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April 14, 2023

Mr. Matt Thompson
Wisconsin Department of Natural Resources
1300 W. Clairemont Avenue
Eau Claire, WI 54701

Subject: 2023 First Quarterly Report - Wauleco, Inc., Wausau, Wisconsin
BRRTS #02-37-000006

Dear Mr. Thompson:

On behalf of Wauleco, Inc., TRC is submitting a copy (enclosed) of the 2023 First Quarterly Report for the Wauleco, Inc., site in Wausau, Wisconsin.

If you have any questions or comments regarding this information, please call me at (608) 235-4963.

Sincerely,

TRC

A handwritten signature in blue ink, appearing to read "Bruce Iverson".

Bruce Iverson
Project Manager

Attachments: 2023 First Quarterly Report

cc: Evan Schreiner – Wauleco, Inc. (2 copies)
David Crass – Michael Best & Friedrich, LLP (electronic copy only)
Tom Dushek – TRC Wauleco (1 copy)
Ken Quinn – TRC (1 copy)

**Wauleco, Inc. - Wausau, Wisconsin
Quarterly Report
Submitted April 2023**

Summary of 2023 First Quarter Activities

Groundwater Extraction and Treatment System Operation

Tables 1a, b, and c summarize the extraction and treatment system performance data for this reporting period. The results of the water discharged to the municipal sewer during the first quarter of 2023 are summarized as follows:

- Pentachlorophenol (PCP) screening (on-site gas chromatograph) results for the system effluent samples, which represent the water discharged to the municipal sanitary sewer, averaged 2.97 µg/L in January, 4.89 µg/L in February, and 5.68 µg/L in March.
- Laboratory results for the sampling event conducted this quarter are included in Tables 1a, b, and c for each month. The laboratory results for PCP in the system effluent was 1.8 µg/L on January 18, 2.9 µg/L on February 15, and 3.3 µg/L on March 15, 2023.
- Both laboratory and on-site screening results indicate that the effluent PCP concentrations were below the monthly average permit level of 150 µg/L and the daily maximum concentration of 300 µg/L.
- Total treatment system efficiency (including carbon polishing units) removed more than 99 percent of the PCP between the influent and the effluent.

On-site screening PCP influent concentrations ranged from 3,882 µg/L to 8,532 µg/L during the quarter (Tables 1a, b, and c). PCP influent and effluent concentrations in the fluidized bed reactor (FBR) are presented graphically, both as individual data points and as moving averages, on Figure 1. FBR results included the following:

- As shown on Figure 1 and in Tables 1a, b, and c, PCP concentrations in the FBR influent fluctuated during the quarter, and generally remain within normal concentrations.
- The average PCP removal efficiency for the biological portion (*i.e.*, FBR influent to the fixed film reactor [FFR] effluent) of the system during this quarter is compared to the following:

Month	Average PCP Removal (%)	Previous 12 Month Average (%)	Average 1 Year Ago (%)
January 2023	59	66	73
February 2023	64	65	74
March 2023	60	64	67

- The dissolved oxygen concentration in the influent to the FBR averaged 3.4 mg/L in January, 2.6 mg/L in February, and 2.9 mg/L in March 2023.

Laboratory results for the mercury analysis of the system effluent samples are included in Tables 1a, b, and c. The mercury concentration in the system effluent sample (discharged to the sanitary sewer) was 0.034 µg/L on January 18, 0.044 µg/L on February 15, and 0.051 µg/L on March 15, which are below the permit discharge limit of 1.6 µg/L. The mass loading for mercury

in January was calculated at 0.00000869 lb/24 hours, for February was calculated at 0.0000114 lb/24 hours, and for March was calculated at 0.0000125 lb/24 hours, which are below the permit discharge limit of 0.00048 lb/24 hours.

The daily groundwater flow of the effluent to the Wausau Wastewater Treatment Plant averaged 21.28 gpm for January, 21.59 gpm for February, and 20.45 gpm for March 2023 (Tables 2a, b, and c). Since June, 2012 the pumping rate has been operated at approximately 22 gpm.

Figure 2 shows the average groundwater flow extracted and the average daily flow discharged to the Wausau Wastewater Treatment Plant.

Groundwater Monitoring

A complete round of water table elevations for the month of January 2023 are summarized in Table 3.

The product thickness data for January 2023 are summarized in Table 4. Measurements show minimal product present in January (e.g., W07, W35, W40R, and FP03).

Enclosures: Tables 1a, b, and c – Above Ground Treatment System Data
Tables 2a, b, and c – Treatment System Flows
Table 3 – Groundwater Elevation Data
Table 4 – Free Product Measurements
Figure 1 – FBR Influent and Effluent PCP Concentrations
Figure 2 – Average Groundwater Extraction Rates and Water Level Deviation Versus Time
Drawing 1 – Water Table Map – January 5, 2023

**TABLE 1a
JANUARY 2023**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	1/18/2023	8.1	4.5				<	
Chemical Oxygen Demand	mg/L	1/18/2023	23	26				<	
Chloride	mg/L	1/18/2023	190	190				190	
Dissolved Oxygen	mg/L	1/4/2023	2.9	0.6	4.6				
	mg/L	1/12/2023	3.6	1	5				
	mg/L	1/18/2023	3.6	1	5.2				
	mg/L	1/25/2023	3.6	1	5.2				
Nitrogen, Ammonia	mg/L	1/4/2023	0.5	0.4	0.5				
	mg/L	1/12/2023	0.3	0.2	0.3				
	mg/L	1/18/2023	0.5	0.4	0.4				
	mg/L	1/25/2023	0.6	0.7	0.5				
Nitrogen, Nitrate	mg/L	1/4/2023	<	<	<				
	mg/L	1/12/2023	<	<	<				
	mg/L	1/18/2023	<	<	<				
	mg/L	1/25/2023	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	1/18/2023	<	<				<	
Nitrogen, Total Kjeldahl	mg/L	1/18/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	1/1/2023						3	
	µg/L	1/2/2023						3	
	µg/L	1/3/2023						2	
	µg/L	1/4/2023	4368	1804	1887			2	
	µg/L	1/5/2023						3	
	µg/L	1/6/2023						3	
	µg/L	1/7/2023						4	
	µg/L	1/8/2023						4	
	µg/L	1/9/2023						4	
	µg/L	1/10/2023						3	
	µg/L	1/11/2023						3	
	µg/L	1/12/2023	4260	1937	1593			3	
	µg/L	1/13/2023						4	
	µg/L	1/14/2023						3	
	µg/L	1/15/2023						3	
	µg/L	1/16/2023						3	
	µg/L	1/17/2023						3	
	µg/L	1/18/2023	5203	2161	1880		631	3	
	µg/L	1/19/2023						3	
	µg/L	1/20/2023						3	
	µg/L	1/21/2023						3	
	µg/L	1/22/2023						3	
	µg/L	1/23/2023						3	
	µg/L	1/24/2023						3	
	µg/L	1/25/2023	3891	1871	1775			2	
	µg/L	1/26/2023						3	
	µg/L	1/27/2023						3	
	µg/L	1/28/2023						3	

**TABLE 1a
JANUARY 2023**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	1/29/2023						3	
	µg/L	1/30/2023						2	
	µg/L	1/31/2023						2	
pH	S.U.	1/4/2023	6.65	6.55	6.55				
	S.U.	1/12/2023	6.65	6.65	6.7				
	S.U.	1/18/2023	6.6	6.55	6.6				
	S.U.	1/25/2023	6.6	6.55	6.65				
Phosphorus, Ortho	mg/L	1/18/2023	<	<				<	
Phosphorus, Phosphate	mg/L	1/4/2023	0.4	0.2	0.2				
	mg/L	1/12/2023	0.4	0.2	0.2				
	mg/L	1/18/2023	0.4	0.2	0.2				
	mg/L	1/25/2023	0.4	0.2	0.2				
Solids, Total Suspended	mg/L	1/18/2023	11	8.2				3.8	
Mercury	µg/L	1/18/2023	0.14					0.034	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	1/18/2023	200	95	90		65	<	<
2,4,5-Trichlorophenol	µg/L	1/18/2023	<	<	<		<	<	<
2,4,6-Trichlorophenol	µg/L	1/18/2023	<	<	<		<	<	<
2,4-Dichlorophenol	µg/L	1/18/2023	<	<	<		<	<	<
2,4-Dimethylphenol	µg/L	1/18/2023	<	<	<		<	<	<
2,4-Dinitrophenol	µg/L	1/18/2023	<	<	<		<	<	<
2,6-Dichlorophenol	µg/L	1/18/2023	<	<	<		<	<	<
2-Chlorophenol	µg/L	1/18/2023	<	<	<		<	<	<
2-Methylphenol	µg/L	1/18/2023	<	<	<		<	<	<
2-Nitrophenol	µg/L	1/18/2023	<	<	<		<	<	<
3&4-Methylphenol	µg/L	1/18/2023	<	<	<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	1/18/2023	<	<	<		<	<	<
4-Chloro-3-Methylphenol	µg/L	1/18/2023	<	<	<		<	<	<
4-Nitrophenol	µg/L	1/18/2023	<	<	<		<	<	<
Pentachlorophenol	µg/L	1/18/2023	2800	1200	1200		740	1.8	2.0
Phenol	µg/L	1/18/2023	<	<	<		<	<	<

**TABLE 1b
FEBRUARY 2023**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	2/15/2023	4.0	3.7				<	
Chemical Oxygen Demand	mg/L	2/15/2023	30	33				<	
Chloride	mg/L	2/15/2023	160	170				180	
Dissolved Oxygen	mg/L	2/2/2023	2.5	1	5.4				
	mg/L	2/9/2023	2.6	1.1	5.3				
	mg/L	2/15/2023	2.6	1.1	5.6				
	mg/L	2/23/2023	2.8	1.1	5.7				
Nitrogen, Ammonia	mg/L	2/2/2023	0.4	0.6	0.3				
	mg/L	2/9/2023	0.6	0.5	0.4				
	mg/L	2/15/2023	0.4	0.4	0.4				
	mg/L	2/23/2023	0.5	0.3	0.5				
Nitrogen, Nitrate	mg/L	2/2/2023	<	<	<				
	mg/L	2/9/2023	<	<	<				
	mg/L	2/15/2023	<	<	<				
	mg/L	2/23/2023	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	2/15/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	2/1/2023						2	
	µg/L	2/2/2023	3882	1149	1342			2	
	µg/L	2/3/2023						4	
	µg/L	2/4/2023						3	
	µg/L	2/5/2023						3	
	µg/L	2/6/2023						3	
	µg/L	2/7/2023						3	
	µg/L	2/8/2023						2	
	µg/L	2/9/2023	4197	1179	1621			2	
	µg/L	2/10/2023						4	
	µg/L	2/11/2023						4	
	µg/L	2/12/2023						4	
	µg/L	2/13/2023						4	
	µg/L	2/14/2023						3	
	µg/L	2/15/2023	5695	1632	1626		610	3	
	µg/L	2/16/2023						7	
	µg/L	2/17/2023						8	
	µg/L	2/18/2023						8	
	µg/L	2/19/2023						8	
	µg/L	2/20/2023						8	
	µg/L	2/21/2023						8	
	µg/L	2/22/2023						6	
	µg/L	2/23/2023	8526	3279	3512			8	
µg/L	2/24/2023						6		
µg/L	2/25/2023						6		
µg/L	2/26/2023						6		
µg/L	2/27/2023						6		

**TABLE 1b
FEBRUARY 2023**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	2/28/2023						6	
pH	S.U.	2/2/2023	6.65	6.6	6.65				
	S.U.	2/9/2023	6.65	6.6	6.6				
	S.U.	2/15/2023	6.5	6.45	6.55				
	S.U.	2/23/2023	6.55	6.55	6.7				
Phosphorus, Ortho	mg/L	2/15/2023	<	<				<	
Phosphorus, Phosphate	mg/L	2/2/2023	0.8	0.3	0.3				
	mg/L	2/9/2023	0.8	0.3	0.3				
	mg/L	2/15/2023	0.4	0.3	0.3				
	mg/L	2/23/2023	0.3	0.2	0.2				
Solids, Total Suspended	mg/L	2/15/2023	16	12				2.4	
Mercury	µg/L	2/15/2023						0.044	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	2/15/2023	240		110			<	<
2,4,5-Trichlorophenol	µg/L	2/15/2023	<		20			<	<
2,4,6-Trichlorophenol	µg/L	2/15/2023	<		<			<	<
2,4-Dichlorophenol	µg/L	2/15/2023	<		<			<	<
2,4-Dimethylphenol	µg/L	2/15/2023	<		<			<	<
2,4-Dinitrophenol	µg/L	2/15/2023	<		<			<	<
2,6-Dichlorophenol	µg/L	2/15/2023	<		<			<	<
2-Chlorophenol	µg/L	2/15/2023	<		<			<	<
2-Methylphenol	µg/L	2/15/2023	<		<			<	<
2-Nitrophenol	µg/L	2/15/2023	<		<			<	<
3&4-Methylphenol	µg/L	2/15/2023	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	2/15/2023	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	2/15/2023	<		<			<	<
4-Nitrophenol	µg/L	2/15/2023	<		<			<	<
Pentachlorophenol	µg/L	2/15/2023	2800		1100			2.9	2.6
Phenol	µg/L	2/15/2023	<		<			<	<

**TABLE 1c
MARCH 2023**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	3/15/2023	7.3	4.1				<	
Chemical Oxygen Demand	mg/L	3/15/2023	30	21				18	
Chloride	mg/L	3/15/2023	210	210				220	
Dissolved Oxygen	mg/L	3/2/2023	2.9	1	5.6				
	mg/L	3/9/2023	2.8	1.1	5.7				
	mg/L	3/15/2023	2.8	1.1	5.8				
	mg/L	3/22/2023	2.8	1.1	5.6				
	mg/L	3/29/2023	3.1	1	5.4				
Nitrogen, Ammonia	mg/L	3/2/2023	0.4	0.3	0.2				
	mg/L	3/9/2023	0.4	0.2	0.3				
	mg/L	3/15/2023	0.4	0.4	0.3				
	mg/L	3/22/2023	0.4	0.4	0.3				
	mg/L	3/29/2023	0.4	0.3	0.3				
Nitrogen, Nitrate	mg/L	3/2/2023	<	<	<				
	mg/L	3/9/2023	<	<	<				
	mg/L	3/15/2023	<	<	<				
	mg/L	3/22/2023	<	<	<				
	mg/L	3/29/2023	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	3/15/2023	<	<				<	
Pentachlorophenol-Screen	µg/L	3/1/2023						5	
	µg/L	3/2/2023	8532	3022	3335			4	
	µg/L	3/3/2023						5	
	µg/L	3/4/2023						5	
	µg/L	3/5/2023						5	
	µg/L	3/6/2023						6	
	µg/L	3/7/2023						6	
	µg/L	3/8/2023						5	
	µg/L	3/9/2023	8088	3521	3341			4	
	µg/L	3/10/2023						6	
	µg/L	3/11/2023						7	
	µg/L	3/12/2023						7	
	µg/L	3/13/2023						7	
	µg/L	3/14/2023						6	
	µg/L	3/15/2023	7864	2372	2937		799	6	
	µg/L	3/16/2023						8	
	µg/L	3/17/2023						8	
	µg/L	3/18/2023						7	
	µg/L	3/19/2023						7	
	µg/L	3/20/2023						7	
	µg/L	3/21/2023						6	
	µg/L	3/22/2023	7001	3168	2907			6	
	µg/L	3/23/2023						6	
µg/L	3/24/2023						5		
µg/L	3/25/2023						4		

**TABLE 1c
MARCH 2023**

**Above Ground Treatment System Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Parameter</u>	<u>UNIT</u>	<u>DATE</u>	<u>FBR Influent</u>	<u>FBR Effluent</u>	<u>FFR Effluent</u>	<u>Bag Filter Effluent</u>	<u>Filters1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	3/26/2023						4	
	µg/L	3/27/2023						4	
	µg/L	3/28/2023						4	
	µg/L	3/29/2023	7802	3064	3166			5	
	µg/L	3/30/2023						6	
	µg/L	3/31/2023						5	
pH	S.U.	3/2/2023	6.5	6.45	6.55				
	S.U.	3/9/2023	6.5	6.45	6.5				
	S.U.	3/15/2023	6.45	6.4	6.5				
	S.U.	3/22/2023	6.5	6.45	6.55				
	S.U.	3/29/2023	6.5	6.45	6.55				
Phosphorus, Ortho	mg/L	3/15/2023	<	<				<	
Phosphorus, Phosphate	mg/L	3/2/2023	0.3	0.2	0.2				
	mg/L	3/9/2023	0.4	0.2	0.2				
	mg/L	3/15/2023	0.5	0.3	0.3				
	mg/L	3/22/2023	0.4	0.2	0.3				
	mg/L	3/29/2023	1	0.4	0.4				
Solids, Total Suspended	mg/L	3/15/2023	16	15				4.2	
Mercury	µg/L	3/15/2023						0.051	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	3/15/2023	170	62	66			<	<
2,4,5-Trichlorophenol	µg/L	3/15/2023	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	3/15/2023	<	<	<			<	<
2,4-Dichlorophenol	µg/L	3/15/2023	<	<	<			<	<
2,4-Dimethylphenol	µg/L	3/15/2023	<	<	<			<	<
2,4-Dinitrophenol	µg/L	3/15/2023	<	<	<			<	<
2,6-Dichlorophenol	µg/L	3/15/2023	<	<	<			<	<
2-Chlorophenol	µg/L	3/15/2023	<	<	<			<	<
2-Methylphenol	µg/L	3/15/2023	<	<	<			<	<
2-Nitrophenol	µg/L	3/15/2023	<	<	<			<	<
3&4-Methylphenol	µg/L	3/15/2023	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	3/15/2023	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	3/15/2023	<	<	<			<	<
4-Nitrophenol	µg/L	3/15/2023	<	<	<			<	<
Pentachlorophenol	µg/L	3/15/2023	1800	650	610			3.3	3.2
Phenol	µg/L	3/15/2023	<	<	<			<	<

TABLE 2a
JANUARY 2023
Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ⁽¹⁾⁽³⁾ (gpm)	POTW Discharge Flow Rate ⁽¹⁾⁽⁴⁾ (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
1/1/2023	22.25	23.05	117014070
1/2/2023	22.24	22.89	117047026
1/3/2023	22.18	22.82	117079883
1/4/2023	22.13	22.55	117112352
1/5/2023	22.15	22.78	117145154
1/6/2023	22.10	23.05	117178340
1/7/2023	16.59	17.48	117203513
1/8/2023	18.82	20.23	117232648
1/9/2023	18.89	20.08	117261566
1/10/2023	18.69	20.40	117290947
1/11/2023	18.62	20.08	117319862
1/12/2023	18.98	20.24	117349013
1/13/2023	19.02	20.31	117378254
1/14/2023	18.81	20.20	117407340
1/15/2023	18.72	20.11	117436303
1/16/2023	18.62	19.94	117465020
1/17/2023	19.56	21.38	117495808
1/18/2023	19.80	21.47	117526719
1/19/2023	19.84	21.47	117557639
1/20/2023	19.86	21.46	117588548
1/21/2023	19.92	21.61	117619670
1/22/2023	20.10	21.62	117650803
1/23/2023	20.10	21.68	117682017
1/24/2023	20.16	21.69	117713249
1/25/2023	20.25	21.69	117744483
1/26/2023	20.13	21.63	117775629
1/27/2023	20.14	21.56	117806677
1/28/2023	20.14	21.59	117837761
1/29/2023	20.10	21.52	117868756
1/30/2023	20.14	21.47	117899678
1/31/2023	20.14	21.48	117930612
Average For The Month	19.97	21.28	
Total ⁽²⁾ :			949,736

Footnotes:

- ⁽¹⁾ Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- ⁽²⁾ Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- ⁽³⁾ Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- ⁽⁴⁾ A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.

TABLE 2b
FEBRUARY 2023
Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ^{(1) (3)} (gpm)	POTW Discharge Flow Rate ^{(1) (4)} (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
2/1/2023	20.07	21.52	117961606
2/2/2023	20.15	21.49	117992557
2/3/2023	20.13	21.51	118023536
2/4/2023	20.21	21.54	118054548
2/5/2023	20.34	21.58	118085629
2/6/2023	20.37	21.63	118116781
2/7/2023	20.63	21.79	118148154
2/8/2023	20.47	21.57	118179208
2/9/2023	20.35	21.53	118210215
2/10/2023	20.29	21.47	118241129
2/11/2023	20.29	21.52	118272117
2/12/2023	20.13	21.40	118302926
2/13/2023	19.90	21.37	118333700
2/14/2023	19.89	21.32	118364403
2/15/2023	19.96	21.31	118395095
2/16/2023	19.96	21.28	118425745
2/17/2023	19.69	21.10	118456126
2/18/2023	19.68	21.14	118486568
2/19/2023	19.74	21.06	118516893
2/20/2023	20.03	21.11	118547294
2/21/2023	19.86	21.09	118577658
2/22/2023	19.26	20.66	118607402
2/23/2023	19.32	20.74	118637261
2/24/2023	19.32	25.39	118673823
2/25/2023	19.38	27.74	118713762
2/26/2023	19.33	20.21	118742863
2/27/2023	19.47	20.15	118771877
2/28/2023	19.39	20.20	118800958
Average For The Month	19.91	21.59	
Total ⁽²⁾ :			870,346

Footnotes:

- (1) Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- (2) Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- (3) Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- (4) A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.

**TABLE 2c
MARCH 2023**

**Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin**

Date	Influent Groundwater Flow Rate ^{(1) (3)} (gpm)	POTW Discharge Flow Rate ^{(1) (4) (5)} (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
3/1/2023	19.45	20.16	118829991
3/2/2023	19.60	20.12	118858957
3/3/2023	19.72	20.04	118887809
3/4/2023	19.94	20.15	118916819
3/5/2023	19.88	20.00	118945617
3/6/2023	19.58	19.80	118974126
3/7/2023	19.22	19.58	119002319
3/8/2023	19.28	19.59	119030533
3/9/2023	19.27	19.60	119058757
3/10/2023	19.24	19.59	119086960
3/11/2023	20.09	20.69	119116748
3/12/2023	19.30	20.04	119145609
3/13/2023	19.93	20.73	119175457
3/14/2023	19.94	20.73	119205315
3/15/2023	20.11	20.76	119235215
3/16/2023	20.12	20.78	119265133
3/17/2023	20.22	20.76	119295030
3/18/2023	19.97	20.84	119325039
3/19/2023	20.03	20.82	119355017
3/20/2023	20.31	20.79	119384948
3/21/2023	20.30	20.84	119414954
3/22/2023	20.34	20.67	119444717
3/23/2023	20.51	20.79	119474658
3/24/2023	20.55	20.78	119504583
3/25/2023	20.73	20.82	119534565
3/26/2023	20.68	20.81	119564529
3/27/2023	20.78	20.74	119594392
3/28/2023	20.81	20.74	119624251
3/29/2023	20.92	20.80	119654202
3/30/2023	20.91	20.78	119684130
3/31/2023	21.00	20.78	119714047
Average For The Month	20.09	20.45	
Total ⁽²⁾ :			913,089

Footnotes:

- (1) Influent and POTW discharge flow rates are daily averages. These may not be equal due to balancing in the treatment system and calibration of individual flowmeters. The influent groundwater flow rate is calculated by adding the instantaneous flow rate from each pumping well (i.e., 16 meters). The POTW discharge flow rate is recorded directly from the effluent meter.
- (2) Total is the cumulative gallons discharged to the POTW during the reporting period. This number is calculated by subtracting the total of the previous month's last day from the total of the current month's last day, see previous month's report for the number used. The total from the first day of the current month is not used in the calculation.
- (3) Totalizers were reset to 0 on August 23, 2012 during the system shutdown for maintenance.
- (4) A new effluent meter was installed in April, 2017 during the system shutdown for maintenance.
- (5) The reed switch was replaced in early December, 2021.

TABLE 3

**Groundwater Elevation Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Well</u>	<u>January 05, 2023 (ft msl)</u>	<u>February 2023</u>	<u>March 2023</u>
PW01	1162.54	----	----
PW02	Abandoned	----	----
PW03	1162.45	----	----
PW3S	1161.54	----	----
PW04	1161.4	----	----
PW05	1161.48	----	----
PW06	1161.9	----	----
PW07	1161.63	----	----
PW08	1162.81	----	----
PW09I	----	----	----
PW09O	1161.46	----	----
PW10	1161.62	----	----
PW11	1160.36	----	----
PW12	1162.74	----	----
PW13	1161.47	----	----
PW14	1160.88	----	----
PW15	1160.92	----	----
PW16	1159.70	----	----
PW17	1157.4	----	----
PW18	1161.36	----	----
PW19	1160.22	----	----
PW20	1159.5	----	----
PW21	1159.3	----	----
PW22	1161.51	----	----
PW23	1161.42	----	----
PW24	1159.08	----	----
PW25	1156.83	----	----
PW26	1159.09	----	----
PW27	1154.27	----	----
PW28	1162.62	----	----
PW29	1162.69	----	----
P01	1161.38	----	----
OW01	1163.8	----	----
W01A	Abandoned	----	----
W01B	Abandoned	----	----
W02	1162.31	----	----
W03A	1160.79	----	----
W03B	1161.47	----	----
W04A	1162.00	----	----
W04B	1161.91	----	----
W05	1161.46	----	----
W06R	1162.86	----	----
W07	1162.59	----	----
W08	1170.37	----	----
W09	1161.88	----	----
W10A	1160.99	----	----
W10B	1161.02	----	----
W11	1160.85	----	----
W12	1160.51	----	----
W13	1161.39	----	----
W14	1160.7	----	----
W16	1161.55	----	----
W17	1160.97	----	----
W18	1161.07	----	----
W19	Abandoned	----	----

**Groundwater Elevation Data
Wauleco, Inc.
Wausau, Wisconsin**

<u>Well</u>	<u>January 05, 2023 (ft msl)</u>	<u>February 2023</u>	<u>March 2023</u>
W21	1160.81	----	----
W22	1160.81	----	----
W23	1160.79	----	----
W24A	1160.79	----	----
W25	1163.03	----	----
W26/W26R	1161.07	----	----
W27	1161.23	----	----
W28	1161.09	----	----
W29/W29R	1160.94	----	----
W30	1161.36	----	----
W31	1160.95	----	----
W32	1160.97	----	----
W33	1161.71	----	----
W34	1161.63	----	----
W35	1161.60	----	----
W36	1162.17	----	----
W39	Abandoned	----	----
W40/W40R	1160.98	----	----
W41	1161.61	----	----
W42	1162.28	----	----
W44	1161.39	----	----
W45	1161.43	----	----
W46	1161.2	----	----
W47	1160.37	----	----
W48	1160.47	----	----
W49	1160.93	----	----
W66	1162.78	----	----
W67	1162.75	----	----
W68A	1162.79	----	----
W68B	1162.72	----	----
W69	1161.73	----	----
W70B	Abandoned	----	----
River	----	----	----
IW01	1161.43	----	----
IW01A	1161.42	----	----
FP01	1159.62	----	----
FP02	1160.00	----	----
FP03	1158.75	----	----
FP04	1159.86	----	----
3M Basin	Water in both Basins	----	----
DFOWM 5	1162.4	----	----
DFOWM 9	Abandoned	----	----
DFOWM 10A	Abandoned	----	----
DFOWM 11	1161.62	----	----
DFOWM 12	1162.46	----	----
W71	1164.55	----	----
W72	1163.14	----	----
W73	1162.24	----	----
W74	1161.87	----	----

Notes:

1. ft msl = feet mean sea level
2. PW09O denotes the outer well and PW09I denotes the inner well
3. ---- = Well not measured
4. Groundwater elevations have been adjusted for product thickness.
5. Top of casing elevations were resurveyed for the on-site wells on December 4, 2009 . Use of the new data began in January 2010.

**Free Product Measurements
Wauleco, Inc.
Wausau, Wisconsin**

<u>Well</u>	January 05, 2023 (ft)	February 2023	March 2023
PW01	0.00	----	----
PW02	Abandoned	----	----
PW03	0.00	----	----
PW3S	0.00	----	----
PW04	0.00	----	----
PW05	0.00	----	----
PW06	0.00	----	----
PW07	0.00	----	----
PW08	0.00	----	----
PW09I	----	----	----
PW09O	0.00	----	----
PW10	0.00	----	----
PW11	0.00	----	----
PW12	0.00	----	----
PW13	0.00	----	----
PW14	0.00	----	----
PW15	0.00	----	----
PW16	0.00	----	----
PW17	0.00	----	----
PW18	0.00	----	----
PW19	0.00	----	----
PW20	0.00	----	----
PW21	0.00	----	----
PW22	0.00	----	----
PW23	0.00	----	----
PW24	0.00	----	----
PW25	0.00	----	----
PW26	0.00	----	----
PW27	0.00	----	----
PW28	0.00	----	----
PW29	0.00	----	----
P01	0.00	----	----
OW01	0.00	----	----
W01A	Abandoned	----	----
W01B	Abandoned	----	----
W02	0.00	----	----
W03A	0.00	----	----
W03B	0.00	----	----
W04A	0.00	----	----
W04B	0.00	----	----
W05	0.00	----	----
W06R	0.00	----	----
W07	0.16	----	----
W08	0.00	----	----
W09	0.00	----	----
W10A	0.00	----	----
W10B	0.00	----	----
W11	0.00	----	----
W12	0.00	----	----
W13	0.00	----	----
W14	0.00	----	----
W16	0.00	----	----
W17	0.00	----	----

Free Product Measurements
 Wauleco, Inc.
 Wausau, Wisconsin

Well	January 05, 2023 (ft)	February 2023	March 2023
W18	0.00	----	----
W19	Abandoned	----	----
W21	0.00	----	----
W22	0.00	----	----
W23	0.00	----	----
W24A	0.00	----	----
W25	0.00	----	----
W26/W26R	0.00	----	----
W27	0.00	----	----
W28	0.00	----	----
W29/W29R	0.00	----	----
W30	0.00	----	----
W31	0.00	----	----
W32	0.00	----	----
W33	0.00	----	----
W34	0.00	----	----
W35	0.11	----	----
W36	0.00	----	----
W39	Abandoned	----	----
W40/W40R	0.14	----	----
W41	0.00	----	----
W42	0.00	----	----
W44	0.00	----	----
W45	0.00	----	----
W46	0.00	----	----
W47	0.00	----	----
W48	0.00	----	----
W49	0.00	----	----
W66	0.00	----	----
W67	0.00	----	----
W68A	0.00	----	----
W68B	0.00	----	----
W69	0.00	----	----
W70B	Abandoned	----	----
River	----	----	----
IW01	0.00	----	----
IW01A	0.00	----	----
FP01	0.00	----	----
FP02	0.00	----	----
FP03	0.03	----	----
FP04	0.00	----	----
3M Basin	0.00	----	----
DFOWM 5	0.00	----	----
DFOWM 9	Abandoned	----	----
DFOWM 10A	Abandoned	----	----
DFOWM 11	0.00	----	----
DFOWM 12	0.00	----	----
W71	0.00	----	----
W72	0.00	----	----
W73	0.00	----	----
W74	0.00	----	----

Notes:

1. PW09O denotes the outer well and PW09I denotes the inner well
2. ---- = Well not measured

FIGURE 1
FBR Influent and Effluent PCP Concentrations
Wauleco, Inc.
Wausau, WI

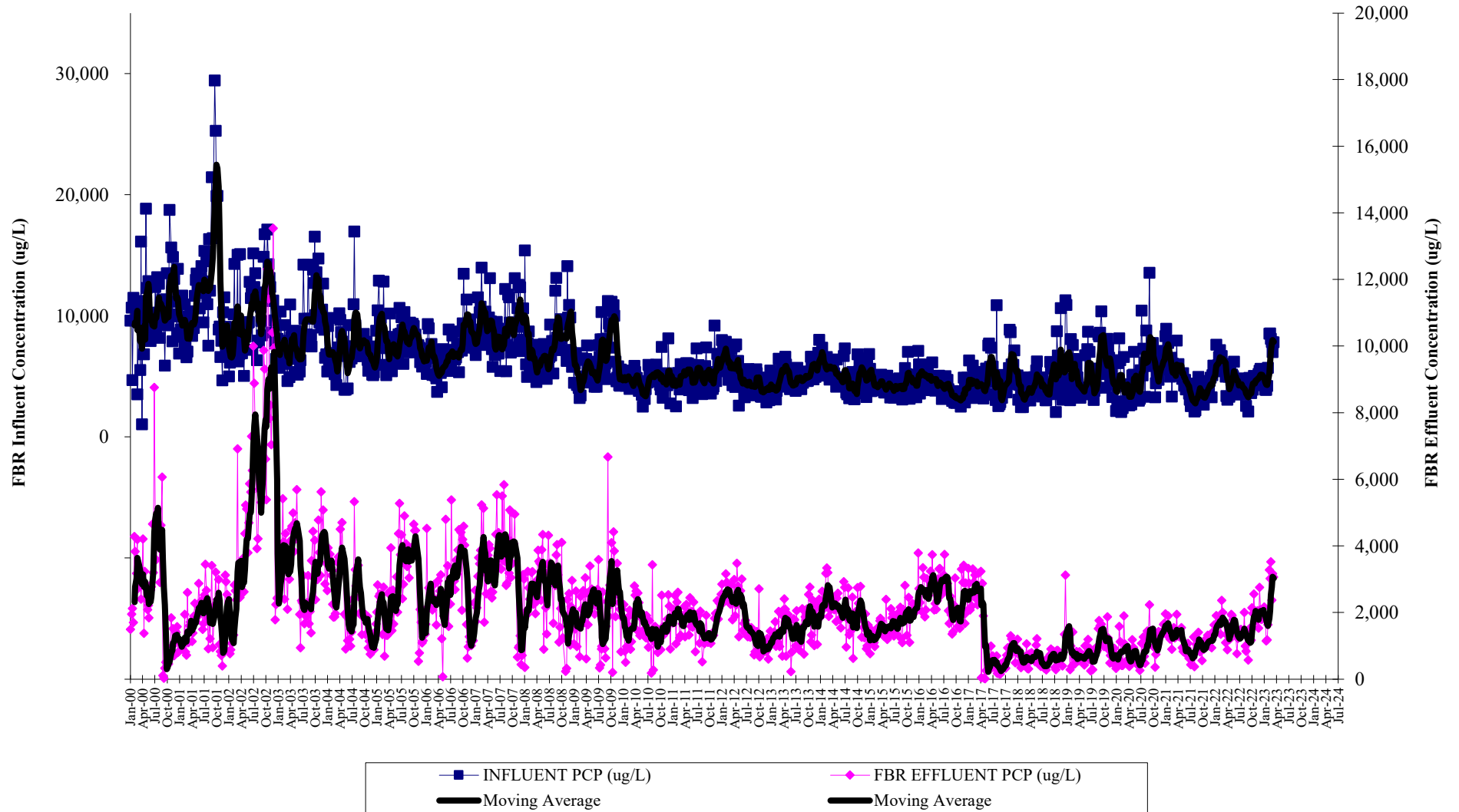
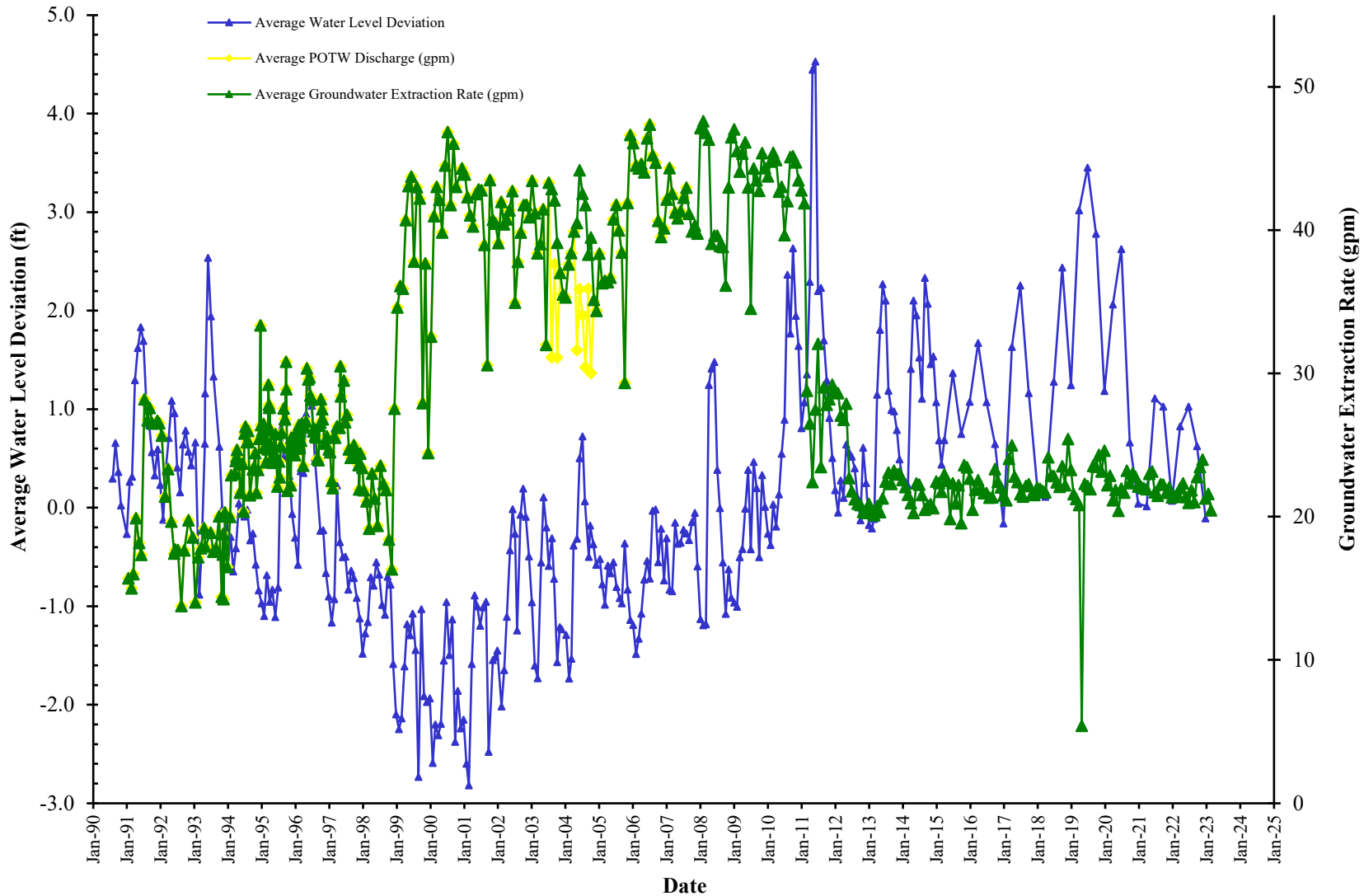


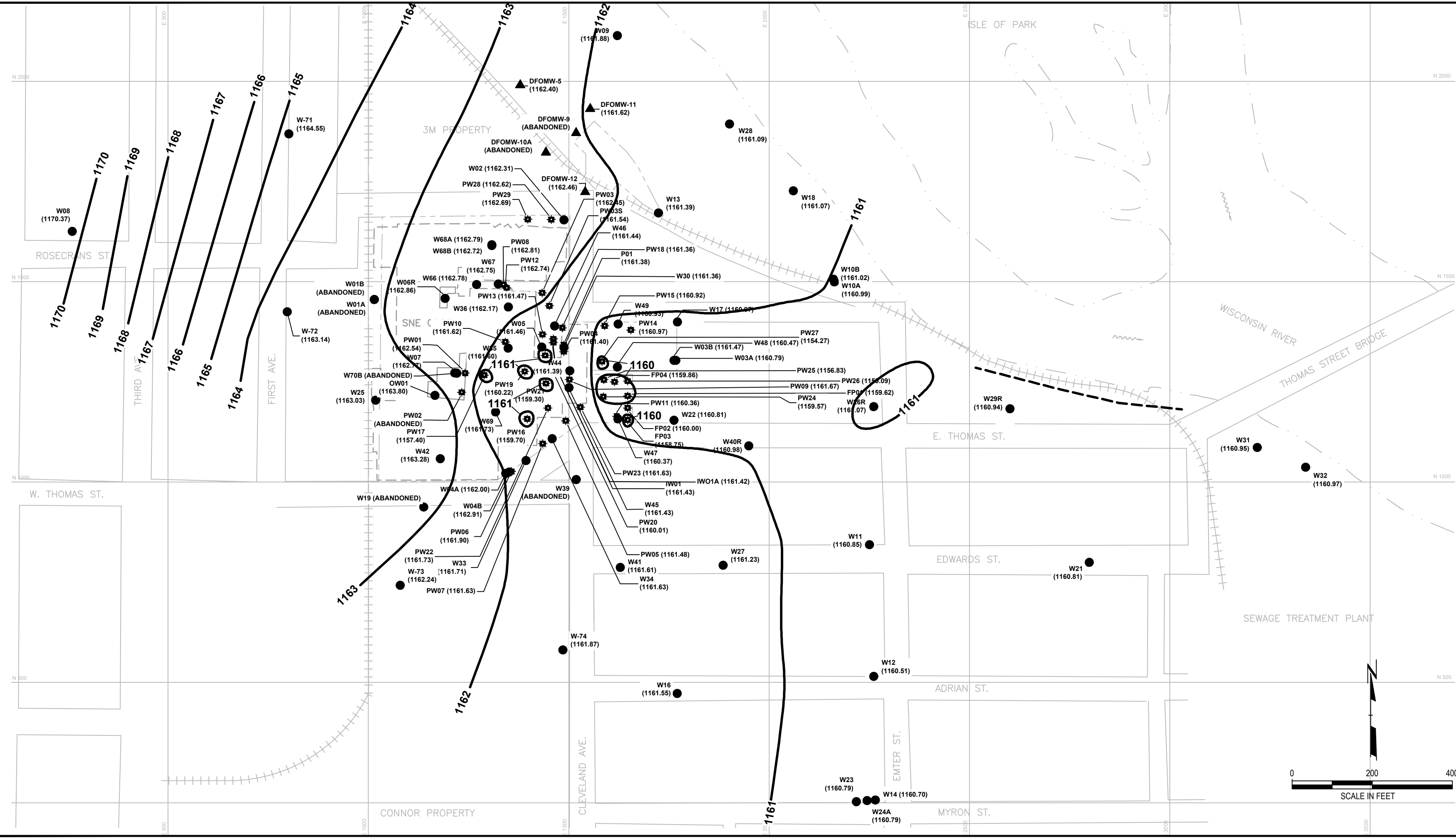
FIGURE 2

**Average Groundwater Extraction Rates and Water Level Deviation Versus Time
Wauleco, Inc.
Wausau, WI**



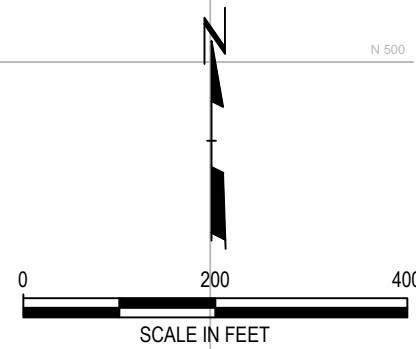
Note: The Average Groundwater Extraction Rate is a monthly average of the flow into the treatment system. The monthly average POTW discharge is less than the total extraction rate during the PPT pilot test due to the injection of treated water into IW01.

I:\04 - USER FILES - ATTACHED FILES - Baume & Mercier - Annual Groundwater Monitoring Report - Annual 2022\012188597.001204.WT.JAN.23.dwg -- PLOT DATE: March 30, 2023 - 9:34AM -- LAYOUT: WATER TABLE MAP (JANUARY 5 2023)
 Version: 2017.10.21



- LEGEND**
- W17 ● (1162.42) MONITORING WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
 - PW12 ■ (1164.12) EXTRACTION WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
 - APPROXIMATE PROPERTY LINE
 - - - FORMER BUILDING OUTLINE
 - 1161— WATER TABLE ELEVATION CONTOUR
 - DFOMW-5 ▲ 3M GROUNDWATER MONITORING WELL
 - - - APPROXIMATE LOCATION OF SHEET PILE WALL

- NOTES**
1. BASE MAP DEVELOPED FROM DRAWING A107250-1 OF THE SEPTEMBER 1992 SEMI-ANNUAL GROUNDWATER MONITORING REPORT BY KEYSTONE ENVIRONMENTAL, MWH DRAWING 2082658.302160101-B1, AND 3M WELLS LOCATION BASED ON 3M MAPS.
 2. WATER ELEVATIONS OBTAINED BY TRC ON JANUARY 5, 2023. ON THIS DATE, THE PUMPING RATE OF THE GROUNDWATER EXTRACTION SYSTEM WAS APPROXIMATELY 22.8 GPM.
 3. WAULECO WELLS PW02 AND W70B WERE ABANDONED ON 7/21/16 DURING SOIL MOUND REMOVAL ACTIVITIES BY TRC. 3M WELLS DFOMW9 AND DFOMW10A WERE ABANDONED BY 3M IN THE SUMMER OF 2015.
 4. WAULECO WELLS W19 AND W39 WERE ABANDONED ON 3/28/19 PRIOR TO THOMAS STREET RECONSTRUCTION. WELLS W26, W29, AND W40 WERE ALSO ABANDONED ON 3/28/19, WITH REPLACEMENT WELLS W26R, W29R, AND W40R INSTALLED ON 6/24/19.
 5. THE CITY OF WAUSAU INSTALLED A STEEL SHEET PILING WALL IN 2020 TO REPLACE A ROCK WALL ON THE WISCONSIN RIVER BANK LOCATED WEST OF THE THOMAS STREET BRIDGE.
 6. WAULECO WELLS W1A AND W1B WERE ABANDONED ON 6/29/21 AND 6/30/21 DUE TO THE RAILROAD PROPERTY TRANSFER TO 3M.



PROJECT:		WAULECO, INC.	
		ANNUAL GROUNDWATER MONITORING REPORT	
		WAUSAU, WISCONSIN	
TITLE:			
WATER TABLE MAP			
(JANUARY 5, 2023)			
DRAWN BY:	E. ALEXANDER	PROJ NO.:	189597.0012
CHECKED BY:	T. DUSHEK	DRAWING 1	
APPROVED BY:	S. SELLWOOD		
DATE:	MARCH 2023		
FILE NO.:		189597.0012.04.WT.JAN.23.dwg	

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