November 12, 2014

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

RE: Clam River Hydroelectric Project
FERC Project Number 9185
Flambeau Hydro LLC
Final Report 2014 Water Quality Monitoring Data

Dear Ms. Bose:

On behalf of Flambeau Hydro LLC, "Flambeau" (Licensee), Renewable World Energies, LLC (RWE) is submitting a copy of the *Final Report 2014 Water Quality Monitoring Data* for the Clam River Hydroelectric Project. The Federal Energy Regulatory Commission "FERC" issued a License to Flambeau on July 24, 2006. This report is submitted as a requirement of that License pursuant to License Article 401 WQC, Condition K. 2014 was the seventh year monitoring was conducted since the license was issued, but is the 3rd year of submittal by RWE on the behalf of the Licensee.

Monitoring was conducted on May 6, July 17, and August 13, 2014. The only issue encountered was some below standard D O measurements taken on August 13th. Agencies were notified by e-mail dated August 14, 2014 of the issue. The draft report was sent to the agencies by letter dated October 1, 2014 for review and comment. It was submitted electronically as an attachment to an e-mail as requested previously. No comments were received from WDNR or USFWS. Should the agencies have any comments to offer, the Licensee suggests they be sent directly to the Commission. The next scheduled monitoring event will be conducted in 2015.

If you have any questions concerning this submittal, please contact Mr. Gary Rast at the Renewable World Energies, LLC offices @ 855-994-9376 Ext 105. He can also be reached by e-mail at grast@rwehydro.com.

Corporate Office
P.O. Box 264
100 S. State Street
Neshkoro, WI 54960
Fax: 920-293-4100

Phone: 855-99HYDRO
(855-994-9376)
www.renewableworldenergies.com

Administrative Office
1001 Stephenson Street
Norway, MI 49870
Fax: 906-563-9344

Sincerely,
Renewable World Energies, LLC
Agent for Licensee

for Gary Rast
Mr. Jason Kreuscher
Vice President, Operations

Attachment: Final Report 2014 Water Quality Monitoring Data – November 12, 2014

Cc: Ms. Cheryl Laatsch, WDNR
Mr. Nick Utrup, USFWS
RWE, Corporate

Final Report

2014 Water Quality Monitoring Data
(Per License Article 401 WQC, Condition K)

For the

Clam River Hydroelectric Project
FERC Project # 9185
Flambeau Hydro, LLC

Clam River
Burnett County, WI

Respectfully Submitted by:

Renewable World Energies, LLC
100 State Street – P.O. Box 264
Neshkoro, Wisconsin 54960

Final – November 12, 2014

Table of Contents

Summary

2014 marked the seventh year of water quality sampling under the FERC License issued on July 24, 2006 to Flambeau Hydro, LLC for the Clam River Hydroelectric Project – FERC Project # 9185 and specifically Appendix A Section 401 K.

Ice-Out occurred on the Clam River sometime during the week beginning April 20th. The Ice-Out sampling event occurred on May 6, 2014. River flow, based on Clam River Hydroelectric Project records, was approximately 985 cubic feet per second. Sampling occurred between 12:00 p.m. and 12:31 p.m. Samples were taken without incident. However, high flows and dangerous conditions were the norm. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to Northern Lake Service, Inc in Crandon, WI on May 7, 2014. Northern Lake Service, Inc. issued a laboratory report on May 13, 2014. No unusual levels of Chlorophyll a, True Color, or Total Phosphorus were noted in the laboratory reports.

River flow, based on Clam River Hydroelectric Project records, was approximately 301 cubic feet per second during the July 17, 2014 sampling event. Sampling occurred between 10:00 a.m. and 10:33 a.m. Samples were taken without incident. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to Northern Lake Service, Inc. in Crandon, WI on July 18, 2014. Northern Lake Service, Inc. issued a laboratory report on July 23, 2014. No unusual levels of True Color, or Total Phosphorus were noted in the laboratory reports

River flow, based on Clam River Hydroelectric Project records, was approximately 216 cubic feet per second during the August 13, 2014 sampling event. Sampling occurred between 1:30 p.m. and 1:57 p.m. Samples were taken without incident. No unusual Temperature readings were observed. However, DO fell below the state minimum of 5 mg/l at 6 meters and continued to drop all the way to .5 meters above the bottom. Agency notification took place via e-mail on August 14, 2014. Samples for laboratory analysis were delivered to Northern Lake Service, Inc. in Crandon, WI on August 14, 2014. Northern Lake Service, Inc. issued a laboratory report on August 19, 2014. No unusual levels of Chlorophyll a, True Color, or Total Phosphorus were noted in the laboratory reports.

In general, the weather (temperature and rainfall) during the 2014 monitoring season appeared cooler in April, slightly warmer in May, June, July, and August with higher than normal precipitation in the months of April, May, June, and August. Temperatures in May, June, July, and August were about .5 degrees warmer than normal but precipitation was slightly (11%) below normal for July. **(Refer to 2014 Monthly Temperature and Precipitation Table page 7)**

A summary of a comparison between the 2011 thru 2014 (**Refer to 2014 Clam River Project Sampling Comparison Table 2011-2014 page 8**) sampling results are as follows:

1. Water Clarity – Increased Ice-Out – Decreased Slightly July/August
2. Chlorophyll a – Decreased Ice-Out/July/August

3. Color – Decreased Ice-Out/July/August
4. Total Phosphorus – Decreased Ice-Out/July/August
5. Overall D.O. – Decreased Ice-Out – Normal or Decreased Slightly July/August
6. Water Temperatures – Increased Ice-Out /August – Decreased July

Correspondence from the agencies during 2010 indicated they would prefer that notifications of incidents be by e-mail only and that telephone contacts are not needed. All other correspondence can be found on page 13, **Appendix D**. The next scheduled Water Quality Monitoring at the Clam River Hydroelectric Project is set to take place in 2015 beginning with the Ice-Out sampling event.

2014
Sampling Results
Table

Clam River Hydroelectric Project - FERC Project # 9185
2014 Water Quality Sampling Data

	May 6, 2014			July 17, 2014			August 13, 2014		
Project Flow (c.f.s.)	985			301			216		
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 meter below surface	12:20 PM	9.14	12.7	10:25 AM	10:33	22.5	1:47 PM	10.13	24.2
1 meter below surface	12:21 PM	9.27	12.2	10:26 AM	12.37	22.1	1:48 PM	7.74	23.6
2 meter below surface	12:22 PM	9.31	12.0	10:27 AM	11.73	21.7	1:49 PM	5.40	23.2
3 meter below surface	12:23 PM	9.34	11.9	10:28 AM	9.56	21.2	1:50 PM	6.26	23.0
4 meter below surface	12:24 PM	9.38	11.7	10:29 AM	8.25	20.7	1:51 PM	6.26	22.9
5 meter below surface	12:25 PM	9.41	11.6	10:30 AM	8.05	20.6	1:52 PM	5.29	22.8
6 meter below surface	12:27 PM	9.39	11.6	10:31 AM	7.78	20.5	1:53 PM	4.92	22.8
7 meter below surface	12:30 PM	9.40	11.5	10:32 AM	7.62	20.4	1:55 PM	4.95	22.7
.5 meter above bottom	12:31 PM	9.39	11.5	10:33 AM	7.06	20.4	1:57 PM	4.91	22.7
Secchi Disk	**Time**	**Depth (mtr)**		**Time**	**Depth (mtr)**		**Time**	**Depth (mtr)**	
Meters below surface	12:05 PM	1.10		10:15 AM	0.80		1:35 PM	0.60	
Chlorophyll a	**Time**	**ug/L**		**Time**	**ug/L**		**Time**	**ug/L**	
1 meter below surface	12:10 PM	8.60		10:20 AM	18.00		1:40 PM	34.00	
Color (True)	**Time**	**C.P.U. Units**	**LOD**	**Time**	**C.P.U. Units**	**LOD**	**Time**	**C.P.U. Units**	**LOD**
1 meter below surface	2:52 AM	70.0	5.0*	10:21 AM	50.0	5.0*	1:41 PM	50.0	25*
Total Phosphorus	**Time**	**mg/L**	**LOD**	**Time**	**mg/L**	**LOD**	**Time**	**mg/L**	**LOD**
1 meter below surface	12:13 PM	0.041	0.0070*	10:22 AM	0.056	0.0070*	1:42 PM	0.081	0.0070*
1 meter above bottom	12:15 PM	0.042	0.0070*	10:23 AM	0.055	0.0070*	1:45 PM	0.075	0.0070*

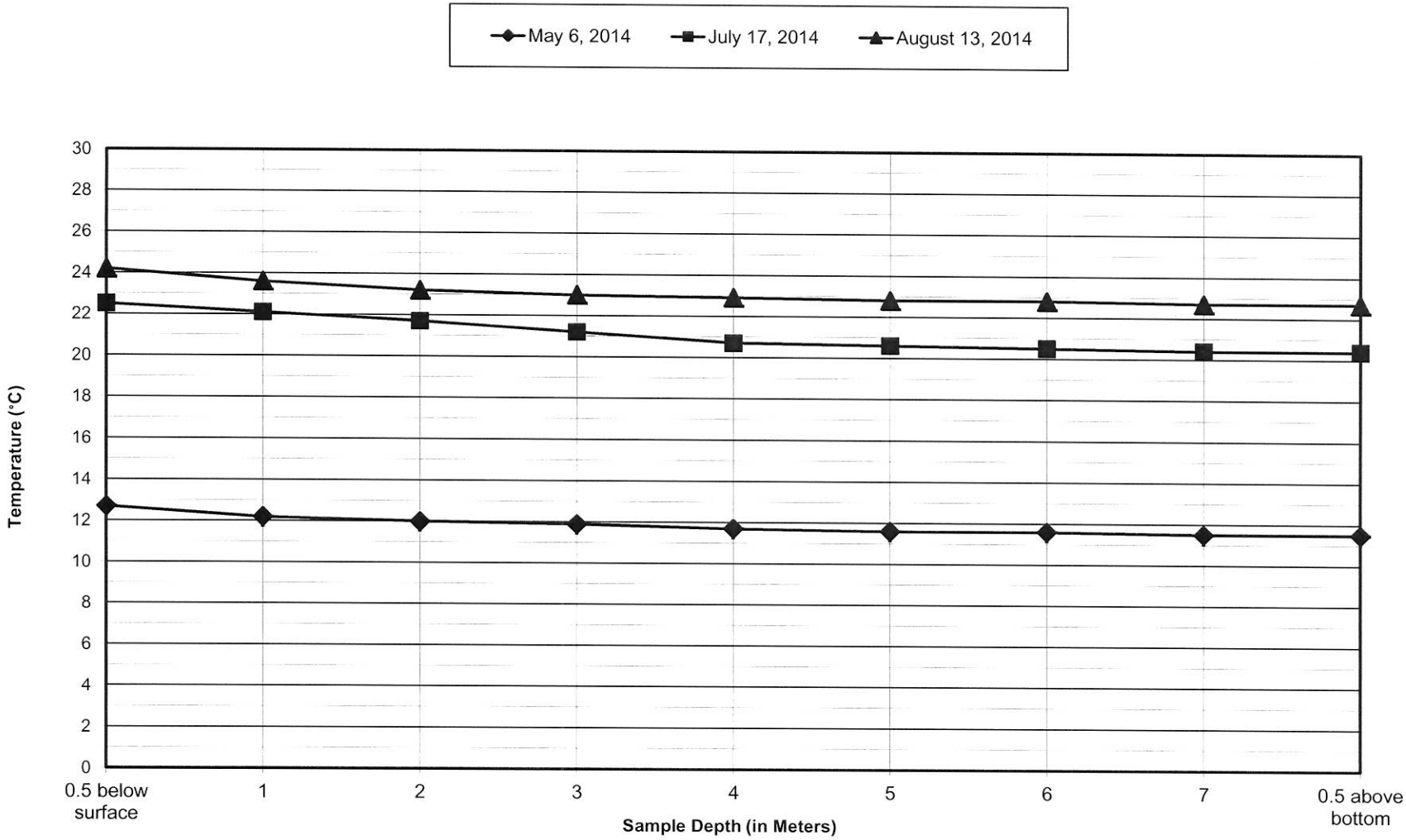
*** Considered Reporting Limits**

2014

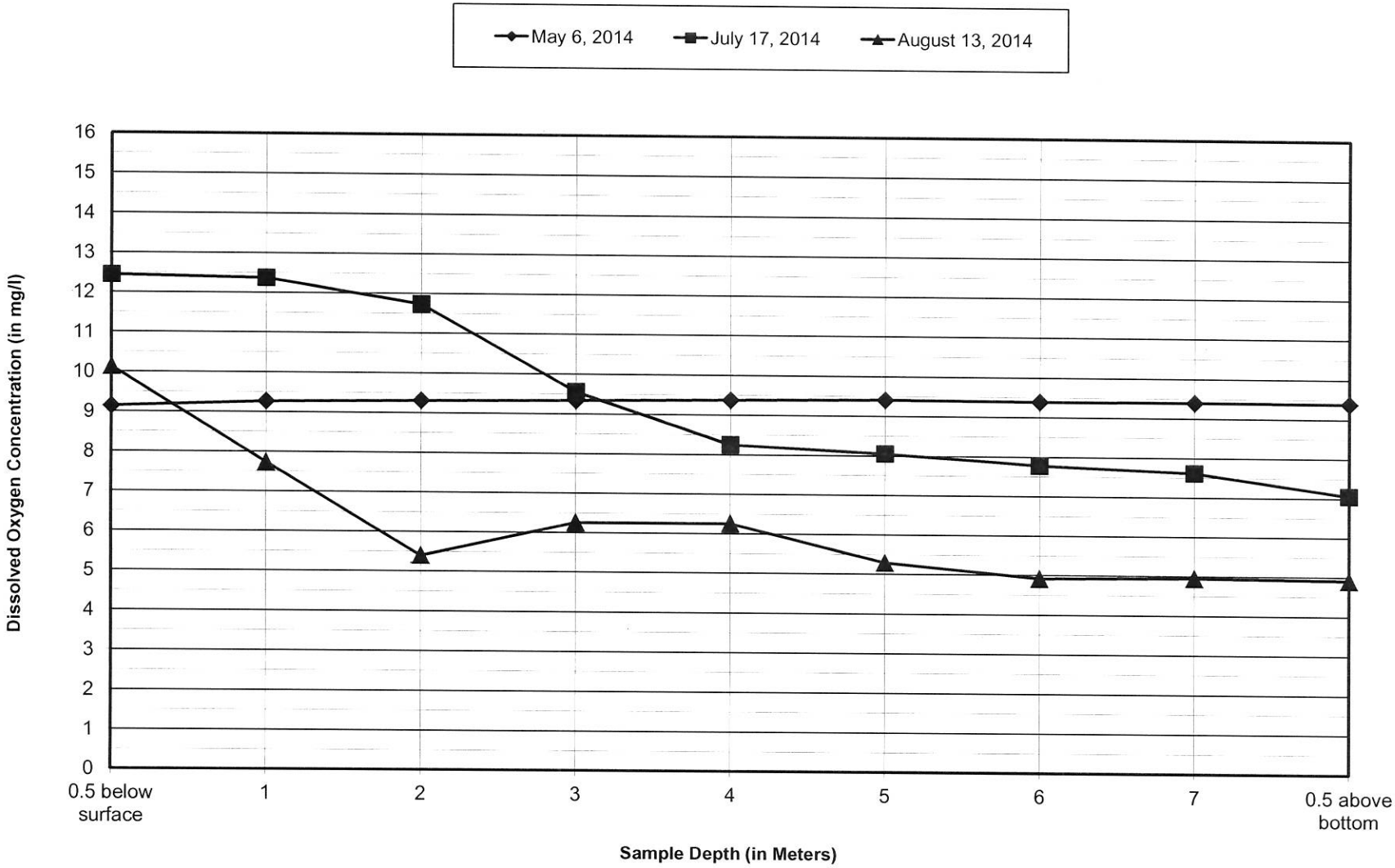
Graphed Data

Temperature and Dissolved Oxygen

Clam River Impoundment - FERC # 9185
2014 Temperature Samples



Clam River Impoundment - FERC # 9185
2014 Dissolved Oxygen Samples



2014
Monthly
Temperature and Precipitation
Table

2014 Water Year Monthly Temperature and Precipitation for Danbury, 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-13	74	21	45.0	1.8	610	678	3.93	0.3	5.01	78%
November-13	50	-3	27.9	-0.9	1105	1088	0.82	4.7	2.09	39%
December-13	35	-21	4.6	-10.2	1866	1556	2.88	39.9	1.21	238%
January-14	34	-28	1.6	-8.6	1955	1699	0.73	9.4	0.96	76%
February-14	41	-22	5.3	-9.8	1663	1399	2.12	29.5	0.81	262%
March-14	52	-23	18.4	-7.5	1439	1210	1.91	20.9	1.49	128%
April-14	66	11	35.1	-4.5	886	762	3.30	26.3	2.43	136%
May-14	85	31	51.9	0.5	414	426	4.37	T	3.23	135%
June-14	82	42	60.3	0.2	162	179	4.47	T	4.23	106%
July-14	88	45	66.3	0.5	40	63	3.42	0.0	3.85	89%
August-14	83	48	64.7	0.4	37	86	4.63	0.0	3.70	125%
September-14	81	34	57.4	1.8	227	298	1.64	0.0	4.11	40%

Source: NOAA/Duluth, MN

2014
Clam River
Sampling Comparison Table
2011—2014

Clam River

Project Sampling Comparison Table

2011 Thru Current Year

Year	Month	Secchi Depth (m)	Chlorophyll a ug/l	Color (True) C.P.U. Units	Total Phosphorus Below Surface mg/l	Total Phosphorus Above Bottom mg/l	Low D.O. mg/l	High D.O. mg/l	Low Water Temp. °C	High Water Temp. °C
2011	April	0.87	17.00	40.00	0.073	0.066	11.58	11.88	9.30	9.40
2012	April	0.80	13.00	55.00	0.031		11.72	15.68	9.60	10.90
2013	May	1.00	17.00	70.00	0.069	0.069	10.91	12.16	10.10	14.20
2014	May	1.10	8.60	70.00	0.041	0.042	9.14	9.40	11.50	12.70
Minimum	April/May	0.80	8.60	40.00	0.031	0.042	9.14	9.40	9.30	9.40
Maximum	April/May	1.10	17.00	70.00	0.073	0.069	11.72	15.68	11.50	14.20
Average	April/May	0.94	13.90	58.75	0.054	0.059	10.84	12.28	10.13	11.80
2011	July	0.70	62.00	80.00	0.110	0.083	5.11	14.32	25.20	27.10
2012	July	1.10	13.00	50.00	0.042	0.050	0.04	12.33	24.80	28.70
2013	July	1.20	23.00	70.00	0.064	0.067	0.97	7.22	23.70	24.10
2014	July	0.80	18.00	50.00	0.056	0.055	7.06	12.44	20.40	22.50
Minimum	July	0.70	13.00	50.00	0.042	0.050	0.04	7.22	20.40	22.50
Maximum	July	1.20	62.00	80.00	0.110	0.083	7.06	14.32	25.20	28.70
Average	July	0.95	29.00	62.50	0.068	0.064	3.30	11.58	23.53	25.60
2011	August	0.90	34.00	100.00	0.061	0.066	2.13	10.35	21.60	22.90
2012	August	0.70	43.00	70.00	0.067	0.066	5.01	12.77	21.20	22.40
2013	August	0.50	48.00	100.00	0.110	0.098	3.78	12.47	20.40	21.90
2014	August	0.60	34.00	50.00	0.081	0.075	4.91	10.13	22.70	24.20
Minimum	August	0.50	34.00	50.00	0.061	0.066	2.13	10.13	20.40	21.90
Maximum	August	0.90	48.00	100.00	0.110	0.098	5.01	12.77	22.70	24.20
Average	August	0.68	39.75	80.00	0.080	0.076	3.96	11.43	21.48	22.85

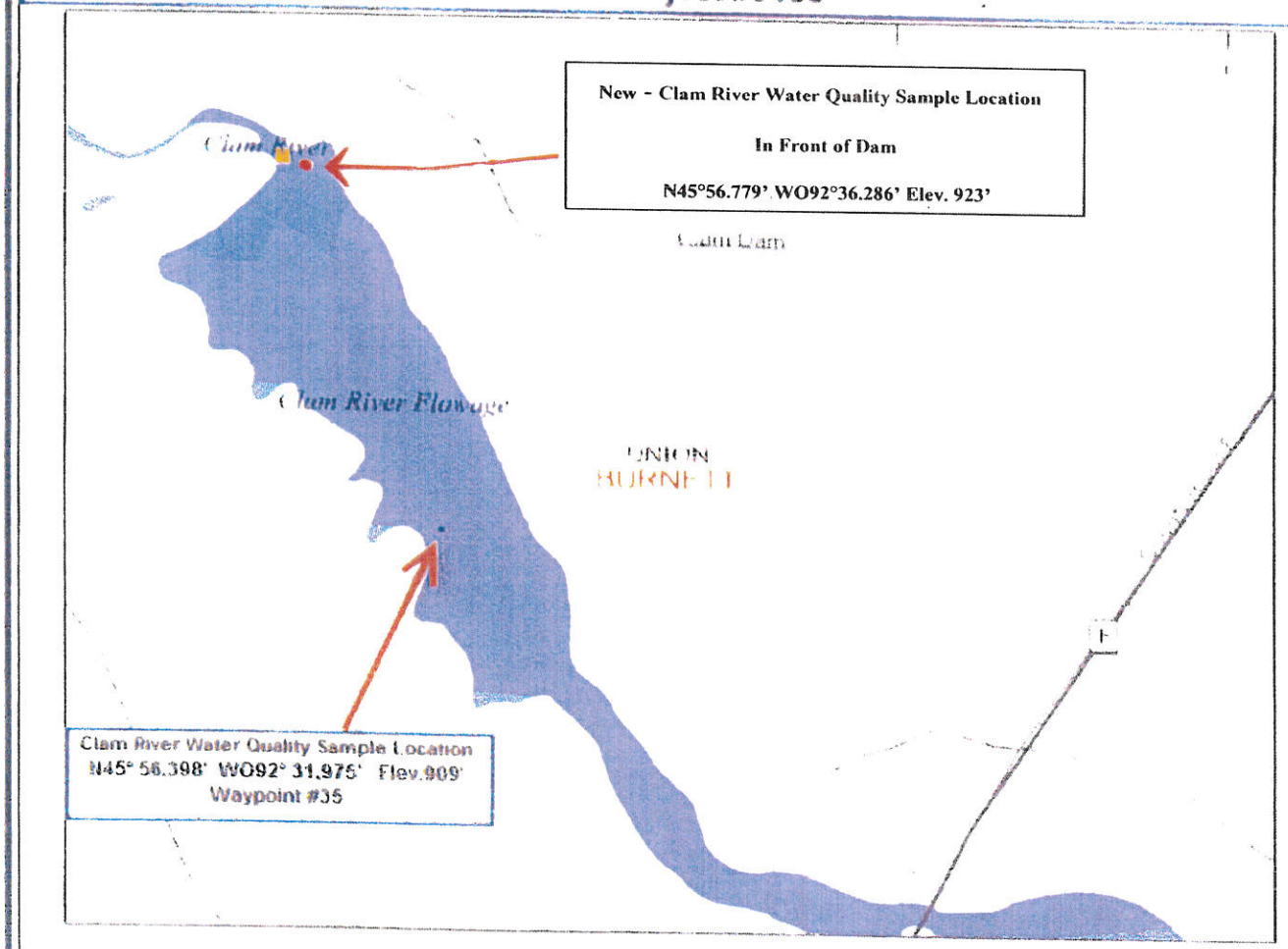
No Sample

Clam River Hydroelectric Project

Sampling Location

Map

Clam River Hydroelectric Project
Water Quality Sampling Location Map
FERC Project #9185



