

RQ- 2018-05-21-20

## Log-in Checklist

Login Station ID: #5Shipping Method: FedEx | UPS | HD | Greyhound | \_\_\_\_\_ Date/Time of Receipt: 07/31/18 @ 10:10

| 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 |                                                       |
| Red       | 1.1°C               | 5                               |               | X  |          |    | 4385 5029 3440                                        |
|           |                     |                                 |               |    |          |    |                                                       |
|           |                     |                                 |               |    |          |    |                                                       |
|           |                     |                                 |               |    |          |    |                                                       |
|           |                     |                                 |               |    |          |    |                                                       |
|           |                     |                                 |               |    |          |    |                                                       |

\*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   

Micro-Biology Overflow Chain of Custody/ Field Sheet(s) Included? Yes ✓ No    Date 07/31/18

## CONTAINER CHECK

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

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

\*\*Sufficient Sample Volume: Yes ✓ No   

CHLORINE CHECK REQUIRED? (Blue dot on container) Yes    No X Init: mr

| 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-E8321-DI, -MS, -21                                                                                 |     |    | W-NP-AA-SF |     |    |
| W-BNA (-625, -R)                                                                                     |     |    | W-PDQUAT   |     |    |
| W-CARB-AA (-CAB-AA-R)                                                                                |     |    | W-PCL-SQ-R |     |    |
| W-U2060-MS                                                                                           |     |    | W-TR-TQ    |     |    |
| W-PCB-R                                                                                              |     |    | W-CT-CI-R  |     |    |
| W-PAH (-R)                                                                                           |     |    | W-PSNP-TQ  |     |    |

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

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

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

Coolers Unpacked/Checked by: Tyler R. Date: 07/31/18 NCRs (Y/N)? ✓

Event ID: Cow Creek (2952) Volusia Co.  
WQAP-2018-07-31-03 (SMP)  
 Date Received: 31-JUL-2018 1  
 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 |
|----------|-------------------|--------------|
|          |                   |              |
|          |                   |              |
|          |                   |              |
|          |                   |              |

### Additional Comments:

|                            |                       |
|----------------------------|-----------------------|
| Infrared Thermometer ID:   | REC_05_2018           |
| pH Paper 0.0 – 3.0 Lot #   | 230515 EXP:10/30/2018 |
| pH Paper 0 – 13 Lot #      | 222516 EXP:09/15/2019 |
| Chlorine Test Strips Lot # | 091417V EXP:09/2021   |

### ENCORE SAMPLES

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

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

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

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

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: \_\_\_\_\_

# Florida Department of Environmental Protection

## Central Laboratory Submittal Form

Customer: WQAP

Project ID: SMP

Requester: Kathryn M. Williams

Field Report Prepared By:

Collected By:

Sampling Agency:

|              |  |                                                                           |  |                                                              |  |                                                                                       |  |                                                |  |                               |  |
|--------------|--|---------------------------------------------------------------------------|--|--------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|------------------------------------------------|--|-------------------------------|--|
| Location     |  | <input type="checkbox"/> Comp<br><input checked="" type="checkbox"/> Grab |  | Collection (comp begin or grab)<br>Date 07/30/2018 Time 1110 |  | <input checked="" type="checkbox"/> Eastern<br><input type="checkbox"/> Central       |  | Composite end<br>Date Time                     |  | Bottle Group(s)<br>(See pg 2) |  |
| Field ID     |  | Matrix (type, e.g., Salt, Fresh, etc)<br>Fresh                            |  | Diss. Oxygen 2.5<br>31%                                      |  | <input checked="" type="checkbox"/> mg/L<br><input checked="" type="checkbox"/> % sat |  | Total Res. Chlorine<br>(mg/L)                  |  | A                             |  |
| WIN          |  | Temp (C)<br>26.3                                                          |  | pH<br>4.35                                                   |  | Sample Depth 0.3                                                                      |  | Sp. Conductance<br>(umho/cm) 62.3              |  |                               |  |
| Latitude     |  | <input type="checkbox"/> dd<br><input type="checkbox"/> dms               |  | Salinity (ppt)<br>0.03                                       |  | <input type="checkbox"/> ft<br><input checked="" type="checkbox"/> m                  |  | Comments<br>WD-FLR-ECQ sent to contract 126    |  |                               |  |
| Location     |  | <input type="checkbox"/> Comp<br><input type="checkbox"/> Grab            |  | Collection (comp begin or grab)<br>Date Time                 |  | <input type="checkbox"/> Eastern<br><input type="checkbox"/> 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)                  |  |                               |  |
| WIN/STORET # |  | Temp (C)                                                                  |  | pH                                                           |  | Sample Depth                                                                          |  | 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)<br><input type="checkbox"/> ppt |  |                               |  |
| Location     |  | <input type="checkbox"/> Comp<br><input type="checkbox"/> Grab            |  | Collection (comp begin or grab)<br>Date Time                 |  | <input type="checkbox"/> Eastern<br><input type="checkbox"/> 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)                  |  |                               |  |
| WIN/STORET # |  | Temp (C)                                                                  |  | pH                                                           |  | Sample Depth                                                                          |  | 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)<br><input type="checkbox"/> ppt |  |                               |  |
| Location     |  | <input type="checkbox"/> Comp<br><input type="checkbox"/> Grab            |  | Collection (comp begin or grab)<br>Date Time                 |  | <input type="checkbox"/> Eastern<br><input type="checkbox"/> 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)                  |  |                               |  |
| WIN/STORET # |  | Temp (C)                                                                  |  | pH                                                           |  | Sample Depth                                                                          |  | 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)<br><input type="checkbox"/> ppt |  |                               |  |

|                         |                           |                           |                                 |                         |                            |
|-------------------------|---------------------------|---------------------------|---------------------------------|-------------------------|----------------------------|
| Relinquished By:<br>MKL | Date/Time<br>7/30/18 1600 | Shipping Method<br>Fed Ex | Number of Coolers Shipped:<br>1 | Received By:<br>Tyler R | Date/Time<br>07/31/18 1610 |
|-------------------------|---------------------------|---------------------------|---------------------------------|-------------------------|----------------------------|

|          |              |                |                 |               |                                   |                                     |                         |
|----------|--------------|----------------|-----------------|---------------|-----------------------------------|-------------------------------------|-------------------------|
| Group: A | Bottle Type: | P-1L           | # of Bottles: 1 | Preservative: | ICE                               | Enter Number of Bottles Sent to Lab | 1                       |
|          | ALKALINITY   |                |                 |               |                                   |                                     |                         |
|          | TURBIDITY    |                |                 |               |                                   |                                     |                         |
|          | W-CL-IC      |                |                 |               |                                   |                                     |                         |
|          | W-COLOR      |                |                 |               |                                   |                                     |                         |
|          | W-F          |                |                 |               |                                   |                                     |                         |
|          | W-SO4-IC     |                |                 |               |                                   |                                     |                         |
|          | W-TDS        |                |                 |               |                                   |                                     |                         |
|          | W-TSS        |                |                 |               |                                   |                                     |                         |
| Group: A | Bottle Type: | P-250ML-WI-THI | # of Bottles: 1 | Preservative: | ICE                               | Enter Number of Bottles Sent to Lab | 1 sent to contract / ab |
|          | CD-FLR-ECQ   |                |                 |               |                                   |                                     |                         |
| Group: A | Bottle Type: | BP-1L          | # of Bottles: 1 | Preservative: | ICE                               | Enter Number of Bottles Sent to Lab | 1                       |
|          | CHLSUITE-W   |                |                 |               |                                   |                                     |                         |
| Group: A | Bottle Type: | P-500ML        | # of Bottles: 1 | Preservative: | HNO3                              | Enter Number of Bottles Sent to Lab | 1                       |
|          | W-ICP        |                |                 |               | HNO3                              |                                     |                         |
|          | W-ICPMS      |                |                 |               | LOT# NA8067020<br>EXP: 03/08/2019 |                                     |                         |
| Group: A | Bottle Type: | P-500ML        | # of Bottles: 1 | Preservative: | ICE And H2SO4                     | Enter Number of Bottles Sent to Lab | 1                       |
|          | W-NH3        |                |                 |               | H2SO4                             |                                     |                         |
|          | W-NO2NO3     |                |                 |               | LOT# SA8085170<br>EXP: 03/26/19   |                                     |                         |
|          | W-S-A-TP     |                |                 |               |                                   |                                     |                         |
|          | W-TKN        |                |                 |               |                                   |                                     |                         |
|          | W-TOC        |                |                 |               |                                   |                                     |                         |
| Group: A | Bottle Type: | P-125ML        | # of Bottles: 1 | Preservative: | FILTER-ICE                        | Enter Number of Bottles Sent to Lab | 1                       |
|          | W-PO4-F      |                |                 |               |                                   |                                     |                         |



# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

April 2018

Data Qualified?

Yes / No

WIN Station Name: Cow Creek at Osteen-Maytown Road

Date: 07/30/2018  
(mm/dd/yyyy)

WIN/ Field ID: G2CE0086

WBID: 2952

Latitude: 28.83970408

County: Volusia

ORG ID: 21FLCEN

Longitude: -81.02483408

Receiving Body of Water:

RQ-2018-05-21-20

| Sampling Team Members                                                                                            |      |                                                                                                                                                                                                                     |                  | WQ Measurements                         | Sample Collection | Documentation                                                          | Preservation | Preservation Check                           | Sampling Equipment                             |                                              |                               |  |
|------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------|-------------------|------------------------------------------------------------------------|--------------|----------------------------------------------|------------------------------------------------|----------------------------------------------|-------------------------------|--|
| Stacy Burke                                                                                                      |      |                                                                                                                                                                                                                     |                  |                                         | X                 |                                                                        | X            | X                                            | <input type="checkbox"/> Sample Container      | <input checked="" type="checkbox"/> Van Dorn | <input type="checkbox"/> Pole |  |
| Alyse Howell                                                                                                     |      |                                                                                                                                                                                                                     |                  | X                                       |                   | X                                                                      |              |                                              | <input type="checkbox"/> Carboy                | <input type="checkbox"/> Syringe             |                               |  |
|                                                                                                                  |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              | <input type="checkbox"/> Dipper                | <input type="checkbox"/> Other               |                               |  |
|                                                                                                                  |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              | Depth Measured with Equipment ID               |                                              |                               |  |
|                                                                                                                  |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              | Collection Method                              |                                              |                               |  |
|                                                                                                                  |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              | <input type="checkbox"/> Wading                | <input type="checkbox"/> Canoe/Kayak         |                               |  |
|                                                                                                                  |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              | <input checked="" type="checkbox"/> From Shore | <input type="checkbox"/> Electric Motor      |                               |  |
|                                                                                                                  |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              | <input type="checkbox"/> Other                 | <input type="checkbox"/> Gasoline Motor      |                               |  |
| Water Level: Dry/ Pooled/ Low / Normal / <u>High</u> / Flooded                                                   |      |                                                                                                                                                                                                                     |                  | Meter ID# YSI 1009                      |                   |                                                                        |              | Matrix: <u>Fresh</u> / Marine / DI           |                                                |                                              |                               |  |
| Photos: Yes <u>No</u> Flow: No Flow / Intestinal / <u>Flowing</u> / NA                                           |      |                                                                                                                                                                                                                     |                  | Tide: Rising/ Falling/ Slack/ <u>NA</u> |                   |                                                                        |              | Tide Times: High <u>NA</u> Low <u>NA</u>     |                                                |                                              |                               |  |
| Time Zone                                                                                                        | Time | Total Depth (m)                                                                                                                                                                                                     | Sample Depth (m) | Secchi Disk (m)                         | DO (mg/L)         | DO (%SAT)                                                              | pH           | Salinity (PPT)                               | Sp COND (µmhos/cm)                             | Temp. (C°)                                   |                               |  |
| (EST)                                                                                                            | 1110 | 2.0                                                                                                                                                                                                                 | 0.3              | 0.3                                     | 2.5               | 31                                                                     | 4.35         | 0.03                                         | 62.3                                           | 26.3                                         |                               |  |
| CEN                                                                                                              |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              |                                                |                                              |                               |  |
| Biological Samples Collected: <u>None</u> HA SCI RPS Algae ID LVS LVI Other:                                     |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              |                                                |                                              |                               |  |
| SBIO ID Numbers: SBIO-ID: <u>NA</u> HA-ID: <u>NA</u> RPS-ID: <u>NA</u> Macrophyte-ID: <u>NA</u> LIMS#: <u>NA</u> |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              |                                                |                                              |                               |  |
| Parameter Suite                                                                                                  |      | Parameter Methods                                                                                                                                                                                                   |                  |                                         |                   | Preservation                                                           |              | Lot#                                         | Expiration                                     | pH Check                                     |                               |  |
| Preserved Nutrients                                                                                              |      | <input type="checkbox"/> W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP                                                                                                                                                |                  |                                         |                   | <input type="checkbox"/> Ice <input checked="" type="checkbox"/> H2SO4 |              | SA8085170                                    | 03/24/19                                       | <input checked="" type="checkbox"/> <2       |                               |  |
| Metals                                                                                                           |      | <input type="checkbox"/> W-ICPMS <input type="checkbox"/> W-ICP                                                                                                                                                     |                  |                                         |                   | <input type="checkbox"/> Ice <input checked="" type="checkbox"/> HNO3  |              | NA SA67020                                   | 03/18/19                                       | <input checked="" type="checkbox"/> <2       |                               |  |
| Filtered Nutrients                                                                                               |      | <input type="checkbox"/> W-PO4-F <input type="checkbox"/> Field Filtered 0.45 µm Filter                                                                                                                             |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Chlorophyll                                                                                                      |      | <input type="checkbox"/> CHLSUITE-W                                                                                                                                                                                 |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Physical/Aggregate (Fresh)                                                                                       |      | <input type="checkbox"/> Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS                                                                                                                  |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Physical/Aggregate (Marine)                                                                                      |      | <input type="checkbox"/> Alkalinity / W-F / W-TSS / TURBIDITY                                                                                                                                                       |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Macroinvertebrates                                                                                               |      | <input type="checkbox"/> MI-FW-QLDC                                                                                                                                                                                 |                  |                                         |                   | <input type="checkbox"/> Formalin                                      |              |                                              |                                                |                                              |                               |  |
| Periphyton                                                                                                       |      | <input type="checkbox"/> ALGAE-ID                                                                                                                                                                                   |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Microbiology                                                                                                     |      | <input type="checkbox"/> E Coli <input type="checkbox"/> F Coli <input type="checkbox"/> Enterococci                                                                                                                |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Molecular                                                                                                        |      | <input type="checkbox"/> PCR-FILTER <input type="checkbox"/> PCR-HF183 <input type="checkbox"/> PCR-BacR <input type="checkbox"/> PCR-GULL2 <input type="checkbox"/> PCR-GFD                                        |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Tracers                                                                                                          |      | <input type="checkbox"/> W-E8321-DI <input type="checkbox"/> W-E8321-MS                                                                                                                                             |                  |                                         |                   | <input type="checkbox"/> Ice                                           |              |                                              |                                                |                                              |                               |  |
| Pesticides                                                                                                       |      | <input type="checkbox"/> W-PSNP-TQ <input type="checkbox"/> W-CT-CL-R <input type="checkbox"/> W-E8321-DI <input type="checkbox"/> W-PCL-SQ-R <input type="checkbox"/> WE8321-MS <input type="checkbox"/> W-CARB-AA |                  |                                         |                   | <input type="checkbox"/> Ice <input type="checkbox"/> Other            |              |                                              |                                                |                                              |                               |  |
| Notes: Samples collected by Volusia County                                                                       |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              |                                              |                                                |                                              |                               |  |
| Signature:                                                                                                       |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              | Date:                                        |                                                |                                              |                               |  |
| Enter Field Parameters, Verify Station ID In LIMS DMT:                                                           |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              | QC Station ID, Field Parameters In LIMS DMT: |                                                |                                              |                               |  |
| Scan/Save Field Sheets                                                                                           |      |                                                                                                                                                                                                                     |                  |                                         |                   |                                                                        |              | Verify Data In WIN:                          |                                                |                                              |                               |  |

WIN ID / Field ID →

Cow Creek at  
Osteen-Maytown  
road (2952)



G2CE0086



# Contract Lab - Chain of Custody

Client Name: Department of Environmental Protection  
Address: 3319 Maguire Blvd Suite 232, Orlando, FL 32804  
Project Manager: Natalie Ayala/ Michael Linger/ Kalina Warren  
Email: Michael.Linger@dep.state.fl.us  
Telephone Number: 407-897-4100

Project Name: SMP  
Project Number: RQ-2018-05-21-20  
Site Location: Cow Creek (2952)

Contract PO# Flowers <sup>B3508 E</sup> -B16975

Sampler Names: Stacy Burke/ Alyse Howell Signature: *Alyse C. Howell*

| FIELD ID | Lab No.<br>(Lab Use Only) | Date     | Time Sampled | No. of Containers | Grab | Composite | Preservative |     |      |      | Matrix      |            |                |               | Analyze For:           |                   |                     |
|----------|---------------------------|----------|--------------|-------------------|------|-----------|--------------|-----|------|------|-------------|------------|----------------|---------------|------------------------|-------------------|---------------------|
|          |                           |          |              |                   |      |           | ICE          | HCL | HNO3 | NONE | Groundwater | Wastewater | Drinking Water | Surface Water | Escherichia Coli (ECQ) | Enterococci (ENQ) | Fecal Coliform (FC) |
| G2CE0086 |                           | 07/30/18 | 1110         | 1                 | X    |           | X            |     |      |      |             |            |                | X             | X                      |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |
|          |                           |          |              |                   |      |           |              |     |      |      |             |            |                |               |                        |                   |                     |

## Special Instructions:

Samples are ambient water samples and not suspected to contain chlorine.

Freshwater Sample

| Relinquished by:       | Date    | Time | Received by:     | Date    | Time  | Comments                                                   |
|------------------------|---------|------|------------------|---------|-------|------------------------------------------------------------|
| <i>Alyse C. Howell</i> | 7/30/18 | 1400 | <i>Mr. R. Li</i> | 7/30/18 | 1430  | Temp Upon Receipt: 26°C                                    |
| Relinquished by:       | Date    | Time | Received by:     | Date    | Time  | Sample Containers Intact?                                  |
| <i>Mr. R. Li</i>       | 7/30/18 | 1515 | <i>mm/mm</i>     | 7/30    | 15:15 | <input checked="" type="radio"/> Y <input type="radio"/> N |

Cooler Packing Worksheet for Request: RQ-2018-05-21-20

Cow Creek (2952) Volusia Co.

Ship Cooler On: 5/11/2018

Customer/Project: WQAP/SMP

Assigned To: KLUG\_K

Requester: Kathryn M. Williams

Priority: 3

407-897-4174  
3319 Maguire Blvd.  
Suite 232  
Orlando, FL 32803  
Attn: Katie March

Comments:

No preservatives needed.

