

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

RQ- 2021-10-25-41

Project: Algae Response Net Jex

- 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 11/10/21

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.	Brian Davis	11/30/21	810	22.3	765.5	8.8	8.8	100.7	✓	1.06	(P) F	(L) F
ICV	↓	↓	811	22.2	765.5	8.8	8.77	100.7	✓	1.06	(P) F	(L) F
CCV	Katrin Villinger	11/30/21	1550	22.4	764.5	8.4	8.68	100.0	✓	1.06	(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	11/30/21	749	210917B	9/22	1000	1000	(P) F	(L) F
ICV	↓	↓	752	211122B	12/22	1413	1408	(P) F	(L) F
CCV	Katrin Villinger	11/30/21	1555	211122A	12/22	15000	14988	(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	11/30/21	757	2109M25	9/23	7.01	22.3	7.01	-22.2	(P) F	(L) F
Calibr.	↓	↓	802	2107640	7/23	4.00	22.4	4.00	157.0	(P) F	(L) F
Calibr.	↓	↓	806	2102E08	6/22	10.03	22.4	10.03	-193.3	(P) F	(L) F
ICV	↓	↓	808	2109M25	9/23	7.01	22.5	7.05	-22.0	(P) F	(L) F
CCV	Katrin Villinger	11/30/21	1600	2012E08	6/22	10.02	22.8	10.07	-197.3	(P) F	(L) 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 10 171.1, slope from 4 to 7 179.2 (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: 11/10/21

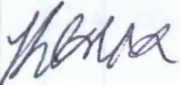
If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

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	Brian Davis	11/30/21	812	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-2021- 10-25-41		Collected By: K Villinger & B Davis								
Customer	NE-DIST	Field Report Prepared By: K Villinger								
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP							
Field ID:		Comments:								
WIN ID/Field ID:		 NEHAB0040 Mouth of Goodby's Creek								
Matrix:	Fresh	(Grab)	Collection Equipment: Ortho #3							
Tide:	☒ Rising ☐ Falling ☐ Slack ☐ N/A	Coordinates:	30°12'00" N 81°37'25" W							
		High Tide Time:	730							
		Low Tide Time:	1300							
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)
11/30/21	12:35	9.58	96.7	15.6	7.64	0.3	2314	1.19	0.680	0.680
									5	
Bloom Observations										
Algal Bloom Observed? ☐ Yes ☒ No										
Water Surface	☒ Clear	☐ Scum	☐ Globbs		☐ 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: _____			
Parameter Suite	Parameter Methods		Preservation		pH Check	#Bottles Sent to Lab	Bottle Group			
Bloom ID (PT-50ML)	☒ BLOOM-ID		☒ Ice			1	AB			
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			
	Lot	541105060	Exp:	04/30/22	☐ <2					
Filtered Nutrients (P125mL)	☒ W-PO4-F	☒ Field Filtered 0.45um Filter		☒ Ice		1	B			
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C		☐ Ice	☐ Lugols						
Relinquished By:	Date/Time	Number of Coolers Shipped			Received By:	Date/Time				
	11/30/21 1400	2								

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021-10-25-41		Collected By: B. Davis & K. Villinger								
Customer	NE - Dist	Field Report Prepared By: K. Villinger								
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP							
Field ID:		Comments:								
WIN ID/Field ID:										
 NEHAB0024										
Christopher Creek below San Jose Blvd		Collection Equipment: Ortho 43								
Matrix:	Flesh	Grab	Coordinates: 30.252570 -81.642100							
Tide:	☒ Rising ☐ Falling ☐ Slack ☐ N/A	High Tide Time:	730 Low Tide Time: 1800							
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)
11/30/21	12:05	6.83	66.8	14.2	7.12	0.3	1720	0.88	0.794 S	0.794
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: _____					
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				
	Lot	SA1105060	Exp:	04/30/22	☐ <2					
Filtered Nutrients (P125mL)	☒ W-PO4-F	☒ Field Filtered 0.45um Filter	☒ Ice		1	B				
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C		☐ Ice ☐ Lugols							
Relinquished By:	Date/Time	Number of Coolers Shipped		Received By:	Date/Time					
Katellen	11/30/21 1600	2								

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-25-41		Collected By: B Davis, K Villis, ea								
Customer	Ne - Dist	Field Report Prepared By: B Davis								
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP							
Field ID:		Comments:								
WIN ID/Field ID:										
 NEHAB0029										
LSJR @ end of Blake Ave										
Matrix: Fresh		Collection Equipment:	Ont40 #3							
Tide: ☒ Rising ☐ Falling ☐ Slack ☐ N/A		Coordinates:	30.1744, -81.686940							
		High Tide Time:	710							
		Low Tide Time:	1300							
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)
11/30/21	1110	9.55	95.9	15.4	7.79	0.3	1310	0.66	0.6	0.6
Bloom Observations										
Algal Bloom Observed? ☐ Yes ☒ No										
Water Surface	☒ Clear	☐ Scum	☐ Globbs	☐ 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: _____					
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	D				
	Lot: 85A110500		Exp: 4/30/22		☐ <2					
Filtered Nutrients (P125mL)	☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice	1	B			
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C		☐ Ice	☐ Lugols						
Relinquished By:	Date/Time	Number of Coolers Shipped		Received By:	Date/Time					
B. Davis	11/30/21 1600	2								

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-25-41		Collected By:	B Davis, K Villiger	
Customer	NE-Dist	Field Report Prepared By:	B Davis	
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP	
Field ID:		Comments:		

WIN ID/Field ID:  NEHAB0047

Mouth of Deep Bottom Creek

Collection Equipment:		Outo #3		
Matrix:	Fish	Grab	Coordinates: 30.17714, -81.642980	
Tide:	☒ Rising ☐ Falling ☐ Slack ☐ N/A	High Tide Time:	710	Low Tide Time: 1300

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)
11/30/21	1035	8.84	87.0	14.4	7.46	0.2	1634	0.83	0.4 (S)	0.4

Bloom Observations					
Algal Bloom Observed?	☐ Yes	☒ No			
Water Surface	☒ Clear	☐ Scum	☐ Globbs	☐ 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: _____

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
	Lot SA1105060	Exp: 4/30/22	☐ <2		
Filtered Nutrients (P125mL)	☒ W-PO4-F ☒ Field Filtered 0.45um Filter	☒ Ice		1	B
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C	☐ Ice ☐ Lugols			

Relinquished By:	Date/Time	Number of Coolers Shipped	Received By:	Date/Time
B. D.	11/30/21 1600	2		

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-25-41		Collected By: B Travis, K Villinger								
Customer	NE-Dist	Field Report Prepared By: B Travis								
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP							
Field ID:		Comments:								
WIN ID/Field ID:  NEHAB0046 Plummer's Cove		Collection Equipment: Ortho #3								
Matrix:	Fresh	Grab	Coordinates: 30.19141, -81.637520							
Tide:	☒ Rising ☐ Falling ☐ Slack ☐ N/A	High Tide Time:	730 Low Tide Time: 1300							
Water Quality										
Date	Time ☒ EST ☐ CEN	D.O. (mg/L)	D.O. (%)	Temp °C	pH (SU)	Sample Depth (m)	Cond. (umho/cm)	Salinity (PPTH)	Secchi Disk (m)	Total Depth (m)
11/30/21	1000	9.24	92.8	15.4	7.76	0.3	1535	0.78	0.9	1.7
	1002	9.28	92.9	15.2	7.79	1.2	1725	0.88		
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: _____			
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	
	Lot	SA1105060			Exp:	4/10/22		☒ <2		
Filtered Nutrients (P125mL)	☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice			1	B	
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C				☐ Ice	☐ Lugols		B		
Relinquished By:	Date/Time		Number of Coolers Shipped			Received By:		Date/Time		
B - P -	11/30/21 1600		2							