



May 4, 2009

Office of Water Quality Water-Quality Information Note 2009.09

Subject: Spike Calculator, a tool in development for the evaluation of quality-control spike sample results

The Office of Water Quality and NAWQA are funding a project this year to develop a tool for analyzing the results of quality-control samples collected to assess analysis recovery efficiency. The Spike Calculator will be a web-based tool that will allow Water Science Center (WSC) staff to calculate the percent recovery of quality-control compounds spiked into environmental samples and analyzed at the National Water Quality Laboratory (NWQL).

The Spike Calculator is planned for release in October 2009, and training will be provided. Beta testing is scheduled for August, when a few individuals and NWIS hosts not previously involved in the development will be needed as testers. If you are interested in helping, please contact Phethala Thongsavanh in the Wisconsin WSC at 608-821-3895 or thongsav@usgs.gov.

Background

All data necessary for calculating spike recovery are stored in QWDATA or the NWQL Laboratory Information System (LIMS). The calculations are logically simple but just tedious enough to invite arithmetic errors. With this tool, USGS staff will be more likely to make the calculation and, thus, to better understand and interpret their environmental analytical results.

The tool will read QWDATA record pairs from a local NWIS database using a retrieval-only Java database connection from an internal USGS host. It will never write to any NWIS database. Any needed data corrections that the tool might help to identify will be completed using standard NWIS tools by WSC users using their individual credentials and authority.

Development of the tool is underway, and initial testing will use a dedicated NWIS test server. Later testing will use several WSC NWIS systems, including the volunteers requested above. For more information about this project, check out the "Spike Calculator" link under "Software" on the internal Office of Water Quality web page (<http://water.usgs.gov/usgs/owq/>), which provides links to the requirements and discussion history.

Signed,

The Office of Water Quality
05/04/2009

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