

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

Boldly "X" this box if there are qualified data on this page.

Meter ID: keys

RQ: 2019-02-04-78

Project: SMP

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.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 12/26/18

DO	Name	Date	Time	Temp	Baro	D.O.	Meter	% DO	Probe	Probe	Pass	Lab
DEP SOP			CT-ET	°C	meter	Chart	D.O.		Charge	Gain	/	/
FT 1500					mmHg	mg/L	mg/L				Fail	Field
Calibr.	<u>Gary Sward</u>	<u>2/7/19</u>	<u>724</u>	<u>23.84</u>	<u>760</u>	<u>8.45</u>	<u>8.44</u>	<u>100.0</u>	<u>54.3</u>		<u>P</u>	<u>L</u>
ICV	<u>Gary Sward</u>	<u>2/7/19</u>	<u>726</u>	<u>23.80</u>	<u>760</u>	<u>8.45</u>	<u>8.45</u>	<u>100.0</u>	<u>53.3</u>		<u>P</u>	<u>L</u>
CCV	<u>Gary Sward</u>	<u>2/7/19</u>	<u>723</u>	<u>23.91</u>	<u>760</u>	<u>8.43</u>	<u>8.42</u>	<u>92.9</u>	<u>53.3</u>		<u>P</u>	<u>L</u>
CCV											<u>P</u>	<u>L</u>

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 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec.	Name	Date	Time	Lot #	Expir.	Standard	Meter	Pass	Lab
Cond.			CT-ET		Date	μ mhos/cm	Reading	/	/
FT 1200							μ mhos/cm	Fail	Field
Calibr.	<u>Gary Sward</u>	<u>2/7/19</u>	<u>720</u>	<u>2816427</u>	<u>10/20</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
ICV	<u>G</u>	<u>2/7/19</u>	<u>722</u>	<u>280884</u>	<u>10/20</u>	<u>1000</u>	<u>101</u>	<u>P</u>	<u>L</u>
CCV	<u>Gary Sward</u>	<u>2/7/19</u>	<u>1316</u>	<u>2810827</u>	<u>10/20</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
CCV								<u>P</u>	<u>L</u>

Conductivity Acceptance criteria $\pm 5\%$

pH	Name	Date	Time	Lot #	Expir.	pH	Temp	Meter	mV	Pass	Lab
DEP SOP			CT-ET		Date	Buffer	°C	reading		/	/
FT 1100						SU		SU		Fail	Field
Calibr.	<u>Gary Sward</u>	<u>2/7/19</u>	<u>731</u>	<u>185764</u>	<u>8/20</u>	<u>6.99</u>	<u>24.56</u>	<u>7.00</u>	<u>-14.4</u>	<u>P</u>	<u>L</u>
Calibr.	<u>"</u>	<u>2/7/19</u>	<u>734</u>	<u>185488</u>	<u>8/20</u>	<u>4.01</u>	<u>24.08</u>	<u>4.00</u>	<u>152.7</u>	<u>P</u>	<u>L</u>
Calibr.		<u>2/7/19</u>	<u>738</u>	<u>185490</u>	<u>09/20</u>	<u>10.01</u>	<u>24.76</u>	<u>10.00</u>	<u>183.6</u>	<u>P</u>	<u>L</u>
ICV		<u>2/7/19</u>	<u>741</u>	<u>185488</u>	<u>08/20</u>	<u>4.01</u>	<u>24.56</u>	<u>4.00</u>	<u>152.5</u>	<u>P</u>	<u>L</u>
CCV		<u>2/7/19</u>	<u>1522</u>	<u>185490</u>	<u>09/20</u>	<u>10.01</u>	<u>24.48</u>	<u>9.85</u>	<u>174.7</u>	<u>P</u>	<u>L</u>
CCV										<u>P</u>	<u>L</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 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: _____

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Deeper Blue Date of last verification: 12/26/18

Depth Sensor	Name	Date	Time	Calibrated	ICV Value	Pass	Lab
(Daily Calibration & ICV)			CT-ET	Value (0.00 or Offset), meters	meters	/	/
						Fail	Field
Pressure mode in air						<u>P</u>	<u>L</u>

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: