2 | W-220414-RA-101 | Total/NA | Water | 8151A | 652773 |
| 500-215168-3 | W-220414-RA-102 | Total/NA | Water | 8151A | 652773 |
| 500-215168-6 | W-220414-RA-105 | Total/NA | Water | 8151A | 652773 |
| 500-215168-7 | W-220414-RA-106 | Total/NA | Water | 8151A | 652773 |
| 500-215168-8 | W-220414-RA-107 | Total/NA | Water | 8151A | 652773 |
| MB 500-652773/1-A | Method Blank | Total/NA | Water | 8151A | 652773 |
| LCS 500-652773/2-A | Lab Control Sample | Total/NA | Water | 8151A | 652773 |

Analysis Batch: 654509

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 500-215168-4 | W-220414-RA-103 | Total/NA | Water | 8151A | 652773 |
| 500-215168-5 | W-220414-RA-104 | Total/NA | Water | 8151A | 652773 |
| 500-215168-5 MS | W-220414-RA-104 | Total/NA | Water | 8151A | 652773 |
| 500-215168-5 MSD | W-220414-RA-104 | Total/NA | Water | 8151A | 652773 |

Prep Batch: 654810

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 500-215168-5 - RE | W-220414-RA-104 | Total/NA | Water | 8151A | |
| 500-215168-6 - RE | W-220414-RA-105 | Total/NA | Water | 8151A | |
| MB 500-654810/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-654810/2-A | Lab Control Sample | Total/NA | Water | 8151A | |
| LCSD 500-654810/3-A | Lab Control Sample Dup | Total/NA | Water | 8151A | |
| 500-215168-5 MS - RE | W-220414-RA-104 | Total/NA | Water | 8151A | |
| 500-215168-5 MSD - RE | W-220414-RA-104 | Total/NA | Water | 8151A | |

Analysis Batch: 654995

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 500-215168-5 - RE | W-220414-RA-104 | Total/NA | Water | 8151A | 654810 |
| 500-215168-6 - RE | W-220414-RA-105 | Total/NA | Water | 8151A | 654810 |
| MB 500-654810/1-A | Method Blank | Total/NA | Water | 8151A | 654810 |
| LCS 500-654810/2-A | Lab Control Sample | Total/NA | Water | 8151A | 654810 |
| LCSD 500-654810/3-A | Lab Control Sample Dup | Total/NA | Water | 8151A | 654810 |
| 500-215168-5 MS - RE | W-220414-RA-104 | Total/NA | Water | 8151A | 654810 |
| 500-215168-5 MSD - RE | W-220414-RA-104 | Total/NA | Water | 8151A | 654810 |

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|-------------------|--------------------|--|-----------------|-----------------|------------------|
| | | DCA (75-126) | TOL (75-120) | BFB (72-124) | DBFM (75-120) |
| 500-215168-1 | W-220414-RA-100 | 79 | 100 | 80 | 93 |
| 500-215168-2 | W-220414-RA-101 | 81 | 97 | 82 | 95 |
| 500-215168-3 | W-220414-RA-102 | 80 | 94 | 83 | 94 |
| 500-215168-4 | W-220414-RA-103 | 80 | 94 | 83 | 96 |
| 500-215168-5 | W-220414-RA-104 | 83 | 93 | 89 | 92 |
| 500-215168-5 MS | W-220414-RA-104 | 75 | 99 | 86 | 91 |
| 500-215168-5 MSD | W-220414-RA-104 | 77 | 99 | 88 | 91 |
| 500-215168-6 | W-220414-RA-105 | 78 | 96 | 87 | 92 |
| 500-215168-7 | W-220414-RA-106 | 81 | 95 | 84 | 94 |
| 500-215168-8 | W-220414-RA-107 | 79 | 95 | 88 | 93 |
| 500-215168-9 | Trip Blank | 79 | 96 | 83 | 96 |
| LCS 500-653397/20 | Lab Control Sample | 76 | 96 | 84 | 88 |
| MB 500-653397/7 | Method Blank | 79 | 95 | 83 | 92 |

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|--------------------|--------------------|--|-----------------|------------------|
| | | NBZ (36-120) | FBP (34-110) | TPHL (40-145) |
| 500-215168-1 | W-220414-RA-100 | 70 | 72 | 172 X |
| 500-215168-2 | W-220414-RA-101 | 57 | 65 | 176 X |
| 500-215168-3 | W-220414-RA-102 | 75 | 80 | 171 X |
| 500-215168-4 | W-220414-RA-103 | 74 | 75 | 167 X |
| 500-215168-5 | W-220414-RA-104 | 66 | 72 | 160 X |
| 500-215168-5 MS | W-220414-RA-104 | 78 | 79 | 127 |
| 500-215168-5 MSD | W-220414-RA-104 | 80 | 79 | 147 X |
| 500-215168-6 | W-220414-RA-105 | 76 | 77 | 163 X |
| 500-215168-7 | W-220414-RA-106 | 60 | 55 | 97 |
| 500-215168-8 | W-220414-RA-107 | 58 | 52 | 101 |
| LCS 500-652655/2-A | Lab Control Sample | 59 | 52 | 94 |
| MB 500-652655/1-A | Method Blank | 63 | 54 | 92 |

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCPAA2 |
|---------------|------------------|----------|
| | | (25-130) |
| 500-215168-1 | W-220414-RA-100 | 136 X |

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCPAA2 (25-130) |
|--------------------|--------------------|--------------------|
| 500-215168-2 | W-220414-RA-101 | 128 |
| 500-215168-3 | W-220414-RA-102 | 129 |
| 500-215168-6 | W-220414-RA-105 | 128 |
| 500-215168-7 | W-220414-RA-106 | 99 |
| 500-215168-8 | W-220414-RA-107 | 123 |
| LCS 500-652773/2-A | Lab Control Sample | 127 |
| MB 500-652773/1-A | Method Blank | 117 |

Surrogate Legend

DCPAA = DCAA

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCPAA1 (25-130) |
|-----------------------|------------------------|--------------------|
| 500-215168-4 | W-220414-RA-103 | 89 |
| 500-215168-5 | W-220414-RA-104 | 80 |
| 500-215168-5 - RE | W-220414-RA-104 | 104 |
| 500-215168-5 MS | W-220414-RA-104 | 96 |
| 500-215168-5 MS - RE | W-220414-RA-104 | 104 |
| 500-215168-5 MSD | W-220414-RA-104 | 87 |
| 500-215168-5 MSD - RE | W-220414-RA-104 | 111 |
| 500-215168-6 - RE | W-220414-RA-105 | 90 |
| LCS 500-654810/2-A | Lab Control Sample | 118 |
| LCSD 500-654810/3-A | Lab Control Sample Dup | 116 |
| MB 500-654810/1-A | Method Blank | 102 |

Surrogate Legend

DCPAA = DCAA

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-653397/7
Matrix: Water
Analysis Batch: 653397

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 13:40 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 04/26/22 13:40 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 04/26/22 13:40 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 04/26/22 13:40 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 79 | | 75 - 126 | | 04/26/22 13:40 | 1 |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | 04/26/22 13:40 | 1 |
| 4-Bromofluorobenzene (Surr) | 83 | | 72 - 124 | | 04/26/22 13:40 | 1 |
| Dibromofluoromethane | 92 | | 75 - 120 | | 04/26/22 13:40 | 1 |

Lab Sample ID: LCS 500-653397/20
Matrix: Water
Analysis Batch: 653397

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

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Benzene | 50.0 | 43.7 | | ug/L | | 87 | 70 - 120 |
| Toluene | 50.0 | 48.3 | | ug/L | | 97 | 70 - 125 |
| Ethylbenzene | 50.0 | 44.7 | | ug/L | | 89 | 70 - 123 |
| Xylenes, Total | 100 | 83.6 | | ug/L | | 84 | 70 - 125 |

| Surrogate | LCS LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 76 | | 75 - 126 |
| Toluene-d8 (Surr) | 96 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 84 | | 72 - 124 |
| Dibromofluoromethane | 88 | | 75 - 120 |

Lab Sample ID: 500-215168-5 MS
Matrix: Water
Analysis Batch: 653397

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS MS | | Unit | D | %Rec | %Rec Limits |
|----------------|---------------|------------------|-------------|--------|-----------|------|---|------|-------------|
| | | | | Result | Qualifier | | | | |
| Benzene | <0.15 | | 50.0 | 43.1 | | ug/L | | 86 | 70 - 120 |
| Toluene | <0.15 | | 50.0 | 48.6 | | ug/L | | 97 | 70 - 125 |
| Ethylbenzene | <0.18 | | 50.0 | 43.9 | | ug/L | | 88 | 70 - 123 |
| Xylenes, Total | <0.22 | | 100 | 83.1 | | ug/L | | 83 | 70 - 125 |

| Surrogate | MS MS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 75 | | 75 - 126 |
| Toluene-d8 (Surr) | 99 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 86 | | 72 - 124 |
| Dibromofluoromethane | 91 | | 75 - 120 |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-215168-5 MSD
Matrix: Water
Analysis Batch: 653397

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------------|------------------|------------------|---------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Benzene | <0.15 | | 50.0 | 42.5 | | ug/L | | 85 | 70 - 120 | 1 | 20 |
| Toluene | <0.15 | | 50.0 | 47.8 | | ug/L | | 96 | 70 - 125 | 2 | 20 |
| Ethylbenzene | <0.18 | | 50.0 | 42.9 | | ug/L | | 86 | 70 - 123 | 2 | 20 |
| Xylenes, Total | <0.22 | | 100 | 81.1 | | ug/L | | 81 | 70 - 125 | 2 | 20 |
| MSD MSD | | | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 77 | | 75 - 126 | | | | | | | | |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 88 | | 72 - 124 | | | | | | | | |
| Dibromofluoromethane | 91 | | 75 - 120 | | | | | | | | |

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

Lab Sample ID: MB 500-652655/1-A
Matrix: Water
Analysis Batch: 652912

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652655

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|------------------|------------------|---------------|------|------|---|-----------------|-----------------|----------------|
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 04/21/22 07:23 | 04/22/22 09:37 | 1 |
| MB MB | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Nitrobenzene-d5 (Surr) | 63 | | 36 - 120 | | | | 04/21/22 07:23 | 04/22/22 09:37 | 1 |
| 2-Fluorobiphenyl (Surr) | 54 | | 34 - 110 | | | | 04/21/22 07:23 | 04/22/22 09:37 | 1 |
| Terphenyl-d14 (Surr) | 92 | | 40 - 145 | | | | 04/21/22 07:23 | 04/22/22 09:37 | 1 |

Lab Sample ID: LCS 500-652655/2-A
Matrix: Water
Analysis Batch: 652912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652655

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------------|------------------|------------------|---------------|------|---|------|-------------|
| Naphthalene | 32.0 | 17.2 | | ug/L | | 54 | 36 - 110 |
| LCS LCS | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | |
| Nitrobenzene-d5 (Surr) | 59 | | 36 - 120 | | | | |
| 2-Fluorobiphenyl (Surr) | 52 | | 34 - 110 | | | | |
| Terphenyl-d14 (Surr) | 94 | | 40 - 145 | | | | |

Lab Sample ID: 500-215168-5 MS
Matrix: Water
Analysis Batch: 652984

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA
Prep Batch: 652655

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------------|------------------|------------------|---------------|-----------|--------------|------|---|------|-------------|
| Naphthalene | <0.23 | | 30.4 | 17.8 | | ug/L | | 59 | 36 - 110 |
| MS MS | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | |
| Nitrobenzene-d5 (Surr) | 78 | | 36 - 120 | | | | | | |
| 2-Fluorobiphenyl (Surr) | 79 | | 34 - 110 | | | | | | |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

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

Lab Sample ID: 500-215168-5 MS
Matrix: Water
Analysis Batch: 652984

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA
Prep Batch: 652655

| | <i>MS</i> | <i>MS</i> | |
|----------------------|------------------|------------------|---------------|
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> |
| Terphenyl-d14 (Surr) | 127 | | 40 - 145 |

Lab Sample ID: 500-215168-5 MSD
Matrix: Water
Analysis Batch: 652984

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA
Prep Batch: 652655

| <i>Analyte</i> | <i>Sample Result</i> | <i>Sample Qualifier</i> | <i>Spike Added</i> | <i>MSD Result</i> | <i>MSD Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec Limits</i> | <i>RPD</i> | <i>Limit</i> |
|-------------------------|----------------------|-------------------------|--------------------|-------------------|----------------------|-------------|----------|-------------|--------------------|------------|--------------|
| | | | | | | | | | | | |
| Naphthalene | <0.23 | | 29.9 | 18.6 | | ug/L | | 62 | 36 - 110 | 4 | 20 |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | | | | | | | | |
| Nitrobenzene-d5 (Surr) | 80 | | 36 - 120 | | | | | | | | |
| 2-Fluorobiphenyl (Surr) | 79 | | 34 - 110 | | | | | | | | |
| Terphenyl-d14 (Surr) | 147 | X | 40 - 145 | | | | | | | | |

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-652773/1-A
Matrix: Water
Analysis Batch: 653227

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652773

| <i>Analyte</i> | <i>MB Result</i> | <i>MB Qualifier</i> | <i>LOQ</i> | <i>LOD</i> | <i>Unit</i> | <i>D</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------|------------------|---------------------|---------------|------------|-------------|----------|-----------------|-----------------|----------------|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 04/21/22 10:40 | 04/25/22 10:35 | 1 |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | | | | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
| DCAA | 117 | | 25 - 130 | | | | 04/21/22 10:40 | 04/25/22 10:35 | 1 |

Lab Sample ID: LCS 500-652773/2-A
Matrix: Water
Analysis Batch: 653227

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652773

| <i>Analyte</i> | <i>Spike Added</i> | <i>LCS Result</i> | <i>LCS Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec Limits</i> |
|-------------------|--------------------|-------------------|----------------------|-------------|----------|-------------|--------------------|
| Pentachlorophenol | 2.53 | 3.58 | * | ug/L | | 142 | 40 - 122 |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | | | | |
| DCAA | 127 | | 25 - 130 | | | | |

Lab Sample ID: 500-215168-5 MS
Matrix: Water
Analysis Batch: 654509

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA
Prep Batch: 652773

| <i>Analyte</i> | <i>Sample Result</i> | <i>Sample Qualifier</i> | <i>Spike Added</i> | <i>MS Result</i> | <i>MS Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec Limits</i> |
|-------------------|----------------------|-------------------------|--------------------|------------------|---------------------|-------------|----------|-------------|--------------------|
| Pentachlorophenol | 0.31 | * | 2.46 | 2.58 | | ug/L | | 93 | 40 - 122 |
| <i>Surrogate</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | | | | | | |
| DCAA | 96 | | 25 - 130 | | | | | | |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

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

Lab Sample ID: 500-215168-5 MSD
Matrix: Water
Analysis Batch: 654509

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA
Prep Batch: 652773

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|-------------------|------------------|----------------------|-------------------|------------|---------------|------|---|------|-------------|-----|-------|
| Pentachlorophenol | 0.31 | * | 2.47 | 2.40 | | ug/L | | 85 | 40 - 122 | 7 | 20 |
| Surrogate | %Recovery | MSD Qualifier | MSD Limits | | | | | | | | |
| DCAA | 87 | | 25 - 130 | | | | | | | | |

Lab Sample ID: MB 500-654810/1-A
Matrix: Water
Analysis Batch: 654995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 654810

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac | |
|-------------------|------------------|---------------------|------------------|-----------------|-----------------|----------------|----------------|----------------|---------|--|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 05/04/22 11:44 | 05/05/22 15:26 | 1 | |
| Surrogate | %Recovery | MB Qualifier | MB Limits | Prepared | Analyzed | Dil Fac | | | | |
| DCAA | 102 | | 25 - 130 | 05/04/22 11:44 | 05/05/22 15:26 | 1 | | | | |

Lab Sample ID: LCS 500-654810/2-A
Matrix: Water
Analysis Batch: 654995

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 654810

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|------------------|----------------------|-------------------|------|---|------|-------------|
| Pentachlorophenol | 2.53 | 3.35 | * | ug/L | | 133 | 40 - 122 |
| Surrogate | %Recovery | LCS Qualifier | LCS Limits | | | | |
| DCAA | 118 | | 25 - 130 | | | | |

Lab Sample ID: LCSD 500-654810/3-A
Matrix: Water
Analysis Batch: 654995

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 654810

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|-------------------|------------------|-----------------------|--------------------|------|---|------|-------------|-----|-------|
| Pentachlorophenol | 2.53 | 3.65 | * | ug/L | | 144 | 40 - 122 | 9 | 20 |
| Surrogate | %Recovery | LCSD Qualifier | LCSD Limits | | | | | | |
| DCAA | 116 | | 25 - 130 | | | | | | |

Method: 8151A - Herbicides (GC) - RE

Lab Sample ID: 500-215168-5 MS
Matrix: Water
Analysis Batch: 654995

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA
Prep Batch: 654810

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|------------------|---------------------|------------------|-----------|--------------|------|---|------|-------------|
| Pentachlorophenol - RE | <0.14 | H F1 * | 2.47 | 2.81 | H | ug/L | | 114 | 40 - 122 |
| Surrogate | %Recovery | MS Qualifier | MS Limits | | | | | | |
| DCAA - RE | 104 | | 25 - 130 | | | | | | |

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

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

Lab Sample ID: 500-215168-5 MSD
Matrix: Water
Analysis Batch: 654995

Client Sample ID: W-220414-RA-104
Prep Type: Total/NA
Prep Batch: 654810

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | RPD | Limit |
|------------------------|------------|------------|----------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | RPD | |
| Pentachlorophenol - RE | <0.14 | H F1 * | 2.50 | 3.21 | H F1 | ug/L | | 129 | 40 - 122 | 13 | 20 |
| Surrogate | MSD | MSD | | | | | | | | | |
| DCAA - RE | %Recovery | Qualifier | Limits | | | | | | | | |
| | 111 | | 25 - 130 | | | | | | | | |



Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-100

Lab Sample ID: 500-215168-1

Date Collected: 04/14/22 10:45

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 15:49 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652984 | 04/22/22 22:32 | AK | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:40 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 653227 | 04/25/22 14:28 | SS | TAL CHI |

Client Sample ID: W-220414-RA-101

Lab Sample ID: 500-215168-2

Date Collected: 04/14/22 10:45

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 16:13 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652984 | 04/22/22 22:54 | AK | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:40 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 653227 | 04/25/22 14:47 | SS | TAL CHI |

Client Sample ID: W-220414-RA-102

Lab Sample ID: 500-215168-3

Date Collected: 04/14/22 10:53

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 16:37 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652984 | 04/22/22 23:15 | AK | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:40 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 653227 | 04/25/22 15:07 | SS | TAL CHI |

Client Sample ID: W-220414-RA-103

Lab Sample ID: 500-215168-4

Date Collected: 04/14/22 10:20

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 17:00 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652984 | 04/22/22 23:37 | AK | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:40 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 654509 | 05/03/22 10:25 | SS | TAL CHI |

Client Sample ID: W-220414-RA-104

Lab Sample ID: 500-215168-5

Date Collected: 04/14/22 13:20

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 17:24 | JDD | TAL CHI |

Eurofins Chicago

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: W-220414-RA-104

Lab Sample ID: 500-215168-5

Date Collected: 04/14/22 13:20

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652984 | 04/22/22 23:59 | AK | TAL CHI |
| Total/NA | Prep | 8151A | RE | | 654810 | 05/04/22 11:44 | TS | TAL CHI |
| Total/NA | Analysis | 8151A | RE | 1 | 654995 | 05/05/22 22:13 | NB | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:40 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 654509 | 05/03/22 10:44 | SS | TAL CHI |

Client Sample ID: W-220414-RA-105

Lab Sample ID: 500-215168-6

Date Collected: 04/14/22 13:10

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 18:33 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 652984 | 04/23/22 01:05 | AK | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:40 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 653227 | 04/25/22 16:46 | SS | TAL CHI |
| Total/NA | Prep | 8151A | RE | | 654810 | 05/04/22 11:44 | TS | TAL CHI |
| Total/NA | Analysis | 8151A | RE | 1 | 654995 | 05/05/22 23:11 | NB | TAL CHI |

Client Sample ID: W-220414-RA-106

Lab Sample ID: 500-215168-7

Date Collected: 04/14/22 13:55

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 18:57 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 653093 | 04/24/22 10:56 | SS | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:41 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 653227 | 04/25/22 17:24 | SS | TAL CHI |

Client Sample ID: W-220414-RA-107

Lab Sample ID: 500-215168-8

Date Collected: 04/14/22 13:50

Matrix: Water

Date Received: 04/15/22 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 19:20 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 652655 | 04/21/22 07:23 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 653093 | 04/24/22 11:20 | SS | TAL CHI |
| Total/NA | Prep | 8151A | | | 652773 | 04/21/22 10:41 | GG | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 653227 | 04/25/22 17:44 | SS | TAL CHI |

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Client Sample ID: Trip Blank
Date Collected: 04/14/22 00:00
Date Received: 04/15/22 09:30

Lab Sample ID: 500-215168-9
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 653397 | 04/26/22 15:26 | JDD | TAL CHI |

Laboratory References:

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-215168-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Wisconsin | State | 999580010 | 08-31-22 |

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Chain of Custody Record

543315




Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

| Client Contact | | Project Manager <u>Tim Ree</u> | | Site Contact <u>Grant Anderson</u> | | Date | | COC No | |
|---|--|--|-------------|--|--------|---|-----------------------|-------------------------------|--|
| Company Name <u>GHD</u> | | Tel/Email <u>Tim.Ree@GHD.com</u> | | Lab Contact | | Carrier: | | 1 of 1 COCs | |
| Address <u>900 Long Lake Rd 200</u> | | Analysis Turnaround Time | | Filtered Sample (Y/N) <u>PCP</u> Perform MS / MSD (Y/N) <u>Naphthalene</u> <u>BTEX</u> | |  500-215168 COC | | Sampler | |
| City/State/Zip <u>St Paul MN 55112</u> | | <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS | | | | | | For Lab Use Only. | |
| Phone <u>6516390913</u> | | TAT if different from Below _____ | | | | | | Walk-in Client | |
| Fax | | <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day | | | | | | Lab Sampling | |
| Project Name <u>Penta Wood</u> | | | | | | | | Job / SDG No | |
| Site <u>11222418</u> | | | | | | 500-215168 | | | |
| P O # | | | | | | | | | |
| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Sample Specific Notes | | |
| 1 W-220414-RA-100 | | 4/14/22 | 1045 | G | GL | 7 | | | |
| 2 RA-101 | | | 1045 | | | 7 | | | |
| 3 RA-102 | | | 1053 | | | 7 | | | |
| 4 RA-103 | | | 1020 | | | 7 | | | |
| 5 RA-104 | | | 1320 | | | 21 | | | |
| 6 RA-105 | | | 1310 | | | 7 | | | |
| 7 RA-106 | | | 1355 | | | 7 | | | |
| 8 W-220414-RA-107 | | | 1350 | | | 7 | | | |
| 9 Trip Blank | | | | | | | | | |
| 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 | | | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | | | | |
| <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown | | | | <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months | | | | | |
| Special Instructions/QC Requirements & Comments. | | | | | | | | | |
| 4.0+34.5.8+4.0, 3.3+2.3, 2.8+1.0 | | | | | | | | | |
| Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No | | Custody Seal No | | Cooler Temp (°C) Obs'd _____ Cor'd _____ | | Therm ID No _____ | | | |
| Relinquished by <u>[Signature]</u> | | Company <u>GHD</u> | | Date/Time <u>4/14/22 1500</u> | | Received by | | Company | |
| Relinquished by | | Company | | Date/Time | | Received by | | Company | |
| Relinquished by | | Company | | Date/Time | | Received in Laboratory by <u>Stephanie Hernandez</u> | | Company <u>EETA</u> | |
| | | | | | | | | Date/Time <u>4/15/22 0930</u> | |

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 500-215168-1

Login Number: 215168

List Source: Eurofins Chicago

List Number: 1

Creator: Hernandez, Stephanie

| 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 | 3.4,4.8,2.3,1.8 |
| 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 (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | False | |
| 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 | |



ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-218363-1
Client Project/Site: Penta Wood 11222418

For:
GHD Services Inc.
900 Long Lake Road
Suite 200
New Brighton, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
7/5/2022 3:53:45 PM

Richard Wright, Senior Project Manager
(708)746-0045

Richard.Wright@et.eurofinsus.com

LINKS

Review your project
results through



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 5 |
| Sample Summary | 6 |
| Client Sample Results | 7 |
| Definitions | 11 |
| QC Association | 12 |
| Surrogate Summary | 13 |
| QC Sample Results | 14 |
| Chronicle | 16 |
| Certification Summary | 17 |
| Chain of Custody | 18 |
| Receipt Checklists | 20 |

Case Narrative

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Job ID: 500-218363-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-218363-1**

Receipt

The samples were received on 6/21/2022 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

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

Organic Prep

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Detection Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Client Sample ID: W-220620-RA-01

Lab Sample ID: 500-218363-1

No Detections.

Client Sample ID: W-220620-RA-02

Lab Sample ID: 500-218363-2

No Detections.

Client Sample ID: W-220620-RA-03

Lab Sample ID: 500-218363-3

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 500-218363-4

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

| Method | Method Description | Protocol | Laboratory |
|--------|--|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8151A | Herbicides (GC) | SW846 | TAL CHI |
| 3510C | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL CHI |
| 5030B | Purge and Trap | SW846 | TAL CHI |
| 8151A | Extraction (Herbicides) | SW846 | TAL CHI |

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-218363-1 | W-220620-RA-01 | Water | 06/20/22 12:00 | 06/21/22 10:10 |
| 500-218363-2 | W-220620-RA-02 | Water | 06/20/22 11:53 | 06/21/22 10:10 |
| 500-218363-3 | W-220620-RA-03 | Water | 06/20/22 12:08 | 06/21/22 10:10 |
| 500-218363-4 | Trip Blank | Water | 06/20/22 00:00 | 06/21/22 10:10 |

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Client Sample ID: W-220620-RA-01

Lab Sample ID: 500-218363-1

Date Collected: 06/20/22 12:00

Matrix: Water

Date Received: 06/21/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/03/22 02:22 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/03/22 02:22 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 07/03/22 02:22 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 07/03/22 02:22 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116 | | 75 - 126 | | 07/03/22 02:22 | 1 |
| Toluene-d8 (Surr) | 93 | | 75 - 120 | | 07/03/22 02:22 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 72 - 124 | | 07/03/22 02:22 | 1 |
| Dibromofluoromethane | 118 | | 75 - 120 | | 07/03/22 02:22 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.23 | | 0.74 | 0.23 | ug/L | | 06/22/22 08:52 | 06/24/22 16:47 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 60 | | 36 - 120 | 06/22/22 08:52 | 06/24/22 16:47 | 1 |
| 2-Fluorobiphenyl (Surr) | 66 | | 34 - 110 | 06/22/22 08:52 | 06/24/22 16:47 | 1 |
| Terphenyl-d14 (Surr) | 123 | | 40 - 145 | 06/22/22 08:52 | 06/24/22 16:47 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.095 | 0.14 | ug/L | | 06/27/22 12:50 | 06/28/22 12:09 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 77 | | 25 - 130 | 06/27/22 12:50 | 06/28/22 12:09 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Client Sample ID: W-220620-RA-02

Lab Sample ID: 500-218363-2

Date Collected: 06/20/22 11:53

Matrix: Water

Date Received: 06/21/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/03/22 02:49 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/03/22 02:49 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 07/03/22 02:49 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 07/03/22 02:49 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116 | | 75 - 126 | | 07/03/22 02:49 | 1 |
| Toluene-d8 (Surr) | 93 | | 75 - 120 | | 07/03/22 02:49 | 1 |
| 4-Bromofluorobenzene (Surr) | 95 | | 72 - 124 | | 07/03/22 02:49 | 1 |
| Dibromofluoromethane | 121 | X | 75 - 120 | | 07/03/22 02:49 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.23 | | 0.75 | 0.23 | ug/L | | 06/22/22 08:52 | 06/24/22 17:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 72 | | 36 - 120 | 06/22/22 08:52 | 06/24/22 17:11 | 1 |
| 2-Fluorobiphenyl (Surr) | 74 | | 34 - 110 | 06/22/22 08:52 | 06/24/22 17:11 | 1 |
| Terphenyl-d14 (Surr) | 111 | | 40 - 145 | 06/22/22 08:52 | 06/24/22 17:11 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.15 | | 0.10 | 0.15 | ug/L | | 06/27/22 12:50 | 06/28/22 12:28 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 84 | | 25 - 130 | 06/27/22 12:50 | 06/28/22 12:28 | 1 |

Client Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Client Sample ID: W-220620-RA-03

Lab Sample ID: 500-218363-3

Date Collected: 06/20/22 12:08

Matrix: Water

Date Received: 06/21/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/03/22 03:16 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/03/22 03:16 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 07/03/22 03:16 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 07/03/22 03:16 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 120 | | 75 - 126 | | 07/03/22 03:16 | 1 |
| Toluene-d8 (Surr) | 93 | | 75 - 120 | | 07/03/22 03:16 | 1 |
| 4-Bromofluorobenzene (Surr) | 99 | | 72 - 124 | | 07/03/22 03:16 | 1 |
| Dibromofluoromethane | 119 | | 75 - 120 | | 07/03/22 03:16 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Naphthalene | <0.24 | | 0.77 | 0.24 | ug/L | | 06/22/22 08:52 | 06/24/22 17:35 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Nitrobenzene-d5 (Surr) | 71 | | 36 - 120 | 06/22/22 08:52 | 06/24/22 17:35 | 1 |
| 2-Fluorobiphenyl (Surr) | 75 | | 34 - 110 | 06/22/22 08:52 | 06/24/22 17:35 | 1 |
| Terphenyl-d14 (Surr) | 112 | | 40 - 145 | 06/22/22 08:52 | 06/24/22 17:35 | 1 |

Method: 8151A - Herbicides (GC)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.096 | 0.14 | ug/L | | 06/27/22 12:50 | 06/28/22 12:46 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| DCAA | 80 | | 25 - 130 | 06/27/22 12:50 | 06/28/22 12:46 | 1 |

Client Sample Results

Client: GHD Services Inc.
 Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-218363-4

Date Collected: 06/20/22 00:00

Matrix: Water

Date Received: 06/21/22 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/02/22 21:00 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/02/22 21:00 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 07/02/22 21:00 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 07/02/22 21:00 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114 | | 75 - 126 | | 07/02/22 21:00 | 1 |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | 07/02/22 21:00 | 1 |
| 4-Bromofluorobenzene (Surr) | 98 | | 72 - 124 | | 07/02/22 21:00 | 1 |
| Dibromofluoromethane | 114 | | 75 - 120 | | 07/02/22 21:00 | 1 |

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|---|
| X | Surrogate recovery exceeds control limits |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| 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) |
| TNTC | Too Numerous To Count |

QC Association Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

GC/MS VOA

Analysis Batch: 663954

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 500-218363-1 | W-220620-RA-01 | Total/NA | Water | 8260B | |
| 500-218363-2 | W-220620-RA-02 | Total/NA | Water | 8260B | |
| 500-218363-3 | W-220620-RA-03 | Total/NA | Water | 8260B | |
| 500-218363-4 | Trip Blank | Total/NA | Water | 8260B | |
| MB 500-663954/6 | Method Blank | Total/NA | Water | 8260B | |
| LCS 500-663954/4 | Lab Control Sample | Total/NA | Water | 8260B | |

GC/MS Semi VOA

Prep Batch: 662300

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 500-218363-1 | W-220620-RA-01 | Total/NA | Water | 3510C | |
| 500-218363-2 | W-220620-RA-02 | Total/NA | Water | 3510C | |
| 500-218363-3 | W-220620-RA-03 | Total/NA | Water | 3510C | |
| MB 500-662300/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 500-662300/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 500-662300/3-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |

Analysis Batch: 662710

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 500-218363-1 | W-220620-RA-01 | Total/NA | Water | 8270D | 662300 |
| 500-218363-2 | W-220620-RA-02 | Total/NA | Water | 8270D | 662300 |
| 500-218363-3 | W-220620-RA-03 | Total/NA | Water | 8270D | 662300 |
| MB 500-662300/1-A | Method Blank | Total/NA | Water | 8270D | 662300 |
| LCS 500-662300/2-A | Lab Control Sample | Total/NA | Water | 8270D | 662300 |
| LCSD 500-662300/3-A | Lab Control Sample Dup | Total/NA | Water | 8270D | 662300 |

GC Semi VOA

Prep Batch: 663046

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 500-218363-1 | W-220620-RA-01 | Total/NA | Water | 8151A | |
| 500-218363-2 | W-220620-RA-02 | Total/NA | Water | 8151A | |
| 500-218363-3 | W-220620-RA-03 | Total/NA | Water | 8151A | |
| MB 500-663046/1-A | Method Blank | Total/NA | Water | 8151A | |
| LCS 500-663046/2-A | Lab Control Sample | Total/NA | Water | 8151A | |
| LCSD 500-663046/3-A | Lab Control Sample Dup | Total/NA | Water | 8151A | |

Analysis Batch: 663237

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 500-218363-1 | W-220620-RA-01 | Total/NA | Water | 8151A | 663046 |
| 500-218363-2 | W-220620-RA-02 | Total/NA | Water | 8151A | 663046 |
| 500-218363-3 | W-220620-RA-03 | Total/NA | Water | 8151A | 663046 |
| MB 500-663046/1-A | Method Blank | Total/NA | Water | 8151A | 663046 |
| LCS 500-663046/2-A | Lab Control Sample | Total/NA | Water | 8151A | 663046 |
| LCSD 500-663046/3-A | Lab Control Sample Dup | Total/NA | Water | 8151A | 663046 |

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|------------------|--------------------|--|-----------------|-----------------|------------------|
| | | DCA (75-126) | TOL (75-120) | BFB (72-124) | DBFM (75-120) |
| 500-218363-1 | W-220620-RA-01 | 116 | 93 | 97 | 118 |
| 500-218363-2 | W-220620-RA-02 | 116 | 93 | 95 | 121 X |
| 500-218363-3 | W-220620-RA-03 | 120 | 93 | 99 | 119 |
| 500-218363-4 | Trip Blank | 114 | 95 | 98 | 114 |
| LCS 500-663954/4 | Lab Control Sample | 105 | 98 | 97 | 102 |
| MB 500-663954/6 | Method Blank | 111 | 95 | 100 | 113 |

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

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

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|---------------------|------------------------|--|-----------------|------------------|
| | | NBZ (36-120) | FBP (34-110) | TPHL (40-145) |
| 500-218363-1 | W-220620-RA-01 | 60 | 66 | 123 |
| 500-218363-2 | W-220620-RA-02 | 72 | 74 | 111 |
| 500-218363-3 | W-220620-RA-03 | 71 | 75 | 112 |
| LCS 500-662300/2-A | Lab Control Sample | 77 | 80 | 111 |
| LCSD 500-662300/3-A | Lab Control Sample Dup | 94 | 89 | 121 |
| MB 500-662300/1-A | Method Blank | 84 | 90 | 138 |

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|---------------------|------------------------|--|
| | | DCPAA1 (25-130) |
| 500-218363-1 | W-220620-RA-01 | 77 |
| 500-218363-2 | W-220620-RA-02 | 84 |
| 500-218363-3 | W-220620-RA-03 | 80 |
| LCS 500-663046/2-A | Lab Control Sample | 89 |
| LCSD 500-663046/3-A | Lab Control Sample Dup | 83 |
| MB 500-663046/1-A | Method Blank | 79 |

Surrogate Legend

DCPAA = DCAA

QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-663954/6
Matrix: Water
Analysis Batch: 663954

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

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Benzene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/02/22 19:59 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 07/02/22 19:59 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 07/02/22 19:59 | 1 |
| Xylenes, Total | <0.22 | | 1.0 | 0.22 | ug/L | | | 07/02/22 19:59 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 111 | | 75 - 126 | | 07/02/22 19:59 | 1 |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | 07/02/22 19:59 | 1 |
| 4-Bromofluorobenzene (Surr) | 100 | | 72 - 124 | | 07/02/22 19:59 | 1 |
| Dibromofluoromethane | 113 | | 75 - 120 | | 07/02/22 19:59 | 1 |

Lab Sample ID: LCS 500-663954/4
Matrix: Water
Analysis Batch: 663954

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

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|----------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Benzene | 50.0 | 42.2 | | ug/L | | 84 | 70 - 120 |
| Toluene | 50.0 | 44.3 | | ug/L | | 89 | 70 - 125 |
| Ethylbenzene | 50.0 | 44.8 | | ug/L | | 90 | 70 - 123 |
| Xylenes, Total | 100 | 82.9 | | ug/L | | 83 | 70 - 125 |

| Surrogate | LCS LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 105 | | 75 - 126 |
| Toluene-d8 (Surr) | 98 | | 75 - 120 |
| 4-Bromofluorobenzene (Surr) | 97 | | 72 - 124 |
| Dibromofluoromethane | 102 | | 75 - 120 |

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

Lab Sample ID: MB 500-662300/1-A
Matrix: Water
Analysis Batch: 662710

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 662300

| Analyte | MB MB | | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Naphthalene | <0.25 | | 0.80 | 0.25 | ug/L | | 06/22/22 08:52 | 06/24/22 13:13 | 1 |

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| Nitrobenzene-d5 (Surr) | 84 | | 36 - 120 | 06/22/22 08:52 | 06/24/22 13:13 | 1 |
| 2-Fluorobiphenyl (Surr) | 90 | | 34 - 110 | 06/22/22 08:52 | 06/24/22 13:13 | 1 |
| Terphenyl-d14 (Surr) | 138 | | 40 - 145 | 06/22/22 08:52 | 06/24/22 13:13 | 1 |

Lab Sample ID: LCS 500-662300/2-A
Matrix: Water
Analysis Batch: 662710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 662300

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | %Rec Limits |
|-------------|-------------|---------|-----------|------|---|------|-------------|
| | | Result | Qualifier | | | | |
| Naphthalene | 32.0 | 23.5 | | ug/L | | 73 | 36 - 110 |

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

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

Lab Sample ID: LCS 500-662300/2-A
Matrix: Water
Analysis Batch: 662710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 662300

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------------|------------------|------------------|----------|
| Nitrobenzene-d5 (Surr) | 77 | | 36 - 120 |
| 2-Fluorobiphenyl (Surr) | 80 | | 34 - 110 |
| Terphenyl-d14 (Surr) | 111 | | 40 - 145 |

Lab Sample ID: LCSD 500-662300/3-A
Matrix: Water
Analysis Batch: 662710

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 662300

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------|----------------|----------------|-------------------|------|---|------|----------------|-----|--------------|
| Naphthalene | 32.0 | 27.4 | | ug/L | | 86 | 36 - 110 | 15 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------------|-------------------|-------------------|----------|
| Nitrobenzene-d5 (Surr) | 94 | | 36 - 120 |
| 2-Fluorobiphenyl (Surr) | 89 | | 34 - 110 |
| Terphenyl-d14 (Surr) | 121 | | 40 - 145 |

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-663046/1-A
Matrix: Water
Analysis Batch: 663237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663046

| Analyte | MB Result | MB Qualifier | LOQ | LOD | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------|--------------|-----------------|------|------|------|---|----------------|----------------|---------|
| Pentachlorophenol | <0.14 | | 0.10 | 0.14 | ug/L | | 06/27/22 12:50 | 06/28/22 11:13 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCAA | 79 | | 25 - 130 | 06/27/22 12:50 | 06/28/22 11:13 | 1 |

Lab Sample ID: LCS 500-663046/2-A
Matrix: Water
Analysis Batch: 663237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663046

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-------------------|----------------|---------------|------------------|------|---|------|----------------|
| Pentachlorophenol | 2.53 | 2.32 | | ug/L | | 92 | 40 - 122 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-----------|------------------|------------------|----------|
| DCAA | 89 | | 25 - 130 |

Lab Sample ID: LCSD 500-663046/3-A
Matrix: Water
Analysis Batch: 663237

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 663046

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-------------------|----------------|----------------|-------------------|------|---|------|----------------|-----|--------------|
| Pentachlorophenol | 2.53 | 2.28 | | ug/L | | 90 | 40 - 122 | 2 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-----------|-------------------|-------------------|----------|
| DCAA | 83 | | 25 - 130 |

Eurolins Chicago

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Client Sample ID: W-220620-RA-01

Lab Sample ID: 500-218363-1

Date Collected: 06/20/22 12:00

Matrix: Water

Date Received: 06/21/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 663954 | 07/03/22 02:22 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 662300 | 06/22/22 08:52 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 662710 | 06/24/22 16:47 | SS | TAL CHI |
| Total/NA | Prep | 8151A | | | 663046 | 06/27/22 12:50 | ALW | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 663237 | 06/28/22 12:09 | NB | TAL CHI |

Client Sample ID: W-220620-RA-02

Lab Sample ID: 500-218363-2

Date Collected: 06/20/22 11:53

Matrix: Water

Date Received: 06/21/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 663954 | 07/03/22 02:49 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 662300 | 06/22/22 08:52 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 662710 | 06/24/22 17:11 | SS | TAL CHI |
| Total/NA | Prep | 8151A | | | 663046 | 06/27/22 12:50 | ALW | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 663237 | 06/28/22 12:28 | NB | TAL CHI |

Client Sample ID: W-220620-RA-03

Lab Sample ID: 500-218363-3

Date Collected: 06/20/22 12:08

Matrix: Water

Date Received: 06/21/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 663954 | 07/03/22 03:16 | JDD | TAL CHI |
| Total/NA | Prep | 3510C | | | 662300 | 06/22/22 08:52 | TS | TAL CHI |
| Total/NA | Analysis | 8270D | | 1 | 662710 | 06/24/22 17:35 | SS | TAL CHI |
| Total/NA | Prep | 8151A | | | 663046 | 06/27/22 12:50 | ALW | TAL CHI |
| Total/NA | Analysis | 8151A | | 1 | 663237 | 06/28/22 12:46 | NB | TAL CHI |

Client Sample ID: Trip Blank

Lab Sample ID: 500-218363-4

Date Collected: 06/20/22 00:00

Matrix: Water

Date Received: 06/21/22 10:10

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 663954 | 07/02/22 21:00 | JDD | TAL CHI |

Laboratory References:

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Penta Wood 11222418

Job ID: 500-218363-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Wisconsin | State | 999580010 | 08-31-22 |

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- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Chain of Custody Record

543316



Environment* Testing
TestAmerica

TAL-8210

Address 900 Long Lake Rd

Regulatory Program: DW NPDES RCRA Other

| Client Contact | | Project Manager <u>Tina Kee</u> | | Site Contact <u>Graet Anderson</u> | | Date | | COC No | |
|---|--|--|-------------|------------------------------------|-----------|--|--|-------------------------------|----------|
| Company Name <u>GH</u> | | Tel/Email | | Lab Contact | | Carrier | | 1 of 1 COCs | |
| Address <u>900 Long Lake Rd</u> | | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Analysis Turnaround Time</p> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day </div> <div style="text-align: center;"> <p>500-218363 COC</p> </div> </div> | | | | | | | |
| City/State/Zip <u>St Paul MN 55112</u> | | | | | | | | | |
| Phone <u>651 639 0913</u> | | | | | | | | | |
| Fax | | | | | | | | | |
| Project Name <u>Park Wood</u> | | | | | | | | | |
| Site <u>11222418</u> | | P O # | | Job / SDG No <u>500-218363</u> | | Sampler | | For Lab Use Only | |
| Walk-in Client | | Lab Sampling | | Sample Specific Notes | | | | | |
| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | |
| 1 <u>W-220620-RA-01</u> | | <u>8/21/22</u> | <u>1200</u> | <u>6</u> | <u>GL</u> | <u>7</u> | <u>M</u> | <u>Y</u> | <u>Y</u> |
| 2 <u>W-220620-RA-02</u> | | <u>↓</u> | <u>1153</u> | <u>↓</u> | <u>↓</u> | <u>7</u> | <u>Y</u> | <u>Y</u> | <u>Y</u> |
| 3 <u>W-220620-RA-03</u> | | <u>↓</u> | <u>1208</u> | <u>↓</u> | <u>↓</u> | <u>7</u> | <u>Y</u> | <u>Y</u> | <u>Y</u> |
| 4 <u>trip blank</u> | | | | | | | | | <u>X</u> |
| Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other | | | | | | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | |
| 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 | | | | | | | <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months | | |
| <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown | | | | | | | | | |
| Special Instructions/QC Requirements & Comments: | | | | | | | | | |
| 4.9+3.9 | | | | | | | | | |
| Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No | | Custody Seal No | | Cooler Temp (°C) Obs'd | | Corr'd | | Therm ID No | |
| Relinquished by <u>[Signature]</u> | | Company <u>GH</u> | | Date/Time <u>6/20/22 1400</u> | | Received by | | Company | |
| Relinquished by | | Company | | Date/Time | | Received by | | Company | |
| Relinquished by | | Company | | Date/Time | | Received in Laboratory by <u>Stephanie Homondy</u> | | Company <u>EEIA</u> | |
| | | | | | | | | Date/Time <u>6/21/22 1010</u> | |

FedEx Express *Package US Airbill*

FedEx Tracking Number **8161 0791 7958**

Form ID No. **0200**



500-218363 Waybi

1 From

Date _____

Sender's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

City _____ State _____ ZIP _____

2 Your Internal Billing Reference

3 To

Recipient's Name _____ Phone _____

Company _____

Address _____ Dept./Floor/Suite/Room _____

Address _____

City _____ State _____ ZIP _____

Hold Weekday
FedEx location address
REQUIRED **NOT** available for
FedEx First Overnight.

Hold Saturday
FedEx location address
REQUIRED. Available **ONLY** for
FedEx Priority Overnight and
FedEx 2Day to select locations.

4 Express Package Service

To most locations.

Packages up to 70 lbs.
For packages over 70 lbs.
FedEx Express Freight

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipment will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning. Friday shipment will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning. Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day. Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M. or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

No Yes Yes Dry Ice Cargo Aircraft Only

Restrictions apply for dangerous goods. See the current FedEx Service Guide.

7 Payment Bill to.

Enter FedEx Acct. No. below.

Sender Acct. No. in Section Recipient Third Party

Total Packages _____ Total Weight _____ lbs.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

Rev. Date 4/9 P- 67002 ©20 2-20 9 FedEx PRINTED IN U.S.A.

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FedEx

TRK# **8161 0791 7958**
0200

XN JOTA

AA
PRIORITY OVERNIGHT
60484
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4341980 21Jun 01 29 CUAH 547C2/274F/A17C

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Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 500-218363-1

Login Number: 218363

List Number: 1

Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

| 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 | 3.9 |
| 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 (excluding tests with immediate HTs) | 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"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



Appendix C

**Residential Well and Onsite Supply
Well Water Sample Data Validation**

Technical Memorandum

July 20, 2022

| | | | |
|----------------|--|--------------------|------------------------|
| To | Tim Ree, GHD | Contact No. | +1 612 524-6836 |
| | | Email | grant.anderson@ghd.com |
| From | Grant Anderson/kg/4 | Project No. | 11222418-03-05 |
| Subject | Analytical Results and Reduced Data Validation Residential Water Sampling Events Penta Wood Products Superfund Site Siren, Wisconsin April and June 2022 | | |

1. Introduction

This document details a reduced validation of analytical results for residential water samples collected at the Penta Wood Products Superfund Site during April and June 2022. Samples were submitted to Eurofins Environment Testing America (EETA) located in University Park, Illinois. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD Services, Inc. (GHD) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i. "Quality Assurance Project Plan, Long Term Response Action", Rev. II, February 2005 with addendums.
- ii. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", USEPA 540/R-99/008, October 1999.

Item ii. will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All original sample analyses were prepared and analyzed within the required holding times. Two pentachlorophenol samples (RA-104 and RA-105) were re-analyzed past hold time due to an outlying LCS recovery (see Section 5). The re-analyses for samples RA-104 and RA-105 were reported to be non-detect (0.14U ug/L). However, only the original analyses are presented in this memo due to the re-extraction being performed 13 days past the 7-day holding time.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

Laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, and pentachlorophenol analyses were spiked with the appropriate number of surrogate compounds prior to sample extraction or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of semi-volatile organic compound (SVOC) analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

5. Laboratory Control Sample (LCS) Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/LCSD contained all compounds of interest. With the exception of pentachlorophenol, all LCS recoveries and RPDs were within the laboratory control limits. Table 4 lists the outlying recovery. Associated sample data are qualified as noted in the table. The samples in Table 4 were re-extracted/re-analyzed past hold time with non-detect results (0.14U ug/L). However, only the original analyses are included in this memo due to the re-extraction being performed outside of hold time (see Section 2).

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC consisted of two trip blank samples and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, two trip blanks were submitted to the laboratory for BTEX analysis. All results were non-detect for the compounds of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL are qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results are presented as non-detect at the RL in Table 2.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Regards



Grant Anderson
Analyst

Table 1

**Sample Collection and Analysis Summary
Residential Water Sampling Events
Penta Wood Products Superfund Site
Siren, Wisconsin
April and June 2022**

| Sample Identification | Location | Matrix | Collection Date (mm/dd/yyyy) | Collection Time (hr:min) | Analysis/Parameters | | | Comments |
|-----------------------|-----------|--------|---------------------------------|-----------------------------|---------------------|-------------|-------------------|--------------------|
| | | | | | BTEX | Naphthalene | Pentachlorophenol | |
| W-220414-RA-100 | RW06 | water | 04/14/2022 | 10:45 | X | X | X | |
| W-220414-RA-101 | RW06 | water | 04/14/2022 | 10:45 | X | X | X | Duplicate (RA-100) |
| W-220414-RA-102 | RW06 SHOP | water | 04/14/2022 | 10:53 | X | X | X | |
| W-220414-RA-103 | RW06 SHOP | water | 04/14/2022 | 10:20 | X | X | X | Field Blank |
| W-220414-RA-104 | RW02 | water | 04/14/2022 | 13:20 | X | X | X | MS/MSD |
| W-220414-RA-105 | RW05 | water | 04/14/2022 | 13:10 | X | X | X | |
| W-220414-RA-106 | RW03 | water | 04/14/2022 | 13:55 | X | X | X | |
| W-220414-RA-107 | RW04 | water | 04/14/2022 | 13:50 | X | X | X | |
| Trip Blank | Lab | water | 04/14/2022 | 00:00 | X | | | Trip Blank |
| W-220620-RA-01 | RW01 | water | 06/20/2022 | 12:00 | X | X | X | |
| W-220620-RA-02 | RW02 | water | 06/20/2022 | 11:53 | X | X | X | |
| W-220620-RA-03 | RW05 | water | 06/20/2022 | 12:08 | X | X | X | |
| Trip Blank | Lab | water | 06/20/2022 | 00:00 | X | | | |

Notes:

MS/MSD - Matrix spike/matrix spike duplicate

BTEX - Benzene, toluene, ethylbenzene, and xylenes (total)

Table 2

Validated Analytical Results Summary
 Residential Water Sampling Events
 Penta Wood Products Superfund Site
 Siren, Wisconsin
 April and June 2022

| Location ID: | RW01 | RW02 | RW02 | RW03 | RW04 |
|--------------|----------------|-----------------|----------------|-----------------|-----------------|
| Sample Name: | W-220620-RA-01 | W-220414-RA-104 | W-220620-RA-02 | W-220414-RA-106 | W-220414-RA-107 |
| Sample Date: | 06/20/2022 | 04/14/2022 | 06/20/2022 | 04/14/2022 | 04/14/2022 |

| Parameters | Unit | | | | | |
|---------------------------------------|------|---------|--------|--------|---------|--------|
| Volatile Organic Compounds | | | | | | |
| Benzene | µg/L | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U |
| Ethylbenzene | µg/L | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U |
| Toluene | µg/L | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U |
| Xylenes (total) | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Semivolatile Organic Compounds | | | | | | |
| Naphthalene | µg/L | 0.74 U | 0.75 U | 0.75 U | 0.77 U | 0.76 U |
| Herbicides | | | | | | |
| Pentachlorophenol | µg/L | 0.095 U | 0.31 J | 0.10 U | 0.097 U | 0.11 U |

Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

Table 2

**Validated Analytical Results Summary
Residential Water Sampling Events
Penta Wood Products Superfund Site
Siren, Wisconsin
April and June 2022**

| | Location ID: | RW05 | RW05 | RW06 | RW06 | RW06 SHOP |
|---------------------------------------|---------------------|------------------------|-----------------------|------------------------|---------------------------------------|------------------------|
| | Sample Name: | W-220414-RA-105 | W-220620-RA-03 | W-220414-RA-100 | W-220414-RA-101 | W-220414-RA-102 |
| | Sample Date: | 04/14/2022 | 06/20/2022 | 04/14/2022 | 04/14/2022 Duplicate | 04/14/2022 |
| Parameters | Unit | | | | | |
| Volatile Organic Compounds | | | | | | |
| Benzene | µg/L | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U |
| Ethylbenzene | µg/L | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U |
| Toluene | µg/L | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U |
| Xylenes (total) | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Semivolatile Organic Compounds | | | | | | |
| Naphthalene | µg/L | 0.78 U | 0.77 U | 0.78 U | 0.77 U | 0.78 U |
| Herbicides | | | | | | |
| Pentachlorophenol | µg/L | 0.19 J | 0.096 U | 0.098 U | 0.096 U | 0.10 U |

Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

Table 3

**Analytical Methods and Holding Time Criteria
Residential Water Sampling Events
Penta Wood Products Superfund Site
Siren, Wisconsin
April and June 2022**

| Parameter | Method | Matrix | Holding Time | |
|-------------------|----------|--------|---------------------------------------|---|
| | | | Collection to Extraction (Days) | Collection or Extraction to Analysis (Days) |
| BTEX | SW 8260B | Water | - | 14 |
| Naphthalene | SW 8270D | Water | 7 | 40 |
| Pentachlorophenol | SW 8151A | Water | 7 | 40 |

Notes:

BTEX - Benzene, toluene, ethylbenzene, and xylenes (total)

Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Table 4

**Qualified Sample Results Due to Outlying Laboratory Control Sample Results
Residential Water Sampling Events
Penta Wood Products Superfund Site
Siren, Wisconsin
April and June 2022**

| Parameter | Analyte | LCS Batch | LCS % Recovery | Control Limits % Recovery | Associated Sample ID | Qualified Results | Units |
|------------------|-------------------|------------------|---------------------------|--------------------------------------|------------------------------------|------------------------------|--------------|
| Herbicides | Pentachlorophenol | 500-652773 | 142 | 40-122 | W-220414-RA-104 W-220414-RA-105 | 0.31 J 0.19 J | ug/L ug/L |

Notes:

LCS - Laboratory Control Sample
J - Estimated concentration

Appendix D

Site Inspection Forms

Continuing Obligations Inspection Form
Penta Wood Products Superfund Site
Siren, Wisconsin

11222418

Verified

Notes

Verify Site Conditions

| | | |
|---|---|--|
| CAMU area fence condition is satisfactory | X | |
| CAMU signage is present/visible at all fence gates | X | |
| CAMU surface soil condition is satisfactory and does not require erosion/settlement repairs | X | |
| Perimeter area fence is satisfactory and does not require repairs | X | |
| Perimeter signage is present/visible | X | |
| Site access is limited and all perimeter fence locks in working order | X | |
| NaOH tank condition is satisfactory with no signs of leaks | X | |
| FeSO4 tank condition is satisfactory with no signs of leaks | X | |

Verify situations have not and are not occurring

| | | |
|--|---|--|
| Removal of the existing barrier or cover | X | |
| Replacement with another barrier or cover | X | |
| Excavating or grading of the land surface | X | |
| Filling on covered or paved areas | X | |
| Plowing for agricultural cultivation | X | |
| Construction or placement of a building or other structure | X | |
| Change in use or occupancy of the property | X | |

Inspected By: RA

Date: 4/8/2022



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➔ **The Power of Commitment**

Appendix D

Site Inspection Forms



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