

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:

57176

RQ-

2020-07-13-52

Project:

L1 Orange AR

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.	Brian Davis	8/5/20	807	23.6	761.4	8.5	—	100.2	✓	1.02	P/F	L/F
ICV	↓	↓	810	23.8	761.3	8.5	8.45	100.1	✓	1.02	P/F	L/F
CCV	K. Appleby	↓	1643	24.8	760.4	8.3	8.19	98.6	—	1.02	P/F	L/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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Brian Davis	8/5/20	812	200407C	4/21	1000	1000	P/F	L/F
ICV	↓	↓	815	200407D	4/21	100	103.0	P/F	L/F
CCV	K. Appleby	↓	1654			1413	1429	P/F	L/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.	Brian Davis	8/5/20	823	2001C31	1/22	7.0	25.2	7.0	-29.8	P/F	L/F
Calibr.	↓	↓	826	2910G29	10/21	4.0	25.0	4.01	1528	P/F	L/F
Calibr.	↓	↓	830	2002911	8/21	10.0	25.2	10.0	-202.3	P/F	L/F
ICV	✓	↓	832	2001C31	1/22	7.0	25.2	7.05	-29.0	P/F	L/F
CCV	K. Appleby	↓	1656	2910G29	10/2021	4.00	25.0	4.13	143.9	P/F	L/F
CCV	↓	↓	1658	2002911	8/2021	10.00	24.9	10.03	-205.8	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: _____

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	Brian Davis	8/5/20	834	0.00	0.00	P/F	L/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

RQ-2019-14 2020-07-13-52		Collected By:	Kim Appleby + Brian Davis							
Customer	FDEP NE ROL	Field Report Prepared By:	Kim Appleby							
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP							
Field ID:		Comments:								
WIN/Fie ID:		 HAB L ORANGE L Little Orange Lake North Shore WIN=NEHAB0010								
Matrix:		Collection Equipment:	Polc + sample container Meter: Pro DSS "Stitch"							
Tide:		Coordinates:	29.583850, -82.057750							
☐ Rising ☐ Falling ☐ Slack ☒ N/A		High Tide Time:	Low Tide Time:							
Water Quality										
Date	Time ☒ EST ☐ CEN	D.O. (mg/L)	D.O. (%)	Temp °C	pH (SU)	Sample Depth (m)	Cond. (umho/cm)	Salinity (PPT)	Secchi Disk (m)	Total Depth (m)
8/5/20	1120	8.92	121.9	32.7	8.03	0.3	54.4	0.02	0.4	1.37
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: _____ Water Odors ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Other: potrid algae										
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	1	B					
Filtered Nutrients (P125mL)	☒ W-PO4-F ☒ Field Filtered 0.45um Filter	☒ Ice		1	B					
Quantitative Algae	☒ DTY-QN-C / PKD-QN-C	☒ Ice ☒ Lugols		1	C					
Relinquished By:	Date/Time	Number of Coolers Shipped	Received By:	Date/Time						
Brian Davis	8/5/20 1600	1								

Contains: 1:1 H2SO4
 Lot No.: SA9301030
 Expires: 10/28/20
 See Safety Data Sheet (SDS)

Keep this container to monitor for leaks and spills. Do not dispose of this container until it has been properly decontaminated. This container is for use only with the following reagents: H2SO4, Lugol's Iodine, and DAPI. Do not use this container for any other purpose. This container is for use only with the following reagents: H2SO4, Lugol's Iodine, and DAPI. Do not use this container for any other purpose.

THIESHO FISHER SCIENTIFIC
 1200 NORTH MAIN STREET
 MAHA, OH 44844
 1-800-858-2711
 Contains: 1:1 H2SO4

LIMs QC'd: BD 1/25/2021

Contains: 11 H2SO4
Lot No.: S84390000
Expires: 12/20/20
See Safety Data Sheet (SDS)

Algal Bloom Response- NEROC

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: WQAP

Requester: Jeremy M. Parrish

Field Report Prepared By: B. D. K. A.

Project ID: BLOOM-RESP

Collected By: Brian D. K. A.Sampling Agency: FDEP

Locat	WIN/Fie ID:  HAB L ORANGE L	☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>8/5/20</u> Time <u>1120</u>	☒ Eastern ☐ Central	Composite end Date _____ Time _____	Bottle Group(s) (See pg 2)
Field	Little Orange Lake North Shore	Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>	Diss. Oxygen <u>8.92</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	<u>A, B, C</u>
WIN		Temp (C) <u>32.7</u>	pH <u>8.03</u>	Sample Depth <u>0.3</u>	Sp. Conductance (umho/cm) <u>54.4</u>	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) <u>002</u>	Comments	
Locat	WIN/Fie ID:  HAB HOLDEN POND	☐ Comp ☐ Grab	Collection (comp begin or grab) Date _____ Time _____	☐ Eastern ☐ Central	Composite end Date _____ Time _____	Bottle Group(s)
Field	Holden Pond Center	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN		Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	
Location	<u>Little Orange Lake South End</u>	☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>8/5/20</u> Time <u>1230</u>	☒ Eastern ☐ Central	Composite end Date _____ Time _____	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>	Diss. Oxygen <u>7.21</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	<u>A, B, C</u>
WIN/STORET #		Temp (C) <u>31.0</u>	pH <u>6.52</u>	Sample Depth <u>0.3</u>	Sp. Conductance (umho/cm) <u>55.4</u>	
Latitude	☒ dd ☐ dms	Longitude	☒ dd ☐ dms	Salinity (ppt) <u>0.02</u>	Comments <u>Unable to print new labels for site.</u>	
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date _____ Time _____	☐ Eastern ☐ Central	Composite end Date _____ Time _____	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	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

Relinquished By: <u>Brian Davis</u>	Date/Time <u>8/5/20 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: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
BLOOM-ID							
Group: B	Bottle Type:	BP-1L	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
CHLSUITE-W							
Group: B	Bottle Type:	BG-250ML-WDMT H	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
W-MCYST-AA							
Group: B	Bottle Type:	P-500ML	# of Bottles: 6	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	2
W-NH3							
W-NO2NO3							
W-S-A-TP							
W-TKN							
Group: B	Bottle Type:	P-125ML	# of Bottles: 6	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	2
W-PO4-F							
Group: C	Bottle Type:	BP-1L	# of Bottles: 6	Preservative:	Lugols	Enter Number of Bottles Sent to Lab	2
DTY-QN-C							
PKD-QN-BV							