



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

PAGE 1 OF 8

Data Qualified?
Yes / No

STORET Station Name: Moriah Creek at US 98

Date: 03/08/2016

(mm/dd/yyyy)

STORET Station ID: G1WA0027

Latitude: 30.1961

(Decimal Degrees)

WBID: 1121

RQ - 2016 - 03 - 07 - 64

ORG ID: 21FLWQA

Longitude: -84.1965

(Decimal Degrees)

Receiving Body of Water: St. Marks River

Field ID: G1WA0027

County: Wakulla

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

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 / Low / <u>Normal</u> / High / Flooded						Matrix: <u>Fresh</u> / Marine / DI					
Meter ID# Biology #2				Photos: <u>Yes</u> / No				Tide Filling: 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>2:20pm</u>	<u>0.2</u>	<u>0.3</u>	<u>6.02</u>	<u>66.2</u>	<u>7.47</u>	<u>0.22</u>	<u>VOB</u>	<u>456</u>	<u>19.9</u>	
CEN											

Biological Samples Collected: <u>None</u> HA SCI LVS RPS LVI Other										
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 5113230	04/23/2016	☒ <2	
Metals	☐ W-ICPMS ☐ W-ICP					☐ Ice ☐ HNO2			☐ <2	
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter					☒ Ice				
Chlorophyll	☒ CHLSUITE-W					☒ Ice				
BOD	☒ BOD-UNIN					☒ Ice				
Physical/Aggregate (Kit A/C)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS					☒ Ice				
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY					☐ Ice				
Macroinvertebrates	☐ MI-FW-QLDC					☐ Formalin				
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococcus ☐ QPCR					☐ Ice				
Periphyton	☐ ALGAE-ID					☐ Ice				
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R					☐ Ice				
	☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH					☐ Other				

Contains
1:1
Sulfuric Acid
SA-5113230
EXP: 04/23/16
Warning!
See MSDS

Notes: Good habitat

Place Label Here
(If Available)

Signature: [Signature]

Date: 3/8/16

Field Parameters Entered into LIMS: Cm 3-9-16

(Initials/Date)

Field Parameters QC in LIMS: BR 5/11/16

(Initials/Date)

Date Migrated to STORET: [Signature]

(Initials/Date)

Field Sheets Scanned/Saved: Cm 5-23-16

(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 page.

Meter **Bp #2**

RQ- **2016-03-07-64**

Project **SMP**

- Notes:** (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 03/04/2016

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.	Ben Ralys	3/8/16	7:20	20.88	8.95	8.94	100.0	46.1	-	P	L
ICV	Ben Ralys	3/8/16	7:21	20.9	8.93	8.94	100.0	46.1	-	P	L
CCV	Curtis Mussen	3/8/16	15:05	20.0	8.74	8.87	140.5	45.1	-	P	L
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Ben Ralys	3/8/16	7:23	CC14162	10/15/2016	996	996	P	L
ICV	Ben Ralys	3/8/16	7:24	CC14162	10/15/2016	996	996	P	L
CCV	Curtis Mussen	3/8/16	15:06	160201F	03/2017	50,000	50,019	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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.	Ben Ralys	3/8/16	7:50	156244	10/2017	7.0	7.00	-6.1	P	L
Calibr.	Ben Ralys	3/8/16	7:33	154634	02/2017	4.0	4.0	169.2	P	L
Calibr.	Ben Ralys	3/8/16	7:35	146934	10/2016	10.0	10.0	-182.7	P	L
ICV	Ben Ralys	3/8/16	7:38	156244	10/2017	7.0	6.95	-9.1	P	L
CCV	Curtis Mussen	3/8/16	15:08	156244	10/2017	7.0	6.98	-5.4	P	L
CCV	Curtis Mussen	3/8/16	15:11	146934	10/2016	10.0	9.98	-18.5	P	L

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 50;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

East River, Moriah Creek, Wakulla River and St. Marks River

Central Laboratory Submittal Form

last revised Nov 10, 2015

Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By: Curt S. Musson

Project ID: SMP

Collected By: Benjamin Ralys

Sampling Agency: FDEP

Location Wakulla River Below US 98		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 03/08/2016 Time 10:45		☒ Eastern ☐ Central	Composite end Date Time		Bottle Group(s) (See pg 2) B	
Field ID GIWA0028		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 6.50	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
STORET # GIWA0028		Temp (C) 19.03	pH 7.72	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 341			
Latitude 30.17607	☒ dd ☐ dms	Longitude -84.24290	☒ dd ☐ dms	Salinity (ppt) 0.16	Comments Labeled Bottle Group A on Bottles				
Location St. Marks River at Channel Marker 60		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 03/08/2016 Time 11:30		☒ Eastern ☐ Central	Composite end Date Time		Bottle Group(s) A	
Field ID GIWA0055		Matrix (type, e.g., Salt, Fresh, etc) Salt		Diss. Oxygen 7.84	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
STORET # GIWA0055		Temp (C) 19.24	pH 7.85	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 1230			
Latitude 30.1447	☒ dd ☐ dms	Longitude -84.2088	☒ dd ☐ dms	Salinity (ppt) 0.62	Comments SMP				
Location St. Marks River at Channel Marker 22		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 03/08/2016 Time 12:00		☒ Eastern ☐ Central	Composite end Date Time		Bottle Group(s) A	
Field ID GIWA0008		Matrix (type, e.g., Salt, Fresh, etc) Salt		Diss. Oxygen 8.50	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) 27667			
STORET # GIWA0008		Temp (C) 18.43	pH 7.95	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm)			
Latitude 30.0424	☒ dd ☐ dms	Longitude -84.1939	☒ dd ☐ dms	Salinity (ppt) 17.06	Comments SMP				
Location Mouth of East River		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 03/08/2016 Time 12:30		☒ Eastern ☐ Central	Composite end Date Time		Bottle Group(s) A	
Field ID GIWA0011		Matrix (type, e.g., Salt, Fresh, etc) Salt		Diss. Oxygen 8.53	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
STORET # GIWA0011		Temp (C) 18.51	pH 7.99	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 32728			
Latitude 30.0893	☒ dd ☐ dms	Longitude -84.1774	☒ dd ☐ dms	Salinity (ppt) 20.45	Comments SMP				

Relinquished By:	Date/Time	Shipping Method	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Curt S. Musson	03/08/2016	Drop off					S/L	3-8/16/3.42

Request Number: RQ-2016-03-07-64

East River, Moriah Creek, Wakulla River and St. Marks River

Florida Department of Environmental Protection

Central Laboratory Submittal Form

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last revised Nov 10, 2015

Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By:

Curtis Mussen

Project ID: SMP

Collected By:

Benjamin Ralys

Sampling Agency:

FDEP

Location East River Downstream of Boggy Bayou		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 03/08/2016 Time 12:50		Eastern Central		Composite end Date Time		Bottle Group(s) (See pg 2)	
Field ID GIWA0056		Matrix (type, e.g., Salt, Fresh, etc) Salt		Diss. Oxygen 8.63		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		A	
STORET # GIWA0056		Temp (C) 19.01		pH 7.98		Sample Depth 0.3		Sp. Conductance (umho/cm) 37000			
Latitude 30.0972		☒ dd ☐ dms		Longitude -84.1752		☒ dd ☐ dms		Salinity (ppt) 19.16		Comments SMP	
Location Moriah Creek at US 98		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 03/08/2016 Time 14:20		Eastern Central		Composite end Date Time		Bottle Group(s)	
Field ID GIWA0027		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 6.02		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		B	
STORET # GIWA0027		Temp (C) 19.91		pH 7.47		Sample Depth 0.2		Sp. Conductance (umho/cm) 456			
Latitude 30.1961		☒ dd ☐ dms		Longitude -84.1965		☒ dd ☐ dms		Salinity (ppt) 0.22		Comments SMP	
Location Moriah Creek 100 Meters Upstream of New Port Rd.		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 03/08/2016 Time 14:45		Eastern Central		Composite end Date Time		Bottle Group(s)	
Field ID GIWA0057		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 7.19		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		B	
STORET # GIWA0057		Temp (C) 18.64		pH 7.62		Sample Depth 0.2		Sp. Conductance (umho/cm) 345			
Latitude 30.1857		☒ dd ☐ dms		Longitude -84.1929		☐ dd ☐ dms		Salinity (ppt) 0.17		Comments SMP	
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)			
STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude		☐ dd ☐ dms		Longitude		☐ dd ☐ dms		Salinity (ppt)		Comments	

