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October 10, 2017

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

Subject: 2017 Third 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 2017 Third 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) 826-3644.

Sincerely,

TRC Environmental Corporation

Bruce Iverson
Project Manager

Attachments: 2017 Third Quarterly Report

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

Wauleco, Inc. - Wausau, Wisconsin
Quarterly Report
Submitted October 2017

Summary of 2017 Third 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 third quarter of 2017 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 1.19 µg/L in July, 1.68 µg/L in August, and 1.80 µg/L in September.
- 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 12 µg/L on July 19, <3.0 µg/L on August 16, and <3.0 µg/L September 13, 2017. The duplicate sample for PCP on July 19 was <3.0 µg/L.
- 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 2,545 µg/L to 10,872 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 (%)
July 2017	90	53	31
August 2017	92	57	41
September 2017	93	61	45

- The dissolved oxygen concentration in the influent to the FBR averaged 2.9 mg/L in July, 2.9 mg/L in August, and 2.9 mg/L in September 2017.

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 <0.02 µg/L on July 19, 0.088 µg/L on August 16, and <0.02 µg/L September 13, which are below the permit discharge limit of 1.6 µg/L. The mass loading for mercury in July and September was calculated using half the detection limit of 0.01 µg/L, at 0.00000259 lb/24 hours in July, and 0.00000266 lb/24 hours in September, which are below the permit discharge limit of 0.00048 lb/24 hours. In August the mass loading for mercury was calculated at 0.0000226 lb/24 hours, which is 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 21.56 gpm for July, 21.40 gpm for August, and 22.13 gpm for September 2017 (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

Water table elevations for the month of July 2017 are included in Table 3. Monthly water table elevations have been discontinued, with only quarterly elevations being measured, and semi-annual preparation of water table maps as discussed in the 2014 Annual Groundwater Monitoring Report dated April 16, 2015. A water table map for the month of July 2017 is included as Drawing 1 in this Quarterly Report.

The product thickness data for July 2017 are summarized in Table 4. Measurements show small amounts of product present in July. Three monitoring wells measured had free product: W04A had 0.01 ft, W07 had 0.03 ft, W35 had 0.31 ft, and W40 had 0.04 ft. Only production well PW16 had measurable free product at 0.15 ft.

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 – July 7, 2017

**TABLE 1a
JULY 2017**

**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	7/19/2017	8.5	3.9				<	
Chemical Oxygen Demand	mg/L	7/19/2017	63	35				22	
Chloride	mg/L	7/19/2017	300	290				290	
Dissolved Oxygen	mg/L	7/6/2017	2.2	0.7	4				
	mg/L	7/13/2017	2.5	1	4.4				
	mg/L	7/19/2017	2.6	1.8	4.2				
	mg/L	7/26/2017	4.1	1	4.8				
Nitrogen, Ammonia	mg/L	7/6/2017	1.4	1	0.9				
	mg/L	7/13/2017	1.4	1.2	1.2				
	mg/L	7/19/2017	1.3	0.9	1.1				
	mg/L	7/26/2017	1.6	1.4	1				
Nitrogen, Nitrate	mg/L	7/6/2017	<	<	<				
	mg/L	7/13/2017	<	<	<				
	mg/L	7/19/2017	<	<	<				
	mg/L	7/26/2017	<	<	<				
Nitrogen, Nitrate + Nitrite	mg/L	7/19/2017	0.30	<				<	
Nitrogen, Total Kjeldahl	mg/L	7/19/2017	<	<				<	
Pentachlorophenol-Screen	µg/L	7/1/2017						2	
	µg/L	7/2/2017						2	
	µg/L	7/3/2017						2	
	µg/L	7/4/2017						1	
	µg/L	7/5/2017						1	
	µg/L	7/6/2017	4562	408	370			1	
	µg/L	7/7/2017						3	
	µg/L	7/8/2017						1	
	µg/L	7/9/2017						1	
	µg/L	7/10/2017						1	
	µg/L	7/11/2017						1	
	µg/L	7/12/2017						1	
	µg/L	7/13/2017	5810	700	281			1	
	µg/L	7/14/2017						2	
	µg/L	7/15/2017						1	
	µg/L	7/16/2017						1	
	µg/L	7/17/2017						1	
	µg/L	7/18/2017						1	
	µg/L	7/19/2017	3513	357	479		6	1	
	µg/L	7/20/2017						1	
	µg/L	7/21/2017						1	
	µg/L	7/22/2017						1	
	µg/L	7/23/2017						1	
µg/L	7/24/2017						1		
µg/L	7/25/2017						1		
µg/L	7/26/2017	3475	448	449			1		
µg/L	7/27/2017						1		
µg/L	7/28/2017						1		
µg/L	7/29/2017						1		

**TABLE 1a
JULY 2017**

**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	7/30/2017						1	
	µg/L	7/31/2017						1	
pH	S.U.	7/6/2017	6.95	6.9	6.95				
	S.U.	7/13/2017	6.95	6.85	6.9				
	S.U.	7/19/2017	6.95	6.85	6.85				
	S.U.	7/26/2017	7	6.9	6.95				
Phosphorus, Ortho	mg/L	7/19/2017	<	<				<	
Phosphorus, Phosphate	mg/L	7/6/2017	1	0.2	0.2				
	mg/L	7/13/2017	1	0.2	0.2				
	mg/L	7/19/2017	1	0.2	0.2				
	mg/L	7/26/2017	1	0.2	0.1				
Solids, Total Suspended	mg/L	7/19/2017	7.9	6.5				<	
Mercury	µg/L	7/19/2017	<					<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	7/19/2017	340	30	34		<	<	<
2,4,5-Trichlorophenol	µg/L	7/19/2017	<	<	<		<	<	<
2,4,6-Trichlorophenol	µg/L	7/19/2017	<	<	<		<	<	<
2,4-Dichlorophenol	µg/L	7/19/2017	<	<	<		<	<	<
2,4-Dimethylphenol	µg/L	7/19/2017	<	<	<		<	<	<
2,4-Dinitrophenol	µg/L	7/19/2017	<	<	<		<	<	<
2,6-Dichlorophenol	µg/L	7/19/2017	<	<	<		<	<	<
2-Chlorophenol	µg/L	7/19/2017	<	<	<		<	<	<
2-Methylphenol	µg/L	7/19/2017	<	<	<		<	<	<
2-Nitrophenol	µg/L	7/19/2017	<	<	<		<	<	<
3&4-Methylphenol	µg/L	7/19/2017	<	<	<		<	<	<
4,6-Dinitro-2-Methylphenol	µg/L	7/19/2017	<	<	<		<	<	<
4-Chloro-3-Methylphenol	µg/L	7/19/2017	<	<	<		<	<	<
4-Nitrophenol	µg/L	7/19/2017	<	<	<		<	<	<
Pentachlorophenol	µg/L	7/19/2017	3900	330	360		<	12	<
Phenol	µg/L	7/19/2017	<	<	<		<	<	<

**TABLE 1b
AUGUST 2017**

**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>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Biological Oxygen Demand	mg/L	8/16/2017	7.9	<				<	
Chemical Oxygen Demand	mg/L	8/16/2017	43	<				<	
Chloride	mg/L	8/16/2017	230	230				230	
Dissolved Oxygen	mg/L	8/3/2017	2.8	1	4.8				
	mg/L	8/10/2017	2.8	1.3	5.7				
	mg/L	8/16/2017	2.8	1.2	5.8				
	mg/L	8/24/2017	3.2	1.3	6				
Nitrogen, Ammonia	mg/L	8/3/2017	1.2	1	1				
	mg/L	8/10/2017	1.5	0.8	0.8				
	mg/L	8/16/2017	1	0.7	0.9				
	mg/L	8/24/2017	1.5	1.1	0.7				
Nitrogen, Nitrate	mg/L	8/3/2017	<	<	<				
	mg/L	8/10/2017	<	<	<				
	mg/L	8/16/2017	<	<	<				
	mg/L	8/24/2017	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	8/16/2017	<	<				<	
Pentachlorophenol-Screen	µg/L	8/1/2017						1	
	µg/L	8/2/2017						1	
	µg/L	8/3/2017	3041	354	342			1	
	µg/L	8/4/2017						3	
	µg/L	8/5/2017						2	
	µg/L	8/6/2017						2	
	µg/L	8/7/2017						2	
	µg/L	8/8/2017						2	
	µg/L	8/9/2017						9	
	µg/L	8/10/2017	10872	700	668			2	
	µg/L	8/11/2017						1	
	µg/L	8/12/2017						2	
	µg/L	8/13/2017						2	
	µg/L	8/14/2017						2	
	µg/L	8/15/2017						1	
	µg/L	8/16/2017	4059	174	105		7	1	
	µg/L	8/17/2017						1	
	µg/L	8/18/2017						1	
	µg/L	8/19/2017						1	
	µg/L	8/20/2017						1	
	µg/L	8/21/2017						1	
	µg/L	8/22/2017						1	
	µg/L	8/23/2017						1	
µg/L	8/24/2017	2545	256	292			1		
µg/L	8/25/2017						1		
µg/L	8/26/2017						2		
µg/L	8/27/2017						2		

