

BIOASSESSMENT

RQ#: 2016-05-09-62 EventID# _____

Sampling Date: 5-12-16 Sampling Crew: JOAN ARTHUR, KATH GUNN, DREW DRESBACH

ROCK LAKE

Site(s)/STORET #: G15W0010

WBID 1463R

STORET /LIMS:

Sonde: Pass failed CCV
Parameter(s): _____

- ☐ 1. Spread Sheet (LIMS Input) _____ / _____
Initials Date
- ☐ 2. QC 1 _____ / _____ ☐ 3. QC 2 _____ / _____
Initials Date Initials Date
- ☐ 4. SIM File Generated _____ / _____
Initials Date
- ☐ 5. STORET Upload _____ / _____
Initials Date

Biology:

SBIO ID# _____
VPDB ID# _____

- ☐ 6. Site and Event established in SBio?
- ☐ 7. Habitat Data and YSI Entered Into SBIO _____ / _____
Initials Date
- ☐ 8. Habitat Data and YSI QC _____ / _____
Initials Date
- ☐ 9. SBio-data marked complete _____ / _____
Initials Date
- ☐ 10. Macrophyte Data Entered into VPDB _____ / _____
Initials Date
- ☐ 12. Field Paperwork Filed In Biology Lab _____ / _____
Initials Date
- ☐ 13. Macrophyte Data QC _____ / _____ 11. Macrophyte Data Marked Complete _____ / _____



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

A-KIT

PAGE 1 OF 1

Data Qualified?
Yes / (No)

STORET Station Name: ROCK LAKE

Date: 05/12/2016
(mm/dd/yyyy)

STORET Station ID: G1SW0010

Latitude: 28.114 N
(Decimal Degrees)

WBID: 1463R RQ- 2016-05-09-62 ORG ID: 21FLTPA

Longitude: -82.5567 W
(Decimal Degrees)

Receiving Body of Water: _____ Field ID: G1SW0010

County: HILLSBOROUGH

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
JUDY ASHTON									
EDGAR GUERRON OREJUELA									

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 / Normal / High / Flooded

Matrix: Fresh / Marine / DI

Meter ID# BASTA Photos: Yes / No

Tide Falling: Yes / No / NA

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	14:55	2.4 0.32	2.9	4.6	56	6.3	0.11	1.2	228	25.1
CEN		0.3 2.42		9.0	119	6.9	0.11		232	29.3

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

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☐ BOD-UNIN	☐ Ice			
Physical/Aggregate (Kit A)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Kit B)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ ME-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			
Flow m/s	"J" Qualify Flow				

Contains
1:1
Sulfuric Acid
SA-5259020
EXP: 09/16/16
Warning!
See MSDS

Notes: APPLE SNAILS - EXOTIC

RQ-2016-05-09-62
Date: 05/12/16
Time:



Signature: [Signature]

Date: 5-12-16

Field Parameters Entered into LIMS: SC 15-17-16
(Initials/Date)

Field Parameters QC in LIMS: _____
(Initials/Date)

Date Migrated to STORET: _____
(Initials/Date)

Field Sheets Scanned/Saved: _____
(Initials/Date)

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

STORET STATION NUMBER: 61SW0010	DATE (M/D/Y) 5-12-16	LAKE NAME ROCK LAKE		FIELD ID / NAME:
ECO-REGION:	COUNTY: HULLS-	SAMPLING LOCATION/DESCRIPTION:		LAKE SIZE: 2
PARAMETER	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 ☐
HYDROLOGY				
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 10	Secchi >3 m Or VOB 20 19 18 17 16	3 2.6 2.2 1.8 1.4 15 14 13 12 11	1.0 0.9 0.8 0.7 0.6 10 9 8 7 6	0.5 0.4 0.3 0.2 0.1 5 4 3 2 1
Vegetation Quality 18	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 20 19 18 17 16	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants 15 14 13 12 11	Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats 10 9 8 7 6	Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) 5 4 3 2 1
Stormwater Inputs 10	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1
Bottom Substrate Quality 17	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 20 19 18 17 16	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present 15 14 13 12 11	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom 10 9 8 7 6	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom 5 4 3 2 1
Lakeside Adverse Human Alterations 3	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 20 19 18 17 16	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected 10 9 8 7 6	Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1
Upland Buffer Zone 6	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6	< 29% of shoreline with >18m buffer 5 4 3 2 1
Adverse Watershed Land Use 7	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	COMMENTS:			
ANALYSIS DATE: 5-12-16	ANALYST: <i>Mary Ashton</i>		SIGNATURE: <i>[Signature]</i>	

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
 COUNTY: Hills. STORET #: 61520010 LONGITUDE: _____
 DATE: 5-12-16 TIME: 14:55 SAMPLING AGENCY: FOLP
 SITE NAME: ROCK LAKE WBID: 1513C
 FIELD ID/NAME: _____ LAKE SIZE: L RQ: 2016-05-09-62

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ Commercial ☐ Industrial ☐ Other (Specify) ☐ 100				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:					
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy Artificially Impounded ☐ Yes ☒ No				Land Use Source & Year:					
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy									
STORMWATER INPUTS <u>10</u>		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
LAKESIDE ALTERATIONS <u>3</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11		Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6		Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
BUFFER ZONE <u>6</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6		< 29% of shoreline with >18m buffer 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 Water Level ☐ Low ☐ Normal ☐ High						Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____					
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>29.3</u> <u>6.9</u> <u>9.0</u> <u>119</u> <u>232</u> <u>0.11</u> Mid-Depth: _____ Bottom: _____						Water Surface Oils: ☒ None ☐ Sheen/Slack ☐ Glob ☐ Other _____					
Meter ID: _____						Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green					
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____					
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 ☐ ☐ ☐ ☒					
Weather Conditions :						Additional Notes:					

SAMPLING TEAM: May Ashton, Logan O'Kearra, Presela SIGNATURE: _____ DATE: 5-12-16

Site:				Date:				
SPECIES			Collected? (✓)	SPECIES			Collected? (✓)	
Myriophyllum aquaticum				Salix caroliniana				
*Myriophyllum heterophyllum				Salvinia minima				
*Myriophyllum laxum				Sambucus canadensis				
*Myriophyllum pinnatum				Sapium sebiferum		X		
Myriophyllum spicatum				Saururus cernuus				
*Najas filifolia				Schinus terebinthifolius				
*Najas guadalupensis				*Schoenoplectus californicus				
*Najas minor				*Schoenoplectus pungens				
Nelumbo lutea				*Schoenoplectus tabernaemontani (Scirpus validus)				
Nitella spp.				Scirpus cubensis (Oxycaryon cubense)	X			
Nuphar sp.	X	X	X	Scirpus cyperinus				
Nymphaea odorata				*Sesbania				
Nymphoides aquatica		X		Solidago sp.				
Nyssa sylvatica var. biflora				Sparganium americanum				
Orontium aquaticum				Spartina bakeri				
Osmunda cinnamomea				Spirodela polyrrhiza				
Osmunda regalis	X		X	Taxodium sp.	X	X	X	
Panicum hemitomon	X			Thalia geniculata				
Panicum repens	X		X	Thelypteris palustris				
Paspalidium geminatum				Triadenum virginicum				
*Paspalum repens				Typha sp.	X	X	X	
Paspalum urvillei				Urochloa mutica (Brachiaria mutica)				
Peltandra sp.				*Utricularia gibba (U. biflora)				
Persea sp.				*Utricularia floridana				
Pennisetum purpureum				*Utricularia foliosa				
Phragmites australis				*Utricularia inflata				
Pinus elliotii				*Utricularia purpurea				
Pistia stratioides				*Utricularia cornuta				
Pluchea sp.	X		X	*Utricularia radiata				
*Polygonum glabrum (densiflorum)				Vallisneria americana				
*Polygonum hydropperoides				*Websteria confervoides				
*Polygonum punctatum	X		X	Wedelia trilobata (Sphagnetica trilobata)				
*Polygonum				Wolffella spp.				
Pontederia cordata	X		X	Woodwardia virginica				
*Potamogeton diversifolius				Xyris sp.				
*Potamogeton illinoensis				Zizania aquatica				
*Potamogeton pusillus				Zizaniopsis milacea				
*Potamogeton pectinatus (Stuckenia pectinatus)								
Proserpinaca pectinata								
*Rhexia								
*Rhynchospora corniculata								
*Rhynchospora inundata								
Rhynchospora tracyi								
Ricciocarpus natans								
Sabal palmetto								
Sacciolepis striata								
*Sagittaria filiformis								
*Sagittaria graminea								
*Sagittaria isoetiformis								
Sagittaria lancifolia	X		X					
Sagittaria latifolia								

[illegible]

FedEx Package
Express US Airbill
FedEx Tracking Number
8094 7802 6810

1 From Please print and press hard.
Date 5-12-14 Sender's FedEx Account Number

Sender's Name FEDP Phone 813 470-5770

Company

Address 13051 N. Telecom Pkwy Dept./Floor/Suite/Room

City Tampa, FL State FL ZIP 33637

2 Your Internal Billing Reference
For 3d shipments will appear on invoice.

3 To Recipient's Name SAMPLE RECEIVING Phone (850) 245-8085

Company FLORIDA DEP/CHEMISTRY SECTION

Address 2600 BLAIRSTONE RD Dept./Floor/Suite/Room

City TALLAHASSEE State FL ZIP 32399

0121555852



Form ID No. 0215

4 Express Package Service * To meet location.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select business addresses. Priority shipments will be delivered on Monday / unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.
FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.
Saturday Delivery NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required
Signature at recipient's address may sign for delivery.

Does this shipment contain dangerous goods?
Due box must be checked.

Yes No Shipper's Declaration Dry Ice Cargo Aircraft Only

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below.

Sender's Name Recipient Third Party Credit Card Cash/Check

Total Packages 1 Total Weight 56 lbs. 3.00

Total Packages 1 Total Weight 56 lbs. 3.00

Packages up to 150 lbs.
To packages over 150 lbs. and over 125 in. long, use FedEx Express Freight or Freight.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning. * Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon. * Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day. Saturday Delivery NOT available.

PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

Project ID: SMP

Collected By:

Field Report Prepared By:

Sampling Agency:

Miss Ashton, E. Green and Dr. Inghel

Location	RQ-2016-05-09-62		G1SW0041		Bottle Group(s) (See pg 2)		A	
Field ID	Date: 05-12-2016		Time: 11:22		Composite end Date		Time	
STORET #	Field ID: G1SW0041		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen 1.8		Total Res. Chlorine	
			Temp (C) 18.3		pH 5.9		Sample Depth 0.3	
Latitude	Longitude		Salinity		ft		m	
			44		ft		m	

RQ-2016-05-09-62
Date: 05/12/16
Time:

G1SW0010

RQ-2016-05-09-62 Date: 05/12/16 Time:		 G1SW0010 		Collection (comp begin or end) Date <u>5-12-16</u> Time <u>14:35</u>		Eastern Central Time		Composite end Date		Bottle Group(s) <u>A</u>	
☒ Comp ☒ Grab		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen <u>9.0</u>		☒ mg/L ☒ % sat		Total Res. Chlorine (mg/L)			
Temp (C) <u>29.3</u>		pH <u>6.9</u>		Sample Depth <u>0.3m</u>		Sp Conductance (umho/cm) <u>232</u>					

Location	Collection (comp begin or grab)		Eastern Central	Composite end Date	Time	Bottle Group(s)
	☐ Comp ☐ Grab	Date				
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)

		☐ dms		☐ ppm	
Location					
Field ID					
STORET #					
Latitude					

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Mary Barton	5-12-16 5:00	Fed Ex	1		

Group: A	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	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	2
	CHLSUITE-W						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	2
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 2	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	2
	W-PO4-F						