

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Algal Bloom Response - As needed

last revised Jan 25, 2018

Customer: WQAP

Requester: Michael Linger

Field Report Prepared By: Mike Drennan

Project ID: BLOOM-RESP

Collected By: Mike Drennan

Sampling Agency: FDEP-CEROC

Location		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 7/11/18 Time 1021	Eastern Central	Composite end Date Time	Bottle Group(s) (See pg 2)
Algae Bloom Sampling Kit RQ-2018-07-09-43 Location: Sawgrass Lake 7/11/2018 Mike Drennan, Mike Linger		Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 10.08	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	A, B, C, D
		Temp (C) 29.7	pH 9.18	Sample Depth 0.3	Sp. Conductance (umho/cm) 123.3	
		☐ dd ☐ dms	Salinity (ppt)	Comments		
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		
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
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Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments		
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WIN/STORET #		Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments		

Relinquished By: Mike Drennan	Date/Time 7/11/18	Shipping Method FedEx	Number of Coolers Shipped: 1	Received By:	Date/Time
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Group: A	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
BLOOM-ID							
Group: B	Bottle Type:	BG-500ML-WDMT H	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
W-MCYST-AA							
Group: C	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
CHLSUITE-W							
Group: C	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
W-NH3						HNO3 LOT# NA8067020 EXP: 03/08/2019	
W-NO2NO3							
W-S-A-TP							
W-TKN							
Group: C	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
W-PO4-F							
Group: D	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	Lugols	Enter Number of Bottles Sent to Lab	1
DTY-QN-C							
PKD-QN-C							

Appendix A

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

WATERBODY Sawgrass Lake		DATE (M/D/YY): 7/11/18	TIME: (AM) 1021	Case ID# RQ-2018-07-09-43
COUNTY: Lake	LOCATION: 6000 Cook Rd		NEAREST TOWN/CITY: Clermont	
Visit Type: Initial ☒ Recon ☐ Sampling ☒ Follow-up ☐	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: ☒				
Estimated size of bloom:		Impounded: ☐ yes ☐ no		
Lake/Estuary Typical depth 1.6 m deep	Inflows: ☐ yes ☐ no	Outflows: ☐ yes ☐ no		
Stream/River/Canal		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		
Present Weather conditions		Longitude		
90's clear		28.433369		
		-81.689660		
Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)		Last rain event 7/6/18		
Sketch bloom area on the attached map. Indicate wind direction.		Rainfall amount 0.5"		

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	DO. m/s/l	Secchi (m)
Top	0.3	29.7	9.18	133.7	123.3	10.08	
Mid-depth	1.6	29.1	7.35	75	128.1	5.75	0.5
Bottom							

Total Depth 2.1

System Type: Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater)	Lake: ☒ Wetland: ☐ Estuary: ☐ Other: ☒ algal smell
Water Odors (check box): Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☒ limb thick	
Water Surface (check box): Clear: ☐ Scum: ☐ Glob: ☒ Slick: ☐	
Water Clarity (check box): Clear: ☐ Slightly turbid: ☒ Turbid: ☐ Opaque: ☐	
Bloom Color (check box): Green: ☒ Red: ☐ Brown: ☐ Other: ☐	
Notes: 90's sunny, clear	
Abundance: Absent Rare Common Abundant	
Periphyton ☐ ☒ ☐ ☐	
Fish ☐ ☐ ☒ ☐	
Aquatic Macrophytes ☐ ☐ ☒ ☐	
Iron/sulfur Bacteria ☒ ☐ ☐ ☐	

VISIT TEAM:

Mike Drennan / Mike Linger AGENCY: **FDEP-CEROC**

Algae Bloom Sampling Kit
RQ-2018-07-09-43
Location: Sawgrass Lake
7/11/2018 Mike Drennan, Mike Linger

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HN03
LOT# NA8067020
EXP: 03/06/2019

Cooler Packing Worksheet for Request: RQ-2018-07-09-43

Algal Bloom Response - As needed

Ship Cooler On: 6/29/2018

Customer/Project: WQAP/BLOOM-RESP

Assigned To: REYNOLDS_T

Requester: Michael Linger

Priority: 3

407-897-4180
3319 Maguire Blvd
Suite 232
Orlando, FL 32803
Attn: Mike Linger

Please return
packing list with
sample submittal
forms.

Comments:

No preservatives needed.

Analyze toxin upon receipt after consultation with Biology's Taxonomy Manager.

Bottle Groups A/B - separate event, priority 1

Bottle Groups C/D - separate event, C - priority 3, D - priority 12

Bottle Group A - Priority 1

For algal dominant taxon.

Bottle Group B - Priority 1

For toxin testing.

Bottle Group C - Priority 3

Water quality testing

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.

Requested Analyses:

Bottle Group: A

of Sites: 1

Container ID: PT-50ML

Qty: 1 Preservation: ICE

Lot # 03775803

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-500ML-WDMTH Qty: 1 Preservation: ICE

Lot # 0006747

Description: Wide Mouth Amber Glass Bottle 500 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 # 1223623

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 # 00070684

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 # 00070886

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 # 1227623

Description: Brown Plastic Bottle 1L

Analysis
DTY-QN-C
PKD-QN-C

Description
No. of diatom taxa of quantitative phytoplankton sample.
No. of wet taxa of quantitative phytoplankton sample.

Cooler Packed By: Tyler R.

Number of Coolers: 1

Date: 06/25/18

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-2018-07-09-43