

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: 2019-04-08-19

Project: TROUT 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

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.	P O'Connor	04-18-19	0720	22.7	759.4	8.6	8.6	100.0	1.03178	1.03178	P/F	L/F
ICV	✓	✓	0725	22.9	759.4	8.6	8.59	100.0		1.03178	P/F	L/F
CCV	A Kelmacher	4-18-19	1535	25.0	757.9	8.2	8.12	98.3		1.03178	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 D55 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.	P O'Connor	04-18-19	0730	190319A	03-2020	1000	1000	P/F	L/F
ICV	✓	✓	0733	190125A	02-2020	100	102.8	P/F	L/F
CCV	A Kelmacher	4-18-19	1540	190319A	03/2020	1,000	998	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.	P O'Connor	04-18-19	0737	2807A76	06-2020	7.00	24.0	7.01	-33.6	P/F	L/F
Calibr.			0747	2901A40	01-2021	4.00	24.2	4.00	145.4	P/F	L/F
Calibr.			0750	2809980	03-2020	10.00	24.1	10.01	-200.3	P/F	L/F
ICV	✓	✓	0755	2807A76	06-2020	7.00	23.95	6.96	-26.7	P/F	L/F
CCV	A Kelmacher	4-18-19	1545	2809980	03/2020	10.0	24.2	10.00	-200.9	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						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:

BP 4/30/19

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

Boat

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

Meter ID: **PRO DSS**

RQ: **2019-04-15-25**

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

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.	C. Ruben	4.18.19	0737	22.6	757	8.4	8.61	100	-	-	(P) F	(L) F
ICV	↓	4.18.19	0739	22.6	757	8.4	8.61	99.7	-	-	(P) F	(L) F
CCV	AKalmbacher	4.18.19	1415	25.2	756	8.2	8.16	99.0	-	-	(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.	C. Ruben	4.18.19	0741	190125B	2/2020	1000	995	(P) F	(L) F
ICV	↓	4.18.19	0745	180711B	7/2019	100	101.1	(P) F	(L) F
CCV	AKalmbacher	4.18.19	1418	190125B	2/2020	1000	1004	(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.	C. Ruben	4.18.19	0750	2811E61	11/2020	7.	24.0	7.08	-48.5	(P) F	(L) F
Calibr.	↓	↓	0753	2901A40	1/2021	4.	23.9	4.02	130.9	(P) F	(L) F
Calibr.	↓	↓	0755	2809980	3/2020	10.	23.9	10.01	-220.4	(P) F	(L) F
ICV	↓	↓	0758	2811E61	11/2020	7.0	23.9	7.07	-49.9	P / F	L / F
CCV	AKalmbacher	4.18.19	1425	2809980	3/2020	10.0	24.1	10.05	-224.1	(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	C. Ruben	4.18.19	0800	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:

BP 4/22/19