



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF 1

March 2017

Data Qualified?
Yes / No

Location/STORET Station Name: Swamp Creek upstream of Railroad Date: 10/10/2017
STORET # GIWA0052 WBID: 427 Latitude: _____
County: Collier RQ - 2017-10-09-23 ORG ID: 21FLWQA Longitude: _____
Receiving Body of Water: Attapulgus Creek Field ID: GIWA0052-10102017

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis Musson						
Ben Ralys						

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Equipment ID		

Collection Method		
☒ Wading	☐ Via Boat	
☐ From Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric Motor	
	☐ Gasoline Motor	

Water Level: Dry / Pooled / Low / <u>Normal</u> / High / Flooded		Matrix: <u>Fresh</u> / Marine / DI								
Meter ID# <u>Bio #2</u>		Photos: Yes / No								
		Tide Falling: Yes / No / <u>NA</u>								
Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
<u>EST</u>	<u>10:40</u>	<u>0.3</u>	<u>0.6</u>	<u>6.75</u>	<u>81.2</u>	<u>6.90</u>	<u>0.04</u>	<u>NOB</u>	<u>79</u>	<u>24.64</u>
CEN										

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other _____
SBIO ID Numbers: SBIO-ID: _____ RPS-ID: _____ Macrophyte-ID: _____ LIMS#: 1935394

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / ☐ W-NO2NO3 / ☐ W-TKN / ☐ W-TOC / ☐ W-S-A-TP	☒ Ice ☒ H2SO4	SA 7233030	8/21/18	☒ <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-CI-IC / ☐ W-COLOR / ☐ W-SO4-IC / ☐ W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococci ☒ qPCR	☒ Ice			
Tracers	☒ W-SUC-AA-R ☒ W-UHERB-AA ☒ W-AHERB-AA	☒ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

SULFURIC ACID <51%
DANGER 7584-99-9 7722-18-5
Contains 1.1 Sulfuric Acid
THERMO FISHER SCIENTIFIC
520 NORTH MAIN STREET
MIAMI, OK 74354
1-828-656-2711
See Safety Data Sheet (SDS)
Contains 1.1 Sulfuric Acid
Lot No.: SA7233030
Expires: 08/21/18

Notes: PCR-Filter
PCR-HF183
Field ID: Swamp Creek upstream of Railroad
Oct 10, 2017
Barcode: GIWA0052_10102017
STORET Swamp Creek upstream of Railroad
Barcode: GIWA0052

Signature: Curtis Musson Date: 10/10/17
Field Parameters Entered into LIMS: en 10/10/17 Field Parameters QC in LIMS: 8/22 4/11/18
Date Migrated to STORET: _____ Field Sheets Scanned/Saved: _____

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 name.

Meter ID: B.0 #2

RQ: 2017-10-09-16

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-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	10/9/17	1541	22.87	8.598	8.60	100.0	52	~	P/F	L/F
ICV	Curtis Musson	10/9/17	1543	22.89	8.595	8.60	100.0	52	~	P/F	L/F
CCV	Curtis Musson	10/10/17	1541	24.37	8.356	8.59	104.7	53	~	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; 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.	Curtis Musson	10/9/17	1545	170614 E	6/2018	1000	1000	P/F	L/F
ICV	Curtis Musson	10/9/17	1546	170614 E	6/2018	1000	1000	P/F	L/F
CCV	Curtis Musson	10/10/17	1543	170614 D	6/2018	100	105	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	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	10/9/17	1547	170310 B	9/18	7.0	7.00	44	P/F	L/F
Calibr.	Curtis Musson	10/9/17	1551	170614 A	6/18	4.01	4.01	215	P/F	L/F
Calibr.	Curtis Musson	10/9/17	1552	170310 C	9/18	10.01	9.94	-107	P/F	L/F
ICV	Curtis Musson	10/9/17	1554	170614 A	6/18	4.01	3.82	222	P/F	L/F
CCV	Curtis Musson	10/10/17	1544	170310 C	9/18	10.01	10.06	-109	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 _____, 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-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air						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 Lab Sample Submittal Form