**TABLE 1b
AUGUST 2017**

**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>Filters 1+2 Effluent</u>	<u>System Effluent</u>	<u>System Eff Dup</u>
Pentachlorophenol-Screen	µg/L	8/28/2017						2	
	µg/L	8/29/2017						1	
	µg/L	8/30/2017						1	
	µg/L	8/31/2017						1	
pH	S.U.	8/3/2017	6.95	6.85	6.9				
pH	S.U.	8/10/2017	6.9	6.9	6.95				
pH	S.U.	8/16/2017	7	6.95	6.95				
pH	S.U.	8/24/2017	7	6.95	7				
Phosphorus, Phosphate	mg/L	8/3/2017	1.2	0.2	0.2				
Phosphorus, Phosphate	mg/L	8/10/2017	1.1	0.3	0.3				
Phosphorus, Phosphate	mg/L	8/16/2017	1.1	0.2	0.2				
Phosphorus, Phosphate	mg/L	8/24/2017	1.1	0.3	0.3				
Solids, Total Suspended	mg/L	8/16/2017	14	12				<	
Mercury	µg/L	8/16/2017						0.088	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	8/16/2017	300		17			<	<
2,4,5-Trichlorophenol	µg/L	8/16/2017	<		<			<	<
2,4,6-Trichlorophenol	µg/L	8/16/2017	<		<			<	<
2,4-Dichlorophenol	µg/L	8/16/2017	<		<			<	<
2,4-Dimethylphenol	µg/L	8/16/2017	<		<			<	<
2,4-Dinitrophenol	µg/L	8/16/2017	<		<			<	<
2,6-Dichlorophenol	µg/L	8/16/2017	<		<			<	<
2-Chlorophenol	µg/L	8/16/2017	<		<			<	<
2-Methylphenol	µg/L	8/16/2017	<		<			<	<
2-Nitrophenol	µg/L	8/16/2017	<		<			<	<
3&4-Methylphenol	µg/L	8/16/2017	<		<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	8/16/2017	<		<			<	<
4-Chloro-3-Methylphenol	µg/L	8/16/2017	<		<			<	<
4-Nitrophenol	µg/L	8/16/2017	<		<			<	<
Pentachlorophenol	µg/L	8/16/2017	2900		190			<	<
Phenol	µg/L	8/16/2017	<		<			<	<

**TABLE 1c
SEPTEMBER 2017**

**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	9/13/2017	6.9	2.0				<	
Chemical Oxygen Demand	mg/L	9/13/2017	50	40				35	
Chloride	mg/L	9/13/2017	220	220				210	
Dissolved Oxygen	mg/L	9/1/2017	3.6	1.6	6.4				
	mg/L	9/7/2017	2.7	1	5.2				
	mg/L	9/13/2017	2.6	0.9	5.3				
	mg/L	9/20/2017	2.6	0.8	5.8				
	mg/L	9/27/2017	3.1	1.1	5.9				
Nitrogen, Ammonia	mg/L	9/1/2017	2.2	2	1.5				
	mg/L	9/7/2017	1.2	2	3				
	mg/L	9/13/2017	1	2.5	2				
	mg/L	9/20/2017	1	1.2	0.8				
	mg/L	9/27/2017	1	1.2	1.2				
Nitrogen, Nitrate	mg/L	9/1/2017	<	<	<				
	mg/L	9/7/2017	<	<	<				
	mg/L	9/13/2017	<	<	<				
	mg/L	9/20/2017	<	<	<				
	mg/L	9/27/2017	<	<	<				
Nitrogen, Total Kjeldahl	mg/L	9/13/2017	<	<				<	
Pentachlorophenol-Screen	µg/L	9/1/2017	2678	150	54			1	
	µg/L	9/2/2017						2	
	µg/L	9/3/2017						2	
	µg/L	9/4/2017						2	
	µg/L	9/5/2017						1	
	µg/L	9/6/2017						1	
	µg/L	9/7/2017	2862	153	159			2	
	µg/L	9/8/2017						2	
	µg/L	9/9/2017						2	
	µg/L	9/10/2017						2	
	µg/L	9/11/2017						2	
	µg/L	9/12/2017						1	
	µg/L	9/13/2017	3851	464	292		21	1	
	µg/L	9/14/2017						1	
	µg/L	9/15/2017						1	
	µg/L	9/16/2017						1	
	µg/L	9/17/2017						1	
	µg/L	9/18/2017						1	
	µg/L	9/19/2017						1	
	µg/L	9/20/2017	3230	353	395			1	
	µg/L	9/21/2017						6	
	µg/L	9/22/2017						6	
	µg/L	9/23/2017						3	
	µg/L	9/24/2017						3	
	µg/L	9/25/2017						3	

**TABLE 1c
SEPTEMBER 2017**

**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	9/26/2017						1	
	µg/L	9/27/2017	4478	342	370			1	
	µg/L	9/28/2017						1	
	µg/L	9/29/2017						1	
	µg/L	9/30/2017						1	
pH	S.U.	9/1/2017	6.85	6.85	6.9				
	S.U.	9/7/2017	7	6.9	6.95				
	S.U.	9/13/2017	7	6.9	6.95				
	S.U.	9/20/2017	7	6.95	6.95				
	S.U.	9/27/2017	7	6.95	7				
Phosphorus, Ortho	mg/L	9/13/2017	<	<				<	
Phosphorus, Phosphate	mg/L	9/1/2017	1	0.3	0.3				
	mg/L	9/7/2017	1	0.3	0.3				
	mg/L	9/13/2017	0.9	0.3	0.3				
	mg/L	9/20/2017	1	0.3	0.3				
	mg/L	9/27/2017	1	0.3	0.3				
Solids, Total Suspended	mg/L	9/13/2017	14	13				<	
Mercury	µg/L	9/13/2017						<	
Phenol									
2,3,4,6-Tetrachlorophenol	µg/L	9/13/2017	350	35	36			<	<
2,4,5-Trichlorophenol	µg/L	9/13/2017	<	<	<			<	<
2,4,6-Trichlorophenol	µg/L	9/13/2017	<	<	<			<	<
2,4-Dichlorophenol	µg/L	9/13/2017	<	<	<			<	<
2,4-Dimethylphenol	µg/L	9/13/2017	<	<	<			<	<
2,4-Dinitrophenol	µg/L	9/13/2017	<	<	<			<	<
2,6-Dichlorophenol	µg/L	9/13/2017	<	<	<			<	<
2-Chlorophenol	µg/L	9/13/2017	<	<	<			<	<
2-Methylphenol	µg/L	9/13/2017	<	<	<			<	<
2-Nitrophenol	µg/L	9/13/2017	<	<	<			<	<
3&4-Methylphenol	µg/L	9/13/2017	<	<	<			<	<
4,6-Dinitro-2-Methylphenol	µg/L	9/13/2017	<	<	<			<	<
4-Chloro-3-Methylphenol	µg/L	9/13/2017	<	<	<			<	<
4-Nitrophenol	µg/L	9/13/2017	<	<	<			<	<
Pentachlorophenol	µg/L	9/13/2017	4200	420	430			<	<
Phenol	µg/L	9/13/2017	<	<	<			<	<

TABLE 2a
JULY 2017

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

<u>Date</u>	<u>Influent Groundwater Flow Rate ⁽¹⁾⁽³⁾ (gpm)</u>	<u>POTW Discharge Flow Rate ⁽¹⁾ (gpm)</u>	<u>POTW Totalized Discharge ⁽³⁾ (gal)</u>
7/1/2017	24.61	21.29	55033602
7/2/2017	23.56	21.28	55064252
7/3/2017	23.27	21.21	55094793
7/4/2017	23.19	20.60	55124450
7/5/2017	22.79	20.60	55154115
7/6/2017	22.50	20.74	55183978
7/7/2017	22.75	20.72	55213809
7/8/2017	23.09	20.41	55243201
7/9/2017	23.29	20.16	55272226
7/10/2017	23.37	20.57	55301841
7/11/2017	23.09	20.82	55331824
7/12/2017	22.75	20.37	55361160
7/13/2017	22.74	20.04	55390020
7/14/2017	22.91	20.17	55419068
7/15/2017	22.97	20.05	55447942
7/16/2017	22.99	19.93	55476634
7/17/2017	23.09	19.40	55504567
7/18/2017	23.05	20.46	55534035
7/19/2017	23.08	21.53	55565037
7/20/2017	23.05	21.81	55596439
7/21/2017	23.14	22.15	55628333
7/22/2017	24.48	22.51	55660752
7/23/2017	24.83	22.99	55693852
7/24/2017	24.87	23.31	55727413
7/25/2017	24.75	23.36	55761045
7/26/2017	24.78	23.40	55794745
7/27/2017	25.13	23.25	55828226
7/28/2017	25.15	23.67	55862314
7/29/2017	25.15	23.77	55896547
7/30/2017	25.50	24.11	55931266
7/31/2017	25.16	23.80	55965538
Monthly Average	23.71	21.56	
Total ⁽²⁾ :			962,594

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.

TABLE 2b
AUGUST 2017

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

Date	Influent Groundwater Flow Rate ^{(1) (3)} (gpm)	POTW Discharge Flow Rate ⁽¹⁾ (gpm)	POTW Totalized Discharge ⁽³⁾ (gal)
8/1/2017	25.00	22.64	55998135
8/2/2017	25.02	20.97	56028332
8/3/2017	24.62	20.85	56058355
8/4/2017	24.23	20.61	56088038
8/5/2017	24.37	20.47	56117508
8/6/2017	24.23	20.66	56147260
8/7/2017	24.01	20.49	56176772
8/8/2017	23.92	20.31	56206014
8/9/2017	23.93	19.79	56234516
8/10/2017	23.81	19.61	56262752
8/11/2017	23.80	19.66	56291063
8/12/2017	24.04	19.89	56319698
8/13/2017	23.94	20.32	56348958
8/14/2017	23.80	20.27	56378147
8/15/2017	23.75	20.35	56407449
8/16/2017	23.91	20.65	56437189
8/17/2017	23.99	20.16	56466213
8/18/2017	23.95	21.55	56497245
8/19/2017	23.93	22.86	56530170
8/20/2017	23.87	22.91	56563158
8/21/2017	23.81	22.72	56595878
8/22/2017	23.13	22.25	56627920
8/23/2017	22.63	21.96	56659540
8/24/2017	22.62	22.46	56691887
8/25/2017	22.55	22.60	56724431
8/26/2017	22.57	22.38	56756660
8/27/2017	22.88	22.81	56789512
8/28/2017	22.80	22.80	56822342
8/29/2017	22.83	22.63	56854925
8/30/2017	22.89	22.82	56887785
8/31/2017	22.88	22.86	56920702
Average For The Month	23.67	21.40	
Total ⁽²⁾ :			955,164

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.

TABLE 2c
SEPTEMBER 2017

Treatment System Flows
Wauleco, Inc.
Wausau, Wisconsin

<u>Date</u>	<u>Influent Groundwater Flow Rate ^{(1) (3)} (gpm)</u>	<u>POTW Discharge Flow Rate ⁽¹⁾ (gpm)</u>	<u>POTW Totalized Discharge ⁽³⁾ (gal)</u>
9/1/2017	22.64	22.75	56953468
9/2/2017	22.71	22.11	56985310
9/3/2017	22.66	22.29	57017410
9/4/2017	22.65	22.60	57049947
9/5/2017	22.68	22.55	57082419
9/6/2017	22.70	22.76	57115198
9/7/2017	22.70	22.50	57147600
9/8/2017	22.72	22.17	57179521
9/9/2017	22.62	22.51	57211935
9/10/2017	22.58	22.43	57244230
9/11/2017	22.53	22.42	57276512
9/12/2017	22.71	22.56	57308995
9/13/2017	22.83	22.47	57341347
9/14/2017	22.80	22.40	57373599
9/15/2017	22.83	22.36	57405799
9/16/2017	22.77	21.66	57436990
9/17/2017	22.44	19.46	57465018
9/18/2017	22.48	19.55	57493168
9/19/2017	22.47	21.35	57523914
9/20/2017	22.19	22.09	57555721
9/21/2017	22.49	22.13	57587586
9/22/2017	22.62	22.28	57619665
9/23/2017	22.64	22.21	57651652
9/24/2017	22.79	22.33	57683801
9/25/2017	22.79	22.08	57715601
9/26/2017	22.80	22.61	57748163
9/27/2017	22.85	22.27	57780226
9/28/2017	22.97	22.01	57811915
9/29/2017	22.97	22.31	57844035
9/30/2017	22.88	22.63	57876623
Average	22.68	22.13	
Total ⁽²⁾ :			955,921

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.

TABLE 3

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

<u>Well</u>	<u>July 07, 2017 (ft msl)</u>	<u>August 2017</u>	<u>September 2017</u>
PW01	1164.9	----	----
PW02	Abandoned	----	----
PW03	1164.76	----	----
PW3S	1165.23	----	----
PW04	1164.04	----	----
PW05	1163.97	----	----
PW06	1164.15	----	----
PW07	1149.34	----	----
PW08	1165.11	----	----
PW09I	----	----	----
PW09O	1164.09	----	----
PW10	1164.3	----	----
PW11	1162.74	----	----
PW12	1164.42	----	----
PW13	1164.23	----	----
PW14	1163.71	----	----
PW15	1163.84	----	----
PW16	1163.73	----	----
PW17	1163.49	----	----
PW18	1164.19	----	----
PW19	1163.67	----	----
PW20	1164.12	----	----
PW21	1163.64	----	----
PW22	1163.98	----	----
PW23	1163.9	----	----
PW24	1162.47	----	----
PW25	1161.86	----	----
PW26	1162.04	----	----
PW27	1162.43	----	----
PW28	1164.76	----	----
PW29	1164.88	----	----
P01	1164.04	----	----
OW01	1166.09	----	----
W01A	1165.26	----	----
W01B	1165.31	----	----
W02	1164.51	----	----
W03A	1163.19	----	----
W03B	1162.86	----	----
W04A	1164.11	----	----
W04B	1164.16	----	----
W05	1164.09	----	----
W06R	1165.19	----	----
W07	1164.94	----	----
W08	1175.07	----	----
W09	1163.45	----	----
W10A	1161.46	----	----
W10B	1161.48	----	----
W11	1161.36	----	----
W12	1160.91	----	----
W13	1162.62	----	----
W14	1161.23	----	----
W16	1162.9	----	----
W17	1163.5	----	----
W18	1161.36	----	----

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

<u>Well</u>	<u>July 07, 2017 (ft msl)</u>	<u>August 2017</u>	<u>September 2017</u>
W19	1164.44	----	----
W21	1161.12	----	----
W22	1162.88	----	----
W23	1161.31	----	----
W24A	1161.29	----	----
W25	1165.26	----	----
W26	1161.49	----	----
W27	1162.42	----	----
W28	1161.38	----	----
W29	1161.13	----	----
W30	1164.03	----	----
W31	1161.04	----	----
W32	1161.04	----	----
W33	1163.96	----	----
W34	1163.94	----	----
W35	1164.18	----	----
W36	1164.54	----	----
W39	1163.91	----	----
W40	1162.572	----	----
W41	1163.72	----	----
W42	1164.54	----	----
W44	1163.99	----	----
W45	1164.21	----	----
W46	1163.91	----	----
W47	1162.8	----	----
W48	1163.35	----	----
W49	1163.87	----	----
W66	1164.96	----	----
W67	1164.91	----	----
W68A	1165.05	----	----
W68B	1164.85	----	----
W69	1164.65	----	----
W70B	Abandoned	----	----
River	----	----	----
IW01	1164.08	----	----
IW01A	1164.08	----	----
FP01	1162.31	----	----
FP02	1162.43	----	----
FP03	1161.56	----	----
FP04	1162.52	----	----
3M Basin	Water in both Basins	----	----
DFOWM 5	1164.4	----	----
DFOWM 9	Abandoned	----	----
DFOWM 10A	Abandoned	----	----
DFOWM 11	1162.79	----	----
DFOWM 12	1164.35	----	----
W71	1167.17	----	----
W72	1165.67	----	----
W73	1164.32	----	----
W74	1163.68	----	----

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.

