



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

DO

WIN Station Name: Lake Arrowhead at boat dock at Turtle Crk Ln near outlet

Date: 05/29/2019
(mm/dd/yyyy)

WIN/ Field ID: G1WA0004 ✓

WBID: 564A

Latitude: 30.568517

(Decimal Degrees)

County: Leon

ORG ID: 21FLWQA

Longitude: -84.218058

(Decimal Degrees)

Receiving Body of Water: Pine Hill Lake

RQ: 2019-03-04-69

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis Mussen					✓	✓	✓	✓	✓
Will Isler					✓	✓	✓	✓	✓

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>Sonar #1</u>		
Equipment ID		

Collection Method		
☐ Wading	☐ Canoe/Kayak	
☒ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded
Photos: Yes / No
Flow: No Flow / Intertidal / Flowing / NA
Meter ID# Biologu #2
Matrix: Fresh / Marine / DI
Tide: Rising/ Falling/ Slack NA
Tide Times: High NA Low NA

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1047	1.2	0.3	0.8	7.59	103.5	7.7	0.04	85	31.8
CEN	-	-	-	-	-	-	-	-	-	-

Biological Samples Collected: NONE HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4	8344070	12/10/19	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / ☒ W-F / ☒ W-TSS / ☒ TURBIDITY / ☒ W-CL-IC / ☒ W-COLOR / ☒ W-SO4-IC / ☒ W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / ☐ W-BR-IC / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococci	☒ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes:

WIN ID / FILED ID →

G1WA0004

Location: Lake Arrowhead at boat dock at Turtle Crk Ln near outlet

Signature: Curtis Mussen Date: 5/29/19

LIMS EVENT ID: WAS-SECT-2019-05-29-01 WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: 6/10/19 QC Station ID, Field Parameters In LIMS DMT: 6/14/19

Scan/Save Field Sheets (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is qualified data on this meter

Meter ID: Bio # RQ: 2019-03-04-69 Project: SMP

- 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.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

DO DEP SOP FT 1500	Name	Date	Time CT	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	5/29/19	7:48	22.44	8.677	8.67	100.0	66.5	-	Ⓟ / F	Ⓟ / F
ICV	Curtis Musson	5/29/19	7:49	22.44	8.677	8.67	100.0	67.6	-	Ⓟ / F	Ⓟ / F
CCV	Curtis Musson	5/29/19	12:53	21.28	8.863	8.89	95.7	69.6	-	P / Ⓟ	Ⓟ / F
CCV										P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	5/29/19	7:17	180927D	10/2019	500	500	Ⓟ / F	Ⓟ / F
ICV	Curtis Musson	5/29/19	7:19	180927D	10/2019	500	500	Ⓟ / F	Ⓟ / F
CCV	Curtis Musson	5/29/19	12:50	2808884	7/2020	100	103	Ⓟ / F	Ⓟ / F
CCV								P / F	L / F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	5/29/19	7:22	180621F	01/2020	7.0	7.00	-78.4	Ⓟ / F	Ⓟ / F
Calibr.	Curtis Musson	5/29/19	7:25	190405B	10/2020	4.0	4.01	157	Ⓟ / F	Ⓟ / F
Calibr.	Curtis Musson	5/29/19	7:29	180621F	01/2020	10.0	9.98	-186	Ⓟ / F	Ⓟ / F
ICV	Curtis Musson	5/29/19	7:30	180621F	01/2020	10.0	9.97	-186	Ⓟ / F	Ⓟ / F
CCV	Curtis Musson	5/29/19	12:47	180621F	01/2020	7.02	7.15	-23	Ⓟ / F	Ⓟ / 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 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth verification

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air	Curtis Musson	5/29/19	7:21	0.00	0.00	Ⓟ / F	Ⓟ / F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

25.112

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: WAS-SECT

Requester: Curtis Musson

Field Report Prepared By:

Curtis Musson/Vull

Project ID: SMP

Collected By: Curtis Musson

Sampling Agency:

FDEP

Lasley

Location	WIN ID / FILED ID	Matrix (type, e.g., Salt, Fresh, etc)	Temp (C)	pH	Salinity (ppt)	Comp	Collection (comp begin or grab)	Time	Sample Depth	Diss. Oxygen	% sat	Total Res. Chlorine	Bottle Group(s)
Upper Dianne Lake Middle	G1WA0041	Fresh	31.6	9.1	0.05	Comp	5/29/18	0931	0.3	120.3	100	—	B
Latitude	dd	Longitude	dd	dd	dd	dd	dd	dd	dd	dd	dd	dd	
WIN/STORET #	Location	Matrix (type, e.g., Salt, Fresh, etc)	Temp (C)	pH	Salinity (ppt)	Comp	Collection (comp begin or grab)	Time	Sample Depth	Diss. Oxygen	% sat	Total Res. Chlorine	Bottle Group(s)
	Lower Dianne Lake Middle	Fresh	31.3	8.3	0.04	Comp	5/29/18	0846	0.3	103.0	100	—	B
Latitude	dd	Longitude	dd	dd	dd	dd	dd	dd	dd	dd	dd	dd	
WIN/STORET #	Location	Matrix (type, e.g., Salt, Fresh, etc)	Temp (C)	pH	Salinity (ppt)	Comp	Collection (comp begin or grab)	Time	Sample Depth	Diss. Oxygen	% sat	Total Res. Chlorine	Bottle Group(s)
	Pine Hill Lake Middle	Fresh	31.6	8.7	0.03	Comp	5/29/18	1012	0.3	120.4	100	—	B
Latitude	dd	Longitude	dd	dd	dd	dd	dd	dd	dd	dd	dd	dd	
WIN/STORET #	Location	Matrix (type, e.g., Salt, Fresh, etc)	Temp (C)	pH	Salinity (ppt)	Comp	Collection (comp begin or grab)	Time	Sample Depth	Diss. Oxygen	% sat	Total Res. Chlorine	Bottle Group(s)
	Lake Arrowhead at boat dock at Turtle Ck Ln near outlet	Fresh	31.8	7.7	0.04	Comp	5/29/18	1047	0.3	103.5	100	—	B
Latitude	dd	Longitude	dd	dd	dd	dd	dd	dd	dd	dd	dd	dd	

Relinquished By:

Date/Time

Shipping Method

Number of Coolers Shipped:

Received By:

Date/Time

Curtis Musson

5/29/18 12:25

Drop off

2

[Signature]

Shells NW

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last revised Jan 25, 2018Will Lasky

FILED - WORK

Refrigerated By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
CNA/WL	5/29/18	HD	7	[Signature]	5/29/18 10:21

Refrigerated By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
CNA/WL	5/29/18	HD	7	[Signature]	5/29/18 10:21

Group: A	Bottle Type:	P-1L	# of Bottles: 5	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 5	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	CHLSUITE-W						
Group: A	Bottle Type:	P-500ML	# of Bottles: 5	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab	0
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 5	Preservative: FILTER-ICE		Enter Number of Bottles Sent to Lab	0
	W-PO4-F						
Group: B	Bottle Type:	P-1L	# of Bottles: 5	Preservative: ICE		Enter Number of Bottles Sent to Lab	5
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: B	Bottle Type:	BP-1L	# of Bottles: 5	Preservative: ICE		Enter Number of Bottles Sent to Lab	5
	CHLSUITE-W						
Group: B	Bottle Type: P-250ML-WO-THI	# of Bottles: 5	Preservative: ICE		Enter Number of Bottles Sent to Lab	5	
	ECOLL-18QT						
Group: B	Bottle Type:	P-500ML	# of Bottles: 5	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab	5

Bottle Type:

P-500ML

of Bottles: 5

Preservative: ICE And H2SO4

Enter Number of Bottles Sent to Lab

6

W-NH3

W-NO2NO3

Lot # 5A 8344070

W-S-A-TP

W-TKN

W-TOC

Exp. 12/10/2019

Group: B

Bottle Type:

P-125ML

of Bottles: 5

Preservative: FILTER-ICE

Enter Number of Bottles Sent to Lab

5

Cooler Packing Worksheet for Request: RQ-2019-03-04-69

Tallahassee Lakes

Ship Cooler On: 3/1/2019

Customer/Project: WAS-SECT/SMP

Assigned To: REAVES_S

Requester: Curtis Musson

Priority: 3

850-245-8453

2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

~~Group A: Nutrients x5~~

~~WBIDs: 546A, 546B, 564A, 564B, 647A~~
~~Lakes~~

Completed 4/10/2019

✓
Group B: ~~Killebrew Chain of Lakes Outlet, 647L~~
Nutrients, E. coli

5-29-2019

Packing Notes:

No FedEx Labels

No Trash Bags

1 - case of sulfuric acid

2 - sets of sulfuric acid labels

Requested Analyses:

Bottle Group: A

of Sites: 5

Container ID: P-1L

Qty: 5 Preservation: ICE

Lot # 00071991

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 5 Preservation: ICE

Lot # 1246281

Description: Brown Plastic Bottle 1L

Analysis

Description

Container ID: P-500ML

Qty: 5 Preservation: ICE And H2SO4

Lot # 00073297

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

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

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 5 Preservation: FILTER-ICE

Lot # 00072954

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

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

Bottle Group: B# of Sites: 5

Container ID: P-1L

Qty: 5 Preservation: ICE

Lot # 00071991

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 5 Preservation: ICE

Lot # 1246281

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

120SR
Container ID: P-250ML-WO-THI

10-SR
Qty: 5 Preservation: ICE

Lot # 6A20-TN

Description: 250ml Sterilized no tablet
120-SR

Replacement Containers

Analysis
ECOLI-18QT

Description
Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems

Container ID: P-500ML

Qty: 5 Preservation: ICE And H2SO4

Lot # 00073297

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis
W-NH3
W-NO2NO3
W-S-A-TP
W-TKN
W-TOC

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
Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 5 Preservation: FILTER-ICE

Lot # 00072954

Description: Plastic Bottle 125 mL

Analysis
W-PO4-F

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

Cooler Packed By: SR Number of Coolers: 3 Date: 2-25-19

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	Sulfuric Acid	Exp	12-10-19	Lot #	SA 8344070
ID		Exp		Lot #	
ID		Exp		Lot #	
ID		Exp		Lot #	
ID		Exp		Lot #	

PLEASE RETURN ALL COOLERS FOR RQ-2019-03-04-69