

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 HydroLab RQ- 206-06-13-10 Project vec south

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 4 / 2016

Temperature (Quarterly) FT 1400 Date of Last Temperature Verification 4 / 2016

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	6/14/16	821	24.1	8.40	8.40	100	-	-	P	L
ICV	J	6/14/16	824	24.1	8.4	8.4	99.8	-	-	P	L
CCV	J Parnish	6/14/16	1355	23.0	8.57	8.44	98.4	-	-	P	L
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	J Parnish	6/14/16	826	160216A	2/17	1500	1000	P	L
ICV	J	6/14/16	827	05151413	6/16	1413	1400	P	L
CCV	J Parnish	6/14/16	1356	1165864	11/16	58,64	58,200	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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	6/14/16	828	2510A81	10/17	7.0	7.0		P	L
Calibr.	J	6/14/16	830	2510A81	4/17	4.010.0	10.0		P	L
Calibr.	J	6/14/16	833	2509474	9/17	10.04.0	3.8		P	L
ICV	J Parnish	6/14/16	1358	2510A81	6/1/16	7.0	6.98		P	L
CCV										
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;

mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range

+180 $\pm$ 50; mV pH 10 Range -180 $\pm$ 50;

Slope from 7 to 10 and 4 to 7 must be between 165

and 180mV

Depth (Quarterly)

Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

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 YSI 556 RQ- 2016-06-13-09 Project Swannee 4

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 / / 2016

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>6-14-16</u>	<u>0750</u>	<u>23.1</u>	<u>8.56</u>	<u>8.54</u>	<u>100</u>	<u>—</u>	<u>—</u>	<u>P</u>	<u>L</u>
ICV	<u>↓</u>	<u>↓</u>	<u>0817</u>	<u>23.7</u>	<u>8.46</u>	<u>8.43</u>	<u>99.3</u>	<u>—</u>	<u>—</u>	<u>P</u>	<u>L</u>
CCV	<u>↓</u>	<u>↓</u>	<u>1550</u>	<u>23.4</u>	<u>8.51</u>	<u>8.63</u>	<u>101.3</u>	<u>—</u>	<u>—</u>	<u>P</u>	<u>L</u>
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	<u>A Kalmbacher</u>	<u>6-14-16</u>	<u>0755</u>	<u>160216A</u>	<u>2/2017</u>	<u>1000</u>	<u>1,000</u>	<u>P</u>	<u>L</u>
ICV	<u>↓</u>	<u>↓</u>	<u>0758</u>	<u>160216B</u>	<u>8/2016</u>	<u>100</u>	<u>104</u>	<u>P</u>	<u>L</u>
CCV	<u>↓</u>	<u>↓</u>	<u>1607</u>	<u>160216A</u>	<u>2/2017</u>	<u>1,000</u>	<u>985</u>		
CCV									

Report specific conductance as a whole number with no decimal figure.

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>6-14-16</u>	<u>0800</u>			<u>7.0</u>	<u>7.00</u>	<u>-35.3</u>		
Calibr.			<u>0803</u>			<u>4.0</u>	<u>3.97</u>	<u>133.7</u>		
Calibr.			<u>0806</u>			<u>10.0</u>	<u>9.99</u>			
ICV										
CCV										
CCV										

HAD TO CHANGE pH probe

see second sheet

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;
 +180 $\pm$ 50; mV pH 10 Range -180 $\pm$ 50;
 and 180mV

mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range

Slope from 7 to 10 and 4 to 7 must be between 165

Depth (Quarterly)

Date of Last Depth Verification N/A

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

NF 6/20/16

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 YSI 556 RQ- 2016-06-13-09 Project Substance 4

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 03/04/2016

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.											
ICV											
CCV											
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.									
ICV									
CCV									
CCV									

Report specific conductance as a whole number with no decimal figure.

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>AKalmbacher</u>	<u>6-14-16</u>	<u>0810</u>	<u>2510ABI</u>	<u>10/17</u>	<u>7.0</u>	<u>7.00</u>	<u>-7.7</u>	<u>P</u>	<u>L</u>
Calibr.			<u>0812</u>	<u>2509F74</u>	<u>9/17</u>	<u>4.0</u>	<u>4.00</u>	<u>172.3</u>	<u>P</u>	<u>L</u>
Calibr.			<u>0815</u>	<u>2510A88</u>	<u>4/17</u>	<u>10.0</u>	<u>9.99</u>	<u>-180.0</u>	<u>P</u>	<u>L</u>
ICV			<u>1610</u>	<u>2510ABI</u>	<u>10/17</u>	<u>7.0</u>	<u>7.05</u>	<u>-7.4</u>		
CCV										
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

NF 6/20/16