Relinquished By:	Date/Time	Shipping Method	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
							SA 3-8-16/3:42	

Group: B Bottle Type: P-500ML # of Bottles: 3 Preservative: ICE And H2SO4 Enter Number of Bottles Sent to Lab 3

W-S-A-TP

W-TKN

W-TOC

Group: B Bottle Type: P-125ML # of Bottles: 3 Preservative: ICE-FLTR Enter Number of Bottles Sent to Lab 3

W-PO4-F

Cooler Packing Worksheet for Request: RQ-2016-03-07-64
East River, Moriah Creek, Wakulla River and St. Marks River

Ship Cooler On: 2/26/2016
Customer/Project: WQAP/SMP

Requester: Benjamin Ralys
Priority: 3

850-245-8443
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Ben Ralys

Comments:

- 1 - case of Nitric Acid
- 1 - case of Sulfuric Acid

Requested Analyses:

Bottle Group: A

of Sites: 4

Container ID: P-1L

Qty: 4 Preservation: ICE

Lot # 00060701

Description: Plastic Bottle 1L

Analysis

ALKALINITY
TURBIDITY
W-F
W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO₃/L
Turbidity in aqueous matrices
Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Total Suspended Solids in aqueous matrices

Container ID: P-1L

Qty: 4 Preservation: ICE

Lot # 00060701

Description: Plastic Bottle 1L

Analysis

BOD-UNIN

Description

BOD, NOT nitrogen-inhibited

Container ID: BP-1L

Qty: 4 Preservation: ICE

Lot # 1166627

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 4 Preservation: ICE And H2SO4

Lot # 0006 3982

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: 4 Preservation: ICE-FLTR

Lot # 0006 3891

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: 3

Container ID: P-1L

Qty: 3 Preservation: ICE

Lot # 0006 0701

Description: Plastic Bottle 1L

Analysis

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
W-NO2
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)
Nitrite in aqueous matrices as mg N/L
Total Dissolved Solids in aqueous matrices
Total Suspended Solids in aqueous matrices

Container ID: P-1L

Qty: 3 Preservation: ICE

Lot # 0006 0701-2

Description: Plastic Bottle 1L

0006
00053616-1

Analysis

BOD-UNIN

Description

BOD, NOT nitrogen-inhibited

Container ID: BP-1L

Qty: 3 Preservation: ICE

Lot # 1166627

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 3 Preservation: ICE And H2SO4

Lot # 00063982

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: 3 Preservation: ICE-FLTR

Lot # 00063891

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

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

Cooler Packed By: SK

Date: _____

DEP Cooler ID #(s): 3 Coolers

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle (1 per cooler)
- ☐ FedEx Bills, if applicable (1 per cooler)
- ☒ Plastic Bags
- ☒ Zip Ties

If Preservation Included:

ID Nitric Acid - exp: 4-23-16 Lot # NA-5113210
ID _____ Lot # _____
ID Sulfuric Acid exp: 9-16-16 Lot # SA-5259020
ID _____ Lot # _____
ID _____ Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2016-03-07-64