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Date: June 15, 2023
BRRTS No.: 02-38-580694
Our Ref: 30129347
Subject: **GETS Short Term Monitoring** – Report 1, November 14, 2022 through May 15, 2023
Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI

Dear Ms. Sellwood,

This letter report is the first GETS Short Term Monitoring Report summarizing performance of the Groundwater Extraction and Treatment System (GETS) for the period November 14, 2022 through May 15, 2023 and provides the baseline of conditions for the short term monitoring period. As detailed in the *Long-Term Monitoring Plan for the Groundwater Extraction and Treatment System* (Arcadis, 2021), the short term monitoring phase began following the first 6 months of the GETS operation. The GETS began operating November 14, 2022 initiating startup monitoring. Startup monitoring of GETS operations was completed on May 15, 2023. The GETS Short Term Monitoring began on May 15, 2023 and will span the next 2 years of GETS operations. Reporting during short term monitoring will be every six months. The data collected during startup monitoring and summarized in this report will be the basis for ongoing GETS optimization activities that will be summarized in future reports.

SUMMARY OF NEW DATA

Tables 1 through 14 summarize the available operational data and monitoring activities for the first six months of GETS monitoring. Tables 1 through 7 summarize the operational data for the GETS and the extraction wells, while Tables 8 and 9 summarize Ditch B Flow and concentration data. Table 10 summarizes observed groundwater and surface water interaction in Ditch B. Tables 11 through 14 contain the chemistry and water level data from monitoring wells and surface water locations outlined in the Long-Term Monitoring Plan for the GETS (July 2021) approved in October 2021.

The treatment rates and groundwater pumping varied during the first 8 weeks of GETS operation while final system testing was completed. Final optimization of clarifier and sedimentation processes occurred during week 9. The GETS has been running continuously since the afternoon of January 11, except for brief periods for routine maintenance. The average treatment rates each week are summarized in Table 6. It should be noted that the small differences between the total volumes of water at the influent of the GETS, the effluent of the GETS, and total volume discharged to Ditch B reported on Table 6 are due to water being recirculated within the treatment system. For example, during week 20, the average treatment rate (211.6) equals the discharge to Ditch B, which equals the total pumping from the extraction wells (215.1). The small discrepancies reflect storage in the treatment system, the piping, and differences in the accuracy of the 10 flow meters used to make the calculations.

Water level data were periodically downloaded from the transducers installed in the monitoring wells adjacent to the extraction wells. These data are shown on Figures 3, 4, and 5. The changes in water levels on the figures

coincide with changes in pumping rates of the extraction wells, precipitation events, and snow melt. The graphs on the figures are organized based on location relative to Ditch B. Figures 3 and 4 summarize water levels near the 6 extraction wells near Ditch B organized from north to south. Prior to continuous operations, water levels were highest at MW-EX-3 (592 feet) in the north, decreasing to 590 feet PZ-52-41 (EX-7), increasing to 591.5 feet at PZ-53-40 (EX-9). This u-shaped pattern of water levels forms a trough in the water table, focusing groundwater eastward. This u-shaped pattern has remained unchanged during continuous operations with water levels declining by an average of 1.35 feet near the extraction wells. Figures 3, 4 and 5 show a temporary increase in water levels from recent snow melt and significant rainfall events during the month of April. The most recent data from the end of May show a decline in water levels near active extraction wells to elevations observed in March, before the water level increases observed during April. Figure 5 presents graphs of the three extraction wells upgradient of Ditch B. Groundwater elevations at these wells are approximately 5-feet higher than the wells along Ditch B. Water levels in these wells declined by an average of 1.87 feet during continuous operations before the April rainfall events and spring snow melt. Water Levels near these extraction wells remain elevated but are trending downward. The average weekly water levels near each extraction well are summarized in Table 4.

Monthly water chemistry data from the operating extraction wells are summarized in Table 5. These data characterize the influent water to the GETS. Three extraction wells, EX-4, EX-6 and EX-9, were not operating during all sampling events and surrogate samples were collected from adjacent monitoring wells MW-EX-4, PZ-51-38 and PZ-53-40, respectively, when necessary. The groundwater data show that peak concentrations along Ditch B are in wells EX-5, EX-6, and EX-7. These three wells are centered in the PFAS plume moving eastward as well as in the center of the trough in the water table between EX-3 and EX-9. The concentration data and the water levels indicate the PFAS plume is moving eastward toward the extraction wells. The PFAS concentrations in each extraction well have stabilized since continuous operations began on January 9, 2023.

These concentrations and water level observations were the basis for increasing the nominal treatment rate around the end of February. The initial nominal treatment rate of the GETS was approximately 190 gpm. On Sunday February 26 pumping rates were increased 5 gpm at wells EX-5, EX-6 and EX-7. Rates were increased an additional 5 gpm in each well on March 1. These changes have increased nominal pumping rates by 30 gpm to 219 gpm to recover more PFAS from groundwater. The effect of these changes decreased water levels approximately 1 foot as shown on the respective graphs on Figures 3 and 4.

The next transducer download of water level data is scheduled for July. Data downloads will continue periodically to support ongoing optimization activities of the GETS. These data will be included in subsequent GETS Short Term Monitoring reports. Monthly sampling of the extraction wells will continue through the summer during ongoing optimization activities. The staff gages in Ditch B (see Table 10) have also been redeployed. Data collected from these gages over the summer of 2023 will be included in future GETS Short Term Monitoring reports.

SUMMARY OF CUMULATIVE DATA

The available data for water samples at the GETS and at the influent of the Ditch B treatment system are summarized in Tables 7 and 9. The average concentrations of PFOA plus PFOS at the influent of the treatment system during GETS Startup were 10,600 and 800 ng/L, respectively. These concentrations have been stable since continuous pumping began on January 11. Most effluent concentrations have been non-detect (ND) for PFOA and PFOS in samples collected during startup monitoring. PFOA was detected at a maximum concentration of 2.1 ng/L during week 26, well below the GETS permitted discharge concentrations (20 ng/L combined for PFOA and PFOS) and also well below surface water criteria (95 ng/L for PFOA and 8 ng/L for

PFOS). Four detections between the method detection limit (MDL) and reporting limit (RL) were observed during weeks 23, 24, 25, and 27 (noted as week +1 in the tables).

Ditch B concentrations declined since the onset of continuous groundwater extraction, with some variation observed during high stream flow conditions, particularly over this reporting period where snow melt and significant rainfall events have occurred. The highest concentrations in Ditch B (2,420 ng/L of PFOA plus PFOS) were observed during week 8, immediately prior to full-time operation of the GETS. Concentrations of PFOA plus PFOS in Ditch B were 1,381 ng/L during week 26. The lowest concentration measured in Ditch B was 151 ng/L during week 14 of the startup monitoring period. Concentrations in Ditch B are expected to decline and stabilize as continued optimization of the GETS pumping rates occurs, the zone-of-capture continues to develop with the long-term operation of the GETS, and groundwater elevations return to typical conditions. The water chemistry data is posted on Figures 9 and 10 for two sampling periods to show the distribution of concentrations. Figure 9 shows the data from December 2022 and January 2023 before continuous operations of the GETS extraction wells. Figure 10 shows the concentrations of PFOA plus PFOS during the first quarter of 2023. Additional figures will be provided as sampling results become available.

Table 11 summarizes the fluctuations in groundwater and surface water elevations during GETS startup. Figures 6, 7, and 8 present interpreted groundwater elevations for three time periods. Figure 6 present January 2023 water levels before continuous operations of the GETS began (January 11, 2023). Figure 7 presents March 2023 water levels showing the developing drawdown near groundwater extraction wells before the heavy rains and snow melt that occurred during April. Figure 8 presents the May 2023 water level elevations after the rains and snow melt that occurred in April. May water levels were higher than average and are expected to decline as precipitation become more typical of summer conditions. Tables 12, 13, and 14 present the water quality data collected in groundwater and surface water during GETS Startup.

CLOSING

The next report will be GETS Short Term Monitoring Report #2 which will summarize the data collected during the six-month startup monitoring period from May 16th through November 15th. This report is scheduled to be uploaded by the end of December (45 days after the monitoring period). If you have questions or comments, please reach out.

Sincerely,

Arcadis U.S., Inc.

Matthew C. Coleman
Project Communications Manager

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Alyssa Sellwood, P.E.
Wisconsin Department of Natural Resources
June 15, 2023

CC. D. Nelson
S. Wahl
S. Potter

Attachments:

Tables

Table 1	Pumping time per extraction well each week of Startup Monitoring (hours per week)
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Table 4	Water levels at each extraction well monitoring point during Startup Monitoring (feet NAD88)
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Table 10	Summary of temporary streambed piezometers data during Startup Monitoring (feet from top of casing)
Table 11	Groundwater and Surface Water Elevations, during Startup Monitoring
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Figure 1	GETS startup monitoring locations
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Figure 3	Water level elevations near extraction wells along Ditch B
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Figure 6	Potentiometric Surface January 2023
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Figure 8	Potentiometric Surface May 2023
Figure 9	PFOA + PFOS Concentrations at GETS Startup Monitoring Locations in Dec 2022 and Jan 2023
Figure 10	PFOA + PFOS Concentrations at GETS Startup Monitoring Locations during First Quarter 2023
Figure 11	Water Level Data in the Zone-of-Capture of the GETS

EDDs submitted electronically bi-weekly

Table 1. Pumping time per extraction well each week of **Startup Monitoring (hrs per week)**

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Starting Day	Week	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	EX-8	EX-9
14-Nov-2022	1	72.0	72.0	0.0	0.0	72.0	0.0	20.0	20.0	47.0
21-Nov-2022	2	71.0	71.0	0.0	0.0	71.0	0.0	71.0	71.0	0.0
28-Nov-2022	3	49.0	49.0	19.0	0.0	49.0	0.0	49.0	49.0	0.0
5-Dec-2022	4	58.8	59.3	59.3	29.0	59.3	42.0	59.3	59.3	0.0
12-Dec-2022	5	21.5	21.5	22.0	22.0	22.0	22.0	22.0	22.0	0.0
19-Dec-2022	6	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	0.0
26-Dec-2022	7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0
2-Jan-2023	8	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	0.0
9-Jan-2023	9	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	0.0
16-Jan-2023	10	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
23-Jan-2023	11	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
30-Jan-2023	12	162.0	162.0	162.0	162.0	162.0	162.0	162.0	162.0	0.0
6-Feb-2023	13	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
13-Feb-2023	14	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
20-Feb-2023	15	160.0	160.0	160.0	160.0	160.0	160.0	160.0	160.0	0.0
27-Feb-2023	16	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	1.0
6-Mar-2023	17	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
13-Mar-2023	18	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
20-Mar-2023	19	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
27-Mar-2023	20	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
3-Apr-2023	21	168.0	168.0	168.0	168.0	161.0	168.0	168.0	168.0	0.0
10-Apr-2023	22	168.0	168.0	168.0	168.0	161.0	168.0	168.0	168.0	0.0
17-Apr-2023	23	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	0.0
24-Apr-2023	24	168.0	168.0	168.0	168.0	161.0	168.0	168.0	168.0	0.0
1-May-2023	25	168.0	168.0	168.0	168.0	161.0	168.0	168.0	168.0	1.0
8-May-2023	26	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
15-May-2023	+1	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	0.0
22-May-2023	+2	168.0	168.0	168.0	168.0	161.0	168.0	168.0	168.0	0.0
29-May-2023	+3	168.0	168.0	168.0	168.0	161.0	168.0	168.0	168.0	0.0
Totals		3811	3812	3639	3590	3770	3603	3760	3760	49

Table 2. Volume of water pumped per extraction well each week of **Startup Monitoring** (gallons per week)

Starting Day	Week	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	EX-8	EX-9	Total Pumping
14-Nov-2022	1	98,516	81,370	-	-	97,548	-	28,402	28,442	57,702	391,980
21-Nov-2022	2	113,198	94,669	-	-	113,185	-	113,179	113,201	25	547,457
28-Nov-2022	3	85,862	74,588	28,967	-	85,742	-	85,912	85,895	-	446,966
5-Dec-2022	4	91,534	76,856	83,145	44,412	89,667	62,472	89,703	89,723	-	627,511
12-Dec-2022	5	32,628	25,969	32,653	32,623	32,127	32,163	32,145	32,144	-	252,453
19-Dec-2022	6	48,832	41,222	47,113	47,050	46,784	47,034	48,516	48,703	-	375,253
26-Dec-2022	7	6,632	5,609	6,379	6,373	6,344	6,376	6,624	6,629	-	50,964
2-Jan-2023	8	66,360	58,175	66,366	66,291	66,256	68,157	68,163	68,163	-	527,930
9-Jan-2023	9	214,024	157,305	214,186	214,192	214,187	214,296	211,514	211,563	-	1,651,266
16-Jan-2023	10	259,630	160,434	257,270	256,083	254,276	247,813	247,742	252,906	-	1,936,153
23-Jan-2023	11	259,909	151,159	260,176	257,991	257,317	256,618	256,442	253,165	-	1,952,777
30-Jan-2023	12	249,795	143,796	250,792	249,901	249,713	248,905	247,832	249,238	1,194	1,891,165
6-Feb-2023	13	260,244	143,429	257,274	257,604	255,815	256,999	258,073	258,561	8	1,948,007
13-Feb-2023	14	252,141	141,420	252,444	252,734	253,316	253,270	256,144	259,420	-	1,920,889
20-Feb-2023	15	238,684	134,006	238,968	239,062	243,942	244,388	244,278	242,946	-	1,826,274
27-Feb-2023	16	249,736	135,757	249,941	248,690	341,391	341,509	341,415	256,994	1,328	2,166,761
6-Mar-2023	17	246,024	135,438	247,341	246,762	350,095	350,160	349,919	248,757	1	2,174,497
13-Mar-2023	18	249,015	130,740	248,267	249,170	351,247	351,310	351,164	251,637	-	2,182,550
20-Mar-2023	19	245,066	127,462	248,793	248,649	352,654	352,573	352,476	250,191	-	2,177,864
27-Mar-2023	20	246,261	129,552	246,376	246,950	350,319	350,377	350,289	247,776	-	2,167,900
3-Apr-2023	21	241,228	141,092	242,420	242,029	336,742	351,631	351,547	248,562	2,536	2,157,787
10-Apr-2023	22	242,331	135,101	241,804	242,999	351,250	351,340	351,180	247,647	-	2,163,652
17-Apr-2023	23	195,353	110,361	195,372	197,354	289,119	289,196	286,021	203,664	-	1,766,440
24-Apr-2023	24	239,862	132,690	240,681	241,176	351,473	351,586	351,390	250,293	-	2,159,151
1-May-2023	25	234,339	133,380	238,588	241,659	350,826	350,950	350,832	250,962	893	2,152,429
8-May-2023	26	227,065	132,416	230,719	236,264	352,242	352,278	352,066	247,473	-	2,130,523
15-May-2023	+1	215,626	127,168	223,409	224,699	340,937	341,099	341,034	233,295	-	2,047,267
22-May-2023	+2	196,802	129,810	238,120	239,818	352,415	352,586	352,358	252,914	-	2,114,823
29-May-2023	+3	164,289	121,474	244,601	255,544	352,709	352,894	352,706	279,915	-	2,124,132
Totals (x1,000)		5,471	3,312	5,332	5,286	7,090	6,778	7,029	5,671	64	46,033

Table 3. Maximum pumping rate per extraction well each week of **Startup Monitoring** (gallons per minute)

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Starting Day	Week	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	EX-8	EX-9
14-Nov-2022	1	25.0	25.0	0.0	0.0	25.0	0.0	25.0	25.0	25.0
21-Nov-2022	2	25.0	20.0	0.0	0.0	25.0	0.0	25.0	25.0	0.0
28-Nov-2022	3	25.0	22.0	20.0	0.0	30.0	0.0	27.0	28.0	0.0
5-Dec-2022	4	27.0	22.0	27.0	25.0	25.0	25.0	25.0	25.0	0.0
12-Dec-2022	5	25.0	20.0	25.0	25.0	25.0	25.0	25.0	25.0	0.0
19-Dec-2022	6	26.0	22.0	25.0	25.0	25.0	25.0	26.0	26.0	0.0
26-Dec-2022	7	26.0	22.0	25.0	25.0	25.0	25.0	26.0	26.0	0.0
2-Jan-2023	8	25.0	22.0	25.0	25.0	25.0	25.0	25.0	25.0	0.0
9-Jan-2023	9	25.0	18.0	25.0	25.0	25.0	25.0	25.0	25.0	0.0
16-Jan-2023	10	25.0	15.5	25.0	25.0	25.0	25.0	25.0	25.0	0.0
23-Jan-2023	11	25.0	15.5	25.0	25.0	25.0	25.0	25.0	25.0	0.0
30-Jan-2023	12	25.0	15.5	25.0	25.0	25.0	25.0	25.0	25.0	0.0
6-Feb-2023	13	25.0	15.5	25.0	25.0	25.0	25.0	25.0	25.0	0.0
13-Feb-2023	14	25.0	15.5	25.0	25.0	25.0	25.0	25.0	25.0	0.0
20-Feb-2023	15	25.0	15.5	25.0	25.0	30.0	30.0	30.0	25.0	0.0
27-Feb-2023	16	25.0	14.0	25.0	25.0	35.0	35.0	35.0	26.0	25.0
6-Mar-2023	17	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
13-Mar-2023	18	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
20-Mar-2023	19	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
27-Mar-2023	20	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
3-Apr-2023	21	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
10-Apr-2023	22	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
17-Apr-2023	23	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
24-Apr-2023	24	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	0.0
1-May-2023	25	25.0	14.0	25.0	25.0	35.0	35.0	35.0	25.0	20.0
8-May-2023	26	24.0	13.5	24.0	25.0	35.0	35.0	35.0	26.0	0.0
15-May-2023	+1	24.0	13.5	24.0	25.0	35.0	35.0	35.0	26.0	0.0
22-May-2023	+2	18.0	13.5	25.0	25.0	35.0	35.0	35.0	27.0	0.0
29-May-2023	+3	18.0	13.5	25.0	25.0	35.0	35.0	35.0	27.0	0.0

Table 4. Water levels at each extraction well monitoring point each week of **Startup Monitoring** (feet NAD88)

ARCADIS

Starting Day	Week	PZ-45-31 (EX-1)	MW-EX-2 (EX-2)	MW-EX-3 (EX-3)	MW-EX-4 (EX-4)	MW-EX-5 (EX-5)	PZ-51-38 (EX-6)	PZ-52-41 (EX-7)	PZ-55-64 (EX-8)	PZ-53-40 (EX-9)
Pre-Startup	**0**	**598.54**	**597.42**	**591.47**	**590.73**	**586.28**	**590.29**	**590.01**	**596.46**	**591.02**
14-Nov-2022	1	597.62	596.74	591.84	591.06	589.47	590.61	590.29	596.69	591.42
21-Nov-2022	2	597.49	596.60	591.69	590.71	589.36	590.43	589.91	595.99	591.59
28-Nov-2022	3	597.64	596.67	591.57	590.64	589.61	590.39	589.94	596.09	591.53
5-Dec-2022	4	597.60	596.62	591.27	590.31	589.56	589.91	589.85	596.01	591.03
12-Dec-2022	5	598.34	597.23	591.72	591.06	590.42	590.57	590.31	596.69	591.91
19-Dec-2022	6	598.33	597.24	591.51	590.82	590.23	590.42	590.19	596.65	591.84
26-Dec-2022	7	598.60	597.44	591.64	590.96	590.44	590.56	590.28	596.84	591.84
2-Jan-2023	8	598.15	597.07	591.63	590.96	589.93	590.30	590.30	596.57	591.89
9-Jan-2023	9	596.62	596.03	590.90	590.33	588.31	589.46	589.71	595.44	591.79
16-Jan-2023	10	595.92	595.72	590.69	590.19	587.89	589.33	589.57	595.03	591.83
23-Jan-2023	11	595.77	595.66	590.50	590.00	587.73	589.13	589.39	594.87	591.63
30-Jan-2023	12	595.74	595.60	590.37	589.88	587.73	589.14	589.27	594.72	591.34
6-Feb-2023	13	595.50	595.44	590.28	589.81	587.62	589.09	589.16	594.50	591.27
13-Feb-2023	14	595.49	595.38	590.43	589.97	587.73	589.25	589.27	594.49	591.48
20-Feb-2023	15	595.55	595.37	590.37	589.87	587.77	589.21	589.25	594.52	591.40
27-Feb-2023	16	595.35	595.26	590.29	589.90	586.69	588.72	588.90	594.32	591.33
6-Mar-2023	17	595.30	595.21	590.42	589.91	586.67	588.83	589.04	594.40	591.65
13-Mar-2023	18	595.30	595.26	590.53	590.00	586.73	588.91	589.16	594.47	591.83
20-Mar-2023	19	595.54	595.49	590.74	590.19	586.85	589.09	589.37	594.75	592.08
27-Mar-2023	20	596.45	595.95	590.17	590.69	587.28	589.52	589.81	595.19	592.54
3-Apr-2023	21	597.11	596.81	591.67	591.24	588.07	589.92	590.25	595.92	593.19
10-Apr-2023	22	597.68	597.44	591.38	590.93	587.46	589.57	589.94	596.32	592.95
17-Apr-2023	23	598.23	597.83	591.44	590.95	587.93	589.75	590.06	596.85	592.87
24-Apr-2023	24	597.84	597.54	591.06	590.57	587.16	589.25	589.60	596.60	592.45
1-May-2023	25	597.94	597.54	591.32	590.88	587.45	589.53	589.89	596.74	592.79
8-May-2023	26	598.46	598.02	591.37	590.85	587.40	589.51	589.90	596.92	592.83
15-May-2023	+1	598.30	597.80	591.02	590.49	587.18	589.13	589.49	596.88	592.28
22-May-2023	+2	598.14	597.46	590.77	590.26	586.94	588.90	589.24	596.47	591.97
29-May-2023	+3	-	-	-	-	-	-	-	-	-

Note: Pre-Startup water level elvations collected the week of November 7th. Pre-Startup pump testing may have influenced measurements.

Table 5. Concentration of PFOA/PFOS measured at each extraction well during **Startup Monitoring** (ng/L)

Starting Day	Week	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	EX-8	EX-9
16-Sep-2022	0	**11,000/1,000**	**5,600/350**	**4,900/490**	**11,000/940**	**2,100/180**	**18,000/1,400**	**9,300/470**	**17,000/1,200**	**90/2.1**
14-Nov-2022	1	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
21-Nov-2022	2	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
28-Nov-2022	3	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
5-Dec-2022	4	**10,000/860**	**6,400/450**	**2,400/270**	**50,000/3,100***	**16,000/1,300**	**18,000/2,100***	**11,000/510**	**14,000/1,200**	**65/3.0***
12-Dec-2022	5	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
19-Dec-2022	6	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
26-Dec-2022	7	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
2-Jan-2023	8	**9,400/850**	**5,100/330**	**1,700/150**	**9,500/650**	**15,000/1,300**	**20,000/1,400**	**8,800/500**	**12,000/1,100**	**40/3.7***
9-Jan-2023	9	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
16-Jan-2023	10	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
23-Jan-2023	11	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
30-Jan-2023	12	**6,700/660**	**4,200/370**	**1,800/160**	**4,600/350**	**18,000/1,400**	**16,000/1,100**	**13,000/580**	**15,000/1,600**	**65/2.1**
6-Feb-2023	13	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
13-Feb-2023	14	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
20-Feb-2023	15	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
27-Feb-2023	16	**7,400/670**	**6,400/520**	**1,500/130**	**5,700/440**	**16,000/1,400**	**19,000/1,200**	**15,000/690**	**16,000/1,500**	**61/2.3**
6-Mar-2023	17	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
13-Mar-2023	18	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
20-Mar-2023	19	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
27-Mar-2023	20	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
3-Apr-2023	21	**7,000/730**	**6,300/520**	**2,100/200**	**5,400/460**	**18,000/1,400**	**18,000/1,300**	**17,000/730**	**20,000/1,500**	**160/7.8**
10-Apr-2023	22	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
17-Apr-2023	23	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
24-Apr-2023	24	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--
1-May-2023	25	**6,800/690**	**5,100/410**	**2,400/220**	**5,500/420**	**11,000/1,000**	**17,000/930**	**15,000/610**	**14,000/1,200**	**120/2.3**
8-May-2023	26	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--

Notes: Data is scheduled to be collected monthly (once every 4 weeks) at each extraction well. Wells EX-4, EX-6, and EX-9 could not be sampled during Week 4. Adjacent wells MW-EX-4, PZ-51-38 and PZ-53-40, respectively were sampled as surragates.

