

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: Desi

RA- 2023-01-02-48

Project: ocean response
bottom lake

- 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>Nixi Barham</u>	<u>1-31-23</u>	<u>7:32</u>	<u>21.4</u>	<u>765</u>	<u>8.9</u>	<u>—</u>	<u>100.7</u>	<u>—</u>	<u>1.0143</u>	<u>P</u> /F	<u>L</u> /F
ICV	<u>Nixi Barham</u>	<u>1-31-23</u>	<u>7:37</u>	<u>21.4</u>	<u>765.1</u>	<u>8.9</u>	<u>8.89</u>	<u>100.5</u>	<u>—</u>	<u>1.0143</u>	<u>P</u> /F	<u>L</u> /F
CCV	<u>K. Halbert</u>	<u>1-31-23</u>	<u>15:33</u>	<u>22.0</u>	<u>763.0</u>	<u>8.8</u>	<u>8.76</u>	<u>100.4</u>	<u>—</u>	<u>1.0143</u>	<u>P</u> /F	<u>L</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>Nixi Barham</u>	<u>1-31-23</u>	<u>7:40</u>	<u>221028A</u>	<u>11/2023</u>	<u>1000</u>	<u>1000</u>	<u>P</u> /F	<u>L</u> /F
ICV	<u>Nixi Barham</u>	<u>1-31-23</u>	<u>7:44</u>	<u>221028B</u>	<u>11/2023</u>	<u>1413</u>	<u>1419</u>	<u>P</u> /F	<u>L</u> /F
CCV	<u>K. Halbert</u>	<u>1-31-23</u>	<u>15:38</u>	<u>220719B</u>	<u>07/2023</u>	<u>100</u>	<u>99.6</u>	<u>P</u> /F	<u>L</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>Nixi Barham</u>	<u>1-31-23</u>	<u>7:47</u>	<u>M118-15</u>	<u>5/2/24</u>	<u>7.01</u>	<u>22.1</u>	<u>7.01</u>	<u>-22.3</u>	<u>P</u> /F	<u>L</u> /F
Calibr.	<u>Nixi Barham</u>	<u>1-31-23</u>	<u>7:51</u>	<u>M108-01</u>	<u>7/11/24</u>	<u>4.00</u>	<u>22.1</u>	<u>4.00</u>	<u>153.8</u>	<u>P</u> /F	<u>L</u> /F
Calibr.	<u>Nixi Barham</u>	<u>1-31-23</u>	<u>7:56</u>	<u>M103-01</u>	<u>4/19/24</u>	<u>10.03</u>	<u>21.9</u>	<u>10.03</u>	<u>-194.2</u>	<u>P</u> /F	<u>L</u> /F
ICV	<u>Nixi Barham</u>	<u>1-31-23</u>	<u>7:59</u>	<u>M188-01</u>	<u>7/11/24</u>	<u>4.00</u>	<u>22.1</u>	<u>4.00</u>	<u>154.5</u>	<u>P</u> /F	<u>L</u> /F
CCV	<u>K. Halbert</u>	<u>1-31-23</u>	<u>15:40</u>	<u>210817E</u>	<u>02/2023</u>	<u>10.03</u>	<u>22.1</u>	<u>9.94</u>	<u>-189.5</u>	<u>P</u> /F	<u>L</u> /F
CCV										P/F	L/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 10 171.9, slope from 4 to 7 176.1 (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>Nixi Barham</u>	<u>1-31-23</u>	<u>8:01</u>	<u>0.00</u>	<u>0.00</u>	<u>P</u> /F	<u>L</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 - 2023-01-02-48		Collected By:		Katrin Villinger, Katherine Halbert, Niki Barham						
Customer:	WQAP	Field Report Prepared By:		Katrin Villinger						
Project ID:	BLOOM_RESP	Sampling Agency:		NEROC						
Location: Doctor's Lake @ Mill Cove			Comments:							
Field ID: NEHAB0057			Coordinates:	30.12402, -81.72750						
WIN Secondary Resource Type: Lake			Collection Equip:	WaterBottle						
WIN ID:NEHAB0057			High Tide Time:	808	Low Tide Time: 1503					
Matrix:	Marine	Grab	Tide:	☐ Rising ☒ Falling ☐ Slack ☐ N/						
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)
01/31/2023	10:20	104	9.87	17.8	7.5	0.3	1.86	0.6	774	0.38
	10:24	81.9	7.81	17.6	7.04	1.43			783	0.39
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: SA2145160		Exp: 6/2/23						
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		01/31/2023 16:30		2						



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

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RQ - 2023-01-02-48				Collected By:		Niki Barham, Katherine Halbert, Katrin Villinger					
Customer:		WQMP		Field Report Prepared By:		Katherine Halbert					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Swimming Pen Cr @ Whitey's Fish Camp				Comments:							
Field ID: NEHAB0074				Coordinates:		30.10100, -81.74667					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID:NEHAB0074				High Tide Time:		808		Low Tide Time:		1503	
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)	
01/31/2023	11:00	88.5	8.35	18	7.17	0.3	1.43	1	900	0.44	
	11:03	79.5	7.7	16.8	7.1	0.93			892	0.44	
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:		SA2299040		Exp:		11/24/23			
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		
Katherine Halbert		01/31/2023 16:30		2							



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RQ - 2023-01-02-48				Collected By:		Niki Barham, Katherine Halbert, Katrin Villinger					
Customer:		WQMP		Field Report Prepared By:		Katherine Halbert					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Black Creek @ SR-17				Comments:							
Field ID: NEHAB0035				Coordinates:		30.04203, -81.71197					
WIN Secondary Resource Type: River/Stream				Collection Equip:		WaterBottle					
WIN ID:NEHAB0035				High Tide Time:		915		Low Tide Time:		1624	
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)	
01/31/2023	12:00	85.5	8.12	17.8	7.01	0.31761	1.17	0.7	327.5	0.16	
	11:59	84.6	8.06	17.6	7.02	0.67			337.1	0.16	
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:		SA2145160		Exp:		06/02/23			
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	
Katherine Halbert		01/31/2023 16:30		2							



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RQ - 2023-01-02-48				Collected By:		Niki Barham, Katrin Villinger, Katherine Halbert					
Customer:		WQMP		Field Report Prepared By:		Katherine Halbert					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Dr's Lake at Camp Echokotee				Comments:							
Field ID: NEHAB0085				Coordinates:		30.15026, -81.72461					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID:NEHAB0085				High Tide Time:		808		Low Tide Time:		1503	
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)	
01/31/2023	12:45	116.8	10.66	19.7	8.07	0.3	1.28	0.6	704	0.34	
	12:44	101.1	9.48	18.3	7.58	0.78			660	0.32	
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:		SA2299040		Exp:		11/04/23			
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	
Katherine Halbert		01/31/2023 16:30									