

CCHMN FY2023 FIELD AUDIT FORM

Sampling Strata: Tidal Caloosahatchee River

Organization: FDEP - Division of Environmental Resource Assessment

Date: 2-Aug-23

Sampling Staff: Nicole Reistad, Monica Jaeger

Time: 8:30am

CHNEP Auditor: Nicole Iadevaia

Weather: Clear

Boat: FDEP - SeaPro

Tide: High 5:30 AM 1.8

Site #					
1	2	3	4	5	

SUMMARY DATA					
Data Recorder	NR	NR	NR	NR	NR
Secchi Disk Operator	NR	NR	NR	NR	NR
Alpha or Van Dorn Bottle Operator	MJ	MJ	MJ	MJ	MJ
Pump Operator (if applicable)	N/A	N/A	N/A	N/A	N/A
YSI Operator	NR	NR	NR	NR	NR
LiCor Operator	NR	NR	NR	NR	NR
Total Depth (m)	2.4	2.8	1.5	2.2	1.6
Water Sample & YSI Depths (m)					
Surface	0.5	0.5	0.5	0.5	0.5
Intermediate(s) (in 1 m increments - optional)	Y	Y	Y	Y	Y
(If ≥ 3m deep) Bottom	1.9 (N/A)	2.3 (N/A)	1.0 (N/A)	1.7 (N/A)	1.1 (N/A)
LiCor Depths (m)					
Surface	1	1	1	1	1
Intermediate(s) (in 1 m increments if applicable)	N/A	N/A	N/A	N/A	N/A
(If ≥ 3m deep) Bottom	1.9	2.3	N/A	1.7	N/A

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	1	2	3	4	5
GENERAL OBSERVATIONS					
Samples collected from randomly selected sites which are selected prior to field sampling; alternate sites chosen when: a) water depth too shallow b) unable to get to sample site.	Yes - FDEP staff use randomly selected grids & sites generated by LCEL prior to sampling with GIS tool & estuary polygon; used GPS to find sites; sampled as close to site as possible with >0.7 m depth.				
Optional: 1 Duplicate field sample taken every 10 sites or 1 every sampling trip.	No - Optional duplicate samples were not taken on this trip.				
1 blank taken every sampling trip.	Yes - Blank sample taken at Site #5.				
Water samples collected using a horizontal sampling device, such as a Van Dorn or Niskin alpha bottle.	Yes - Used Van Dorn alpha bottle to collect samples.				
Optional: Use protective gloves.	Yes - Gloves were used during sampling and changed out before each sample was taken.				
All sampling done away from motor; when sampling in a boat, samples taken from bow, away & upwind from engine.	Yes - All samples taken off side near mid-ship & alpha bottle taken off side near stern away from motor at each site.				
DECONTAMINATION					
All equipment cleaned in a controlled environment & transported to the field pre-cleaned ready to use.	Yes - FDEP equipment transported in cases; sample containers transported in clean bags for protection; filter and syringe stored in pre-sealed containers prior to use-opened at each site.				
Optional: Equipment washed in field with detergents (Liquinox, Luminox or Alconox).	No - Optional equipment field washing not conducted.				
Optional: Field cleaned equipment (niskin bottle, pump tubing, syringes, filters & other equipment) cleaned & rinsed with DI water 3 X after completion at each site.	No - Optional equipment field washing not conducted. A new certified clean syringe used at each site.	No - Optional equipment field washing not conducted. A new certified clean syringe used at each site.	No - Optional equipment field washing not conducted. A new certified clean syringe used at each site.	No - Optional equipment field washing not conducted. A new certified clean syringe used at each site.	No - Optional equipment field washing not conducted. A new certified clean syringe used at each site.
AQUEOUS SAMPLING PROCEDURES					
Sample collection equipment & non-preserved sample containers rinsed with sample water before sample is taken.	Yes - sample collection equipment & non-preserved sample containers rinsed with ambient water before sample collection	Yes - sample collection equipment & non-preserved sample containers rinsed with ambient water before sample collection	Yes - sample collection equipment & non-preserved sample containers rinsed with ambient water before sample collection	Yes - sample collection equipment & non-preserved sample containers rinsed with ambient water before sample collection	Yes - sample collection equipment & non-preserved sample containers rinsed with ambient water before sample collection
Proper order for filling sample bottles is used: non-preserved, preserved, then filtered.	Yes - Proper order of filling sample bottles was used	Yes - Proper order of filling sample bottles was used	Yes - Proper order of filling sample bottles was used	Yes - Proper order of filling sample bottles was used	Yes - Proper order of filling sample bottles was used
Orthophosphate samples filtered using peristaltic pump or syringe-filter combination with .45 micron filters; tubing for peristaltic pump rinsed with sample water through spigot.	Yes - Orthophosphate samples filtered using syringe-filter combination with .45 micron filters.	Yes - Orthophosphate samples filtered using syringe-filter combination with .45 micron filters.	Yes - Orthophosphate samples filtered using syringe-filter combination with .45 micron filters.	Yes - Orthophosphate samples filtered using syringe-filter combination with .45 micron filters.	Yes - Orthophosphate samples filtered using syringe-filter combination with .45 micron filters.
Total Organic Carbon (TOC) bottle filled to reverse meniscus not to include any head space.	Yes - TOC samples filled so as to minimize air bubbles in sample.	Yes - TOC samples filled so as to minimize air bubbles in sample.	Yes - TOC samples filled so as to minimize air bubbles in sample.	Yes - TOC samples filled so as to minimize air bubbles in sample.	Yes - TOC samples filled so as to minimize air bubbles in sample.
Optional: Bacteria sample taken: Hold time?	Hold time determined by lab (6 hours) & qualified if it does not meet FDEP WIN criteria.	Hold time determined by lab (6 hours) & qualified if it does not meet FDEP WIN criteria.	Hold time determined by lab (6 hours) & qualified if it does not meet FDEP WIN criteria.	Hold time determined by lab (6 hours) & qualified if it does not meet FDEP WIN criteria.	Hold time determined by lab (6 hours) & qualified if it does not meet FDEP WIN criteria.
Use of certified clean containers? If so, additional field rinse or no? Field rinse for re-use bottles?	Yes - Certified clean for all bottles except Chl which is field rinsed.	Yes - Certified clean for all bottles except Chl which is field rinsed.	Yes - Certified clean for all bottles except Chl which is field rinsed.	Yes - Certified clean for all bottles except Chl which is field rinsed.	Yes - Certified clean for all bottles except Chl which is field rinsed.
Once filled, sample bottles put on ice. Optional: Chlorophyll bottles are laid on top of other bottles in ice chests until cooled, then completely iced.	Yes - samples put in ice immediately, w/Chl in ice	Yes - samples put in ice immediately, w/Chl in ice	Yes - samples put in ice immediately, w/Chl in ice	Yes - samples put in ice immediately, w/Chl in ice	Yes - samples put in ice immediately, w/Chl in ice

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	Site #				
	1	2	3	4	5
LIGHT DATA					
Secchi disk depth taken on shady side of boat without sunglasses.	Yes - Secchi taken on shadiest side of boat w/o sunglasses	Yes - Secchi taken on shadiest side of boat w/o sunglasses	Yes - Secchi taken on shadiest side of boat w/o sunglasses	Yes - Secchi taken on shadiest side of boat w/o sunglasses	Yes - Secchi taken on shadiest side of boat w/o sunglasses
Light meter readings taken on sunny side of boat.	Yes - Licor taken on sunny side of boat	Yes - Licor taken on sunny side of boat	Yes - Licor taken on sunny side of boat	Yes - Licor taken on sunny side of boat	Yes - Licor taken on sunny side of boat
Licor measurements recorded simultaneously with 2 uw sensors mounted with PVC pole frame held vertically & sensors not shaded by each other, the boat, SAV or other objects.	Yes - Licor taken on sunny side of boat. Cloud cover noted.	Yes - Licor taken on sunny side of boat. Cloud cover noted.	Yes - Licor taken on sunny side of boat. Cloud cover noted.	Yes - Licor taken on sunny side of boat. Cloud cover noted.	Yes - Licor taken on sunny side of boat. Cloud cover noted.
Data qualifier used to record bottom composition information (mucky, sandy, submerged aquatic vegetation, hard bottom or unknown), especially when using a 4 pi light meter over white, sandy sediments.	Yes - bottom type observed from surface &/or anchor & recorded or recorded as unknown if undetermined	Yes - bottom type observed from surface &/or anchor & recorded or recorded as unknown if undetermined	Yes - bottom type observed from surface &/or anchor & recorded or recorded as unknown if undetermined	Yes - bottom type observed from surface &/or anchor & recorded or recorded as unknown if undetermined	Yes - bottom type observed from surface &/or anchor & recorded or recorded as unknown if undetermined
MISCELLANEOUS					
Multi-parameter sampling meter values (pH, DO, salinity, temperature) recorded to nearest 0.01 values; conductivity readings recorded to nearest unit.	Yes - values for pH, DO, salinity & temperature recorded to .01 units & conductivity recorded to nearest unit	Yes - values for pH, DO, salinity & temperature recorded to .01 units & conductivity recorded to nearest unit	Yes - values for pH, DO, salinity & temperature recorded to .01 units & conductivity recorded to nearest unit	Yes - values for pH, DO, salinity & temperature recorded to .01 units & conductivity recorded to nearest unit	-
Multi-parameter sampling meters calibrated before & after each trip; post-sampling calibration done within 24 hours; data managers notified of failures ASAP & no later than before WIN upload.	Yes - YSI calibrated in lab before & after sampling event. If sonde fails post-calibration lab notified to include data qualifier in FDEP WIN upload.				
Each CCHMN partner will participate in a minimum of 2 RAMP meetings annually.	Yes - FDEP staff attended all RAMP meetings held within the last 12 months.				
NOTES					
General	Sampling conducted according to SOPs & in technically sound manner. Well done.				
Misc. How do lab and field communicate? Examples: questions, changes in SOPs, anomalies in data that cause it to need a qualifying code.	FDEP records anything of note in the field sheet notes which are provided to Lee County lab along with chain of custody forms. Lee County lab processes samples and communicates with field staff via email if there are regularly occurring issues. Lee County runs data checks through internal QAQC program and uploads data to FDEP WIN, adding qualifier codes to any data the does not meet FDEP WIN standards.				
Things to Watch					
Discussion for Annual Meeting Based on Field Audit Results	Changes to data sheets to remove Secchi disappearance and reappearance?				

LCEL

Lee County Environmental Laboratory
60 S Danley Dr Unit 2
Fort Myers, FL 33907
Phone: (239) 533-8600

Analysis Request

&

Chain of Custody Record

LCEL does not accept any samples used for evidentiary purposes

Lab Certification: E45049
LCEL F COC 20150828R1

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Report/Result Information

Billing/Invoice Information

Name: Tidal Caloosa	Name: DNRM	Matrix Codes: DW-Drinking water GW- Ground water WW-Waste water SW-Surface water WWS-Wastewater Sludge S-Sediment O-Other	Preservative Codes: NP-No Preservative N-Nitric Acid S-Sulfuric Acid H-Hydrochloric Acid SH-Sodium Hydroxide ST-Sodium Thiosulfate O-Other
Distrib List: FDEP - South	RE: CCHMN-Tidal Caloosa		
Address: 2295 Victoria Ave, Suite 364 PO Box 2549 Ft Myers FL 33901	Address: 1500 Monroe St Ft Myers, FL 33901		
Phone: (239) 344-5719	Phone: (239) 533-8109		

Sample Collector(s) (please print): Nicole Reistad/Monica Jaeger		Sample Collector Signature:		Analyses Required					
Relinquished By: (signature)	Date	Time	Received By: (signature)	\$Chloro, _prep	O-PO₄, Color, NOX	TOC	NH₃, TKN, TN, T-PO₄, NO₃, ONIT	Turb, NO₂, TSS, Bod, Bodi	Entero
	08/02/23	1419							
Relinquished By: (signature)	Date	Time	Received By: (signature)						
Relinquished By: (signature)	Date	Time	Received By: (signature)	Preservatives (see codes)					
Sample(s) on ice ☒ Yes or ☐ No? Temperature °C: 0.6°C				NP	NPF	S	S	NP	ST

Collection Date	Time	Sample Description & Location	Matrix (see codes)	# of Sample Containers Submitted						Lab ID #
08/02/23	1010	CRNEP_RS #449	SWE	1	1	1	1	2	1	AF65400
08/02/23	1110	CRNEP_RS #428	SWE	1	1	1	1	2	1	AF65401
08/02/23	0925	CRNEP_RS #387	SWE	1	1	1	1	2	1	AF65402
08/02/23	1010	CRNEP_RS #404	SWE	1	1	1	1	2	1	AF65403
		CRNEP_RSBOT #404 Bottom DID NOT SAMPLE	SWE	1	1	1	1	2	1	AF65404
08/02/23	1045	CRNEP_RS #418	SWE	1	1	1	1	2	1	AF65405
08/02/23	1255	RNEP_EQ # C449	SWE	1	1	1	1	2	1	AF65406

**SAMPLES SHOULD BE IN WET ICE & LESS THAN 6° C (42.8°F)
OR THEY MAYBE QUALIFIED***

*Qualified = the data may not be accurate and regulatory agencies may not accept qualified data.

CCHMN TIDAL CALOOSAHATCHEE DATA SHEET

Site WIN Code:

Date: 08/02/2023	Site# 887	Region: 1 2	Blank Time:	Blank WIN Code:
Time: 0925	Sonde: President Camacho 3 4 5		DUP Time:	Duplicate WIN Code:
Collecting Agency: FDEP			Bottom Time:	Bottom WIN Code:
GPS Selected:	GPS Actual:	Weather Conditions:		
Lat: 26.52715178	Lat: 26.52711	Wind dir/spd: 3/N mph or knots (circle)		
Long: -81.97599874	Long: -81.97631	Wave ht: 0.05 ft (m) (Circle)		
Samplers/FDEP: NR MJ WM TB GS JB		Cld cover (%): 10 Hazy Clear Fog Rain		
Sampler Signature: [Signature]		Tide Level: LS LR LF L=Low; M=Mid, H=High		
		MR MF HR HS HF S=Slack, R=Rising, F=Falling		
Water Depth & Secchi:		Water Data: (0.01)		
Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m	
2.4	1.2	1.1	1.15	
BOTTOM TYPE: seagrass mud sand hard bottom UNK				
PAR Data: (umol/m ² /s)	Air Sensor	Shallow In-Water Sensor	Deep In-Water Sensor	
Depth (m)	Deck	0.5 m	1.0 m	
Reading:				
Time: 0930	1389.5	242.65	115.96	
Depth (m)	Deck	1.4 m	1.9 m	
Reading:				
Time: 0932	1372.4	46.665	30.949	
Depth (m)	Deck	m	m	
Reading:				
Time:				
Pre/Post PAR readings; (Only on 1st & last sample of trip)				
Air: 1662.4	UW Shallow: 2149.1	UW Deep: 2010.1		
Type				SID
FLO				

Additional Comments & Observations: Blue-green algae present in water column and on the surface

Lee Co Environmental Lab: Keith Kibbey or Mishel Mullan (239) 533-8600

FWC: Sarah Erickson or Tony Yard (941) 613-0945

FDEP: Kirby Wolfe (239) 470-0873

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CCHMN TIDAL CALOOSAHATCHEE DATA SHEET

Site Storet Code:

Date: 08/02/2023	Site# 404	Region: 1 2	Blank Time:	Blank Storet Code:							
Time: 1010	Sonde: President Canacho	3 4 5	DUP Time:	Duplicate Storet Code:							
Collecting Agency: FDEP			Bottom Time:	Bottom Storet Code:							
GPS Selected:		GPS Actual:		Weather Conditions:							
Lat: 26.56500241		Lat: 26.56490		Wind dir/spd: N 1.3 mph or knots (circle)							
Long: -81.92991296		Long: -81.92990		Wave ht: 0.05 ft/m (Circle)							
Samplers/FDEP: NR MJ WM TB GS JB			Cld cover (%): 10 Hazy ☐ Clear ☒ Fog ☐ Rain ☐								
Sampler Signature: [Signature]			Tide Level: LS LR LF L=Low; M=Mid, H=High								
			MR MF HR HS HF S=Slack, R=Rising, F=Falling								
Water Depth & Secchi:				Water Data: (0.01)							
Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m	Time:	Sample Depth (m)	Water Temp. (°C)	Conductivity (mS/cm)	Salinity (‰)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	pH
2.8	0.9	0.8	0.85	1010	0.5	30.9	6779	3.68	4.79	65.6	7.75
BOTTOM TYPE: seagrass mud sand hard bottom UNK				1012 NR 1 1 30.9 6747 3.66 4.74 64.9 7.74							
PAR Data: (umol/m²/s)	Air Sensor	Shallow In-Water Sensor	Deep In-Water Sensor	1013	NR 2 1	30.7	7295	3.98	4.64	63.6	7.72
Depth (m)	Deck	0.5 m	1.0 m	1014	NR 2 2	30.7	7919	4.35	4.55	62.5	7.71
Reading:					4						
Time: 1017	1519.7	321.65	96.446		5						
Depth (m)	Deck	m	m		6						
Reading:					7						
Time: 1018	1498.1	14.583	7.4029	1015	Bottom Depth 2.3	30.7	8190	4.50	4.44	60.9	7.67
Depth (m)	Deck	m	m		Blank						
Reading:				Additional Comments & Observations: Blue-green algae present in the water column							
Time:											
Pre/Post PAR readings; (Only on 1st & last sample of trip)				Time:				Type	SID		
UW Shallow:		UW Deep:		Air:				FLO			

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CCHMN TIDAL CALOOSAHATCHEE DATA SHEET

Site WIN Code:

Date: 08/02/2023	Site# 418	Region: 1 2	Blank Time:	Blank WIN Code:							
Time: 1045	Sonde: President Camacho	3 4 5	DUP Time:	Duplicate WIN Code:							
Collecting Agency: FDEP			Bottom Time:	Bottom WIN Code:							
GPS Selected:		GPS Actual:		Weather Conditions:							
Lat: 26.59517533		Lat: 26.59509		Wind dir/spd: 0 mph or knots (circle)							
Long: -81.91299358		Long: -81.91293		Wave ht: 0.0 ft m (Circle)							
Samplers/FDEP: NR MJ WM TB GS JB			Cld cover (%): 25 Hazy Clear Fog Rain								
Sampler Signature: [Signature]			Tide Level: LS LR LF L=Low; M=Mid, H=High								
			MR MF HR HS HF S=Slack, R=Rising, F=Falling								
Water Depth & Secchi:				Water Data: (0.01)							
Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m	Sample Depth (m)	Water Temp. (°C)	Conductivity (mS/cm)	Salinity (‰)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	pH	
1.5	0.9	0.8	0.85	Time: 1045	0.5	30.6	4616	2.44	4.85	65.8	7.74
BOTTOM TYPE: seagrass mud sand hard bottom UNK				1							
PAR Data: (umol/m²/s)				2							
Air Sensor				3							
Shallow In-Water Sensor				4							
Deep In-Water Sensor				5							
Depth (m)	Deck	0.5 m	1.0 m	6							
Reading:				7							
Time: 1050	1600.2	369.15	99.611	1047	Bottom Depth 1.0	30.5	4903	2.60	4.68	63.4	7.74
Depth (m)	Deck	m	m	Blank							
Reading:				Additional Comments & Observations:							
Time:											
Pre/Post PAR readings; (Only on 1st & last sample of trip)				Time:				Type	SID		
Air: UW Shallow: UW Deep:								FLO			

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CCHMN TIDAL CALOOSAHATCHEE DATA SHEET

Site Storet Code:

Date: 08/02/2023	Site# 428	Region: 1 2	Blank Time:	Blank Storet Code:							
Time: 1110	Sonde: President Canacho	3 4 5	DUP Time:	Duplicate Storet Code:							
Collecting Agency: FDEP			Bottom Time:	Bottom Storet Code:							
GPS Selected:		GPS Actual:		Weather Conditions:							
Lat: 26.62384733		Lat: 26.62405		Wind dir/spd: 0 mph or knots (circle)							
Long: -81.90452982		Long: -81.90456		Wave ht: 0.0 ft m (Circle)							
Samplers/FDEP: NR MJ WM TB GS JB				Cld cover (%):							
Sampler Signature: [Signature]				Hazy Clear Fog Rain							
Water Depth & Secchi:				Tide Level: LS, LR LF L=Low; M=Mid; H=High							
				MR MF HR HS HF S=Slack, R=Rising, F=Falling							
				Water Data: (0.01)							
Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m	Sample Depth (m)	Water Temp. (°C)	Conductivity (mS/cm)	Salinity (‰)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	pH	
2.2	0.7	0.4	0.65	Time: 1110	0.5	31.0	1299	0.64	5.50	74.2	7.88
BOTTOM TYPE: seagrass mud sand hard bottom UNK				1112	1	30.6	2260	1.15	5.28	71.0	7.81
PAR Data: (umol/m²/s)											
Air Sensor	Shallow In-Water Sensor	Deep In-Water Sensor									
Depth (m)	Deck	0.5 m	1.0 m								
Reading:											
Time: 1115	1747.0	276.74	91.298								
Depth (m)	Deck	1.2 m	1.7 m								
Reading:											
Time: 1117	1755.9	53.687	14.109								
Depth (m)	Deck	m	m								
Reading:											
Time:											
Pre/Post PAR readings; (Only on 1st & last sample of trip)				Time:				Type	SID		
UW Shallow:				UW Deep:				FLO			
				Air:							

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Additional Comments & Observations: Blue-green algae present in the water column

CCHMN TIDAL CALOOSAHATCHEE DATA SHEET

Site WIN Code:

Date: 08/02/2023	Site# 449	Region: 1 2	Blank Time: 1255	Blank WIN Code:						
Time: 1155	Sonde: President Camacho	3 4 5	DUP Time:	Duplicate WIN Code:						
Collecting Agency: FDEP			Bottom Time:	Bottom WIN Code:						
GPS Selected:		GPS Actual:		Weather Conditions:						
Lat: 26.68228592		Lat: 26.68242		Wind dir/spd: N/3 mph or knots (circle)						
Long: -81.84279788		Long: -81.84283		Wave ht: 0.0 ft (m) (Circle)						
Samplers/FDEP: NR MJ WM TB GS JB			Cld cover (%): 60		Hazy		Clear			
Sampler Signature: [Signature]			Tide Level: LS LR		LF		Fog Rain			
			MR MF HR HS HF		S=Slack, R=Rising, F=Falling					
Water Depth & Secchi:			Water Data: (0.01)							
Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m	Sample Depth (m)	Water Temp. (°C)	Conductivity (mS/cm)	Salinity (‰)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	pH
1.6	0.9	0.8	0.85	0.5	31.5	558	0.27	4.03	54.8	7.66
BOTTOM TYPE: seagrass mud sand hard bottom UNK				1						
PAR Data: (umol/m²/s)				2						
Air Sensor	Shallow In-Water Sensor	Deep In-Water Sensor		3						
Depth (m)	Deck	0.5 m	1.0 m	4						
Reading:				5						
Time: 1159	2025.9	451.46	153.88	6						
Depth (m)	Deck	m	m	7						
Reading:				1157	Bottom Depth 1.1	31.2	557	0.27	3.85	52.0
Time: 1201					Blank					
Depth (m)				Additional Comments & Observations:						
Reading:										
Time:										
Pre/Post PAR readings; (Only on 1st & last sample of trip)				Time: 1201				Type	SID	
Air: 2249.6 UW Shallow: 2853.6 UW Deep: 2805.6								FLO		

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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: President Crampton

RQ-

Project: CCH/MN

- 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 7/17/23

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.	Monica Jaeger	8/2/23	652	21.6	762.0	8.8	8.83	100.3	—	1.037	P/F	L/F
ICV	"	"	654	21.7	762.0	8.8	8.83	100.4	—	—	P/F	L/F
CCV	Monica Jaeger	8/2/23	1451	26.1	762.0	8.1	8.21	101.2	—	—	P/F	L/F
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.	Monica Jaeger	8/2/23	656	2209K36	9/24	50000	50000	P/F	L/F
ICV	"	"	700	230217B	2/24	100	101.0	P/F	L/F
CCV	Monica Jaeger	8/2/23	1453	2209K36	9/24	50000	49985	P/F	L/F
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.	Monica Jaeger	8/2/23	702	230217E	8/24	7.01	21.8	7.01	—	P/F	L/F
Calibr.	"	"	705	2301E22	1/25	4.00	21.1	4.00	—	P/F	L/F
Calibr.	"	"	707	230607C	12/24	10.04	22.0	10.04	—	P/F	L/F
ICV	"	"	709	2301E22	1/25	4.00	21.1	3.93	—	P/F	L/F
CCV	"	"	1455	230607C	12/24	10.04	22.3	9.96	—	P/F	L/F
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 , slope from 4 to 7 (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:

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: 3312A; Date of last verification: 2/1/23

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						P / F	L / F

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

COMMENTS: