



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

WIN Station Name: Wakulla At Boat Tram

Date: 4/19/2018

WIN/ Field ID: 44059

WBID: 1006

Latitude: 30.23458

(mm/dd/yyyy)

County: Wakulla

ORG ID: 21FLWQA

Longitude: -84.29447

(Decimal Degrees)

Receiving Body of Water: St. Marks River

RQ-2018- 04-16-17

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Ralys							X		X	X
Blake Spencer						X	X	X		

Sampling Equipment									
☒ Sample Container	☐ Van Dorn	☐ Pole							
☐ Carboy	☒ Syringe								
☐ Dipper	☐ Other								
Depth Measured with <u>Meter Stick</u>									
Equipment ID									

Collection Method									
☐ Wading	☐ Canoe/Kayak								
☐ From Shore	☐ Electric Motor								
☐ Other	☒ Gasoline Motor								

Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded				Meter ID# Biology #2		Matrix: <u>Fresh</u> Marine / DI				
Photos: Yes / <u>No</u>		Flow: No Flow / Intestinal / <u>Flowing</u> / NA		Tide: Rising/ Falling/ Slack/ <u>NA</u>		Tide Times: High NA Low NA				
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
<u>EST</u>	<u>1021</u>	<u>0.7</u>	<u>0.3</u>	<u>VOB</u>	<u>4.11</u>	<u>46.2</u>	<u>7.59</u>	<u>0.15</u>	<u>319</u>	<u>21.01</u>
CEN										

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

SBIO ID Numbers: SBIO-ID: 78330 HA-ID: 15103 RPS-ID: 8969 Macrophyte-ID: 10886 LIMS#: 1986074

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	<u>SA7233030</u>	<u>8/21/18</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	<u>NA7341010</u>	<u>12/7/19</u>	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☐ Ice	<u>10821054</u>		
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	☒ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers	☒ W-SUC-AA-R ☒ W-UHERB-AA ☒ W-AHERB-AA	☒ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-CARB-AA	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Contains 1:1 Sulfuric Acid
Lot No.: SA7233030
Expires: 08/21/18
See Safety Data Sheet (SDS)

Contains 1:1 Nitric Acid
NA - 7341010
EXP: 12/7/18
See SDS

Notes:

Kit-C,
Bacteria, Tracers
SCI, RPS, LVS

Formalin Lot # → 9.99051705

WE-8321-01
WE-8321-M5

WIN ID/Field ID



44059



Wakulla River Boat Tram

↓ Location ↓

Signature:

[Signature]

Date:

4/19/18

Enter Field Parameters, Verify Station ID In LIMS DMT: 888 4/19/18

QC Station ID, Field Parameters In LIMS DMT: CM 4-23-18

Scan/Save Field Sheets CM 4/23/18

Migrate Data to WIN:

Verify Data In WIN:

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SBIO: 78330 HA: 15103

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: <u>44059</u>	DATE (MM/DD/YYYY): <u>4/19/2018</u>	RECEIVING BODY OF WATER: <u>St. Marks River</u>
REMARKS:	COUNTY: <u>Wakulla</u>	LOCATION: <u>Wakulla at Boat Tram</u>		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Snag Leaf Root Rock Aquatic Vegetation	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>6</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>20</u> %	Major productive habitat present at site (>30% 27.2% 25.8% 24.4% 26.6%) 20 19 18 17 16	Major productive habitat, by aerial extent (21.6% 20.2% 18.8% 17.4% 16%) 15 14 13 12 11	6% to 15% major productive habitat (15% 13% 11% 9% 6%) 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>20</u> <u>0.33</u> m/s	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 <u>20</u> 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>11</u> ----- Primary Score <u>57</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 Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. May have spoil banks. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. May have spoil banks. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank <u>10</u> Left Bank <u>10</u> If Banks are PipeClay, BedRock or Concrete at Bank full: Optimal	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>10</u> Left Bank <u>9</u>	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m (18m 15m 12m) 8 7 6	Width of vegetation 6 to 12 m. human activities close to system (9m) 5 4	Less than 6 m of buffer zone due to intensive human activities (6-5m) (4-3m) (<2m) 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>79</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

136 TOTAL SCORE

Date: <u>4/19/18</u>	Analyst: <u>Blake Spencer</u>	Signature: <u>[Signature]</u>
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Entered by: [Signature] 4/19/18

QC CM 4/23/18

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID _____ ORG ID 21FLWAH LATITUDE 30.23458
 COUNTY wakulla STORET # 44059 LONGITUDE -84.29447
 DATE 4/19/18 TIME _____ SAMPLING AGENCY FDEP
 SITE NAME wakulla at Boat Tram
 FIELD ID/NAME _____ RECEIVING BODY OF WATER St. Marks River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>100</u> Silviculture _____ Field/Pasture <u>2</u> Agricultural <u>0.9</u> Residential <u>17</u> Commercial <u>0.7</u> Industry <u>0.9</u> Other (Specify) <u>0.5</u>								Landscape Development Intensity Index (LDI) <u>1.2</u>
Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☐ Heavy								Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>85</u> m wide _____ m/s <u>0.33</u> m/s _____ m/s _____ m deep <u>0.7</u> m deep _____ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18m</u> Right Bank: <u>>18m</u>				Hydrologic Modification Score (per FT 3101) <u>3-4</u>				
High Water Mark: <u>0.3</u> + <u>0.7</u> = <u>1.0m</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % ☒ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)				

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse			Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify): _____			Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☐ Slight ☐ Moderate ☐ Severe ☒																																																																													
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon <table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>>30%</u></td> <td><u>10</u></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sand.....</td> <td></td> <td><u>10</u></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)				Undercut Banks / Roots				Leaf Packs or Mat				Aquatic Vegetation	<u>>30%</u>	<u>10</u>		Rock or Shell Rubble..				Sand.....		<u>10</u>		Mud / Muck / Silt				Other				Other				WATER QUALITY <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>0.3</u></td> <td><u>21.01</u></td> <td><u>7.59</u></td> <td><u>4.11</u></td> <td><u>46.2</u></td> <td><u>319</u></td> <td><u>0.15</u></td> <td></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Meter ID: <u>Bio #2</u> TOTAL DEPTH <u>0.7</u>						Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u>0.3</u>	<u>21.01</u>	<u>7.59</u>	<u>4.11</u>	<u>46.2</u>	<u>319</u>	<u>0.15</u>		Mid:								☒ VOB	Bottom:								
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			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐																																																																														
			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>723</u> Exp: _____		Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐																																																																														
			Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☒ No Lot Number: <u>Ice</u> Exp: _____		Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																																																														
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☐ ☒ Fish: ☐ ☐ ☐ ☒ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>Spring Run</u>																																																																																
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																			
SAMPLING TEAM <u>Ben Ralys, Blake Spencer</u>				SIGNATURE: 		DATE: <u>4/19/18</u>																																																																													

Entered by: Blake Sp 4/19/18

SRI0: 78330 RPS: 8969

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Wakulla at Boat Tram County: Wakulla Date: 4/19/18 Investigators: Ben Rabs, Blake Spencer

STORET Station Number: 44059

Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
3	1	X	Y		60	1	X	Y	
	2	6				2	6		
	3	6				3	6		
	4	N				4	6		
	5	N		0		5	N		0
	6	N				6	6		
	7	N				7	6		
	8	4				8	X		
	9	N				9	X		
6	1	X			70	1	N		
	2	6				2	N		
	3	6				3	6		
	4	6				4	6		
	5	N		0		5	6		0
	6	6				6	N		
	7	6				7	X		
	8	6				8	X		
	9	N				9	X		
5	1	X			80	1	X		
	2	6				2	6		
	3	6				3	6		
	4	4				4	6		
	5	N		0		5	6		0
	6	N				6	6		
	7	N				7	X		
	8	6				8	X		
	9	6				9	X		
5	1	X			90	1	X		
	2	6				2	6		
	3	N				3	4		
	4	6				4	6		
	5	N		0		5	6		0
	6	6				6	6		
	7	4				7	X		
	8	6				8	X		
	9	N				9	X		
4	1	N			100	1	X		
	2	N				2	X		
	3	6				3	6		
	4	6				4	6		
	5	6		0		5	6		0
	6	6				6	N		
	7	N				7	N		
	8	N				8	X		
	9	N				9	X		
6	1	X			50	1	X		
	2	6				2	6		
	3	6				3	6		
	4	6				4	6		
	5	6		0		5	6		
	6	6				6	N		
	7	N				7	N		
	8	N				8	X		
	9	6				9	X		

Secchi depth 108
Estimated? 10

points ranked 4-6 50
total points assessed 77
% points ranked 4-6 65%

Check accompanying data collected at same site/date.

Algal mat sample ☒
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ- 2018-04-16-17

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



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 densimeter 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%.

Entered by: Ben Rabs 4/19/18

QC Cm 4/23/18

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Storet Number: 440.59

Signature: B. L. L.

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.

If no Dominant or Co-Dominant were selected, indicate with "X"

Indicate % cover macrophytes per section

0-5% Macrophyte Coverage

>5 and ≤10% Macrophyte Coverage

>10 and ≤25% Macrophyte Coverage

>25 and $\leq 50\%$ Macrophyte Coverage

> 50% Macrophyte Coverage

Notes:

 $\square < 2m^2$

62-160.800, F.A.C.

page 1 of 2

Revision Date: March 1, 2014

Macrophyte QC Report

STORET: 44059

Visit ID: 78330

Macrophyte ID: 10886

LIMS ID: 1986074

Sample Date: 4/19/2018

Collector Name: Spencer, Blake

Identifier Name: Spencer, Blake

Macrophyte Sample Comments:

QC cm 4/23/18

Taxa Name:	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
<i>Cicuta maculata</i>	P	P	P	P	P	P	P	P	P	P	cm
<i>Cladium jamaicense</i>	P					P	P	P	P	P	cm
<i>Hydrilla verticillata</i>	P	P	P	P	P	P	P	P	P	P	cm
<i>Hydrocotyle</i>					P						cm
<i>Hymenocallis</i>								P			cm
<i>Lemna</i>	P	P	P	P	P	P	P	P	P	P	cm
<i>Ludwigia repens</i>						P	P	P	P	P	cm
<i>Mikania scandens</i>	P	P	P	P	P	P	P	P	P	P	cm
<i>Polygonum glabrum</i>	P	P	P	P	P	P	P	P	P	P	cm
<i>Pontederia cordata</i>	P	P	P	P	P	P	P	P	P	P	cm
<i>Rumex verticillatus</i>			P	P				P			cm
<i>Sagittaria kurziana</i>	D	D	D	D	D	D	D	D	D	D	cm
<i>Sagittaria lancifolia</i>	P	P	P	P	P	P	P	P	P	P	cm
<i>Schoenoplectus californicus</i>							P	P			cm
<i>Typha</i>					P						cm
<i>Vallisneria americana</i>	P	P	P	P	P	P	P	P	P	P	cm

This data has not been fully approved at this time.

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: WAS-SECT

Requester: Curtis Musson

Field Report Prepared By: Ben Ralys, Blake Spencer

Project ID: BMAP

Collected By: Ben Ralys, Blake Spencer

Sampling Agency: FDEP

Location		Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s) (See pg 2)
Field ID	WIN ID/Field ID	Date	Time	Date	Time	Date	Time	
  WIN/STORET # 44059 Wakulla River Boat Tram		☐ Comp ☒ Grab		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 46.2		Total Res. Chlorine (mg/L) -
Latitude 30.23458 ☒ dd ☐ dms Longitude -84.29447 ☒ dd ☐ dms		Temp (C) 21.01 pH 7.59		Sample Depth 0.3 ☐ ft ☒ m		Sp. Conductance (umho/cm) 319		
Salinity (ppt) 0.15		Comments						

Location		Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)
Field ID	WIN/STORET #	Date	Time	Date	Time	Date	Time	
		☐ Comp ☐ Grab		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)
		Temp (C) pH		Sample Depth ☐ ft ☐ m		Sp. Conductance (umho/cm)		
Latitude ☐ dd ☐ dms Longitude ☐ dd ☐ dms		Comments						

Location		Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)
Field ID	WIN/STORET #	Date	Time	Date	Time	Date	Time	
		☐ Comp ☐ Grab		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)
		Temp (C) pH		Sample Depth ☐ ft ☐ m		Sp. Conductance (umho/cm)		
Latitude ☐ dd ☐ dms Longitude ☐ dd ☐ dms		Comments						

Location		Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)
Field ID	WIN/STORET #	Date	Time	Date	Time	Date	Time	
		☐ Comp ☐ Grab		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)
		Temp (C) pH		Sample Depth ☐ ft ☐ m		Sp. Conductance (umho/cm)		
Latitude ☐ dd ☐ dms Longitude ☐ dd ☐ dms		Comments						

Relinquished By: 	Date/Time: 4/19/18 11:53am	Shipping Method: HT	Number of Coolers Shipped: 1	Received By: 	Date/Time: 4/19/18 1156
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Group: A	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W						
Group: A	Bottle Type:	P-250ML-WO-THI	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ECOLI-18QT						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	W-E8321-DI						
	W-E8321-MS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
	W-ICP						
	W-ICPMS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	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: A	Bottle Type:	P-125ML	# of Bottles: 2	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
	W-PO4-F						
Group: B	Bottle Type:	PT-50ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALGAL_ID						
Group: B	Bottle Type:	PJ-2L	# of Bottles: 4	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	2
	MI-FW-QLDC						

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 ID: Bizlog V# 2

RQ: 2018-04-16-17

Project: Waka/BMAP

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.	Blake Spencer	4/19/18	0714	21.52	8.829	8.82	100.0	69.6	—	P/F	L/F
ICV	Blake Spencer	4/19/18	0722	21.57	8.812	8.83	100.1	69.6	—	P/F	L/F
CCV	Blake Spencer	4/19/18	1239	22.53	8.66	8.64	99.7	67.6	—	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.	Blake Spencer	4/19/18	0727	171005D	10/2018	1000	1000	P/F	L/F
ICV	Blake Spencer	4/19/18	0728	171005D	10/2018	1000	1000	P/F	L/F
CCV	Blake Spencer	4/19/18	1241	180326A	04/2019	100	100	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.	Blake Spencer	4/19/18	0733	171005B	04/2019	7.0	7.00	1.5	P/F	L/F
Calibr.	Blake Spencer	4/19/18	0736	171005A	10/2018	4.0	4.00	174.3	P/F	L/F
Calibr.	Blake Spencer	4/19/18	0739	171005C	04/2019	10.0	9.98	-165.5	P/F	L/F
ICV	Blake Spencer	4/19/18	0742	171005C	04/2019	10.0	9.99	-166.7	P/F	L/F
CCV	Blake Spencer	4/19/18	1244	171005A	10/2018	4.0	3.96	175.8	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						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:

Cooler Packing Worksheet for Request: RQ-2018-04-16-17

Wakulla BMAP

Ship Cooler On: 4/12/2018

Customer/Project: WAS-SECT/BMAP

Assigned To: REAVES_S

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, Metals, E. coli, Tracers

Group B: SCI, Algal ID

Requested Analyses:

Bottle Group: A

of Sites: 2

Container ID: P-1L

Qty: 2 Preservation: ICE

Lot #

100070681

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: 2 Preservation: ICE

Lot #

1223623

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-250ML-WO-THI

Qty: 2 Preservation: ICE

Lot # L18006

Description:

Analysis

ECOLI-18QT

Description

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

Container ID: BG-500ML

Qty: 2 Preservation: ICE

Lot # 00067841

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Container ID: P-500ML

Qty: 2 Preservation: HNO3

Lot # 00070631

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

Container ID: P-500ML

Qty: 2 Preservation: ICE And H2SO4

Lot # 0006

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

00070631

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: 2 Preservation: FILTER-ICE

Lot # 00069731

Description: Plastic Bottle 125 mL

00069732

Analysis

W-PO4-F

Description

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

Bottle Group: B

of Sites: 2

Container ID: PT-50ML

Qty: 2 Preservation: ICE

Lot #

37
08775003

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Container ID: PJ-2L

Qty: 4 Preservation: Formalin

Lot #

BLOWASH

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

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

Cooler Packed By:

SR

Number of Coolers:

2

Date:

4-7-18

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-2018-04-16-17