

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: ISI DESE

RQ: 2020-0420-15

Project: Algal bloom

0 FCW

2020-05-04-35

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 6/18/20

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.	J. Parrish	7/1/20	740	26.5	759	8.0	8.0	99.5	—	1.057	P/F	D/F
ICV	J	L	748	26.4	759	8.0	8.0	100.0	—	1.057	P/F	D/F
CCV	J. Parrish	7/1/20	7517	30.2	758	8.5	7.52	99.8	—	1.057	P/F	D/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 #	Explr. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	J. Parrish	7/1/20	744	2004076	4/21	1000	1000	P/F	D/F
ICV	J	L	745	190711A	7/20	100	103.5	P/F	D/F
CCV	J. Parrish	7/1/20	1518	191025B	11/20	20000	19620	P/F	D/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Explr. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J. Parrish	7/1/20	746	2001C31	1/22	7.	28	6.99	-13.9	P/F	D/F
Calibr.	J	L	748	2001B53	1/22	4.	28	4.01	-166.9	P/F	D/F
Calibr.	J	L	750	2002911	8/21	10.	28	9.97	-184.8	P/F	D/F
ICV	J	L	751	2001B53	1/22	4.	28	4.09	-162.3	P/F	D/F
CCV	J. Parrish	7/1/20	1517	200294	8/21	10.	28	9.97	-155.3	P/F	D/F
CCV										P/F	L/F

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

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

mV pH 10 Range -180 $\pm$ 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: _____

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	J. Parrish	7/1/20	752	0.00	0.00	P/F	D/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 (2019-12-16 v4)

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

RQ-2020-04-20-15			Collected By: K. Appleby + J. Parrish							
Customer: 21FLA		Field Report Prepared By: K. Appleby								
Project ID: Bloom-Resp		Sampling Agency: FDEP NE ROL								
Location: Crescent Lake E side of Boat Ramp		Comments:								
Field ID:		Coordinates: 29.4935499, -81.4877646								
WIN ID: NEHAB0004		Collection Equip: Sampling bottle								
Matrix: Fresh		High Tide Time: -	Low Tide Time: -							
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)
7/1/20	955	80.8	6.14	29.5	8.60	0.3	0.45	0.45 (5)	818	0.40
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	A		
Chlorophyll (BP-1L)	☒ CHLSUITE-W			☒ Ice			1	B		
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	B		
Filtered Nutrients (P125mL)	☐ W-PO4-F			☐ Field Filtered 0.45um Filter		☐ Ice				
Quantitative Algae	☒ DTY-QN-C / PKD-QN-C			☒ Ice		Lugols? Y / N		1 C		
Relinquished By:	Date/Time		Number of Coolers Shipped		Received By:		Date/Time			
Kim Appleby	7/1/2020		1							



Contains: 1:1 H2SO4
Lot No.: SA935-0550
Expires: 12/20/02
See Safety Data Sheet (SDS)

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

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

RQ: 2020-04-20		Collected By: K. Appleby + J. Parrish	
Customer: 21FLA		Field Report Prepared By: K. Appleby	
Project ID: BLOOM-RESP		Sampling Agency: FDEP NE ROC	
Location: Dead Lake @ Boat Ramp		Comments: Missed Secchi measurement	
Field ID:		Coordinates: 29.423229, -81.435624	
		Collection Equip: Sampling bottle	
WIN ID: NEHAB0013		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 (PPT)
7/1/20	1120	72.5	5.37	31.4	7.29	0.3	1.7	Did not take	1046	0.51
	1118	56.0	4.13	31.2	7.11	1.2	/	/	1053	0.51

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: _____		
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 I D (PT-50mL)	☒ BLOOM-ID	☒ Ice		1	A
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	B
Toxins (BG-WD250)	☒ W-MCYST-AA	☒ Ice		1	B
	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP	☒ Ice	☒ H2SO4	☒ < 2	1
Preserved Nutrients (500mL HDPE)	Acid Lot: SA 93 54050	Exp: 12/2020			
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	1	C

Relinquished By: Kim Appleby	Date/Time: 7/1/2020 1600	Number of Coolers Shipped: 1	Received By:	Date/Time:
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Algal Bloom Response- NEROC

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: WQAP

Requester: Jeremy M. ParrishField Report Prepared By: Kim Appleby

Project ID: BLOOM-RESP

Collected By: R. Appleby + J. ParrishSampling Agency: EDAP NE ROL

Location <u>Crescent Lake E side of Boat Ramp</u>		☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>7/1/2020</u> Time <u>955</u>	☒ Eastern ☐ Central	Composite end Date <u>-</u> Time <u>-</u>	Bottle Group(s) (See pg 2)
Field ID		Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>		Diss. Oxygen <u>6.14</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) <u>-</u>
WIN/STORET #		Temp (C) <u>29.5</u>	pH <u>8.60</u>	Sample Depth <u>0.3</u>	☐ ft ☒ m	Sp. Conductance (umho/cm) <u>818</u>
Latitude <u>29.4935499</u>	☒ dd ☐ dms	Longitude <u>-81.4877646</u>	☒ dd ☐ dms	Salinity (ppt) <u>0.40</u>	Comments	
Location <u>Crescent Lake Near Hawk Creek</u>		☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>7/1/2020</u> Time <u>1045</u>	☒ Eastern ☐ Central	Composite end Date <u>-</u> Time <u>-</u>	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>		Diss. Oxygen <u>5.17</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) <u>-</u>
WIN/STORET #		Temp (C) <u>31.1</u>	pH <u>7.05</u>	Sample Depth <u>0.3</u>	☐ ft ☒ m	Sp. Conductance (umho/cm) <u>819</u>
Latitude <u>29.3986649</u>	☒ dd ☐ dms	Longitude <u>-81.4331381</u>	☒ dd ☐ dms	Salinity (ppt) <u>0.40</u>	Comments	
Location <u>Dead Lake @ Boat Ramp</u>		☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>7/1/2020</u> Time <u>1120</u>	☒ Eastern ☐ Central	Composite end Date <u>-</u> Time <u>-</u>	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>		Diss. Oxygen <u>5.37</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) <u>-</u>
WIN/STORET #		Temp (C) <u>31.4</u>	pH <u>7.29</u>	Sample Depth <u>0.3</u>	☐ ft ☒ m	Sp. Conductance (umho/cm) <u>1046</u>
Latitude <u>29.423229</u>	☒ dd ☐ dms	Longitude <u>-81.435624</u>	☒ dd ☐ dms	Salinity (ppt) <u>0.51</u>	Comments	
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date <u>-</u> Time <u>-</u>	☐ Eastern ☐ Central	Composite end Date <u>-</u> Time <u>-</u>	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
WIN/STORET #		Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)
Latitude <u>29.423229</u>	☒ dd ☐ dms	Longitude <u>-81.435624</u>	☒ dd ☐ dms	Salinity (ppt)	Comments	

Relinquished By: <u>Kim Appleby</u>	Date/Time <u>7/1/2020 1600</u>	Shipping Method <u>FedEx</u>	Number of Coolers Shipped: <u>1</u>	Received By:	Date/Time
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Group: A	Bottle Type: PT-50ML	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab <u>3</u>
BLOOM-ID				
Group: B	Bottle Type: BG-250ML-WDMT H	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab <u>3</u>
W-MCYST-AA				
Group: B	Bottle Type: P-500ML	# of Bottles: 4	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab <u>3</u>
W-NH3				
W-NO2NO3				
W-S-A-TP				
W-TKN				
Group: C	Bottle Type: BP-1L	# of Bottles: 4	Preservative: Lugols	Enter Number of Bottles Sent to Lab <u>3</u>

DTY-QN-C

PKD-QN-BV

Added!
 Group B Bottle type: BP-1L # of Bottles: 3 Preservative: Lugols # sent to Lab: ¹⁴2 3

Chl suite - w

Mgoy