

Effective Date: 11/30/2017
Review/Revision Date: 11/28/2017
Author: C. Swanson and J. Walters
AB-17-1.10

Site Name: Water Street Canal- Near Eilenton
Date: 07/10/2019

Appendix A

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-08 V2)

WATERBODY Manatee River		DATE (M/D/Y): 07/10/19	TIME: (AM) 1330	Case ID#: FF Water Street Canal- Near Eilenton				
COUNTY: Manatee	LOCATION: Manatee Canal to 4th Ave Monatee Palm Ave Canal SM		NEAREST TOWN/CITY: Bradenton					
Visit Type: Initial ☐ Recon ☐ Sampling ☐ Follow- ☒	Samples collected: ☒ yes ☐ no	Samples submitted to: FDEP		Photos Taken: ☒ yes ☐ no				
Sample collection method: Single Grab: ☒ Grab Composite: ☐ Depth integrated composite: ☐								
Sample & Analysis types: Aqueous: ☒ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐								
Algal ID & enumeration: ☒ Nutrients: ☒ Chl-a: ☒ AGP: ☐ Turbidity: ☐ Toxin: ☒								
Estimated size of bloom:		Impounded: ☐ yes ☐ no						
Lake/Estuary Typical depth 0.6 m deep		Stream/River/Canal 15 m wide						
Inflows: ☒ yes ☐ no		Typical Transect m deep m deep m deep						
Outflows: ☒ yes ☐ no		Water velocity m/s m/s m/s						
Canopy Cover: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐								
Description of Bloom/ Latitude Longitude								
Present Weather conditions Partly cloudy								
Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)								
Sketch bloom area on the attached map. Indicate wind direction. Wind from SW								
Last rain event								
Rainfall amount								
Contains 1:1 Sulfuric Acid Lot No.: SA7163030 Expires: 08/12/18 See Safety Data Sheet (SDS)								
WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond (µmho/cm) or Salinity (ppt):	DO % Sat	Sal	Secchi (m)
Top	0.3	28.6	7.41	4.29	10735	57.1	6.04	0.4
Mid-depth								
Bottom								
System Type: Stream: ☐ (1st - 2nd order 3rd - 4th order) 5th - 6th order 7th order or greater) Lake: ☐ Wetland: ☐ Estuary: ☒ Other: ☐								
Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐								
Water Surface (check box): Clear: ☒ Scum: ☐ Globbs: ☐ Slick: ☐								
Water Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐								
Bloom Color (check box): Green: ☐ Red: ☐ Brown: ☐ Other: ☐								
Abundance: Absent Rare Common Abundant								
Periphyton ☒ ☐ ☐ ☐								
Fish ☒ ☐ ☐ ☐								
Aquatic Macrophytes ☐ ☐ ☒ ☐								
Iron/sulfur Bacteria ☒ ☐ ☐ ☐								

VISIT TEAM:

F Faria & S Meyer

AGENCY:

**FDEP SW
RCC**

Effective Date: 11/30/2017
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AB-17-1.10

Site Name: Main Canal to 4th Ave
Date: 07/10/2019

Appendix A

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY Manatee River		DATE (M/D/Y): 07/10/19	TIME: (AM) 1405	Case ID#:																																		
COUNTY: Manatee	LOCATION: Main Canal to 4th Ave Water Street Canal		NEAREST TOWN/CITY: Ellenton																																			
Visit Type: Initial ☐ Recon ☐ Sampling ☒ Follow- ☒	Samples collected: ☒ yes ☐ no	Samples submitted to: Agar Ellenton	Photos Taken: ☒ yes ☐ no																																			
Sample & Analysis types: Aqueous: ☒ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐ Algal ID & enumeration: ☒ Nutrients: ☒ Chl-a: ☒ AGP: ☐ Turbidity: ☐ Toxin: ☒																																						
Estimated size of bloom: Lake/Estuary Typical depth: 1.8 m deep Inflows: ☒ yes ☐ no Outflows: ☒ yes ☐ no		Stream/River/Canal: 10 m wide Typical Transect: ☐ m deep ☐ m deep ☐ m deep Water velocity: ☐ m/s ☐ m/s ☐ m/s Left bank Middle Right bank																																				
Canopy Cover: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐																																						
Description of Bloom/ Latitude: Degrees Minutes Seconds Longitude: Degrees Minutes Seconds Partly cloudy																																						
Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map) Sketch bloom area on the attached map. Indicate wind direction. Wind from SW																																						
Last rain event Rainfall amount																																						
<table border="1"><thead><tr><th>WATER QUALITY</th><th>Depth (m):</th><th>Temp. (°C):</th><th>pH (SU):</th><th>D.O. (mg/l):</th><th>Cond. (µmho/cm) or Salinity (ppt):</th><th>DO% Sat</th><th>Sal</th><th>Secchi (m)</th></tr></thead><tbody><tr><td>Top</td><td>0.3</td><td>29.7</td><td>7.59</td><td>4.41</td><td>18343</td><td>61.5</td><td>10.78</td><td rowspan="3">0.6</td></tr><tr><td>Mid-depth</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Bottom</td><td>1.3</td><td>30.0</td><td>7.48</td><td>0.10</td><td>24499</td><td>1.4</td><td>14.79</td></tr></tbody></table>					WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	DO% Sat	Sal	Secchi (m)	Top	0.3	29.7	7.59	4.41	18343	61.5	10.78	0.6	Mid-depth								Bottom	1.3	30.0	7.48	0.10	24499	1.4	14.79
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VISIT TEAM:

F Faria & S Meyer

AGENCY:

**DEPSW
ROC**

Effective Date: 11/30/2017
Review/Revision Date: 11/28/2017
Author: C. Swanson and J. Walters
AB-17-1.10

Site Name: Manatee River @ Marker 28
Date: 07/10/2019

Appendix A

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY Manatee River		DATE (M/D/YY): 07/10/19	TIME: (AM) 1425	Case ID#:																																						
COUNTY: Manatee	LOCATION: Manatee River @ Marker 28		NEAREST TOWN/CITY: Ellenton																																							
Visit Type: Initial ☐ Recon ☐ Sampling ☐ Follow- ☒	Samples collected: ☒ yes ☐ no	Samples submitted to: FDEP		Photos Taken: ☒ yes ☐ no																																						
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Estimated size of bloom:		Impounded: ☐ yes ☐ no																																								
Lake/Estuary Typical depth: 2.3 m deep		Stream/River/Canal: 1000 m wide																																								
Inflows: ☐ yes ☐ no		Typical Transect: ☐ m deep ☐ m deep ☐ m deep																																								
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Iron/sulfur Bacteria	☒	☐	☐	☐																																						

VISIT TEAM: **Francisco Faria** **Sarah Meyer** AGENCY: **FDEP SW ROC**

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: Chewy

RQ: 2019-07-01-60

Project: Monatee Follow Up

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 05/14/19

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.	F. Faria	07/10/19	1117	23.0	761.1	8.6	8.59	100.1	-	1.0158	(P) F	L / F
ICV			1118		761.0			100.2	-	-	(P) F	(L) F
CCV			1618	24.4	760.4	8.4	8.43	100.8	-	-	(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.	F. Faria	07/10/19	1121	2801929	12/19	70,000	70,000	(P) F	(L) F
ICV			1125	2904A78	03/21	10,000	10149	(P) F	(L) F
CCV			1630	2709B98	09/19	50,000	50379	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.	F. Faria	07/10/19	1130	188510	01/21	7.00	23.2	7.00	-19.4	(P) F	(L) F
Calibr.			1136	191303	03/21	4.00	23.4	4.00	158.1	(P) F	(L) F
Calibr.			1140	187680	12/20	10.02		10.02	-194.0	(P) F	(L) F
ICV			1142				23.3	10.00	-	(P) F	(L) F
CCV			1634	188510	01/21	7.00	23.5	6.99	-	(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 10 174.6, slope from 4 to 7 177.5 (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: _____

If NO, what will be used? 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	F. Faria	07/10/19	1143	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:

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: WQAP

Project ID: BLOOM-RES

Requester: John Watts

Field Report Prepared By: S Meyer

Collected By: F Faria & S Meyer

Sampling Agency: FDEP SWD

Site Name: Water Street Canal- Near Ellenton

Date: 07/10/2019

Site Name: Main Canal to 4th Ave

Date: 07/10/2019

Site Name: Manatee River @ Marker 28

Date: 07/10/2019

Loc	Latitude	Longitude	Comp	Grab	Collection (comp begin or grab)	Date	Time	Composite end	Eastern	Central	Date	Time	Bottle Group(s)
			☒ Comp	☒ Grab	Matrix (type, e.g., Salt, Fresh, etc)	07/10/19	1330		☒ mg/L	☐ % sat			A, B, C
					Diss. Oxygen				☒ mg/L	☐ % sat			D
					Temp (C)	28.6			☐ ft	☒ m			
					pH	7.41							
					Sample Depth								
					Salinity (ppt)	6.04							
					Comments								
			☒ Comp	☒ Grab	Matrix (type, e.g., Salt, Fresh, etc)	07/10/2019	1405		☒ mg/L	☐ % sat			A, B, C
					Diss. Oxygen				☒ mg/L	☐ % sat			D
					Temp (C)	29.7			☐ ft	☒ m			
					pH	7.59							
					Sample Depth								
					Salinity (ppt)	10.78							
					Comments								
			☒ Comp	☒ Grab	Matrix (type, e.g., Salt, Fresh, etc)	07/10/2019	1425		☒ mg/L	☐ % sat			A, B, C
					Diss. Oxygen				☒ mg/L	☐ % sat			D
					Temp (C)	29.0			☐ ft	☒ m			
					pH	7.76							
					Sample Depth								
					Salinity (ppt)	10.08							
					Comments								
			☒ Comp	☒ Grab	Matrix (type, e.g., Salt, Fresh, etc)	07/10/2019	1723		☒ mg/L	☐ % sat			A, B, C
					Diss. Oxygen				☒ mg/L	☐ % sat			D
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					Sample Depth								
					Salinity (ppt)	10.08							
					Comments								
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					pH	7.76							
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					Salinity (ppt)	10.08							
					Comments								
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					Diss. Oxygen				☒ mg/L	☐ % sat			D
					Temp (C)	29.0			☐ ft	☒ m			
					pH	7.76							
					Sample Depth								
					Salinity (ppt)	10.08							
					Comments								

Relinquished By: Sarah Meyer	Date: 07/10/2019	Shipping Method: FedEx	Number of Coolers Shipped: 1	Received By:	Date/Time:
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