Table 4

Free Product Measurements
 Wauleco, Inc.
 Wausau, Wisconsin

Well	July 07, 2017 (ft)	August 2017	September 2017
PW01	0.00	----	----
PW02	-----	----	----
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	0.15	----	----
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	0.00	----	----
W01B	0.00	----	----
W02	0.00	----	----
W03A	0.00	----	----
W03B	0.00	----	----
W04A	0.01	----	----
W04B	0.00	----	----
W05	0.00	----	----
W06R	0.00	----	----
W07	0.03	----	----
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	July 07, 2017 (ft)	August 2017	September 2017
W18	0.00	----	----
W19	0.00	----	----
W21	0.00	----	----
W22	0.00	----	----
W23	0.00	----	----
W24A	0.00	----	----
W25	0.00	----	----
W26	0.00	----	----
W27	0.00	----	----
W28	0.00	----	----
W29	0.00	----	----
W30	0.00	----	----
W31	0.00	----	----
W32	0.00	----	----
W33	0.00	----	----
W34	0.00	----	----
W35	0.31	----	----
W36	0.00	----	----
W39	0.00	----	----
W40	0.04	----	----
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	0.00	----	----
River	-----	----	----
IW01	0.00	----	----
IW01A	0.00	----	----
FP01	0.00	----	----
FP02	0.00	----	----
FP03	0.00	----	----
FP04	0.00	----	----
3M Basin	0.00	----	----
DFOWM 5	0.00	----	----
DFOWM 9	0.00	----	----
DFOWM 10A	0.00	----	----
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

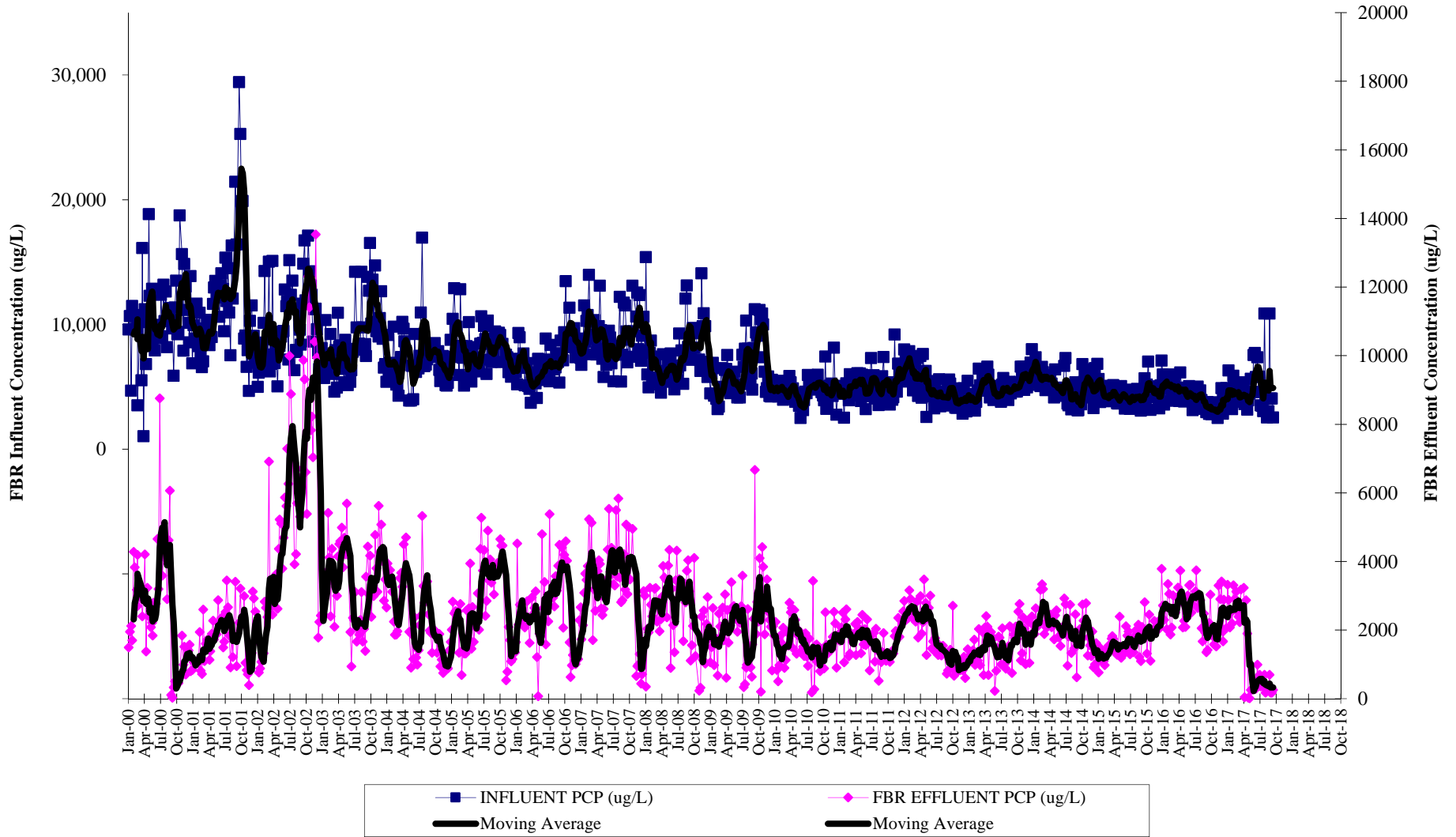
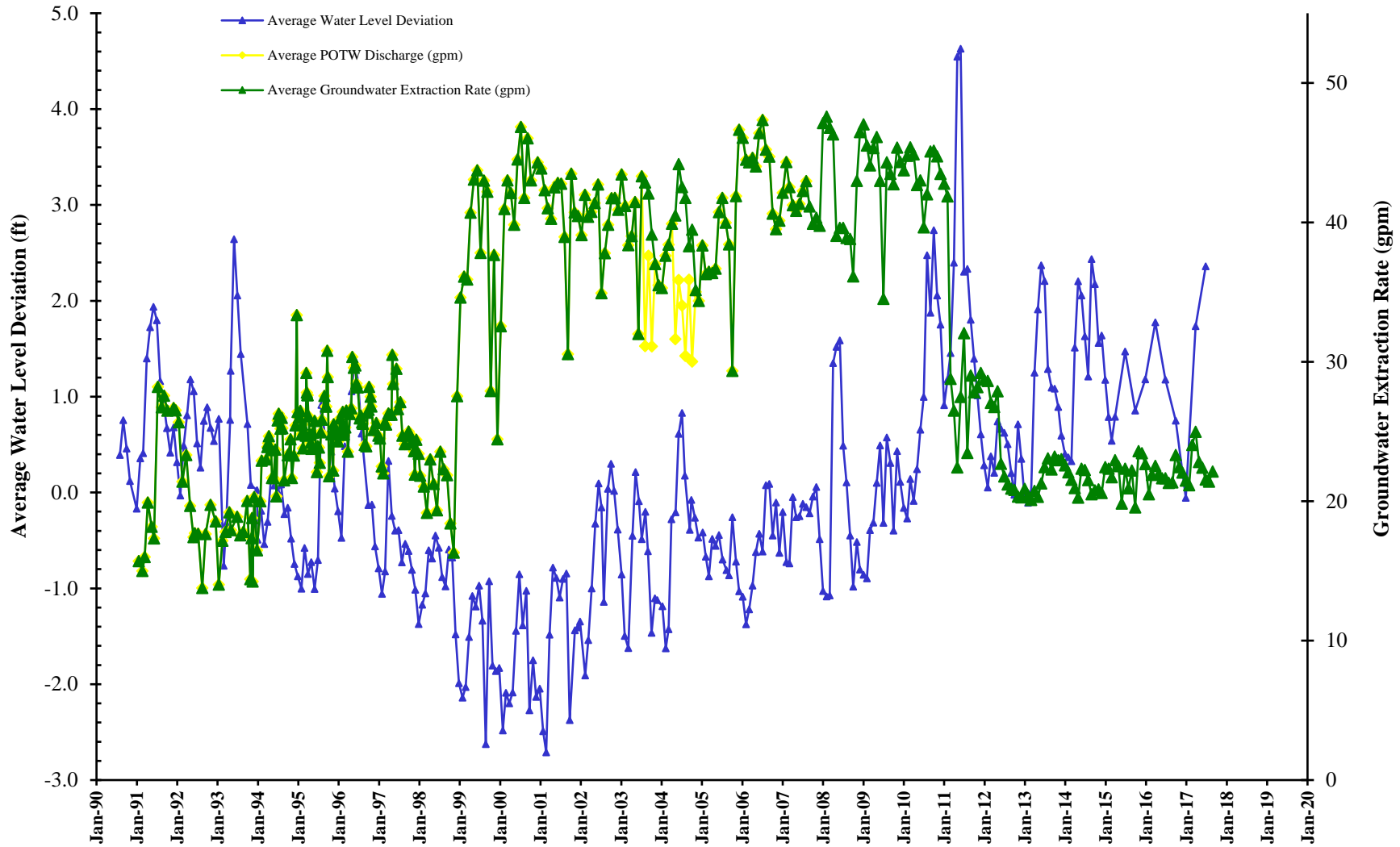