Legend

- Dams
- Major Highways
- Interstate
- State Highway
- U.S. Highways
- County Roads
- Local Roads
- 24K County Boundaries
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Streamlines
- Cities and Villages
- Village
- City

Scale: 1:8,967

This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION

Appendix A

May 6, 2014 Sampling Documents (Ice-Out)

IMPOUNDMENT SAMPLING LOG

2014 Water Quality Study - Clam River Hydroelectric Project - FERC #9185

Pre-Sampling Data: TWL - 866.5 HWL - 898.9 Date: 5/6/14 CFS - 985

Time: 12:00 Barometer: 29.98 Air Temp: 15.0 °C Wind Speed: SE 12MPH G 18MPH

Sky Conditions: CLEAR, FAIR, + SUNSHINE

Precipitation within Last 24 Hours: NO

D.O. Meter Calibration: Instrument Model Used: Hach HQ40d

Were The Batterys Changed? □ Yes ☒ No If Yes, When Changed: _____

Battery Status: 80% Charge

Calibration Time: FEB. 2014 Method: Factory

Sampling Depth Profile: Measured Depth to Bottom of the Impoundment: 8.0 Meter

Secchi Disk Depth: (E0.1 Meter) 1.1 Meter Time: 12:05

Chlorophyll a (1 Meter Below Surface)

Lab Sample I.D.#: 20140506-1A

Time	Quantity (ml)	Filtered
12:10	1000	NO

True Color (1 Meter Below Surface)

Lab Sample I.D.#: 20140506-1B

Time	Quantity (ml)
12:12	250

D.O. Sample Data

Depth	Time	D.O. (mg/l)	°C
.5 Mtr Below Surface	12:20	9.14	12.7
1 Meter	12:21	9.27	12.2
2 Meter	12:22	9.31	12.0
3 Meter	12:23	9.34	11.9
4 Meter	12:24	9.38	11.7
5 Meter	12:25	9.41	11.6
6 Meter	12:27	9.39	11.6
7 Meter	12:30	9.40	11.5
8 Meter			
.5 Mtr Above Bottom	12:31	9.39	11.5

Phosphorus

Lab Sample I.D.#: 20140506-1C

(1 Meter Below Surface)

Time	Preserved?
12:13	H_2SO_4

Lab Sample I.D.#: 20140506-1D

(1 Meter Above Bottom)

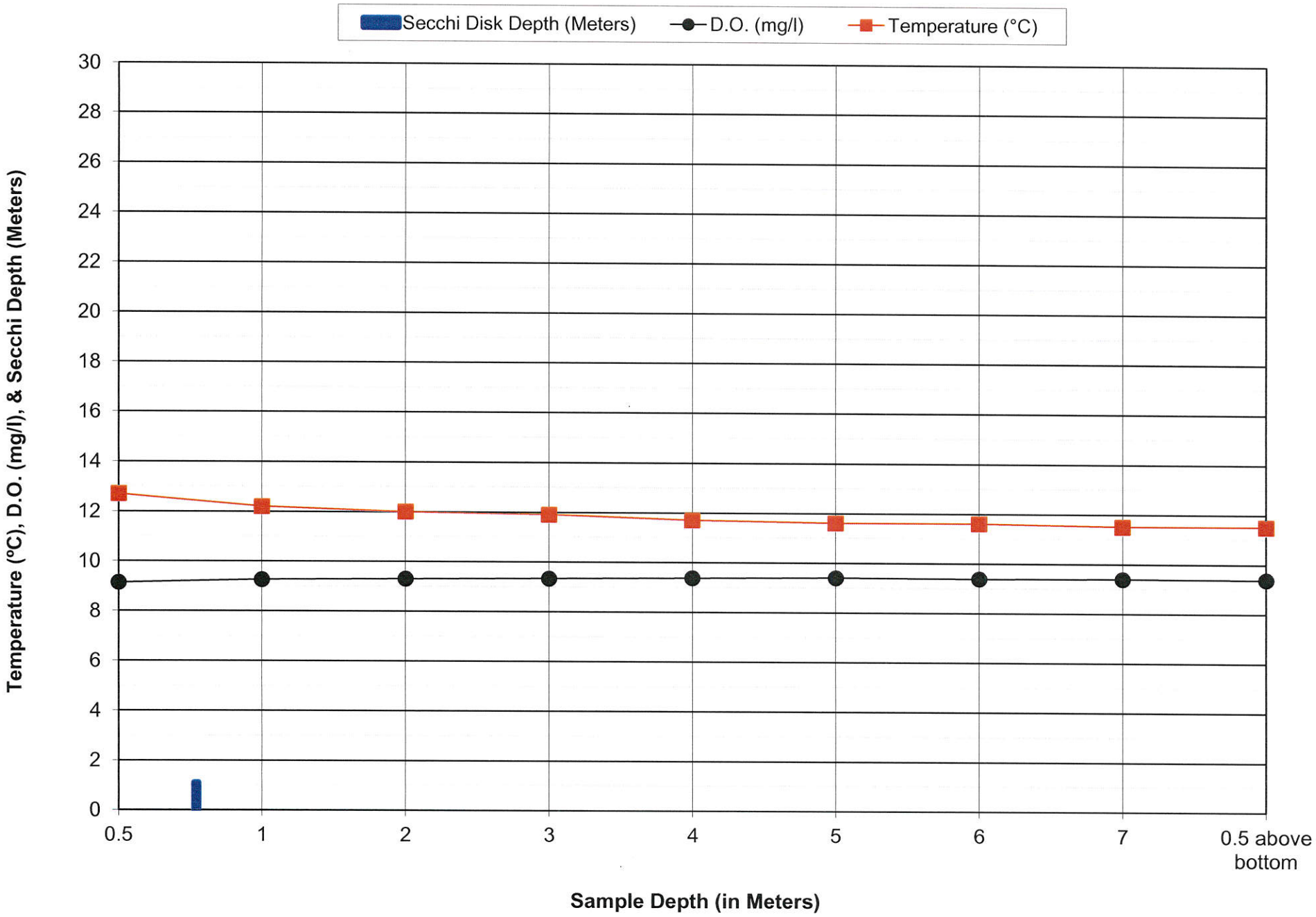
Time	Preserved?
12:15	H_2SO_4

Sample Location: N45° 56.779' WO°92 36.286' Elev. 923' (New) N45° 56.398' W92° 31.975' (Old)

Comments: _____

Performed By: GARY RAST + NORB REHDER Gary Rast

Clam River Impoundment - FERC # 9185
May 06, 2014 Iceout Sampling Event



NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

NLS Project: 217360
NLS Customer: 102823
Phone: 855 994 9376

Client: Renewable World Energies
Attn: Gary Rast
100 State Street
P.O. Box 264
Neshkoro, WI 54960

Project: Clam River

20140507-1A NLS ID: 784142
COC: 174086:1 Matrix: SW
Collected: 05/06/14 12:10 Received: 05/07/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	see attached					05/12/14	10200-H	721026460
Lab filtration for Chlorophyll	yes					05/08/14	NA	721026460

20140507-1B NLS ID: 784143
COC: 174086:2 Matrix: SW
Collected: 05/06/14 12:12 Received: 05/07/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Color, APHA (true)	70	C.P.U.	1	5.0*		05/07/14	SM 2120-B 20ed	721026460
Lab filtration	yes					05/07/14	NA	721026460

20140507-1C NLS ID: 784144
COC: 174086:3 Matrix: SW
Collected: 05/06/14 12:13 Received: 05/07/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Phosphorus, tot. as P	0.041	mg/L	1	0.0070*		05/09/14	SM 4500P-E 20ed	721026460

20140507-1D NLS ID: 784145
COC: 174086:4 Matrix: SW
Collected: 05/06/14 12:15 Received: 05/07/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Phosphorus, tot. as P	0.042	mg/L	1	0.0070*		05/09/14	SM 4500P-E 20ed	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution.

LOD = Limit of Detection LOQ = Limit of Quantitation ND = Not Detected (< LOD) 1000 ug/L = 1 mg/L
DWB = Dry Weight Basis NA = Not Applicable %DWB = (mg/kg DWB) / 10000
MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:

Authorized by:
R. T. Krueger
President

Northern Lake Service, Inc.
Chlorophyll Results

Customer: Renewable World Energies
Project: 217360
Clam River

Sample	Description	CC a	Pheo a	TC a	TC b	TC c
784142	20140507-1A	7.7	1.1	8.6	0.26	1.7

CC a = Corrected Chlorophyll a
Pheo a = Pheophytin a
TC a = Trichromatic Chlorophyll a
TC b = Trichromatic Chlorophyll b
TC c = Trichromatic Chlorophyll c
Units = ug/L for Water, ug/cm^2 for periphyton samplers

*: The complex calculations used to differentiate the various chlorophyll species magnify error at low concentrations and sometimes produce negative values, which are reported as 0.0 on this report.

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services

400 North Lake Avenue • Crandon, WI 54520-1298

Tel: (715) 478-2777 • Fax: (715) 478-3060

Wisconsin Lab Cert. No. 721026460

WI DATCP 105-000330

NO. 174086

CLIENT	RENEWABLE WORLD ENERGIES
ADDRESS	POBox 264 1005 STREET
CITY / STATE / ZIP	NESAKOR / WI / 54960
PROJECT DESCRIPTION / NO.	CLAM RIVER / QUOTATION NO.
DNR FID # / DNR LICENSE #	
CONTACT / PHONE	GARY RAST / 855-994-9376
PURCHASE ORDER NO. / FAX	VERBAL / 920-~~588~~-293-4100

MATRIX:
SW = surface water
WW = waste water
GW = groundwater
DW = drinking water
TIS = tissue
AIR = air
SOIL = soil
SED = sediment
PROD = product
SL = sludge
OTHER

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.
Indicate G or C if WW Sample is Grab or Composite.

ITEM NO.	NLS LAB NO	SAMPLE ID	COLLECTION DATE	COLLECTION TIME	MATRIX (See above)	ANALYZE PER ORDER OF ANALYSIS: Chloroph-yll	True Color	Phos	Phos								COLLECTION REMARKS (i.e. DNR Well ID #)
1.	784142	20140507-1A	5/6/14	12:10	RIVER WATER	X											
2.	143	" 1B	5/6/14	12:12	"		X										
3.	144	" 1C	5/6/14	12:13	"			X									
4.	145	" 1D	5/6/14	12:15	"				X								
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

COLLECTED BY (signature): Gary Rast

CUSTODY SEAL NO. (IF ANY)

DATE/TIME: 5/6/14 12:10 - 12:15

RELINQUISHED BY (signature)

RECEIVED BY (signature)

DATE/TIME

DISPATCHED BY (signature): Gary Rast

METHOD OF TRANSPORT: UPS

DATE/TIME: 5/6/14 3:00

RECEIVED AT NLS BY (signature): Mandi Rose

DATE/TIME: 5-7-14 10:00

CONDITION: ONICE

TEMP.

COOLER #

REMARKS & OTHER INFORMATION

WDNR FACILITY NUMBER

E-MAIL ADDRESS

REPORT TO: SEE ABOVE

INVOICE TO: RENEWABLE WORLD ENERGIES
1001 STEPHENSON STREET
NORWAY, MI 49870

PRESERVATIVE:
NP = no preservative
S = sulfuric acid
N = nitric acid
Z = zinc acetate
M = methanol
OH = sodium hydroxide
HA = hydrochloric & ascorbic acid
H = hydrochloric acid

IMPORTANT

1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE PER SAMPLE, **NOT** PER BOTTLE.
3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
4. PARTIES COLLECTING SAMPLE, LISTED AS **REPORT TO** AND LISTED AS **INVOICE TO** AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

ORIGINAL COPY

Appendix B

July 17, 2014 Sampling Documents

IMPOUNDMENT SAMPLING LOG

2014 Water Quality Study - Clam River Hydroelectric Project - FERC #9185

HWL-898.7 Date: 7/17/14

Pre-Sampling Data: TWL-864.9 CFS-301

Time: 10:00 Barometer: 30.05 Air Temp: 21.11 °C Wind Speed: SW 6MPH

Sky Conditions: FAIR, CLEAR, BRIGHT SUN

Precipitation within Last 24 Hours: NO

D.O. Meter Calibration: Instrument Model Used: Hach HQ40d

Were The Batterys Changed? □ Yes ☒ No If Yes, When Changed: _____

Battery Status: 70% Charge

Calibration Time: FEB. 2014 Method: Factory

Sampling Depth Profile: Measured Depth to Bottom of the Impoundment: 8.0 Meter

Secchi Disk Depth: (E0.1 Meter) .8 Meter Time: 10:15

Chlorophyll a (1 Meter Below Surface)

Lab Sample I.D.# : 07172014-1A		
Time	Quantity (ml)	Filtered
10:20	1000	NO

True Color (1 Meter Below Surface)

Lab Sample I.D.# : 07172014-1B	
Time	Quantity (ml)
10:21	250

D.O. Sample Data

Depth	Time	D.O. (mg/l)	°C
.5 Mtr Below Surface	10:25	12.44	22.5
1 Meter	10:26	12.37	22.1
2 Meter	10:27	11.73	21.7
3 Meter	10:28	9.56	21.2
4 Meter	10:29	8.25	20.7
5 Meter	10:30	8.05	20.6
6 Meter	10:31	7.78	20.5
7 Meter	10:32	7.62	20.4
8 Meter			
.5 Mtr Above Bottom	10:33	7.06	20.4

Phosphorus

Lab Sample I.D.# : 07172014-1C (1 Meter Below Surface)	
Time	Preserved?
10:22	H_2SO_4

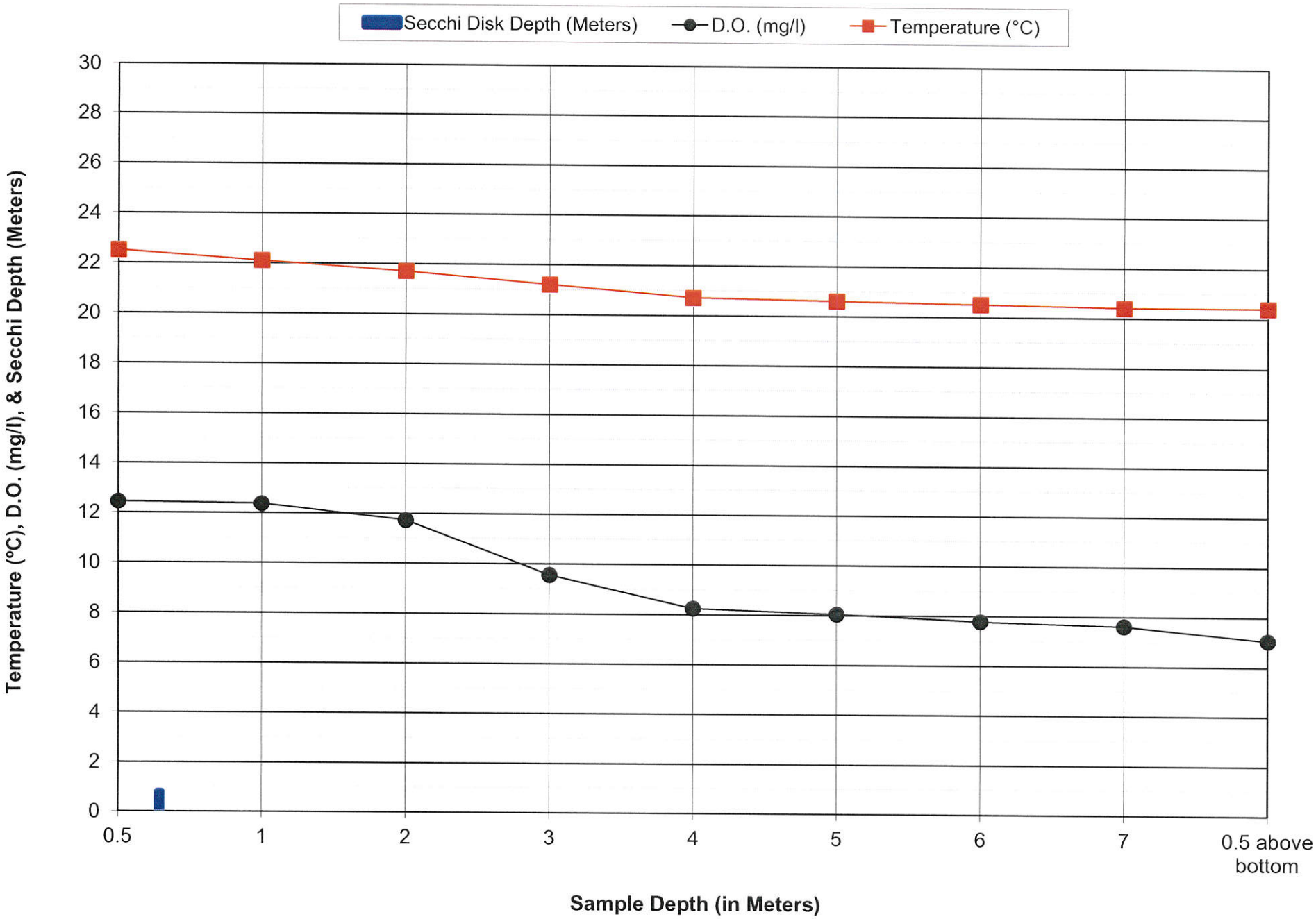
Lab Sample I.D.# : 07172014-1C (1 Meter Above Bottom)	
Time	Preserved?
10:23	H_2SO_4

Sample Location: N45° 56.779' WO°92 36.286' Elev. 923' (New) N45° 56.398' W92° 31.975' (Old)

Comments:

Performed By: Gary Rast

Clam River Impoundment - FERC # 9185
July 17, 2014 Sampling Event



NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

NLS Project: 223148
NLS Customer: 102823
Phone: 855 994 9376

Client: Renewable World Energies
Attn: Gary Rast
100 State Street
P.O. Box 264
Neshkoro, WI 54960

Project: Clam River

07172014-1A NLS ID: 803942
COC: 154997:1 Matrix: SW
Collected: 07/17/14 10:20 Received: 07/18/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Chlorophyll, all species	see attached					07/21/14	10200-H	721026460
Lab filtration for Chlorophyll	yes					07/18/14	NA	721026460

07172014-1B NLS ID: 803943
COC: 154997:2 Matrix: SW
Collected: 07/17/14 10:21 Received: 07/18/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Color, APHA (true)	50	C.P.U.	1	5.0*		07/18/14	SM 2120-B 20ed	721026460
Lab filtration	yes					07/18/14	NA	721026460

07172014-1C NLS ID: 803944
COC: 154997:3 Matrix: SW
Collected: 07/17/14 10:22 Received: 07/18/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Phosphorus, tot. as P	0.056	mg/L	1	0.0070*		07/23/14	SM 4500P-E 20ed	721026460

07172014-1D NLS ID: 803945
COC: 154997:4 Matrix: SW
Collected: 07/17/14 10:23 Received: 07/18/14

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Phosphorus, tot. as P	0.055	mg/L	1	0.0070*		07/23/14	SM 4500P-E 20ed	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution.

LOD = Limit of Detection LOQ = Limit of Quantitation ND = Not Detected (< LOD) 1000 ug/L = 1 mg/L
DWB = Dry Weight Basis NA = Not Applicable %DWB = (mg/kg DWB) / 10000
MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:

Authorized by:
R. T. Krueger
President

Northern Lake Service, Inc.
Chlorophyll Results

Customer: Renewable World Energies
Project: 223148
Clam River

Sample	Description	CC a	Pheo a	TC a	TC b	TC c
803942	07172014-1A	16	1	18	0.067	1.5

CC a = Corrected Chlorophyll a
Pheo a = Pheophytin a
TC a = Trichromatic Chlorophyll a
TC b = Trichromatic Chlorophyll b
TC c = Trichromatic Chlorophyll c
Units = ug/L for Water, ug/cm^2 for periphyton samplers

*: The complex calculations used to differentiate the various chlorophyll species magnify error at low concentrations and sometimes produce negative values, which are reported as 0.0 on this report.

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services

400 North Lake Avenue • Crandon, WI 54520-1298

Tel: (715) 478-2777 • Fax: (715) 478-3060

Wisconsin Lab Cert. No. 721026460

WI DATCP 105-000330

NO. 154997

CLIENT	RENEWABLE WORLD ENERGIES LLC
ADDRESS	PO BOX 264 1005 STATE STREET
CITY / STATE / ZIP	OCONTO WI 54153
PROJECT DESCRIPTION / NO.	CLAM RIVER
QUOTATION NO.	
DNR FID #	
DNR LICENSE #	
CONTACT	GARY
PHONE	855-994-9376
PURCHASE ORDER NO.	VERBAL
FAX	920 298-4100

MATRIX:
SW = surface water
WW = waste water
GW = groundwater
DW = drinking water
TIS = tissue
AIR = air
SOIL = soil
SED = sediment
PROD = product
SL = sludge
OTHER

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.
Indicate G or C if WW Sample is Grab or Composite.

ITEM NO.	NLS LAB NO	SAMPLE ID	COLLECTION DATE	COLLECTION TIME	MATRIX (See above)	ANALYZE PER ORDER OF ANALYSIS: Chloride	1,4 Dioxane	1,4 Dioxane	1,4 Dioxane	COLLECTION REMARKS (i.e. DNR Well ID #)
1.	803942	07172014-1A	7/17/14	10:20	RIVER WATER	X				
2.	943	" -1B	"	10:21			X			
3.	944	" -1C	"	10:22				X		
4.	945	" -1D	"	10:23					X	
5.										
6.										
7.										
8.										
9.										
10.										

COLLECTED BY (signature): Gary Kent — CUSTODY SEAL NO. (IF ANY) — DATE/TIME: 7/17/14 10:20-10:23

RELINQUISHED BY (signature) — RECEIVED BY (signature) — DATE/TIME

DISPATCHED BY (signature): Gary Kent — METHOD OF TRANSPORT: UPS — DATE/TIME: 7/17/14 3:00

RECEIVED AT NLS BY (signature): Debbie Wilson — DATE/TIME: 7-18-14 10:00 — CONDITION: cool — TEMP.

COOLER #

REMARKS & OTHER INFORMATION

WDNR FACILITY NUMBER — E-MAIL ADDRESS

REPORT TO: SAME AS ABOVE ATTN: GARY

INVOICE TO: RENEWABLE WORLD OPERATION 1001 STEPHENSON STREET NORWAY, MI 49870

PRESERVATIVE:
NP = no preservative
S = sulfuric acid
N = nitric acid
Z = zinc acetate
M = methanol
OH = sodium hydroxide
HA = hydrochloric & ascorbic acid
H = hydrochloric acid

IMPORTANT

1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE PER SAMPLE, **NOT** PER BOTTLE.
3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
4. PARTIES COLLECTING SAMPLE, LISTED AS **REPORT TO** AND LISTED AS **INVOICE TO** AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

Appendix C

August 13, 2014 Sampling Documents

IMPOUNDMENT SAMPLING LOG

2014 Water Quality Study - Clam River Hydroelectric Project - FERC #9185

HWL - 898.73

Pre-Sampling Data: TWL - 863.40 Date: 8/13/14

PROJECT FLOW - 216 CFS

Time: 1:30 Barometer: 30.10 Air Temp: 23.33 °C Wind Speed: NE 7MPH

Sky Conditions: BRIGHT SUN, BREEZY, PARTLY CLOUDY

Precipitation within Last 24 Hours: NO

D.O. Meter Calibration: Instrument Model Used: Hach HQ40d

Were The Batterys Changed? ☐ Yes ☒ No If Yes, When Changed: _____

Battery Status: 50% Charge

Calibration Time: FEB. 2014 Method: Factory

Sampling Depth Profile: Measured Depth to Bottom of the Impoundment: 8.0 Meter

Secchi Disk Depth: (E0.1 Meter) .6 Meter Time: 1:35

Chlorophyll a (1 Meter Below Surface)

Lab Sample I.D.#: 20140813-1A

Time	Quantity (ml)	Filtered
1:40	1000	NO

True Color (1 Meter Below Surface)

Lab Sample I.D.#: 20140813-1B

Time	Quantity (ml)
1:41	250

D.O. Sample Data

Depth	Time	D.O. (mg/l)	°C
.5 Mtr Below Surface	1:47	10.13	24.2
1 Meter	1:48	7.74	23.6
2 Meter	1:49	5.40	23.2
3 Meter	1:50	6.26	23.0
4 Meter	1:51	6.26	22.9
5 Meter	1:52	3.29	22.8
6 Meter	1:53	4.92	22.8
7 Meter	1:55	4.95	22.7
8 Meter			
.5 Mtr Above Bottom	1:57	4.91	22.7

Phosphorus

Lab Sample I.D.#: 20140813-1C

(1 Meter Below Surface)

Time	Preserved?
1:42	H_2SO_4

Lab Sample I.D.#: 20140813-1D

(1 Meter Above Bottom)

Time	Preserved?
1:45	H_2SO_4

Sample Location: N45° 56.779' WO°92 36.286' Elev. 923' (New) N45° 56.398' W92° 31.975' (Old)

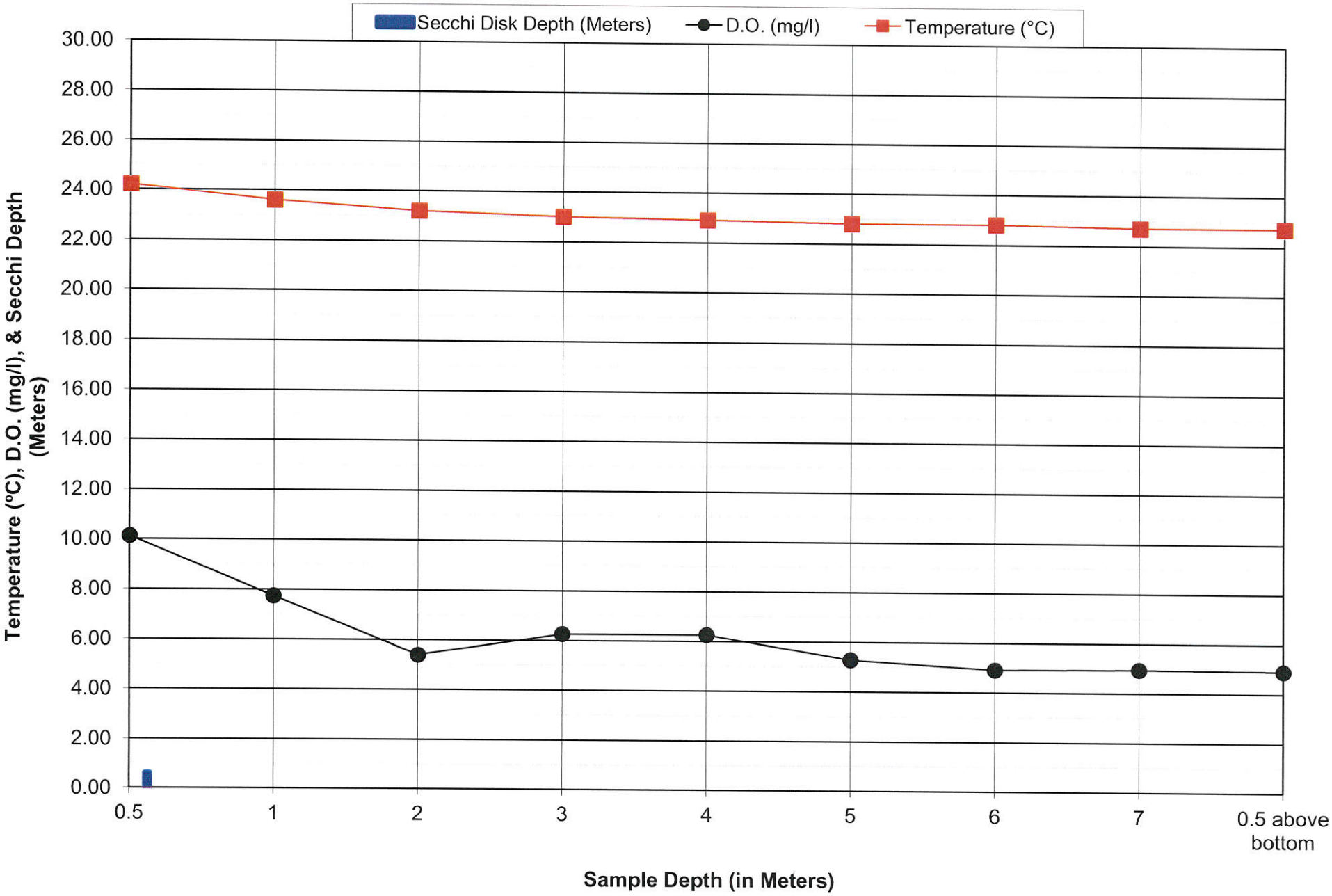
Comments:

LOTS OF ALGAE & DUCKWEED

5.5M - 5.18 22.7° 6.5 - 4.91 22.7°

Performed By: GARY RAST & RUSS BARROW

Clam River Impoundment - FERC # 9185
August 13, 2014 Sampling Event



NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

Client: Renewable World Energies
Attn: Gary Rast
100 State Street
P.O. Box 264
Neshkoro, WI 54960

NLS Project: 225021
NLS Customer: 102823
Phone: 855 994 9376

Project: Clam River

20140813-1A NLS ID: 810363
COC: 160940:1 Matrix: DW
Collected: 08/13/14 13:40 Received: 08/14/14

Parameter	Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
Chlorophyll, all species	see attached					08/14/14	10200-H	721026460
Lab filtration for Chlorophyll	yes					08/14/14	NA	721026460

20140813-1B NLS ID: 810364
COC: 160940:2 Matrix: DW
Collected: 08/13/14 13:41 Received: 08/14/14

Parameter	Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
Color, APHA (true)	50	C.P.U.	5	25*	25*	08/14/14	SM 2120-B 20ed	721026460
Lab filtration	yes					08/14/14	NA	721026460

20140813-1C NLS ID: 810365
COC: 160940:3 Matrix: DW
Collected: 08/13/14 13:42 Received: 08/14/14

Parameter	Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
Phosphorus, tot. as P	0.081	mg/L	1	0.0070*	0.0070*	08/19/14	SM 4500P-E 20ed	721026460

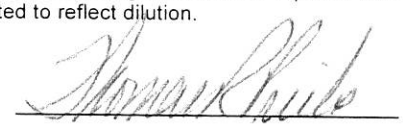
20140813-1D NLS ID: 810366
COC: 160940:4 Matrix: DW
Collected: 08/13/14 13:45 Received: 08/14/14

Parameter	Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
Phosphorus, tot. as P	0.075	mg/L	1	0.0070*	0.0070*	08/19/14	SM 4500P-E 20ed	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution.

LOD = Limit of Detection LOQ = Limit of Quantitation ND = Not Detected (< LOD) 1000 ug/L = 1 mg/L
DWB = Dry Weight Basis NA = Not Applicable %DWB = (mg/kg DWB) / 10000
MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:



Authorized by:
R. T. Krueger
President

Northern Lake Service, Inc.
Chlorophyll Results

Customer: Renewable World Energies
Project: 225021
Clam River

Sample	Description	CC a	Pheo a	TC a	TC b	TC c
810363	20140813-1A	34	0.0*	34	0.0*	1.1

CC a = Corrected Chlorophyll a
Pheo a = Pheophytin a
TC a = Trichromatic Chlorophyll a
TC b = Trichromatic Chlorophyll b
TC c = Trichromatic Chlorophyll c
Units = ug/L for Water, ug/cm² for periphyton samplers

*: The complex calculations used to differentiate the various chlorophyll species magnify error at low concentrations and sometimes produce negative values, which are reported as 0.0 on this report.

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue • Crandon, WI 54520-1298
Tel: (715) 478-2777 • Fax: (715) 478-3060
Wisconsin Lab Cert. No. 721026460
WDATCP 105-000330

NO. 160940

CLIENT: RENEWABLE WORLD ENERGIES LLC
ADDRESS: POBOX 264 / 100 S. STATE ST
CITY: WASHKORO STATE: WI ZIP: 54960
PROJECT DESCRIPTION / NO.: CLAM RIVER QUOTATION NO.:
DNR FID #: DNR LICENSE #:
CONTACT: GARY PHONE: 888-994-9378
PURCHASE ORDER NO.: VERBAL FAX: 920-293-4100

MATRIX:
SW = surface water
WW = waste water
GW = groundwater
DW = drinking water
TIS = tissue
AIR = air
SOIL = soil
SED = sediment
PROD = product
SL = sludge
OTHER

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered. Indicate G or C if WW Sample is Grab or Composite.

ANALYZE PER ORDER OF ANALYSIS: CHLOROPHYLL A | TCOLOR | PHOS | NITROS

ITEM NO.	NLS LAB. No.	SAMPLE ID	COLLECTION DATE	COLLECTION TIME	MATRIX (See above)	CHLOROPHYLL A	TCOLOR	PHOS	NITROS	COLLECTION REMARKS (i.e. DNR Well ID #)
1.	810363	20140813-1A	8/13	1:40	RIVER WATER	X				
2.	364	20140813-1B	"	1:41	"		X			
3.	365	20140813-1C	"	1:42	"			X		
4.	366	20140813 1D	"	1:45	"				X	
5.										
6.										
7.		NO TEMP BLANK SENT OR ENCLOSED								
8.										
9.										
10.										

COLLECTED BY (signature): [signature]
CUSTODY SEAL NO. (IF ANY):
DATE/TIME: 8/13/14 1:40-1:45

RELINQUISHED BY (signature):
RECEIVED BY (signature):
DATE/TIME:

DISPATCHED BY (signature): [signature]
METHOD OF TRANSPORT: UPS
DATE/TIME: 8/13/14 5:30

RECEIVED AT NLS BY (signature): [signature]
DATE/TIME: 8/14/14
CONDITION: OK
TEMP.: 0
COOLER #:
REMARKS & OTHER INFORMATION:
WDNR FACILITY NUMBER:
E-MAIL ADDRESS:

REPORT TO: SAME AS ABOVE ATTN GARY

INVOICE TO: RENEWABLE WORLD OP
1001 STEPHENSON ST
NORWAY, MI 49870

PRESERVATIVE:
NP = no preservative
S = sulfuric acid
N = nitric acid
Z = zinc acetate
M = methanol
OH = sodium hydroxide
HA = hydrochloric & ascorbic acid
H = hydrochloric acid

IMPORTANT:
1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE PER SAMPLE, **NOT** PER BOTTLE.
3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
4. PARTIES COLLECTING SAMPLE, LISTED AS **REPORT TO** AND LISTED AS **INVOICE TO** AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

Appendix D

Agency Correspondence

Renewable World Energies

October 1, 2014

Mr. Nick Utrup
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
2661 Scott Tower Drive
New Franken, WI 54229

Ms. Cheryl Laatsch
Statewide FERC Coordinator
Wisconsin Dept. of Natural Resources
N7725 HWY 28
Horicon, WI 53032

Re: **Clam River Hydroelectric Project**
FERC Project Number 9185
Flambeau Hydro LLC
Draft Report 2014 Water Quality Monitoring Data

Dear Agency:

Purpose

On behalf of Flambeau Hydro LLC "Flambeau" (Licensee), Renewable World Energies, LLC is submitting a copy of the *Draft Report 2014 Water Quality Monitoring Data* for the Clam River Hydroelectric Project. Furthermore, the Licensee is requesting your comments should you have any to offer on the report. The Federal Energy Regulatory Commission "FERC" issued a License to Flambeau on July 24, 2006. 2014 was the seventh year that monitoring was conducted since the license was issued. The submitted report is a requirement of that License pursuant to License Article 401 WQC, Condition K. Nothing out of the ordinary was experienced during the monitoring season except as noted in the report.

Conclusion

The Federal Energy Regulatory Commission's regulations allow for a 30 day formal review and comment period. Thank you in advance for providing your responses in a timely manner so we can include your comments and recommendations, as appropriate, into our report.

Corporate Office
P.O. Box 264
100 S. State Street
Neshkoro, WI 54960
Fax: 920-293-4100

Phone: 855-99HYDRO
(855-994-9376)
www.renewableworldenergies.com

Administrative Office
1001 Stephenson Street
Norway, MI 49870
Fax: 906-563-9344

Renewable World Energies

If you have any questions concerning the report, please contact Mr. Gary Rast at the Renewable World Energies, LLC offices @ 855-994-9376 ext. 105, or by email at: grast@rwehydro.com.

Sincerely,
Renewable World Energies, LLC
Agent for Licensee

For Mr. Jason Kreuscher
Vice President, Operations

Attachment: Draft Report 2014 Water Quality Monitoring Data - October 1, 2014

Cc: RWE, Corporate

Gary Rast

From: Gary Rast
Sent: Thursday, August 14, 2014 5:45 PM
To: 'Laatsch, Cheryl - DNR'; Utrup, Nick
Cc: Aneta Rietveld; Cindy Skowronski
Subject: Clam River DO Below Std

Cheryl & Nick,

Did the WQ sampling at Clam River Wed. August 13, 2014. Experienced some below standard measurements. However, not unusual for this time of year.

Depth – DO – Temp
6.0 Meter = 4.92 & 22.8
6.5 = 4.91 & 22.7
7.0 = 4.95 & 22.7
.5 Above Bottom = 4.91 & 22.7

Note above – DO 5.18 & Temp 22.7 @ 5.5 Meters.

Gary

Gary Rast
Regulatory/Compliance Manager

Renewable World Energies

Renewable World Energies, LLC
100 S. State Street
P.O. Box 264
Neshkoro, WI 54960
Phone: 855-994-9376 Ext. 105
Fax: 920-293-4100
Cell: 920-570-0995
E-mail: grast@rwehydro.com