Report

2019 Water Quality Monitoring Data

for the

Flambeau (Lower) Hydroelectric Project

FERC Project #2421

Flambeau Hydro, LLC

North Fork of the Flambeau River, Price County, Wisconsin

Respectfully Submitted by:

Angie Stine

WHITE WATER ASSOCIATES, INC.

429 River Lane, P.O. Box 27
Amasa, Michigan 49903

Phone: 906-822-7889

Summary Flambeau (Lower) Hydroelectric Project – FERC #2421

2019 marked the sixteenth year of water quality sampling under FERC approved "Water Quality Monitoring Plan Per License Article 406 for the Flambeau (Lower) Hydroelectric Project – FERC Project # 2421 – Flambeau Hydro, LLC. Monitoring was conducted on April 23, July 24, and August 14, 2019. This document contains all of the associated records for the 2019 monitoring along with summary figures and tables in four appendices: (1) Appendix A (Figures 1-4), (2) Appendix B (Tables 1-3), (3) Appendix C (sampling logs by date), and (4) Appendix D (laboratory reports and chains of custody).

A map of the Flambeau (Lower) Hydroelectric Project is shown in Figure 1 indicating the water quality sampling location.

Monitoring results for 2019 are shown in Table 1. No unusual Temperature (Figure 2) or Dissolved Oxygen (Figure 3) readings were observed. The Secchi depths are shown in Figure 4.

In general, the weather (temperature and rainfall) during 2019 monitoring season appeared slightly warmer in May, June, and July, & August, with lower than normal precipitation in January, March, April, June, July and August, and normal to high precipitation in the months of October, December, February, May, and September (Table 2).

Ice-Out occurred between Agenda and Nine Mile Landing on the North Fork of the Flambeau River sometime during the week beginning April 18, 2019. The Ice-Out sampling event occurred on April 23, 2019. River flow, based on the Flambeau (Lower) Hydroelectric Project records was approximately 4707 cubic feet per second. Sampling occurred between 9:25 a.m. and 9:44 a.m. Samples were taken without incident. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to White Water Associates, Inc. laboratory in Amasa, MI on April 24, 2019. White Water Associates, Inc. issued a laboratory report on May 21, 2019. No unusual levels of Chlorophyll *a*, True Color, or Total Phosphorus were noted in the laboratory reports.

River flow, based on Flambeau (Lower) Hydroelectric Project records, was approximately 690 cubic feet per second during the July 24, 2019 sampling event. Sampling occurred between 11:00 a.m. and 11:10 a.m. Samples were taken without incident. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to White Water Associates, Inc. laboratory in Amasa, MI on July 25, 2019. White Water Associates, Inc. issued a laboratory report on August 27, 2019. No unusual levels of Chlorophyll *a*, True Color, or Total Phosphorus were noted in the laboratory reports.

River flow, based on Flambeau (Lower) Hydroelectric Project records, was approximately 652 cubic feet per second during the August 14, 2019 sampling event. Sampling occurred between 9:06 a.m. and 9:16 a.m. Samples were taken without incident. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to White Water Associates, Inc. laboratory in Amasa, MI on August 15, 2019. White Water Associates, Inc. issued a laboratory report on September 13, 2019. No unusual levels of Chlorophyll *a*, True Color, or Total Phosphorus were noted in the laboratory reports.

A summary of a comparison between the 2012 thru 2019 (Table 3) sampling results are as follows:

1. Water Clarity – Secchi decreased Ice Out and August, Increased July
2. Chlorophyll a – Increased Ice Out, decreased July and August
3. Color – Decreased July and August
4. Total Phosphorus – Decreased Ice Out and July, increased August
5. Overall, D.O. – Increased Ice Out, July, and August
6. Water Temperatures – Decreased Ice Out, July, and August

The next scheduled Water Quality Monitoring at the Flambeau (Lower) Hydroelectric Project is set to take place in 2020 beginning with the Ice-Out sampling event.

Appendix A – Flambeau (Lower) Hydroelectric Project Figures

Figure 1. Flambeau (Lower) Hydroelectric Project Map

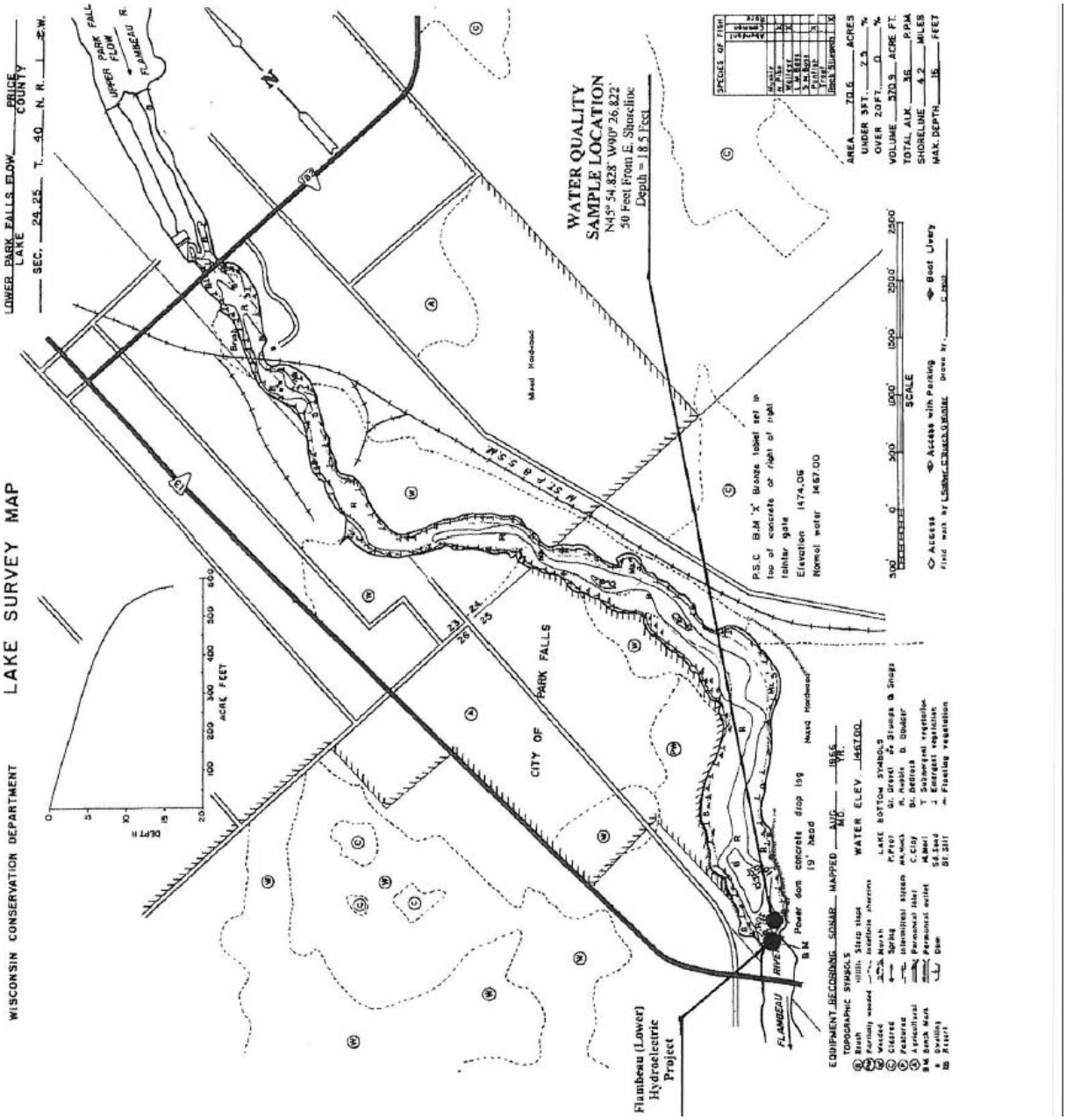


Figure 2. Lower Impoundment - FERC #2421
2019 Temperature Profile

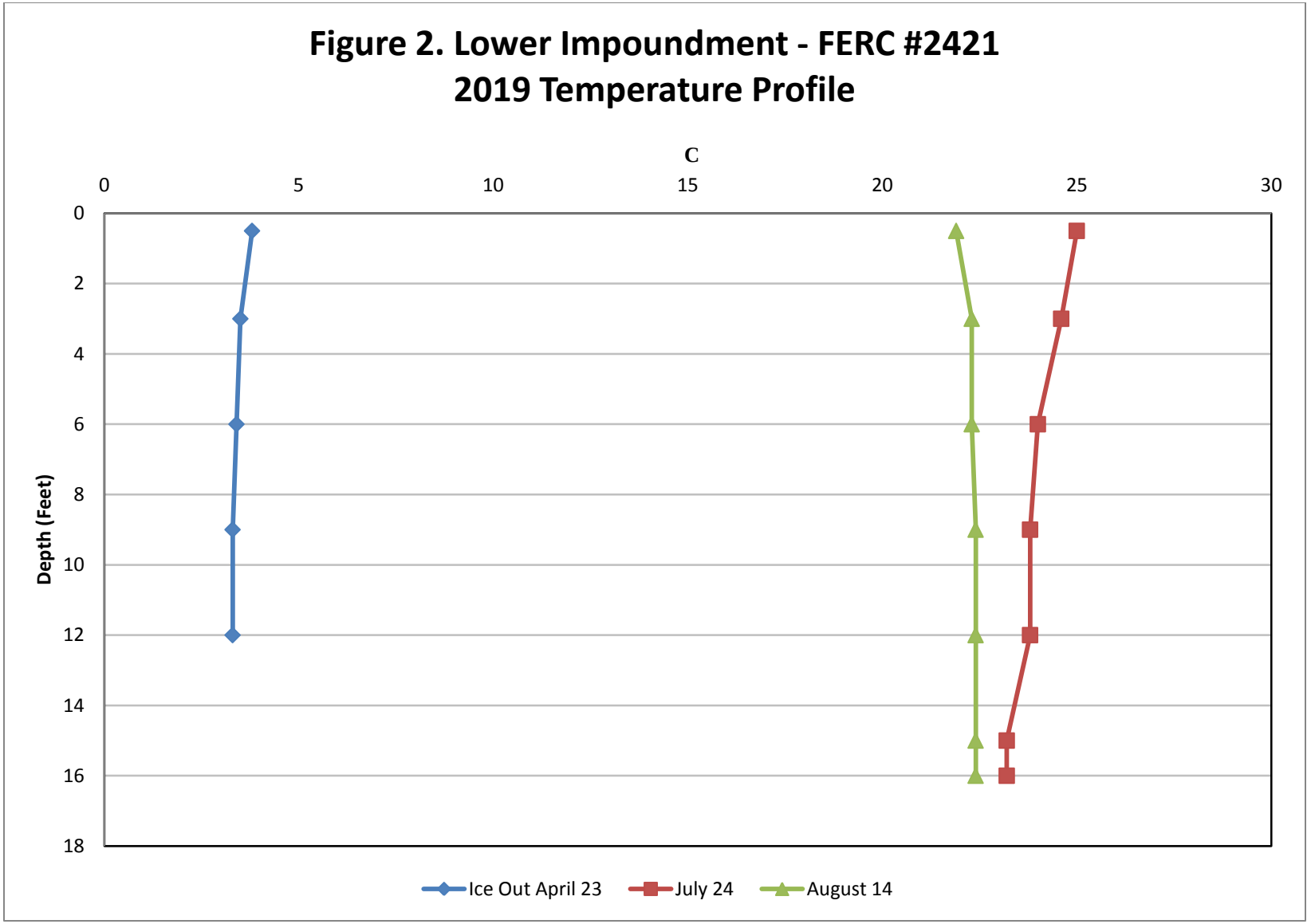
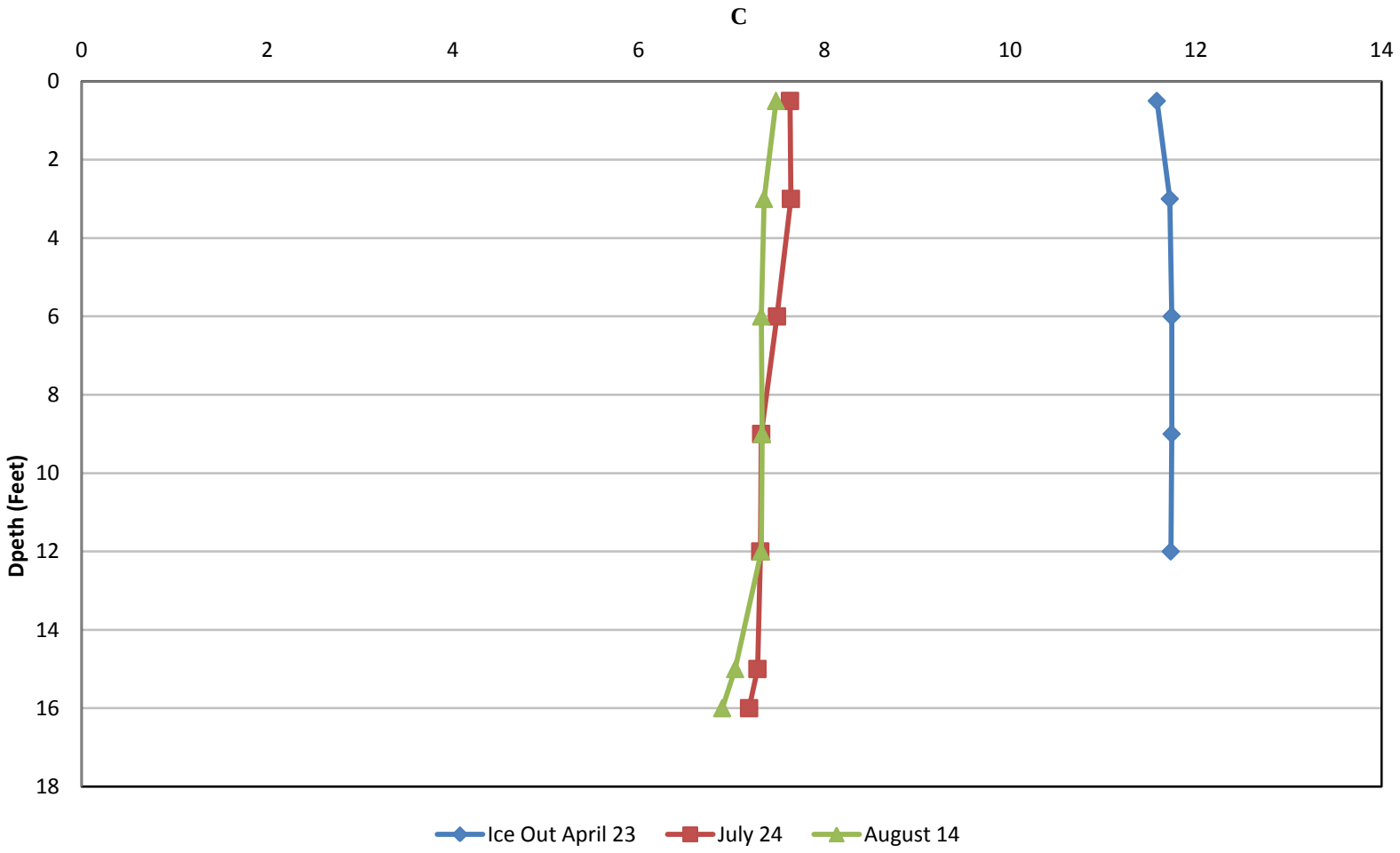


Figure 3. Lower Impoundment - FERC #2421
2019 Dissolved Oxygen Profile



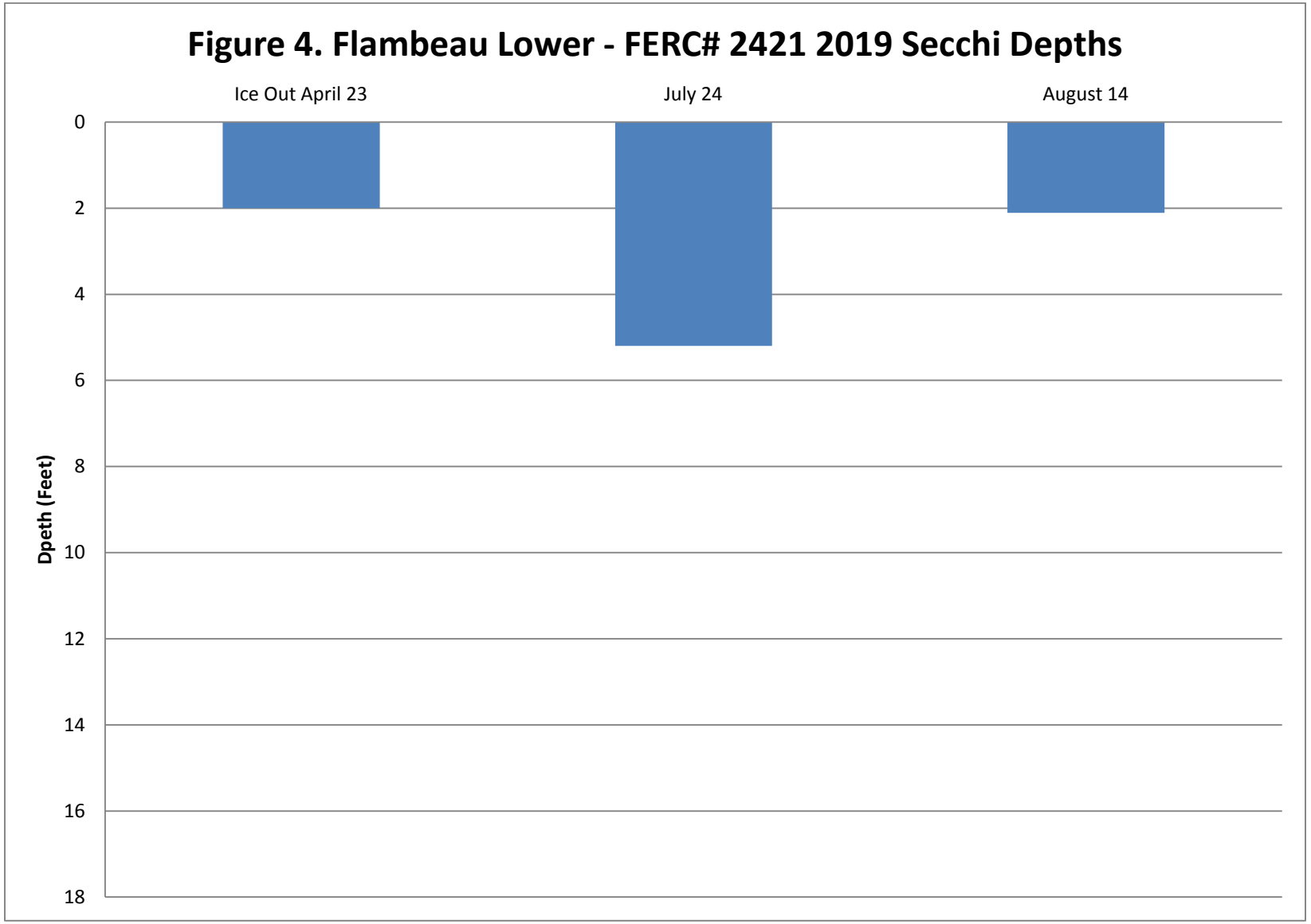


Figure 4. Flambeau Lower - FERC# 2421 2019 Secchi Depths
Ice Out April 23
July 24
August 14
Dpeth (Feet)
0
2
4
6
8
10
12
14
16
18

Appendix B – Flambeau (Lower) Hydroelectric Project Tables

Table 1. Flambeau (Lower) Hydroelectric Project – FERC Project # 2421: 2019 Water Quality Sampling Data

	Ice Out April 23, 2019			July 24, 2019			August 14, 2019		
Project Flow (c.f.s)	4707			690			652		
Dissolved Oxygen	**Time**	**D.O. (mg/L)**	**Water Temp. (°C)**	**Time**	**D.O. (mg/L)**	**Water Temp. (°C)**	**Time**	**D.O. (mg/L)**	**Water Temp. (°C)**
0.5 feet below surface	9:34:38	11.58	3.8	11:02:46	7.63	25.0	9:06:19	7:48	21.9
3 feet below surface	9:35:49	11.72	3.5	11:03:40	7.64	24.6	9:07:08	7.35	22.3
6 feet below surface	9:36:24	11.74	3.4	11:04:29	7.44	24.0	9:07:33	7.32	22.3
9 feet below surface	9:37:08	11.74	3.3	11:05:01	7.32	23.8	9:08:00	7.33	22.4
12 feet below surface	9:37:55	11.73	3.3	11:05:31	7.31	23.8	9:08:31	7.32	22.4
15 feet below surface	9:38:50	11.68	3.3	11:05:57	7.28	23.2	9:09:43	7.04	22.4
18 feet below surface				11:06:49	7.19	23.2	9:11:02	6.90	22.4
19 feet below surface									
0.5 meter above bottom	9:39:10	11.67	3.3	11:07:22		23.7	9:11:53	6.93	22.5
Secchi Disk	**Time**	**Depth (ft)**		**Time**	**Depth (ft)**		**Time**	**Depth (ft)**	
Feet below surface	9:44	2.00		11:10	5.20		9:09	2.11	
Chlorophyll *a*	**Time**	**µg/L**		**Time**	**µg/L**		**Time**	**µg/L**	
3 feet below surface	9:44	4.50		11:05	3.90		9:10	6.90	
Color (True)	**Time**	**C.P.U. Units**	**LOD**	**Time**	**C.P.U. Units**	**LOD**	**Time**	**C.P.U. Units**	**LOD**
3 feet below surface	9:44	55.00	5*	11:05	20.00	5*	9:10	35.00	5*
Total Phosphorus	**Time**	**mg/L**	**LOD**	**Time**	**mg/L**	**LOD**	**Time**	**mg/L**	**LOD**
3 feet below surface	9:44	0.036	0.008*	11:05	0.030	0.008*	9:10	0.031	0.008*
3 feet above bottom	9:40	0.039	0.008*	11:08	0.026	0.008*	9:16	0.027	0.008*
* Considered Method Detection Limit N/A = Not Applicable ND = No Detection									

Table 2. 2018/19 Water Year Monthly Temperature and Precipitation for Park Falls, Wisconsin

Month	Highest Temp.	Lowest Temp.	Average Temp.	Departure From Normal	Heating Degree Days	Normal Degree Days	Total Precip.	Total Snowfall	Normal Precip.	% of Normal Precipitation
October - 18	66	26	41.0	-2.2	738	678	4.67	1.5	2.85	72
November - 18	44	-7	23.2	-5.6	1247	1088	1.67	12.2	2.09	75
December - 18	44	-9	21.6	6.8	1338	1556	1.77	19.8	1.21	78
January – 19	40	-31	7.6	-2.6	1772	1699	0.80	10.4	0.96	70
February – 19	31	-19	10.6	-4.5	1515	1399	1.88	36.4	0.81	73
March – 19	58	-19	24.9	-1.0	1237	1210	1.19	6.7	1.49	64
April – 19	74	16	40.2	0.06	737	762	2.19	6.5	2.43	65
May – 19	82	28	49.3	-2.1	478	426	3.87	13.3	3.23	65
June – 19	87	40	61.7	1.6	126	179	4.10	0.00	4.23	64
July – 19	89	49	71.1	5.3	4	63	2.63	0.00	3.85	66
August – 19	87	46	66.1	1.8	44	86	2.51	0.00	3.70	66
September - 19	83	37	59.6	4.0	172	298	5.76	0.00	4.11	74

Source: NOAA/Duluth, MN

Table 3. Flambeau (Lower) Project Sampling Comparison Table: 2012 Thru Current Year										
Year	**Month**	**Secchi Depth**	**Chlorophyll *a***	**Color (True)**	**Total Phosphorus**	**Total Phosphorus**	**Low D.O.**	**High D.O.**	**Low Water Temp.**	**High Water Temp.**
		Feet	**µg/L**	**C.P.U. Units**	**Below Surface mg/L**	**Above Bottom mg/L**	**mg/L**	**mg/L**	**° C**	**° C**
2012	April	2.60	2.10	120.00	0.038	0.055	10.94	11.35	8.80	9.00
2013	May	*	*	*	*	*	*	*	*	*
2014	June	3.80	1.10	130.00	0.025	0.027	7.30	7.60	18.80	19.60
2015	April	3.30	3.00	130.00	0.038	0.080	9.14	9.66	9.40	9.60
2016	March	2.90	ND	35.00	0.030	0.030	11.54	11.70	3.20	3.20
2017	April	4.30	2.30	30.00	0.027	0.020	10.49	10.70	6.30	6.90
2018	May	4.70	2.10	55.00	0.038	0.030	8.56	8.80	13.60	13.80
2019	April	2.00	4.50	55.00	0.036	0.039	11.67	11.74	3.30	3.80
Minimum	March/April/May/June	2.00	1.10	30.00	0.025	0.020	7.30	7.60	3.20	3.20
Maximum	March/April/May/June	4.70	4.50	130.00	0.038	0.080	11.67	11.74	18.80	19.60
Average	March/April/May/June	3.37	2.52	79.29	0.033	0.040	9.95	10.22	9.06	9.41
2012	July	4.70	4.00	80.00	0.038	0.041	5.52	6.15	25.30	25.90
2013	July	3.50	3.20	150.00	0.041	0.041	5.91	6.04	25.00	25.00
2014	July	3.30	3.00	100.00	0.037	0.038	6.30	7.20	20.70	21.20
2015	July	3.50	4.00	80.00	0.026	0.027	6.59	6.88	20.90	21.30
2016	July	3.70	6.70	45.00	0.021	0.026	6.80	6.93	22.80	22.80
2017	July	4.00	3.50	30.00	0.028	0.029	6.43	6.94	22.90	23.30
2018	July	3.80	5.60	45.00	0.031	0.029	6.36	6.87	23.50	23.80
2019	July	5.20	3.90	20.00	0.030	0.026	7.19	7.64	23.20	25.00
Minimum	July	3.30	3.00	20.00	0.021	0.026	5.52	6.04	20.70	21.20
Maximum	July	5.20	6.70	150.00	0.041	0.041	7.19	7.64	25.30	25.90
Average	July	3.96	4.24	68.75	0.032	0.032	6.39	6.83	23.04	23.54
2012	August	2.75	14.00	80.00	0.051	0.050	5.93	6.75	23.50	23.70
2013	August	3.20	5.30	130.00	0.071	0.110	7.06	7.24	19.90	20.00
2014	August	3.00	5.50	100.00	0.029	0.033	6.35	6.91	21.60	21.90
2015	August	4.00	14.00	70.00	0.031	*	6.96	7.21	22.10	22.20
2016	August	4.90	7.20	30.00	0.026	0.096	5.98	6.42	24.10	24.10
2017	August	4.60	5.60	40.00	0.032	0.033	6.77	7.23	21.00	20.90
2018	August	4.30	12.00	45.00	0.027	0.033	6.82	6.93	22.60	22.70
2019	August	2.11	6.90	35.00	0.031	0.027	6.93	7.48	21.90	22.50
Minimum	August	2.11	5.30	30.00	0.026	0.027	5.93	6.42	19.90	20.00
Maximum	August	4.90	14.00	130.00	0.071	0.110	7.06	7.48	24.10	24.10
Average	August	3.61	8.81	66.25	0.037	0.055	6.60	7.02	22.09	22.25

* No sample taken

Appendix C – Flambeau (Lower) Impoundment Project Sampling Logs

IMPOUNDMENT SAMPLING LOG

Water Quality Study Location Flambeau

Hydroelectric Project – FERC # 2421

Date: 4-23-19

Pre-Sampling Data:

HWL 1467.74 TWL 1448.16 CFS 4707

Sample Location: N45° 54.828 W90° 26.921'

Performed by: Steve Josh K

Time: 9:25 Barometer: 30.13

Air Temp: 46 °F 7.8°C Wind Speed: N 8 mph

Sky Conditions: Clear

Precipitation within Last 24 Hours: yes

D.O. Meter Calibration:

Instrument Model Used: HQ40D

Were the batteries changed? ☐ Yes ☒ No

If yes, when were they changed: _____

Battery Status: 100 % Charge

Calibration Method: Factory

Sampling Depth Profile: Measured depth to bottom of impoundment: 13 Feet

Secchi Depth (± 0.1)		
Time 9:44	2.0	Feet

Comments:

Chlorophyll *a* (3 feet below surface horizontal sampler)		
Lab Sample I.D. #:		
Time 9:44	Quantity (ml)	Filtered
	1000	In Lab
Preservative	$MgCO_3$ ✓	

True Color (3 feet below surface horizontal sampler)
Lab Sample I.D. # :
Time: 9:44

Total Phosphorus (3 feet below surface horizontal sampler)	
Lab Sample I.D. # :	
Time 9:44	Preservative
	H_2SO_4

Total Phosphorus (3 feet above bottom horizontal sampler)	
Lab Sample I.D. # :	
Time 9:40	Preservative
—	H_2SO_4

D.O. and Temperature Profile			
Depth (Feet)	Time	D.O. (mg/L)	Temperature °C
0.5 below surface	9:34:38	11.58	3.8
3	9:35:49	11.72	3.5
6	9:36:24	11.74	3.4
9	9:37:08	11.74	3.3
12	9:37:55	11.73	3.3
~~15~~ 13	9:38:50	11.68	3.3
18			
21			
24			
0.5 above bottom	9:39:10	11:67	3.3

*If D.O. is below 5.0 mg/L notify agency and measure D.O. at 1.0 foot intervals if <5.0 mg/L.

WHITE WATER ASSOCIATES, INC.

IMPOUNDMENT SAMPLING LOG

Water Quality Study Location Lower

Hydroelectric Project – FERC # 2421

Date: 7-24-19

Pre-Sampling Data:

HWL 1467.32 TWL 1448.6 CFS 690

Sample Location: A. Shaw R. Wambo

Performed by: A Shaw Ryan Wambe

Time: 11:00 Barometer: 30.11

Air Temp: 77 °F Wind Speed: W5mpH

Sky Conditions: Clear

Precipitation within Last 24 Hours: NO

D.O. Meter Calibration:

Instrument Model Used: HQ40D

Were the batteries changed? ☐ Yes ☒ No

If yes, when were they changed: _____

Battery Status: 80 % Charge

Calibration Method: Factory

Sampling Depth Profile: Measured depth to bottom of impoundment: 16 Feet

Secchi Depth (± 0.1)	
Time 11:10	5.2 Feet

Comments:

Chlorophyll *a* (3 feet below surface horizontal sampler)		
Lab Sample I.D. #:		
Time 11:05	Quantity (ml)	Filtered
	1000	In Lab
Preservative	$MgCO_3$	

True Color (3 feet below surface horizontal sampler)
Lab Sample I.D. # :
Time: 11:05

Total Phosphorus (3 feet below surface horizontal sampler)	
Lab Sample I.D. # :	
Time 11:05	Preservative
	H_2SO_4

Total Phosphorus (3 feet above bottom horizontal sampler)	
Lab Sample I.D. # :	
Time 11:08	Preservative
	H_2SO_4

D.O. and Temperature Profile			
Depth (Feet)	Time	D.O. (mg/L)	Temperature °C
0.5 below surface	11:02:46	7.63	25.0
3	11:03:40	7.64	24.6
6	11:04:39	7.44	24.0
9	11:05:09	7.32	23.8
12	11:05:31	7.31	23.8
15	11:05:57	7.28	23.2
18/16	11:06:49	7.19	23.2
21			
24			
0.5 above bottom	11:07:22	7.14	23.7

*If D.O. is below 5.0 mg/L notify agency and measure D.O. at 1.0 foot intervals if <5.0 mg/L.

WHITE WATER ASSOCIATES, INC.

IMPOUNDMENT SAMPLING LOG

Water Quality Study Location Lower Flambeau

Hydroelectric Project – FERC # 2421

Date: 8-14-19

Pre-Sampling Data:

HWL 1467.25 TWL 1468.6 CFS 652

Sample Location: N45° 54.828 W90° 26.282

Performed by: Angie Shane Emma

Time: 9:06 Barometer: 30.06

Air Temp: 61 °F Wind Speed: NE 8mph

Sky Conditions: Clear

Precipitation within Last 24 Hours: No

D.O. Meter Calibration:

Instrument Model Used: HQ40D

Were the batteries changed? ☐ Yes ☒ No

If yes, when were they changed: _____

Battery Status: 70 % Charge

Calibration Method: Factory

Sampling Depth Profile: Measured depth to bottom of impoundment: 16 Feet

Secchi Depth (± 0.1)		
Time 9:09	2'11"	Feet

Comments:

Chlorophyll *a* (3 feet below surface horizontal sampler)		
Lab Sample I.D. #:		
Time 9:10	Quantity (ml)	Filtered
	1000	In Lab
Preservative	$MgCO_3$	

True Color (3 feet below surface horizontal sampler)
Lab Sample I.D. # :
Time: 9:10

Total Phosphorus (3 feet below surface horizontal sampler)	
Lab Sample I.D. # :	
Time 9:10	Preservative
	H_2SO_4

Total Phosphorus (3 feet above bottom horizontal sampler)	
Lab Sample I.D. # :	
Time 9:16	Preservative
	H_2SO_4

D.O. and Temperature Profile			
Depth (Feet)	Time	D.O. (mg/L)	Temperature °C
0.5 below surface	9:06:19	7.48	21.9
3	9:07:06	7.35	22.3
6	9:07:33	7.32	22.3
9	9:08:00	7.33	22.4
12	9:08:31	7.32	22.4
15	9:09:43	7.04	22.4
16	9:11:02	6.90	22.4
21			
24			
0.5 above bottom	9:11:53	6.93	22.5

*If D.O. is below 5.0 mg/L notify agency and measure D.O. at 1.0 foot intervals if <5.0 mg/L.

WHITE WATER ASSOCIATES, INC.

Appendix D – Flambeau (Lower) Hydroelectric Project Lab Reports and Chains of Custody

Cover Page

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 82125

Project: Monitoring

Date Received: 4/24/2019 **Date Reported:** 5/21/2019

Sample Number	Client Sample ID	Date Sampled	Sample Matrix
82125-001	Upper Flambeau Surface	04/23/19	Water
82125-002	Upper Flambeau Bottom	04/23/19	Water
82125-003	Lower Flambeau Surface	04/23/19	Water
82125-004	Lower Flambeau Bottom	04/23/19	Water
82125-005	Pixley Surface	04/23/19	Water
82125-006	Pixley Bottom	04/23/19	Water
82125-007	Crowley Surface	04/23/19	Water
82125-008	Crowley Bottom	04/23/19	Water

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 82125

Comments (if any):

Key to Laboratory Flags:

*: RPD exceeds limits.
B: The analyte was found in the associated blank as well as in the sample.
J: The quantitation is an estimated value because the result is less than the sample quantitation limit but greater than the detection limit.
M: A matrix effect was present.
Q: Batch QC data associated with the analysis does not meet the stated objectives
H: Indicates analytical holding time exceedance.
U: The analyte was analyzed for, but not detected.
P: A manual peak selection or manual integration was performed to correct an erroneous software selection.

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)
For coliform, Negative = No coliform bacteria detected, Positive = Coliform bacteria detected

Sample Types:
S = Solids, DW = Drinking water, D = Dissolved, T = Total, TC = TCLP extract, SP = SPLP extract

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without the written approval of this laboratory. The Chain of Custody is attached.

This report satisfies the requirements of your project but has not been prepared to comply with NELAP reporting requirements.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and White Water Associates Standard Operating Procedures. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this Final Report is authorized by White Water Associates management, as is verified by the following signature.

Approved By: Gerry L Haas

WI DNR Lab Certification Number: 999971280
MI DEQ Certification Number: 9306
DoD-ELAP Accreditation Number: 65802
ISO/IEC 17025:2005 Accredited

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 82125

Project: Monitoring

Date Received: 4/24/2019 **Date Reported:** 5/21/2019

Sample Results

Sample No. / ID / Description / Matrix	Result	Flags	Units	Date/Time	Method	MDL	MQL	Analyst
82125-001 / Upper Flambeau Surface / Water								
General Chemistry Parameters								
Chlorophyll a	2.9		mg/m3	4/25/2019 13:30	10200H	NA	NA	CA
Color	40		CU	4/24/2019 11:05	2120B	5	5	AH
Total Phosphorus LL (t)	0.028	J	mg/L	5/15/2019 12:29	365.4	0.008	0.050	NK
82125-002 / Upper Flambeau Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.026	J	mg/L	5/15/2019 12:31	365.4	0.008	0.050	NK
82125-003 / Lower Flambeau Surface / Water								
General Chemistry Parameters								
Chlorophyll a	4.5		mg/m3	4/25/2019 13:30	10200H	NA	NA	CA
Color	55		CU	4/24/2019 11:05	2120B	5	5	AH
Total Phosphorus LL (t)	0.036	J	mg/L	5/15/2019 12:32	365.4	0.008	0.050	NK
82125-004 / Lower Flambeau Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.039	J	mg/L	5/15/2019 12:32	365.4	0.008	0.050	NK
82125-005 / Pixley Surface / Water								
General Chemistry Parameters								
Chlorophyll a	2.5		mg/m3	4/25/2019 13:30	10200H	NA	NA	CA
Color	45		CU	4/24/2019 11:05	2120B	5	5	AH
Total Phosphorus LL (t)	0.036	J	mg/L	5/15/2019 12:33	365.4	0.008	0.050	NK

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit,
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax-7977

Client: RWE **WWA Job #:** 82125

Project: Monitoring

Date Received: 4/24/2019 **Date Reported:** 5/21/2019

Sample Results

Sample No. / ID / Description / Matrix	Result	Flags	Units	Date/Time	Method	MDL	MQL	Analyst
82125-006 / Pixley Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.048	J	mg/L	5/15/2019 12:33	365.4	0.008	0.050	NK
82125-007 / Crowley Surface / Water								
General Chemistry Parameters								
Chlorophyll a	2.7		mg/m3	4/25/2019 13:30	10200H	NA	NA	CA
Color	45		CU	4/24/2019 11:05	2120B	5	5	AH
Total Phosphorus LL (t)	0.038	J	mg/L	5/15/2019 12:34	365.4	0.008	0.050	NK
82125-008 / Crowley Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.036	J	mg/L	5/15/2019 12:35	365.4	0.008	0.050	NK

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit,
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)

Login Checklist

WHITE WATER ASSOCIATES, INC.

Project No.:	82125	**Date logged in.:** 4/24/2019		**Login person's initials:**	ER
Client:	RWE			**Number of coolers:**	1
Project name:	Monitoring			**Courier/shipper:**	WWA

- ☑ **1. Custody seals/original packing tape were intact (if applicable).**
- ☑ **2. Samples are in good condition, i.e. not broken or leaking.**
- ☑ **3. Samples were received within holding times.**
- ☑ **4. Samples were received on ice (ice in direct contact with the samples).**
- ☐ **5. Temperature of the samples was between 0-6°C. Temp.:** -1

  NOTE: Samples not between 0-6°C that are received at the laboratory on the day of sample collections do not require client notification.
- ☑ **6. Samples matched the Chain of Custody (COC).**
- ☑ **7. Proper containers were used.**
- ☑ **8. Samples were collected in White Water lab containers.**
- ☑ **9. There is adequate sample volume for requested analyses and QC.**
- ☐ **10. For water VOC samples, headspace is less than the size of a pea.**
- ☑ **11. Samples are preserved to the proper pH. Sample bottles and preservation are noted in LIMS Sample Container Section.**
- ☑ **12. The COC is signed. (either Sampler or Relinquished by)**
- ☐ **13. Sub-sampling (SS) is required. Bottles created are noted in sample containers section of log-in form.**
- ☑ **14. For Dissolved Analysis (when applicable), samples were filtered in the lab.**
- ☐ **15. For soil VOCs, methanol preserved samples were received.**
- ☐ **16. For Soil VOCs, samples were preserved with methanol in the lab.**
- ☐ **17. Client contact is necessary. Provide documentation below.**

COMMENTS/CORRECTIVE ACTION

CLIENT RESPONSE

Note: If hold time, volume, and received on ice or temperature criteria are not met when required by the method, results may not be able to be used for regulatory purposes. Check with your reporting agency for more information.

V6404 125 1,9
Version
160504

Job # (WWA office use): 82125 /

CHAIN-OF-CUSTODY RECORD

WHITE WATER ASSOCIATES, INC.

429 River Lane, P.O. Box 27
Amasa, Michigan 49903

Phone: (906) 822-7889, Fax -7977
Web: white-water-associates.com

CLIENT NAME / BILL TO: RWE /

EMAIL ADDRESS:

ADDRESS:

TELEPHONE:

CITY: | STATE: | ZIP:

CONTRACT / PO / PROJECT NAME / WSSN#: Monitoring

SAMPLER NAME (print first/last name): Angie Stri

COUNTY OF LOCATION:

PAGE 1 OF 1 (Indicate if more than one page of COC records used)

SAMPLER'S SIGNATURE: [signature]

Check off preservatives for each bottle upon arrival and indicate total number of bottles. WWA database contains bottle preservation details.

ANALYSIS TYPE REQUESTED (Attach list if neeeded)

	SAMPLE ID AND LOCATION (Containers for each sample may be combined on one line.)	DATE	TIME	SAMPLE MATRIX: Drinking water	Aqueous	Sed.	Soil	Other:	CONTAINERS / PRESERVATIVES: None	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Na Thio	Total Number of Containers	Chl a (mg CO3)	T Phos	Color
1	Upper Flambeau Surface	4-23-19	0823		X				X	X						3	X	X	X
2	Upper Flambeau Bottom	4-23-19	0815		|					|					1		X	
3	Lower Flambeau Surface	"	0944		|				X	|					3	X	X	X
4	Lower Flambeau Bottom	"	0940		|					|					1		X	
5	Pixley Surface	"	10.43		|				X	|					3	X	X	X
6	Pixley Bottom	"	10.40		|					|					1		X	
7	Crowley Surface	"	1304		|				X	|					3	X	X	X
8	Crowley Bottom	"	1300		|					|					1		X	

Instructions to White Water
Send my report by:
____ email
____ mail

Unless otherwise noted, drinking water report copies are sent to MDEQ and Health Dept.

REMARKS (Note any special instructions provided by client or conditions of receipt noted by WWA lab staff. Also note any residual chlorine.)

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	4-23-19	16.48			
			[signature]	4-24-19	830

Comments/Sample temp. on receipt: -1

Packing: Ice ✓ Cooler ✓

UPS☐ FedEx☐ USPS☐ Client☐ Other WWA

WHITE - RETURN W/ REPORT   CANARY - W/ SAMPLES   PINK - CUSTOMER

Cover Page

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.

429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 84252

Project: Monitoring

Date Received: 7/25/2019 **Date Reported:** 8/27/2019

Sample Number	Client Sample ID	Date Sampled	Sample Matrix
84252-001	Upper Flambeau Surface	07/24/19	Water
84252-002	Upper Flambeau Bottom	07/24/19	Water
84252-003	Lower Flambeau Surface	07/24/19	Water
84252-004	Lower Flambeau Bottom	07/24/19	Water
84252-005	Pixley Surface	07/24/19	Water
84252-006	Pixley Bottom	07/24/19	Water
84252-007	Crowley Surface	07/24/19	Water
84252-008	Crowley Bottom	07/24/19	Water

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane / PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 84252

Comments (if any):

Key to Laboratory Flags:

*: RPD/RSD exceeds limits.
B: The analyte was found in the associated blank as well as in the sample.
J: The quantitation is an estimated value because the result is less than the sample quantitation limit but greater than the detection limit.
M: A matrix effect was present.
Q: Batch QC data associated with the analysis does not meet the stated objectives
H: Indicates analytical holding time exceedance.
P: A manual peak selection or manual integration was performed to correct an erroneous software selection.
N: For reporting results that are non-target analytes, when requested by client for Mass Spec reporting.
T: Tentatively Identified Compound.
ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)
For coliform, Negative = No coliform bacteria detected, Positive = Coliform bacteria detected

Sample Types:
S = Solids, DW = Drinking water, D = Dissolved, T = Total, TC = TCLP extract, SP = SPLP extract

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without the written approval of this laboratory. The Chain of Custody is attached.

This report satisfies the requirements of your project but has not been prepared to comply with NELAP reporting requirements.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and White Water Associates Standard Operating Procedures. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this Final Report is authorized by White Water Associates management, as is verified by the following signature.

Approved By: Teresa L Haag

WI DNR Lab Certification Number: 999971280
MI EGLE Certification Number: 9306
DoD-ELAP Accreditation Number: 65802
ISO/IEC 17025:2005 Accredited

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 84252

Project: Monitoring

Date Received: 7/25/2019 **Date Reported:** 8/27/2019

Sample Results

Sample No. / ID / Description / Matrix	Result	Flags	Units	Date/Time	Method	MDL	MQL	Analyst
84252-001 / Upper Flambeau Surface / Water								
General Chemistry Parameters								
Chlorophyll a	5.9		mg/m3	7/25/2019 15:20	10200H	NA	NA	CA
Color	25		CU	7/25/2019 13:00	2120B	5	5	GG
Total Phosphorus LL (t)	0.017	J	mg/L	8/20/2019 12:40	365.4	0.008	0.050	NK
84252-002 / Upper Flambeau Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.016	J	mg/L	8/20/2019 12:49	365.4	0.008	0.050	NK
84252-003 / Lower Flambeau Surface / Water								
General Chemistry Parameters								
Chlorophyll a	3.9		mg/m3	7/25/2019 15:20	10200H	NA	NA	CA
Color	20		CU	7/25/2019 13:00	2120B	5	5	GG
Total Phosphorus LL (t)	0.030	J	mg/L	8/20/2019 12:50	365.4	0.008	0.050	NK
84252-004 / Lower Flambeau Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.026	J	mg/L	8/20/2019 12:50	365.4	0.008	0.050	NK
84252-005 / Pixley Surface / Water								
General Chemistry Parameters								
Chlorophyll a	12		mg/m3	7/25/2019 15:20	10200H	NA	NA	CA
Color	25		CU	7/25/2019 13:00	2120B	5	5	GG
Total Phosphorus LL (t)	0.041	J	mg/L	8/20/2019 12:51	365.4	0.008	0.050	NK

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit,
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 84252

Project: Monitoring

Date Received: 7/25/2019 **Date Reported:** 8/27/2019

Sample Results

Sample No. / ID / Description / Matrix	Result	Flags	Units	Date/Time	Method	MDL	MQL	Analyst
84252-006 / Pixley Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.034	J	mg/L	8/20/2019 12:52	365.4	0.008	0.050	NK
84252-007 / Crowley Surface / Water								
General Chemistry Parameters								
Chlorophyll a	15		mg/m3	7/25/2019 15:20	10200H	NA	NA	CA
Color	25		CU	7/25/2019 13:00	2120B	5	5	GG
Total Phosphorus LL (t)	0.032	J	mg/L	8/20/2019 12:54	365.4	0.008	0.050	NK
84252-008 / Crowley Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.040	J	mg/L	8/20/2019 12:54	365.4	0.008	0.050	NK

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit,
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)

Login Checklist

WHITE WATER ASSOCIATES, INC.

Project No.:	84252	**Date logged in.:** 7/25/2019		**Login person's initials:**	ER
Client:	RWE			**Number of coolers:**	1
Project name:	Monitoring			**Courier/shipper:**	WWA

- ☑ **1. Custody seals/original packing tape were intact (if applicable).**
- ☑ **2. Samples are in good condition, i.e. not broken or leaking.**
- ☑ **3. Samples were received within holding times.**
- ☑ **4. Samples were received on ice (in direct contact with the samples).**
- ☑ **5. Temperature of the samples was between 0-6°C. Temp.:** 0

NOTES on #4:

NOTE: Samples not between 0-6°C that are received at the laboratory on the day of sample collections do not require client notification.

- ☑ **6. Samples matched the Chain of Custody (COC).**
- ☑ **7. Proper containers were used.**
- ☑ **8. Samples were collected in White Water lab containers.**
- ☑ **9. There is adequate sample volume for requested analyses and QC.**
- ☐ **10. For water VOC samples, headspace is less than the size of a pea.**
- ☑ **11. Samples are preserved to the proper pH. Sample bottles and preservation are noted in LIMS Sample Container Section.**
- ☑ **12. The COC is signed. (either Sampler or Relinquished by)**
- ☐ **13. Sub-sampling (SS) is required. Bottles created are noted in sample containers section of log-in form.**
- ☑ **14. For Dissolved Analysis (when applicable), samples were filtered in the lab.**
- ☐ **15. For soil VOCs, methanol preserved samples were received.**
- ☐ **16. For Soil VOCs, samples were preserved with methanol in the lab.**
- ☐ **17. Client contact is necessary. Provide documentation below.**

COMMENTS/CORRECTIVE ACTION

CLIENT RESPONSE

Note: If hold time, volume, and received on ice or temperature criteria are not met when required by the method, results may not be able to be used for regulatory purposes. Check with your reporting agency for more information.

JGH 7/26/19
Version 160504

Job # (WWA office use): 84252

CHAIN-OF-CUSTODY RECORD

WHITE WATER ASSOCIATES, INC.

429 River Lane, P.O. Box 27
Amasa, Michigan 49903
Phone: (906) 822-7889, Fax -7977
Web: white-water-associates.com

CLIENT NAME / BILL TO: RWE
EMAIL ADDRESS:
ADDRESS:
TELEPHONE:
CITY / STATE / ZIP:
CONTRACT / PO / PROJECT NAME / WSSN#: Monitoring
SAMPLER NAME (print first/last name): Ryan Warmbod
COUNTY OF LOCATION:
PAGE 1 OF 1 — Indicate if more than one page of COC records used
SAMPLER'S SIGNATURE:

Check off preservatives for each bottle upon arrival and indicate total number of bottles. WWA database contains bottle preservation details.

ANALYSIS TYPE REQUESTED (Attach list if neeeded)

Instructions to White Water
Send my report by:
____ email
____ mail

Unless otherwise noted, drinking water report copies are sent to MDEQ and Health Dept.

REMARKS (Note any special instructions provided by client or conditions of receipt noted by WWA lab staff. Also note any residual chlorine.)

	SAMPLE ID AND LOCATION (Containers for each sample may be combined on one line.)	DATE	TIME	SAMPLE MATRIX: Drinking water	Aqueous	Sed.	Soil	Other:	CONTAINERS / PRESERVATIVES: None	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Na Thio	Total Number of Containers	Chla (mg/m3)	T Phos	Color
1	Upper Flambeau Surface	7/24/19	7:52		X				X	X						3	X	X	X
2	Upper Flambeau Bottom	"	7:56		"					"						1		X	
3	Lower Flambeau Surface	"	11:05		"				X	"						3	X	X	X
4	Lower Flambeau Bottom	"	11:08		"					"						1		X	
5	Pixley Surface	"	12:30		"				X	"						3	X	X	X
6	Pixley Bottom	"	12:34		"					"						1		X	
7	Crowley Surface	"	13:10		"				X	"						3	X	X	X
8	Crowley Bottom	"	13:14		"					"						1		X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Ryan Warmbod	7/24/19	17:30			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
				7-25-19	8:30

Comments/Sample temp. on receipt: 0

Packing: Ice ✓ Cooler ____

UPS☐ FedEx☐ USPS☐ Client☐ Other WWA

WHITE - RETURN W/ REPORT CANARY - W/ SAMPLES PINK - CUSTOMER

Cover Page

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.

429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 84707

Project: Monitoring

Date Received: 8/15/2019 **Date Reported:** 9/13/2019

Sample Number	Client Sample ID	Date Sampled	Sample Matrix
84707-001	Upper Flambeau Surface	08/14/19	Water
84707-002	Upper Flambeau Bottom	08/14/19	Water
84707-003	Lower Flambeau Surface	08/14/19	Water
84707-004	Lower Flambeau Bottom	08/14/19	Water
84707-005	Pixley Surface	08/14/19	Water
84707-006	Pixley Bottom	08/14/19	Water
84707-007	Crowley Surface	08/14/19	Water
84707-008	Crowley Bottom	08/14/19	Water

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 84707

Comments (if any):

Key to Laboratory Flags:

*: RPD/RSD exceeds limits.
B: The analyte was found in the associated blank as well as in the sample.
J: The quantitation is an estimated value because the result is less than the sample quantitation limit but greater than the detection limit.
M: A matrix effect was present.
Q: Batch QC data associated with the analysis does not meet the stated objectives
H: Indicates analytical holding time exceedance.
P: A manual peak selection or manual integration was performed to correct an erroneous software selection.
N: For reporting results that are non-target analytes, when requested by client for Mass Spec reporting.
T: Tentatively Identified Compound.
ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)
For coliform, Negative = No coliform bacteria detected, Positive = Coliform bacteria detected

Sample Types:
S = Solids, DW = Drinking water, D = Dissolved, T = Total, TC = TCLP extract, SP = SPLP extract

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without the written approval of this laboratory. The Chain of Custody is attached.