Group A: Freshwater Kit With Metals + Bacteria

Requested Analyses:

**Bottle Group: A**

**# of Sites: 1**

Container ID: P-1L

Qty: 1

Preservation: ICE

Lot # 00070681

Description: Plastic Bottle 1L

**Analysis**

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

**Description**

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: P-250ML-WI-THI

Qty: 1

Preservation: ICE

Lot # L18006

Description:

**Analysis**

CD-FLR-ECQ

**Description**

Escherichia coli by Colilert 18 Quanti-Tray method by FlowersOverflow Laboratory for Central District

Container ID: BP-1L

Qty: 1    Preservation: ICE

Lot # 1223623

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML

Qty: 1    Preservation: HNO3

Lot # 00070684

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

Description

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Container ID: P-500ML

Qty: 1    Preservation: ICE And H2SO4

Lot # 00070684

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 1    Preservation: FILTER-ICE

Lot # 00070886

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Date of Request: 25-APR-2018  
 Created By: WILLIAM\_KM On: 25-APR-2018  
 Modified By: SWANSON\_C On: 01-MAY-2018  
 Customer: WQAP  
 Project: SMP  
 Division: Division of Environmental Assessment and Restoration  
 District:  
 Sampling Event: Cow Creek (2952) Volusia Co.

**Send Coolers To:**

Phone: 407-897-4174  
 3319 Maguire Blvd.  
 Suite 232  
 Orlando, FL 32803  
 Attn: Katie March

Program Module Number: 1306  
 Priority: 3  
 Event Status: R  
 Criminal Investigation: NO  
 Chemistry Request Reviewed By: WATTS\_J On: 30-APR-2018  
 Biology Request Reviewed By: SWANSON\_C On: 01-MAY-2018  
 Sampling Kit Required: YES Ship on: 11-MAY-2018  
 Sampling Kit Shipped: YES On: 11-MAY-2018  
 Sampling Kit Packed By: KLUG\_K  
 Preservatives Needed: NO  
 Date to Receive Samples: 21-MAY-2018  
 Received By: REYNOLDS\_T On: 31-JUL-2018

**Send Final Report To:**

3319 Maguire Blvd.  
 Suite 232  
 Orlando, FL 32803  
 Attn: Michael Linger

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

Comments: Group A: Freshwater Kit With Metals + Bacteria

**Bottle Group A (Water) With 1 Samples:**

|                             |                      |                                                                                                                                                |
|-----------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Bottle Type: P-1L           | Number of Bottles: 1 | 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-SO <sub>4</sub> -IC       | Template: DEFAULT    | (EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices                                                                                               |
| 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 using a maximum of 250 mL of sample                                                  |
| Bottle Type: P-250ML-WI-THI | Number of Bottles: 1 | Preserved With: Na thiosulfate and Ice                                                                                                         |
| CD-FLR-ECQ                  | Template: DEFAULT    | (SM 9223 B Quanti-Tray) Escherichia coli by Colilert 18 Quanti-Tray method by Flowers Chemical Laboratory in Altamonte Springs                 |
| Bottle Type: BP-1L          | Number of Bottles: 1 | Preserved With: ICE                                                                                                                            |
| CHLSUITE-W                  | Template: DEFAULT    | (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry                                   |
| Bottle Type: P-500ML        | Number of Bottles: 1 | 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                        |                      |                                                                                                                                                |

**Bottle Group A (Water) With 1 Samples:**

|                      |                      |                                                                                                                             |
|----------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Bottle Type: P-500ML | Number of Bottles: 1 | 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 |

Arsenic  
Cadmium  
Copper  
Lead  
Silver

|                      |                      |                                                                     |
|----------------------|----------------------|---------------------------------------------------------------------|
| Bottle Type: P-500ML | Number of Bottles: 1 | 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: 1 | Preserved With: FILTER-ICE                                                               |
| W-PO4-F              | Template: DEFAULT    | (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L |