Request Number: RA-2017-10-09-23 Page 1 of 5
 Swamp, Salem, Tallavanna, Arrowhead, AJ, Harbinwoo Requester: Curtis Musson
 Customer: WAS-SECT Field Report Prepared By: Curtis Musson
 Project ID: SMP Sampling Agency: FDEP

Collected By: Curtis Musson, Ben Rapp

Loc		Collection (comp begin or grab)		Collection (comp begin or grab)		Collection (comp begin or grab)		Bottle Group(s)	
Field	STOI	Comp	Date	Time	Matrix	Diss. Oxygen (mg/L)	pH	Sample Depts (m)	Sp. Conductance (umho/cm)
Aj Henry Park Pond Middle  G1WA0058 Field ID → Aj Henry Park Pond Middle Oct 10, 2017	Lake Arrowhead at Boat Dock At Turtle Crk Ln Near Outlet  G1WA0004 Field ID → Lake Arrowhead at boat dock at Turtle Crk Ln near outlet Oct 10, 2017	☐ Comp ☒ Grab Matrix <u>Fresh</u> Temp (C) <u>27.36</u> Salinity (ppt) <u>0.03</u> Latitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>8:27</u> Diss. Oxygen (mg/L) <u>8.18</u> pH <u>7.86</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>70</u> Longitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>7:50</u> Diss. Oxygen (mg/L) <u>9.85</u> pH <u>9.33</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>75</u> Longitude (Decimal Degrees)	☐ Comp ☒ Grab Matrix <u>Fresh</u> Temp (C) <u>27.81</u> Salinity (ppt) <u>0.03</u> Latitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>9:30</u> Diss. Oxygen (mg/L) <u>9.18</u> pH <u>9.38</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>236</u> Longitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>9:30</u> Diss. Oxygen (mg/L) <u>9.18</u> pH <u>9.38</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>236</u> Longitude (Decimal Degrees)	Bottle Group(s) <u>A</u>	
Tallavanna Lake Middle  G1WA0045 Field ID → Tallavanna Lake Middle Oct 10, 2017	Lake Arrowhead at Boat Dock At Turtle Crk Ln Near Outlet  G1WA0004 Field ID → Lake Arrowhead at boat dock at Turtle Crk Ln near outlet Oct 10, 2017	☐ Comp ☒ Grab Matrix <u>Fresh</u> Temp (C) <u>27.34</u> Salinity (ppt) <u>0.11</u> Latitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>9:30</u> Diss. Oxygen (mg/L) <u>9.18</u> pH <u>9.38</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>236</u> Longitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>9:30</u> Diss. Oxygen (mg/L) <u>9.18</u> pH <u>9.38</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>236</u> Longitude (Decimal Degrees)	☐ Comp ☒ Grab Matrix <u>Fresh</u> Temp (C) <u>27.34</u> Salinity (ppt) <u>0.11</u> Latitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>9:30</u> Diss. Oxygen (mg/L) <u>9.18</u> pH <u>9.38</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>236</u> Longitude (Decimal Degrees)	Date <u>10/10/17</u> Time <u>9:30</u> Diss. Oxygen (mg/L) <u>9.18</u> pH <u>9.38</u> Sample Depts (m) <u>0.3</u> Sp. Conductance (umho/cm) <u>236</u> Longitude (Decimal Degrees)	Bottle Group(s) <u>A, B, C, G, H</u>	

Relinquished By: Curtis Musson Date/Time 10/10/17 2:03

Received By: J.R. Number of Coolers 5 Date/Time 10/10/17 2:03

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Central Lab Sample Submittal Form

Request Number: 20-2017-10-09-23 Page 2 of 5
 Swamp, Salem, Talavanna, Arrowhead, AJ, Harbinwood Requester: Curtis Musson Field Report Prepared By: CUNB Musson
 Customer: WAS-SECT Sampling Agency: FDEP
 Project ID: SMP Collected By: Curtis Musson, Ben Laixs

Field	Locat	Matrix	Temp (C)	Diss. Oxygen (mg/L)	pH	Sample Depts (m)	Sp. Conductance (umho/cm)	Bottle Group(s)
Swamp Creek upstream of Railroad	ST	Fresh	24.64	6.75	6.90	0.3	79	A, C D, E
Salem Branch downstream of SR 159	Lr	Fresh	26.51	6.32	7.51	0.3	177	C, D, F
Harbinwood Estates Drain	Fi	Fresh	27.7	3.66	7.28	0.1	127	A, B, C, D E

STORET ↓
 GIWA0052_10102017

Field ID →
 Swamp Creek upstream of Railroad
 Oct 10, 2017
 GIWA0052_10102017

STORET ↓
 GIWA0053_10102017

Field ID →
 Salem Branch downstream of SR 159
 Oct 10, 2017
 GIWA0053_10102017

STORET ↓
 GIWA0034_10102017

Field ID →
 Harbinwood Estates Drain
 Oct 10, 2017
 GIWA0034_10102017

Relinquished By: Curtis Musson Date/Time: 1-10/17 1:35
 Number of Coolers: 5 Received By: A.2 Date/Time: 11/10/17 2:08

Swamp, Salem, Talavanna, Arrowhead, AJ, Harbinwoo Requester: Curtis Musson
Customer: WAS-SECT
Project ID: SMP
Collected By: C. J. M.

[illegible]

Relinquished By: <i>Curtis Mung</i>	Date/Time 10/10/17 1355	Number of Coolers 5	Received By: <i>G. J.</i>	Date/Time 10/10/17 2:00
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Group: A	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	P-1L	# of Bottles: 8	Preservative: ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 8	Preservative: ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 8	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 8	Preservative: ICE-FLTR	Enter Number of Bottles Sent to Lab	8
Group: B	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 1 <i>2 Added</i>	Preservative: HNO3	Enter Number of Bottles Sent to Lab	3
Group: C	Bottle Type: ECOLI-18QT	P-250ML-WO-THI	# of Bottles: 7	Preservative: ICE	Enter Number of Bottles Sent to Lab	7
Group: D	Bottle Type: W-AHERB-AA W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
Group: E	Bottle Type: PCR-FILTER PCR-HF183	QPCR-P-250ML	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab	4
Group: F	Bottle Type: PCR-FILTER	QPCR-P-250ML	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	2

Group: F	Bottle Type: PCR-GFD	QPCR-P-250ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
Group: G	Bottle Type: PCR-FILTER	QPCR-P-250ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6
Group: H	Bottle Type: W-AHERB-AA W-GLYPH W-PYR-AA-R W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: H	Bottle Type: W-CT-CI-R W-PCL-SQ-R	BG-500ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6
Group: H	Bottle Type: W-PSNP-TQ	BG-1L	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6

Cooler Packing Worksheet for Request: RQ-2017-10-09-23
SWamp, Salem, Talavanna, Arrowhead, AJ, Harbinwood, Meginnis, Godby, Central

Ship Cooler On: 10/3/2017
Customer/Project: WAS-SECT/SMP

Assigned To: SEARSON_C
Requester: Curtis Musson
Priority: 3

850-245-8453
2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Nutrients, CHLA, Physical Aggregates
Group B: Metals
Group C: Microbiology (Bacteria)
Group D: Organics (Wastewater Tracers) AHERB Short List
Group E: PCR (HF183, FILTER)
Group F: PCR (GFD, FILTER)
Group G: PCR (FILTER)
Group H: Pesticides AHERB Long List

Requested Analyses:

Bottle Group: A

of Sites: 8

Container ID: P-1L

Qty: 8 Preservation: ICE

Lot # 00068657

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

Container ID: BP-1L

Qty: 8 Preservation: ICE

Lot # 1208913

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: BG-1L

Qty: 5 Preservation: ICE

Lot # 00068050

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-AHERB-AA

W-SUC-AA-R

W-UHERB-AA

Description

Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS

Analysis of sucralose in water matrices by HPLC/MS/MS

Urea herbicides and other chemicals in water matrices by HPLC/MS/MS

Bottle Group: E

of Sites: 2

Container ID: QPCR-P-250ML

Qty: 4 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

PCR-HF183

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

Bottle Group: F

of Sites: 1

Container ID: QPCR-P-250ML

Qty: 2 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

PCR-GFD

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction

Bottle Group: G

of Sites: 3

Container ID: QPCR-P-250ML

Qty: 6 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Bottle Group: H

of Sites: 2