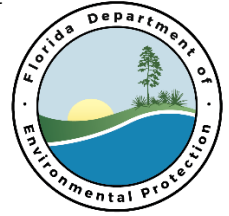


**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
2600 BLAIR STONE ROAD, MAIL STATION 3555
TALLAHASSEE, FL 32399-2400**



Instructions for use of this form: This form is to be used for Groundwater Management Section Monitoring Projects. The information requested here is the minimum needed for a successful audit. Therefore, all items should be completed with a "Yes," "No," or N/A (not applicable). A detailed explanation should be provided in the Comments when a method deviates from what is listed in the SOPs document. The question number should be shown with the explanation of the deviation. Additional information can be provided; attach more sheets if necessary. Complete one form per sampling site.

SAMPLING AGENCY:

PROJECT NAME:

FIELD PERSONNEL:

AUDIT TYPE: **Internal**____ **Announced** ____
 External____ **Unannounced**____

AUDITOR NAME(S):

AUDIT DATE: **SITE:**

AUDIT SUMMARY:

FD 1000

Documentation	Yes	No	N/A
1. Waterproof ink was used for all paper documentation.			
2. Errors in documentation were corrected without obliteration.			
3. Records are legible.			
4. Cleaning log completed correctly, with the following recorded:			
Source and date of analyte-free water.			
Date, time, and location of cleaning.			
Description of equipment cleaned.			
Cleaning protocol (may be citation of DEP SOPs or program SOPs).			
Name of personnel performing cleaning.			
5. Standards and buffers were logged appropriately, including the following:			
Concentration, lot numbers, date of receipt, expiration date, vendor, and initial date of use recorded.			
Certificates of assay retained.			
6. Equipment maintenance log completed correctly, with the following recorded:			
Unique ID for each piece of equipment.			
Maintenance and repair procedures.			
Filling solution replacement for probes.			
Parts replacements for probes.			
Date and time procedures performed on each unit.			
Names of personnel performing maintenance and repair.			
Descriptions of malfunctions and repair.			
Information about rental equipment (dates of use, type, description, etc.).			
Vendor service (vendor, date, type of service, etc.).			
7. Equipment manufacturer operation and maintenance manuals and instructions were retained.			
8. Instrument calibration log completed correctly, with the following recorded:			
Unique ID, make, and model for meter.			
Standards concentration, lot number, and date of expiration.			
Date, time, and results of each initial calibration and calibration verification (can link to sampling project).			
Name of analyst performing calibration and calibration verifications.			
Corrective actions performed on instrument with date and time and/or a note if instrument had to be removed from service.			
Citation to specific calibration and calibration verification procedures used (DEP SOPs or program SOPs).			
9. Sampling location properly documented (latitude/longitude, map, and photos)			
10. All sections of field sheet completed correctly, with the following recorded:			
Station information: station ID, spring name, date and time of sampling, and weather conditions.			
Water quality measurements: Secchi depth, stage, estimated sample depth, and field measurements.			
Sample preservation: identifying whether filtered or unfiltered sample, type of preservative, and placement of samples on wet ice.			
Any deviations from standard preservation protocols.			

Documentation	Yes	No	N/A
Samplers' comments and signatures.			
QA/QC collection.			
Chemical stability monitoring for field measurements.			
11. Sample bottles labeled properly, including the following:			
Date and time recorded on RQ and sample analyte label.			
Station identification bar code label placed vertically on container.			
12. Custody sheet completed and submitted correctly, including the following:			
RQ recorded in top right of custody sheet (RQ label or handwritten RQ).			
Sample agency, project, sampler names, and shipping method recorded.			
Station identifier, sample date and time, matrix, and field parameters for each sample included in shipment recorded.			
Any deviations from preservation protocols recorded.			
Notation was made if different project analytes from those listed on the reverse of the custody sheet were submitted.			
Copies were retained and submitted properly (white to lab, yellow to project manager, and pink to sampling agency).			
13. All sections of the micro land use sheet were completed properly in the field.			

Comments:

FQ 1000

Field Quality Control	Yes	No	N/A
1. Blanks were collected in same manner as samples and represent normal sampling conditions.			
2. Blanks were collected at the appropriate frequency.			
3. Field reference samples were analyzed under field conditions and were acceptable.			
4. Field reference samples were measured at the appropriate frequency.			

Comments:

FT 1000 – FT 1800

Field Testing and Calibration	Yes	No	N/A
1. All instruments or meters met DEP SOP specifications for accuracy, reproducibility, and design.			
2. All applicable parameters were corrected for temperature and/or salinity (where applicable) either manually or automatically.			
3. Sample measurements were chronologically bracketed between acceptable calibration verifications for all parameters.			
4. Sample measurements were quantitatively bracketed for all parameters between acceptable calibration verifications (except for ambient conductivity readings that are less than 100 $\mu\text{mhos/cm}$).			
5. An initial calibration verification was performed for each parameter immediately following calibration.			
6. If the ICV fails to meet acceptance criteria, the instrument is immediately recalibrated or removed from service.			
7. If any CCVs fail, additional attempts are made to meet the acceptance criteria or the instrument is recalibrated.			
8. Meter was rinsed with DI water between standards and allowed to stabilize before recording readings.			
9. pH was calibrated first with the 7 buffer, then a 4 or 10, depending on the expected sample range.			
10. Calibration verifications for pH were within ± 0.2 SU.			
11. pH probe was checked weekly to ensure a ≥ 90 % theoretical slope (if applicable to instrument type).			
12. Calibration verifications for conductance were within ± 5 %.			
13. Calibration verifications for DO were within ± 0.2 mg/L DO when compared with the table of theoretical values for water-saturated air.			
14. DO electrode was stored in a water-saturated air environment when not in use.			
15. Temperature was verified monthly at a minimum of two temperatures and met acceptance criteria of ± 0.2 °C.			
16. Field measurements were properly collected by placing the instrument(s) directly in the vent or within a flow chamber.			
17. All sample measurements were not collected until meter readings stabilized.			
18. Sample measurements were qualified with an "F" if instrument calibration could not be properly verified or if readings were not properly bracketed.			
19. Secchi depth was measured correctly to 0.1 m.			
20. Secchi measurement was qualified with an "L" if visible on bottom.			

Comments:

FS 1000, FS 2000

General Sampling Procedures, Miscellaneous	Yes	No	N/A
1. Paperwork, supplies and equipment were inventoried before going into the field.			
2. Most recent versions of field and custody sheets were used.			
3. Sampling manual was in the field vehicle.			
4. Equipment construction was appropriate for the analytes of interest.			
5. Sample container construction and materials were appropriate for the analytes collected.			
6. Sampling equipment and bottles were clean and equipment was in working order.			
7. Analyte free water was less than 1 week old.			
8. Samples were collected in a logical order.			
9. Care was taken to avoid cross-contamination of samples and contamination of the environment.			
10. Samplers wore new, clean, unpowdered gloves and changed as necessary.			
11. Care was taken to avoid contact with samples and sample container interiors.			
12. Containers were not pre-rinsed, especially if pre-preserved.			
13. Filtered samples were properly collected using a new 0.45-micron capsule filter if necessary			
14. Samples were properly preserved within 15 minutes.			
15. pH was tested on preserved samples; paper was not inserted into bottle.			
16. Headspace was left in all sample containers and all samples were filled with appropriate amount of sample.			
17. Samples were packed properly, including the following:			
Bacteria Whirlpaks packed together in bag.			
Acidified sample bottles packed separately.			
All samples placed together in large bag, protected from ice.			
Custody sheet completed, bagged, and placed in cooler.			
18. Secchi depth and stage height were determined if appropriate.			
19. At least one sampler on site has attended the Sampler Training Workshop.			

Comments:

FS 2100

Surface Water Sampling	Yes	No	N/A
1. Field measurements and samples were collected directly from the vent or conduit.			
2. Samples were obtained in a reproducible manner and were representative of the site.			
3. The depth for the field measurements and sample collection was determined and recorded to 0.1 meter.			
4. New tubing, laboratory-cleaned tubing, or in-place uncontaminated tubing was used to collect the samples.			
5. Pump or tubing intake placement at the required depth was accomplished by appropriate weighting or anchoring with noncontaminating materials to ensure unobstructed flow at the intake.			
6. Pump and tubing assembly was flushed with site water to allow at least 3 volumes of the pump and tubing to pass through the system prior to collecting the sample.			
7. Bottom sediments were not disturbed during the sampling process.			
8. Water samples were collected prior to sediment samples (if any).			
9. Samples collected at a river rise were collected from downstream towards upstream.			

Comments: