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Mohrman begins new post as NWQL Chief

Gregory (Greg) B. Mohrman took over as new Chief of the U.S. Geological Survey's National Water Quality Laboratory at the Denver Federal Center effective March 27 following an introduction to all hands by Janice Ward, Acting Chief, Office of Water Quality.

Mohrman comes to the NWQL from the Rocky Mountain Arsenal in Denver, where he was named Executive Director in 1998. In May 1999, he was assigned full time to serve as the Commander's Representative at the Arsenal, where he worked as a civilian, on-site manager. (The Commander is stationed at Aberdeen Proving Ground in Maryland.) As the Commander's Representative, Mohrman was responsible for primary support functions, including laboratory operations, infrastructure, resource management, health and safety, fire, police and personnel.

Mohrman was born in Columbus, Nebraska in 1956, moved to Kersey, Colorado in 1963, and then to Greeley, Colorado in 1964. He attended Greeley public schools and the University of Northern Colorado, where he earned a bachelor's degree in chemistry in 1978. In November 1979, he was hired by the U.S. Department of the Army to work at Rocky Mountain Arsenal. He was assigned to the "demil" laboratory, which supported the demilitarization and destruction of chemical warfare agents. For 3.5 years he worked as a bench and plant chemist with responsibility for analyzing air samples for plant and stack contamination. He was also responsible for real-time monitoring equipment in the demilitarization plant, which protected workers and the environment.

In 1983, Mohrman was hired by the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) at the Edgewood Area of Aberdeen Proving Ground in Maryland. USATHAMA was the Army's lead agency for both chemical demilitarization and installation restoration, the latter mission related to the environmental restoration and cleanup of Army installations. For the next 4 years he was assigned as a staff scientist and worked on research and development projects that related to the disposal of the Army's stockpile of unitary chemical weapons. He worked at many of the Army installations where disposal operations were being performed to test various air and stack monitoring systems. He also worked on the project team that demonstrated the technical feasibility of confirming the destruction of chemical weapons for treaty purposes. He conducted one of the very first international demonstrations at a facility in Utah. He also helped to set up and begin operations of the first chemical agent laboratory on Johnston Atoll in the Pacific Ocean. Johnston Atoll is one of the Army's chemical stockpile sites.

In 1987, the chemical demilitarization program was split away from the installation restoration mission to become a separate agency. Mohrman stayed with USATHAMA and began working in a research branch that identified and tested novel environmental restoration technologies. The research ranged from laboratory to pilot scale.

Technologies ranged from the composting of explosive contaminated soil to a hot gas decontamination system for explosive and chemical agent contaminated buildings. Many of the technologies tested were later used for full-scale projects. He also helped to develop new sampling and analysis techniques for soil and groundwater, including instrumentation for cone penetrometers and down-hole samplers for wells.

In 1989, he returned to Rocky Mountain Arsenal to take the lead of the chemistry program, which was dedicated to supporting the Remedial Investigation/Feasibility Study (RI/FS) phase of the environmental program. The laboratory program was responsible for the analysis of air, water, soil, biota, and structural materials. At the height of the RI/FS program, he had about 10 to 12 contract laboratories working on the program. In 1991-92, he built and began operations in a new on-site laboratory capable of handling any sample matrix and with a special emphasis on the ability to handle chemical warfare agents and the analysis of these compounds.

In 1995, Mohrman was reassigned from his position as Chief, Laboratory Support Division to become the Executive Director for the Commander/Program Manager. He was responsible for nearly all support functions, including facilities, fire and police, logistics, information management and personnel management. He also developed the Program Management Contract (PMC). The PMC is the prime contract for completing the environmental remedy at Rocky Mountain Arsenal. Total cost for the remedy is estimated to be about \$1.2 billion.

In 1997, Mohrman joined a new office being formed at Aberdeen Proving Ground. The new group was called the Program Manager for Assembled Chemical Weapons Assessment (PMACWA). The mission was to identify and test novel technologies for the destruction of chemical weapons. With many citizen groups opposing the use of incineration for weapons disposal, Congress authorized a 2-year program to look at new technologies. Mohrman served as the Environmental Team Leader for PMACWA and was responsible for all documentation to support the demonstration testing. Team members were located at Rocky Mountain Arsenal and Aberdeen Proving Ground. Over 2 years, six technologies were identified and three were actually taken to the demonstration phase of the program. A final report to Congress was prepared that summarized the results of the demonstrations. One novel aspect of this program, said Mohrman, was the amount of public involvement. Open meetings were conducted across the country near several of the chemical stockpile sites.

Mohrman is married to Alison, and they have two children, Lindsay, 13 and Tyler, 11. Alison is a registered nurse who works in the operating room at Poudre Valley Hospital in Ft. Collins.



BEEFING UP ANALYTICAL

CAPABILITY—The Liquid Chromatography Unit has added a Hewlett Packard liquid chromatograph/mass selective detector (LC/MSD) to catch up on a sample backlog for determining polar pesticides. Three of the \$150,000 systems are now online and a fourth LC/MSD is on order and expected within the month. Terry Burbank, NWQL chemist, is shown checking out the new equipment. It takes a couple of weeks to set it up and validate the system against the manufacturer's specifications.

Organic Chemistry Program offers ACS training course

About 70 Laboratory staff members attended a short course March 2 and 3 at the Denver Federal Center to study the time and cost of methods development and to improve the effectiveness and quality of chromatographic methods. The program was designed for laboratory managers, supervisors, chemists, and technicians working in methods development, process testing, quality control, and analysis.

The course—How to Develop, Validate, and Troubleshoot Capillary Gas Chromatography and High-Performance Liquid Chromatography Methods—was taught by instructors from the American Chemical Society (ACS). It was arranged by Mark Burkhardt, chief of the Organic Chemistry Program at NWQL.



CHROMATOGRAPHY SHORT

COURSE—Stuart Cram instructs a class of NWQL managers, chemists, and technicians on the fine points of developing, validating, and troubleshooting chromatographic methods. Cram is the Worldwide Business Development Manager for the Chemical Analysis Group of Agilent Technology, in Palo Alto, Calif. He is one of the highest rated instructors in the continuing education program of the American Chemical Society.

Letters, faxes, and E - mail

Good article on rounding in the latest Newsletter [see Jeff Pritt, January 2000, p. 7 and 8]. I commend you for doing a good job on this issue. I think the only point that some will argue is where do we cut off significant figures? The ASTM recommendation, which, as I read it, looks much the same as Standard Methods, is highly defensible. If anyone argues for any fewer digits than the least significant digit (as you defined it), tell them to stick their head back in the sand. The one extra digit (beyond the least significant digit) seems acceptable as long as the software works to round appropriately to only significant figures. I still think that sticking to the least significant digit is acceptable for most, and note that in many cases, this will result in reporting of 2 to 3 significant figures for values previously reported to 1. But if you can satisfy more users by giving them an "extra" (nonsignificant) digit, then so much the better.

MARK BRIGHAM
NAWQA Program
Minneapolis, Minn.

As reviewers, editors, and general troublemakers for authors, we need to be aware of how significant figures determined from information about precision of laboratory analyses are handled differently from significant figures for measurements, such as discharge measurements. Apparently, when traditional rounding methods are applied to analytical results from modern lab instruments, significance can be under-reported. This article [by Jeff Pritt] describes what NWQL is planning to do to rectify the problem, as well as the basis for the change in procedures. By being aware of the new procedures, we can avoid correcting significant figures of laboratory data that should not be corrected in reports we review.

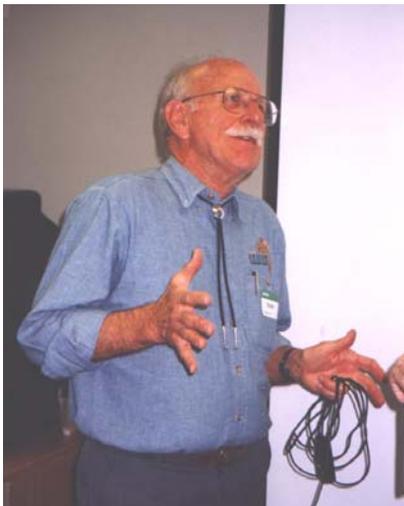
I discussed this with Melanie Clark, who described how controversial the subject of rounding data from NWQL has been among WRD hydrologists. I had no idea! It seems to me, and Melanie agrees, that the adoption of the new procedures, which are based on standard practices published by American Society for Testing and Materials, should end the controversy. Well, maybe not entirely; there always seem to be a few who like to be different! Thanks for sending me the Newsletter. Very professional looking. Congratulations!

