

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: QUANTA #1

RQ- 2018-02-19-11

Project: LSJR Southside

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 01-2018

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.	P O'Connor	02-28-18	0710	22.4	8.67	8.68	100.3	—	—	<u>P</u> /F	<u>L</u> /F
ICV	↓	↓	0715	22.3	8.69	8.69	100.3	—	—	<u>P</u> /F	<u>L</u> /F
CCV	A Kalmbacher	02-28-18	1615	25.8	8.14	8.01	98.5	—	—	<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.	P O'Connor	02-28-18	0717	171129A	12-2018	1000	1000	<u>P</u> /F	<u>L</u> /F
ICV	↓	↓	0720	170315A	03-2018	700	98	P/F	L/F
CCV	A Kalmbacher	↓	1620	171129A	12-2018	1,000	998	<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.	P O'Connor	02-28-18	0722	2709B15	09-2019	7.0	7.00	—	<u>P</u> /F	<u>L</u> /F
Calibr.	↓	↓	0725	2711517	10-2019	4.0	4.00	—	<u>P</u> /F	<u>L</u> /F
Calibr.	↓	↓	0728	2708A21	01-2019	10.0	9.94	—	<u>P</u> /F	<u>L</u> /F
ICV	A Kalmbacher	↓	1625	2709B15	09-2019	7.0	6.9	—	<u>P</u> /F	<u>L</u> /F
CCV									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 N/A, slope from 4 to 7 N/A (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	N/A					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 3/6/18

JP 3/2/18

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: ISI #3

RQ- 2018-02-26-23

Project: Gville

- 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 1/18

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.	N. Fredrick	2/28/18	0715	23.10	8.56	8.56	99.9		5.17	P/F	L/F
ICV	↓	↓	0718	23.15	8.56	8.55	100		5.17	P/F	L/F
CCV	B. Davis	2/28/18	1700	22.4	8.68	8.71	100.4		1.09	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.	N. Fredrick	2/28/18	0720	171129A	12/18	1,000	1,000	P/F	L/F
ICV	↓	↓	0722	81472017	3/18	147	149	P/F	L/F
CCV	B. Davis	2/28/18	1705	171129A	12/18	1000	989	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.	N. Fredrick	2/28/18	0725	2709B15	9/19	7.0	7.0	-15.8	P/F	L/F
Calibr.	↓	↓	0728	2711517	10/19	4.0	4.0	146.1	P/F	L/F
Calibr.	↓	↓	0730	2708A21	1/19	10.0	10.0	-181.6	P/F	L/F
ICV									P/F	L/F
CCV	B. Davis	2/28/18	1710	2709B15	7/19	7.0	6.99	-16.6	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	N. Fredrick	2/28/18	0735	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/Scanned BD 3/6/18 JP 3/2/18