Table 6. Summary of treatment plant operations each week of **Startup Monitoring**

Starting Day	Week	Total volume at influent (gal)	Total volume at effluent (gal)	Total volume discharged to Ditch B (gal)	Weekly Uptime (%)	Maximum treatment rate (gpm)	Average treatment rate (gpm)
14-Nov-2022	1	472,728	417,899	386,083	43%	125.0	38.3
21-Nov-2022	2	607,850	551,162	535,774	42%	120.0	53.2
28-Nov-2022	3	506,836	455,986	439,862	29%	125.0	43.6
5-Dec-2022	4	682,594	636,639	616,763	35%	201.0	61.2
12-Dec-2022	5	277,569	310,735	255,597	13%	195.0	25.4
19-Dec-2022	6	401,859	340,389	371,189	19%	200.0	36.8
26-Dec-2022	7	61,120	57,365	50,776	3%	200.0	5.0
2-Jan-2023	8	550,150	539,405	519,026	27%	197.0	51.5
9-Jan-2023	9	1,688,032	1,683,834	1,637,933	83%	197.0	162.5
16-Jan-2023	10	1,979,928	1,967,721	1,918,925	100%	190.5	190.4
23-Jan-2023	11	2,012,535	1,998,503	1,934,988	100%	190.5	192.0
30-Jan-2023	12	1,963,386	1,941,373	1,873,503	96%	190.5	185.9
6-Feb-2023	13	2,020,156	1,993,873	1,925,064	100%	190.5	191.0
13-Feb-2023	14	2,025,719	1,983,035	1,899,939	100%	190.5	188.5
20-Feb-2023	15	1,941,144	1,891,595	1,800,272	95%	205.5	178.6
27-Feb-2023	16	2,292,912	2,236,432	2,142,228	100%	245.0	212.5
6-Mar-2023	17	2,311,924	2,253,028	2,150,306	100%	219.0	213.3
13-Mar-2023	18	2,324,522	2,261,426	2,154,216	100%	219.0	213.7
20-Mar-2023	19	2,327,328	2,262,136	2,159,298	100%	219.0	214.4
27-Mar-2023	20	2,317,824	2,248,108	2,132,510	100%	219.0	211.6
3-Apr-2023	21	2,310,782	2,236,654	2,122,732	100%	219.0	210.6
10-Apr-2023	22	2,328,272	2,252,708	2,143,038	100%	219.0	212.6
17-Apr-2023	23	1,936,272	1,870,284	1,769,000	82%	219.0	175.5
24-Apr-2023	24	2,327,168	2,251,616	2,121,292	100%	219.0	210.4
1-May-2023	25	2,328,340	2,242,548	2,126,368	100%	239.0	210.9
8-May-2023	26	2,328,324	2,237,708	2,115,576	100%	217.5	209.9
15-May-2023	+1	2,260,816	2,170,820	2,024,308	100%	217.5	200.8
22-May-2023	+2	2,323,092	2,229,840	2,092,524	100%	213.5	207.6
29-May-2023	+3	2,305,016	2,210,572	2,106,492	100%	213.5	209.0
Totals		49,214,196	47,733,392	45,525,580			

Note: The difference in the totals is due to water recirculation within the treatment system, water storage in the treatment system and piping, and differences in instrument accuracy.

Table 7. Summary of GETS influent and effluent PFAS results each week of **Startup Monitoring** (ng/L)

Starting Day	Week	Summary of Influent PFAS Concentrations (ng/L)		Summary of Effluent PFAS Concentrations (ng/L)	
		PFOA	PFOS	PFOA	PFOS
7-Nov-2022	0	18,000	1,300	ND (<0.77)	ND (<0.49)
14-Nov-2022	1	6,300	520	ND (<0.79)	ND (<0.50)
21-Nov-2022	2	11,000	620	ND (<0.74)	ND (<0.47)
28-Nov-2022	3	7,200	550	ND (<0.75)	ND (<0.48)
5-Dec-2022	4	11,000	940	ND (<0.77)	ND (<0.49)
12-Dec-2022	5	10,000	730	ND (<0.75)	ND (<0.47)
19-Dec-2022	6	11,000	890	ND (<0.76)	ND (<0.48)
26-Dec-2022	7	11,000	780	ND (<0.80)	ND (<0.51)
2-Jan-2023	8	9,000	750	ND (<0.73)	ND (<0.46)
9-Jan-2023	9	9,000	870	ND (<0.75)	ND (<0.48)
16-Jan-2023	10	6,400	830	ND (<0.81)	ND (<0.51)
23-Jan-2023	11	11,000	910	ND (<0.74)	ND (<0.47)
30-Jan-2023	12	11,000	870	ND (<0.74)	ND (<0.47)
6-Feb-2023	13	12,000	700	ND (<0.74)	ND (<0.47)
13-Feb-2023	14	11,000	880	ND (<0.79)	ND (<0.50)
20-Feb-2023	15	9,000	790	ND (<0.79)	ND (<0.50)
27-Feb-2023	16	11,000	910	ND (<0.74)	ND (<0.47)
6-Mar-2023	17	11,000	870	ND (<0.74)	ND (<0.47)
13-Mar-2023	18	12,000	700	ND (<0.74)	ND (<0.47)
20-Mar-2023	19	11,000	880	ND (<0.79)	ND (<0.50)
27-Mar-2023	20	9,300	670	ND (<0.85)	ND (<0.54)
3-Apr-2023	21	13,000	1,000	ND (<0.80)	ND (<0.51)
10-Apr-2023	22	13,000	730	ND (<0.83)	ND (<0.52)
17-Apr-2023	23	11,000	850	1.20 J	ND (<0.47)
24-Apr-2023	24	12,000	760	0.97 J	ND (<0.48)
1-May-2023	25	9,500	750	1.2 J	ND(<0.48)
8-May-2023	26	9,900	810	2.1	ND(<0.46)
15-May-2023	+1	9,500	620	1.8 J	ND(<0.51)
22-May-2023	+2	11,000	660	-	-
29-May-2023	+3	-	-	-	-

Table 8. Summary of average daily flow in Ditch B each week of **Startup Monitoring** (gpm)

Starting Day	Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7-Nov-2022	0	978	809	797	974	2,721	980	834
14-Nov-2022	1	758	898	1,176	991	877	782	733
21-Nov-2022	2	754	711	709	770	748	778	716
28-Nov-2022	3	671	784	1,020	748	694	683	599
5-Dec-2022	4	627	565	534	548	571	530	599
12-Dec-2022	5	535	547	1,301	3,556	1,469	969	835
19-Dec-2022	6	793	732	658	701	671	638	561
26-Dec-2022	7	510	502	551	693	1,101	838	778
2-Jan-2023	8	734	1,326	1,979	1,277	1,081	921	951
9-Jan-2023	9	831	819	834	864	830	793	777
16-Jan-2023	10	1,239	1,730	1,062	1,103	1,028	895	851
23-Jan-2023	11	842	803	798	794	764	679	631
30-Jan-2023	12	596	534	565	513	445	504	494
6-Feb-2023	13	481	721	598	592	556	549	593
13-Feb-2023	14	593	974	1,828	802	667	630	656
20-Feb-2023	15	648	594	560	536	579	585	587
27-Feb-2023	16	588	642	655	637	620	642	697
6-Mar-2023	17	1,235	1,081	941	873	918	863	950
13-Mar-2023	18	876	774	879	1,379	2,711	1,267	1,011
20-Mar-2023	19	1,029	1,030	1,751	2,086	2,443	2,682	2,701
27-Mar-2023	20	2,729	2,652	2,539	2,255	4,388	9,974	5,030
3-Apr-2023	21	4,532	4,358	8,431	5,060	4,336	5,213	4,543
10-Apr-2023	22	4,173	3,784	3,507	3,160	2,882	2,624	3,223
17-Apr-2023	23	5,036	3,376	3,150	3,946	3,238	2,834	2,654
24-Apr-2023	24	2,411	2,162	1,739	1,824	1,463	1,640	1,933
1-May-2023	25	4,652	3,555	2,814	2,585	2,583	2,478	10,789
8-May-2023	26	4,786	3,901	3,313	2,984	2,529	2,223	1,459
15-May-2023	+1	1,336	1,276	1,195	1,145	2,047	1,199	1,096
22-May-2023	+2	1,019	960	926	867	862	814	797
29-May-2023	+3	-	-	-	-	-	-	-

Note: Data collected at Ditch B surface water treatment plant

Table 9. Summary of PFAS concentrations in Ditch B each week of **Startup Monitoring** (ng/L)

Starting Day	Week	Summary of PFAS Concentrations (ng/L)	
		PFOA	PFOS
7-Nov-2022	0	1,500	120
14-Nov-2022	1	1,600	99
21-Nov-2022	2	1,900	120
28-Nov-2022	3	1700	100
5-Dec-2022	4	1600	100
12-Dec-2022	5	1300	86
19-Dec-2022	6	1700	82
26-Dec-2022	7	1300	81
2-Jan-2023	8	2300	120
9-Jan-2023	9	1800	110
16-Jan-2023	10	920	68
23-Jan-2023	11	920	55
30-Jan-2023	12	810	58
6-Feb-2023	13	650	71
13-Feb-2023	14	120	31
20-Feb-2023	15	630	44
27-Feb-2023	16	310	35
6-Mar-2023	17	380	28
13-Mar-2023	18	320	28
20-Mar-2023	19	550	43
27-Mar-2023	20	600	40
3-Apr-2023	21	670	41
10-Apr-2023	22	913	53
17-Apr-2023	23	770	52
24-Apr-2023	24	1100	90
1-May-2023	25	210	26
8-May-2023	26	1300	81
15-May-2023	+1	1200	76
22-May-2023	+2	-	-

Note: Data collected from influent of Ditch B treatment system

Table 10. Summary of temporary streambed piezometers data during **Startup Monitoring** (feet from top of casing). Locations shown on Figure 1.

ARCADIS

Date	Week	Location L09			Location M01			Location M04			Location M07			Location M09			Location U03			Location U10		
		Inner DTW	Outer DTW	Delta	Inner DTW	Outer DTW	Delta	Inner DTW	Outer DTW	Delta	Inner DTW	Outer DTW	Delta	Inner DTW	Outer DTW	Delta	Inner DTW	Outer DTW	Delta	Inner DTW	Outer DTW	Delta
1-Nov-2022	0	**3.85**	**4.03**	**0.18**	**1.85**	**1.91**	**0.06**	**1.74**	**1.77**	**0.03**	**4.68**	**4.99**	**0.31**	**4.06**	**4.62**	**0.56**	**1.80**	**1.99**	**0.19**	**1.28**	**2.08**	**0.80**
-	-																					
6-Dec-2022	4	**3.82**	**3.95**	**0.13**	**1.76**	**2.05**	**0.29**	**1.80**	**1.85**	**0.05**	**4.70**	**5.09**	**0.39**	**4.21**	**4.74**	**0.53**	**1.73**	**1.96**	**0.23**	**1.52**	**2.10**	**0.58**
-	-																					
15-May-2023	26	**3.13**	**3.39**	**0.26**	**4.23**	**4.31**	**0.08**	**1.37**	**1.39**	**0.02**	**2.46**	**2.91**	**0.45**	**3.39**	**4.21**	**0.82**	**2.55**	**2.94**	**0.39**	**2.28**	**3.97**	**1.69**
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Note: All measurements are depth to water (DTW) from top of casing. Delta is outer minus inner with positive differences indicating groundwater is discharging to surface water.

Table 11. Groundwater and Surface Water Elevations, **during Startup Monitoring**

Well ID	Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Top of Casing Elevation (NAVD 88, US FT)	December 2022 12/5/2022 - 12/6/2022 Water Elevation (ft)	January 2023 1/4/2023 Water Elevation (ft)	February 2023 1/30/2023 Water Elevation (ft)	March 2023 3/1/2023 - 3/2/2023 Water Elevation (ft)	April 2023 4/3/2023 - 4/4/2023 Water Elevation (ft)	May 2023 5/1/2023 - 5/2/2023 Water Elevation (ft)
Locations on Tyco FTC									
HMW-2-3S	6	16	613.19	605.49	605.95	606.19	606.00	608.14	608.73
HMW-2-3D	32	42	614.37	605.54	605.96	606.18	606.04	608.12	608.72
PZ-1D	63.5	68.5	606.23	594.29	594.64	594.26	594.09	595.39	595.64
PZ-3	38	43	609.20	598.92	599.20	599.11	598.67	599.91	601.20
PZ-4S	36	41	607.89	603.20	603.68	603.67	603.33	605.54	606.42
PZ-4D	68.5	73.5	607.86	602.36	602.77	602.72	602.51	604.30	604.94
PZ-9	38	43	611.16	603.18	603.59	603.54	603.27	605.69	606.50
PZ-14S	4	19	610.77	604.07	604.54	604.62	604.32	604.99	607.61
PZ-14D	25	35	611.15	603.90	604.38	604.35	604.10	606.50	607.18
PZ-15S	4	19	608.15	597.16	597.62	596.73	596.25	597.52	598.54
PZ-15D	22	32	608.17	596.62	596.97	596.42	596.07	597.33	598.21
PZ-16S	4	19	609.30	600.06	600.28	600.06	599.68	601.27	602.00
PZ-16D	28	38	608.98	599.68	600.01	599.66	599.34	600.84	601.65
PZ-17S	4	19	609.51	599.15	599.54	598.75	598.33	599.77	600.66
PZ-17D	23	33	609.51	598.61	598.99	598.37	598.02	599.50	600.38
PZ-22S	10	20	609.70	599.56	599.81	599.81	599.34	600.58	601.91
PZ-45-31	20.8	30.8	607.90	595.91	596.39	595.64	595.42	596.85	597.85
PZ-47-40	35	40	611.04	601.36	601.74	601.57	601.28	603.17	604.14
MW-EX-2	19.5	29.5	606.76	595.30	595.64	595.59	595.24	596.54	597.42
PZ-65-33	28	33	610.09	605.06	605.52	605.55	605.44	607.41	608.11
PZ-67-16	6	16	611.43	606.07	606.48	606.60	606.50	608.51	609.48
PZ-67-40	35	40	611.35	606.06	606.47	606.61	606.52	608.45	609.29
PZ-68-16	6	16	613.51	605.76	607.22	607.11	607.35	609.56	610.80
PZ-68-26	21	26	613.92	606.90	607.36	607.80	607.50	609.67	610.87
PZ-68-66	61	66	613.55	605.90	606.63	606.40	606.43	608.10	608.58
PZ-69-24	14	24	614.75	595.15	601.72	601.94	601.33	603.18	604.55
PZ-69-43	38	43	612.23	599.12	599.47	599.56	599.18	600.84	602.15
PZ-70-17	7	17	611.46	604.41	605.44	604.97	604.99	606.98	607.35
PZ-70-33	28	33	611.11	604.14	604.99	604.74	604.71	606.47	606.79
PZ-70-55	50	55	611.95	604.16	605.03	604.77	604.74	606.47	606.82
PZ-70-83	73	83	611.57	--	--	604.38	604.36	606.17	606.44
Locations on Tyco (Former Barley)									
MW-EX-3	22	27	595.16	591.01	591.72	590.37	590.31	591.52	591.45
MW-EX-4	22	27	595.51	590.77	591.16	588.89	589.81	591.07	591.17
MW-EX-5	45	50	594.6	589.44	589.81	587.61	586.59	587.58	587.65
PZ-64-67	58	67	595.07	588.267	590.787	589.977	589.847	591.127	591.077
Location on School Property									
PZ-23	35	40	597.60	593.31	593.49	593.60	592.54	592.96	594.69
Location in City of Marinette Rights-of-Way									
PZ-24-17	7	17	604.84	598.12	598.50	598.39	--	599.71	600.62
PZ-24-47	37	47	604.73	598.03	598.50	598.26	--	599.74	600.51
PZ-25-17	7	17	598.30	591.02	592.21	591.35	591.94	592.90	592.69

Table 11. Groundwater and Surface Water Elevations, **during Startup Monitoring**

Well ID	Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Top of Casing Elevation (NAVD 88, US FT)	December 2022 12/5/2022 - 12/6/2022 Water Elevation (ft)	January 2023 1/4/2023 Water Elevation (ft)	February 2023 1/30/2023 Water Elevation (ft)	March 2023 3/1/2023 - 3/2/2023 Water Elevation (ft)	April 2023 4/3/2023 - 4/4/2023 Water Elevation (ft)	May 2023 5/1/2023 - 5/2/2023 Water Elevation (ft)
PZ-26-11	6	11	597.77	592.37	592.97	592.49	592.48	594.08	594.48
PZ-26-36	31	36	596.14	595.35	595.59	595.54	595.44	596.14	596.14
PZ-29-17	7	17	593.62	589.59	590.09	589.61	589.57	591.29	591.43
PZ-29-43	38	43	593.52	588.83	589.13	588.90	588.82	590.24	590.03
PZ-29-68	58	68	593.46	588.90	589.17	588.95	588.86	589.95	590.06
PZ-30-12	7	12	594.32	589.94	590.38	590.09	589.90	591.62	591.13
PZ-30-45	35	45	594.22	588.92	589.25	588.96	589.21	590.01	590.03
PZ-30-59	54	59	594.15	588.76	588.84	588.94	589.27	589.16	589.65
PZ-31-17	7	17	595.49	590.95	591.42	590.90	590.58	592.07	591.90
PZ-31-40	35	40	595.38	589.73	591.24	591.00	590.34	591.96	591.77
PZ-31-53	48	53	595.24	590.86	591.29	591.02	590.53	591.93	591.54
PZ-33-12	7	12	594.33	591.81	592.97	591.75	--	593.90	594.03
PZ-33-33	28	33	594.33	591.79	592.84	591.83	--	593.88	593.93
PZ-33-67	57	67	594.42	591.75	592.43	592.01	--	593.81	593.72
PZ-51-38	33	38	594.41	590.38	589.82	589.25	588.69	589.86	589.77
PZ-52-41	36	41	594.73	589.37	590.55	589.40	588.84	590.19	590.05
PZ-53-40	35	40	595.67	591.41	592.02	591.41	591.32	593.04	592.94
PZ-54-47	42	47	598.38	594.22	595.18	594.10	593.74	595.74	595.97
PZ-55-64	59	64	616.26	594.80	596.77	594.67	594.35	595.64	596.71
PZ-56-42	37.2	42.2	605.43	595.21	595.51	595.08	596.11	595.80	596.61
PZ-57-38	33	38	594.04	589.17	589.39	589.35	589.09	590.54	590.24
PZ-58-40	35	40	596.38	590.99	591.55	590.98	590.80	592.45	592.26
PZ-58-50	45	50	596.44	590.98	591.55	590.97	590.80	592.46	592.26
Location on Northland Lutheran Property									
PZ-32-18	8	18	591.19	588.33	588.64	588.39	588.34	589.66	589.66
PZ-32-72	67	72	591.23	588.33	588.38	588.39	588.28	589.59	589.34
Surface Water Benchmark Locations									
SG-L09	NA	NA	594.46	--	--	--	--	589.03	588.84
SG-M01	NA	NA	593.47	--	--	--	--	589.61	589.50
SG-M09	NA	NA	594.32	--	--	--	--	590.29	590.18
SG-U03	NA	NA	598.51	--	--	--	--	594.16	593.94
SG-U10	NA	NA	604.92	--	--	--	--	600.75	600.72
SG-50	NA	NA	608.47	--	--	--	--	607.12	607.32
SG-23	NA	NA	608.53	--	--	--	--	606.92	607.17
SG-A1	NA	NA	608.26	--	--	--	--	606.83	607.09
SG-53	NA	NA	608.58	--	--	--	--	605.13	605.14

Acronyms and Abbreviations:

bgs = below ground surface
FTC = Fire Technology Center
GETS = groundwater extraction and treatment system
MW = monitoring well (sampling and gauging)
NA = not applicable
OB = overburden
PZ = Piezometer
-- = Location not gauged

Table 12. Extraction Well Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
EX Sampling Dec 2022	12/6/2022	EX-1	10000 D	860 D	10860
EX Sampling Dec 2022	12/6/2022	EX-2	6400 D	310 DJ	6710
EX Sampling Dec 2022	12/6/2022	EX-3	2400 D	230	2630
EX Sampling Dec 2022	12/8/2022	EX-4	50000 D	3100 D	53100
EX Sampling Dec 2022	12/6/2022	EX-5	16000 D	1300 D	17300
EX Sampling Dec 2022	12/8/2022	EX-6	18000 D	2100 D	20100
EX Sampling Dec 2022	12/6/2022	EX-7	11000 D	510 D	11510
EX Sampling Dec 2022	12/6/2022	EX-8	14000 D	1200 D	15200
EX Sampling Dec 2022	12/8/2022	EX-9	65	2.9 J	67.9
EX Sampling Jan 2023	1/4/2023	EX-1	9400 D	850 D	10250
EX Sampling Jan 2023	1/4/2023	EX-2	5100 D	330	5430
EX Sampling Jan 2023	1/4/2023	EX-3	1700 D	150	1850
EX Sampling Jan 2023	1/4/2023	EX-4	9500 D	650 D	10150
EX Sampling Jan 2023	1/4/2023	EX-5	15000 D	1300 D	16300
EX Sampling Jan 2023	1/4/2023	EX-6	20000 D	1400 D	21400
EX Sampling Jan 2023	1/4/2023	EX-7	8800 D	500 D	9300
EX Sampling Jan 2023	1/4/2023	EX-8	12000 D	1100 D	13100
EX Sampling Jan 2023	1/4/2023	EX-9	40	3.7	43.7
EX Sampling Feb 2023	1/31/2023	EX-1	6700 D	660 D	7360
EX Sampling Feb 2023	1/31/2023	EX-2	4200 D	370 D	4570
EX Sampling Feb 2023	1/31/2023	EX-3	1800 D	150	1950
EX Sampling Feb 2023	1/31/2023	EX-4	4600 D	350 D	4950
EX Sampling Feb 2023	1/31/2023	EX-5	18000 D	1400 D	19400
EX Sampling Feb 2023	1/31/2023	EX-6	16000 D	1100 D	17100
EX Sampling Feb 2023	1/31/2023	EX-7	13000 D	580 D	13580
EX Sampling Feb 2023	1/31/2023	EX-8	15000 D	1600 D	16600
EX Sampling Feb 2023	1/31/2023	EX-9	65	2.1	67.1
EX Sampling Mar 2023	3/2/2023	EX-1	7400 D	670 D	8070
EX Sampling Mar 2023	3/2/2023	EX-2	6400 D	520 D	6920
EX Sampling Mar 2023	3/2/2023	EX-3	1500 D	130 J-	1630
EX Sampling Mar 2023	3/2/2023	EX-4	5900 D	440 D	6340

Table 12. Extraction Well Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
EX Sampling Mar 2023	3/2/2023	EX-5	16000 D	1400 D	17400
EX Sampling Mar 2023	3/2/2023	EX-6	19000 D	1200 D	20200
EX Sampling Mar 2023	3/2/2023	EX-7	15000 D	690 D	15690
EX Sampling Mar 2023	3/2/2023	EX-8	16000 D	1500 D	17500
EX Sampling Mar 2023	3/2/2023	EX-9	61	2.3 J	63.3
EX Sampling Apr 2023	4/4/2023	EX-1	7000	730	7730
EX Sampling Apr 2023	4/4/2023	EX-2	6300	520	6820
EX Sampling Apr 2023	4/4/2023	EX-3	2100	190	2290
EX Sampling Apr 2023	4/4/2023	EX-4	5400	460	5860
EX Sampling Apr 2023	4/4/2023	EX-5	18000	1400	19400
EX Sampling Apr 2023	4/4/2023	EX-6	18000	1300	19300
EX Sampling Apr 2023	4/4/2023	EX-7	17000	730	17730
EX Sampling Apr 2023	4/4/2023	EX-8	20000	1500	21500
EX Sampling Apr 2023	4/4/2023	EX-9	160	7.8	167.8
EX Sampling May 2023	5/2/2023	EX-1	6800 D	690 D	7490
EX Sampling May 2023	5/2/2023	EX-2	5100 D	410 D	5510
EX Sampling May 2023	5/2/2023	EX-3	2400 D	220	2620
EX Sampling May 2023	5/2/2023	EX-4	5500 D	420 D	5920
EX Sampling May 2023	5/2/2023	EX-5	11000 D	1000 D	12000
EX Sampling May 2023	5/2/2023	EX-6	17000 D	930 D	17930
EX Sampling May 2023	5/2/2023	EX-7	15000 D	610 D	15610
EX Sampling May 2023	5/2/2023	EX-8	14000 D	1200 D	15200
EX Sampling May 2023	5/2/2023	EX-9	120	2.3	122.3

Table 12. Extraction Well Sampling Results, during **Startup Monitoring**

Notes:

1 Data was collected monthly (once every 4 weeks) at each extraction well.

2 Wells EX-4, EX-6, and EX-9 could not be sampled during the December 2022 event. Adjacent wells MW-EX-4, PZ-51-38 and PZ-53-40, respectively, were sampled as surrogates. During the January 2023 event, PZ-53-40 was sampled as a surrogate for EX-9.

3 PFOA + PFOS is the sum of PFOA and PFOS detections in a sample. Total PFAS is the sum of all detected compounds (36) in a sample.

Acronyms and Abbreviations:

ng/L = nanograms per liter

Laboratory Qualifiers:

D = The analyte was analyzed at dilution.

DJ = The analyte was analyzed at dilution and the result is an estimated quantity.

J = The

J- = The result is an estimated quantity; the result may be biased low.

Chemical Abbreviations:

PFOA = Perfluorooctanoic acid (C8)

PFOS = Perfluorooctanesulfonic acid (C8)

PFAS = Per- and polyfluorinated alkyl substances

Table 13. Groundwater Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
Baseline 2022	4/6/2022	MW-EX-3	18000 D	990 D	18990
Baseline 2022	4/6/2022	MW-EX-4	35000 D	2600 D	37600
Baseline 2022	4/6/2022	MW-EX-5	13000 D	530 D	13530
Baseline 2022	4/7/2022	PZ-29-43	1800 D	1.7 J	1801.7
Baseline 2022	4/7/2022	PZ-29-68	1000 D	1.5 J	1001.5
Baseline 2022	4/6/2022	PZ-30-12	43	< 1.9 U	43
Baseline 2022	4/6/2022	PZ-30-45	130	< 1.9 U	130
Baseline 2022	4/6/2022	PZ-30-59	1.4 J	< 1.8 U	1.4
Baseline 2022	4/6/2022	PZ-32-18	5.5	1.6 J	7.1
Baseline 2022	4/6/2022	PZ-32-72	1.9	< 1.9 U	1.9
Baseline 2022	4/6/2022	PZ-51-38	3700 D	600 D	4300
Baseline 2022	4/6/2022	PZ-52-41	65000 D	2300 D	67300
Baseline 2022	4/6/2022	PZ-53-40	4.4	< 1.9 U	4.4
Baseline 2022	4/6/2022	PZ-57-38	13	0.51 J	13.51
Baseline 2022	4/8/2022	PZ-15S	5.2	< 1.9 U	5.2
Baseline 2022	4/7/2022	PZ-23	21000 D	< 1.8 U	21000
Baseline 2022	4/7/2022	PZ-24-17	12	2.1	14.1
Baseline 2022	4/7/2022	PZ-24-47	1000 D	74	1074
Baseline 2022	4/7/2022	PZ-25-17	6.3	3.1 JN	9.4
Baseline 2022	4/7/2022	PZ-29-17	7.2	< 1.9 U	7.2
Baseline 2022	4/7/2022	PZ-31-17	18	6	24
Baseline 2022	4/7/2022	PZ-31-40	11000 D	100	11100
Baseline 2022	4/7/2022	PZ-31-53	81	1.2 J	82.2
Baseline 2022	4/8/2022	PZ-47-40	13000 D	870 D	13870
Baseline 2022	4/8/2022	PZ-4D	42000 D	79 J-	42079
Baseline 2022	4/7/2022	PZ-54-47	2600 D	460 D	3060
Baseline 2022	4/7/2022	PZ-55-64	300	75	375
Baseline 2022	4/7/2022	PZ-56-42	26000 D	2800 D	28800
Baseline 2022	4/12/2022	MW-EX-2	120	10	130
Baseline 2022	4/11/2022	PZ-15D	1100 D	66	1166
Baseline 2022	4/11/2022	PZ-16D	22000 D	3700 D	25700
Baseline 2022	4/11/2022	PZ-16S	140	48	188

Table 13. Groundwater Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
Baseline 2022	4/11/2022	PZ-18D	6900 D	1300 D	8200
Baseline 2022	4/12/2022	PZ-1D	45	1.3 J	46.3
Baseline 2022	4/11/2022	PZ-22D	4100 D	550 D	4650
Baseline 2022	4/11/2022	PZ-22S	17	< 1.9 U	17
Baseline 2022	4/11/2022	PZ-3	33000 D	4100 D	37100
Baseline 2022	4/12/2022	PZ-45-31	940 D	74	1014
GETS Q1 2023	2/7/2023	PZ-26-11	2.2	< 1.8 U	2.2
GETS Q1 2023	2/7/2023	PZ-29-43	2600 D	< 1.8 U	2600
GETS Q1 2023	2/7/2023	PZ-30-45	140	< 1.9 U	140
GETS Q1 2023	2/7/2023	PZ-31-40	58000 D	1100 D	59100
GETS Q1 2023	2/7/2023	PZ-32-72	< 1.9 U	< 1.9 U	0
GETS Q1 2023	2/7/2023	PZ-58-50	29000 D	430 D	29430
GETS Q1 2023	2/8/2023	PZ-16D	15000 D	3100 D	18100
GETS Q1 2023	2/8/2023	PZ-24-17	12	0.85 J	12.85
GETS Q1 2023	2/8/2023	PZ-47-40	9500 D	620 D	10120
GETS Q1 2023	2/8/2023	PZ-54-47	48000	11000 DJ	59000
GETS Q1 2023	2/8/2023	PZ-56-42	21000 D	1900 D	22900
GETS Q1 2023	2/8/2023	PZ-57-38	11	0.65 J	11.65
GETS Q1 2023	2/9/2023	PZ-23	20000 D	2.2	20002.2
GETS Q1 2023	2/9/2023	PZ-3	4800 D	330	5130
FTC SI Nov 2022	11/11/2022	PZ-16D	25000 D	3000 D	28000
FTC SI Nov 2022	11/11/2022	PZ-16S	140	140 J	280
FTC SI Nov 2022	11/10/2022	PZ-1D	30 J	< 1.8 UJ	30
FTC SI Nov 2022	11/11/2022	PZ-22S	22	< 1.9 U	22
FTC SI Nov 2022	11/17/2022	PZ-23	26000 DJ	< 1.8 U	26000
FTC SI Nov 2022	11/9/2022	PZ-24-17	4.7	3.7 J	8.4
FTC SI Nov 2022	11/9/2022	PZ-24-47	1900 D	220	2120
FTC SI Nov 2022	11/8/2022	PZ-25-17	14	13 J	27
FTC SI Nov 2022	11/8/2022	PZ-29-17	8.7 J	< 10 U	8.7
FTC SI Nov 2022	11/8/2022	PZ-29-43	24	3.1	27.1
FTC SI Nov 2022	11/8/2022	PZ-29-68	780 D	5.1 J	785.1
FTC SI Nov 2022	11/15/2022	PZ-3	27000 D	2100 D	29100

Table 13. Groundwater Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
FTC SI Nov 2022	11/8/2022	PZ-30-12	40	< 1.9 U	40
FTC SI Nov 2022	11/8/2022	PZ-30-45	150	< 10 U	150
FTC SI Nov 2022	11/10/2022	PZ-30-59	230	< 1.9 U	230
FTC SI Nov 2022	11/9/2022	PZ-31-17	12	5.4	17.4
FTC SI Nov 2022	11/9/2022	PZ-31-40	100000 D	1300 D	101300
FTC SI Nov 2022	11/15/2022	PZ-31-53	24	< 1.9 U	24
FTC SI Nov 2022	11/8/2022	PZ-32-18	5.9	2.5	8.4
FTC SI Nov 2022	11/8/2022	PZ-32-72	2.6	< 1.9 U	2.6
FTC SI Nov 2022	11/9/2022	PZ-54-47	26000 D	3000 D	29000
FTC SI Nov 2022	11/9/2022	PZ-56-42	53000 D	10000 D	63000
FTC SI Nov 2022	11/9/2022	PZ-57-38	16	0.67 J	16.67
FTC SI Nov 2022	11/9/2022	PZ-58-40	120	4.2	124.2
FTC SI Nov 2022	11/9/2022	PZ-58-50	30000 D	520 DJ-	30520
GETS Q2 2023	5/3/2023	PZ-1D	PENDING RESULTS		
GETS Q2 2023	5/2/2023	PZ-3	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-4D	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-15S	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-15D	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-16S	PENDING RESULTS		
GETS Q2 2023	5/2/2023	PZ-16D	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-22S	PENDING RESULTS		
GETS Q2 2023	5/2/2023	PZ-47-40	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-23	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-24-17	PENDING RESULTS		
GETS Q2 2023	5/2/2023	PZ-24-47	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-25-17	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-29-17	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-29-43	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-29-68	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-30-12	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-30-45	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-30-59	PENDING RESULTS		

Table 13. Groundwater Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
GETS Q2 2023	5/3/2023	PZ-31-17	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-31-40	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-31-53	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-32-18	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-32-72	PENDING RESULTS		
GETS Q2 2023	5/2/2023	PZ-54-47	PENDING RESULTS		
GETS Q2 2023	5/2/2023	PZ-56-42	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-57-38	PENDING RESULTS		
GETS Q2 2023	5/3/2023	PZ-58-50	PENDING RESULTS		

Notes:
PFOA + PFOS is the sum of PFOA and PFOS detections in a sample. Total PFAS is the sum of all detected compounds (36) in a sample.

Acronyms and Abbreviations:
ng/L = nanograms per liter

Laboratory Qualifiers:
D = The analyte was analyzed at dilution.
DJ = The analyte was analyzed at dilution and the
DJ- = The analyte was analyzed at dilution and the result is an estimated
J = The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
J- = The result is an estimated quantity; the result
JN = The analyte has been tenatively identified; the result is an estimated quantity.
U = The analyte was analyzed for but the result was not detected above the method detection limit.
UJ = The analyte was analyzed for but was not detected. The reported reporting limit is approximate and may be inaccurate or imprecise.
< = Compound not detected at reporting detection limit.

Chemical Abbreviations:
PFOA = Perfluorooctanoic acid (C8)
PFOS = Perfluorooctanesulfonic acid (C8)
PFAS = Per- and polyfluorinated alkyl substances

Table 14. Ditch B Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
Ditch B Sampling Sept 2022	9/8/2022	GW-M01	6.3 J	17	23.3
Ditch B Sampling Sept 2022	9/8/2022	GW-M04	34	940 D	974
Ditch B Sampling Sept 2022	9/8/2022	GW-M07	350 D	1300 D	1650
Ditch B Sampling Sept 2022	9/8/2022	GW-M09	24	140	164
Ditch B Sampling Sept 2022	9/8/2022	GW-U03	< 2.0 U	86	86
Ditch B Sampling Sept 2022	9/8/2022	SW-L09	1500 D	130	1630
Ditch B Sampling Sept 2022	9/8/2022	SW-M01	160	2000 D	2160
Ditch B Sampling Sept 2022	9/8/2022	SW-M04	130	1000 D	1130
Ditch B Sampling Sept 2022	9/8/2022	SW-M07	110	420 D	530
Ditch B Sampling Sept 2022	9/8/2022	SW-M09	110	550 D	660
Ditch B Sampling Sept 2022	9/8/2022	SW-U03	100	310	410
Ditch B Sampling Sept 2022	9/8/2022	SW-U10	9	25	17.6
Ditch B Sampling Nov 2022	11/16/2022	GW-M01	8.0 J	14	22
Ditch B Sampling Nov 2022	11/16/2022	GW-M04	200	3500 D	3700
Ditch B Sampling Nov 2022	11/16/2022	GW-M07	160	810 D	970
Ditch B Sampling Nov 2022	11/16/2022	GW-M09	24	150	174
Ditch B Sampling Nov 2022	11/16/2022	GW-U03	< 10 U	83	83
Ditch B Sampling Nov 2022	11/16/2022	SW-L09	1300 D	87	1387
Ditch B Sampling Nov 2022	11/16/2022	SW-M01	100	1900 D	2000
Ditch B Sampling Nov 2022	11/16/2022	SW-M04	53	460 D	513
Ditch B Sampling Nov 2022	11/16/2022	SW-M07	61	470	531
Ditch B Sampling Nov 2022	11/16/2022	SW-M09	59	430 D	489
Ditch B Sampling Nov 2022	11/16/2022	SW-U03	60	130	190
Ditch B Sampling Nov 2022	11/16/2022	SW-U10	5.6	12	17.6
Ditch B Sampling Apr 2023	4/25/2023	SW-M09	280	50	330
Ditch B Sampling Apr 2023	4/25/2023	SW-U10	15	5.8	20.8
Ditch B Sampling May 2023	5/15/2023	GW-M01	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	GW-M04	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	GW-M07	PENDING RESULTS		

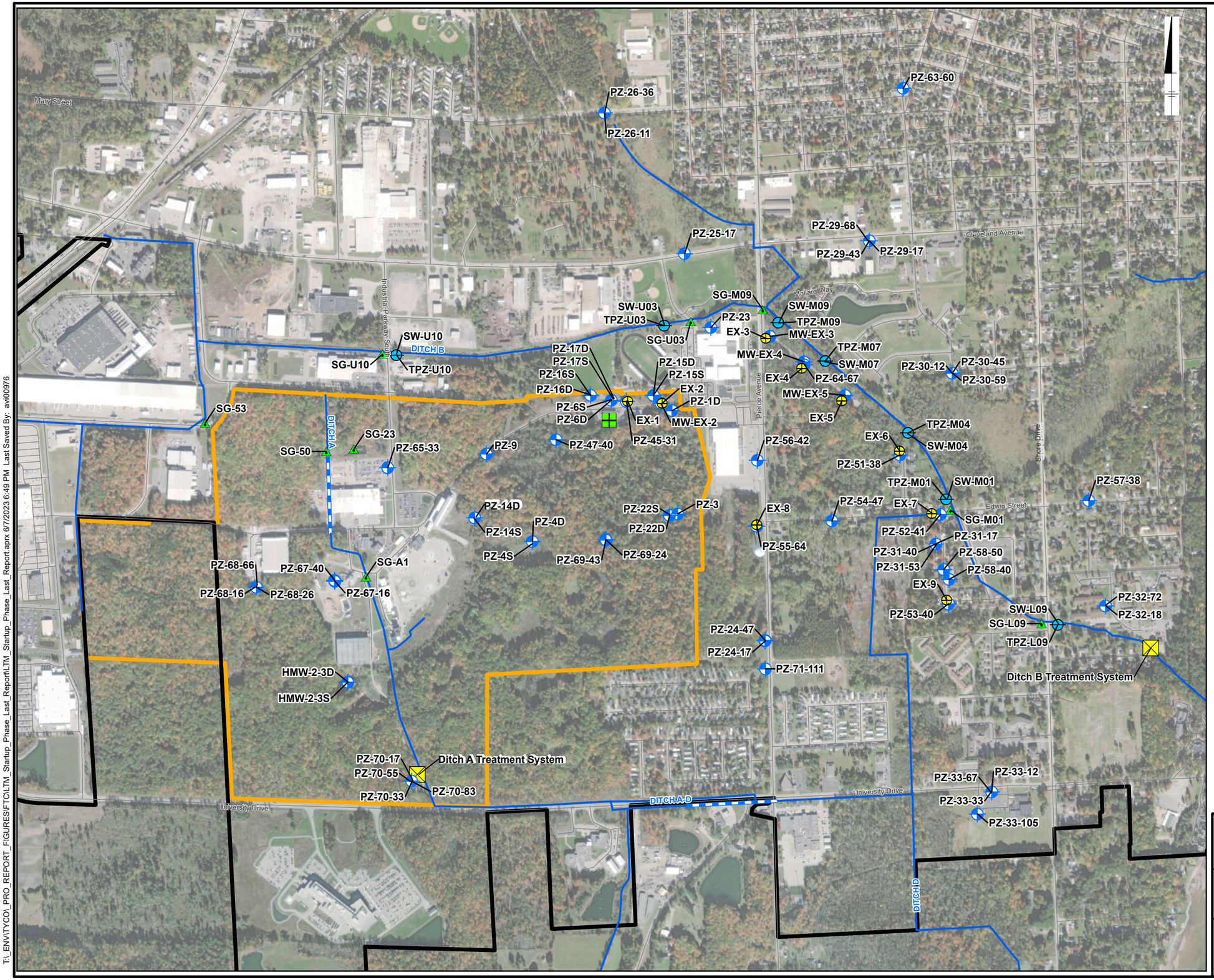
Table 14. Ditch B Sampling Results, during **Startup Monitoring**

Sampling Event	Sample Date	Location ID	PFOA (ng/L)	PFOS (ng/L)	PFOA+PFOS (ng/L)
Ditch B Sampling May 2023	5/15/2023	GW-M09	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	GW-U03	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	SW-L09	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	SW-M01	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	SW-M04	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	SW-M07	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	SW-M09	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	SW-U03	PENDING RESULTS		
Ditch B Sampling May 2023	5/15/2023	SW-U10	PENDING RESULTS		

Notes:
PFOA + PFOS is the sum of PFOA and PFOS detections in a sample. Total PFAS is the sum of all detected compounds (36) in a sample.

Acronyms and Abbreviations:
ng/L = nanograms per liter

Chemical Abbreviations:
PFOA = Perfluorooctanoic acid (C8)
PFOS = Perfluorooctanesulfonic acid (C8)
PFAS = Per- and polyfluorinated alkyl substances



LEGEND:

- EXTRACTION WELL
- MONITORING WELL
- PIEZOMETER
- STAFF GAUGE
- APPROXIMATE MARINETTE CITY BOUNDARY
- APPROXIMATE SITE PROPERTY BOUNDARY
- ROAD
- CULVERT
- DITCH OR STREAM
- SURFACE WATER TREATMENT SYSTEM
- GETS BUILDING

NOTES:

1.GETS = GROUNDWATER EXTRACTION AND TREATMENT SYSTEM
2. AERIAL IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR, GEOGRAPHICS, AND THE GIS USER COMMUNITY

0 900 1,800

GRAPHIC SCALE IN FEET

TYCO FIRE TECHNOLOGY CENTER
MARINETTE, WISCONSIN

GETS Short Term Monitoring - Report 1

Site Map with the Short Term Monitoring Locations

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FIGURE
1

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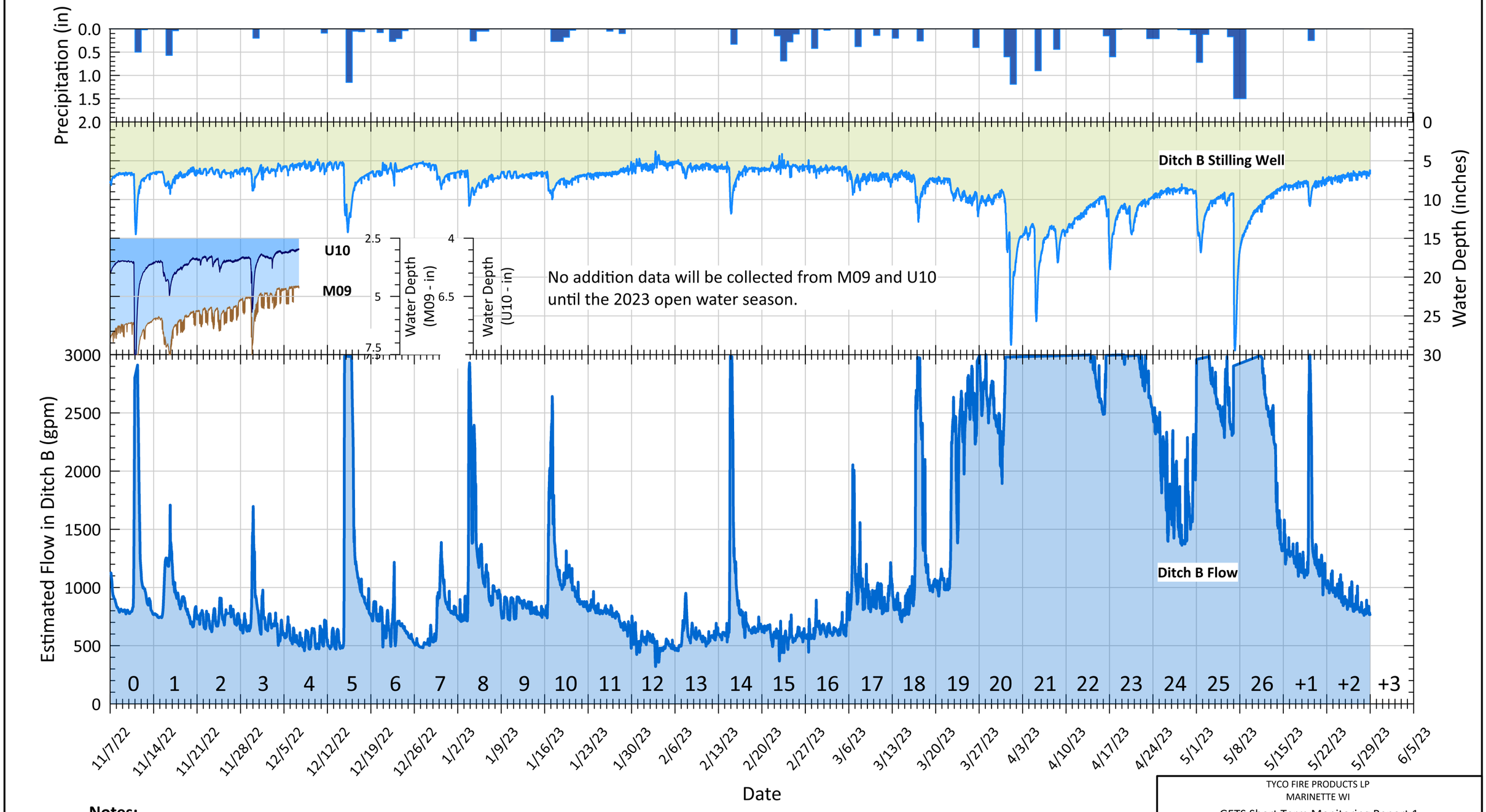

Notes:

Precipitation: NOAA, Station USC00475091

Water Depth: Stilling wells are located near Ditch B treatment system, station M09 near the GETS outfall, and U10 near Industrial Parkway. Locations are shown on Figure 1.

Estimated Flow: Calculated from rating curve near the Ditch B treatment system.

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GETS Short Term Monitoring Report 1

Ditch B Water Depth,
Estimated Stream Flow and Precipitation

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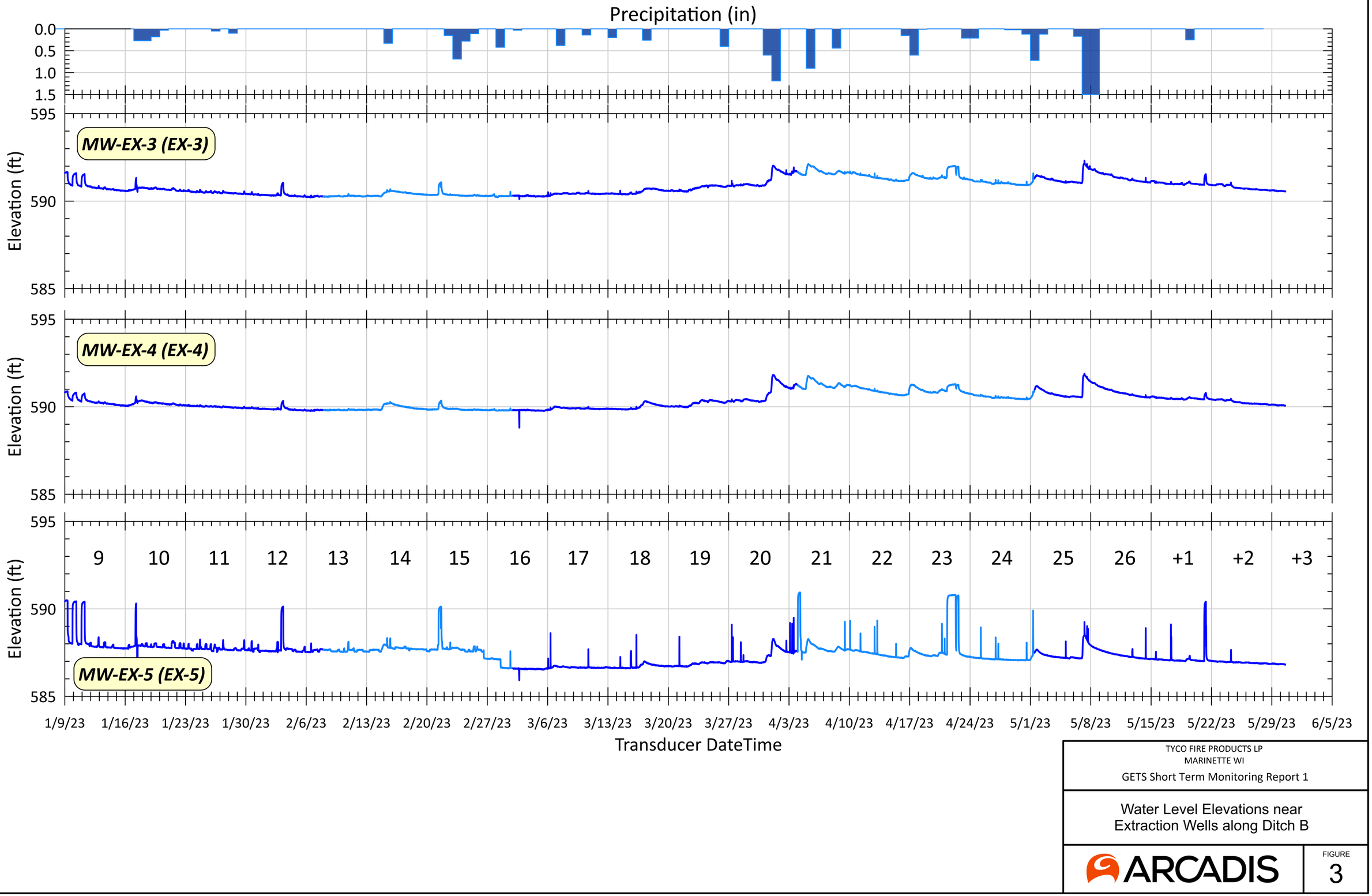
FIGURE
2



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GETS Short Term Monitoring Report 1

Water Level Elevations near
Extraction Wells along Ditch B

ARCADIS

FIGURE
3

Precipitation (in)

0.0
0.5
1.0
1.5

Elevation (ft)

595
590
585

PZ-51-38 (EX-6)

PZ-52-41 (EX-7)

PZ-53-40 (EX-9)

9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 +1 +2 +3

1/9/23 1/16/23 1/23/23 1/30/23 2/6/23 2/13/23 2/20/23 2/27/23 3/6/23 3/13/23 3/20/23 3/27/23 4/3/23 4/10/23 4/17/23 4/24/23 5/1/23 5/8/23 5/15/23 5/22/23 5/29/23 6/5/23

Transducer DateTime

TYCO FIRE PRODUCTS LP
MARINETTE WI

GETS Short Term Monitoring Report 1

Water Level Elevations near
Extraction Wells along Ditch B

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FIGURE
4

Precipitation (in)

0.0
0.5
1.0
1.5

Elevation (ft)

600
595
590

PZ-45-31 (EX-1)

Elevation (ft)

600
595
590

MW-EX-2 (EX-2)

Elevation (ft)

600
595
590

PZ-55-64 (EX-8)

9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 +1 +2 +3

1/9/23 1/16/23 1/23/23 1/30/23 2/6/23 2/13/23 2/20/23 2/27/23 3/6/23 3/13/23 3/20/23 3/27/23 4/3/23 4/10/23 4/17/23 4/24/23 5/1/23 5/8/23 5/15/23 5/22/23 5/29/23 6/5/23

Date

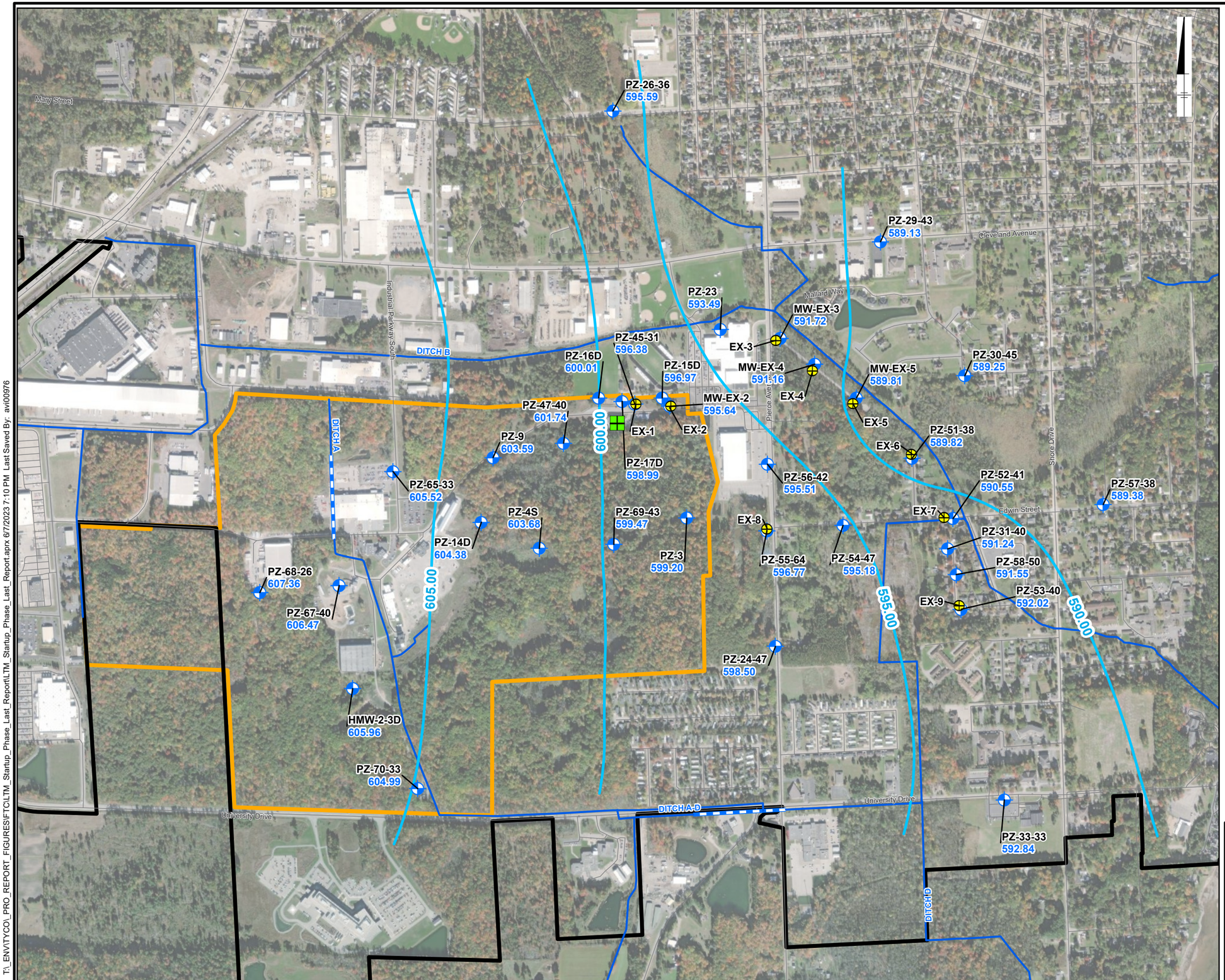
TYCO FIRE PRODUCTS LP
MARINETTE WI

GETS Short Term Monitoring Report 1

Water Level Elevations near
Extraction Wells Upgradient of Ditch B

ARCADIS

FIGURE
5



LEGEND:

- MONITORING WELL
- EXTRACTION WELL
- APPROXIMATE MARINETTE CITY BOUNDARY
- APPROXIMATE SITE PROPERTY BOUNDARY
- ROAD
- CULVERT
- DITCH OR STREAM
- POTENTIOMETRIC CONTOUR
- GETS BUILDING

NOTES:

1.GETS = GROUNDWATER EXTRACTION AND TREATMENT SYSTEM
2. AERIAL IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR, GEOGRAPHICS, AND THE GIS USER COMMUNITY

0 900 1,800

GRAPHIC SCALE IN FEET

TYCO FIRE TECHNOLOGY CENTER
MARINETTE, WISCONSIN

LTM STARTUP PHASE LAST REPORT

POTENTIOMETRIC SURFACE JANUARY 2023

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FIGURE
6

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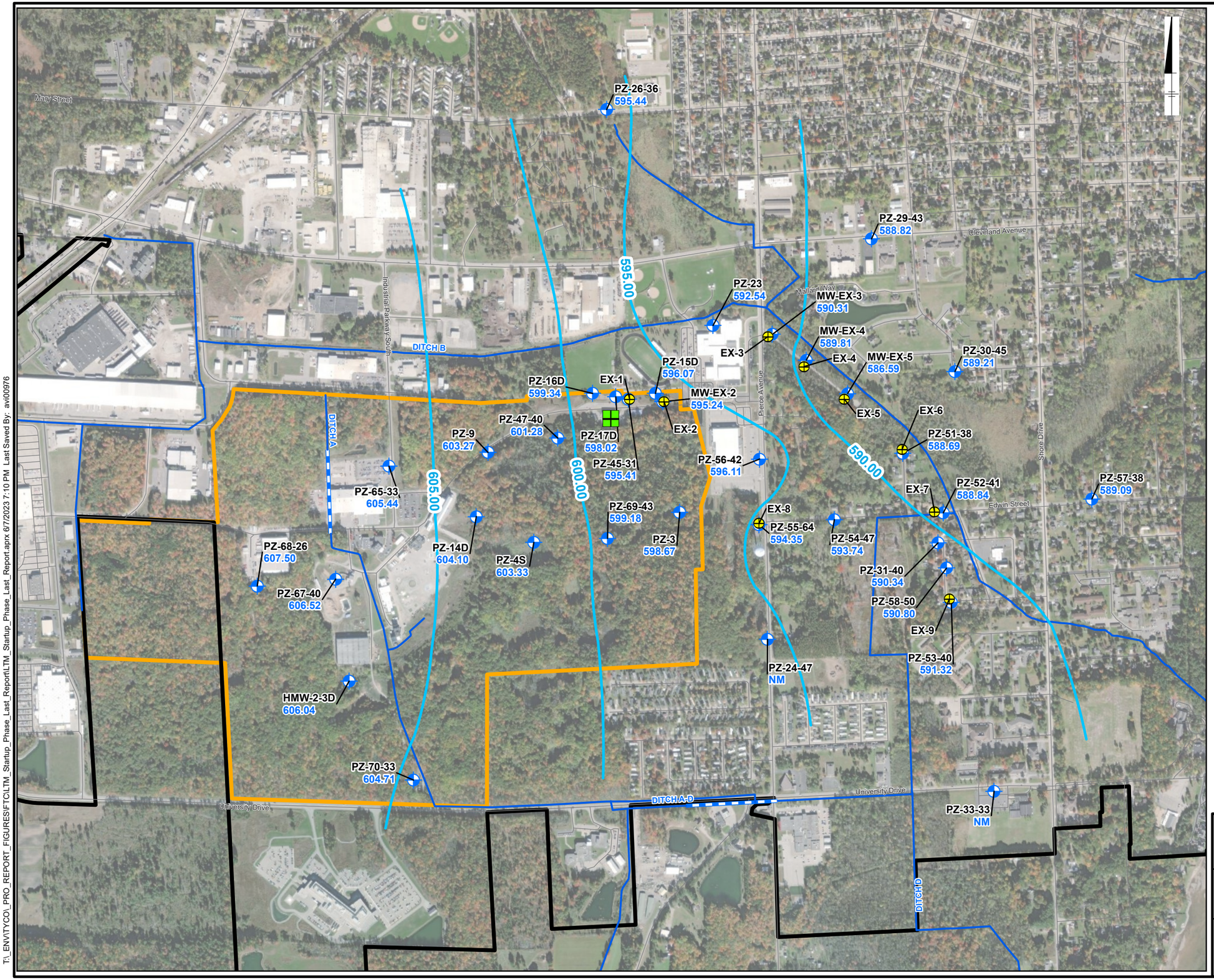

LEGEND:

- MONITORING WELL
- EXTRACTION WELL
- APPROXIMATE MARINETTE CITY BOUNDARY
- APPROXIMATE SITE PROPERTY BOUNDARY
- ROAD
- CULVERT
- DITCH OR STREAM
- POTENTIOMETRIC CONTOUR
- GETS BUILDING

NOTE:
1. NM = NOT MEASURED

NOTES:

1.GETS = GROUNDWATER EXTRACTION AND TREATMENT SYSTEM
2. AERIAL IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR, GEOGRAPHICS, AND THE GIS USER COMMUNITY

