

Wakulla River

last revised Apr 7, 2016

## Central Laboratory Submittal Form

Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By:

Curtis Mussen

Project ID: BMAP

Collected By:

Ben Ralys, Curtis Mussen

Sampling Agency:

FDEP

|                                                   |                                                                           |                                                                          |                                                                                 |                                              |                                      |
|---------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|
| Location<br><b>Wakulla River at Boat Tram</b>     | <input type="checkbox"/> Comp<br><input checked="" type="checkbox"/> Grab | Collection (comp begin or grab)<br>Date <b>8-17-16</b> Time <b>11:25</b> | <input checked="" type="checkbox"/> Eastern<br><input type="checkbox"/> Central | Composite end<br>Date <b>—</b> Time <b>—</b> | Bottle Group(s)<br>(See pg 2)        |
| Field ID<br><b>44059-08172016</b>                 | Matrix (type, e.g., Salt, Fresh, etc)<br><b>Fresh</b>                     | Diss. Oxygen<br><b>4.06</b>                                              | <input checked="" type="checkbox"/> mg/L<br><input type="checkbox"/> % sat      | Total Res. Chlorine<br>(mg/L) <b>—</b>       | <b>A,B,C</b>                         |
| STORET #<br><b>44059</b>                          | Temp (C)<br><b>21.58</b>                                                  | pH<br><b>7.63</b>                                                        | Sample Depth<br><b>0.3</b>                                                      | Sp. Conductance (umho/cm)<br><b>297</b>      |                                      |
| Latitude<br><b>30.234581</b>                      | <input checked="" type="checkbox"/> dd<br><input type="checkbox"/> dms    | Longitude<br><b>-84.294477</b>                                           | <input checked="" type="checkbox"/> dd<br><input type="checkbox"/> dms          | Salinity (ppt)<br><b>0.14</b>                | Comments<br><b>from Wakulla BMAP</b> |
| Location<br><b>Wakulla River at CR 365 Bridge</b> | <input type="checkbox"/> Comp<br><input checked="" type="checkbox"/> Grab | Collection (comp begin or grab)<br>Date <b>8-17-16</b> Time <b>1400</b>  | <input checked="" type="checkbox"/> Eastern<br><input type="checkbox"/> Central | Composite end<br>Date <b>—</b> Time <b>—</b> | Bottle Group(s)                      |
| Field ID<br><b>34879-08172016</b>                 | Matrix (type, e.g., Salt, Fresh, etc)<br><b>Fresh</b>                     | Diss. Oxygen<br><b>6.51</b>                                              | <input checked="" type="checkbox"/> mg/L<br><input type="checkbox"/> % sat      | Total Res. Chlorine<br>(mg/L) <b>—</b>       | <b>A,C</b>                           |
| STORET #<br><b>34879</b>                          | Temp (C)<br><b>23.06</b>                                                  | pH<br><b>7.69</b>                                                        | Sample Depth<br><b>0.3</b>                                                      | Sp. Conductance (umho/cm)<br><b>301</b>      |                                      |
| Latitude<br><b>30.213731</b>                      | <input checked="" type="checkbox"/> dd<br><input type="checkbox"/> dms    | Longitude<br><b>-84.261636</b>                                           | <input checked="" type="checkbox"/> dd<br><input type="checkbox"/> dms          | Salinity (ppt)<br><b>0.14</b>                | Comments<br><b>Wakulla BMAP</b>      |
| Location                                          | <input type="checkbox"/> Comp<br><input type="checkbox"/> Grab            | Collection (comp begin or grab)<br>Date Time                             | Eastern<br>Central                                                              | Composite end<br>Date Time                   | Bottle Group(s)                      |
| Field ID                                          | Matrix (type, e.g., Salt, Fresh, etc)                                     | Diss. Oxygen                                                             | <input type="checkbox"/> mg/L<br><input type="checkbox"/> % sat                 | Total Res. Chlorine<br>(mg/L)                |                                      |
| STORET #                                          | Temp (C)                                                                  | pH                                                                       | Sample Depth<br><input type="checkbox"/> ft<br><input type="checkbox"/> m       | Sp. Conductance<br>(umho/cm)                 |                                      |
| Latitude                                          | <input type="checkbox"/> dd<br><input type="checkbox"/> dms               | Longitude                                                                | <input type="checkbox"/> dd<br><input type="checkbox"/> dms                     | Salinity (ppt)                               | Comments                             |
| Location                                          | <input type="checkbox"/> Comp<br><input type="checkbox"/> Grab            | Collection (comp begin or grab)<br>Date Time                             | Eastern<br>Central                                                              | Composite end<br>Date Time                   | Bottle Group(s)                      |
| Field ID                                          | Matrix (type, e.g., Salt, Fresh, etc)                                     | Diss. Oxygen                                                             | <input type="checkbox"/> mg/L<br><input type="checkbox"/> % sat                 | Total Res. Chlorine<br>(mg/L)                |                                      |
| STORET #                                          | Temp (C)                                                                  | pH                                                                       | Sample Depth<br><input type="checkbox"/> ft<br><input type="checkbox"/> m       | Sp. Conductance<br>(umho/cm)                 |                                      |
| Latitude                                          | <input type="checkbox"/> dd<br><input type="checkbox"/> dms               | Longitude                                                                | <input type="checkbox"/> dd<br><input type="checkbox"/> dms                     | Salinity (ppt)                               | Comments                             |

Relinquished By:

Curtis Mussen

Date/Time

8-17-16 / 15:01

Shipping Method

Drop off

Number of Coolers Shipped:

1 cooler / 2 SCF Tugs

Received By:

AM

Date/Time

08-17-16 / 15:01

|          |              |         |                 |               |               |                                     |   |
|----------|--------------|---------|-----------------|---------------|---------------|-------------------------------------|---|
| Group: A | Bottle Type: | P-1L    | # of Bottles: 2 | Preservative: | ICE           | Enter Number of Bottles Sent to Lab | 2 |
|          | ALKALINITY   |         |                 |               |               |                                     |   |
|          | TURBIDITY    |         |                 |               |               |                                     |   |
|          | W-CL-IC      |         |                 |               |               |                                     |   |
|          | W-COLOR      |         |                 |               |               |                                     |   |
|          | W-F          |         |                 |               |               |                                     |   |
|          | W-TDS        |         |                 |               |               |                                     |   |
|          | W-TSS        |         |                 |               |               |                                     |   |
| Group: A | Bottle Type: | BP-1L   | # of Bottles: 2 | Preservative: | ICE           | Enter Number of Bottles Sent to Lab | 2 |
|          | CHLSUITE-W   |         |                 |               |               |                                     |   |
| Group: A | Bottle Type: | P-500ML | # of Bottles: 2 | Preservative: | HNO3          | Enter Number of Bottles Sent to Lab | 2 |
|          | W-ICP        |         |                 |               |               |                                     |   |
|          | W-ICPMS      |         |                 |               |               |                                     |   |
| Group: A | Bottle Type: | P-500ML | # of Bottles: 2 | Preservative: | ICE And H2SO4 | Enter Number of Bottles Sent to Lab | 2 |
|          | W-NH3        |         |                 |               |               |                                     |   |
|          | W-NO2NO3     |         |                 |               |               |                                     |   |
|          | W-S-A-TP     |         |                 |               |               |                                     |   |
|          | W-TKN        |         |                 |               |               |                                     |   |
|          | W-TOC        |         |                 |               |               |                                     |   |
| Group: A | Bottle Type: | P-125ML | # of Bottles: 2 | Preservative: | ICE-FLTR      | Enter Number of Bottles Sent to Lab | 2 |
|          | W-PO4-F      |         |                 |               |               |                                     |   |
| Group: B | Bottle Type: | PJ-2L   | # of Bottles: 4 | Preservative: | Formalin      | Enter Number of Bottles Sent to Lab | 2 |
|          | MI-FW-QLDC   |         |                 |               |               |                                     |   |
| Group: C | Bottle Type: | PT-50ML | # of Bottles: 2 | Preservative: | ICE           | Enter Number of Bottles Sent to Lab | 2 |
|          | ALGAL_ID     |         |                 |               |               |                                     |   |

Date of Request: 02-AUG-2016  
 Created By: RALYS\_B On: 02-AUG-2016  
 Modified By: MATTHEWS\_D On: 03-AUG-2016  
 Customer: WQAP  
 Project: BMAP  
 Division:  
 District:  
 Sampling Event: Wakulla River

**Send Coolers To:**

Phone: 850-245-8443  
 2600 Blair Stone Rd  
 MS #3560  
 Tallahassee, FL 32399-2400  
 Attn: Benjamin Ralys

Program Module Number:  
 Priority: 3  
 Event Status: R  
 Criminal Investigation: NO  
 Chemistry Request Reviewed By: WATTS\_J On: 02-AUG-2016  
 Biology Request Reviewed By: MATTHEWS\_D On: 03-AUG-2016  
 Sampling Kit Required: YES Ship on: 16-AUG-2016  
 Sampling Kit Shipped: YES On: 16-AUG-2016  
 Sampling Kit Packed By: RAKESTRA\_M  
 Preservatives Needed: NO  
 Date to Receive Samples: 17-AUG-2016  
 Received By: SHAIK\_A On: 17-AUG-2016

**Send Final Report To:**

2600 Blair Stone Rd  
 MS #3560  
 Tallahassee, FL 32399-2400  
 Attn: Katrina Sanders

Report Type: Final Only  
 FTP Data: NO  
 QC Report: YES  
 Date Log: NO  
 Authorization Log: NO

Comments: Bottle Group A: freshwater kits including metals  
 Bottle Group B: Biology SCI  
 Bottle Group C: Biology Algal

**Bottle Group A (Water) With 2 Samples:**

|                      |                      |                                                                                                                                                |
|----------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Bottle Type: P-1L    | Number of Bottles: 2 | Preserved With: ICE                                                                                                                            |
| ALKALINITY           | Template: DEFAULT    | (SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO <sub>3</sub> /L                                                                       |
| TURBIDITY            | Template: DEFAULT    | (EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices                                                                                             |
| W-CL-IC              | Template: DEFAULT    | (EPA 300.0 Rev. 2.1) Chloride in aqueous matrices                                                                                              |
| W-COLOR              | Template: DEFAULT    | (SM 2120 B) True Color measured at 450 nm                                                                                                      |
| Color (true)         |                      |                                                                                                                                                |
| W-F                  | Template: DEFAULT    | (SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)                                           |
| W-TDS                | Template: DEFAULT    | (SM 2540 C-97) Total Dissolved Solids in aqueous matrices                                                                                      |
| W-TSS                | Template: DEFAULT    | (SM 2540 D-97) Total Suspended Solids in aqueous matrices                                                                                      |
| Bottle Type: BP-1L   | Number of Bottles: 2 | Preserved With: ICE                                                                                                                            |
| CHLSUITE-W           | Template: DEFAULT    | (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry                             |
| Bottle Type: P-500ML | Number of Bottles: 2 | Preserved With: HNO <sub>3</sub>                                                                                                               |
| W-ICP                | Template:            | (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects |
| Calcium              |                      |                                                                                                                                                |
| Chromium             |                      |                                                                                                                                                |
| Iron                 |                      |                                                                                                                                                |
| Magnesium            |                      |                                                                                                                                                |
| Nickel               |                      |                                                                                                                                                |
| Potassium            |                      |                                                                                                                                                |
| Sodium               |                      |                                                                                                                                                |
| Zinc                 |                      |                                                                                                                                                |
| W-ICPMS              | Template:            | (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects                    |
| Arsenic              |                      |                                                                                                                                                |
| Cadmium              |                      |                                                                                                                                                |

**Bottle Group A (Water) With 2 Samples:**

|                      |                      |                                                                                                                             |
|----------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Bottle Type: P-500ML | Number of Bottles: 2 | Preserved With: HNO3                                                                                                        |
| W-ICPMS              | Template:            | (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects |
| Copper               |                      |                                                                                                                             |
| Lead                 |                      |                                                                                                                             |
| Silver               |                      |                                                                                                                             |

|                      |                      |                                                                                          |
|----------------------|----------------------|------------------------------------------------------------------------------------------|
| Bottle Type: P-500ML | Number of Bottles: 2 | Preserved With: ICE And H2SO4                                                            |
| W-NH3                | Template: DEFAULT    | (EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L                               |
| W-NO2NO3             | Template: DEFAULT    | (EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L                       |
| W-S-A-TP             | Template: DEFAULT    | (EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L                      |
| W-TKN                | Template: DEFAULT    | (EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices                         |
| W-TOC                | Template: DEFAULT    | (SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices                           |
| Bottle Type: P-125ML | Number of Bottles: 2 | Preserved With: ICE-FLTR                                                                 |
| W-PO4-F              | Template: DEFAULT    | (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L |

**Bottle Group B (Biological) With 2 Samples:**

|                    |                      |                                                                |
|--------------------|----------------------|----------------------------------------------------------------|
| Bottle Type: PJ-2L | Number of Bottles: 4 | Preserved With: Formalin                                       |
| MI-FW-QLDC         | Template: DEFAULT    | (SOP-IZ06) No. Taxa of FW macroinverts, qual samp, 20 dipnets. |

**Bottle Group C (Biological) With 2 Samples:**

|                      |                      |                                                                        |
|----------------------|----------------------|------------------------------------------------------------------------|
| Bottle Type: PT-50ML | Number of Bottles: 2 | Preserved With: ICE                                                    |
| ALGAL_ID             | Template: DEFAULT    | (SOP-AB05) Qualitative assessment of algal taxa present without counts |

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\* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

# Log-in Checklist

RQ-2016-08-15-75

Shipping Method: H-D

Date/Time of Receipt: 08-17-16 15:01

| Cooler ID | Cooler Temperature* | No. Sample Containers in Cooler | Evidence Tape |     |          |  | Tracking # (fill out only if waybill copy is damaged) |
|-----------|---------------------|---------------------------------|---------------|-----|----------|--|-------------------------------------------------------|
|           |                     |                                 | Present?      |     | *Intact? |  |                                                       |
| Yes       | No                  | Yes                             | No            | Yes | No       |  |                                                       |
| Red       | 2-9C                | 14                              |               | ✓   |          |  |                                                       |
|           |                     |                                 |               |     |          |  |                                                       |
|           |                     |                                 |               |     |          |  |                                                       |
|           |                     |                                 |               |     |          |  |                                                       |
|           |                     |                                 |               |     |          |  |                                                       |
|           |                     |                                 |               |     |          |  |                                                       |

\*If the temperature of a cooler is above 6.0 °C (or above 10.0 °C for W-1-4-DIOX), or if Evidence Seal is damaged, identify the containers in the affected cooler(s) on back of this form.

**\*\*Note:** If "No" is checked in any of the fields below, fill out the back of this form with additional details (Field ID, Test IDs, etc.) and generate an NCR.

\*\*Chain of Custody/ Field Sheet(s) Included? Yes ✓ No       

## CONTAINER CHECK

\*\*Evidence Tape on Bottles? Yes        No ✓ If yes, is it intact? Yes        No       

\*\*Caps on tight? Yes ✓ No        \*\*Containers intact? Yes ✓ No       

\*\*Sufficient Sample Volume: Yes ✓ No       

## CHLORINE CHECK (Blue dot on container)

| Check the Box marked "Yes" or "No" for the Presence of Chlorine. If Cl detected, an NCR is required. |     |    |               |     |    |
|------------------------------------------------------------------------------------------------------|-----|----|---------------|-----|----|
| Analysis                                                                                             | Yes | No | Analysis      | Yes | No |
| W-1,4 DIOX                                                                                           |     |    | W-PC-AA-SF    |     |    |
| W-AHERB-AA (-AHB-AA-R)                                                                               |     |    | W-PCL-SQ (-R) |     |    |
| W-BNA (-625, -R)                                                                                     |     |    | W-PDQUAT      |     |    |
| W-CARB-AA (-CAB-AA-R)                                                                                |     |    | W-PESTNP-R    |     |    |
| W-ENDO-AA                                                                                            |     |    | W-PSCL-TQ     |     |    |
| W-GLYPH                                                                                              |     |    | W-PSNP-TQ     |     |    |
| W-NP-AA-SF                                                                                           |     |    | W-PST-CL-R    |     |    |
| W-PAH (-R)                                                                                           |     |    | W-TR-TQ       |     |    |
| W-PCB-R                                                                                              |     |    |               |     |    |

## PRESERVATION CHECK (EXCLUDING SAMPLES SENT TO OVERFLOW LABS, "OV-")

\*\*Acid Preserved Samples: pH ≤ 2.0? Yes ✓ No        NA        Init: ABJ

\*\*W-1-4-DIOX (Green dot on container) preserved to pH < 4.0? Yes        No        NA        Init:       

Coolers Unpacked/Checked by: ABJ Date: 8-17-16 NCRs (Y/N)?       

Event ID: Wakulla River  
WQAP-2016-08-17-01 (BMAP)  
 Date Received: 17-AUG-2016 15:01  
 NCR #

## Log-in Checklist

### Samples with Incorrect pH Preservation or presence of Chlorine

| Field ID | Bottle Test ID(s) | pH / Cl | Action Taken |
|----------|-------------------|---------|--------------|
|          |                   |         |              |
|          |                   |         |              |
|          |                   |         |              |
|          |                   |         |              |

### Samples in Coolers with Incorrect Preservation or Damaged Evidence Tape

| Cooler ID | Field ID | Bottle Test ID(s) |
|-----------|----------|-------------------|
|           |          |                   |
|           |          |                   |
|           |          |                   |
|           |          |                   |
|           |          |                   |

### Bottles Not Intact

| Field ID | Bottle Test ID(s) | Loose Cap | Damaged Cap |    | Damaged Container |    | Evidence Tape Not Intact |
|----------|-------------------|-----------|-------------|----|-------------------|----|--------------------------|
|          |                   |           | CK          | BR | CK                | BR |                          |
|          |                   |           |             |    |                   |    |                          |
|          |                   |           |             |    |                   |    |                          |
|          |                   |           |             |    |                   |    |                          |

### Samples with Insufficient Volume for Analyses

| Field ID | Bottle Test ID(s) | Action Taken |
|----------|-------------------|--------------|
|          |                   |              |
|          |                   |              |
|          |                   |              |
|          |                   |              |

## ENCORE SAMPLES

S-VOC-MS samples in Encores must be frozen within 48 hours of collection.

Were Encore samples received? Yes\_\_\_\_ No\_\_\_\_

Date and time placed in freezer \_\_\_\_\_

Were all samples placed in freezer within 48 hours of collection? Yes\_\_\_\_ No\_\_\_\_

If no, were samples shipped on dry ice? Yes\_\_\_\_ No\_\_\_\_

**FOR CLEAN LAB USE ONLY** – Total Mercury Preservation Check (W-HG-AF; W-HG-AF-F):

Samples preserved within 48 hours? Yes\_\_\_\_ No\_\_\_\_

Date and time samples preserved: \_\_\_\_\_

**Additional Comments:**