

RPS/LVS



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

June 2016

PAGE 1 OF 17

Data Qualified?
Yes / No

Do

STORET Station Name: East Drainage Ditch at Ridge Rd.

Date: 06/22/2016

(mm/dd/yyyy)

STORET Station ID: G1WA0039

WBID: 916

Latitude: 30.4016

(Decimal Degrees)

County: Leon

RQ - 2016-06-20-52

ORG ID: 21FLWQA

Longitude: -84.3041

(Decimal Degrees)

Receiving Body of Water: Wakulla Springs / *Munson Slough* Field ID: G1WA0039

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
Curtis Musson		X		X	X	X		X
Justin Wallheiser			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: <u>Fresh</u> / Marine / DI
Meter ID# Biology 2	Photos: Yes / <u>No</u>
	Tide Falling: Yes / No / <u>NA</u>

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	10:40	0.3	0.5	8.91	113.3	7.21	0.07	Vol 13	159	27.66
CEN										

Biological Samples Collected:	None	<u>HA</u>	SCI	<u>LVS</u>	<u>RPS</u>	LVI	Other
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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 5259020	09/16/2016	☒ <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			
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 ☐ Enterococcus ☐ 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			

Place Preservative Sticker(s) Here
(If Available)

QA/QC Sample Information

Duplicate

Time Zone: EST CEN		Sample Depth (m): _____		Field ID: G1WA0039D	
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 5259020	09/16/216	☐ < 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 ☐ Entero ☐ 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: 0815		Field ID: G1WA0039B		Location: Messner's arm Run	
☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equipment ID NA					
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 5259020	09/16/2016	☒ < 2		
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice			☐ < 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 ☐ Entero ☐ 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:

SB#0: 76312

RPS: 8121

Macro: 9840

Place Label Here
(If Available)

Signature: *Curtis M*

Date: **6-22-2016**

Field Parameters Entered into LIMS: **CM 6-27-2016**

(Initials/Date)

Field Parameters QC in LIMS: _____

Date Migrated to STORET: _____

(Initials/Date)

Field Sheets Scanned/Saved: **CM 6-27-2016**

(Initials/Date)

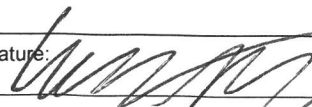
(Initials/Date)

DEP-SOP-001/01: Form FD 9000-5
STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

SUBMITTING AGENCY CODE: <u>21FLGW</u>		STORET STATION NUMBER: <u>GIWA0039</u>	DATE (MM/DD/YY): <u>6-22-2016</u>	RECEIVING BODY OF WATER: <u>Munson Slough</u>
SUBMITTING AGENCY NAME: <u>WQAP, WAS</u>				
REMARKS: <u>SMP</u>	COUNTY: <u>Leon</u>	LOCATION: <u>East Drainage ditch ridge</u>	FIELD ID/NAME: <u>GIWA0039</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>3</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>15</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent <u>15</u> 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>1</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering <u>2</u> ----- Primary Score <u>24</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 <u>2</u> 1
Bank Stability Right Bank <u>3</u> Left Bank <u>3</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>9</u> Left Bank <u>2</u>	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>9</u> Left Bank <u>4</u> ----- Secondary Score <u>32</u>	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

53 TOTAL SCORE

Date: <u>6/24/16</u>	Analyst: <u>Curtis Messer</u>	Signature: 
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

Left Bank

Upstream

Right Bank

100

100

↓ Smothering Notes

Location:

East Drainage Ditch

Date:

6-22-2016 at Ridge

Sampler:

Curtis Messer

100 m: Latitude

Longitude

0 m: Latitude

Longitude

Substrates: Code key, draw proportionate habitat abundance.

%

S

Snags

0

R

Roots/undercut banks

0

L

Leaf Packs (or mats)

0

M

Aquatic Macrophytes

36

R

Rock

0

Total

36

P

Pools

total # observed = 0

range expected =

Average width 5 m

Average depth 0.5 m

Velocity measured at 0 meter mark.

Velocity 0.01 m/s

WQ & chemistry taken at 0 meter mark.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Notes/Plants Observed:

 2m² = 16 Sweeps

# of Sweeps	Conversion	m ²	%
Snag	÷ 8	m ²	
Root	÷ 8	m ²	
Leaf	÷ 8	m ²	
Macrophyte	÷ 8	m ²	
Rock	÷ 8	m ²	
Total Available Habitat		m ²	
Total Area		m ²	
Total Unavailable Habitat		m ²	

62-160.800, F.A.C

Revision Date: March 1, 2014

Length of grid represents 100 m of stream (not linear meters). (Horizontal scale is double vertical scale, draw proportionately).

Expected Number of Pools

$$\left(\frac{100}{12 \times W} \right) \times 1 =$$

$$\left(\frac{100}{12 \times W} \right) \times 2 =$$

Meter Mark	Depth (m)	Width (m)	Velocity Measurement (Sec)
Avg.			

S L 1%
 R M
 P
 S L
 R M 0%
 P
 S L
 R M 0%
 P
 S L
 R M 0%
 P
 S L
 R M 0%
 P
 S L
 R M 10%
 P
 S L
 R M 5%
 P
 S L
 R M 10%
 P

East

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: East drain & ditch at ridge rd

County: Leon

Date: 6-22-2016

Investigators: Curtis M. S. S. S.

STORET Station Number:

61 WA 0039

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N			60	1	N		
	2	N				2	N		
	3	X				3	N		
	4	X				4	N		
	5	X				5	N		
	6	X				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
10	1	N			70	1	N		
	2	N				2	N		
	3	X				3	N		
	4	X				4	N		
	5	X				5	N		
	6	X				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
20	1	N			80	1	N		
	2	N				2	N		
	3	X				3	N		
	4	X				4	N		
	5	X				5	N		
	6	X				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
30	1	N			90	1	N		
	2	N				2	N		
	3	X				3	N		
	4	X				4	N		
	5	X				5	N		
	6	X				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
40	1	N			100	1	N		
	2	N				2	N		
	3	X				3	N		
	4	X				4	N		
	5	X				5	N		
	6	X				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		

Secchi depth 103
Estimated?

points ranked 4-6 0
total points assessed 0
% points ranked 4-6 0

Check accompanying data collected at same site/date.

Algal mat sample No
Linear Veg Survey Yes
Habitat Assessment Yes
SCI/Biorecon No
Water sample Yes

RQ-2016-06-20-52

Algal Thickness Rank

N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

SBF0: 76312

RPS: 8121

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

Form FD 9000-32

FDEP Linear Stream Vegetation Survey (DEP SOP FS 7320)

Revised 6/12/12

Waterbody: East drainage ditch at Ridge

Date: 6/22/16	County: Leon
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County: Leon

Storet Number: 61440039

Analyst: Curtis Mussen

Signature: *Cristi*

Comments: *Σ mp*

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES		Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES		Meter Mark										Specimen collected (check)
		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100				0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
<i>Alternanthera philoxeroides</i>													<i>Micranthemum glomeratum</i>												
<i>Bacopa caroliniana</i>													<i>Micranthemum umbrosum</i>												
<i>Bacopa monnieri</i>													<i>Myriophyllum aquaticum</i>												
<i>Bidens mitis</i>													<i>Najas guadelupensis</i>												
<i>Boehmeria cylindrica</i>													<i>Nuphar luteum</i>												
<i>Centella asiatica</i>													<i>Orontium aquaticum</i>												
<i>Cephalanthus occidentalis</i>													<i>Panicum hemitomon</i>												
<i>Ceratophyllum demersum</i>													<i>Panicum repens</i>												
<i>Chara</i>													<i>Panicum rigidulum</i>												
<i>Cicuta maculata</i>													<i>Pistia stratioides</i>												
<i>Cladium jamaicense</i>													<i>Polygonum glabra</i>												
<i>Colocasia esculenta</i>													<i>Polygonum hydropiperoides</i>												
<i>Crinum americanum</i>													<i>Polygonum punctatum</i>												
<i>Diodia virginiana</i>													<i>Pontedaria cordata</i>												
<i>Eichhornia crassipes</i>													<i>Potamogeton illinoensis</i>												
<i>Eleocharis (wispy viviparous)</i>													<i>Ruellia simplex</i>												
<i>Hydrilla verticillata</i>													<i>Sacciolepis striata</i>												
<i>Hydrocotyle</i>													<i>Sagittaria kurziana</i>												
<i>Hygrophila polysperma</i>													<i>Sagittaria lancifolia</i>												
<i>Hymenocallis</i>													<i>Sagittaria latifolia</i>												
<i>Itea virginica</i>													<i>Salix caroliniana</i>												
<i>Lachnanthes caroliniana</i>													<i>Salvinia minima</i>												
<i>Landoltia punctata</i>													<i>Samolus parviflora</i>												
<i>Lemna</i>													<i>Saururus cernuus</i>												

SBI #: 76312

Macro: 9838 9840

Macrophyte QC Report

STORET: G1WA0039

Visit ID: 76312

Macrophyte ID: 9840

LIMS ID:

Sample Date: 6/22/2016

Collector Name: Musson, Curtis

Identifier Name: Musson, Curtis

Macrophyte Sample Comments:

Taxa Name:	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
<i>Alternanthera philoxeroides</i>	D	D	D	D						
<i>Colocasia esculenta</i>			P							P
<i>Hydrocotyle</i>				P					P	P
<i>Lemna</i>				P						
<i>Polygonum hydropiperoides</i>	P	P	P							
<i>Salvinia minima</i>			P	P				P	P	P

CM 6-27-2016

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

~~Boldly "X" this box if there is questionable data on this page.~~

Meter Biology #2

RQ- 2016-06-20-58

Project SNP

- 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 06/03/2016

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 Musson	6/22/16	0710	22.7	8.627	8.62	100.0	54.3	—	P	L
ICV	Curtis Musson	6/22/16	0712	22.7	8.627	8.62	100.0	55.3	—	P	L
CCV	Curtis Musson	6/22/16	1554	23.6	8.48	9.42	111.0	54.3	—	Fail	L
CCV											

1/511

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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	6/22/16	0715	160330D	04/2017	1000	1000	P	L
ICV	Curtis Musson	6/22/16	0715	160330D	04/2017	1000	1000	P	L
CCV	Curtis Musson	6/22/16	1550	2601533	12/2017	100	104	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.	Curtis Musson	6/22/16	0720	160330B	1/2017	7.0	7.004	-19.2	P	L
Calibr.	Curtis Musson	6/22/16	0723	160330A	04/2017	4.0	4.00	159.4	P	L
Calibr.	Curtis Musson	6/22/16	0725	160330C	10/2017	10.0	9.99	-189.8	P	L
ICV	Curtis Musson	6/22/16	0727	160330A	04/2017	4.0	3.97	159.6	P	L
CCV	Curtis Musson	6/22/16	1553	160330C	1/2017	10.01	9.96	-188.9	P	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 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 ± 0.05 m, whichever is greater

Florida Department of Environmental Protection

Central Laboratory Submittal Form

East Drainage Ditch, Munson Slough, Megginis Arm Run

last revised Apr 7, 2016

Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By:

Justin Calhoun

Project ID: SMP

Collected By:

Curtis Munson & Justin Calhoun

Sampling Agency:

FDEP

Location Megginis Arm Run at Meridian Canal Driveway		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 6-20-2016 Time 8:40		☒ Eastern ☐ Central		Composite end Date — Time —		Bottle Group(s) (See pg 2)	
Field ID GIWA0009		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 8.00		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		A	
STORET # GIWA0009		Temp (C) 21.78		pH 7.16		Sample Depth 0.15		☐ ft ☒ m		Sp. Conductance (umho/cm) 135	
Latitude 30.481		☒ dd ☐ dms		Longitude -84.2722		☒ dd ☐ dms		Salinity (ppt) 0.06		Comments	
Location Megginis Arm Run at Meridian Canal Driveway		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 6-22-2016 Time 8:40		☒ Eastern ☐ Central		Composite end Date — Time —		Bottle Group(s)	
Field ID GIWA0009 Blank		Matrix (type, e.g., Salt, Fresh, etc) DI water		Diss. Oxygen		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		E	
STORET # Field Blank		Temp (C)		pH		Sample Depth		☐ ft ☐ m		Sp. Conductance (umho/cm)	
Latitude		☐ dd ☐ dms		Longitude		☐ dd ☐ dms		Salinity (ppt)		Comments	
Location East Drainage ditch at Ridge rd		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 6-22-2016 Time 10:40		☐ Eastern ☐ Central		Composite end Date — Time —		Bottle Group(s)	
Field ID GIWA0039		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 8.91		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		A	
STORET # GIWA0039		Temp (C) 27.66		pH 7.21		Sample Depth 0.3		☐ ft ☒ m		Sp. Conductance (umho/cm) 159	
Latitude 30.4016		☒ dd ☐ dms		Longitude -84.3041		☒ dd ☐ dms		Salinity (ppt) 0.07		Comments	
Location East Drainage Ditch at Ridge rd		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 6-22-2016 Time 10:40		☐ Eastern ☐ Central		Composite end Date — Time —		Bottle Group(s)	
Field ID GIWA0039 D		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 8.91		☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		D	
STORET # GIWA0039		Temp (C) 27.66		pH 7.21		Sample Depth 0.3		☐ ft ☒ m		Sp. Conductance (umho/cm) 159	
Latitude 30.4016		☒ dd ☐ dms		Longitude -84.3041		☒ dd ☐ dms		Salinity (ppt) 0.07		Duplicate	

