# Cyanobacteria Bloom Response Field Data Sheet (2019-12-16 v4)

Email scanned submittal forms to lab.receiving@FloridaDEP.gov

| | | | |
|---|---|---|---|
| RQ - 2021-08-09-82 | | Collected By: | Nathan Malkey / Miranda Butler |
| Customer: | NW District | Field Report Prepared By: | N. Malkey |
| Project ID: | Algal Bloom Response | Sampling Agency: | FDEP NWROC |
| Location: Coleman Lake WBID 906B | | Comments: Algae bloom suspended throughout water column Pea green → Havasant green | |
| Field ID: 63NW0216 | | Coordinates: | 30.402361 -86.480025 |
| | | Collection Equip: | Single amber container |
| WIN ID: 63NW0216 | | High Tide Time: | Low Tide Time: |
| Matrix: Fresh (Grab) | | Tide: | ☐ Rising ☐ Falling ☐ Slack ☑ N/A |

## Water Quality

| Date | Time ☐ EST ☐ CEN | D.O. (%) | D.O. (mg/L) | Temp (°C) | pH (SU) | Sample Depth (m) | Total Depth (m) | Secchi Disk (m) | Sp. Cond. (µmho/cm) | Salinity (PPTh) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8/12/21 | 9:30 | 137.7 | 10.52 | 29.8 | 7.75 | 0.3 | 1.5 | 0.3 | 226.3 | 0.11 |
| | 9:35 | 80.5 | 6.27 | 28.7 | 6.69 | 1.0 | | | 227.7 | 0.11 |

## Bloom Observations

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Algal Bloom Observed? | ☒ Yes | ☐ No | | | | | |
| Water Surface | ☒ Clear | ☐ Scum | ☐ Globs | ☐ Slick | | | |
| Water Clarity | ☐ Clear | ☐ Slightly Turbid | ☒ Turbid | ☐ Opaque | | | |
| Bloom Color | ☒ Green | ☐ Red | ☐ Brown | ☐ Other: _____ | ☐ N/A | | |
| Algae Distribution | ☒ Suspended in water column | | ☐ On surface | ☐ Other: _____ | ☐ N/A | | |
| Water Odors | ☒ Normal | ☐ Sewage | ☐ Petroleum | ☐ Chemical | ☐ Other: _____ | | |

| Parameter Suite | Parameter Methods | Preservation | pH Check | #Bottles Sent to Lab | Bottle Group |
|---|---|---|---|---|---|
| Bloom ID (PT-50mL) | ☐ BLOOM-ID | ☐ Ice | | | |
| Chlorophyll (BP-1L) | ☐ CHLSUITE-W | ☐ Ice | | | |
| Toxins (BG-WD250) | ☒ W-MCYST-AA | ☒ Ice | | 1 | A |
| Preserved Nutrients (500mL HDPE) | ☐ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP | ☐ Ice ☐ H2SO4 | ☐ <2 | | |
| | Acid Lot: | Exp: | | | |
| Filtered Nutrients (P125mL) | ☐ W-PO4-F | ☐ Field Filtered 0.45um Filter, Filter Lot # ☐ Ice | | | |
| Quantitative Algae | ☐ DTY-QN-C / PKD-QN-C | ☐ Ice Lugols? Y / N | | | |

| Relinquished By: | Date/Time | Number of Coolers Shipped | Received By: | Date/Time |
|---|---|---|---|---|
| Nathan Malkey | 8/12/21/1600 | 1 | | |

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

Meter ID: 155077 RQ- 2021-08-09-82 Project: HAB

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

Notes: (1) Always wait for meter to stabilize before recording any readings. Coleman Lake
(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 6/1/21

| DO DEP SOP FT 1500 | Name | Date | Time CT-ET | Temp °C | Baro-meter mmHg | D.O. Chart mg/L | Meter D.O. mg/L | % DO | Probe Charge | Probe Gain | Pass / Fail | Lab / Field |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calibr. | NM | 8/12/21 | 0700 | 25.9 | 764 | 8.2 | 8.2 | 100.6 | | | P / F | (L) / F |
| ICV | ↓ | ↓ | 0702 | ↓ | ↓ | ↓ | 8.3 | 101.6 | | | P / F | (L) / F |
| CCV | MB | ↓ | 11:41 | 25.2 | 765 | 8.3 | 8.48 | 102.2 | | | (P) / F | (L) / F |
| CCV | | | | | | | | | | | (P) / F | (L) / F |
| | | | | | | | | | | | P / F | L / F |

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. Cond. FT 1200 | Name | Date | Time CT-ET | Lot # | Expir. Date | Standard µmhos/cm | Meter Reading µmhos/cm | Pass / Fail | Lab / Field |
|---|---|---|---|---|---|---|---|---|---|
| Calibr. | NM | 8/12/21 | 0705 | 210525C | 6/22 | 1000 | 1060 | P / F | (L) / F |
| ICV | ↓ | ↓ | 0708 | 201023A | 10/22 | 100 | 104 | (P) / F | (L) / F |
| CCV | MB | ↓ | 11:44 | 210525C | 6/22 | 1000 | 997 | (P) / F | (L) / F |
| CCV | | | | | | | | (P) / F | (L) / F |
| | | | | | | | | P / F | L / F |

Conductivity Acceptance criteria ± 5%

| pH DEP SOP FT 1100 | Name | Date | Time CT-ET | Lot # | Expir. Date | pH Buffer SU | Temp °C | Meter reading SU | mV | Pass / Fail | Lab / Field |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calibr. | NM | 8/12/21 | 0710 | 202114 | 5/22 | 7. | 25.3 | 7.0 | | P / F | (L) / F |
| Calibr. | ↓ | ↓ | 0712 | 205283 | 10/22 | 4. | ↓ | 4.0 | | P / F | (L) / F |
| ICV | ↓ | ↓ | 0714 | 201473 | 5/22 | 10. | ↓ | 10.0 | | P / F | (L) / F |
| CCV | MB | ↓ | 0716 | 205283 | 10/22 | 4.0 | ↓ | 3.92 | 130.9 | (P) / F | (L) / F |
| CCV | | | 11:4 | 201473 | 5/22 | 10.0 | 21.6 | 10.11 | -227.1 | (P) / F | (L) / F |
| | | | | | | | | | | P / F | L / F |

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50; mV pH 4 Range +180 ± 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: 6/1/21
If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last 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 | NM | 8/12/21 | 0720 | 0.00 | 0.00 | (P) / F | (L) / F |

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

COMMENTS:

Coleman Lake HAB response