



Photo courtesy Public Information Office, NMIMT

Bureau Chief (1991–1999) steps down

Dr. Charles E. Chapin is stepping down from the position of State Geologist and Director of the New Mexico Bureau of Mines and Mineral Resources (NMBMMR) to resume his research interests. During Dr. Chapin's 8-year tenure as Bureau Director, a number of new programs and facilities have broadened the services available to New Mexico residents and professional geologists.

1991. A state-of-the-art facility for $^{40}\text{Ar}/^{39}\text{Ar}$ radioisotopic dating is established in cooperation with Los Alamos National Laboratory and New Mexico Institute of Mining and Technology (NMIMT). The facility determines eruption ages for volcanic rocks and ashes, investigates cooling histories of intrusive and metamorphic rocks, and has also dated unconventional geologic material such as alunite associated with the formation of Carlsbad Caverns and potassium-bearing minerals from ore deposits. The Bureau has compiled a comprehensive database, available on CD-ROM, of over 3,000 published and unpublished ages of New Mexico rocks and minerals from all types of radioisotopic age determinations performed by various laboratories and individuals.

1992. An Albuquerque branch office opens concentrating on water-resource issues in the middle Rio Grande valley.

1992. In the Fall of 1992 the public is treated to the first issue of *Lite Geology*, a quarterly publication designed to present educators and the public with contemporary geological topics, issues, and events in an easily understood format. Regular readers discover the scope of research by geoscientists: mercury levels in fish, dangerous rockfalls along NM-68, radon gas in our homes, chlorine isotopes in pack-rat nests indicate global climate change, ground-water resources, the importance of minerals in a person's daily life, just to name a few.

1993. NMBMMR joins the National Cooperative Geologic Mapping Program, the federally funded STATEMAP program that was authorized through the National Geologic Mapping Act of 1992 and reauthorized in 1997. By the end of 1999, thirty-seven 7.5-min detailed geologic quadrangle maps will be available, primarily from the rapidly developing middle Rio Grande corridor between Socorro and Taos.

1994. A computerized digital cartography laboratory that was initially applied to compiling a new state geologic map begins to support a growing number of research projects with GIS data and digital map production. Today, lab staff produce digital maps (DGM

series) for the federally funded STATEMAP program as both print-on-demand color maps and ARC/INFO coverages.

1994. A Geologic Extension Service (GES) is established as a public outreach program to serve nongeologists and teachers by publishing a *Guide to Services* and by developing traveling displays, demonstrations, and workshops for students and teachers. The GES also handles a steady stream of inquiries from the public and individuals in government and industry seeking information on the water and mineral resources and geology of New Mexico.

1995. The Bureau's mineral collection of more than 12,000 specimens moves to a new 4,100 ft² museum facility in the renovated Workman Addition, also known as the Gold Building. The museum is an important part of the educational outreach program of the NMBMMR. An estimated 10,000 visitors annually view the museum exhibits, and the museum staff provide dozens of special tours and educational programs for school groups.

1996. An electron microprobe laboratory, a facility shared by the Bureau and NMIMT, is added to the other analytical equipment residing in the Workman Addition. The electron microprobe is a high-powered electron microscope capable of microchemical analysis of a 1-micron spot on a sample, as well as extremely high magnification of geological and metallurgical samples. The "probe" complements the Bureau's other X-ray analysis facilities and adds previously unavailable microbeam capabilities.

1997. New analytical laboratories for chemistry, hydrology, extractive metallurgy, and for testing soils, clays, and perlite open their doors in the new Workman Center, replacing those demolished with the old building. Low cost water-quality, soil-testing, and ore-assaying services are provided to researchers and the public.

1998. The Bureau's website <<http://geoinfo.nmt.edu>> evolves in just 3 years into a major source of information. Visitors to the Website can learn about current oil and gas research and about the Bureau's library of subsurface data and core library, or about coal resources in the state, or about the Bureau's work in environmental geology, geologic hazards, and hydrogeology. Visitors can peruse and order from lists of publications, maps, and open-file reports, or they can link to a separate Bureau site on earthquakes: <<http://tremor.nmt.edu>>.

—Jane C. Love and
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