

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 Quanta #1 RQ- 2017-06-12-16 Project LSSR Southwest

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 _____

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.	PO'Connor	06-13-17	0707	23.8	8.44	8.42	99.9	—	—	Pass	Lab
ICV	PO'Connor	06-13-17	0710	23.8	8.44	8.41	99.8	—	—	Pass	Lab
CCV	A. Kalmbacher	06-13-17	1145	23.4	8.51	8.51	100	—	—	P	Lab
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	PO'Connor	06-13-17	0714	170315B	03-2018	1000	1000	Pass	Lab
ICV	✓	✓	0715	170315A	03-2018	100	102	Pass	Lab
CCV	A. Kalmbacher	06-13-17	1148	1298117	12-2017	12,900	13,360	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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.	PO'Connor	06-13-17	0717	2702047	02-2019	7.0	7.00	—	Pass	Lab
Calibr.	✓	✓	0722	2610F42	10-2018	4.0	4.00	—	Pass	Lab
Calibr.	✓	✓	0725	2611998	05-2018	10.0	9.81			
ICV	A. Kalmbacher	06-13-17	1150	2702047	02-2019	7.00	7.13		P	L
CCV										
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;

mV pH7 Range 0 ± 50 ;

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

mV pH 10 Range -180 ± 50 ;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification N/A

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

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 YSI #3

RQ- 2017-06-12-15

Project STRW

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 L-6

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 6/17

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.	<u>3-75vis</u>	<u>6/13/17</u>	<u>744</u>	<u>23.6</u>	<u>8.48</u>	<u>8.48</u>	<u>100</u>	<u>62.5</u>	<u>0.95086</u>	<u>P</u>	<u>L</u>
ICV	<u>↓</u>	<u>↓</u>	<u>745</u>	<u>23.6</u>	<u>8.48</u>	<u>8.46</u>	<u>99.8</u>	<u>62.5</u>	<u>0.95086</u>	<u>P</u>	<u>L</u>
CCV	<u>↓</u>	<u>↓</u>	<u>1436</u>	<u>24.16</u>	<u>8.38</u>	<u>8.22</u>	<u>97.8</u>	<u>63.5</u>	<u>0.95086</u>	<u>P</u>	<u>L</u>
CCV					<u>8.38</u>						

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	<u>B-L Vc</u>	<u>6/13/17</u>	<u>749</u>	<u>170315B</u>	<u>3/18</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
ICV	<u>↓</u>	<u>↓</u>	<u>750</u>	<u>61472017</u>	<u>12/17</u>	<u>147</u>	<u>147</u>	<u>P</u>	<u>L</u>
CCV	<u>↓</u>	<u>↓</u>	<u>1440</u>	<u>170315B</u>	<u>3/18</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
CCV									

Report specific conductance as a whole number with no decimal figure.

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>B-L Vc</u>	<u>6/13/17</u>	<u>754</u>	<u>202047</u>	<u>2/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-12.4</u>	<u>P</u>	<u>L</u>
Calibr.			<u>758</u>	<u>2610F42</u>	<u>10/18</u>	<u>4.0</u>	<u>4.0</u>	<u>149.9</u>	<u>P</u>	<u>L</u>
Calibr.			<u>804</u>	<u>2611498</u>	<u>5/18</u>	<u>10.0</u>	<u>9.97</u>	<u>-166.5</u>	<u>P</u>	<u>L</u>
ICV			<u>808</u>	<u>2702047</u>	<u>2/19</u>	<u>7.0</u>	<u>7.03</u>	<u>-11.5</u>	<u>P</u>	<u>L</u>
CCV			<u>1442</u>	<u>2610F42</u>	<u>10/18</u>	<u>4.0</u>	<u>4.14</u>	<u>141.4</u>	<u>P</u>	<u>L</u>
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 $\pm$ 50;

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

mV pH 10 Range -180 $\pm$ 50; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater