FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

pH + DO ✓
Data Qualified? (Yes) / No

WIN Station Name: Little River 100 meters upstream of US 90 **Date:** 9/30/2019 ✓ (mm/dd/yyyy)

WIN/ Field ID: G1WA0073 ✓ **WBID:** 424 **Latitude:** 30.554619 (Decimal Degrees)

County: Gadsden **ORG ID:** 21FLWQA **Longitude:** -84.513191 (Decimal Degrees)

Receiving Body of Water: Lake Talquin **RQ-** 2019-09-30-58

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Blake Spencer	X	X			
Evelyn Becerra			X	X	X

Sampling Equipment
- [x] Sample Container [ ] Van Dorn [ ] Pole
- [ ] Carboy [x] Syringe
- [ ] Dipper [ ] Other
- Depth Measured with YSI Pro DSS
- Equipment ID 18J104543

Collection Method
- [x] Wading [ ] Canoe/Kayak
- [ ] From Shore [ ] Electric Motor
- [ ] Other [ ] Gasoline Motor

Water Level: Dry/ Pooled/ (Low) / Normal / High / Flooded

Meter ID# 18J104543

Matrix: (Fresh) / Marine / DI

Photos: (Yes) / No

Flow: No Flow / Intestital / (Flowing) / NA

Tide: Rising/ Falling/ Slack/ (NA)

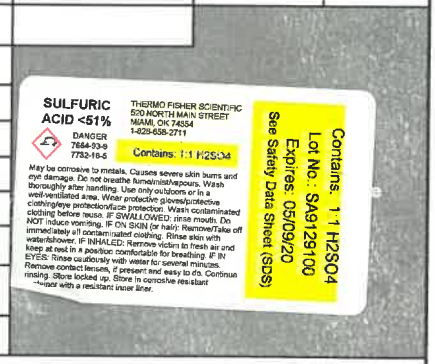
Tide Times: High NA Low NA

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPTh)	Sp COND (µmhos/cm)	Temp. (C°)
(EST)	9:34 ✓	1.0 ✓	0.3 ✓	0.4 ✓	7.78 ✓	93.1 ✓	6.71 ✓	0.04 ✓	870 ✓	24.4 ✓
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 ✓	[x] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	[x] Ice [x] H_2SO_4	SA9129100	05/09/20	[x] <2
Metals	[ ] W-ICPMS [ ] W-ICP	[ ] Ice [ ] HNO_3			[ ] <2
Filtered Nutrients ✓	[x] W-PO4-F [x] Field Filtered 0.45 µm Filter	[x] Ice			
Chlorophyll ✓	[x] CHLSUITE-W	[x] 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:

Nutrients
Metals
~~E. Coli~~ Limited Nutrients
AGP

10/18/19 - AWM
AGP Limit cancelled

WIN ID / FILED ID → G1WA0073

Location: Little River 100 meters upstream of US 90

Signature: [signature] **Date:** 9/30/19

LIMS EVENT ID: WQAP-2019-09-30-02 **WIN Import ID:**

Enter Field Parameters, Verify Station ID In LIMS DMT: [illegible] 10/7/19 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** AWM 10/18/19 (Initials/Date)

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

Request Number: RQ-2019-09-30-58

Streams AGP

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: WQAP

Project ID: SPPROJECTS

Requester: Julie K. Espy

Collected By: Blake Spencer & Evelyn Becerra

Field Report Prepared By: Blake Spencer

Sampling Agency: FBEP

Location

Field ID

WIN ID / FILED ID → G1WA0073

WIN/STORET #

Location: Little River 100 meters upstream of US 90

Latitude ☐ dd ☐ dms

Longitude ☐ dd ☐ dms

☐ Comp ☒ Grab

Collection (comp begin or grab) Eastern / Central: Date 9/30/2019 Time 9:34

Composite end: Date Time

Bottle Group(s) (See pg 2): A

Matrix (type, e.g., Salt, Fresh, etc): Fresh

Diss. Oxygen: 93.1 ☐ mg/L ☒ % sat

Total Res. Chlorine (mg/L): —

Temp (C): 24.4

pH: 6.71

Sample Depth: 0.3 ☐ ft ☒ m

Sp. Conductance (umho/cm): 87.0

Salinity (ppt): 0.04

Comments:

Location

Field ID

WIN ID / FILED ID → G1WA0086

WIN/STORET #

Location: Little River at Highbridge Road

Latitude ☐ dd ☐ dms

Longitude ☐ dd ☐ dms

☐ Comp ☒ Grab

Collection (comp begin or grab) Eastern / Central: Date 9/30/2019 Time 12:01

Composite end: Date Time

Bottle Group(s): A

Matrix (type, e.g., Salt, Fresh, etc): Fresh

Diss. Oxygen: 84.0 ☐ mg/L ☒ % sat

Total Res. Chlorine (mg/L): —

Temp (C): 25.4

pH: 6.47

Sample Depth: 0.3 ☐ ft ☒ m

Sp. Conductance (umho/cm): 87.7

Salinity (ppt): 0.04

Comments:

Location

Field ID

WIN ID / FILED ID → G1WA0094

WIN/STORET #

Location: Little River Near Budd Park

Latitude ☐ dd ☐ dms

Longitude ☐ dd ☐ dms

☐ Comp ☒ Grab

Collection (comp begin or grab) Eastern / Central: Date 9/30/2019 Time 1445

Composite end: Date Time

Bottle Group(s): A

Matrix (type, e.g., Salt, Fresh, etc): Fresh

Diss. Oxygen: 79.5 ☐ mg/L ☒ % sat

Total Res. Chlorine (mg/L): —

Temp (C): 27.9

pH: 6.30

Sample Depth: 0.3 ☐ ft ☒ m

Sp. Conductance (umho/cm): 90.4

Salinity (ppt): 0.04

Comments:

Location

Field ID

WIN ID / FILED ID → G1WA0093

WIN/STORET #

Location: Richlander Creek at CR 65B

Latitude ☐ dd ☐ dms

Longitude ☐ dd ☐ dms

☐ Comp ☒ Grab

Collection (comp begin or grab) Eastern / Central: Date 9/30/2019 Time 1101

Composite end: Date Time

Bottle Group(s): A

Matrix (type, e.g., Salt, Fresh, etc): Fresh

Diss. Oxygen: 100.6 ☐ mg/L ☒ % sat

Total Res. Chlorine (mg/L): —

Temp (C): 22.8

pH: 6.08

Sample Depth: 0.1 ☐ ft ☒ m

Sp. Conductance (umho/cm): 68.0

Salinity (ppt): 0.03

Comments:

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
	9/30/19 1612	Hand Delivered			

Group: A	Bottle Type: AA-AGP	OP-500ML	# of Bottles: 18	Preservative:	ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: AA-LIM-NUT	BP-1L	# of Bottles: 18	Preservative:	ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 9	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN	P-500ML	# of Bottles: 9	Preservative: ICE And H2SO4 H2S04 LOT# SA9129100 EXP: 05/09/2020		Enter Number of Bottles Sent to Lab	4
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 9	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	4

pH & DO

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: 19J104543 RQ- 2019-09-30-54 Project: AEM Stream

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 _____

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.	Blake Spencer	9/30/19	0716	21.2	760.0	8.98	8.88	100	—	1.129	(P) F	(L) F
ICV	"	9/30/19	0717	21.2	760.0	8.98	8.89	100.2	—	—	(P) F	(L) F
CCV	"	9/30/19	1650	22.6	752.6	8.64	9.37	108.5	—	—	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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	B. Spencer	9/30/19	0720	190619F	06/2020	1000	1000	(P) F	(L) F
ICV	"	9/30/19	0721	190619F	06/2020	1000	1000	(P) F	(L) F
CCV	"	9/30/19	1637	2908181	09/2021	100	101.9	(P) F	(L) F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 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.	B. Spencer	9/30/19	0726	190618B	12/2020	7.01	22.3	7.01	-44.3	(P) / F	(L) F
Calibr.	"	9/30/19	0729	190618A	12/2020	4.00	22.5	4.00	129.4	(P) F	(L) F
Calibr.	"	9/30/19	0731	190618C	12/2020	10.03	22.4	10.03	-214.7	(P) F	(L) F
ICV	"	9/30/19	0732	190618C	12/2020	10.03	22.4	10.02	-213.6	(P) F	(L) F
CCV	"	9/30/19	1646	190618A	12/2020	4.00	22.5	4.30	111.8	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 ± 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)

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? (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	B. Spencer	9/30/19	0733	0.000	0.000	(P) F	(L) F

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

COMMENTS:

Cooler Packing Worksheet for Request: RQ-2019-09-30-58
Streams AGP
Ship Cooler On: 9/26/2019
Customer/Project: WQAP/SPPROJECTS

Assigned To: SHAIK_A
Requester: Julie K. Espy
Priority: 3

850-245-8416
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400

Attn: Julie Espy

Comments:
1 - case of sulfuric acid
2 - sets of labels

Please note change in bottles for AGP/LIMNUT

Requested Analyses:

Bottle Group: A **# of Sites: 9**

Container ID: OP-500ML **Qty: 18** **Preservation: ICE** **Lot #** 1197356

Description: Opaque Plastic Bottle 500mL - Biology AGP Analysis

Analysis	Description
AA-AGP	Potential algal growth determination.

Container ID: BP-1L **Qty: 18** **Preservation: ICE** **Lot #** 1259820

Description: Brown Plastic Bottle 1L

Analysis	Description
AA-LIM-NUT	Nutrient(s) limiting algal growth determination.

Container ID: BP-1L **Qty: 9** **Preservation: ICE** **Lot #** 1259820

Description: Brown Plastic Bottle 1L

Analysis	Description
CHLSUITE-W	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML **Qty: 9** **Preservation: ICE And H2SO4** **Lot #** [illegible]

Description: Plastic Bottle 500 mL Affix YELLOW sulfuric acid dot to container.

Analysis	Description
W-NH3	Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Total Kjeldahl Nitrogen in aqueous matrices

Container ID: P-125ML **Qty: 9** **Preservation: FILTER-ICE** **Lot #** [illegible]

Description: Plastic Bottle 125 mL

Analysis	Description
W-PO4-F	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Cooler Packed By: ABS Number of Coolers: 5 Date: 9-25-19

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 H2SO4	Exp		Lot #
ID LOT# SA9129100	Exp		Lot #
ID EXP: 05/09/2020	Exp		Lot #
ID	Exp		Lot #
ID	Exp		Lot #

PLEASE RETURN ALL COOLERS FOR RQ-2019-09-30-58

Shaik, Amzad

From: Watts, John
Sent: Tuesday, September 24, 2019 10:08
To: Tintle, Andrew; Shaik, Amzad; Wood-McGrath, Avril
Cc: Spencer, Blake; Ayres, Joshua
Subject: RE: RQ-2019-09-30-58

Andy/Amzad/Avril:
I'm going to modify the RQ to have different bottles for AGP and Limiting nutrients.

It WAS setup for BOTH tests to SHARE 2-2L plastic bottles for each sample. But these bottles are not always new, sometimes they have just been rinsed out. And this is not a test we perform on a regular basis.

SO, I'm going to use:

- 2-500ml opaque for each AGP sample (total 18)
- 2-1L opaque for each LIMNUT sample (total 18), same bottle as we use for chlorophyll
- We need 3-L of sample for each site

John Watts
FDEP Laboratories
Environmental Administrator
245-8077

From: Tintle, Andrew <Andrew.Tintle@FloridaDEP.gov>
Sent: Monday, September 23, 2019 3:36 PM
To: Watts, John <John.Watts@FloridaDEP.gov>
Subject: RQ-2019-09-30-58

John –

Asking about the AGP and Limiting Nutrients. I know the RQ says 18 2L bottles are being shipped but just want to confirm because that is what I need. Asking because a 2L bottle is not typical for AGP's but in this case where the limiting nutrients are being done I need 2, 2L bottles for each sample for the AGP and limiting nutrients.

Thanks

Andy

Andrew R. Tintle
Florida Department of Environmental Protection
FDEP Labs-Biology Program
Andrew.Tintle@FloridaDEP.gov
Office: 850.245.8165

Wood-McGrath, Avril

From: Gottfreid, Lauren
Sent: Thursday, October 3, 2019 11:26 AM
To: Wood-McGrath, Avril
Cc: Tintle, Andrew; Espy, Julie
Subject: RE: AGP/LIm Nut Samples

Avril,

Alright, thank you for getting back to me. Again, sorry for the inconvenience.

Lauren

From: Wood-McGrath, Avril <Avril.Wood-McGrath@FloridaDEP.gov>
Sent: Thursday, October 3, 2019 9:33 AM
To: Gottfreid, Lauren <Lauren.Gottfreid@FloridaDEP.gov>
Cc: Tintle, Andrew <Andrew.Tintle@FloridaDEP.gov>; Espy, Julie <Julie.Espy@dep.state.fl.us>
Subject: RE: AGP/LIm Nut Samples

Hi Lauren,

I'm ccing Julie Espy on this email. Please DO NOT continue the analysis. We will resample and get these back to you asap. Ill let you know more when we figure it out on our end.

Thanks for the heads up!

-Avril

From: Gottfreid, Lauren <Lauren.Gottfreid@FloridaDEP.gov>
Sent: Wednesday, October 2, 2019 10:56 AM
To: Wood-McGrath, Avril <Avril.Wood-McGrath@FloridaDEP.gov>
Cc: Tintle, Andrew <Andrew.Tintle@FloridaDEP.gov>
Subject: AGP/LIm Nut Samples

Good afternoon Avril,

We had a couple issues with the samples yesterday. An analyst left the samples out overnight and they were not refrigerated. They also accidentally dumped one sample down the drain while filtering. We should have enough of the lost sample left to run an AGP and a limiting nutrient without EDTA spikes.

If it is ok with you, we can move forward with the tests and add a Y qualifier on the data and run a Lim Nut without EDTA for the lost sample.

Sorry for this inconvenience.

Lauren Gottfreid
Environmental Specialist II
Toxicology Analyst
FDEP Labs-Biology Program