

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

box if there is
qualified data on
this page.

Meter ID: 15174

RQ: 2018-04-23-07

Project: LSSR Const Boat

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 04-10-18

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.	PO'Connor	04-26-18	0718	23.3	8.53	8.53	100.0	—	1.04552	(P) F	(L) F
ICV	↓	↓	0725	23.3	8.53	8.54	100.0	—	1.04552	(P) F	(L) F
CCV	PO'Connor	04-26-18	1350	25.5	8.1	8.31	101.5	—	1.04552	(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.	PO'Connor	04-26-18	0727	180321B	04-2019	1000	1000	(P) F	(L) F
ICV	↓	↓	0750	170720C	08-2018	50,000	48999	(P) F	(L) F
CCV	PO'Connor	04-26-18	1355	18017020C				(P) F	(L) F
CCV	PO'Connor	04-26-18	1355	180321B	04-2019	1000	1032	(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.	PO'Connor	04-26-18	0732	2711281	11-19	7.0	7.00	-80.5	(P) F	(L) F
Calibr.	↓	↓	0745	2711517	10-19	4.0	4.00	157.8	(P) F	(L) F
Calibr.	↓	↓	0750	2711521	04-19	10.0	10.00	177.9	(P) F	(L) F
ICV	↓	↓	0752	2711681	11-19	7.0	6.98	-9.2	(P) F	(L) F
CCV	PO'Connor	04-26-18	1400	2711521	04-19	10.0	9.95	-175.3	(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 04-10-2018

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:

QC/Scanned BD 5/14/18 JP 5/11/18

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 #4 RQ: 2018-04-23-08 Project: LSJR Coast

- 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 4/10/2018

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.	<u>A Kalmbacher</u>	<u>4-26-18</u>	<u>0805</u>	<u>23.0</u>	<u>8.57</u>	<u>8.58</u>	<u>100</u>	<u>55.3</u>	<u>0.9053</u>	<u>P</u> F	<u>L</u> F
ICV		<u>↓</u>	<u>0807</u>	<u>23.0</u>	<u>8.57</u>	<u>8.57</u>	<u>100</u>	<u>55.3</u>	<u>0.9053</u>	<u>P</u> F	<u>L</u> F
CCV	<u>JP Davis</u>	<u>↓</u>	<u>1243</u>	<u>23.8</u>	<u>8.44</u>	<u>8.55</u>	<u>101.3</u>	<u>53.3</u>	<u>0.905</u>	<u>P</u> F	<u>L</u> 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.	<u>A Kalmbacher</u>	<u>4-26-18</u>	<u>0809</u>	<u>180321B</u>	<u>4/2019</u>	<u>1,000</u>	<u>1,000</u>	P / F	L / F
ICV			<u>0811</u>	<u>171129B</u>	<u>12/2018</u>	<u>100</u>	<u>99</u>	<u>P</u> F	<u>L</u> F
CCV			<u>1245</u>	<u>170720C</u>	<u>8/18</u>	<u>50,000</u>	<u>49013</u>	<u>P</u> F	<u>L</u> 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.	<u>A Kalmbacher</u>	<u>4-26-18</u>	<u>0820</u>	<u>2711081</u>	<u>11/2019</u>	<u>7.0</u>	<u>7.00</u>	<u>-41.6</u>	P / F	L / F
Calibr.			<u>0823</u>	<u>2711517</u>	<u>10/2019</u>	<u>4.0</u>	<u>4.00</u>	<u>137.5</u>	P / F	L / F
Calibr.			<u>0825</u>	<u>2711527</u>	<u>4/2019</u>	<u>10.0</u>	<u>9.98</u>	<u>-211.8</u>	P / F	L / F
ICV			<u>0828</u>	<u>2711081</u>	<u>11/2019</u>	<u>7.0</u>	<u>7.05</u>	<u>-41.6</u>	<u>P</u> F	<u>L</u> F
CCV			<u>1247</u>	<u>2711527</u>	<u>4/18</u>	<u>10.0</u>	<u>9.97</u>	<u>-211.4</u>	<u>P</u> F	<u>L</u> 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 10 170.2, slope from 4 to 7 179.1 (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 4/10/2018

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>A Kalmbacher</u>	<u>4-26-18</u>	<u>0830</u>	<u>0.0</u>	<u>0.0</u>	<u>P</u> F	<u>L</u> 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 BD 4/30/18 JP 4/27/18