

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: Big 17

RQ: 2018-08-28-10

Project: Cart Mont

- 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 3/24/18

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.	<u>[Signature]</u>	<u>5/21/18</u>	<u>805</u>	<u>24.3</u>	<u>8.37</u>	<u>8.38</u>	<u>100.1</u>	<u>NA</u>		<u>P/F</u>	<u>L/F</u>
ICV	<u>[Signature]</u>	<u>5/31/18</u>	<u>807</u>	<u>24.5</u>	<u>8.34</u>	<u>8.34</u>	<u>100.0</u>	<u>NA</u>		<u>P/F</u>	<u>L/F</u>
CCV	<u>[Signature]</u>	<u>6/5/18</u>	<u>1347</u>	<u>23.7</u>	<u>8.46</u>	<u>8.64</u>	<u>101.9</u>	<u>NA</u>		<u>P/F</u>	<u>L/F</u>
CCV										<u>P/F</u>	<u>L/F</u>

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.	<u>[Signature]</u>	<u>5/31/18</u>	<u>812</u>	<u>171211A</u>	<u>12/1/18</u>	<u>10,000</u>	<u>10,035</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>[Signature]</u>	<u>5/21/18</u>	<u>815</u>	<u>180321B</u>	<u>04/1/19</u>	<u>1000</u>	<u>981</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>[Signature]</u>	<u>6/5/18</u>	<u>1342</u>	<u>180321D</u>	<u>4/1/19</u>	<u>50,000</u>	<u>49700</u>	<u>P/F</u>	<u>L/F</u>
CCV								<u>P/F</u>	<u>L/F</u>

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.	<u>[Signature]</u>	<u>9/20/18</u>	<u>822</u>	<u>171435</u>	<u>10/1/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-41.6</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>[Signature]</u>	<u>5/31/18</u>	<u>825</u>	<u>180715</u>	<u>2/20</u>	<u>4.0</u>	<u>3.97</u>	<u>134.1</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>[Signature]</u>	<u>5/21/18</u>	<u>827</u>	<u>170507</u>	<u>9/1/19</u>	<u>10.0</u>	<u>9.99</u>	<u>-21.2</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>[Signature]</u>	<u>5/31/18</u>	<u>830</u>	<u>180507</u>	<u>9/1/19</u>	<u>10.0</u>	<u>10.07</u>	<u>-21.8</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>[Signature]</u>	<u>6/5/18</u>	<u>1345</u>	<u>180321D</u>	<u>04/1/19</u>	<u>4.0</u>	<u>4.07</u>	<u>132.1</u>	<u>P/F</u>	<u>L/F</u>
CCV									<u>P/F</u>	<u>L/F</u>

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 10 253.7, slope from 4 to 7 175.7 (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes 176.4 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						<u>P/F</u>	<u>L/F</u>

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 is qualified data on this page.

Meter ID:

7

RQ:

2018-05-28-10

Project:

CONT. MONITORING

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 3/22/18

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	5/31/18	0740	24.85	8.28	8.27	99.8	NA	1.15	(P) F	(L) F
ICV	JOHN BARRINGTON	5/31/18	0743	24.86	8.28	8.28	99.9	NA	—	(P) F	(L) F
CCV	GARY SMITH	6/5/18	1318	24.4	8.35	8.25	98.4	NA	—	(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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	JOHN BARRINGTON	5/31/18	0746	171211A	12/18	10,000	10,000	(P) F	(L) F
ICV	JOHN BARRINGTON	5/31/18	0749	180321D	4/19	50,000	49,655	(P) F	L / F
CCV	GARY SMITH	6/5/18	1322	171211B	12/18	100	100	(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.	JOHN BARRINGTON	5/31/18	0752	177435	10/19	7.0	7.00	22.4	(P) F	(L) F
Calibr.	JOHN BARRINGTON	5/31/18	0755	180710	9/19	4.0	4.00	148.6	(P) F	(L) F
Calibr.	JOHN BARRINGTON	5/31/18	0758	176507	2/20	10.0	10.00	-206.4	(P) F	(L) F
ICV	JOHN BARRINGTON	5/31/18	0801	182110	9/19	4.0	3.96	—	(P) F	(L) F
CCV	GARY SMITH	6/5/18	1325	176507	9/19	10.0	10.1	-213.4	(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 10 177, slope from 4 to 7 177 (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 $\pm 5\%$ 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 is qualified data on this page.

Meter ID: RWS

RQ: 2018-05-28-10

Project: 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

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 3/22/18

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.	S. CORN	6/5/18	1655	23.55	8.482	8.49	99.9	59.4		P/F	L/F
ICV	"	"	1704	23.46	8.534	8.53	100.0	58.4		P/F	L/F
CCV	S. CORN	6/5/18	1345	24.47	8.418	8.50	101.0	57.4		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.	S. CORN	6/5/18	1704	171211A	12/18	14000	9996	P/F	L/F
ICV	"	"	1742	180321D	4/19	5000	49543	P/F	L/F
CCV	S. CORN	6/5/18	1307	180321A	4/19	5000	498	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.	S. CORN	6/5/18	1705	171435	10/12	7.0	7.00	112.5	P/F	L/F
Calibr.	"	"	1706	180714	2/20	4.0	4.00	157.4	P/F	L/F
Calibr.	"	"	1714	176547	9/19	10.0	10.01	118.6	P/F	L/F
ICV	"	"	1712	180714	2/20	4.0	4.01	-19.2	P/F	L/F
CCV	S. CORN	6/5/18	1310	180507	9/19	10.0	10.01	-204.5	P/F	L/F
CCV									P/F	L/F

pH Acceptance criteria ± 0.2 SU;

mV pH 7 Range 0 $\pm$ 50;

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 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 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 $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: