

Florida DEP - Ground Water and Springs Protection Section - Springs Quarterly Monitoring - Field Sheet

|                                              |                          |                         |
|----------------------------------------------|--------------------------|-------------------------|
| Site: Upper Suwannee River - Group 1 Springs | Location: Suwannee River | Date: 5/19/2011         |
| Samplers: EDGAR WADE, GARY MADDOX            |                          | Prepared By: EDGAR WADE |

| SAMPLING DATA                                                                                                                                        |           |       |              |      |                          |               |               |  |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|--------------|------|--------------------------|---------------|---------------|--|--------------------------------------|
| SITE                                                                                                                                                 | DATE      | TIME  | TEMP<br>(°C) | pH   | Specific<br>Conductivity | D O<br>(mg/L) | D O<br>(%sat) |  | NOTES                                |
| Unnamed Spring #1                                                                                                                                    | 5/19/2011 | 17:00 | 21.10        | 7.27 | 371                      | 0.43          | 4.8           |  |                                      |
| SUW925971 Spring                                                                                                                                     | 5/19/2011 | 18:30 | 21.03        | 7.36 | 345                      | 0.01          | 0.1           |  |                                      |
| Unnamed Spring #2<br>(Sulfur)                                                                                                                        | 5/19/2011 | 19:10 |              |      |                          |               |               |  | No Field Parameters<br>Due to Sulfur |
| SUW925972 Spring                                                                                                                                     | 5/19/2011 | 19:30 | 20.52        | 7.38 | 341                      | 0.01          | 0.1           |  |                                      |
| SUW925973 Spring                                                                                                                                     | 5/19/2011 | 20:15 | 20.17        | 7.41 | 296                      | 0.02          | 0.2           |  |                                      |
|                                                                                                                                                      |           |       |              |      |                          |               |               |  |                                      |
|                                                                                                                                                      |           |       |              |      |                          |               |               |  |                                      |
| All samples taken using Peristaltic Pump                                                                                                             |           |       |              |      |                          |               |               |  |                                      |
| Unless otherwise noted, all samples taken with GeoPump 2 and size 15 Geotech PP tubing and 0.45 um Geotech high capacity GW filters where applicable |           |       |              |      |                          |               |               |  |                                      |
| New PP Tubing and hard tubing is used at each site for each sample event to prevent cross-contamination                                              |           |       |              |      |                          |               |               |  |                                      |

| PRESERVATIVES & FILTERS |      |         |         |                 |       |
|-------------------------|------|---------|---------|-----------------|-------|
| ACID                    | FDEP | LOT #   | Expires | FILTERS         | LOT # |
| Sulfuric Acid           | X    | _091072 |         | Geotech 0.45 um |       |
| Nitric Acid             | X    | _140090 |         | Other           |       |

|                      |                       |                        |            |
|----------------------|-----------------------|------------------------|------------|
| YSI SONDE Meter ID # | SN: 99K0596 - Meter 7 | D O membrane changed?  | Y <u>N</u> |
| Batteries changed?   | Y <u>N</u>            | Sp Cond Probe cleaned? | Y <u>N</u> |

| CALIBRATION (Pre Sample) |           |            |      |
|--------------------------|-----------|------------|------|
| DATE                     | 5/19/2011 | TIME (ETZ) | 9:30 |
| LOCATION:                | In Lab    | On Site -  | X    |

| Dissolved Oxygen | mg/L                     | % SAT   | TEMP °C | Pass/Fail                                      | Sp Cond                     | Standard                     | Reading     | Pass/Fail                | Lot #              | Exp. Date        |
|------------------|--------------------------|---------|---------|------------------------------------------------|-----------------------------|------------------------------|-------------|--------------------------|--------------------|------------------|
| INITIAL          | 8.51                     | 99.5    | 23.17   | <u>P</u> F                                     | Initial                     | 100<br>1000                  | 99<br>998   | <u>P</u> F<br><u>P</u> F | 2002463<br>2002464 | Aug-11<br>Aug-11 |
| CALIBRATED       | 8.54                     | 100.0   | 23.21   | <u>P</u> F                                     | Calibrated                  | 100<br>1000                  | 100<br>1000 | <u>P</u> F<br><u>P</u> F | 2002463<br>2002464 | Aug-11<br>Aug-11 |
| VERIFICATION     | 8.54                     | 99.9    | 23.24   | <u>P</u> F                                     | Verification                | 100<br>1000                  | 100<br>999  | <u>P</u> F<br><u>P</u> F | 2002463<br>2002464 | Aug-11<br>Aug-11 |
| pH               | Standard                 | Reading | TEMP °C | Pass/Fail                                      | Exp. Date                   | Lot #                        |             |                          |                    |                  |
| INITIAL          | 7.00<br><del>10.00</del> | 7.05    | 23.82   | <u>P</u> F<br><del>P F</del><br><del>P F</del> | Nov-11<br><del>Nov-11</del> | _096106<br><del>096382</del> |             |                          |                    |                  |
| CALIBRATED       | 7.00<br><del>10.00</del> | 7.00    | 23.86   | <u>P</u> F<br><del>P F</del><br><del>P F</del> | Nov-11<br><del>Nov-11</del> | _096106<br><del>096382</del> |             |                          |                    |                  |
| VERIFICATION     | 7.00<br><del>10.00</del> | 7.01    | 23.87   | <u>P</u> F<br><del>P F</del><br><del>P F</del> | Nov-11<br><del>Nov-11</del> | _096106<br><del>096382</del> |             |                          |                    |                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)</p> <p>pH: <math>\pm 0.2</math> units Temperature: <math>\pm 0.2</math> °C Specific Conductance: <math>\pm 5\%</math> Dissolved Oxygen: all readings <math>\leq 20\%</math> saturation (see Table FS 2200-2); optionally, <math>+0.2</math> mg/L or <math>+10\%</math> (whichever is greater) Turbidity: all readings <math>&lt; 20</math> NTU; optionally <math>+5</math> NTU or <math>+10\%</math> (whichever is greater)</p> |
| <p>SIGNATURE: EDGAR WADE <i>Edgar Wade</i> DATE: 5/19/2011 5/19/2011</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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| Samplers: EDGAR WADE, GARY MADDOX            |                          | Prepared By: EDGAR WADE |

| SAMPLING DATA |      |      |              |    |                          |               |               |  |       |
|---------------|------|------|--------------|----|--------------------------|---------------|---------------|--|-------|
| SITE          | DATE | TIME | TEMP<br>(°C) | pH | Specific<br>Conductivity | D O<br>(mg/L) | D O<br>(%sat) |  | NOTES |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |
|               |      |      |              |    |                          |               |               |  |       |

All samples taken using Peristaltic Pump

Unless otherwise noted, all samples taken with GeoPump 2 and size 15 Geotech PP tubing and 0.45 um Geotech high capacity GW filters where applicable

New PP Tubing and hard tubing is used at each site for each sample event to prevent cross-contamination

| PRESERVATIVES & FILTERS |      |         |         |                 |       |
|-------------------------|------|---------|---------|-----------------|-------|
| ACID                    | FDEP | LOT #   | Expires | FILTERS         | LOT # |
| Sulfuric Acid           | X    | _091072 |         | Geotech 0.45 um |       |
| Nitric Acid             | X    | _140090 |         | Other           |       |

|                      |                       |                        |            |
|----------------------|-----------------------|------------------------|------------|
| YSI SONDE Meter ID # | SN: 99K0596 - Meter 7 | D O membrane changed?  | Y <u>N</u> |
| Batteries changed?   | Y <u>N</u>            | Sp Cond Probe cleaned? | Y <u>N</u> |

| CALIBRATION <i>(Pre Sample)</i> <i>(post sample)</i> |           |            |                                     |
|------------------------------------------------------|-----------|------------|-------------------------------------|
| DATE                                                 | 5/19/2011 | TIME (ETZ) | LOCATION: In Lab <u>On Site - X</u> |

| Dissolved Oxygen | mg/L | % SAT | TEMP °C | Pass/Fail  | Sp Cond      | Standard | Reading | Pass/Fail  | Lot #   | Exp. Date |
|------------------|------|-------|---------|------------|--------------|----------|---------|------------|---------|-----------|
| INITIAL          | 8.33 | 99.8  | 24.47   | <u>P</u> F | Initial      | 100      | 1017    | <u>P</u> F | 2002463 | Aug-11    |
|                  |      |       |         |            |              | 1000     |         |            | 2002464 | Aug-11    |
| CALIBRATED       | 8.32 | 99.9  | 24.40   | <u>P</u> F | Calibrated   | 100      | 1000    | <u>P</u> F | 2002463 | Aug-11    |
|                  |      |       |         |            |              | 1000     |         |            | 2002464 | Aug-11    |
| VERIFICATION     | 8.33 | 99.6  | 24.36   | <u>P</u> F | Verification | 100      | 1001    | <u>P</u> F | 2002463 | Aug-11    |
|                  |      |       |         |            |              | 1000     |         |            | 2002464 | Aug-11    |

  

| pH           | Standard | Reading | TEMP °C | Pass/Fail  | Exp. Date | Lot #   |
|--------------|----------|---------|---------|------------|-----------|---------|
| INITIAL      | 7.00     | 7.07    | 23.20   | <u>P</u> F | Nov-11    | _096106 |
|              | 10.00    |         |         | <u>P</u> F | Nov-11    | _096382 |
| CALIBRATED   | 7.00     | 7.00    | 23.24   | <u>P</u> F | Nov-11    | _096106 |
|              | 10.00    |         |         | <u>P</u> F | Nov-11    | _096382 |
| VERIFICATION | 7.00     | 6.99    | 23.27   | <u>P</u> F | Nov-11    | _096106 |
|              | 10.00    |         |         | <u>P</u> F | Nov-11    | _096382 |

|                                                                                                                                                                                                                                                                                     |                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)                                                                                                                                                                           |                                  |
| pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater) |                                  |
| SIGNATURE: EDGAR WADE <i>Edgar Wade</i>                                                                                                                                                                                                                                             | DATE: 5/19/2011 <i>5/19/2011</i> |