

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

2021-08-30-53

STATUS 5L

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

Meter ID: Shay mp Trap

RQ- NA

Project: Z3-5L-15007

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 9/3/21

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.	Terry Riordan	10/11/21	0659	23.3	751.7	8.4	8.43	98.9	—	1.050	P/F	L/F
ICV	1	1	0700	23.4	751.7	8.4	8.42	99.0	—	—	P/F	L/F
CCV	Terry Riordan	1	1440	24.2	751.4	8.3	8.39	100.0	—	—	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.	Terry Riordan	10/11/21	0704	2101278	2/22	1000	1000	P/F	L/F
ICV	1	1	0707	1105657	5/23	100	102.8	P/F	L/F
CCV	Terry Riordan	1	1443	1105657	5/23	100	102.1	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.	Terry Riordan	10/11/21	0714	210792	2/23	7.00	23.4	7.00	-77.0	P/F	L/F
Calibr.	1	1	0718	210273	2/23	4.00	23.5	4.00	100.0	P/F	L/F
Calibr.	1	1	0723	207370	3/23	10.01	23.5	10.01	-258.9	P/F	L/F
ICV	1	1	0725	207370	3/23	10.01	23.6	10.01	-258.1	P/F	L/F
CCV	Terry Riordan	1	1446	210273	2/23	4.00	23.6	4.12	94.6	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 10 181.9, slope from 4 to 7 177.0 (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: 9/3/21

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: light; Date of last verification: 6/4/21

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	Terry Riordan	10/11/21	0655	0.222	0.271	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:

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: CRAW DADPY

RQ: 2021-10-11-53

Project: SMP

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 9/3/21

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.	Terry Riordan	10/11/21	0735	23.5	751.8	8.4	8.40	98.9	/	0.979	P/F	L/F
ICV	1	1	0737	23.6	751.9	8.4	8.40	99.0	/	/	P/F	L/F
CCV	Katie Mauch	1	1555	24.8	751.2	8.2	8.43	101.8	/	/	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.	Terry Riordan	10/11/21	0740	210127B	2/22	1000	1000	P/F	L/F
ICV	1	1	0744	1105C57	5/23	100	100.7	P/F	L/F
CCV	Katie Mauch	1	1600	1105C57	5/23	100	100.1	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.	Terry Riordan	10/11/21	0750	210792	2/23	7.00	23.5	7.00	-71.3	P/F	L/F
Calibr.	1	1	0755	210273	2/23	4.00	23.5	4.00	105.4	P/F	L/F
Calibr.	1	1	0803	207370	3/23	10.01	23.6	10.01	-248.1	P/F	L/F
ICV	1	1	0805	207370	3/23	10.01	23.6	9.99	-247.3	P/F	L/F
CCV	Katie Mauch	1	1605	210273	2/23	4.00	23.5	4.15	97.1	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 10 176.8, slope from 4 to 7 176.7 (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: 9/3/21

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Knothead; Date of last verification: 6/4/21

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	Terry Riordan	10/11/21	0806	0.272	0.274	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: