



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

June 2016

PAGE 1 OF

Data Qualified?
Yes / No

STORET Station Name: St. Marks River at Channel Marker 60

Date: 11/30/2016

(mm/dd/yyyy)

STORET Station ID: G1WA0055

WBID: 793A

Latitude: 30.1447

(Decimal Degrees)

County: Wakulla RQ - 2016-11-28-15

ORG ID: 21FLWQA

Longitude: -84.2088

(Decimal Degrees)

Receiving Body of Water: Gulf of Mexico

Field ID: G1WA0055-11302016

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
Curtis Musson		X	X					
Ben Ralys			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 / Low / <u>Normal</u> / High / Flooded	Matrix: Fresh / <u>Marine</u> / DI
Meter ID# <u>Biology 2</u>	Photos: Yes / <u>No</u>
	Tide Falling: Yes / <u>No</u> / NA

Field Sample

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°)
EST	11:00	0.3	3.2	6.17	69.4	7.79	0.46	2.1	926	20.86
CEN	11:04	2.7		5.59	62.7	7.73	0.46		925	20.80

Biological Samples Collected:		None	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 6209120	07/27/17	☒ <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					
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					
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR		☐ Ice					
Periphyton	☐ ALGAE-ID		☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH		☐ Ice ☐ Other					

Contains 1:1 Sulfuric Acid SA-6209120 EXP: 07/27/17 Warning! See SDS

Active Sticker(s) Here (if Available)

QA/QC Sample Information

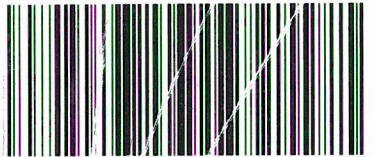
Duplicate

Time Zone: EST CEN		Sample Depth (m): _____		Field ID: G1WA0028D-11302016	
Time: _____		Total Depth (m): _____			
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 ☐ H ₂ SO ₄	SA 6209120	07/27/17	☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice	Place Preservative Sticker(s) Here (If Available)		
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			
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Blank

Time Zone: EST CEN		Time: _____		Field ID: G1WA0028B-11302016		Location: Wakulla River Below Highway 98 Bridge	
☐ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equipment ID _____					
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 ☐ H ₂ SO ₄	SA 6209120	07/27/17	☐ < 2		
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2		
Filtered Nutrients	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice	Place Preservative Sticker(s) Here (If Available)				
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					
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other					

Notes:

St. Marks River at Channel Marker 60 STORET ↓  G1WA0055		Field ID → St. Marks River at Channel Marker 60 Nov 30, 2016  G1WA0055-11302016
Signature: _____		Date: 11/30/2016

Field Parameters Entered into LIMS: DT 12/2/16 (Initials/Date) Field Parameters QC in LIMS: _____ (Initials/Date)

Date Migrated to STORET: _____ (Initials/Date) Field Sheets Scanned/Saved: _____ (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 name.

Meter Bio #2

RQ- 2016-11-28-15

Project Snp / S+mark

- 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 09/23/2016

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.	Curtis Mussen	11/30/16	8:01	21.4	8.846	8.65	100.0	44.1	—	P	L
ICV	Curtis Mussen	11/30/16	8:02	21.41	8.846	8.84	100.0	44.1	—	P	L
CCV	Curtis Mussen	11/30/16	12:49	22.63	8.644	8.66	100.1	42.0	—	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 $\mu\text{mhos/cm}$	Meter Reading $\mu\text{mhos/cm}$	Pass / Fail	Lab / Field
Calibr.	Curtis Mussen	11/30/16	0720	160330D	04/2017	1000	1000	P	LAB
ICV	Curtis Mussen	11/30/16	0722	161111E	05/2017	100	100	P	LAB
CCV	Curtis Mussen	11/30/16	1253	160330E	4/12/17	50,000	49925	P	LAB
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.	Curtis Mussen	11/30/16	0725	161111B	05/2018	7.0	7.00	-24.0	P	L
Calibr.	Curtis Mussen	11/30/16	0727	160330A	4/12/17	4.01	4.01	154.1	P	L
Calibr.	Curtis Mussen	11-30-16	0729	160330C	4/12/17	10.01	9.97	-189.0	P	L
ICV	Curtis Mussen	11/30/16	0731	161111B	5/2018	7.00	7.07	-23.0	P	L
CCV	Curtis Mussen	11/30/16	1251	160330C	10/2017	10.01	10.00	-191	P	L
CCV										

Report pH with one decimal place; 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 ; 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 $\pm 0.05\text{m}$, whichever is greater

New D.O. membrane

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: WQAP

Project ID: SMP

Requester: Benjamin Ralys

Collected By:

Ben Ralys, Curtus Mussen

Field Report Prepared By:

Curtus Mussen

Sampling Agency:

FDEP

Location	Mouth of East River																			
Field ID	GLWA0011-11302016																			
STORET #	GLWA0011																			
Latitude	30.0893	dd	dms	Longitude	-84.1774	dd	dms	Temp (C)	19.57	pH	7.84	Sample Depth	0.3	Diss. Oxygen	7.12	mg/L	Total Res. Chlorine	27945	Bottle Group(s)	A
Location	East River down stream of Bagg																			
Field ID	GLWA0056-11302016																			
STORET #	GLWA0056																			
Latitude	30.0972	dd	dms	Longitude	-84.1752	dd	dms	Temp (C)	19.57	pH	7.62	Sample Depth	0.3	Diss. Oxygen	6.38	mg/L	Total Res. Chlorine	34296	Bottle Group(s)	A
Location	St. Marks River at Channel Marker 22																			
Field ID	GLWA0008-11302016																			
STORET #	GLWA0008																			
Latitude	30.0929	dd	dms	Longitude	-84.1939	dd	dms	Temp (C)	19.85	pH	7.81	Sample Depth	0.3	Diss. Oxygen	8.01	mg/L	Total Res. Chlorine	18396	Bottle Group(s)	A
Location	St. Marks River at Channel Marker 60																			
Field ID	GLWA0055-11302016																			
STORET #	GLWA0055																			
Latitude	30.1447	dd	dms	Longitude	-84.2088	dd	dms	Temp (C)	20.96	pH	7.79	Sample Depth	0.3	Diss. Oxygen	6.17	mg/L	Total Res. Chlorine	925	Bottle Group(s)	A

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Curtus Mussen	11-30-16 / 12:30 EST	Drop off	1	SK	11-30-16 / 12:38

Group: B	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 1	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	0
Group: C	Bottle Type: ALKALINITY TURBIDITY W-F W-TSS	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
Group: C	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
Group: C	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab	0
Group: C	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 1	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	0
Group: D	Bottle Type: ALKALINITY TURBIDITY W-F W-TSS	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
Group: D	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
Group: D	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab	0
Group: D	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 1	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	0

Cooler Packing Worksheet for Request: RQ-2016-11-28-15

East River, St. Marks River and Wakulla River

Ship Cooler On: 11/29/2016

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:

No preservatives needed.

Bottle Group A: Saltwater chemistry suite

Bottle Group B: Freshwater chemistry suite

Bottle Group C: Field Blank

Bottle Group D: 1 Duplicate for saltwater chemistry

3 - liters of DI water

Requested Analyses:

Bottle Group: A

of Sites: 4

Container ID: P-1L

Qty: 4 Preservation: ICE

Lot # 00065893

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: BP-1L

Qty: 4 Preservation: ICE

Lot # 1185930

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 # 00066045

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 # 00065449

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: 1

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00065893

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: 1 Preservation: ICE

Lot # 1185930

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 1 Preservation: ICE And H2SO4

Lot # 00066045

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: 1 Preservation: ICE-FLTR

Lot # 00065449

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

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

Bottle Group: C

of Sites: 1

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00065893

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: BP-1L

Qty: 1 Preservation: ICE

Lot # 1185930

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 1 Preservation: ICE And H2SO4

Lot # 00065
00066045

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

Description

Ammonia in aqueous matrices as mg N/L

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

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: 1 Preservation: ICE-FLTR

Lot # 00065849

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

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

Bottle Group: D

of Sites: 1

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00065893

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: BP-1L

Qty: 1 Preservation: ICE

Lot # 1185930

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 1 Preservation: ICE And H2SO4

Lot # 00066045

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

Lot # 00065449