ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

**Date:** October 4, 2018

**To:** Brandon McDonald
ESAT Region 3 Project Officer

**From:** Ex. 4 CBI
Validator

Ex. 4 CBI
Reviewer

**Subject:** Organic Data Validation (S4VM)
Procino Plating
R35365 C0B49

## Overview

This data package consisted of three (3) Field Reagent Blanks (FRBs) and three (3) potable water samples analyzed for perfluorinated alkyl acid compounds by Liquid Chromatography/Mass Spectrometry (LC/MS). This sample set included a field duplicate pair.

Analyses were performed by Test America Sacramento (TAMC). The samples were submitted to the laboratory directly by the sampling contractor. The laboratory indicated analyses were performed according to EPA Method 537 utilizing a quantitative isotope dilution-internal standard technique.

Data were validated according to the National Functional Guidelines for Organic Superfund Methods Data Review and applicable USEPA Region 3 modifications. The validation report has been assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual).

The following validation narrative is an evaluation of laboratory reported data based on the electronic data package received by Region 3 on August 17, 2018.

The laboratory did not provide sufficient data to determine if branched chain isomers of PFOA were included in the reporting of this analyte in field samples. No data were qualified based on this finding.

## Summary

No significant data quality outliers or technical deficiencies were identified that would require rejection or estimation of sample results.

**Notes**

Accuracy and precision criteria were met by the laboratory in the initial and continuing calibration verification standard analyses associated with the samples in this Sample Data Group (SDG).

Analytes detected below RLs are estimated and have been qualified "J".

The method blank and FRBs associated with the samples in this SDG were free from contamination. No data were qualified based on blank contamination.

Percent recoveries for target analytes in the Laboratory Control Sample (LCS) analysis were within control limits. No field sample data were qualified based on LCS accuracy.

Percent recoveries and Relative Percent Differences (RPDs) for target analytes in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample C0B54 were within control limits. No data were qualified based on MS/MSD precision or accuracy.

The laboratory noted sample C0B54 MSD was observed to be a yellow color prior to extraction. No data was qualified based on this finding.

Results reported for field duplicate pair C0B52/C0B53 were comparable. No data were qualified based on field duplicate precision.

The samples in this SDG were found to be free of residual chlorine at the time of sample preparation by the laboratory. No data were qualified based on this finding.

The samples in this SDG were preserved and reported pH within the optimum range. No data were qualified based on these findings.

Manual integrations were performed and identified by the laboratory. A subset of these was evaluated by the reviewer and found to be accurate and consistent. No action was taken by the reviewer based on manual integrations.

Glossary of Organic Data Qualifier Codes

| Validation Qualifiers | In order of descending precedence. Only one of these qualifiers may apply to any result. |
|---|---|
| R | The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample. |
| UJ | The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise. |
| U | The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit |
| J | The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. |
| J+ | The result is an estimated quantity, but the result may be biased high. |
| J- | The result is an estimated quantity, but the result may be biased low. |

| Additional Qualifiers | Additional qualifiers may be combined with other qualifiers. |
|---|---|
| N | The analyte has been “tentatively identified” or “presumptively” as present. |
| B | The result is presumed a blank contaminant. This qualifier is used for drinking water samples only. |
| C | The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS). This qualifier may be added to other qualifiers. |
| X | The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed. This qualifier may be added to other qualifiers. |