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

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

Meter ID: 118163 RQ- 2018-08-13-34 Project: SMP LVI

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.

Circle/Fill In: (Lab Calibration) or Calibration/Verification on Site _____

Temperature (Quarterly) FT 1400 Date of Last Temperature Verification 5/30/18

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.										P / F	L / F
ICV										P / F	L / F
CCV	S. Slade	8/21/18	0838	24.75	8.35	8.15	98.2		1.03693	(P) F	(L) F
CCV	F Buton	8/21/18	17:30	23.7	8.47	8.46	100.0			(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; 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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	S. Slade	8/21/18	0832	180517B	may 2019	1000	1000	(P) / F	(L) F
ICV	S. Slade	8/21/18	0834	180329	apr 2019	100	103	(P) / F	(L) F
CCV	F-Buton	8/21/18	17:34	180512B	5/2019	1000	1009	(P) F	(L) / F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 5%

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	S Slade	8/21/18	0836	1710655	OCT 2019	7.0	7.00	-8.3	(P) / F	(L) / F
Calibr.	S Slade	8/21/18	0838	2803729	Feb 2020	4.0	4.00	166.2	(P) / F	(L) / F
Calibr.	S Slade	8/21/18	0840	2709903	mar 2019	10.0	10.01	-184.1	(P) F	(L) F
ICV	S Slade	8/21/18	0842	2803729	Feb 2020	4.0	4.07	161.7	(P) / F	(L) / F
CCV									P / F	L / F
CCV	F Buton	8/21/18	17:38	1711655	10/2019	7.0	7.05		(P) / F	(L) F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50; mV pH 4 Range +180 ± 50; mV pH 10 Range -180 ± 50;
If mV are recorded: slope from 7 to 10 175.8, slope from 4 to 7 174.5 (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / (No) If yes, list date of last quarterly depth 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 ± 5 % or ± 0.05m, whichever is greater.

COMMENTS:

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

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

Meter ID: 132237 RQ- 2018-08-20-14 Project: SMP Lawel 14.1 W

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.

Circle/Fill In: ~~Lab Calibration~~ or Calibration/Verification on Site _____

Temperature (Quarterly) FT 1400 Date of Last Temperature Verification 6/18/18

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.										P / F	L / F
ICV										P / F	L / F
CCV	J. Pitts	8/21/18	0715	25.1	8.248	8.36	101	—	1.02	(P) / F	(L) F
CCV	J. Pitts	8/21/18	1530	25.4	8.203	8.30	101	—	—	(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; 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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	J. Pitts	8/21/18	0717	1805178	5/2019	1000	1000	(P) / F	(L) F
ICV	↓	↓	0719	180329	4/2019	100	104	(P) / F	(L) F
CCV	J. Pitts	8/21/18	1532	180329	4/2019	100	103	(P) / F	(L) F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 5%

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J. Pitts	8/21/18	0721	1710655	10/2019	7.0	7.0	-41.2	(P) / F	(L) F
Calibr.	↓	↓	0723	2803729	2/2020	4.0	4.0	136.8	(P) / F	(L) F
Calibr.			0725	2709903	3/2019	10.0	10.0	-210.2	(P) / F	(L) F
ICV			0727	2709903	3/2019	10.0	10.0	—	(P) / F	(L) F
CCV	J. Pitts	8/21/18	1534	2803729	2/2020	4.0	4.1	—	(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 ± 50; mV pH 10 Range -180 ± 50;
If mV are recorded: slope from 7 to 10 169.0, slope from 4 to 7 178.0 (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? (Yes) / **No** If yes, list date of last quarterly depth verification 4/19/18

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	J. Pitts	8/21/18	0729	0.00	0.00	(P) / F	(L) F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria ± 5 % or ± 0.05m, 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: 154179 RQ- 2018-08-2015 Project: SWP

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 6/18/18

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 / F	L / F
ICV											P / F	L / F
CCV	MM	8/21	0640	24.9	767.1	8.39	8.44	101.5			(P) / F	(L) / F
CCV	MM	8/21	1405	22.0		8.86	8.85	101.3			(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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	MM	8/21	0642	180124C	02/2019	10000	10003	(P) / F	(L) / F
ICV	↓	↓	0643	~~180124B~~	05/2019	1000	1005	(P) / F	(L) / F
CCV	MM	8/21	1410	180517B		100	102	(P) / F	(L) / F
CCV				180324	04/2019			P / F	L / F

Conductivity Acceptance criteria ± 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.	MM	8/21	0645	170655	10/19	7.0	24.8	7.01	-12.3	(P) / F	(L) / F
Calibr.	↓	↓	0646	2803729	02/20	4.0	24.8	4.02	171.2	(P) / F	(L) / F
Calibr.			0647	2709903	03/19	10.0	24.8	10.01	-182.7	(P) / F	(L) / F
ICV			0650	2803729	02/20	4.0		4.07		(P) / F	(L) / F
CCV	MM	8/21	1415	2709903	03/19	10.0		10.05		(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 ± 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: 6/26/18
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	MM	8/21	0655	0.000	0.000	(P) / F	(L) F

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

COMMENTS: