

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 name.

Meter ID: YSI #3 RQ: 2018-02-12-26 Project: McCoy's Cont Mon

- 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 L6

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 1/18

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.	B-V	2/14/18	837	22.04	8.74	8.74	100	67.6	0.90	(P) F	(L) F
ICV			840	22.2	8.71	8.66	99.4	67.6	0.90	(P) F	(L) F
CCV	A Kalmbacher		1135	19.6	9.16	9.17	100.4	66.5	0.9024	(P) F	(L) F
CCV										P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	B-V	2/14/18	844	171129A	12/18	1000	1000	(P) F	(L) F
ICV			846	170315A	3/18	100	101	(P) F	(L) F
CCV	A Kalmbacher		1138	171129A	12/2018	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	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	B-V	2/14/18	853	2709815	9/19	7.0	7.0	-16.0	(P) F	(L) F
Calibr.			856	2711517	10/19	4.0	4.0	161.2	(P) F	(L) F
Calibr.			901	2706131	12/18	10.0	9.99	-188.7	(P) F	(L) F
ICV			905	2709815	9/19	7.0	7.03	-16.3	(P) F	(L) F
CCV	A Kalmbacher		1140	2708121	1/2019	10.0	10.5	-192.7	(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)

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	B-V	2/14/18	906	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:

QC/Scanned BV 2/22/18 JP 2/16/18

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: QUANTA#1

RQ: 2018-02-12-70

Project: BMAP FV-SNR BACT

- 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 02-01-10-2018

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 O'Connor	02-14-18	0705	21.6	8.81	8.79	100.0	—	—	P / F	L / F
ICV	↓	↓	0715	21.6	8.81	8.79	100.1	—	—	P / F	L / F
CCV	J Parnish	2/14/18	195	22.4	8.67	8.65	99.6	—	—	P / F	L / F
CCV										P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	P O'Connor	02-14-18	0718	1711129A	12-2018	1000	1001	P / F	L / F
ICV	↓	↓	0720	170315A	03-2018	100	98	P / F	L / F
CCV	J Parnish	2/14/18	1516	81472017	3/18	147	144	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	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	P O'Connor	02-14-18	0723	2109B15	09-2019	7.0	7.00	—	P / F	L / F
Calibr.	↓	↓	0725	2711517	10-2019	4.0	4.00	—	P / F	L / F
Calibr.	↓	↓	0730	2708A21	01-2019	10.0	9.94	—	P / F	L / F
ICV	J Parnish	2/14/18	1517	2706D31	12/18	10.0	9.95	—	P / F	L / F
CCV									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 N/A, slope from 4 to 7 N/A (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	N/A					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:

JP 3/13/18 QC/Scanned BT 3/14/18