



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

WIN Station Name: Mill log cr 100 ft above RCRA test site Date: 6/21/2018

WIN/ Field ID: 20030572 WBID: 2423 Latitude: 30.06578 (mm/dd/yyyy)

County: clay ORG ID: 21FLA Longitude: 81.757 (Decimal Degrees)

Receiving Body of Water: Black cr. RQ-2018- 06-18-38 (Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
A Kolmhuber					☒	☒	☒	☒	☒
B Davis					☒	☒	☒	☒	☒

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>YSI TR</u>		
Equipment ID <u>0444</u>		

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

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded Meter ID# YSI TR Matrix: Fresh / Marine / DI

Photos: Yes / No Flow: No Flow / Interstitial / Flowing / NA Tide: Rising/ Falling/ Slack/ NA Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)
EST	040	0.2	0.1	0.25	6.63	79.7	6.85	0.07	153	24.70
CEN										

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

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-P	☒ Ice ☒ H2SO4	7341020	12/7/18	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	7341010	12/7/18	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☒ Ice	R7KA12512		
Chlorophyll	☒ CHL SUITE-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 ☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Notes: Lat long 30.06519 81.75716 Field ID: 20030572 Win ID: 20030572 Mill Log CR 100ft Above RCRA Test Site

Signature: [Signature] Date: 6/21/18

Enter Field Parameters, Verify Station ID In LIMS DMT: 8/16/29/16 QC Station ID, Field Parameters In LIMS DMT: BD 7/12/18
Scan/Save Field Sheets BD 7/12/18 Migrate Data to WIN: [Initials/Date] Verify Data In WIN: [Initials/Date]

Waterbody: M. H. Log Abn Test Site	Date: 6/2/18	County: Clark	Storet Number: 20010522
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Comments:

[illegible]Revision Date: March 1, 2014

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

SAMPLE ID _____ ORG ID 21FLA LATITUDE 30.00519
 COUNTY Deval STORET # 20030572 LONGITUDE -81.75716
 DATE 6-21-2018 TIME 940 SAMPLING AGENCY DEPAK NED
 SITE NAME Mill Log Creek
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Black Creek

RIPARIAN ZONE / STREAM FEATURES

Meter ID: Y55 II

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐								Landscape Development Intensity Index (LDI) ☐
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>2.5</u> m wide ☐ m/s <u>0.2</u> m/s ☐ m/s ☐ m deep <u>0.2</u> m deep ☐ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>18</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) ☐				
High Water Mark: <u>1</u> + <u>0.2</u> = <u>1.2</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			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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u>0.28</u></td> </tr> <tr> <td>Mid:</td> <td><u>0.1</u></td> <td><u>24.7</u></td> <td><u>6.85</u></td> <td><u>6.63</u></td> <td><u>79</u></td> <td><u>153</u></td> <td><u>0.07</u></td> <td>TOTAL DEPTH</td> </tr> <tr> <td>Bottom:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u>0.2</u></td> </tr> </tbody> </table>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:								<u>0.28</u>	Mid:	<u>0.1</u>	<u>24.7</u>	<u>6.85</u>	<u>6.63</u>	<u>79</u>	<u>153</u>	<u>0.07</u>	TOTAL DEPTH	Bottom:								<u>0.2</u>
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Woody Debris (Snags) <u>2.5</u> <u>10</u> ☐ Undercut Banks / Roots <u>0.6</u> <u>2</u> ☐ Leaf Packs or Mat <u>0.25</u> <u>2</u> ☐ Aquatic Vegetation ☐ ☐ ☐ Rock or Shell Rubble ☐ ☐ ☐ Sand <u>~96</u> <u>6</u> ☐ Mud / Muck / Silt ☐ ☐ ☐ Other ☐ ☐ ☐ Other ☐ ☐ ☐			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐																																						
			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐																																						
			Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐																																						
			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																									
ABUNDANCE <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Fish:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☒	☐	☐	☐	Fish:	☒	☐	☐	☐	Aquatic Plants:	☒	☐	☐	☐	Iron/Sulfur Bacteria:	☒	☐	☐	☐	AMBIENT FIELD CONDITIONS / NOTES: Hydrologic Disturbance Scoring ☐ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-10 ☐ The antecedent hydrologic conditions have been met to my best knowledge.																
	Not Obs.	Rare	Common	Abundant																																								
Periphyton:	☒	☐	☐	☐																																								
Fish:	☒	☐	☐	☐																																								
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SAMPLING TEAM <u>B. Davis / K. L. Hatcher</u>			SIGNATURE: <u>K. L. Hatcher</u>			<u>6-21-2018</u>																																						

AK-1472

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Mill 105 Adv Test Site County: Clay Date: 6/21/18 Investigators: Anyko Boison D.

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

Transect (m)	Point	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N		
	2			
	3			
	4			
	5			0/6
	6			
	7			
	8			
	9			
10	1	N		
	2	N		
	3	N		
	4	N		
	5	N		9/6
	6	N		
	7	N		
	8	N		
	9	N		
20	1	N		
	2			
	3			
	4			
	5			9/4
	6			
	7			
	8			
	9			
30	1	N		
	2	N		
	3	N		
	4	N		
	5	N		9/2
	6	N		
	7	N		
	8	N		
	9	N		
40	1	N		
	2			
	3			
	4			
	5			80
	6			
	7			
	8			
	9			
50	1	N		
	2			
	3			
	4			
	5			9/2
	6			
	7			
	8			
	9			

STORET Station Number: 20020572

Secchi depth
Estimated?

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

Check accompanying data collected at same site/date
Algal mat sample
Linear Veg Survey
Habitat Assessment
SCI/Biorecon
Water sample
RQ-

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 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%.

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

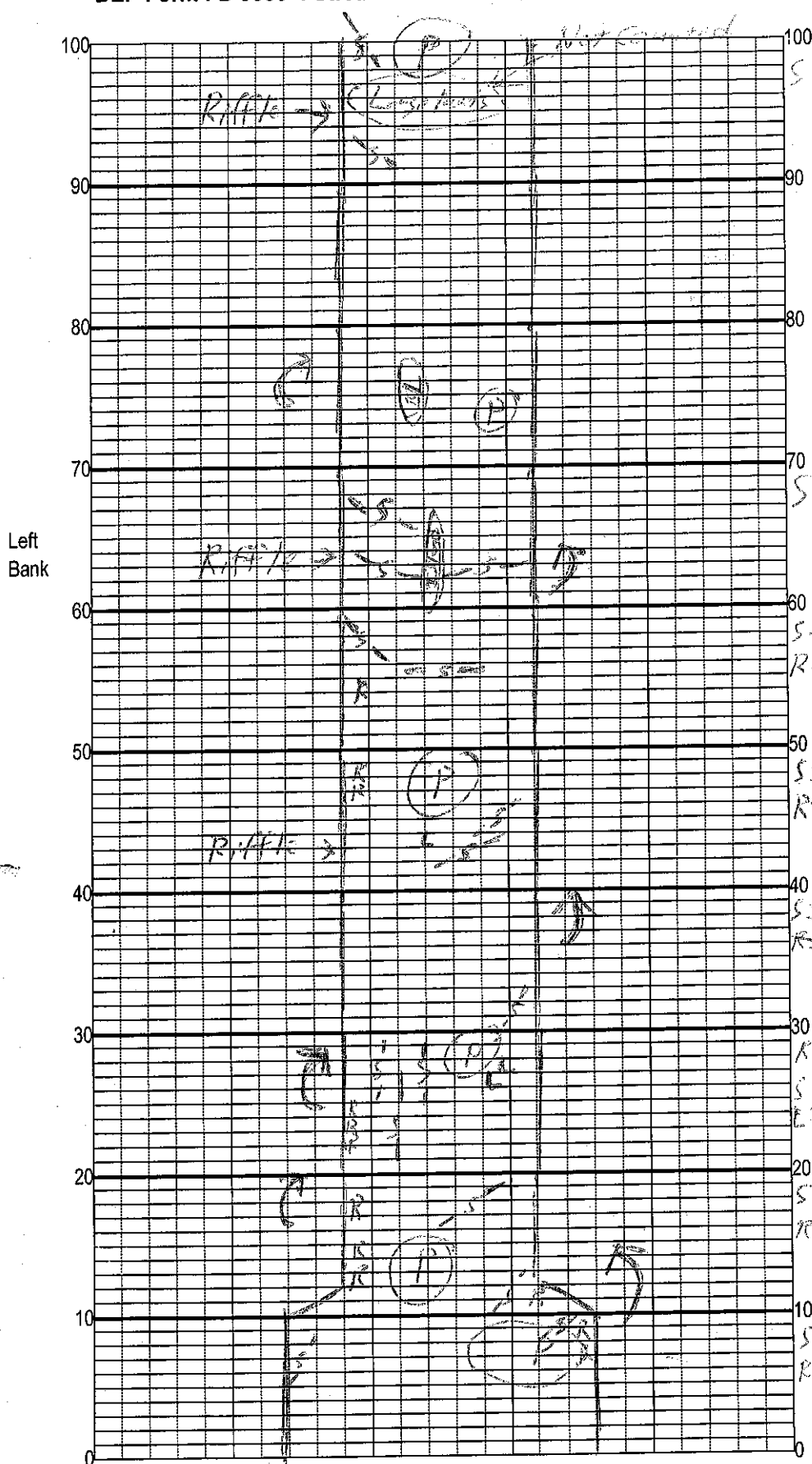
SAMPLING AGENCY: NE ROC		STORET STATION NUMBER: 20030572	DATE (MM/DD/YY): 6/21/18	RECEIVING BODY OF WATER: Black Creek
REMARKS:	COUNTY: Clay	LOCATION: Mill Log Abv Test Site	FIELD ID/NAME:	

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>5</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>4</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 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>14</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>15</u> Primary Score <u>36</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>20</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank <u>8</u> Left Bank <u>8</u>	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>10</u> Left Bank <u>10</u>	10 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>10</u> Left Bank <u>10</u> Secondary Score <u>76</u>	10 9	8 7 6	5 4	3 2 1

112 **TOTAL SCORE**

Date: <u>6/21/18</u>	Analyst: <u>Brian Davis</u>	Signature: <u>Brian Davis</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Mill Log Abv Test Site
 Date: 6/21/18
 Sampler: R. Davis

100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☐ S	Snags <u>2.5</u>
☐ R	Roots/undercut banks <u>6</u>
☐ L	Leaf Packs (or mats) <u>0.25</u>
☐ V	Aquatic Macrophytes <u>0</u>
☐	_____
☐	_____
☐ P	Pools <u>total # observed = 6</u> <u># range expected = 4</u>
Average width <u>2</u> m	
Average depth <u>0.5</u> m <u>0.2 m/s</u>	
Velocity measured at <u>20</u> meter mark.	
WQ & chemistry taken at <u>0</u> 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.	

Plants observed / other notes:

<2 M of Macrophytes was observed while doing the LVS? YES or NO

S=5.0 2.59%
 R=1.25 .6%
 L=0.5 0.25%
 ~4%

last revised Jan 25 2018

Dr. O'Connor

DEAR MR & MRS

[illegible]

Group: A	Bottle Type:	P-1L	# of Bottles: 3	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: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	CHLSUITE-W						
Group: A	Bottle Type:	P-250ML-WO-THI	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2 to 4 L's JAY
	NE-ALS-ECQ						
Group: A	Bottle Type:	P-500ML	# of Bottles: 3	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	2
	W-ICP						
	W-ICPMS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 3	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: 3	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	2
	W-PO4-F						
Group: B	Bottle Type:	PJ-2L	# of Bottles: 6	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	No 245
	MI-FW-QLDC						

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SIR#

9143 Phillips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

CAS Contract

Project Name Solite		Project Number RA-2018-06-18-38		ANALYSIS REQUESTED (Include Method Number and Container Preservative)									
Project Manager J. Parrish		Email Address		PRESERVATIVE									
Company/Address DEAR NED ROC 8800 BAYMEADOWS WAY West JAX FL 32256													
Phone #		FAX #											
Sampler's Signature Jeramy Parrish		Sampler's Printed Name Jeramy Parrish											
CLIENT SAMPLE ID		LAB ID		DATE		SAMPLING TIME		MATRIX					
20030573				06-21-18		9:10		SW					
20030572						9:40							
20030304						12:45							
SPECIAL INSTRUCTIONS/COMMENTS													
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) _____ STANDARD _____ REQUESTED FAX DATE _____ REQUESTED REPORT DATE _____													
REPORT REQUIREMENTS I. Results Only _____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____ V. Specialized Forms / Custom Report _____ Extra Yes _____ No _____													
INVOICE INFORMATION													
PO # _____ BILL TO: _____ RECEIVED BY _____													
SAMPLE RECEIPT: CONDITION/COOLER TEMP:				CUSTODY SEALS: Y N				RECEIVED BY					
RELINQUISHED BY Patrick O'Brien				RECEIVED BY Benjamin Brax				RELINQUISHED BY					
Printed Name DEAR NED ROC				Printed Name				Printed Name					
Firm ALS				Firm				Firm					
Date/Time 06-21-18 15:10				Date/Time 06/21/18 3:12				Date/Time					