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: BIG 7 RQ- 2018-01-29-67 Project: CONT. MONIT. SMP IMP/RIVER MARINE

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 1/25/18

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.	JOHN BARRINGTON	1/25/18	0737	25.0	8.3	8.3	100	N/A	1.1	(P) F	(L) F
ICV	JOHN BARRINGTON	1/25/18	0750	25.4	8.2	8.4	100	—	—	(P) F	(L) F
CCV	JOHN BARRINGTON	1/30/18	1545	25.5	8.2	8.5	106	—	—	(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; 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.	JOHN BARRINGTON	0755	1/25/18	1712110	12/18	1000	1000	(P) F	(L) F
ICV	JOHN BARRINGTON	0758	1/25/18	1709121A	5/18	10,000	9990	(P) F	(L) F
CCV	[illegible] Sant	1/30/18	1320	2706591	05/19	50.000	49589	(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.	JOHN BARRINGTON	1/25/18	0800	176157	8/19	7.0	7.0	-25.0	(P) F	(L) F
Calibr.	JOHN BARRINGTON	1/25/18	0803	176044	8/19	4.0	4.0	152.1	(P) F	(L) F
Calibr.	JOHN BARRINGTON	1/25/18	0806	172902	4/19	10.0	10.0	-200	(P) F	(L) F
ICV	JOHN BARRINGTON	1/25/18	0809	176044	8/19	4.0	3.9	158.3	(P) F	(L) F
CCV	[illegible] Sant	1/30/18	1330	172902	4/19	10.0	10.0	-201.9	(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 ± 50; mV pH 10 Range -180 ± 50;
If mV are recorded: slope from 7 to 10 175, slope from 4 to 7 177.1 (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:

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: Big 17 RQ- 2018-01-29-67 Project: Continuous Monitoring SAMP Billy Creek

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 1/25/18

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.	Gary Sch	1/25/18	900	25.9	8.13	8.1	100	NA	NA	(P) / F	(L) / F
ICV	Gary Sch	1/25/18	905	26.1	8.1	8.1	99	NA	1.07	(P) / F	(L) / F
CCV	JOHN BARRINGTON	1/30/18	1300	25.0	8.3	8.2	98.4	NA	1.07	(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; 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.	Gary Sch	1/25/18	908	171211C	12/18	1000	1000	(P) / F	(L) / F
ICV	"	"	912	170728C	8/18	10,000	9590	(P) F	(L) F
CCV	JOHN BARRINGTON	1/30/18	1304	2706591	5/19	50,000	47484	(P) / F	(L) / F
CCV	JOHN BARRINGTON	1/30/18	1306	171211C	12/18	1000	1006	(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.	Gary Sch	1/25/18	915	176157	8/19	7.0	7.0	-32.0	(P) / F	(L) F
Calibr.	"	1/25/18	920	176044	8/19	4.0	4.0	131.0	(P) F	(L) / F
Calibr.	"	1/25/18	925	172902	4/19	10.0	10.0	-207.8	(P) / F	(L) F
ICV	"	1/25/18	930	176044	8/19	4.0	3.9	137.8	(P) / F	(L) F
CCV	JOHN BARRINGTON	1/30/18	1312	172902	4/19	10.0	10.1	-211.7	(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 ± 50; mV pH 10 Range -180 ± 50;
If mV are recorded: slope from 7 to 10 175.8, slope from 4 to 7 163 (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:

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: 5 RQ-7018-01-29-167 Project: CONT. MONT. SMP #FM

IMP RIVER + BUCK CREEK

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 12/28/17

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.	S. Cofone	11/30/18	0720	24.7	8.3	8.3	100	65	.83755	P/F	L/F
ICV	" "	"	0722	24.7	8.3	8.3	100	64		P/F	L/F
CCV	S. Cofone	11/30/18	1300	23.2	8.5	8.7	100	63		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; 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. Cofone	11/30/18	0725	170828	09/18	100	100	P/F	L/F
ICV	" "	"	0726	171211C	12/18	1000	985	P/F	L/F
CCV	S. Cofone	11/30/18	1304	2706591	5/19	50,000	49615	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. Cofone	11/30/18	0730	176157	8/19	7.0	7.0	-5	P/F	L/F
Calibr.	" "	"	0731	176044	8/19	4.0	4.0	12	P/F	L/F
Calibr.	" "	"	0733	172982	4/19	10.0	10.0	-229	P/F	L/F
ICV	" "	"	0735	172982	4/19	10.0	10.0	-223	P/F	L/F
CCV	S. Cofone	11/30/18	1306	176157	8/19	7.0	6.9	-47	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 10 174, slope from 4 to 7 171 (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: