

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: YS1 Y

RQ- 2018-10-29-11

Project: LSJR Duntun Frost

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	10-30-18	0733	22.0	8.74	8.82	100	-	-	(P) F	(L) F
ICV			0735	22.0	8.74	8.81	101	-	-	(P) F	(L) F
CCV	JS Rev's	10/30/18	1340	21.1	8.89	8.97	101.1	-	-	(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.	C. Ruben	10-30-18	0739	186711A	7/2019	1000	1000	(P) F	(L) F
ICV			0742	180321A	4/2019	100	110	(P) F	(L) F
CCV								P / F	L / F
CCV	JS Rev's	10/10/18	1343	180711A	7/19	1000	995	(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	10-30-18	0750	2803E45	3/2020	7.0	7.0	-23.6	(P) F	(L) F
Calibr.			0753	2806875	6/2020	4.0	4.0	147	(P) F	(L) F
Calibr.			0757	2712B55	6/2019	10.0	10.0	-185	(P) F	(L) F
ICV			0805	2803E45	3/2020	7.0	7.04	-228	(P) F	(L) F
CCV	JS Rev's	10/30/18	1345	2712B55	6/19	10.0	10.12	-1924	(P) F	(L) F
CCV	JS Rev's	10/30/18	1347	2806875	6/20	4.0	4.02	144	(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	10-30-18	0807	0.00	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/scannd BD 11/5/18 JP 11/2/18

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

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Meter ID: DEP#154181 RQ: 2018-10-29-12 Project: New River Sci

- 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 10-10-18

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.	P O'Connor	10-30-18	0715	22.3	8.69	8.69	100.0	—	—	P/F	L/F
ICV	✓	✓	0718	22.4	8.67	8.67	99.9	—	—	P/F	L/F
CCV	J Parrish	10/30/18	1242	18.5	9.37	9.5	101.5	—	—	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.	P O'Connor	10-30-18	0720	180711A	07-2019	1000	1000	P/F	L/F
ICV	✓	✓	0722	180321	04-2019	100	101.7	P/F	L/F
CCV	J Parrish	10/30/18	1244	10141318	9/19	1413	1405	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.	P O'Connor	10-30-18	0725	2803E45	03-2020	7.0	7.00	-280	P/F	L/F
Calibr.			0728	2806975	06-2020	4.0	4.00	151.7	P/F	L/F
Calibr.			0730	2712B55	06-2019	10.0	9.96	-199.1	P/F	L/F
ICV	✓	✓	0733	2803E45	03-2020	7.0	7.04	-28.5	P/F	L/F
CCV	J Parrish	10/30/18	1245	2806975	6/20	4.0	4.47	141	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 $\pm 180 \pm 50$; 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 10-10-18

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 BT 11/5/18 JP 11/2/18