



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

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March 2017

Data Qualified?
Yes / No

Location/STORET Station Name: Wakulla River Below US 98

Date: 11/28/2017

STORET # G1WA0028

WBID: 1006VA

Latitude: 30.17607

County: Wakulla

RQ - 2017-11-27-25

ORG ID: 21FLWQA

Longitude: -84.2429

(Decimal Degrees)

Receiving Body of Water: St. Marks River, GOM

Field ID: G1WA0028

(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
CM Ray Stuart						X	X	X	X
Curtis Musson					X	X	X		

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>B1044</u>					Photos: Yes / <u>No</u>					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 (umhos/cm)	Temp. (C°)				
EST	930	0.3	3.4	6.70	72.9	7.94	0.16	Vob	341	18.57				
CEN	936	2.9		7.11	75.9	7.91	0.16		341	18.54				

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

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

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	7075010	12/2/18	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um 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-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 ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Contains: 1:1 Sulfuric Acid
Lot No.: SA7275010
Expires: 10/02/18
See Safety Data Sheet (SDS)

THIEMER FISHER SCIENTIFIC
1428-606-2711

SULFURIC ACID <51%
DANGER
7732-18-4

May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation. Wash thoroughly after handling. Wear protective gloves, eye protection, and clothing. Do not breathe dust. If SWALLOWED, rinse mouth. Do not induce vomiting. If inhaled, remove from exposure. If on skin, wash with plenty of water for at least 15 minutes. If in eyes, flush with water for at least 15 minutes. Remove contact lenses, if present and easy to remove. Continue rinsing with water for at least 15 minutes.

Sticker(s) Here

Notes:

Kit A
Wakulla River
Below Highway
98 Bridge

STORET ↓



G1WA0028

Field ID →

Wakulla River
Below Highway
98 Bridge

Nov 28, 2017



G1WA0028

Signature:

Curtis Musson

Date:

11/28/17

Field Parameters Entered into LIMS:

(Initials/Date)

Field Parameters QC in LIMS:

(Initials/Date)

Date Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

(Initials/Date)

Jefferson
Wickburg R Bick Creek

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: Bio #2 RQ- 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 Mussen	11/28/17	6:59	20.62	8.985	8.98	100.0	51.2	-	☒ P / ☐ F	☒ L / ☐ F
ICV	Curtis Mussen	11/28/17	7:01	20.62	8.985	9.00	100.3	51.2	-	☒ P / ☐ F	☒ L / ☐ F
CCV	Ben Rahes	11/28/17	2:43	20.28	9.05	9.22	102.0	28.8	-	☒ 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 Mussen	11/28/17	7:02	171005D	10/2018	1000	1000	☒ P / ☐ F	☒ L / ☐ F
ICV	Curtis Mussen	11/28/17	7:03	171005D	10/2018	1000	1001	☒ P / ☐ F	☒ L / ☐ F
CCV	Ben Rahes	11/28/17	2:46	171005E	10/2018	100	99	☒ 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 Mussen	11/28/17	7:07	170614B	12/2018	7.00	7.00	10.0	☒ P / ☐ F	☒ L / ☐ F
Calibr.	Curtis Mussen	11/28/17	7:09	171005A	10/2018	4.01	4.01	183	☒ P / ☐ F	☒ L / ☐ F
Calibr.	Curtis Mussen	11/28/17	7:10	170310C	9/2018	10.01	9.98	-158	☒ P / ☐ F	☒ L / ☐ F
ICV	Curtis Mussen	11/28/17	7:12	170310C	9/2018	10.01	9.97	-156	☒ P / ☐ F	☒ L / ☐ F
CCV	Ben Rahes	11/28/17	2:48	171005A	10/2018	4.0	3.92	187.8	☒ 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 $+180 \pm 50$; 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	Curtis Mussen	11/28/17	7:04	0.00	0.00	☒ 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

Request Number: RQ-2017-11-27-25
 Black, Caney, Chicke, Ward, Wakulla
 Customer: WAS-SECT
 Project ID: SMP
 Requester: Curtis Musson
 Collected By: Curtis Musson, Ben Bahys
 Field Report Prepared By: Curtis Musson
 Sampling Agency: FDEP
 Page 1 of 2

Collection (comp begin or grab)		Date		Time		Bottle Group(s)	
☐ Comp	☒ Grab	11/28/17	8:20	11:07	0.1	101	C, D, E
Matrix (Salt, Fresh)		Diss. Oxygen (mg/L)		pH		Sp. Conductance (umho/cm)	
Fresh		7.18		11.07		101	
Temp (C)		Salinity (ppt)		Comments			
11.15		0.05					
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)					
☐ Comp	☒ Grab	11/28/17	9:30	6:70	0.3	341	A
Matrix (Salt, Fresh)		Diss. Oxygen (mg/L)		pH		Sp. Conductance (umho/cm)	
Fresh		7.94		6.70		341	
Temp (C)		Salinity (ppt)		Comments			
14.57		0.16					
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)					
☐ Comp	☒ Grab	11/28/17	10:16	6:78	0.3	307	A, C D, E
Matrix (Salt, Fresh)		Diss. Oxygen (mg/L)		pH		Sp. Conductance (umho/cm)	
Fresh		7.30		6.78		307	
Temp (C)		Salinity (ppt)		Comments			
12.06		0.15					
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)					

Request Number: RQ-2017-11-27-25
 Black, Caney, Chicke, Ward, Wakulla
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 Field Report Prepared By: Curtis Musson
 Sampling Agency: FDEP
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Black Creek
 upstream of
 SR 375
 G1WA0047

Field ID →
 Black Creek
 upstream of
 SR 375
 Nov 28, 2017
 G1WA0047

Wakulla River
 Below Highway
 98 Bridge
 G1WA0028

Field ID →
 Wakulla River
 Below Highway
 98 Bridge
 Nov 28, 2017
 G1WA0028

Chicken Branch
 at Old Plank Rd
 G1WA0031

Field ID →
 Chicken
 Branch at
 Old Plank Rd
 Nov 28, 2017
 G1WA0031

Relinquished By: Curtis Musson
 Date/Time: 11/28/17 1316
 Number of Coolers: 3
 Received By: [Signature]
 Date/Time: 11/28/17 1355

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Request Number: RQ-2017-11-27-25
 Black, Caney, Chicke, Ward, Wakulla
 Customer: WAS-SECT
 Project ID: SMP

Requester: Curtis Musson
 Collected By: Curtis Musson, Ben Ralys
 Field Report Prepared By: Curtis Musson
 Sampling Agency: FDEP

Page 2 of 2
 Date: 11/28/17

Caney Creek
 Upstream of
 US 90
 Field ID →
 Caney Creek
 Upstream of
 US 90
 Nov 28, 2017
 STORET ↓
 GIWA00014

Field ID →
 Caney Creek
 Upstream of
 US 90
 Nov 28, 2017
 STORET ↓
 GIWA00014

Wards Creek
 upstream of
 bridge at CR 259
 Field ID →
 Wards Creek upstream
 of bridge at CR 259
 Nov 28, 2017
 STORET ↓
 GIWA00002

Field ID →
 Wards Creek upstream
 of bridge at CR 259
 Nov 28, 2017
 STORET ↓
 GIWA00002

Caney Creek
 Downstream
 of 158A
 Field ID →
 Caney Creek
 Downstream
 of 158A
 Nov 28, 2017
 STORET ↓
 GIWA00000

Field ID →
 Caney Creek
 Downstream
 of 158A
 Nov 28, 2017
 STORET ↓
 GIWA00000

Comp	Grab	Collection (comp begin or grab)	Date	Time	Eastern Central	Collection (comp begin or grab)	Date	Time	Bottle Group(s)
☐	☒	Matrix (Salt, Fresh)	11/28/17	1110	Eastern Central	Matrix (Salt, Fresh)	11/28/17	1140	A, B, C
		Diss. Oxygen (mg/L)		12.41		Diss. Oxygen (mg/L)			D, E
		pH		7.37		pH			
		Sample Depts (m)		0.1		Sample Depts (m)			
		Sp. Conductance (umho/cm)		98		Sp. Conductance (umho/cm)			
		Salinity (ppt)		0.05		Salinity (ppt)			
		Latitude (Decimal Degrees)				Latitude (Decimal Degrees)			
☐	☒	Matrix (Salt, Fresh)	11/28/17	1140	Eastern Central	Matrix (Salt, Fresh)	11/28/17	1140	A, C
		Diss. Oxygen (mg/L)		2.97		Diss. Oxygen (mg/L)			D, D
		pH		5.70		pH			E
		Sample Depts (m)		0.15		Sample Depts (m)			
		Sp. Conductance (umho/cm)		42		Sp. Conductance (umho/cm)			
		Salinity (ppt)		0.02		Salinity (ppt)			
		Latitude (Decimal Degrees)				Latitude (Decimal Degrees)			
☐	☒	Matrix (Salt, Fresh)	11/28/17	1255	Eastern Central	Matrix (Salt, Fresh)	11/28/17	1255	A, B, C
		Diss. Oxygen (mg/L)		11.82		Diss. Oxygen (mg/L)			D, E
		pH		7.16		pH			
		Sample Depts (m)		0.1		Sample Depts (m)			
		Sp. Conductance (umho/cm)		106		Sp. Conductance (umho/cm)			
		Salinity (ppt)		0.05		Salinity (ppt)			
		Latitude (Decimal Degrees)				Latitude (Decimal Degrees)			

Relinquished By: Curtis Musson	Date/Time: 11/28/17	Number of Coolers: 3	Received By: [Signature]	Date/Time: 11/28/17 1355
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Group: A	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: A	Bottle Type: BP-1L	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
CHLSUITE-W					
Group: A	Bottle Type: P-500ML	# of Bottles: 5	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	5
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	5
W-PO4-F					
Group: B	Bottle Type: P-500ML	# of Bottles: 2	Preservative: HNO3	Enter Number of Bottles Sent to Lab	2
W-ICP W-ICPMS					
Group: C	Bottle Type: P-250ML-WO-THI	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
ECOLI-18QT					
Group: D	Bottle Type: BG-1L	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
W-AHERB-AA W-SUC-AA-R W-UHERB-AA					
Group: E	Bottle Type: QPCR-P-250ML	# of Bottles: 10	Preservative: ICE	Enter Number of Bottles Sent to Lab	10
PCR-BACR PCR-GFD PCR-HF183					

Cooler Packing Worksheet for Request: RQ-2017-11-27-25

Black, Caney, Ward, Chicken, Wakulla

Ship Cooler On: 11/21/2017

Customer/Project: WAS-SECT/SMP

Assigned To: GREENWOO_J

Requester: Curtis Musson

Priority: 3

850-245-8453
2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Freshwater Kit

Group B: Metals

Group C: ECOLI

Group D: Tracers (AHERB Short List)

Group E: PCR

Requested Analyses:

Bottle Group: A

of Sites: 5

Container ID: P-1L

Qty: 5 Preservation: ICE

Lot # DCN69122

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: 5 Preservation: ICE

Lot # 1214297

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 5 Preservation: ICE And H2SO4

Lot # 00009255

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 # 00068595

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: 2

Container ID: P-500ML

Qty: 2 Preservation: HNO3

Lot # 00009255

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP
W-ICPMS

Description

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects
Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Bottle Group: C

of Sites: 5

Container ID: P-250ML-WO-THI

Qty: 5 Preservation: ICE

Lot # 017048

Description:

Analysis

ECOLI-18QT

Description

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

Bottle Group: D

of Sites: 5

Container ID: BG-1L

Qty: 5 Preservation: ICE

Lot # 00069348

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: 5

Container ID: QPCR-P-250ML

Qty: 10 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-BACR

PCR-GFD

PCR-HF183

Description

Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction

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

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

Cooler Packed By: J.A.

Number of Coolers: 3

Date: 11/21/17

Kit must also include:

- ☒ Field Sheets
☒ Temperature Control Bottle
☒ FedEx Bills, if applicable
☒ Plastic Bags
☒ Zip Ties

If Preservation Included:

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

PLEASE RETURN ALL COOLERS FOR RQ-2017-11-27-25