

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 71

RQ:

2018-04-16-11

Project:

SUN. NORST

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

4/20/18

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.	J Parnish	4/17/18	703	21.4	8.84	8.84	100	-	-	P / F	L / F
ICV	J	J	705	21.5	8.84	8.84	100	-	-	P / F	L / F
CCV	A Kalmbacher	4-17-18	1430	19.8	9.12	9.15	100.5		1.03611	(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.	J Parnish	4/17/18	710	140321B	4/19	1000	1000	P / F	L / F
ICV	J	J	711	1470318	9/18	147	151	P / F	L / F
CCV	A Kalmbacher	4-17-18	1435	180321B	4/19	1.000	1.001	(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.	J Parnish	4/17/18	712	2711C81	11/19	7.0	7.00	7.7	P / F	L / F
Calibr.	J	J	713	2711S17	10/19	4.0	4.00	761.5	P / F	L / F
Calibr.	J	J	714	2711S27	4/19	10.0	10.00	76.9	P / F	L / F
ICV	J	J	715	2711S17	10/19	4.00	4.02	159.9	P / F	L / F
CCV	A Kalmbacher	4-17-18	1437	2711C81	11/19	7.00	6.99	-7.0	(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	J Parnish	4/17/18	0	0.00		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 BT 4/23/18 JP 4/20/18

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: 2018-04-09-53 Project: LSSR DOWN TOWN SAIL 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	04-17-18	0717	22.2	8.70	8.71	100.0	60.4	0.9471	P/F	L/F
ICV	↓	↓	0720	22.2	8.70	8.71	100.0	60.4	0.9471	P/F	L/F
CCV	P=V-	4/17/18	1516	25.3	8.21	8.20	99.7	61.4	0.947	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.	PO'Connor	04-17-18	0725	180321B	04-2019	1000	1000	P/F	L/F
ICV	↓	↓	0732	171129B	12-2018	1000	98	P/F	L/F
CCV			1520	170720C	8/18	50,000	49,220	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.	PO'Connor	04-17-18	0740	2711C81	11-2019	7.0	7.00	-38.3	P/F	L/F
Calibr.	↓	↓	0745	2711517	10-2019	4.0	4.00	141.3	P/F	L/F
Calibr.	↓	↓	0750	2711527	04-2019	10.0	9.98	-210.8	P/F	L/F
ICV	↓	↓	0755	2711C81	11-2019	7.0	7.02	-39.8	P/F	L/F
CCV			1523	2711527	4/19	10.0	9.85	-208.7	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 If yes, list date of last quarterly depth verification 04-10-18

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 B/L 4/23/18 JP 4/20/18