0 900 1,800

GRAPHIC SCALE IN FEET

TYCO FIRE TECHNOLOGY CENTER
MARINETTE, WISCONSIN

LTM STARTUP PHASE LAST REPORT

POTENTIOMETRIC SURFACE MARCH 2023

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FIGURE
7

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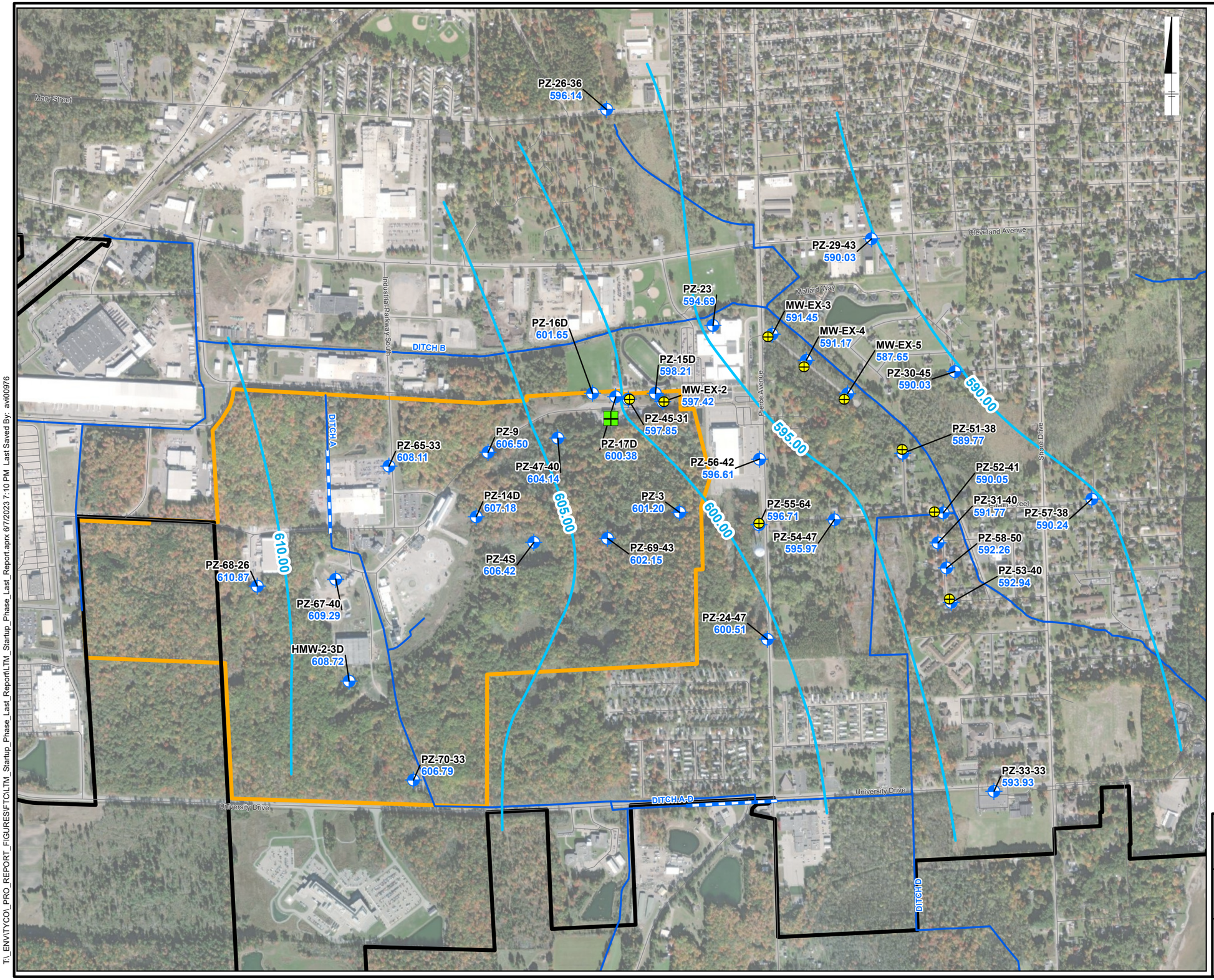

LEGEND:

- MONITORING WELL
- EXTRACTION WELL
- APPROXIMATE MARINETTE CITY BOUNDARY
- APPROXIMATE SITE PROPERTY BOUNDARY
- ROAD
- CULVERT
- DITCH OR STREAM
- POTENTIOMETRIC CONTOUR
- GETS BUILDING

NOTES:

1.GETS = GROUNDWATER EXTRACTION AND TREATMENT SYSTEM
2. AERIAL IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR, GEOGRAPHICS, AND THE GIS USER COMMUNITY

0 900 1,800

GRAPHIC SCALE IN FEET

TYCO FIRE TECHNOLOGY CENTER
MARINETTE, WISCONSIN

LTM STARTUP PHASE LAST REPORT

POTENTIOMETRIC SURFACE MAY 2023

ARCADIS

FIGURE
8

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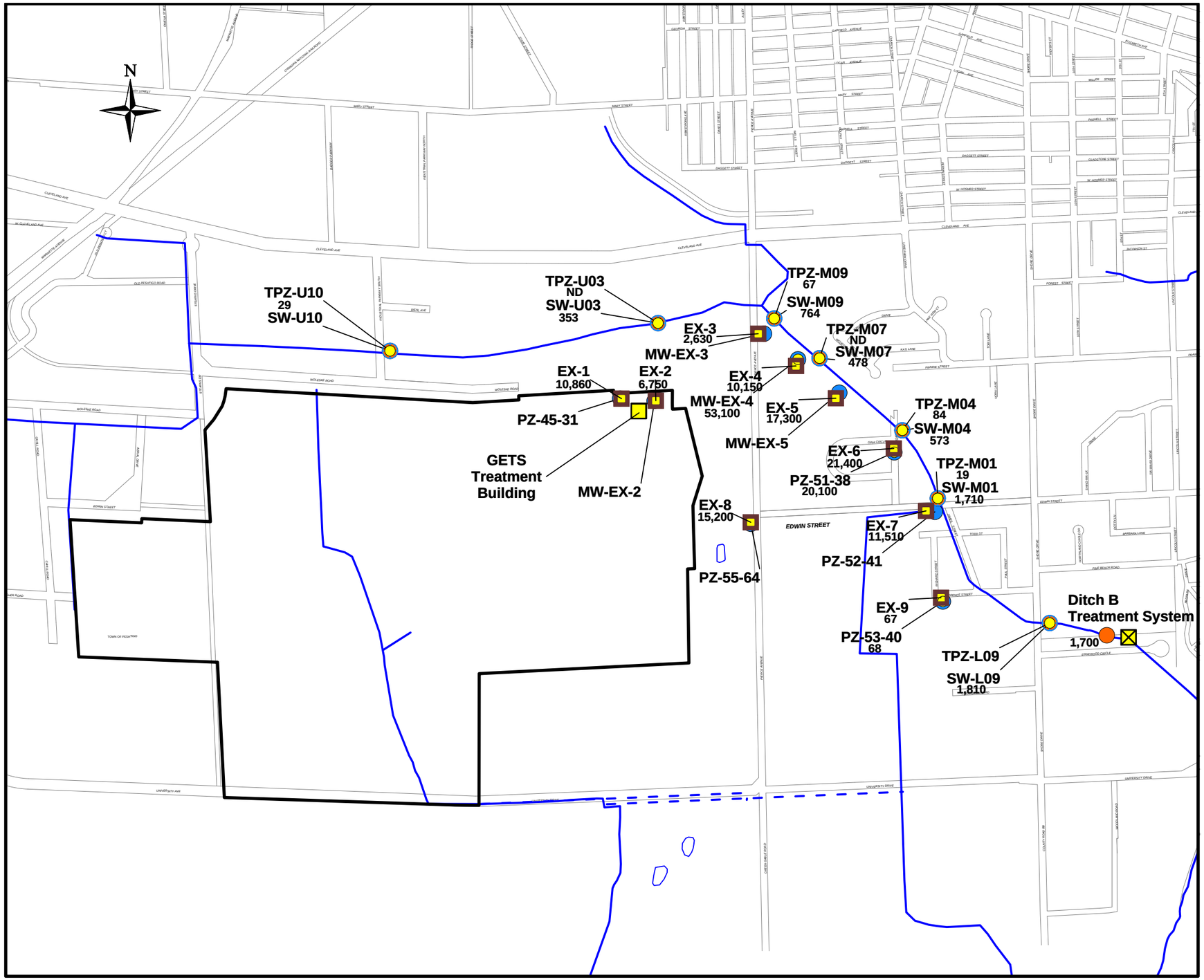

Legend

- FTC Site Area
- Ditches/Streams
- GETS Performance Monitoring Well
- GETS Extraction Well
- Ditch B Treatment System
- Ditch B Groundwater and Surface Water Location
- Ditch B Surface Water Location
- GETS Treatment Building

PFOA plus PFOS concentration shown below the location ID.

Distance (ft)

0 1,000 2,000 3,000

TYCO FIRE PRODUCTS LP
MARINETTE, WISCONSIN
GETS Startup Monitoring

PFOA + PFOS Concentrations at GETS Startup Monitoring Locations in Dec 2022 and Jan 2023

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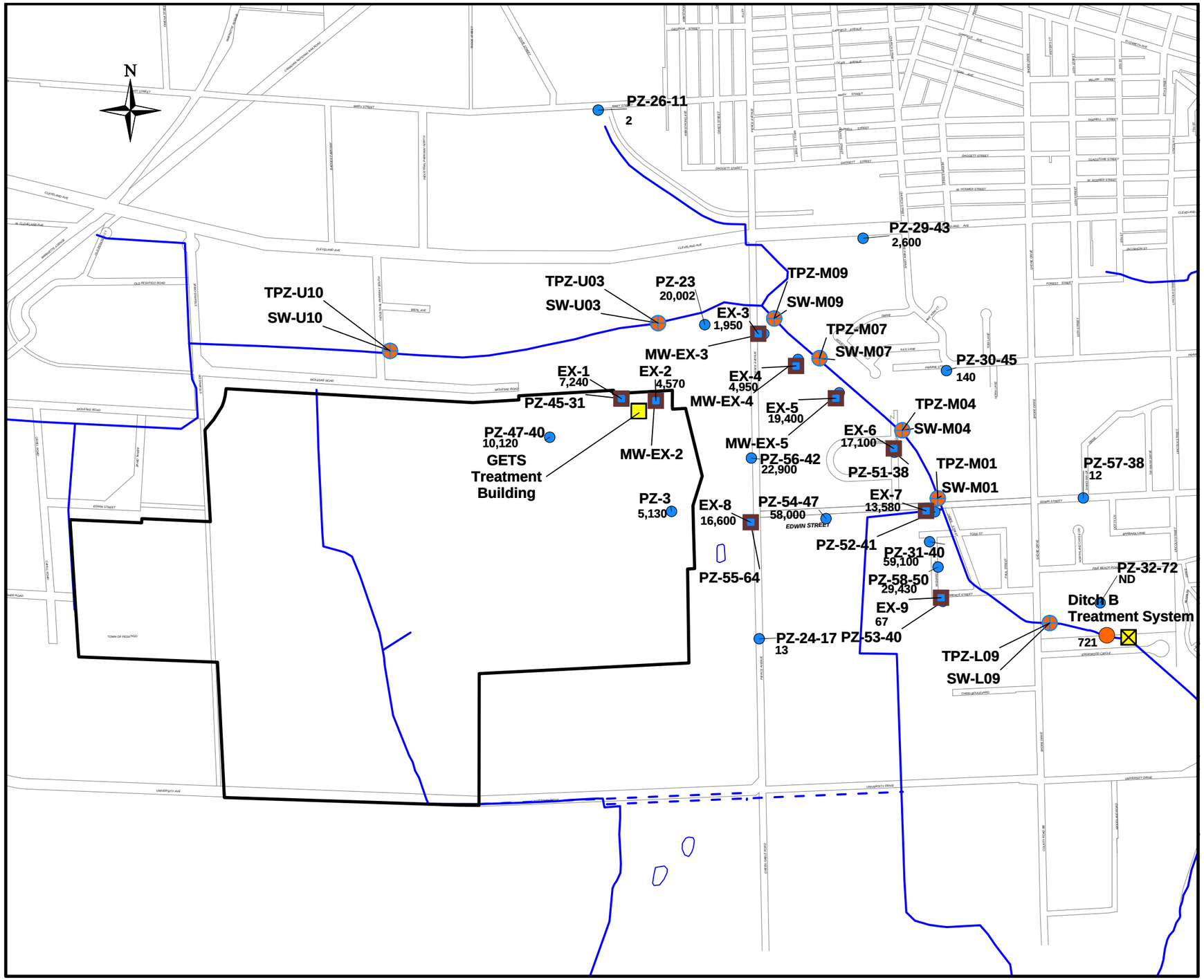
FIGURE
9



Legend

- FTC Site Area
- Ditches/Streams
- GETS Performance Monitoring Well
- GETS Extraction Well
- Ditch B Treatment System
- Ditch B Groundwater and Surface Water Location
- Ditch B Surface Water Location
- GETS Treatment Building

PFOA plus PFOS concentration shown below the location ID.

Distance (ft)

0 1,000 2,000 3,000

TYCO FIRE PRODUCTS LP
MARINETTE, WISCONSIN
GETS Startup Monitoring

PFOA + PFOS Concentrations at GETS Startup Monitoring Locations during First Quarter 2023

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FIGURE
10