

Data Validation Criteria for Water Quality Parameters Measured in the Field

Notes:

QA definitions of Data Quality Levels

A – Data of known quality; meets QC limits established in a DEQ approved QAPP.
B – Data of known but lesser quality; Data may not meet established QC but is within marginal acceptance criteria; or data value may be accurate, however controls used to measure Data Quality Objective (DQO) elements failed (e.g., batch failed to meet blank QC limit); the data is generally usable for most situations or in supporting other, higher quality data. (Equivalent to the “J” (estimated) qualifier used by EPA). Note: Statistics for turbidity, conductivity, and bacteria are concentration-dependent; thus low-concentration B level data may be considered acceptable for all uses.
C – Data of unacceptable quality; Generally due to QC failures but may be related to other known information about the sample. Data should not be used for quantitation purposes but may have qualitative use. (Equivalent to the “R” (rejected) validation qualifier used by EPA)
D – No data available; No sample collected or no reportable results. Samples are either voided or canceled.
E – Data of unknown quality; Insufficient QA/QC or other information available to make determination. Data could be acceptable; however, no evidence is available to prove either way. Data is provided for Educational Use Only.
F – Exceptional event; "A" quality data (data is of known quality), but not representative of sampling conditions as required by the project plan.(e.g., a continuous water quality monitor intended to collect background environmental conditions collects a sample impacted by a fire that created anomalous conditions to the environment).

Data Quality Level Grading Criteria:

A = Accuracy as determined by comparison with standards, e.g., during equipment calibration or pre- and post-deployment checks

P = Precision as determined by replicate measurements, e.g., during field duplicates, field audits, or split samples