Relinquished By: Justin Calhoun	Date/Time 6-22-16 3:35	Shipping Method by hand	Number of Coolers Shipped:	Received By: MB	Date/Time 6/22/16/3:35
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East Drainage Ditch, Munson Slough, Megginns Arm
Run

Central Laboratory Submittal Form

last revised Apr 7, 2016

Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By: Justin Walkers

Project ID: SMP

Collected By: Curtis Munson & Justin Walkers

Sampling Agency: FDEP

Location <i>Munson Slough at CR 2204</i>		☐ Comp ☒ Grab	Collection (comp begin or grab) Date <i>6-22-2016</i> Time <i>13:00</i>	Eastern Central	Composite end Date <i>-</i> Time <i>-</i>	Bottle Group(s) (See pg 2) <i>A,B,C</i>
Field ID <i>G1WA0035</i>		Matrix (type, e.g., Salt, Fresh, etc) <i>Fresh</i>	Diss. Oxygen <i>11.89</i>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) <i>-</i>	
STORET # <i>G1WA0035</i>		Temp (C) <i>29.95</i>	pH <i>8.26</i>	Sample Depth <i>0.1</i>	☐ ft ☒ m	Sp. Conductance (umho/cm) <i>80</i>
Latitude <i>30.32459</i>	☐ dd ☒ dms	Longitude <i>-84.30194</i>	☐ dd ☒ dms	Salinity (ppt) <i>0.001</i>	Comments	

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	☐ ft ☐ m	Sp. Conductance (umho/cm)
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

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	☐ ft ☐ m	Sp. Conductance (umho/cm)
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

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	☐ ft ☐ m	Sp. Conductance (umho/cm)
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

Relinquished By: <i>Justin Walkers</i>	Date/Time <i>6-22-16 5:35</i>	Shipping Method <i>by hand</i>	Number of Coolers Shipped:	Received By: <i>NRB</i>	Date/Time <i>6/22/16/8:35</i>
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Group: D	Bottle Type:	P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: D	Bottle Type:	P-125ML	# of Bottles: 1	Preservative: ICE-FLTR	Enter Number of Bottles Sent to Lab	1
	W-PO4-F					
Group: E	Bottle Type:	P-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-TDS					
	W-TSS					
Group: E	Bottle Type:	BP-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W					
Group: E	Bottle Type:	P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: E	Bottle Type:	P-125ML	# of Bottles: 1	Preservative: ICE-FLTR	Enter Number of Bottles Sent to Lab	1
	W-PO4-F					

Date of Request: 06-JUN-2016
 Created By: RALYS_B On: 06-JUN-2016
 Modified By: MATTHEWS_D On: 08-JUN-2016
 Customer: WQAP
 Project: SMP
 Division:
 District:
 Sampling Event: East Drainage Ditch, Munson Slough, Megginis Arm Run

Send Coolers To:

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

Program Module Number:

Priority: 3
 Event Status: S
 Criminal Investigation: NO
 Chemistry Request Reviewed By: WATTS_J On: 06-JUN-2016
 Biology Request Reviewed By: MATTHEWS_D On: 08-JUN-2016
 Sampling Kit Required: YES Ship on: 13-JUN-2016
 Sampling Kit Shipped: YES On: 13-JUN-2016
 Sampling Kit Packed By: KITCHEN_S
 Preservatives Needed: NO
 Date to Receive Samples: 22-JUN-2016
 Received By:

Send Final Report To:

2600 Blair Stone Rd
 MS #3560
 Tallahassee, FL 32399-2400
 Attn: Benjamin Ralys

Report Type: Final Only
 FTP Data: NO
 QC Report: YES
 Date Log: NO
 Authorization Log: NO

Comments: Bottle Group A: freshwater kit no metals
 Bottle Group B: Algal
 Bottle Group C: SCI
 Bottle Group D: Duplicate freshwater kit no metals
 Bottle Group E: Field Blank freshwater kit no metals.
 3 - liters of DI water for field blank

Bottle Group A (Water) With 3 Samples:

Bottle Type: P-1L	Number of Bottles: 3	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO ₃ /L
Total Alkalinity		
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
Turbidity		
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
Chloride		
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Fluoride		
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
TDS		
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices
TSS		

Bottle Type: BP-1L	Number of Bottles: 3	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
Chlorophyll/Phaeophytin Ratio		
Chlorophyll-a, Corrected		
Chlorophyll-a, Uncorrected		
Phaeophytin-a		

Bottle Type: P-500ML	Number of Bottles: 3	Preserved With: ICE And H ₂ SO ₄
W-NH ₃	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L

Bottle Group D (Water) With 1 Samples:

Bottle Type: P-500ML Number of Bottles: 1 Preserved With: ICE And H2SO4
 W-TOC Template: DEFAULT (SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
 Organic Carbon

Bottle Group E (Water) With 1 Samples:

Bottle Type: P-1L Number of Bottles: 1 Preserved With: ICE
 ALKALINITY Template: DEFAULT (SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO3/L
 Total Alkalinity
 TURBIDITY Template: DEFAULT (EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
 Turbidity
 W-CL-IC Template: DEFAULT (EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
 Chloride
 W-COLOR Template: DEFAULT (SM 2120 B) True Color measured at 450 nm
 Color (true)
 W-F Template: DEFAULT (SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
 Fluoride
 W-TDS Template: DEFAULT (SM 2540 C-97) Total Dissolved Solids in aqueous matrices
 TDS
 W-TSS Template: DEFAULT (SM 2540 D-97) Total Suspended Solids in aqueous matrices
 TSS
 Bottle Type: BP-1L Number of Bottles: 1 Preserved With: ICE
 CHLSUITE-W Template: DEFAULT (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
 Chlorophyll/Phaeophytin Ratio
 Chlorophyll-a, Corrected
 Chlorophyll-a, Uncorrected
 Phaeophytin-a
 Bottle Type: P-500ML Number of Bottles: 1 Preserved With: ICE And H2SO4
 W-NH3 Template: DEFAULT (EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
 Ammonia-N
 W-NO2NO3 Template: DEFAULT (EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
 NO2NO3-N
 W-S-A-TP Template: DEFAULT (EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
 Total-P
 W-TKN Template: DEFAULT (EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
 Kjeldahl Nitrogen
 W-TOC Template: DEFAULT (SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
 Organic Carbon
 Bottle Type: P-125ML Number of Bottles: 1 Preserved With: ICE-FLTR
 W-PO4-F Template: DEFAULT (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
 O-Phosphate-P

* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

56
Cooler Packing Worksheet for Request: RQ-2016-06-20-52
East Drainage Ditch, Munson Slough, Megginnis Arm Run
Ship Cooler On: 6/6/2016
Customer/Project: WQAP/SMP

Requester: Benjamin Ralys
Priority: 3

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

Comments:

No preservatives needed.

Bottle Group A: freshwater kit no metals
Bottle Group B: Algal
Bottle Group C: SCI
Bottle Group D: Duplicate freshwater kit no metals
Bottle Group E: Field Blank freshwater kit no metals.
3 - liters of DI water for field blank

Requested Analyses:

Bottle Group: A

of Sites: 3

Container ID: P-1L

Qty: 3 Preservation: ICE

Lot # 00064935

Description: Plastic Bottle 1L

Analysis

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
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)
Total Dissolved Solids in aqueous matrices
Total Suspended Solids in aqueous matrices

Container ID: BP-1L

Qty: 3 Preservation: ICE

Lot # 1172350

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 # 00064521

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 # 00064035

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: PT-50ML

Qty: 3 Preservation: ICE

Lot # 430897

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Bottle Group: C

of Sites: 1

Container ID: PJ-2L

Qty: 2 Preservation: Formalin

Lot # BIO WASH

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Bottle Group: D

of Sites: 1

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00064935

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

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)

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1172350

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 # 00064521

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 # 00064035

Description: Plastic Bottle 125 mL

Analysis

W-PO₄-F

Description

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

Bottle Group: E

of Sites: 1

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00064935

Description: Plastic Bottle 1L

Analysis

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
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)
Total Dissolved Solids in aqueous matrices
Total Suspended Solids in aqueous matrices

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1172350

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 # 00064521

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 # 00064035

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: 6-13-16
DEP Cooler ID #(s): 2 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 _____	Lot # _____
ID _____	Lot # _____
ID _____	Lot # _____
ID _____	Lot # _____
ID _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2016-06-20-52