FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF ____

Data Qualified? Yes / No

Location/STORET Station Name: Merritt's Mill Pond mid under powerlines **Date:** 6/14/2017 (mm/dd/yyyy)

STORET # G2WA0008 **WBID:** 180A **Latitude:** 30.7698 (Decimal Degrees)

County: Jackson **RQ -** 2017-06-12-67 **ORG ID:** 21FLWQA **Longitude:** -85.1731 (Decimal Degrees)

Receiving Body of Water: Chipola River **Field ID:** G2WA0008_06142017

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
Curtis Musson			X	X	X		
Ben Ralys							X
Blake Spencer	X	X				X	

Sampling Equipment

☑ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☑ Syringe
☐ Dipper ☐ Other _____
Equipment ID _____

Collection Method

☐ Wading
☐ From Shore
☐ Other (note below)

Via Boat
☐ Canoe/Kayak
☐ Electric Motor
☑ Gasoline Motor

Water Level: Dry / Pooled / Low / (Normal) / High / Flooded

Matrix: (Fresh) / Marine / (DI)

Meter ID# Biology #2 **Photos:** Yes / (No)

Tide Falling: Yes / No / (NA)

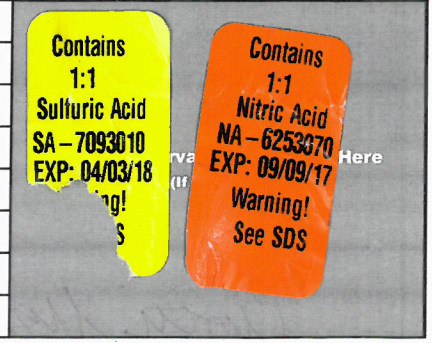
Field Sample

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)	10:26	0.3	1.7	9.17	108.9	7.75	0.13	VOB	271	23.91
CEN	10:28	1.2		9.94	117.7	7.80	0.13		271	23.59

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

SBIO ID Numbers: SBIO-ID: 77699 RPS-ID: — Macrophyte-ID: 10522 LIMS#: 1906432

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_2SO_4	7093010	4/3/18	☑ <2
Metals	☑ W-ICPMS ☑ W-ICP	☑ Ice ☑ HNO3	6253070	9/9/17	☒ <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-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-SUG-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 _____			



QA/QC Sample Information

Duplicate

Time Zone: EST CEN **Sample Depth (m):** _____ **Field ID:** _____

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_2SO_4			☐ < 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 ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHF ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ [illegible]-AA ☐ W-PYR-AA-R ☐ W-PCI-[illegible] ☐ [illegible]HERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Blank

Time Zone: (EST) CEN **Time:** 10:25 **Field ID:** Label below **Location:** Merritts Mill Pond

☑ 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_2SO_4	7093010	4/3/18	☑ < 2
Metals	☑ W-ICPMS ☑ W-ICP	☑ Ice ☑ HNO_3	6253070	9/9/17	☑ < 2
Filtered Nutrients	☑ W-PO4-F ☑ Field Filtered 0.45 µm Filter	☑ Ice	Sulfuric Acid SA – 7093010 EXP: 04/03/18 Warning! See SDS / Nitric Acid NA – 6253070 EXP: 09/09/17 Warning! See SDS		
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	**QC Blank DI Water**	Field ID → QC BLANK DI Wate[r] June 14, 2017 Q2WA0007 06142017B			
Tracers					
Pesticides	-AA-R				

Notes:

Contains 1:1

Contains 1:1

Merritt's Mill Pond mid under powerlines

STORET → Q1WA0008

Cloud Cover 90%

Field ID → Merritt's Mill Pond mid under powerlines June 14, 2017 Q2WA0008_06142017

Signature: Crystal Mu **Date:** 6-14-17

Field Parameters Entered into LIMS: CM 6-16-17 (Initials/Date) **Field Parameters QC in LIMS:** _____ (Initials/Date)

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

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Merritt's Mill Pond	County Jackson	Date: 6-14-2017
Analyst: Curtis Musson, Ben Ralys, Blake Spencer	Signature:	STORET: G2WA000 8

Except where noted as "sp." species level identification required. *Genera that may require lab verification*
Plants in bold= FLEPPC invasive exotic.

It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.

Lake units sampled (circle one group):
~~1, 4, 7, 10~~ (2, 5, 8, 11) ~~3, 6, 9, 12~~

SPECIES	2	5	8	11	Collected? (√)
Acer rubrum	X	X	X	X	
Alternanthera philoxeroides			X		
Andropogon sp.					
Azolla filiculoides (A. caroliniana)					
Baccharis sp.					
Bacopa caroliniana					
Bacopa monnieri					
Bidens laevis					
Bidens mitis					
Blechnum serrulatum					
Boehmeria cylindrica	X	X	X	X	
Brasenia schreberi					
Cabomba caroliniana					
Casuarina equisitifolia					
Centella asiatica					
Cephalanthus occidentalis	X	X	X	X	
Ceratophyllum demersum	X	X	X	X	
Chara sp.		X	X	X	
Cladium jamaicense	X	X	X	X	
Cliftonia monophylla					
Colocasia esculenta	X	X	X	X	
*Commelina					
Crinum americanum					
***Cyperus alternifolius** (C. involucratus)			X	X	
Cyperus articulatus					
Cyperus haspan					
*Cyperus lecontei					
*Cyperus polystachyos					
*Cyperus odoratus					
*Cyperus surinamensis					
Cyrilla racemiflora					
Decodon verticillatus					
Diodia virginiana					
*Echinochloa crus-galli					
*Echinochloa muricatum					
Echinochloa walteri					
Eclipta prostrata (E. alba)					
Egeria densa					
Eichhornia crassipes		X	X		
*Eleocharis baldwinii					
*Eleocharis					
Eleocharis cellulosa					
Eleocharis equisetoides					
Eleocharis interstincta					
*Eriocaulon compressum					
*Eriocaulon decangulare					
Eupatorium capillifolium					
*Fuirena					
Fuirena scirpoidea					
Gordonia lasianthus					

SPECIES	2	5	8	11	Collected? (√)
Habenaria repens					
Hydrilla verticillata					
Hydrocotyle sp.		X	X	X	
Hrdrolea quadrivalis					
Hygrophila polysperma					
*Hypericum fasciculatum					
*Hypericum hypericoides					
*Hypericum myrtifolium					
Ilex cassine					
Ipomoea aquatica					
Ipomoea sagittata					
Iris pseudacorus					
Itea virginica					
Juncus effusus					
*Juncus marginatus					
*Juncus megacephalus					
Juncus repens					
*Juncus scirpoides					
Lachnanthes caroliniana					
Leersia hexandra					
Landoltia punctata (Spirodela punctata)					
Lemna sp.	X	X	X	X	
Leucothoe racemosa (Eubotrys racemosa)					
Limnobium spongia					
Limnophila sessiliflora					
Liquidamber styraciflua	X	X	X	X	
*Ludwigia arcuata					
*Ludwigia leptocarpa					
*Ludwigia linearis					
*Ludwigia octovalvis					
***Ludwigia peruviana**					
*Ludwigia repens					
*Ludwigia					
Luziola fluitans (Hydrochloa carolinensis)					
Lycopus virginicus			X	X	
Lyonia lucida					
Magnolia virginiana					
Mayaca fluviatilis					
Melaleuca quinquenervia					
Micranthemum glomeratum					
Micranthemum umbrosum					
Mikania scandens	X				
Mimosa pigra					
Myrica cerifera			X		
Magnolia Grandaflora / Magnolia Grandaflora →	X			X	

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Merritts Mill Pond Motel

Date: 6-14-2017

SPECIES	2	5	8	11	Collected? (√)
Myriophyllum aquaticum					
*Myriophyllum heterophyllum					
*Myriophyllum laxum					
*Myriophyllum pinnatum					
Myriophyllum spicatum					
*Najas filifolia					
*Najas guadalupensis					
*Najas minor					
Nelumbo lutea					
Nitella spp.					
Nuphar sp.					
Nymphaea odorata					
Nymphoides aquatica					
Nyssa sylvatica var. biflora	X	X	X	X	
Orontium aquaticum					
Osmunda cinnamomea					
Osmunda regalis	X		X	X	
Panicum hemitomon					
Panicum repens					
Paspalidium geminatum					
*Paspalum repens					
Paspalum urvillei		X		X	
Peltandra sp.					
Persea sp.					
Pennisetum purpureum					
Phragmites australis					
Pinus elliottii					
Pistia stratioides					
Pluchea sp.					
*Polygonum glabrum (densiflorum)			X		
*Polygonum hydropiperoides					
*Polygonum punctatum					
*Polygonum _____					
Pontederia cordata					
*Potamogeton diversifolius					
*Potamogeton illinoensis					
*Potamogeton pusillus					
*Potamogeton pectinatus (Stuckenia pectinatus)					
Proserpinaca pectinata					
*Rhexia _____					
*Rhynchospora corniculata					
*Rhynchospora inundata					
Rhynochospora tracyi					
Ricciocarpus natans					
Sabal palmetto					
Sacciolepis striata					
*Sagittaria filiformis					
*Sagittaria graminea					
*Sagittaria isoetiformis					
Sagittaria lancifolia					
Sagittaria latifolia					
A. Bambos		X			← Arundinaria Gigantea
Sabal - Serenoa repens		X	X		
ASH ASH	X	X	X		← Fraxinus caroliniana

SPECIES	2	5	8	11	Collected? (√)
Salix caroliniana				X	
Salvinia minima	X	X	X	X	
Sambucus canadensis					
Sapium sebiferum					
Saururus cernuus					
Schinus terebinthifolius					
*Schoenoplectus californicus					
*Schoenoplectus pungens					
*Schoenoplectus tabernaemontani (Scirpus validus)					
Scirpus cubensis (Oxycaryon cubense)					
Scirpus cyperinus					
*Sesbania _____					
Solidago sp.					
Sparganium americanum					
Spartina bakeri					
Spirodela polyrhiza	X	X	X	X	
Taxodium sp. Dom 5,6	X	X	X	X	
Thalia geniculata					
Thelypteris palustris					
Triadenum virginicum					
Typha sp.					
Urochloa mutica (Brachiaria mutica)					
*Utricularia gibba (U. biflora)					
*Utricularia floridana					
*Utricularia foliosa					
*Utricularia inflata					
*Utricularia purpurea					
*Utricularia cornuta					
*Utricularia radiata					
Vallisneria americana Dom 2,11	X			X	
*Websteria confervoides					
Wedelia trilobata (Sphagneticola trilobata)					
Wolffiella spp.	X	X	X	X	
Woodwardia virginica					
Xyris sp.					
Zizania aquatica					
Zizaniopsis milacea					
Iris Pseudacorus					
Psud Iris →			X		
Carex			X		? — Not entered in SBio
Rosa Palustris			X	X	
Carex Comosa	X		X		No ID
Hedychium Coronarium			X	X	
~~Alnus~~ Amorium	X			X	
Ulmus americana →					

Macrophyte QC Report

STORET: G2WA0008
Visit ID: 77699
Macrophyte ID: 10522
LIMS ID: 1906432

Sample Date: 6/14/2017
Collector Name: Musson, Curtis
Identifier Name: Musson, Curtis

Macrophyte Sample Comments:
Grass Carp Present

2 5 8 11

Taxa Name:	Rep 1	Rep 2	Rep 3	Rep 4
Acer rubrum	P	P	P	P
Alternanthera philoxeroides			P	
Arundinaria gigantea		P		
Boehmeria cylindrica	P	P	P	P
Carex comosa	P		P	
Cephalanthus occidentalis	P	P	P	P
Ceratophyllum demersum	P	P	P	P
Chara		P	P	P
Cladium jamaicense	P	P	P	P
Colocasia esculenta	P	P	P	P
Cyperus alternifolius			P	P
Eichhornia crassipes		P	P	
Fraxinus caroliniana	P	P	P	P
Hedychium coronarium			P	P
Hydrocotyle		P	P	P
Iris pseudacorus			P	
Lemna	P	P	P	P
Liquidambar styraciflua	P	P	P	P
Lycopus virginicus			P	P
Magnolia grandiflora	P			P
Mikania scandens	P			
Myrica cerifera			P	
Nyssa sylvatica biflora	P	P	P	P
Osmunda regalis	P		P	P
Paspalum urvillei		P		P
Polygonum glabrum			P	
Rosa palustris			P	P
Salix caroliniana				P
Salvinia minima	P	P	P	P
Serenoa repens		P	P	P
Taxodium	P	D	D	P
Ulmus americana	P			P
Vallisneria americana	D			D

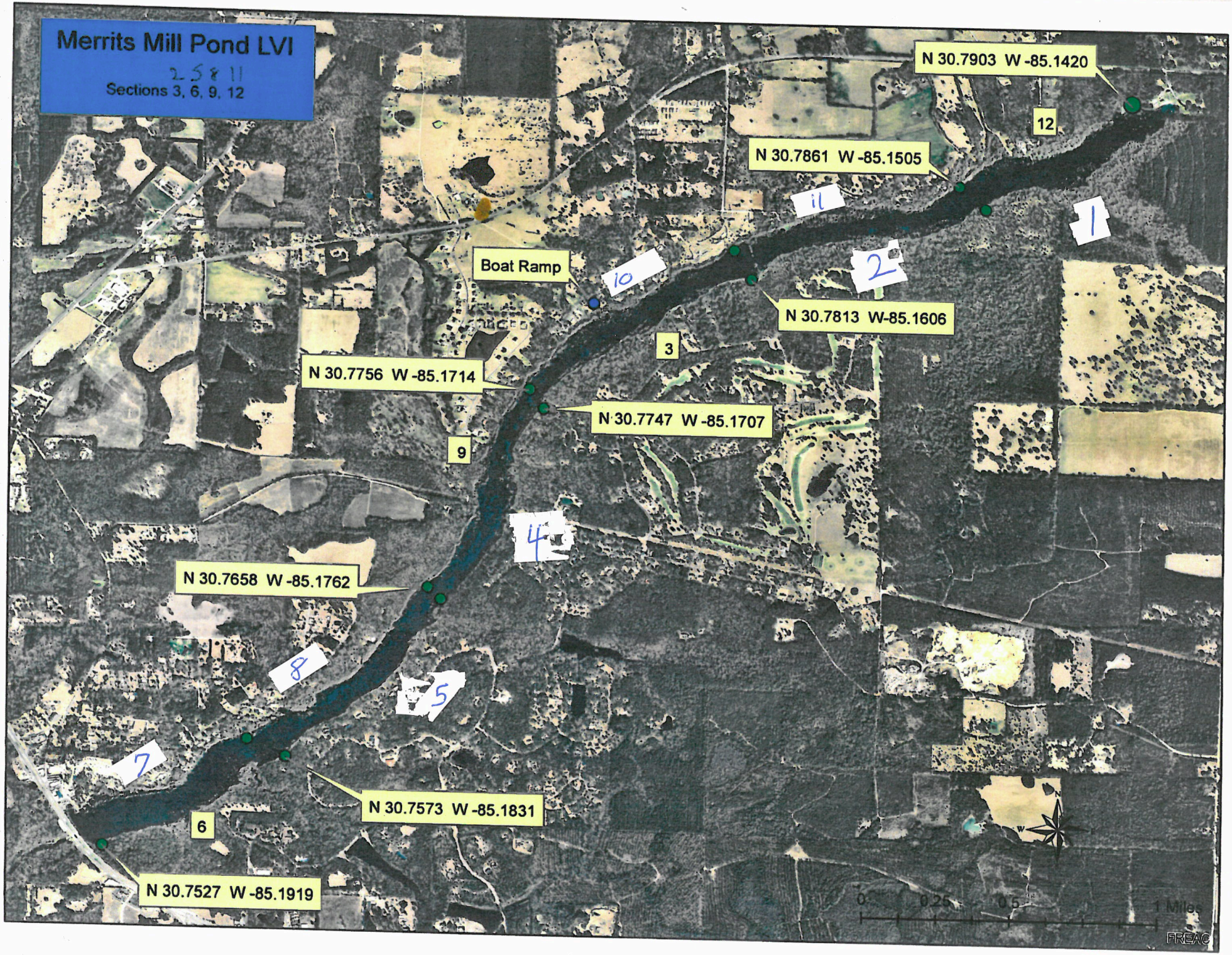
This data has not been fully approved at this time.

Macrophyte QC Report

Taxa Name:	Rep 1	Rep 2	Rep 3	Rep 4
Wolffiella	P	P	P	P

This data has not been fully approved at this time.

25811


Merrits Mill Pond LVI
25811
Sections 3, 6, 9, 12
N 30.7903 W -85.1420
12
N 30.7861 W -85.1505
11
1
Boat Ramp
10
2
N 30.7813 W-85.1606
3
N 30.7756 W -85.1714
N 30.7747 W -85.1707
9
4
N 30.7658 W -85.1762
8
5
7
N 30.7573 W -85.1831
6
N 30.7527 W -85.1919
0
0.25
0.5
1 Miles
FREAC

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 77699 | MACROPHYTE ID: 10522 | LATITUDE:
COUNTY: Jackson | STORET #: G2WA0008 | LONGITUDE:
DATE: 6/14/2017 | TIME: 1026 | SAMPLING AGENCY: FDEP
SITE NAME: Merritts Mill Pond Mid Under Power Lines | WBID: 150A
FIELD ID/NAME: G2WA0008_06142017 | LAKE SIZE: 114 HA | RQ: 2017-06-12-67

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Water

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
28.6	19.9	36.2	3.0	11.2	0.4	0.6	0.2

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) — LDI: 3.00 — Land Use Source & Year:

Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Artificially Impounded ☒ Yes ☐ No

STORMWATER INPUTS: 13	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
LAKESIDE ALTERATIONS: 13	Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)	Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected)	Many structures, roads or other human disturbance visible (50%-70% lakeside affected)	Highly developed or disturbed (>70% of lakeside affected)
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
BUFFER ZONE: 14	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer	< 29% of shoreline with >18m buffer
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water:
Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☒ pH<2 ☐ No
Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____
Alkalinity Sample Taken? ☒ Yes ☐ No See Field Sheet
Water Level ☐ Low ☒ Normal ☐ High

Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____

Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____

Meter Readings:	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	0.3	23.9	7.75	108.9	9.17	271	0.13
Mid-Depth:	~	~	~	~	~	~	~
Bottom :	1.2	23.59	7.80	117.7	9.94	271	0.13

Meter ID:

Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid

Color: ☒ Clear ☐ Tannic ☐ Green

SECCHI (M): _____ VOB ☒

Total Station Depth (M): 1.7

Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☒ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify):_____

Sample Taken? ☐ Yes ☒ No

Sediment Odors: ☒ Normal ☐ Other (Specify): ☐ Anaerobic _____

Biological Communities:
LVI Conducted? ☒ Yes ☐ No
Phytoplankton Sample Taken? ☐ Yes ☒ No
Sample Preserved? ☐ Yes ☐ No
Lot #: _____ Exp Date: _____
Algal Bloom/Algal ID Sample Taken? Yes (No)
Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know

Abundance:

	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☒
Nuisance Plants	☐	☒	☐	☐
Submersed Plants	☐	☐	☐	☒
Exotic Apple Snails	☒	☐	☐	☐

Additional Notes:
- Native Apple Snails
- Grass carp

Weather Conditions : Partly cloudy, mid 80's

SAMPLING TEAM: Curtis Musson, Blake Spencer, Ben Ralls

SIGNATURE: [signature]

DATE: 6-14-17

SBIO 77699

DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

G2WA0008_06142017

STORET STATION NUMBER: G2WA0008	DATE (M/D/Y): 6/14/2017	LAKE NAME: Merritt's Mill Pond	FIELD ID / NAME:
ECO-REGION: Dougherty Plain (54 / 55g)	COUNTY: Jackson	SAMPLING LOCATION/DESCRIPTION: Merritts Mill Pond Mid Under Powerlines	LAKE SIZE: 114 HA

PARAMETER				
HYDROLOGY	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates ☐	Surface water inflow present, but flow is rare, moderate to long water residence time ☐	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time ☐	Impounded, hydrology of system artificially controlled ☒
Color	Very clear, uncolored water (benthic sampling appropriate) ☒	Water somewhat tannin stained (benthic sampling appropriate) ☐	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☐

	Optimal	Suboptimal	Marginal	Poor
Secchi 20	Secchi >3 m / Secchi(m)	3 | 2.6 | 2.2 | 1.8 | 1.4	1.0 | 0.9 | 0.8 | 0.7 | 0.6	0.5 | 0.4 | 0.3 | 0.2 | 0.1
	Or VOB 20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Vegetation Quality 19	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants	Large masses (21%- 40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats	Lake choked (>40%) with nuisance macrophytes (duck-weed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)
	20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Stormwater Inputs 13	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place
	20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Bottom Substrate Quality 7	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present	Moderate layer of CPOM/ mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom
	20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Lakeside Adverse Human Alternations 12	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected)	Highly developed or disturbed (>70% of lakeside affected)
	20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Upland Buffer Zone 14	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer	< 29% of shoreline with >18m buffer
	20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1
Adverse Watershed Land Use 9	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial			
	20 | 19 | 18 | 17 | 16	15 | 14 | 13 | 12 | 11	10 | 9 | 8 | 7 | 6	5 | 4 | 3 | 2 | 1

TOTAL SCORE: 94	COMMENTS: Grass Carp present

ANALYSIS DATE: 6/14/2017	ANALYST: Curtis Musson	SIGNATURE:

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: Biology #2 RQ- 2017-06-12-67 Project: BMAP

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 03/06/2017

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	6-14-17	7:19	23.17	8.71	8.72	100.0	48	—	P	L
ICV	Curtis Musson	6-14-17	7:20	22.07	8.727	8.74	100.0	48	—	P	L
CCV	Blake Spencer	6/15/17	7:15	22.04	8.744	8.85	101.3	49.2	—	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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	6-14-17	7:22	161111D	11/2017	1000	1000	P	L
ICV	Curtis Musson	6-14-17	7:23	161111D	11/2017	1000	1000	P	L
CCV	Blake Spencer	6/15/17	07:21	170310E	03/2018	100	103	P	L
CCV									

Report specific conductance as a whole number with no decimal figure. Conductivity Acceptance criteria ± 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	6-14-17	7:24	170310B	9/2018	7.0	7.00	-4.5	P	L+B
Calibr.	Curtis Musson	6-14-17	7:26	170310A	3/2018	4.0	4.01	169	P	L
Calibr.	Curtis Musson	6-14-17	7:28	161111C	5/2018	10.0	9.98	-168	P	L
ICV	Curtis Musson	6-14-17	7:29	161111C	5/2018	10.01	9.97	-168	P	L
CCV	Blake Spencer	6/15/17	7:27	170310B	09/2018	7.00	7.08	-5.5	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±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 ±5 % or ±0.05m, whichever is greater

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

Request Number: 2017-06-12-67
Merritt's Mill Pond
Customer: WQ-ASSESS
Project ID: BMAP

Requester: Curtis Musson
Collected By: Curtis Musson, Ben Rains

Field Report Prepared By: Curtis Musson
Sampling Agency: FDEP

Location

Merritt's Mill Pond 600 meters Downstream of Jackson Blue Spring

STORET
G1WA0007

Field ID
Merritt's Mill Pond 600 meters Downstream of Jackson Blue Spring
June 14, 2017
G2WA0007_06142017D

☐ Comp ☒ Grab
Collection (comp begin or grab) Date 6-14-17 Time 0944 Eastern Central
Collection (comp begin or grab) Date / Time /
Bottle Group(s): A

Matrix (Salt, Fresh): Fresh	Diss. Oxygen (mg/L): 7.90		
Temp (C): 20.67	pH: 7.66	Sample Depts (m): 0.3	Sp. Conductance (umho/cm): 276
Salinity (ppt): 0.13	Comments:		
Latitude (Decimal Degrees): 30.787		Longitude (Decimal Degrees): -85.1459	

Location

Merritt's Mill Pond mid under powerlines

STORET
G1WA0008

Field ID
Merritt's Mill Pond mid under powerlines
June 14, 2017
G2WA0008_06142017

☐ Comp ☒ Grab
Collection (comp begin or grab) Date 6-14-17 Time 10:26 Eastern Central
Collection (comp begin or grab) Date / Time /
Bottle Group(s): A

Matrix (Salt, Fresh): Fresh	Diss. Oxygen (mg/L): 9.17		
Temp (C): 23.91	pH: 7.75	Sample Depts (m): 0.3	Sp. Conductance (umho/cm): 271
Salinity (ppt): 0.13	Comments:		
Latitude (Decimal Degrees): 30.7698		Longitude (Decimal Degrees): -85.1731	

Location

STORET
G2WA0009

Merritts Mill Pond 500 meters upstream of dam

Field ID
Merritt's Mill Pond 500 meters upstream of dam
June 14, 2017
G2WA0009_06142017

☐ Comp ☒ Grab
Collection (comp begin or grab) Date 6-14-17 Time 10:55 Eastern Central
Collection (comp begin or grab) Date / Time /
Bottle Group(s): A

Matrix (Salt, Fresh): Fresh	Diss. Oxygen (mg/L): 9.06		
Temp (C): 26.19	pH: 7.71	Sample Depts (m): 0.3	Sp. Conductance (umho/cm): 256
Salinity (ppt): 0.12	Comments:		
Latitude (Decimal Degrees): 30.755		Longitude (Decimal Degrees): -85.1881	

Relinquished By:	Date/Time	Number of Coolers	Received By:	Date/Time
Curtis Musson	6-14-17 / 15:27	2		

Request Number: 2017-06-12-67
Merritt's Mill Pond
Customer: WQ-ASSESS
Project ID: BMAP

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

Requester: Curtis Musson
Collected By: _____
Field Report Prepared By: _____
Sampling Agency: FDEP

Location

QC - DUP

STORET

Merritt s Mill Pond
600 meters
downstream of
Jackson Blue Spring

Q1WA0007

Field ID
erritt's Mill Pond
0 meters
wnstream of
ckson Blue
pring
ıne 14, 2017

Q2WA0007_06142017

☐ Comp ☑ Grab	Collection (comp begin or grab) Date 6-14-2017 Time 0953 Eastern ~~Central~~		Collection (comp begin or grab) Date / Time /	Bottle Group(s) A
Matrix ~~(Salt,~~ Fresh) Fresh	Diss. Oxygen (mg/L) 7.90			
Temp (C) 20.67	pH 7.66	Sample Depts (m) 0.3	Sp. Conductance (umho/cm) 276	
Salinity (ppt) 0.13	Comments DUP			
Latitude (Decimal Degrees) 30.787		Longitude (Decimal Degrees) -85.1459		

