



Wisconsin Water Science Center



Capabilities Summaries

Wisconsin Water Science Center, Middleton, Wisconsin

Mercury Research

Contact David Krabbenhoft (608 821-3843, dpkrabbe@usgs.gov); or <http://infotrek.er.usgs.gov/mercury> for more information.

Science Support for Mercury Research

Mercury is an issue that is currently confronting resource managers and regulators in the US and globally. As recently as ten years ago it would have been difficult to consider remediation strategies, but with a rapidly increasing scientific understanding, possible solutions are now being discussed. The Mercury Research Lab (WMRL) in the USGS Wisconsin Water Science Center (WIWSC) office in Middleton, Wisconsin is a national leader in mercury research and a major contributor in many areas of advancing scientific understanding. The WMRL provides expert assistance to the USGS and other State and Federal agencies. Assistance is provided through execution of studies, sample analysis for the Bureau and other federal and state agencies, methods development for field and lab procedures, interpreting data, and drafting reports. We strive to provide the best possible data and service by remaining on the cutting edge of mercury research, and maintaining a state-of-the-art mercury analysis laboratory.

Low-Level Speciation Analysis

As recently as 15 years ago, researchers could not reliably measure the concentration of mercury in environmental samples due to the very low levels generally observed. The WMRL has a well-established, international reputation for excellence in the quantification and speciation of mercury in all forms of environmental samples (water, sediment, biota, and air). We have developed and published papers for most of our methods, but will always continue to strive to improve our capabilities. As new approaches or ideas come forth and provide promise for improved speciation, sensitivity, or sample

through-put, the WMRL will seek to employ these procedures.

Scientific Leadership, Study Design, and Execution

The WMRL is involved in studies from Alaska to Florida, and from California to Maine. Our studies are always on the leading edge among researchers internationally, and often are done collaboratively with large research teams both within the USGS and outside the Bureau. Often our projects are designed to provide an answer to land-resource management questions from DOI agencies or other state and federal agencies. Researchers from the WMRL are available to provide scientific consultation regarding local and regional mercury issues.

