

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: YSZ 74

RQ: 218-09-10-29

Project: LSJRN Salt

- 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 _____

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>Kevin Voss</u>	<u>9/12/18</u>	<u>745</u>	<u>23.5</u>	<u>8.49</u>	<u>8.52</u>	<u>100.1</u>	<u>✓</u>	<u>✓</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>748</u>	<u>23.6</u>	<u>8.48</u>	<u>8.51</u>	<u>100.2</u>	<u>✓</u>	<u>✓</u>	<u>(P) F</u>	<u>(L) F</u>
CCV	<u>Kalmbacher</u>	<u>9-12-18</u>	<u>1215</u>	<u>26.8</u>	<u>8.0</u>	<u>8.13</u>	<u>101.6</u>			<u>(P) F</u>	<u>(L) F</u>
CCV					<u>7.99</u>					<u>P / F</u>	<u>L / F</u>

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.	<u>B = V</u>	<u>9/12/18</u>	<u>754</u>	<u>180711A</u>	<u>07/19</u>	<u>1000</u>	<u>1000</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>757</u>	<u>180321A</u>	<u>4/19</u>	<u>100</u>	<u>105</u>	<u>(P) F</u>	<u>(L) F</u>
CCV	<u>Kalmbacher</u>	<u>9-12-18</u>	<u>1220</u>	<u>180711A</u>	<u>07/2019</u>	<u>11000</u>	<u>995</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>B = V</u>	<u>9/12/18</u>	<u>804</u>	<u>2803E45</u>	<u>3/20</u>	<u>7.0</u>	<u>7.0</u>	<u>-20.6</u>	<u>(P) F</u>	<u>(L) F</u>
Calibr.			<u>810</u>	<u>2803P58</u>	<u>3/20</u>	<u>4.0</u>	<u>4.0</u>	<u>-155.6</u>	<u>(P) F</u>	<u>(L) F</u>
Calibr.			<u>817</u>	<u>2712P55</u>	<u>6/19</u>	<u>10.0</u>	<u>9.98</u>	<u>-19.5</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>826</u>	<u>2803E45</u>	<u>3/20</u>	<u>7.0</u>	<u>7.02</u>	<u>-19.8</u>	<u>(P) F</u>	<u>(L) F</u>
CCV	<u>Kalmbacher</u>	<u>9-12-18</u>	<u>1224</u>	<u>2172855</u>	<u>6/2019</u>	<u>10.0</u>	<u>10.0</u>	<u>-192.7</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 _____, 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	<u>B = V</u>	<u>9/12/18</u>	<u>827</u>	<u>0.00</u>	<u>0.00</u>	<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:

BD 9/24/18 JP 9/21/18

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 name.

Meter ID: **YSI 6920** RQ: **2018-09-10-23** Project: **LSJR Southside 1**

- 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 _____

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.	C. Ruben	9/12/18	0730	23.9	8.43	8.43	100.0	—	—	P/F	L/F
ICV	↓	↓	0732	24.0	8.41	8.41	100.0	—	—	P/F	L/F
CCV	J. Ramsh	9/12/18	1150	24.1	8.42	8.42	100.2	—	—	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 μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	C. Ruben	9/12/18	0735	180321A	9/2019	1000	1000	P/F	L/F
ICV	C. Ruben	9/12/18	0742	180321A	4/2019	100	103	P/F	L/F
CCV	J. Ramsh	9/12/18	1152	3221413	3/2019	1413	1426	P/F	L/F
CCV					9/18			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.	C. Ruben	9/12/18	0745	2803E15	3/2020	7.0	7.00	-19.1	P/F	L/F
Calibr.	↓	↓	0749	2803D38	3/2020	4.0	4.00	99.5	P/F	L/F
Calibr.	↓	↓	0753	2712B55	6/2019	10.0	10.00	-170.5	P/F	L/F
ICV	↓	↓	0756	2803E15	3/2020	7.0	7.03	-17.9	P/F	L/F
CCV	J. Ramsh	9/12/18	1200	2712B55	6/2019	7.00	9.97	-170.4	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 _____, 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	C. Ruben	9/12/18	0758	0.00	0.000	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:

BP QC/Scanned 9/17/18 JP 9/14/18