



Idaho State Police

Service Since 1939



Colonel Ralph W. Powell
Director

C.L. "Butch" Otter
Governor

April 11, 2013

Prosecuting and Defense Attorneys, Sheriffs and other Law Enforcement

RE: ISPFS Updated Ethyl Alcohol Uncertainty of Measurement Reporting

Idaho State Police Forensic Services (ISPFS) will change the numerical value and manner of uncertainty of measurement (UM) reporting in ethyl alcohol cases effective April 15, 2013. ISPFS seeks to continue to provide reliable and interpretable test results in each case. As a part of our continued quality efforts, ISPFS recently evaluated the uncertainty of measurement approach, calculations, and reporting in response to changing accreditation requirements imposed upon the laboratory.

ISPFS hired a professional metrology consulting company to assess the Idaho UM approach against evolving national accreditation standards, and to work with scientists and management to make necessary adaptations to the state of Idaho UM approach. ISPFS performed an exhaustive mathematical exercise to account for all potential UM contributing factors for quantitative analysis of ethyl alcohol. This new UM budgeting approach allowed ISPFS to look more specifically at the contributions of individual UM components. Because the method used previously was validated for the time it was utilized, no previous cases need to be reevaluated using the new UM method.

ISPFS will implement the following reporting changes on April 15th as a result of this assessment:

- ISPFS will increase from a 95% confidence interval (CI) to a 99.7% CI
- The ISPFS calculated UM at a 99.7% CI is +/- 5%
- The UM will now be reported in the same units as the quantitative ethyl alcohol results (e.g. 0.080 g/100 cc blood +/- 0.004 g/100 cc blood)

ISPFS constantly monitors the UM calculations reported by the laboratory. In addition to constant quality data monitoring, ISPFS evaluates the potential UM contributions of newly trained analysts or newly validated instrumentation. ISPFS will continue to report future changes made to the UM number on each laboratory report.

ISPFS scientists are ready to testify about the new confidence interval, the new UM value, or the new reporting convention. Reporting scientists will answer any case related or technical questions. Please contact ISPFS Alcohol Discipline Leader Jeremy Johnston at jeremy.johnston@isp.idaho.gov or ISPFS Quality Manager Matthew Gamette at matthew.gamette@isp.idaho.gov for additional administrative questions on this topic.

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