JAMES F. WILSON
USGS Volunteer for Science
Cheyenne, Wyo.

MARLAP reviews requested

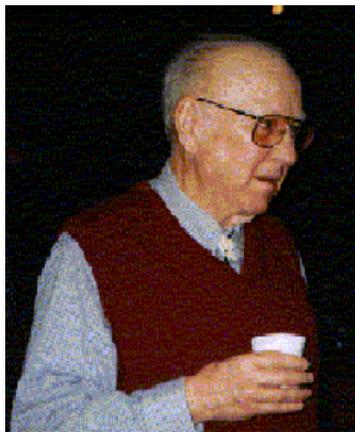
The MARLAP (Multi-Agency Radiological Laboratory Analytical Protocols) manual has been released for agency review. This guidance document includes all aspects of a radiological project-from planning and sample analysis to reporting (data verification and assessment). Also included in the manual are chapters on statistics, development of a statement of work, quality assurance and quality control.

U.S. Interior Department personnel who are involved in radiological work are encouraged to review the document and make comments. All Federal agencies eventually will be asked to accept and follow the manual. For information and a password to access the manual on the Web, send request via E-mail to Ann Mullin (ahmullin@usgs.gov).



MENDENHALL RESEARCH LECTURER-Robert H. Meade spoke to NWQL employees December 1 on the topic of "Large Rivers and Their Flood Plains as Conveyers and Storers of Sediment and Contaminants." Meade, a USGS Volunteer for Science, focused on issues of erosion and sediment storage and transport in drainages affected by human activities. He also discussed contaminant transport and storage in the suspended phase of fluvial systems.

WRITING WORKSHOP DRAWS A CROWD- About 28 NWQL employees were enrolled in the Technical Writing Workshop 2000 taught by Anton (Tony) Pegis March 7 to 9 at the Denver Federal Center. Pegis has taught the popular course throughout the U.S. Geological Survey.



GLOBAL WARMING-Mark F. Meier, professor emeritus of geological sciences, Institute of Arctic and Alpine Research (INSTAAR) at the University of Colorado, Boulder, presented a seminar January 20 entitled "Global Warming Is Real: The Glaciers Tell Us So." Meier worked as a research glaciologist and hydrologist for the USGS in Washington State for 30 years before becoming director of INSTAAR. NWQL co-hosted the seminar with the Geologic Division's Global Change and Climate History Team.

New publications by Laboratory authors

Garbarino, J.R., and Hoffman, G.L., 1999, Methods of analysis by the U.S. Geological Survey National Water Quality Laboratory-Comparison of nitric acid in-bottle digestion procedure to other whole-water digestion procedures: U.S. Geological Survey Open-File Report 99-094, 21 p.

Garbarino, J.R., 2000, Methods of analysis by the U.S. Geological Survey National Water Quality Laboratory-Determination of whole-water recoverable arsenic, boron, and vanadium using inductively coupled plasma-mass spectrometry: U.S. Geological Survey Open-File Report 99-464, 15 p.

Kociolek, J.P., and Kingston*, J.C., 1999, Taxonomy, ultrastructure, and distribution of some gomphonemoid diatoms (Bacillariophyceae: Gomphonemataceae) from rivers in the United States: Canadian Journal of Botany, v. 77, no. 5, p. 686-705.

Moulton, S.R., and Harris, S.C., 1999, Redescriptions of the Oxyethira aeola Group species in North America (Trichoptera: Hydroptilidae): Clarification of a taxonomic enigma: Journal of North American Benthological Society, v. 18, no. 4, p. 545-552.

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