



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

29° 33' 53.75" N
82° 08' 25.67" W
PAGE 1 OF 1

Data Qualified?
Yes / No

STORET Station Name: 21030089 63NE00LS

Date: 5/24/16
(mm/dd/yyyy)

STORET Station ID: 21030089 63NE00LS

Latitude: 29.56493
(Decimal Degrees)

WBID: 2693

RQ: 2016-05-16-26

ORG ID: 21FLA

Longitude: 82.140464
(Decimal Degrees)

Receiving Body of Water: Neelilosa lake

Field ID: _____

County: Alachua

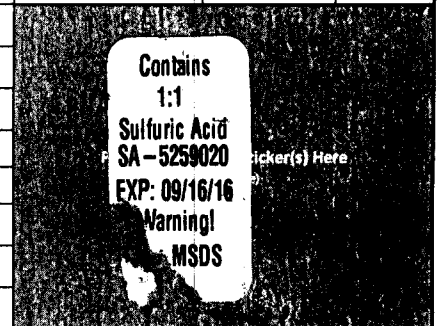
Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. Parash										
W. Fredrych										

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 / <u>Low</u> / Normal / High / Flooded						Matrix: <u>Fresh</u> Marine / DI					
Meter ID# <u>HydroLab</u>				Photos: Yes / <u>No</u>				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	1230	0.1	0.1	6.0	68	7.2	0.06	0.15	128	22.0	
CEN											

Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>LVS</u> <u>RPS</u> 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 ☐ HNO2			☐ <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	☒ MI-FW-QLDC				☒ Formalin					
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR				☐ Ice					
Periphyton	☐ ALGAE-ID				☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R				☐ Ice					
	☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH				☐ Other					



Notes:		Place Label Here (If Available)	
Signature: <u>[Signature]</u>		Date: <u>5/24/16</u>	

Field Parameters Entered into LIMS: <u>5/23/16</u> (Initials/Date)	Field Parameters QC in LIMS: _____ (Initials/Date)
Date Migrated to STORET: _____ (Initials/Date)	Field Sheets Scanned/Saved: _____ (Initials/Date)

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

76144

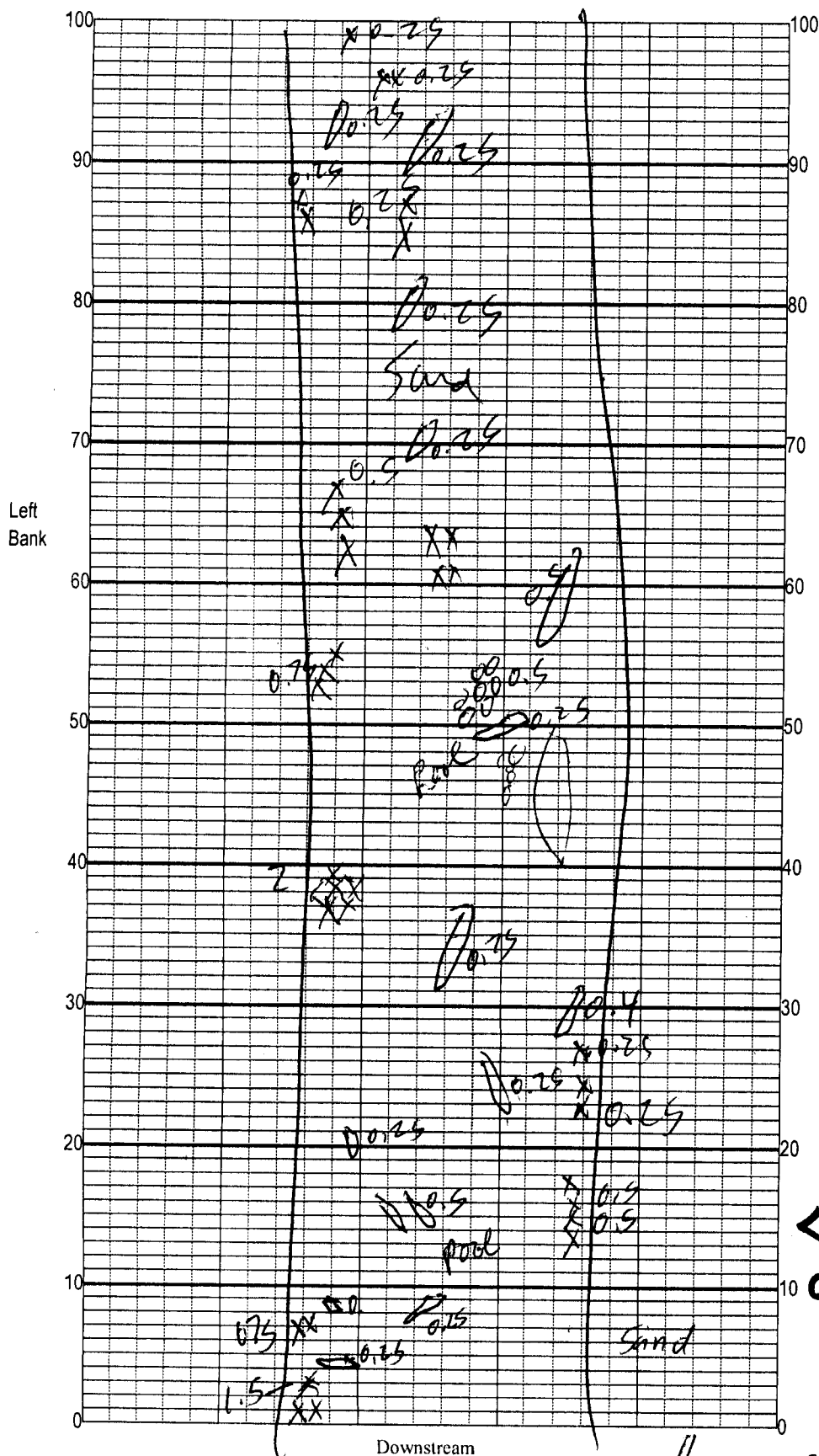
SAMPLING AGENCY:		STORET STATION NUMBER: SINE00.5	DATE (MM/DD/YY): 5/24/16	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Alachua	LOCATION: Lockhart Fish camp		FIELD ID/NAME:

