

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: Bunce

RQ: 2022-06-06-57

Project: Lockwood Algae Re.

- 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 5/2/22

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.	Brian Davis	6/15	811	19.5	761.5	9.2	9.2	100.2	✓	1.02	P/F	L/F
ICV		↓	812	19.4	761.7	9.2	9.23	100.2	✓	1.02	P/F	L/F
CCV	K. Villinger	↓	1641	21.1	761.0	8.9	8.95	100.7	✓	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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Brian Davis	6/15	742	220225A	3/23	1000	1000	P/F	L/F
ICV		6/15	743	210917A	9/22	100	101.2	P/F	L/F
CCV	K. Villinger	↓	1642	211122B	12/22	1413	1427	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	6/15	753	4203187	2/24	7.02	19.6	7.02	-14.4	P/F	L/F
Calibr.		↓	802	2205F96	1/24	4.00	18.7	4.00	164.1	P/F	L/F
Calibr.		↓	805	2202A63	7/23	10.05	19.5	10.05	-184.9	P/F	L/F
ICV		↓	808	4203B87	2/24	7.02	19.8	7.07	-14.5	P/F	L/F
CCV	K. Villinger	↓	1644	2205F96	5/24	4.00	20.7	4.07	159.6	P/F	L/F
CCV		↓	1647	2202A63	7/23	10.04	20.7	10.01	-184.8	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 10 170.5, slope from 4 to 7 178.5 (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: 5/3/22

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	Brian Davis	6/15		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 (2022-06-10 v1)

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RQ - 2022-06-06-57				Collected By:		Brian Davis, Katein Villinger					
Customer:		WQAP		Field Report Prepared By:		Katrín Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Lochloosa Lake entrance to Cross Creek				Comments: More clumps, less specks. Sunny, little wind.							
Field ID: NEHAB0079				Coordinates:		29.50754, -82.14963					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID: NEHAB0079				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)	
06/15/2022	12:35	138.5	10.35	30.3	9.26	0.3	2.212	0.6	95.6	0.04	
	12:40	61.4	4.75	28.7	6.91	1.7			94.8	0.04	
	12:45	42.4	3.3	28.6	6.73	2			95.7	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	
Algae ID (PT-50mL)		☐ ALGAE-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	C	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	D	
Toxins (BG-WD250)		☒ W-MCYST-AA ☐ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	D	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	D	
		Acid Lot:		SA1308030		Exp:		12/1/22			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45µm Filter		☒ Ice			1	D	
				Filter Lot # R1Eb01329							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped			Received By:		Date/Time		
Katrín Villinger		06/15/2022 16:30		1							



Cyanobacteria Bloom Response Field Data Sheet (2022-06-10 v1)

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RQ - 2022-06-06-57		Collected By:		Brian Davis, Katrin Villinger						
Customer:	WQAP	Field Report Prepared By:		Katrin Villinger						
Project ID:	BLOOM_RESP	Sampling Agency:		NEROC						
Location: Lochloosa Lake @ Park			Comments: Sunny, light wind							
Field ID: NEHAB0082			Coordinates: 29.50513, -82.10412							
WIN Secondary Resource Type: Lake			Collection Equip: WaterBottle							
WIN ID: NEHAB0081 JP NEHAB0082			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)
06/15/2022	13:05	193	13.64	33.9	9.74	0.3	1.854	0.5	103.6	0.05
	13:10	1.6	0.12	28.4	6.42	1.3			250.2	0.12
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			
Algae ID (PT-50mL)	☐ ALGAE-ID			☐ Ice						
Bloom ID (PT-50mL)	☒ BLOOM-ID			☒ Ice		1	C			
Chlorophyll (BP-1L)	☒ CHLSUITE-W			☒ Ice		1	D			
Toxins (BG-WD250)	☒ W-MCYST-AA ☐ W-SAXTN-MS ☐ OV-TOXN			☒ Ice		1	D			
Preserved Nutrients (500mL HDPE)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP			☒ Ice ☒ H2SO4	☒ <2	1	D			
	Acid Lot:	SA1308030		Exp:	12/1/22					
Filtered Nutrients (P125mL)	☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice	1	D			
	Filter Lot #		R1EB01329							
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C			☐ Ice ☐ Lugols						
Relinquished By:	Date/Time	Number of Coolers Shipped		Received By:	Date/Time					
Katrin Villinger	06/15/2022 16:30	1								



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RQ - 2022-06-06-57		Collected By:		Brian Davis, Katrin Villinger						
Customer:	WQAP	Field Report Prepared By:		Katrin Villinger						
Project ID:	BLOOM_RESP	Sampling Agency:		NEROC						
Location: Lochloosa Lake NE in Veg			Comments: Sunny, little wind							
Field ID: NEHAB0083			Coordinates: 29.54473, -82.12214							
WIN Secondary Resource Type: Lake			Collection Equip: WaterBottle							
WIN ID: NEHAB0080 NEHAB0083 JP			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)
06/15/2022	12:05	160	11.5	31.5	9.5	0.3	1.961	0.4	101	0.05
	12:15	1.8	0.14	29	6.31	1.461			186.1	0.09
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			
Algae ID (PT-50mL)	☐ ALGAE-ID		☐ Ice							
Bloom ID (PT-50mL)	☒ BLOOM-ID		☒ Ice			1	C			
Chlorophyll (BP-1L)	☒ CHLSUITE-W		☒ Ice			1	D			
Toxins (BG-WD250)	☒ W-MCYST-AA ☐ W-SAXTN-MS ☐ OV-TOXN		☒ Ice			1	D			
Preserved Nutrients (500mL HDPE)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP		☒ Ice ☒ H2SO4		☒ <2	1	D			
	Acid Lot:	SA1308030	Exp:	12/1/22						
Filtered Nutrients (P125mL)	☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice	1	D			
	Filter Lot #		R1EB01329							
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C		☐ Ice ☐ Lugols							
Relinquished By:	Date/Time	Number of Coolers Shipped		Received By:	Date/Time					
Katrin Villinger	06/15/2022 16:30	1								