

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: 155077 RQ: 2021-07-26-75 Project: SMP

- Notes: (1) Always wait for meter to stabilize before recording any readings. Twin Lakes
 (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 6/1/21

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>NM</u>	<u>7/29/21</u>	<u>0640</u>	<u>25.8</u>	<u>761</u>	<u>8.2</u>	<u>8.20</u>	<u>100.1</u>			<u>P</u> F	<u>L</u> F
ICV			<u>0642</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>8.17</u>	<u>100.1</u>			<u>P</u> F	<u>L</u> F
CCV	<u>S. Slode</u>	<u>7/29/21</u>	<u>1315</u>	<u>25.2</u>	<u>761.4</u>	<u>8.2</u>	<u>8.32</u>	<u>100.8</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>NM</u>	<u>7/29/21</u>	<u>0645</u>	<u>210525C</u>	<u>6/22</u>	<u>1000</u>	<u>1000</u>	<u>P</u> F	<u>L</u> F
ICV			<u>0648</u>	<u>201013A</u>	<u>10/21</u>	<u>100</u>	<u>104</u>	<u>P</u> F	<u>L</u> F
CCV	<u>S. Slode</u>	<u>7/29/21</u>	<u>1318</u>	<u>210525C</u>	<u>06/2022</u>	<u>1000</u>	<u>994</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>NM</u>	<u>7/29/21</u>	<u>0650</u>	<u>202114</u>	<u>5/22</u>	<u>7.</u>	<u>25.3</u>	<u>7.0</u>		<u>P</u> F	<u>L</u> F
Calibr.			<u>0652</u>	<u>205283</u>	<u>10/22</u>	<u>4.</u>	<u>↓</u>	<u>4.0</u>		<u>P</u> F	<u>L</u> F
Calibr.			<u>0654</u>	<u>201473</u>	<u>5/22</u>	<u>10.</u>	<u>↓</u>	<u>10.0</u>		<u>P</u> F	<u>L</u> F
ICV			<u>0656</u>	<u>205283</u>	<u>10/22</u>	<u>4.0</u>	<u>↓</u>	<u>3.95</u>	<u>132.4</u>	<u>P</u> F	<u>L</u> F
CCV	<u>S. Slode</u>	<u>7/29/21</u>	<u>1320</u>	<u>201473</u>	<u>05/2022</u>	<u>10.0</u>	<u>21.2</u>	<u>10.15</u>	<u>-227.4</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 _____, slope from 4 to 7 _____ (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: 6/1/21

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>NM</u>	<u>7/29/21</u>	<u>760</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.

REMARKS:

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 7/29/2021
Collected By: Christopher Stopher Slade, Nathan Mulkey
Customer: NW-DIST
Sampling Agency: FDEP
RQ: RQ-2021-06-21-53
Project ID: Algal Bloom Response

PLEASE RETURN THE ORIGINAL OF THIS FORM WITH SAMPLE SUBMITTAL
FORMS AND THE COOLER PACKING WORKSHEET TO THE LAB

Number of Coolers Shipped: 2

Delivery Method: UPS

FIELD ID (Labels) submitted under this RQ for this collection date.

Site Location	Field ID/WIN ID
Twin Lake	 G3NW0215
Twin Lake eastern lake	 G3NW0449
Coleman Lake	 G3NW0216

RELINQUISHED BY(SIGNATURE):



DATE/TIME: 7/29/2021
1630CEN

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By:

Rec'd/Inspected Date:



Cyanobacteria Bloom Response Field Data Sheet (2019-12-16 v4)

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

RQ - 2021-06-21-53				Collected By:		Nathan Mulkey, Stopher Slade				
Customer:		NW District		Field Report Prepared By:		Stopher Slade				
Project ID:		Algal Bloom Response		Sampling Agency:		FDEP NWROC				
Location: Twin Lake				Comments: Algae identity associated with RQ-2021-04-19-33 Twin Lake is covered in several duck weed species, with a potentially toxic algae identified in the water column or on the surface underneath the duckweed. Water quality associated with RQ-2021-07-26-15						
Field ID: G3NW0215				Coordinates:		30.39516 N, 86.47528 W				
				Collection Equip:		Sample Bottle				
WIN ID: G3NW0215				High Tide Time:				Low Tide Time:		
Matrix:		Freshwater		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 (PPT)
7/29/2021	0950	1.4	0.11	27.6	6.38	0.3	0.8	0.8	440.9	0.21
Bloom Observations										
Algal Bloom Observed? ☒ Yes ☐ No										
Water Surface		☐ Clear	☐ Scum	☒ Globs		☐ Slick				
Water Clarity		☒ Clear	☐ Slightly Turbid	☐ Turbid		☐ Opaque				
Bloom Color		☐ Green	☐ Red	☒ Brown		☐ Other: _____		☐ N/A		
Algae Distribution		☐ Suspended in water column		☒ On surface		☐ Other: _____		☐ N/A		
Water Odors		☐ Normal	☒ Sewage	☐ Petroleum		☐ Chemical		☐ Other: _____		
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group
Bloom ID (PT-50mL)		☐ BLOOM-ID				☐ Ice				
Chlorophyll (BP-1L)		☐ CHLSUITE-W				☐ Ice				
Toxins (BG-WD250)		☒ OV-TOXN-LC				☒ Ice			1	A
Preserved Nutrients (500mL HDPE)		☐ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☐ Ice	☐ H2SO4	☐ <2		
		Acid Lot:		Exp:						
Filtered Nutrients (P125mL)		☐ W-PO4-F		☐ Field Filtered 0.45µm Filter		☐ Ice				
				Filter Lot #						
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice	Lugols? Y / N			
Relinquished By:		Date/Time		Number of Coolers Shipped			Received By:		Date/Time	
S.Slade		7/29/20 1630		2 UPS						



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RQ - 2021-06-21-53				Collected By:		Nathan Mulkey, Stopher Slade				
Customer:		NW District		Field Report Prepared By:		Stopher Slade				
Project ID:		Algal Bloom Response		Sampling Agency:		FDEP NWROC				
Location: Twin Lake eastern lake				Comments: Twin Lake eastern lake had globs of a blueish green algae on the surface and streaks of a florescent green algae in the water column. Water quality associated with RQ-2021-07-26-15						
Field ID: G3NW0449				Coordinates:		30.39377 N, 86.47302 W				
				Collection Equip:		Sample Bottle				
WIN ID: G3NW0449				High Tide Time:				Low Tide Time:		
Matrix:		Freshwater		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 (PPT)
7/29/2021	1030	45.9	3.52	29.2	6.22	0.3	1.2	1.0	171	0.08
Bloom Observations										
Algal Bloom Observed? ☒ Yes ☐ No										
Water Surface	☐ Clear	☐ Scum	☒ Globs		☒ Slick					
Water Clarity	☐ Clear	☒ Slightly Turbid	☐ Turbid		☐ Opaque					
Bloom Color	☒ Green	☐ Red	☐ Brown		☒ Other: blueish green globs		☐ N/A			
Algae Distribution	☒ Suspended in water column		☒ On surface		☐ Other: _____		☐ N/A			
Water Odors	☒ Normal	☐ Sewage	☐ Petroleum		☐ Chemical		☐ Other: _____			
Parameter Suite	Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Bloom ID (PT-50mL)	☒ BLOOM-ID				☒ Ice			1	C	
Chlorophyll (BP-1L)	☐ CHLSUITE-W				☐ Ice					
Toxins (BG-WD250)	☒ W-MCYST-AA				☒ Ice			1	B	
Preserved Nutrients (500mL HDPE)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☐ Ice	☐ H2SO4	☐ <2			
	Acid Lot:				Exp:					
Filtered Nutrients (P125mL)	☐ W-PO4-F		☐ Field Filtered 0.45µm Filter			☐ Ice				
			Filter Lot #							
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C				☐ Ice	Lugols? Y / N				
Relinquished By:		Date/Time		Number of Coolers Shipped			Received By:		Date/Time	
S.Slade		7/29/20 1630		2 UPS						



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RQ - 2021-06-21-53				Collected By:		Nathan Mulkey, Stopher Slade					
Customer:		NW District		Field Report Prepared By:		Stopher Slade					
Project ID:		Algal Bloom Response		Sampling Agency:		FDEP NWROC					
Location: Coleman Lake				Comments: Coleman Lake had specks of a green algae in the water column, so much so that it clouded the water and reduced visibility and increased turbidity. Water quality associated with RQ-2021-07-26-15							
Field ID: G3NW0216				Coordinates:		30.40236 N, 86.48003 W					
				Collection Equip:		Sample Bottle					
WIN ID: G3NW0216				High Tide Time:				Low Tide Time:			
Matrix:		Freshwater		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 (PPT)	
7/29/2021	1105	126.4	9.65	29.6	8.12	0.3	1.2	0.7	243	0.11	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Surface	☐ Clear	☐ Scum	☒ Globs		☐ Slick						
Water Clarity	☐ Clear	☒ Slightly Turbid	☐ Turbid		☐ Opaque						
Bloom Color	☒ Green	☐ Red	☐ Brown		☐ Other: _____				☐ N/A		
Algae Distribution	☒ Suspended in water column		☐ On surface		☐ Other: _____				☐ N/A		
Water Odors	☒ Normal	☐ Sewage	☐ Petroleum		☐ Chemical				☐ Other: _____		
Parameter Suite	Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group		
Bloom ID (PT-50mL)	☒ BLOOM-ID				☒ Ice			1	C		
Chlorophyll (BP-1L)	☐ CHLSUITE-W				☐ Ice						
Toxins (BG-WD250)	☒ W-MCYST-AA				☒ Ice			1	B		
Preserved Nutrients (500mL HDPE)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☐ Ice	☐ H2SO4	☐ <2				
	Acid Lot:				Exp:						
Filtered Nutrients (P125mL)	☐ W-PO4-F		☐ Field Filtered 0.45µm Filter			☐ Ice					
			Filter Lot #								
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C				☐ Ice	Lugols? Y / N					
Relinquished By:	Date/Time		Number of Coolers Shipped			Received By:		Date/Time			
S.Slade	7/29/20 1630		2 UPS								