This report satisfies the requirements of your project but has not been prepared to comply with NELAP reporting requirements.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and White Water Associates Standard Operating Procedures. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this Final Report is authorized by White Water Associates management, as is verified by the following signature.

Approved By: Lisa A Haag

WI DNR Lab Certification Number: 999971280
MI EGLE Certification Number: 9306
DoD-ELAP Accreditation Number: 65802
ISO/IEC 17025:2005 Accredited

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7689 • Fax -7977

Client: RWE **WWA Job #:** 84707

Project: Monitoring

Date Received: 8/15/2019 **Date Reported:** 9/13/2019

Sample Results

Sample No. / ID / Description / Matrix	Result	Flags	Units	Date/Time	Method	MDL	MQL	Analyst
84707-001 / Upper Flambeau Surface / Water								
General Chemistry Parameters								
Chlorophyll a	18		mg/m3	8/22/2019 15:10	10200H	NA	NA	AH
Color	30		CU	8/15/2019 13:45	2120B	5	5	AH
Total Phosphorus LL (t)	0.018	J	mg/L	8/20/2019 13:26	365.4	0.008	0.050	NK
84707-002 / Upper Flambeau Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.017	J	mg/L	8/20/2019 13:28	365.4	0.008	0.050	NK
84707-003 / Lower Flambeau Surface / Water								
General Chemistry Parameters								
Chlorophyll a	6.9		mg/m3	8/22/2019 15:10	10200H	NA	NA	AH
Color	35		CU	8/15/2019 13:45	2120B	5	5	AH
Total Phosphorus LL (t)	0.031	J	mg/L	8/20/2019 13:28	365.4	0.008	0.050	NK
84707-004 / Lower Flambeau Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.027	J	mg/L	8/20/2019 13:29	365.4	0.008	0.050	NK
84707-005 / Pixley Surface / Water								
General Chemistry Parameters								
Chlorophyll a	7.4		mg/m3	8/22/2019 15:10	10200H	NA	NA	AH
Color	40		CU	8/15/2019 13:45	2120B	5	5	AH
Total Phosphorus LL (t)	0.025	J	mg/L	8/20/2019 13:29	365.4	0.008	0.050	NK

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit,
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)

ANALYTICAL REPORT

WHITE WATER ASSOCIATES, INC.
429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: RWE **WWA Job #:** 84707

Project: Monitoring

Date Received: 8/15/2019 **Date Reported:** 9/13/2019

Sample Results

Sample No. / ID / Description / Matrix	Result	Flags	Units	Date/Time	Method	MDL	MQL	Analyst
84707-006 / Pixley Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.025	J	mg/L	8/20/2019 13:30	365.4	0.008	0.050	NK
84707-007 / Crowley Surface / Water								
General Chemistry Parameters								
Chlorophyll a	11		mg/m3	8/22/2019 15:10	10200H	NA	NA	AH
Color	30		CU	8/15/2019 13:45	2120B	5	5	AH
Total Phosphorus LL (t)	0.028	J	mg/L	8/20/2019 13:30	365.4	0.008	0.050	NK
84707-008 / Crowley Bottom / Water								
General Chemistry Parameters								
Total Phosphorus LL (t)	0.025	J	mg/L	8/20/2019 13:32	365.4	0.008	0.050	NK

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit,
ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)

Login Checklist

WHITE WATER ASSOCIATES, INC.

Project No.:	84707	**Date logged in.:**	8/15/2019	**Login person's initials:**	ER
Client:	RWE			**Number of coolers:**	1
Project name:	Monitoring			**Courier/shipper:**	WWA

- ☑ **1. Custody seals/original packing tape were intact (if applicable).**
- ☑ **2. Samples are in good condition, i.e. not broken or leaking.**
- ☐ **3. Samples were received within holding times.**
- ☑ **4. Samples were received on ice (in direct contact with the samples).**
- ☑ **5. Temperature of the samples was between 0-6°C. Temp.:** 1

NOTES on #4:

NOTE: Samples not between 0-6°C that are received at the laboratory on the day of sample collections do not require client notification.

- ☑ **6. Samples matched the Chain of Custody (COC).**
- ☑ **7. Proper containers were used.**
- ☑ **8. Samples were collected in White Water lab containers.**
- ☑ **9. There is adequate sample volume for requested analyses and QC.**
- ☐ **10. For water VOC samples, headspace is less than the size of a pea.**
- ☑ **11. Samples are preserved to the proper pH. Sample bottles and preservation are noted in LIMS Sample Container Section.**
- ☑ **12. The COC is signed. (either Sampler or Relinquished by)**
- ☐ **13. Sub-sampling (SS) is required. Bottles created are noted in sample containers section of log-in form.**
- ☑ **14. For Dissolved Analysis (when applicable), samples were filtered in the lab.**
- ☐ **15. For soil VOCs, methanol preserved samples were received.**
- ☐ **16. For Soil VOCs, samples were preserved with methanol in the lab.**
- ☐ **17. Client contact is necessary. Provide documentation below.**

COMMENTS/CORRECTIVE ACTION

#3. 190815 8:50ER color received past hold time

CLIENT RESPONSE

Note: If hold time, volume, and received on ice or temperature criteria are not met when required by the method, results may not be able to be used for regulatory purposes. Check with your reporting agency for more information.

JG 8/16/19

Version 160504

Job # (WWA office use): 84707

CHAIN-OF-CUSTODY RECORD

WHITE WATER ASSOCIATES, INC.

429 River Lane, P.O. Box 27
Amasa, Michigan 49903

Phone: (906) 822-7889, Fax -7977
Web: white-water-associates.com

CLIENT NAME / BILL TO			EMAIL ADDRESS
RWE -			
ADDRESS			TELEPHONE
CITY	STATE	ZIP	CONTRACT / PO / PROJECT NAME / WSSN#
			Monitoring
SAMPLER NAME (print first/last name)			COUNTY OF LOCATION / PAGE 1 OF 1 (Indicate if more than one page of COC records used)
Marie Stahl			
SAMPLER'S SIGNATURE			Check off preservatives for each bottle upon arrival and indicate total number of bottles. WWA database contains bottle preservation details.

ANALYSIS TYPE REQUESTED (Attach list if neeeded)

Instructions to White Water
Send my report by:
____ email
____ mail

Unless otherwise noted, drinking water report copies are sent to MDEQ and Health Dept.

REMARKS (Note any special instructions provided by client or conditions of receipt noted by WWA lab staff. Also note any residual chlorine.)

	SAMPLE ID AND LOCATION (Containers for each sample may be combined on one line.)	DATE	TIME	SAMPLE MATRIX: Drinking water	Aqueous	Sed.	Soil	Other:	CONTAINERS / PRESERVATIVES: None	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Na Thio	Total Number of Containers	Chla (mg/m3)	T Phos	Color
1	Upper Flambeau Surface	8-14-19	7:15		X				X	X						3	X	X	X
2	Upper Flambeau Bottom	"	7:55		|				|						1		X	
3	Lower Flambeau Surface	"	9:10		|				X	|					3	X	X	X
4	Lower Flambeau Bottom	"	9:16		|				|						1		X	
5	Pixley Surface	"	13:18		|				X	|					3	X	X	X
6	Pixley Bottom	"	13:28		|				|						1		X	
7	Crowley Surface	"	14:09		|				X	|					3	X	X	X
8	Crowley Bottom	"	14:55		|				|	|					1		X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	8-14-19	7:51 p.m.			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
				8-15-19	850

Comments/Sample temp. on receipt: 1

Packing: Ice ✓ Cooler ____

WHITE - RETURN W/ REPORT CANARY - W/ SAMPLES PINK - CUSTOMER

UPS☐ FedEx☐ USPS☐ Client☐ Other WWA