

	Quality Management System Procedure [Laboratory Name]	Issue Date: YYYY/MM/DD	Rev.: 0
	QSP 5-04-1 – Estimation of Uncertainty		Page #: 1 of 3

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Purpose

To estimate the uncertainty of measurement in a test method.

Scope / Field of Application

All measurements from test methods, except when the test methods preclude such rigorous calculations.

Note – It is important to understand the major factors of uncertainty and provide appropriate control for all such factors. Concurrent analysis of reference materials or control samples with the test portion can be performed in place of purely mathematical estimation of uncertainty. If possible, the reference material or control sample shall be of identical or similar matrix as the matrices routinely tested by the test method. The uncertainty of the method can be estimated for the class of matrix and the variation described as the uncertainty in testing the specific matrix class at the average amount of analyte detected.

Definitions and Acronyms

Type A Uncertainty – determined through calculation from a series of repeated observations using statistical methods.

Type B Uncertainty – determined through judgment, based on data in calibration certificates, previous measurement data, experience with the behavior of the instruments, manufacturer’s specifications, and all other relevant information.

Uncertainty of Measurement – parameter associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the measurand.