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>10</u>	20 19 18 17 16	15 14 13 12 11	<u>10</u> 9 8 7 6	5 4 3 2 1
Substrate Availability <u>8</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>15</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 <u>15</u> 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>46 48</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. <u>15</u> 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. <u>20</u> 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 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>7</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. <u>10</u> 9 8 7 6	Only meets 2 of the 3 requirements for optimal bank stability. <u>8</u> 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>10</u>	Width of vegetation greater than 18 m <u>10</u> 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>10</u> Secondary Score <u>78</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. <u>10</u> 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

TOTAL SCORE

Date: 5/24/16	Analyst: [Signature]	Signature:
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Lochovan e fish camp

Date: 5/24/16

Sampler: JP

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %	
	Snags _____
	Roots/undercut banks _____
	Leaf Packs (or mats) _____
	Aquatic Macrophytes _____
	_____
	_____
	_____
	total # observed = _____ # range expected = _____
Average width _____ m	
Average depth _____ m	
Velocity measured at _____ meter mark.	
WQ & chemistry taken at _____ 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:

<2m observed while
doing BVS?

$X = 1, 5 \text{ ft} + .5 + 2\frac{7}{8} + .5 + 1$

0.25 m/sec

$$I = 0.5 + 0.5 + 0.5 + 1 + 0.5 + 0.5 + 0.5 = 3.5 \text{ A}$$

~ 2 m wide

Revision Date: March 1, 2014

$3.4 = 2\%$
 $5.25 = 3\%$
 $8 = 4$

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

76144

SAMPLE ID _____ ORG ID _____ LATITUDE _____
 COUNTY Alachua STORET # 61NE0015 LONGITUDE _____
 DATE 5/24/16 TIME 1230 SAMPLING AGENCY _____
 SITE NAME Cochlosoma Ash Camp
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Cochlosoma Lake

RIPARIAN ZONE / STREAM FEATURES

Meter ID: _____

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 _____ m wide _____ m/s _____ 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>0.5</u> + <u>0.1</u> = <u>0.6</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					
Woody Debris (Snags) ☐ ☐ ☐ Undercut Banks / Roots ☐ ☐ ☐ Leaf Packs or Mat ☐ ☐ ☐ Aquatic Vegetation ☐ ☐ ☐ Rock or Shell Rubble... ☐ ☐ ☐ Sand..... <u>90</u> <u>6</u> ☐ Mud / Muck / Silt ☐ ☐ ☐ Other ☐ ☐ ☐ Other ☐ ☐ ☐			Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHCL) Salinity (PPT) SECCHI (M) Top: _____ Mid: <u>0.1</u> <u>22</u> <u>7.2</u> <u>6.0</u> <u>68</u> <u>12.8</u> <u>0.06</u> <u>100</u> Bottom: <u>0.1</u> _____ System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) _____					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____ Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____					
			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) _____ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐					
			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.					
SAMPLING TEAM <u>John N. Fredrick</u>			SIGNATURE: <u>John N. Fredrick</u>					

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Lochloosne Fish camp</u>					County: <u>Alachua</u>		Date: <u>5/24/16</u>		Investigators:	
Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
0	1	N	N	96	60	1	N	N	92	
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
10	1	N	N	96	70	1	N	N	96	
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
20	1	N	N	92	80	1	N	N	92	
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
30	1	N	N	92	90	1	N	N	96	
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
40	1	N	N	96	100	1	N	N	90	
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
50	1	N	N	92	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%.					
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									

STORET Station Number:

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

[illegible]

QA/QC Sample Information

Duplicate

Time Zone: <u>EST</u> CEN		Sample Depth (m): _____		Field ID: _____	
Time: _____		Total Depth (m): _____			
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☐ TKN / TP / Nox / NH3 / TOC ☐ Other _____	☐ Ice ☐ H ₂ SO ₄			☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☐ oP ☐ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
BOD	☐ BOD-INHB ☐ BOD-UNIN	☐ Ice			
Physical/Aggregate	☐ TSS / Turbidity / Alkalinity / Color ☐ Other _____	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other _____			

Place Preservative Sticker(s) Here
(If Available)

Blank

Time Zone: <u>EST</u> CEN		Time: <u>1020</u>			
☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Eq.		Field Blank			
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ TKN / TP / Nox / NH3 / TOC ☐ Other _____	☒ Ice ☒ H ₂ SO ₄			☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☒ oP ☐ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
BOD	☐ BOD-INHB ☐ BOD-UNIN	☐ Ice			
Physical/Aggregate	☒ TSS / Turbidity / Alkalinity / Color ☐ Other _____	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other _____			

Place Preservative Sticker(s) Here
(If Available)

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

Notes:

Place Label Here
(If Available)

Signature: [Signature] Date: 5/24/16

Field Parameters Entered into LIMS: _____ Field Parameters QC in LIMS: _____

(Initials/Date)

(Initials/Date)

Date Migrated to STORET: _____ Field Sheets Scanned/Saved: 5/31/16

(Initials/Date)

(Initials/Date)

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 51556 RQ- 2016-05-16-26 8:05 ²³⁻¹⁰ Project 5 ml

- 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 4/ /2016

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	J. Parnish	5/24/16	728	23.8	8.45	8.48	100	-	-	P	L
ICV	J	J	730	J	8.45	8.43	99.9	-	-	P	L
CCV	J	5/24/16	1610	24.0	8.41	8.43	100.2	-	-	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 μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	J. Parnish	5/24/16	731	166216A	2/17	1000	1000	P	L
ICV	J	J	732	166216B	8/16	100	101	P	L
CCV	J	5/24/16	1611	1600216B	8/16	100	100	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J. Parnish	5/24/16	733	2509677	8/17	7.0	7.0	-	-	L
Calibr.	J	J	734	2509674	9/17	4.0	4.0	-	-	L
Calibr.	J	J	735	2510188	4/17	10.0	9.85	-	-	L
ICV	J. Parnish	5/24/16	1612	2509677	8/17	7.0	7.02	-	-	L
CCV										
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;
 +180 $\pm$ 50; mV pH 10 Range -180 $\pm$ 50;
 and 180mV

mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range

Slope from 7 to 10 and 4 to 7 must be between 165

Depth (Quarterly)

Date of Last Depth Verification

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

Scanned 5/31/16