

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: S₁+c1

RQ: 2072-11-14-57

Project: Algae Response LL

- Notes: (1) Always wait for meter to stabilize before recording any readings.
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

11/14/22

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro-meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	<u>Brian Davis</u>	<u>11/17/22</u>	<u>757</u>	<u>21.3</u>	<u>767.8</u>	<u>8.9</u>	<u>8.9</u>	<u>101.0</u>	<u>✓</u>	<u>1.07</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
ICV			<u>800</u>	<u>21.5</u>	<u>767.8</u>	<u>8.9</u>	<u>8.92</u>	<u>101.0</u>	<u>✓</u>	<u>1.07</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
CCV	<u>Kathryn Winger</u>		<u>1711</u>	<u>20.4</u>	<u>766.7</u>	<u>9.1</u>	<u>9.15</u>	<u>101.4</u>	<u>-</u>	<u>1.07</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
CCV											P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	<u>Brian Davis</u>	<u>11/17/22</u>	<u>735</u>	<u>220719A</u>	<u>7/23</u>	<u>1000</u>	<u>1000</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
ICV			<u>738</u>	<u>210917A</u>	<u>3/23</u>	<u>100</u>	<u>100.8</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
CCV	<u>KWinger</u>		<u>1713</u>	<u>220719A</u>	<u>7/23</u>	<u>1000</u>	<u>1004</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
CCV								P / F	L / F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	<u>Brian Davis</u>	<u>11/17/22</u>	<u>744</u>	<u>M118-15</u>	<u>5/24</u>	<u>7.01</u>	<u>21.7</u>	<u>7.01</u>	<u>-32.9</u>	P / F	<u>Ⓚ</u> F
Calibr.			<u>747</u>	<u>L344-18</u>	<u>12/23</u>	<u>4.00</u>	<u>21.4</u>	<u>4.00</u>	<u>142.7</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
Calibr.			<u>750</u>	<u>M103-01</u>	<u>4/24</u>	<u>10.03</u>	<u>21.7</u>	<u>10.03</u>	<u>-206.0</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
ICV			<u>753</u>	<u>M118-15</u>	<u>5/24</u>	<u>7.01</u>	<u>21.8</u>	<u>7.02</u>	<u>-32.0</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
CCV	<u>KWinger</u>		<u>1716</u>	<u>L344-18</u>	<u>12/23</u>	<u>4.00</u>	<u>21.8</u>	<u>4.07</u>	<u>139.1</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F
CCV			<u>1718</u>	<u>M103-01</u>	<u>4/24</u>	<u>10.03</u>	<u>21.8</u>	<u>10.04</u>	<u>-206.9</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 173.1, slope from 4 to 7 175.6 (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 11/14/22

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass / Fail	Lab / Field
Pressure mode in air	<u>Brian Davis</u>	<u>11/17/22</u>	<u>759</u>	<u>0.00</u>	<u>0.001</u>	<u>Ⓟ</u> F	<u>Ⓚ</u> F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:



Cyanobacteria Bloom Response Field Data Sheet (2022-08-15 v1)

Email scanned submittal forms to lab.receiving@FloridaDEP.gov

RQ - 2022-11-14-57				Collected By:		Katrin Villinger , Brian Davis					
Customer:		WQMP		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Lochloosa Lake @ Park				Comments:							
Field ID: NEHAB0082				Coordinates:		29.50545, -82.10325					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID:				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
11/17/2022	14:50	125	11.27	19.5	9.25	0.3	1.991	0.5	98.5	0.05	
	14:54	89.1	8.3	18.9	7.27	1.4			99.5	0.05	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Clarity		☐ Clear		☒ Slightly Turbid		☐ Turbid		☐ Opaque			
Bloom Color		☒ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☒ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☒ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☒ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	A	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	C	
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	C	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	C	
		Acid Lot:		SA2229010		Exp:		8/30/23			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice			1	C	
		Filter Lot #		175533							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped				Received By:		Date/Time	
Katrin Villinger		11/17/2022 16:30		2							



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RQ - 2022-11-14-57				Collected By:		Katrin Villinger, Brian Davis					
Customer:		WQMP		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Samson River @ SW CR 225				Comments:							
Field ID: NEHAB0088				Coordinates:		29.91901, -82.21036					
WIN Secondary Resource Type: River/Stream				Collection Equip:		WaterBottle					
WIN ID:				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☐ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
11/17/2022	10:15	71	6.85	17.1	6.37	0.3	0.98	0.98	94.4	0.04	
Bloom Observations											
Algal Bloom Observed? ☐ Yes ☒ No											
Water Clarity		☐ Clear		☒ Slightly Turbid		☐ Turbid		☐ Opaque			
Bloom Color		☐ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☐ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☐ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☐ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	A	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	C	
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	C	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	C	
		Acid Lot:		SA2229010		Exp:		8/3/23			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice			1	C	
				Filter Lot # 175533							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped		Received By:		Date/Time			
Katrin Villinger		11/17/2022 16:30		2							



Cyanobacteria Bloom Response Field Data Sheet (2022-08-15 v1)

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RQ - 2022-11-14-57				Collected By:		Katrin Villinger, Brian Davis					
Customer:		WQMP		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Lochloosa Lake NE in Veg				Comments:							
Field ID: NEHAB0083				Coordinates:		29.54463, -82.12257					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID:				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
11/17/2022	12:50	102	9.34	19.7	7.54	0.3	2.034	0.6	98.7	0.05	
	12:53	3.2	0.28	21.2	6.3	1.5			159.7	0.7	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Clarity		☐ Clear		☒ Slightly Turbid		☐ Turbid		☐ Opaque			
Bloom Color		☒ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☒ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☒ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☒ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	A	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	C	
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☒ OV-TOXN				☒ Ice			1	C	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	C	
		Acid Lot:		SA2229010		Exp:		8/30/23			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice			1	C	
		Filter Lot #		175533							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped				Received By:		Date/Time	
Katrin Villinger		11/17/2022 16:00		2							



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RQ - 2022-11-14-57				Collected By:		Katrin Villinger, Brian Davis					
Customer:		WQMP		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Lochloosa Lake entrance to Cross Creek				Comments:							
Field ID: NEHAB0079				Coordinates:		29.50739, -82.14983					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID:				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
11/17/2022	13:40	98.3	8.97	19.8	7.46	0.3	2.088	0.55	98	0.05	
	13:44	92.1	8.42	19.6	7.26	1.5			98.1	0.05	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Clarity		☐ Clear		☒ Slightly Turbid		☐ Turbid		☐ Opaque			
Bloom Color		☒ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☒ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☒ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☒ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	A	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	C	
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	C	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	C	
		Acid Lot:		SA2229010		Exp:		8/30/22			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice			1	C	
				Filter Lot # 175533							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped		Received By:		Date/Time			
Katrin Villinger		11/17/2022 16:30		2							



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RQ - 2022-11-14-57				Collected By:		Katrin Villinger , Brian Davis					
Customer:		WQMP		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: 183rd ave Canal off Cross Creek				Comments:							
Field ID: NEHAB0076				Coordinates:		29.48502, -82.16339					
WIN Secondary Resource Type: Canal				Collection Equip:		WaterBottle					
WIN ID:				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
11/17/2022	14:10	4.9	0.47	17.6	6.36	0.25	0.556	0.5	166.9	0.08	
Bloom Observations											
Algal Bloom Observed? ☐ Yes ☒ No											
Water Clarity		☐ Clear		☒ Slightly Turbid		☐ Turbid		☐ Opaque			
Bloom Color		☐ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☐ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☐ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☐ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	A	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	C	
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	C	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	C	
		Acid Lot:		SA2229010		Exp:		8/30/23			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice			1	C	
				Filter Lot # 175533							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped				Received By:		Date/Time	
Katrin Villinger		11/17/2022 16:30		2							