

Appendix A

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

WATERBODY Lake Washington		DATE (M/D/YY): 7/19/19	TIME: (AM) 1210	Case ID#
COUNTY: Brevard	LOCATION: NE Shore line		NEAREST TOWN/CITY: Melbourne	
Visit Type: ☒ Initial ☐ Recon ☐ Sampling ☐ Follow-	Samples collected: ☒ yes ☐ no	Samples submitted to: FDEP Central Lab		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: ☒ microcystin Specify				
Estimated size of bloom: 5-10 acre		Impounded: ☐ yes ☒ no		
Lake/Estuary Typical depth 0.8 m deep	Inflows: ☒ yes ☐ no	Outflows: ☒ yes ☐ no		
Stream/River/Canal Typical Transect Water velocity Left bank Middle Right bank		m wide m deep m deep m deep m/s m/s m/s		
Canopy Cover: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐				
Description of Bloom/ Latitude Degrees Minutes Seconds Longitude Degrees Minutes Seconds see notes below 28.17155, -80.74764				
Present Weather conditions see notes below				
Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map) Last rain event				
Sketch bloom area on the attached map. Indicate wind direction. Rainfall amount				

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Secchi (m)
Top	0.3	34.1	9.26	13.48	808	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: ☒ Sweet cyanobacteria (small)
Water Surface (check box): Clear: ☐ Scum: ☐ Glob: ☒ (minimal, striations) Slick: ☐
Water Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☒ Opaque: ☐
Bloom Color (check box): Green: ☒ Red: ☐ Brown: ☐ Other: ☐

Notes: Storms approaching from the S.E., light winds. Entire lake surveyed, subsiding bloom observed only along NE littoral zone of lake.	Abundance:	Absent	Rare	Common	Abundant
	Periphyton	☐	☐	☒	☐
	Fish	☐	☐	☐	☒
	Aquatic Macrophytes	☐	☐	☐	☒
	Iron/sulfur Bacteria	☒	☐	☐	☐

VISIT TEAM:
Mike Drennan
Leif Boman

[Signature]

AGENCY:

FDEP-CEROC

Field Report Prepared By: Lawrence (Mike) Drennan
Sampling Agency: EDAP - CEROC

Location		☒ Comp ☐ Grab		Collection (comp begin or grab)		☒ Eastern Central ☐ Central		Composite end		Bottle Group(s)
		Matrix (type, e.g., Salt, Fresh, etc)		Date		Time		mg/L Total Res. Chlorine		(See pg 2)
Algae Bloom Sampling Kit Lake Washington, Brevard County 7/19/2019 Leif Boman/Mike Drennan RQ-2019-06-24-31				7/19/19		1210		☒ mg/L Total Res. Chlorine ☐ % sat (mg/L)		A, B, C, D
Temp (C) 34.1 pH 9.26 Salinity (ppt) Comments		Sample Depth 0.3 Sp. Conductance (umho/cm) 808								
Location Field ID W/N/STORET #		☐ Comp ☐ Grab Collection (comp begin or grab) Date Time		Eastern Central Composite end Date Time		Bottle Group(s)				
Latitude Longitude Salinity (ppt) Comments		Temp (C) pH Sample Depth Sp. Conductance (umho/cm)								
Location Field ID W/N/STORET #		☐ Comp ☐ Grab Collection (comp begin or grab) Date Time		Eastern Central Composite end Date Time		Bottle Group(s)				
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Latitude Longitude Salinity (ppt) Comments		Temp (C) pH Sample Depth Sp. Conductance (umho/cm)								

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Nike Drewnen	330 7/17/19 1530	FedEx (Saturday)	1		

Group: A	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
BLOOM-ID						
Group: B	Bottle Type:	BG-250ML-WDMT H	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
W-MCYST-AA						
Group: C	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
CHLSUITE-W						
Group: C	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab
W-NH3						
W-NO2NO3						
W-S-A-TP						
W-TKN						
H2SO4 LOT# SA7163030 EXP: 10/30/2019						
Group: C	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab
W-PO4-F						
Group: D	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	Lugols	Enter Number of Bottles Sent to Lab
DTY-QN-C						
PKD-QN-C						

Cooler Packing Worksheet for Request: RQ-2019-06-24-31

Algal Bloom Response - As needed

Ship Cooler On: 6/14/2019

Customer/Project: WQAP/BLOOM-RESP

Assigned To: REYNOLDS_T

Requester: Michael Linger

Priority: 1

407-897-4180
3319 Maguire Blvd
Suite 232
Orlando, FL 32803

Attn: Mike Linger

Comments:

No preservatives needed.

Unless peak algal bloom season, may analyze toxin after consultation with Biology's Taxonomy Manager.

Bottle Groups A/B/C - separate event, priority 1

Bottle Group D- separate event, priority 12

Bottle Group A - Priority 1

For algal dominant taxon.

Bottle Group B - Priority 1

For toxin testing.

Bottle Group C - Priority 1

Water quality testing - nutrients and chlorophyll

Bottle Group D - Priority 12

For algal full ID.

There are multiple bottles per Group in case multiple sample targets or sample locations are needed. Samplers use best professional judgement to decide which samples are appropriate to collect for a particular response. All sets of bottles do not have to be filled at one time.

Please print two copies of algal job labels at login.

Requested Analyses:

Bottle Group: A

of Sites: 1

Container ID: PT-50ML

Qty: 1 Preservation: ICE

Lot # 03775003

Description: Plastic Tube 50 mL

Analysis

BLOOM-ID

Description

Assessment of dominant algal taxa in bloom or mat sample

Bottle Group: B**# of Sites: 1**

Container ID: BG-250ML-WDMTH Qty: 1 Preservation: ICE

Lot # 00072562

Description: Wide Mouth Amber Glass Bottle 250 ml

Analysis

W-MCYST-AA

Description

Microcystins in water matrices by HPLC/MS/MS

Bottle Group: C**# of Sites: 1**

Container ID: BP-1L Qty: 1 Preservation: ICE

Lot # 1248230

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML

Qty: 1 Preservation: ICE And H2SO4

Lot # 00073854

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Container ID: P-125ML

Qty: 1 Preservation: FILTER-ICE

Lot # 00073850

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: D**# of Sites: 1**

Container ID: BP-1L Qty: 1 Preservation: Lugols

Lot # 1248230

Description: Brown Plastic Bottle 1L

Analysis**Description**

DTY-QN-C

No. of diatom taxa of quantitative phytoplankton sample.

PKD-QN-C

No. of wet taxa of quantitative phytoplankton sample.

Cooler Packed By: Tyler Reynolds Number of Coolers: 1 Date: 06/10/19

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle
- ☒ FedEx Bills, if applicable
- ☒ Plastic Bags/Zip Ties
- ☒ Acid Labels (sets of 24)

If Preservation Included:

ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2019-06-24-31