

Date: April 27, 2010

To: The SWAMP Roundtable

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From: The Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Team (QAT) and Data Management Team (DMT)

Subject: Holding Time Violations and SWAMP Data Classifications

Background

Holding times are an increasingly important quality control (QC) parameter, one that plays a critical role in assessing data usability. Whether or not data is usable is directly dependent on the parameter in question and the magnitude of the holding time violation. Samples analyzed a day after the holding time expiration will still be flagged, however should be classified differently than the same set of samples analyzed two months after expiration. The data validation or classification process must also compare the magnitude of the holding time against the magnitude of the violation.

For example, consider a set of samples analyzed two days after the holding time has expired. If this set of samples had a holding time of six months between collection and analysis, the effect on data quality would be much less than if there was a 48-hour holding time between collection and analysis.

Assignment of SWAMP Data Classification for Holding Time Violation

A protocol has been developed for classifying SWAMP data that have been flagged for holding time violations. This system is similar to the system used in the National Functional Guidelines put forth by the EPA. The protocol takes into account the assertion that the magnitude of the holding time violation has a direct effect on data quality. However, while it does not take into account all of the complexity involved, it is a solid first step towards creating a system that considers holding times a critical part of the data quality.

Conventional and Metals Samples:

- Samples in which the holding time violation is less than two times the specified holding time will be classified as *Qualified*.
- Samples in which the holding time violation is greater than two times the specified holding time will be classified as *Estimated*.

Organics Samples:

- Samples in which the holding time violation is less than three times the specified holding time will be classified as *Qualified*.

- Samples in which the holding time violation is greater than three times the specified holding time will be classified as Estimated.

This protocol seeks a balanced approach toward classifying SWAMP data flagged for holding time violations. Once approved by the Roundtable, this protocol will be employed as part of the revised SWAMP Data Classification system.

Recommendations

The SWAMP QAT recommends that the Roundtable approve this protocol. This protocol was approved by the SWAMP QA Workgroup at the monthly QAT/QA Workgroup meeting held on April 22, 2010.