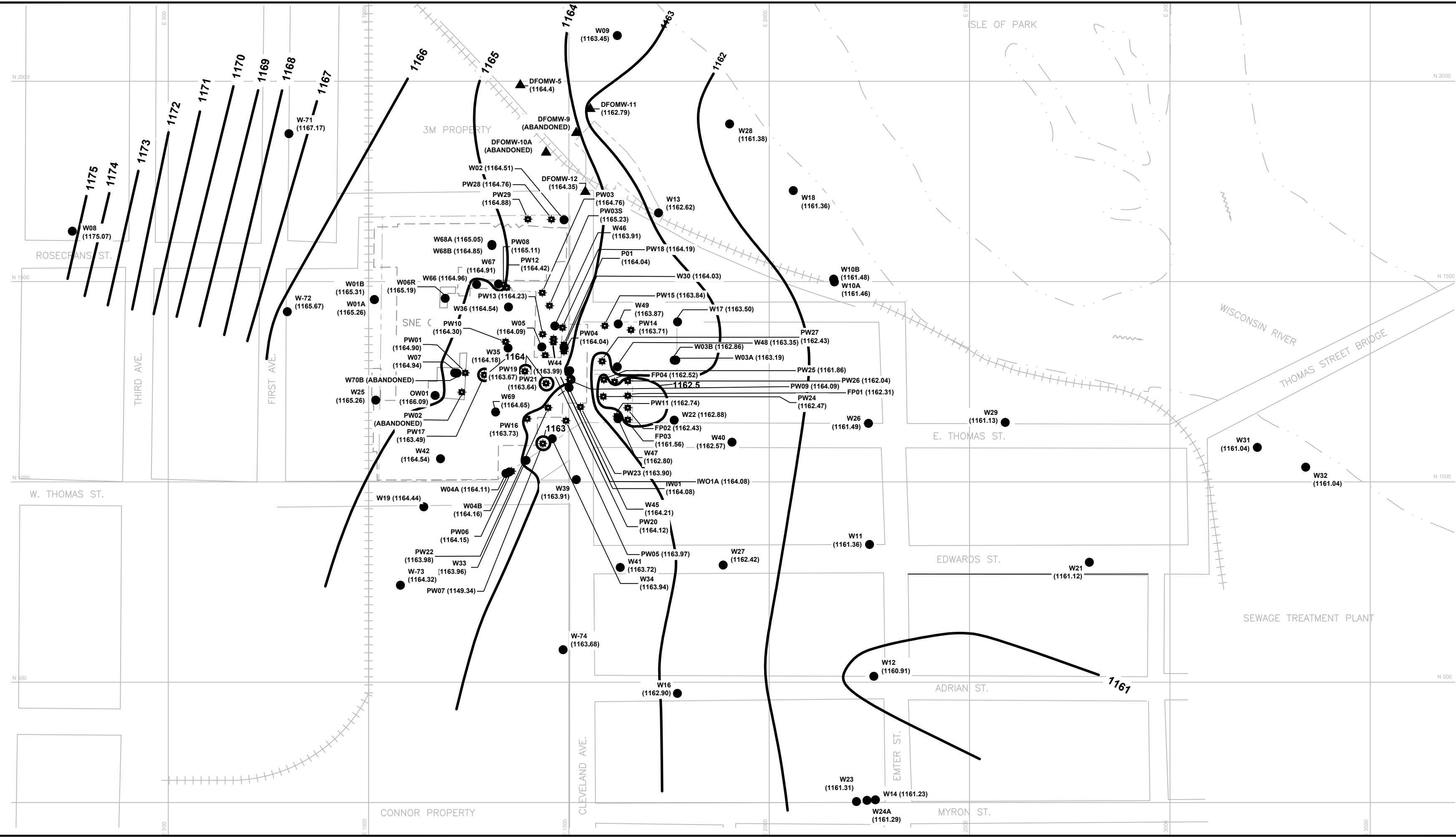
FIGURE 2

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.

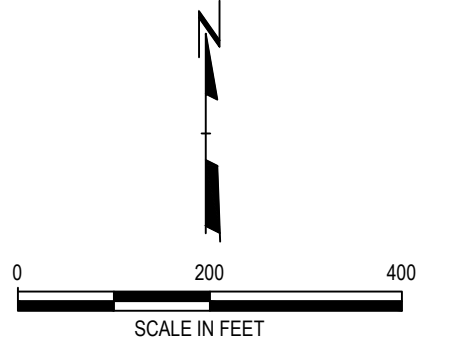
1164 - ATTACHED XREFS: Baume & Mercier - JULY 2017.dwg - ATTACHED IMAGES: 189597.0005.0000024.189597.0005.02.WT.JULY.17.dwg - PLOT DATE: October 06, 2017 - 10:58AM - LAYOUT: DRAWING 1
 DRAWING NAME: J:\Wauleco\189597.0005.0000024.189597.0005.02.WT.JULY.17.dwg - PLOT DATE: October 06, 2017 - 10:58AM - LAYOUT: DRAWING 1
 Version: 2017-07-21



LEGEND

- W17 ● (1161.34) MONITORING WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
- PW12 ■ (1162.34) EXTRACTION WELL LOCATION, NUMBER AND WATER TABLE ELEVATION
- APPROXIMATE PROPERTY LINE
- - - FORMER BUILDING OUTLINE
- 1161 — WATER TABLE ELEVATION CONTOUR (CONTOUR INTERVAL VARIES (DASHED WHERE INFERRED))
- DFOMW-5 ▲ 3M GROUNDWATER MONITORING WELL

- 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 JULY 7, 2017. ON THIS DATE, THE PUMPING RATE OF THE GROUNDWATER EXTRACTION SYSTEM WAS APPROXIMATELY 20.7 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.



PROJECT: **WAULECO, INC. QUARTERLY REPORT WAUSAU, WISCONSIN**

TITLE: **WATER TABLE MAP JULY 7, 2017**

DRAWN BY: L. STORMER	PROJ NO.: 189597.0005.000002
CHECKED BY: T. DUSHEK	
APPROVED BY: K. QUINN	DRAWING 1
DATE: AUGUST 2017	

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FILE NO.: 189597.0005.02.WT.JULY.17.dwg