



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Dunford Lake

Date: 5/1/2019
(mm/dd/yyyy)

WIN/ Field ID: G3TLHR0010

WBID: 526A

Latitude: 30.5429

County: Washington

ORG ID: 21FTLHR

Longitude: 85.6815

Receiving Body of Water: Lucas Lake?

RQ: 2019-04-29-71

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment									
<u>Jon Woods</u> <u>Paul Blair</u>					☒	☒	☒	☒	☒	☒ Sample Container	☐ Van Dorn	☐ Pole							
										☐ Carboy	☒ Syringe								
										☐ Dipper	☐ Other								
					Depth Measured with <u>YSI</u>					Equipment ID <u>153484</u>									
Collection Method																			
					☐	☐	☐	☐	☐	☐ Wading	☐ Canoe/Kayak								
										☐ From Shore	☐ Electric Motor								
										☐ Other	☒ Gasoline Motor								
Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded					Meter ID# <u>153484</u>					Matrix: <u>Fresh</u> / Marine / DI									
Photos: Yes / No					Flow: <u>No Flow</u> / Intertidal / Flowing / NA					Tide: Rising/ Falling/ Slack/ <u>NA</u>					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	1245	6.6	0.3	4.5	7.73	94.9	4.77	0.00	13.6	25.9									
CEN	1249		6.1	6	1.20	12.0	4.23	6.01	16.3	16.8									
Biological Samples Collected: None HA SCI RPS Algae ID LVS <u>LVI</u> Other:																			
SBIO ID Numbers: SBIO-ID: <u>79656</u> HA-ID: <u>16038</u> RPS-ID: Macrophyte-ID: <u>11368</u> LIMS#:																			
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>6344070</u>		<u>12/10/19</u> ☒ <2								
Metals		☐ W-ICPMS ☐ W-ICP					☐ Ice ☐ HNO3				☐ <2								
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 um 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-BR-IC / 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-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD					☐ Ice												
Tracers		☐ W-E8321-DI ☐ W-E8321-MS					☐ Ice												
Pesticides		☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA					☐ Ice												
Phytoplankton		☐ DTY-QN-C ☐ PKD-QN-C																	

Notes:

Field/WIN ID →
Location ↓



G3TLHR0010



DUNFORD LAKE

Signature:

Date: 5-1-19

LIMS EVENT ID: TLH-ROC-2019-05-01-03

WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: CG 5-22-19

QC Station ID, Field Parameters In LIMS DMT: MD

6/14/19

Scan/Save Field Sheets

Migrate Data to WIN:

Verify Data in WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: G3TLHR0010
COUNTY: Washington
DATE: 5-1-19
SITE NAME: Dunford Lake
FIELD ID/NAME: G3TLHR0010
MACROPHYTE ID:
STORET #:
TIME: 12:45
LATITUDE:
LONGITUDE:
SAMPLING AGENCY: P034
WBID: 626A
LAKE SIZE: RQ: 2019-04-29-71

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) :										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)											
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)	LDI:													
30	50			20																	
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy								Artificially Impounded ☐ Yes ☒ No													
Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy																					
STORMWATER INPUTS		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										
15		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
LAKESIDE ALTERATIONS		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)										
13		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
BUFFER ZONE		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										
10		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 ☐ No pH < 2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # 6344070 Exp. Date: 12/10/19 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: 0.3 25.9 4.77 2.39 94.9 13.6 0.00 Mid-Depth: 7.73 Bottom: 6.1 16.6 4.23 1.20 12.0 16.3 0.01								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) 4.5 Total Station Depth (M) 6.6 VOB							
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☒ Sand/Silt ☐ Organic smooth (muck)								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: Partly Cloudy															
SAMPLING TEAM: Son Woods / Paul Blair								SIGNATURE:				DATE: 5/1/19			

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

STORET STATION NUMBER:	DATE (M/D/Y) 5/1/19	LAKE NAME Dunford Lake		FIELD ID / NAME: G3TLHR 0010
ECO-REGION:	COUNTY: Washington	SAMPLING LOCATION/DESCRIPTION: Center		LAKE SIZE:
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 14	Secchi >3 m Secchi (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 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 (duckweed, 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 15	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 15	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 Alterations 13	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 10	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 14	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 104	COMMENTS:			
ANALYSIS DATE: 5/1/19		ANALYST: Jon Woods		SIGNATURE: 

Site: <u>Dunford Lake</u>					Date: <u>5-1-19</u>				
SPECIES	8	11	25	Collected? (✓)	SPECIES	8	11	25	Collected? (✓)
<i>Myriophyllum aquaticum</i>					<i>Salix caroliniana</i>				
* <i>Myriophyllum heterophyllum</i>					<i>Salvinia minima</i>				
* <i>Myriophyllum laxum</i>					<i>Sambucus canadensis</i>				
* <i>Myriophyllum pinnatum</i>					<i>Sapium sebiferum</i>				
<i>Myriophyllum spicatum</i>					<i>Saururus cernuus</i>				
* <i>Najas filifolia</i>					<i>Schinus terebinthifolius</i>				
* <i>Najas guadalupensis</i>					* <i>Schoenoplectus californicus</i>				
* <i>Najas minor</i>					* <i>Schoenoplectus pungens</i>				
<i>Nelumbo lutea</i>					* <i>Schoenoplectus tabernaemontani</i> (<i>Scirpus validus</i>)				
<i>Nitella</i> spp.					<i>Scirpus cubensis</i> (<i>Oxycaryon cubense</i>)				
<i>Nuphar</i> sp.					<i>Scirpus cyperinus</i>				
<i>Nymphaea odorata</i>	✓	✓	✓	✓	* <i>Sesbania</i>				
<i>Nymphoides aquatica</i>					<i>Solidago</i> sp.				
<i>Nyssa sylvatica</i> var. <i>biflora</i>					<i>Sparganium americanum</i>				
<i>Orontium aquaticum</i>					<i>Spartina bakeri</i>				
<i>Osmunda cinnamomea</i>					<i>Spirodela polyrrhiza</i>				
<i>Osmunda regalis</i>					<i>Taxodium</i> sp.	✓	✓	✓	✓
<i>Panicum hemitomon</i>	✓	✓	✓	✓	<i>Thalia geniculata</i>				
<i>Panicum repens</i>					<i>Thelypteris palustris</i>				
<i>Paspalidium geminatum</i>					<i>Triadenum virginicum</i>				
* <i>Paspalum repens</i>					<i>Typha</i> sp.				
<i>Paspalum urvillei</i>					<i>Urochloa mutica</i> (<i>Brachiaria mutica</i>)				
<i>Peltandra</i> sp.					* <i>Utricularia gibba</i> (<i>U. biflora</i>)				
<i>Persea</i> sp.					* <i>Utricularia floridana</i>	✓	✓	✓	✓
<i>Pennisetum purpureum</i>					* <i>Utricularia foliosa</i>				
<i>Phragmites australis</i>					* <i>Utricularia inflata</i>				
<i>Pinus elliotii</i>					* <i>Utricularia purpurea</i>				
<i>Pistia stratioides</i>					* <i>Utricularia cornuta</i>				
<i>Pluchea</i> sp.					* <i>Utricularia radiata</i>				
<i>Polygonum glabrum</i> (<i>densiflorum</i>)					<i>Vallisneria americana</i>				
<i>Polygonum hydropiperoides</i>					* <i>Websteria confervoides</i>	✓	✓		
<i>Polygonum punctatum</i>					<i>Wedelia trilobata</i> (<i>Sphagneticola trilobata</i>)				
<i>Polygonum</i>					<i>Wolffiella</i> spp.				
* <i>Pontederia cordata</i>	✓	✓	✓	✓	<i>Woodwardia virginica</i>				
<i>Potamogeton diversifolius</i>					<i>Xyris</i> sp.				
<i>Potamogeton illinoensis</i>					<i>Zizania aquatica</i>				
<i>Potamogeton pusillus</i>					<i>Zizaniopsis milacea</i>				
<i>Potamogeton pectinatus</i> (<i>Stuckenia pectinatus</i>)									
<i>Proserpinaca pectinata</i>									
<i>Rhexia</i>									
<i>Rhynchospora corniculata</i>									
<i>Rhynchospora inundata</i>									
<i>Rhynchospora tracyi</i>									
<i>Ricciocarpus natans</i>									
<i>Sabal palmetto</i>									
<i>Sacciolepis striata</i>	✓	✓	✓	✓					
<i>Sagittaria filiformis</i>									
<i>Sagittaria graminea</i>									
<i>Sagittaria isoetiformis</i>									
<i>Sagittaria lancifolia</i>									

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Dunford Lake</u>		County: <u>Washington</u>		Date: <u>5-1-19</u>							
Analyst: <u>Blair/Wood</u>		Signature: _____		STORET: _____							
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.				Lake units sampled (circle one group): 1, 4, 7, 10 <u>2, 5, 8, 11</u> 3, 6, 9, 12							
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.											
SPECIES	8	11	2	5	Collected? (✓)	SPECIES	8	11	2	5	Collected? (✓)
Acer rubrum						Habenaria repens					
Alternanthera philoxeroides						Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.					✓
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma					
Baccharis sp.						*Hypericum fasciculatum	✓	✓	✓		
Bacopa caroliniana	✓	✓	✓	✓		*Hypericum hypericoides					
Bacopa monnieri						*Hypericum myrtifolium					
Bidens laevis						Ilex cassine					
Bidens mitis						Ipomoea aquatica					
Blechnum serrulatum						Ipomoea sagittata					
Boehmeria cylindrica						Itea virginica					
Brasenia schreberi	✓	✓	✓	✓		Juncus effusus					
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisetifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens					
Cephalanthus occidentalis						*Juncus scirpoides					
Ceratophyllum demersum						Lachnanthes caroliniana					
Chara sp.						Leersia hexandra					
Cladium jamaicense						Landoltia punctata (Spirodela punctata)					
Cliftonia monophylla						Lemna sp.					
Colocasia esculenta						Leucothoe racemosa (Eubotrys racemosa)					
*Commelina						Limnobia spongia					
Crinum americanum						Limnophila sessiliflora					
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua					
Cyperus articulatus						*Ludwigia arcuata					
Cyperus haspan						*Ludwigia leptocarpa					
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis					
*Cyperus odoratus						*Ludwigia peruviana					
*Cyperus surinamensis						*Ludwigia repens					
Cyrtia racemiflora						*Ludwigia					
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana					
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri						Melaleuca quinquenervia					
Eclipta prostrata (E. alba)						Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes						Mikania scandens					
*Eleocharis baldwinii						Mimosa pigra					
*Eleocharis						Myrica cerifera	✓	✓	✓	✓	
Eleocharis cellulosa											
Eleocharis equisetoides											
Eleocharis interstincta						<u>Hypericum</u>					
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena <u>sagittata</u>				✓							
Fuirena scirpoidea											
Gordonia lasianthus											

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: TLH-ROC

Requester: Michael Eckles

Field Report Prepared By: Jon Woods

Project ID: SMP

Collected By: Woods/BlairSampling Agency: 8034

Location		☐ Comp ☒ Grab		Collection (comp begin or grab)		Time		Composite end		Bottle Group(s)	
Field II		☒ Matrix (type, e.g., Salt, Fresh, etc)		Date <u>5/1/19</u>		Time <u>1245</u>		Date		(See pg 2)	
WIN/S		Temp (C) <u>25.9</u>		pH <u>4.77</u>		Sample Depth <u>0.3</u> m		Diss. Oxygen <u>7.73</u> mg/L		Total Res. Chlorine <u>13.8</u> mg/L	
Latitude		☐ dd ☐ dms		Salinity (ppt) <u>0.00</u>		Comments					
Location		☐ Comp ☐ Grab		Collection (comp begin or grab)		Time		Composite end		Bottle Group(s)	
Field ID		☐ Matrix (type, e.g., Salt, Fresh, etc)		Date		Time		Date		(See pg 2)	
WIN/STORET #		Temp (C)		pH		Sample Depth		Diss. Oxygen		Total Res. Chlorine	
Latitude		☐ dd ☐ dms		Salinity (ppt)		Comments					
Location		☐ Comp ☐ Grab		Collection (comp begin or grab)		Time		Composite end		Bottle Group(s)	
Field ID		☐ Matrix (type, e.g., Salt, Fresh, etc)		Date		Time		Date		(See pg 2)	
WIN/STORET #		Temp (C)		pH		Sample Depth		Diss. Oxygen		Total Res. Chlorine	
Latitude		☐ dd ☐ dms		Salinity (ppt)		Comments					
Location		☐ Comp ☐ Grab		Collection (comp begin or grab)		Time		Composite end		Bottle Group(s)	
Field ID		☐ Matrix (type, e.g., Salt, Fresh, etc)		Date		Time		Date		(See pg 2)	
WIN/STORET #		Temp (C)		pH		Sample Depth		Diss. Oxygen		Total Res. Chlorine	
Latitude		☐ dd ☐ dms		Salinity (ppt)		Comments					

Relinquished By: <u>SW</u>	Date/Time: <u>5/1/19 15:55</u>	Shipping Method: <u>HD</u>	Number of Coolers Shipped: <u>1</u>	Received By: <u>[Signature]</u>	Date/Time: <u>05/01/19 03:57pm</u>
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Group: A	Bottle Type:	P-1L	# of Bottles: 5	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	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
	CHLSUITE-W					
Group: A	Bottle Type:	P-500ML	# of Bottles: 5	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: A	Bottle Type:	P-125ML	# of Bottles: 5	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab
	W-PO4-F					
Group: B	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-SO4-IC					
	W-TDS					
	W-TSS					
Group: B	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	CHLSUITE-W					
Group: B	Bottle Type:	P-250ML-WO-THI	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ECOL-18QT					
Group: B	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab

8344070
exp. 12/15/19

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

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: 153484

RQ: 2019.04.29.71

Project: SMP1905

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.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 4/2019

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	<u>Jon Woods</u>	<u>5/1/19</u>	<u>821</u>	<u>20.8</u>	<u>762.4</u>	<u>8.9</u>	<u>8.96</u>	<u>100.6</u>	<u>-</u>	<u>1.04</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>"</u>	<u>"</u>	<u>840</u>	<u>21.3</u>	<u>762.3</u>	<u>8.9</u>	<u>8.85</u>	<u>100.3</u>	<u>-</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>"</u>	<u>"</u>	<u>1557</u>	<u>26.3</u>	<u>760.5</u>	<u>8.1</u>	<u>8.16</u>	<u>101.1</u>	<u>-</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
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 (Pro DSS 0.75 to 1.50); 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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	<u>Jon Woods</u>	<u>5/1/19</u>	<u>826</u>	<u>180621C</u>	<u>7/2019</u>	<u>1000</u>	<u>1000</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>"</u>	<u>"</u>	<u>838</u>	<u>28068884</u>	<u>7/2020</u>	<u>100</u>	<u>99.8</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>"</u>	<u>"</u>	<u>1559</u>	<u>180621C</u>	<u>7/2019</u>	<u>1000</u>	<u>1000</u>	<u>P/F</u>	<u>L/F</u>
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	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	<u>Jon Woods</u>	<u>5/1/19</u>	<u>830</u>	<u>180403C</u>	<u>10/2019</u>	<u>7.02</u>	<u>21.3</u>	<u>7.02</u>	<u>-37.2</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>"</u>	<u>"</u>	<u>832</u>	<u>180621D</u>	<u>7/2019</u>	<u>4.00</u>	<u>21.3</u>	<u>4.00</u>	<u>138.2</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>"</u>	<u>"</u>	<u>834</u>	<u>180621F</u>	<u>1/2020</u>	<u>10.04</u>	<u>21.4</u>	<u>10.04</u>	<u>-204.7</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>"</u>	<u>"</u>	<u>836</u>	<u>"</u>	<u>"</u>	<u>10.04</u>	<u>21.4</u>	<u>10.02</u>	<u>-205.0</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>"</u>	<u>"</u>	<u>1601</u>	<u>180621D</u>	<u>7/2019</u>	<u>4.00</u>	<u>21.4</u>	<u>4.03</u>	<u>136.1</u>	<u>P/F</u>	<u>L/F</u>
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 10 167.5, slope from 4 to 7 175.4 (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 4/2019

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last 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	<u>Jon Woods</u>	<u>5/1/19</u>	<u>835</u>	<u>0.00</u>	<u>0.00</u>	<u>P/F</u>	<u>L/F</u>

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

