

# 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:

Desi

RQ:

2023-05-22-64

Project:

Algal Response

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 5-23-23

| DO<br>DEP SOP<br>FT 1500 | Name     | Date    | Time<br>CT-ET | Temp<br>°C | Baro-<br>meter<br>mmHg | D.O.<br>Chart<br>mg/L | Meter<br>D.O.<br>mg/L | % DO | Probe<br>Charge | Probe<br>Gain | Pass<br>/ Fail | Lab<br>/ Field |
|--------------------------|----------|---------|---------------|------------|------------------------|-----------------------|-----------------------|------|-----------------|---------------|----------------|----------------|
| Calibr.                  | n Barham | 6-27-23 | 7:30          | 20.3       | 758.1                  | 9.0                   | —                     | 99.7 | —               | 1.007         | P/F            | L/F            |
| ICV                      |          |         | 7:31          | 20.1       | 758.1                  | 9.0                   | 9.08                  | 100  | —               | 1.007         | P/F            | L/F            |
| CCV                      |          |         | 13:41         | 21.9       | 757                    | 8.7                   | 8.65                  | 99.0 | —               | 1.007         | P/F            | L/F            |
| CCV                      |          |         |               |            |                        |                       |                       |      |                 |               | P/F            | L/F            |

DO Acceptance criteria from Table  $\pm 0.3$  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.<br>Cond.<br>FT 1200 | Name     | Date    | Time<br>CT-ET | Lot #   | Expir.<br>Date | Standard<br>$\mu$ hos/cm | Meter<br>Reading<br>$\mu$ hos/cm | Pass<br>/ Fail | Lab<br>/ Field |
|---------------------------|----------|---------|---------------|---------|----------------|--------------------------|----------------------------------|----------------|----------------|
| Calibr.                   | n Barham | 6-27-23 | 7:33          | 230131B | 2-24           | 1000                     | 1000                             | P/F            | L/F            |
| ICV                       |          |         | 7:36          | 230131A | 2-24           | 100                      | 97.6                             | P/F            | L/F            |
| CCV                       |          |         | 13:43         | 230131C | 2-24           | 50000                    | 50547                            | P/F            | L/F            |
| CCV                       |          |         |               |         |                |                          |                                  | P/F            | L/F            |

Conductivity Acceptance criteria  $\pm 5\%$

| pH<br>DEP SOP<br>FT 1100 | Name     | Date    | Time<br>CT-ET | Lot #   | Expir.<br>Date | pH<br>Buffer<br>SU | Temp<br>°C | Meter<br>reading<br>SU | mV     | Pass<br>/ Fail | Lab<br>/ Field |
|--------------------------|----------|---------|---------------|---------|----------------|--------------------|------------|------------------------|--------|----------------|----------------|
| Calibr.                  | n Barham | 6-27-23 | 7:37          | m241-15 | 9-1-24         | 7.02               | 21.0       | 7.02                   | -29.7  | P/F            | L/F            |
| Calibr.                  |          |         | 7:40          | m221-22 | 8-10-24        | 4.00               | 21.2       | 4.00                   | 144.5  | P/F            | L/F            |
| Calibr.                  |          |         | 7:41          | m203-05 | 7-27-24        | 10.04              | 21.2       | 10.04                  | -199.6 | P/F            | L/F            |
| ICV                      |          |         | 7:43          | m221-22 | 8-10-24        | 4.00               | 21.1       | 3.96                   | 146.3  | P/F            | L/F            |
| CCV                      |          |         | 13:45         | m203-05 | 7-27-24        | 10.04              | 21.3       | 10.05                  | -200.9 | P/F            | L/F            |
| CCV                      |          |         |               |         |                |                    |            |                        |        | P/F            | L/F            |

pH Acceptance criteria  $\pm 0.2$  SU; mV pH 7 Range 0  $\pm 50$ ; mV pH 4 Range  $\pm 180 \pm 50$ ; mV pH 10 Range  $-180 \pm 50$ ;

If mV are recorded: slope from 7 to 10 169.9, slope from 4 to 7 174.2 (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: 5-30-23

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

| Depth Sensor<br>(Daily Calibration &<br>ICV) | Name     | Date    | Time<br>CT-ET | Calibrated<br>Value (0.00 or<br>Offset), meters | ICV Value,<br>meters | Pass /<br>Fail | Lab /<br>Field |
|----------------------------------------------|----------|---------|---------------|-------------------------------------------------|----------------------|----------------|----------------|
| Pressure mode in air                         | n Barham | 6-27-23 | 7:45          | 0.00                                            | 0.00                 | P/F            | L/F            |

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

COMMENTS:



# Cyanobacteria Bloom Response Field Data Sheet (2023-06-12 v1)

Email scanned submittal forms to [lab.receiving@FloridaDEP.gov](mailto:lab.receiving@FloridaDEP.gov)

|                                                                                           |                                                                                 |                                                                                                                                |                |                                                                             |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------|--|
| RQ - 2023-05-22-64                                                                        |                                                                                 |                                                                                                                                |                | Collected By:                                                               |            | Katrin Villinger, Niki Barham                                                     |                       |                                                                                                                                         |                            |                                                                     |  |
| Customer:                                                                                 |                                                                                 | NE-DIST                                                                                                                        |                | Field Report Prepared By:                                                   |            | Niki Barham                                                                       |                       |                                                                                                                                         |                            |                                                                     |  |
| Project ID:                                                                               |                                                                                 | BLOOM_RESP                                                                                                                     |                | Sampling Agency:                                                            |            | NEROC                                                                             |                       |                                                                                                                                         |                            |                                                                     |  |
| Location: ICW - Vilano Point                                                              |                                                                                 |                                                                                                                                |                | Comments: No Bloom observed in water - greenish accumulation in sandy pools |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
| Field ID: NEHAB0104                                                                       |                                                                                 |                                                                                                                                |                | Coordinates:                                                                |            | 29.91107, -81.29267                                                               |                       |                                                                                                                                         |                            |                                                                     |  |
| WIN Secondary Resource Type: Estuary                                                      |                                                                                 |                                                                                                                                |                | Collection Equip:                                                           |            | WaterBottle                                                                       |                       |                                                                                                                                         |                            |                                                                     |  |
| WIN ID: NEHAB0104                                                                         |                                                                                 |                                                                                                                                |                | High Tide Time:                                                             |            | 16:00                                                                             |                       | Low Tide Time:                                                                                                                          |                            | 09:30                                                               |  |
| Matrix:                                                                                   |                                                                                 | Marine                                                                                                                         |                | Grab                                                                        |            | Tide:                                                                             |                       | <input checked="" type="checkbox"/> Rising <input type="checkbox"/> Falling <input type="checkbox"/> Slack <input type="checkbox"/> N/A |                            |                                                                     |  |
| Water Quality                                                                             |                                                                                 |                                                                                                                                |                |                                                                             |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
| Date                                                                                      | Time<br><input checked="" type="checkbox"/> EST<br><input type="checkbox"/> CEN | D.O.<br>(%)                                                                                                                    | D.O.<br>(mg/L) | Temp<br>(°C)                                                                | pH<br>(SU) | Sample<br>Depth<br>(m)                                                            | Total<br>Depth<br>(m) | Secchi<br>Disk<br>(m)                                                                                                                   | Sp. Cond.<br>(µmho/cm)     | Salinity<br>(PPTH)                                                  |  |
| 06/27/2023                                                                                | 10:10                                                                           | 99.7                                                                                                                           | 6.8            | 27.7                                                                        | 7.77       | 0.15                                                                              | 0.3                   | 0.3                                                                                                                                     | 37500                      | 23.82                                                               |  |
|                                                                                           |                                                                                 |                                                                                                                                |                |                                                                             |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
|                                                                                           |                                                                                 |                                                                                                                                |                |                                                                             |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
| Bloom Observations                                                                        |                                                                                 |                                                                                                                                |                |                                                                             |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
| Algal Bloom Observed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                                                                                 |                                                                                                                                |                |                                                                             |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
| Water Clarity                                                                             |                                                                                 | <input type="checkbox"/> Clear                                                                                                 |                | <input checked="" type="checkbox"/> Slightly Turbid                         |            | <input type="checkbox"/> Turbid                                                   |                       | <input type="checkbox"/> Opaque                                                                                                         |                            |                                                                     |  |
| Bloom Color                                                                               |                                                                                 | <input type="checkbox"/> Green                                                                                                 |                | <input type="checkbox"/> Red                                                |            | <input type="checkbox"/> Brown                                                    |                       | <input type="checkbox"/> Other:                                                                                                         |                            |                                                                     |  |
| Algae Type                                                                                |                                                                                 | <input type="checkbox"/> Planktonic                                                                                            |                | <input type="checkbox"/> Filamentous                                        |            | <input type="checkbox"/> Other:                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
| Algae Accumulation                                                                        |                                                                                 | <input type="checkbox"/> Mat                                                                                                   |                | <input type="checkbox"/> Specks                                             |            | <input type="checkbox"/> Scum                                                     |                       | <input type="checkbox"/> Glob                                                                                                           |                            |                                                                     |  |
| Algae Distribution                                                                        |                                                                                 | <input type="checkbox"/> Surface-Entire                                                                                        |                | <input type="checkbox"/> Surf-Localized                                     |            | <input type="checkbox"/> Surf-Windblown                                           |                       | <input type="checkbox"/> Suspended                                                                                                      |                            | <input type="checkbox"/> Benthic <input type="checkbox"/> Epiphytic |  |
| Parameter Suite                                                                           |                                                                                 | Parameter Methods                                                                                                              |                |                                                                             |            | Preservation                                                                      |                       | pH<br>Check                                                                                                                             | #Bottles<br>Sent to<br>Lab | Bottle<br>Group                                                     |  |
| Algae (PT-50mL)                                                                           |                                                                                 | <input type="checkbox"/> ALGAL-ID <input checked="" type="checkbox"/> BLOOM-ID                                                 |                |                                                                             |            | <input checked="" type="checkbox"/> Ice                                           |                       |                                                                                                                                         | 1                          | A                                                                   |  |
| Chlorophyll (BP-1L)                                                                       |                                                                                 | <input checked="" type="checkbox"/> CHLSUITE-W                                                                                 |                |                                                                             |            | <input checked="" type="checkbox"/> Ice                                           |                       |                                                                                                                                         | 1                          | C                                                                   |  |
| Toxins (P-125/BG-250)                                                                     |                                                                                 | <input checked="" type="checkbox"/> W-MCYST-AA <input checked="" type="checkbox"/> W-SAXTN-MS <input type="checkbox"/> OV-TOXN |                |                                                                             |            | <input checked="" type="checkbox"/> Ice                                           |                       |                                                                                                                                         | 1                          | C                                                                   |  |
| Physical/Aggregate                                                                        |                                                                                 | <input checked="" type="checkbox"/> W-COLOR                                                                                    |                |                                                                             |            | <input checked="" type="checkbox"/> Ice                                           |                       |                                                                                                                                         | 1                          | C                                                                   |  |
| Preserved Nutrients<br>(500mL HDPE)                                                       |                                                                                 | <input checked="" type="checkbox"/> W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP                                                        |                |                                                                             |            | <input checked="" type="checkbox"/> Ice <input checked="" type="checkbox"/> H2SO4 |                       | <input checked="" type="checkbox"/> <2                                                                                                  | 1                          | C                                                                   |  |
|                                                                                           |                                                                                 | Acid Lot:                                                                                                                      |                | Sa2229010                                                                   |            | Exp:                                                                              |                       | 8/30/23                                                                                                                                 |                            |                                                                     |  |
| Filtered Nutrients<br>(P125mL)                                                            |                                                                                 | <input checked="" type="checkbox"/> W-PO4-F                                                                                    |                | <input checked="" type="checkbox"/> Field Filtered 0.45um Filter            |            | <input checked="" type="checkbox"/> Ice                                           |                       |                                                                                                                                         | 1                          | C                                                                   |  |
|                                                                                           |                                                                                 | Filter Lot #                                                                                                                   |                | 175533                                                                      |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |
| Quantitative Algae                                                                        |                                                                                 | <input type="checkbox"/> DTY-QN-C / PKD-QN-C                                                                                   |                |                                                                             |            | <input type="checkbox"/> Ice <input type="checkbox"/> Lugols                      |                       |                                                                                                                                         |                            |                                                                     |  |
| Relinquished By:                                                                          |                                                                                 | Date/Time                                                                                                                      |                | Number of Coolers Shipped                                                   |            | Received By:                                                                      |                       | Date/Time                                                                                                                               |                            |                                                                     |  |
| Katrin Villinger                                                                          |                                                                                 | 06/27/2023 16:30                                                                                                               |                | 1                                                                           |            |                                                                                   |                       |                                                                                                                                         |                            |                                                                     |  |