Location

QC Blank
DI Water

Field ID
QC
BLANK
DI Wate

June 14, 2017

Q2WA0007_06142017B

☐ Comp ☑ Grab	Collection (comp begin or grab) Date 6-14-17 Time 10:25 Eastern ~~Central~~		Collection (comp begin or grab) Date / Time /	Bottle Group(s) A
Matrix (Salt, Fresh) DI WAter	Diss. Oxygen (mg/L) BLANK			
Temp (C)	pH	Sample Depts (m)	Sp. Conductance (umho/cm)	
Salinity (ppt)	Comments QC Blank DI WAter			
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		

Location

Field ID

STORET #

☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time Eastern Central		Collection (comp begin or grab) Date Time	Bottle Group(s)
Matrix (Salt, Fresh)	Diss. Oxygen (mg/L)			
Temp (C)	pH	Sample Depts (m)	Sp. Conductance (umho/cm)	
Salinity (ppt)	Comments			
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		

Relinquished By:	Date/Time	Number of Coolers	Received By:	Date/Time

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:	HNO3	Enter Number of Bottles Sent to Lab	5
W-ICP W-ICPMS						
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:	ICE-FLTR	Enter Number of Bottles Sent to Lab	5
W-PO4-F						
Group: B	Bottle Type: PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
ALGAL_ID						

Cooler Packing Worksheet for Request: RQ-2017-06-12-67
Merrits Mill Pond BMAP
Ship Cooler On: 6/9/2017
Customer/Project: WQAP/BMAP

Assigned To: ANGULO_M
Requester: Curtis Musson
Priority: 3

850-245-8453
2600 Blair Stone Rd
MS #3525
Tallahassee, FL 32399-2400

Attn: Curtis Musson

Comments:
No preservatives needed.

Group A: Freshwater Kit With Metals
Group B: Algae_ID

4 - LlitersDI water for a field blank

No FedEx lables needed

Requested Analyses:

Bottle Group: A **# of Sites: 5**

Container ID: P-1L **Qty: 5** **Preservation: ICE** **Lot #** 0006759.1

Description: Plastic Bottle 1L

Analysis	Description
ALKALINITY	Alkalinity in aqueous matrices as mg CaCO3/L
TURBIDITY	Turbidity in aqueous matrices
W-CL-IC	Chloride in aqueous matrices
W-COLOR	True Color measured at 450 nm
W-F	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO4-IC	Sulfate in aqueous matrices
W-TDS	Total Dissolved Solids in aqueous matrices
W-TSS	Total Suspended Solids in aqueous matrices

Container ID: BP-1L **Qty: 5** **Preservation: ICE** **Lot #** 1199138

Description: Brown Plastic Bottle 1L

Analysis	Description
CHLSUITE-W	Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry

Container ID: P-500ML **Qty: 5** **Preservation: HNO3** **Lot #** 0067590

Description: Plastic Bottle 500 mL Affix RED nitric acid dot to container.

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

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Container ID: P-500ML **Qty: 5** **Preservation: ICE And H2SO4** **Lot #** 0067590

Description: Plastic Bottle 500 mL Affix YELLOW sulfuric acid dot to container.

Analysis	Description
W-NH3	Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Total Kjeldahl Nitrogen in aqueous matrices
W-TOC	Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML **Qty: 5** **Preservation: ICE-FLTR** **Lot #** 00067688

Description: Plastic Bottle 125 mL

Analysis	Description
W-PO4-F	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: B # of Sites: 1

Container ID: PT-50ML **Qty: 1** **Preservation: ICE** **Lot #** 03715003

Description: Plastic Tube 50 mL

Analysis	Description
ALGAL_ID	Qualitative assessment of algal taxa present without counts

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Cooler Packed By: Martin A. Number of Coolers: 2 Date: 06-12-17

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-2017-06-12-67