

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: Exo

RQ: 2019-02-25-09

Project: GROG Branch Sci

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 02-11-19

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C 22.2	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	PO'Connor	02-27-19	0725	22.2	763.9	8.70	8.76	100.5	—	—	P/F	L/F
ICV	✓	✓	0728	22.3	763.9	8.69	8.75	100.6	—	—	P/F	L/F
CCV	C. Ruben	2-27-19	1307	21.5	763	8.83	8.85	100.3	—	—	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 µhos/cm	Meter Reading µhos/cm	Pass / Fail	Lab / Field
Calibr.	PO'Connor	02-27-19	0730	190125B	02-2020	1000	1000	(P/F)	(L/F)
ICV	✓	✓	0733	180111B	07-2019	100	102.0	(P/F)	(L/F)
CCV	C. Ruben	2-27-19	1311	190125B	02-2020	1000	999	(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.	PO'Connor	02-27-19	0736	2811E61	11-2020	7.00	23.5	7.01	-24.7	(P/F)	(L/F)
Calibr.	↓	↓	0745	2811D47	11-2020	4.00	23.5	4.00	155.8	(P/F)	(L/F)
Calibr.	↓	↓	0750	2810F55	04-2020	10.00	23.5	10.02	-199.7	(P/F)	(L/F)
ICV	↓	↓	0755	2811E61	11-2020	7.00	23.5	7.10	-28.8	(P/F)	(L/F)
CCV	C Ruben	2-27-19	1315	2811D47	11-2020	4.0	23.5	4.02	153.5	(P/F)	(L/F)
CCV										P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 $\pm$ 50;

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 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: 02-11-19

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						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:

Lot # for pH Buffer 10.00 is 2810F55

Chyane R

3/4/19

Scanned BT 3/5/19

Form effective August 1, 2018

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

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Meter ID: Pro DSS

RQ: 2019-02-25-08

Project: LSJR Downtown

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 8/2019

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.	Brian Davis	2/27/19	734	22.3	761.4	8.69	8.72	100.2	/	/	P/F	L/F
ICV			736	22.3	761.4	8.69	8.73	100.5	/	/	P/F	L/F
CCV	Jeremy Pansh	2/27/19	1352	23.0	769.5	8.58	8.54	99.5	-	-	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.	B-D-	2/27/19	742	181102	11/19	1000	994	P/F	L/F
ICV			744	81472017	6/19	147	151.1	P/F	L/F
CCV	J Pansh		1355	1024820	9/19	24820	24519	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.	B-D-	2/27/19	751	2811051	11/20	7.00	23.2	7.01	-41.0	P/F	L/F
Calibr.			756	2811047	11/20	4.00	23.3	4.0	139.7	P/F	L/F
Calibr.			759	2810F55	4/20	10.00	23.3	10.02	-17.3	P/F	L/F
ICV			820	2811051	11/20	7.0	23.4	7.06	-41.2	P/F	L/F
CCV	J Pansh		1400	2810F55	11/20	10.0	23.4	10.07	-218.5	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: _____; 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	B-D-	2/27/19	821	0.00	0.00	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:

Chyane R 3/4/19 Scanned BD 3/5/19