January 14, 2014

REVISED Office of Water Quality Water-Quality Information Note 2014.04

Subject: Guidance on coding samples that will exceed 500 results in the NWIS QWDATA system.

BACKGROUND: The QWDATA software currently allows entry of a maximum of 500 results per sample. Samples with more than 500 results in QWDATA also create output errors. Until recently, this limit was rarely encountered; however, new laboratory methods are able to detect many more constituents and use of these new methods has increased the number of results measured in single sampling events. Some samples from NAWQA Cycle III and Toxics programs have recently exceeded QWDATA results per sample limits. Until the QWDATA software is updated to allow entry and output of more than 500 results per sample, users must split results into two samples to store all the desired results for a single sampling event. The software will be updated to allow more than 500 results per sample in the NWIS 5.2 release planned for the summer of 2014, with the final installation planned by November 2014.

Coding guidance is provided in this document to help users code these samples in a consistent way to allow a relatively simple way to find and merge these samples back into one sample record after the QWDATA software is updated. If the coding is done exactly as described below, then software that will be included in the NWIS 5.2 release can be used to merge the split records back into one sample during the transfer from QWDATA 5.1 to QWDATA 5.2. Using this coding guidance can save you time by minimizing or eliminating any manual data manipulations that are needed to merge split samples into one record.

CODING GUIDANCE:

Pre-planning:

1. Users should evaluate their project sampling plans to identify events that will generate 500 or more results per sample. This total count should include field parameters and calculated parameters.
2. Samples where the result limit may be exceeded should be split into two samples by assigning separate sample keys (Agency, Site Number, Begin Date/Time, End Date/Time, and Medium Code). We recommend using the Date/Time fields to create unique split samples. A logical way to divide the results between the two samples is by laboratory schedule. Separate laboratory schedules into two different analytical services requests to ensure that each part will not exceed 500 results (including field results) and to ensure that each bottle will be assigned to only one ASR.

3. SAMPLE part #1:
    a. Code the first sample part with the sample BEGIN date and time and all other appropriate sample-level codes. Use this sample information on the Analytical Services Request (ASR) form #1
4. SAMPLE part #2:
    a. Code the second sample part with the same sample BEGIN date and time as SAMPLE part #1.
    b. Add a sample END date that is identical to the sample BEGIN date.
    c. Add a sample END time that is different than the sample BEGIN time (use your choice of time offset).
    d. Enter the same sample-level codes to this sample.
        i. Note: This is not a composite or replicate sample, so do not change the Sample Type code for a regular sample to "H" or "7" or change any other sample-level field.
    e. Use this sample information on the ASR #2. Request the remaining laboratory schedules.

Data Processing:

1. Log in each sample to QWDATA.
    a. Field data should only be entered for Sample part #1.
    b. Add a sample field comment to each sample part to identify samples which are split parts of a single sample. Use this text in each sample part:

        PR14205: Split sample

2. Process batch files from the laboratory(ies) as normal. You will have two records per sample. If any laboratory results are rejected, you must ensure that you make changes to the sample part with the appropriate begin date/time and end date/time fields.

Guidance on how to merge split samples that are not coded as described above will be issued after QWDATA 5.2 is released.

Please send email to phoenix@usgs.gov if you have any questions about this suggested coding.

WaQI Notes are archived on the Office of Water Quality web site,
http://water.usgs.gov/usgs/owq/WaQI/index.html

Signed,

The Office of Water Quality 1/14/2014

Distribution: All WMA Employees