

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: DEPH154181

RQ: 2018-10-22-09

Project: GUANA River

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.	PO Conn	10-22-18	0718	22.5	8.66	8.66	100.0	—	—	(P) F	(L) F
ICV	✓	✓	0720	22.5	8.66	8.66	100.1	—	—	(P) F	(L) F
CCV	C. Riben	10-22-18	1010	20.3	9.04	9.10	101	—	—	(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 Conn	10-22-18	0723	180711A	07-2019	1000	1000	(P) F	(L) F
ICV	✓	✓	0725	180321A	04-2019	100	101.7	(P) F	L / F
CCV	C. Riben	10-22-18	1015	180711A	7-2019	1000	1000	(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 Conn	10-22-18	0727	2803E45	03-2020	7.0	7.00	-240	(P) F	(L) F
Calibr.			0730	2806975	06-2020	4.0	4.00	154.3	(P) F	(L) F
Calibr.			0733	2712B55	06-2019	10.0	9.96	-197	(P) F	(L) F
ICV	✓	✓	0735	2803E45	03-2020	7.0	7.06	-26.8	(P) F	(L) F
CCV	C. Riben	10-22-18	1018	2712B55	06-2019	10.0	10.01	-199	(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 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	C. Riben	10/22/18	1020	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:

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

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Meter ID: YSI T RQ: 2018-09-24-58 Project: Cont. Monitoring

- 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 10-10-2018

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>10-22-18</u>	<u>0835</u>	<u>22.8</u>	<u>8.61</u>	<u>8.60</u>	<u>100</u>		<u>1.02734</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>0840</u>	<u>22.8</u>	<u>8.61</u>	<u>8.59</u>	<u>100.1</u>		<u>1.02734</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>A Kalmbacher</u>	<u>10-22-18</u>	<u>1330</u>	<u>22.2</u>	<u>8.70</u>	<u>8.72</u>	<u>100.6</u>		<u>1.02734</u>	<u>P/F</u>	<u>L/F</u>
CCV										<u>P/F</u>	<u>L/F</u>

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.	<u>A Kalmbacher</u>	<u>10-22-18</u>	<u>0843</u>	<u>180711A</u>	<u>7/2019</u>	<u>1,000</u>	<u>1,000</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>0847</u>	<u>180321A</u>	<u>4/2019</u>	<u>100</u>	<u>105</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>A Kalmbacher</u>	<u>10-22-18</u>	<u>1335</u>	<u>180711A</u>	<u>7/2019</u>	<u>1,000</u>	<u>1,004</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>A Kalmbacher</u>	<u>10-22-18</u>	<u>0850</u>	<u>2803E45</u>	<u>3/2020</u>	<u>7.0</u>	<u>7.0</u>	<u>-26.0</u>	<u>P/F</u>	<u>L/F</u>
Calibr.			<u>0853</u>	<u>2806975</u>	<u>6/2020</u>	<u>4.0</u>	<u>3.98</u>	<u>140.7</u>	<u>P/F</u>	<u>L/F</u>
Calibr.			<u>0857</u>	<u>2712855</u>	<u>6/2019</u>	<u>10.0</u>	<u>10.02</u>	<u>191.5</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>0900</u>	<u>2803E45</u>	<u>3/2020</u>	<u>7.0</u>	<u>7.0</u>	<u>-28.0</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>A Kalmbacher</u>	<u>10-22-18</u>	<u>1338</u>	<u>2712855</u>	<u>6/2019</u>	<u>10.0</u>	<u>10.03</u>	<u>191.7</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 10 165.5, slope from 4 to 7 166.7 (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 10-10-2018

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>10-22-18</u>	<u>0905</u>	<u>0.000</u>	<u>0.000</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 QC/Scanned 10/29/18 JP 10/26/18