

## New publications

### NMBMMR

\***Pricelist 23**—Publications available from New Mexico Bureau of Mines and Mineral Resources, June 1992, 40 pp. FREE

### USGS

#### BULLETINS

**1808-L**—Clastic pipes of probable solution-collapse origin in Jurassic rocks of the southern San Juan Basin, New Mexico, by R. E. Hunter, G. Gelfenbaum, and D. M. Rubin, 1992, 19 pp.

**1808-M**—Sedimentology and depositional environments of the Lower Permian Yeso Formation, northwestern New Mexico, by J. D. Stanesco, 1991, 12 pp.

**1971**—Field studies of radon in rocks, soils, and water, edited by L. C. S. Gundersen and R. B. Wanty, 1991, 334 pp.

**1985**—Shorter contributions to paleontology and stratigraphy, edited by W. J. Sando, 1991, 30 pp.

#### CIRCULARS

**1069**—Short papers of the U.S. Geological Survey Uranium Workshop, 1990, edited by K. A. Dickinson, 1992, 56 pp.

**1074**—USGS research on energy resources 1992, edited by L. M. H. Carter, 1992, 89 pp. (Eighth V. E. McKelvey forum on mineral and energy resources, program and abstracts)

#### GEOLOGIC QUADRANGLE MAP

**GQ-1697**—Geologic map of the Heart Rock quadrangle, McKinley County, New Mexico, by J. F. Robertson, 1992, scale 1:24,000.

#### WATER-RESOURCES INVESTIGATIONS

**WRI-89-4091**—Water resources on the Pueblos of Jemez, Zia, and Santa Ana, Sandoval County, New Mexico, by S. D. Craigg, 1992, 122 pp.

**WRI-89-4192**—Evaluation of the Bidahochi and San Andres-Glorieta aquifers on parts of the Zuni Indian Reservation, McKinley and Cibola Counties, New Mexico, by T. M. Crouch, 1991, 48 pp.

**WRI-91-4084**—U.S. Geological Survey research in radioactive-waste disposal; fiscal years 1986-1990, compiled by N. J. Trask and P. R. Stevens, 1991, 90 pp.

**WRI-91-4099**—Simulation of ground-water flow in the San Andres-Glorieta aquifer in the Acoma embayment and eastern Zuni uplift, west-central New Mexico, by P. F. Frenzel, 1992, 381 pp.

**WRI-92-4037**—Results of simulations by a preliminary numerical model of land subsidence in the El Paso, Texas, area, by J. M. Kernodle, 1992, 35 pp.

### Other publications

Clayton, J. L., Rice, D. D., and Michael, G. E., 1991, Oil-generating coals of the San Juan Basin, New Mexico and Colorado, U.S.A.: *Organic Geochemistry*, v. 17, no. 6, pp. 735-742.

González, L. A., Carpenter, S. J., and Lohmann, K. C., 1992, Inorganic calcite morphology: roles of fluid chemistry and fluid flow: *Journal of Sedimentary Petrology*, v. 62, no. 3, p. 382-399.

Haneberg, W. C., 1992, Drape folding of compressible elastic layers—I. analytical solutions for vertical uplift: *Journal of Structural Geology*, v. 14, no. 6, pp. 713-721.

Hansley, P. L., and Spirakis, C. S., 1992, Organic matter diagenesis as the key to a unifying theory for the genesis of tabular uranium-vanadium deposits in the Morrison Formation, Colorado Plateau: *Economic Geology*, v. 87, no. 2, pp. 352-365.

Hoffman, G. K., Beaumont, E. C., Bellis, D., 1992, Environmental controls related to coal quality variations in the Fruitland Formation, San Juan Basin, New Mexico; in McCabe, P. J., and Parrish, J. T. (eds.), *Controls on the distribution and quality of Cretaceous coals: Geological Society of America, Special Paper 267*, pp. 37-55.

Kottlowski, F. E., 1992, AAPG Honorees, 1992: Sherman A. Wengerd, Sidney Powers Memorial Award: *American Association of Petroleum Geologists, Bulletin*, v. 76, no. 7, pp. 1050-1051.

Mack, G. H., 1992, Paleosols as an indicator of climatic change at the Early-Late Cretaceous boundary, southwestern New Mexico: *Journal of Sedimentary Petrology*, v. 62, no. 3, pp. 483-494.

McIntosh, W. C., Chapin, C. E., Ratté, J. C., and Sutter, J. F., 1992, Time-stratigraphic framework for the Eocene-Oligocene Mogollon-Datil volcanic field, southwest New Mexico: *Geological Society of America, Bulletin*, v. 104, pp. 851-871.

Reiter, M., Barroll, M. W., Cather, S. M., 1992, Rotational buoyancy tectonics and models of simple half graben formation: *Journal of Geophysics Research*, v. 97, no. B6, pp. 8917-8926.

Smith, E. W., and Austin, G. S., 1992, Modern adobe in New Mexico: New Mexico Energy, Minerals and Natural Resources Dept., New Mexico State University Cooperative Extension Service, and Economic Development/Communications Office University of New Mexico, 29 pp.

Van Wagoner, J. C., and others, 1992, Sequence stratigraphy applications to shelf sandstone reservoirs—outcrop to subsurface examples: *American Association of Petroleum Geologists, AAPG Field Conference, September 21-28, 1991*, variously paginated. (Field trips on days six and seven and the accompanying overview papers pertain to New Mexico.)

Wood, W. W., Sanford, W. E., Reeves, C. C., Jr., 1992, Large lake basins of the southern High Plains: ground-water control of their origin?: *Geology*, v. 20, no. 6, pp. 535-538.

## Open-file reports

### NMBMMR

\***385**—Geological study of the North American Cordillera (volume 13, number 2 of *Bulletin des Centres de Recherches Exploration-Production Elf-Aquitaine*, December 1989), by B. Plauchut, M. Tardy, R. Blanchet, M. Zimmermann, P. Cabezas, T. Rosaz, and M. Sosson, 1989, 80 pp., 1 table 16 figs. (text in French with English abstracts and figure captions). \$16.00

\***386**—The transition from the North American Cordillera to the Mexican Sierra Madre along the Texas lineament, by T. M. Rosaz, 1990, 416 pp., 154 figs., 5 appendices, 9 sheets (text in French with abridged English version and English figure captions). \$96.70  
Abridged English version, 24 pp. \$4.80  
A summary paper in French is included in Open-file Rept. 385.

\***388**—Field notes supporting the fossil collections from New Mexico, by A. L. Bowsher, 1992, 420 pp.; sections 388-A-388-H may be ordered separately. \$84.00

### USGS

**91-244**—Proceedings of the United States-People's Republic of China bilateral symposium on Droughts and arid-region hydrology, Sept. 16-20, Tucson, Arizona, compiled by W. H. Kirby and T. Weiyan, 1991, 342 pp.

\***91-634**—Landform classification of New Mexico by computer, by R. Dikau, E. E. Brabb, and R. M. Mark, 1992, 16 pp., 2 sheets, scale 1:1,000,000. \$6.20

\***92-187**—Preliminary geologic map of the Tularosa Canyon quadrangle, Catron County, New Mexico, by J. C. Ratté, 1992, scale 1:24,000. \$1.50

\***92-257**—Regional stratigraphic cross sections of Upper Cretaceous rocks across the San Juan Basin, northwestern New Mexico and southwestern Colorado, by C. M. Molenaar and J. K. Baird, 1992, 3 sheets. \$4.50

\***92-261**—Mineral and energy resources of the BLM Roswell Resource Area, east-central New Mexico, by S. Bartsch-Winkler, 146 pp., 22 tables, 40 figs., 1 appendix, 14 sheets. \$70.20



# New Mexico Bureau of Mines and Mineral Resources staff notes

The following NMBMMR staff members were promoted to senior status: **Orin Anderson**, Sr. Geologist; **Gretchen Hoffman**, Sr. Coal Geologist; **Jiri Zidek**, Sr. Geologist/Editor. **John Lewis** was hired as a geological technician to do geochronology, mineral separation and paleomagnetism; **David Coss** was hired for the summer as a lab and field technician to work on the hydrologic and sedimentologic studies in the Albuquerque Basin. Anniversaries of our staff with five or more years of service from June through August are: **Charles Chapin**, 22; **Albert Baca**, 20; **Barbara Popp**, 14; **Orin Anderson**, 13; **Dave Love**, **Lynne McNeil**, and **Virginia McLemore**, 12; **Jane Love**, 11; **Annabelle Lopez** and **Manuel Vasquez**, 9.

Meetings attended by NMBMMR staff members include Water Quality Control Commission (**Lynn Brandvold**); Fine Particle Society short courses and equipment exhibition (**Abe Gundiler**); New Mexico Mining Association Board of Directors Meeting (**Charles Chapin** and **Frank Kottlowski**); Electronics exposition and symposium (**Abe Gundiler**); Sandia Labs Technology Transfer Support Group meeting (**Abe Gundiler**); Mine Waste conference and short course (**Steve Haase**); GIS Advisory Council meeting (**Glen Jones**); Geographic Information Council (**Dave Love**); State Mapping Advisory subcommittee (**Dave Love**); AGU conference (**William McIntosh**); AASG annual meeting (**James Robertson**); Rocky Mountain gas atlas coordinating meeting (**James Robertson**, **Neil Whitehead**, and **Carol Hjellming**); North-central GS/PS/SEPM meetings (**Don Wolberg**).

**George Austin** and **Jim Barker** presented a paper, "Overview of industrial minerals transport," at the 28th Forum on the Geology of Industrial Minerals in Morgantown, West Virginia; "Carbon dioxide in northeast New Mexico—sources for enhanced oil recovery," talk by **Ron Broadhead** to West Texas Geological Society in Midland, Texas; **Charles Chapin** presented three talks, "Origin and evolution of the Southern Rocky Mountains," to UNM Geology Dept. seminar, "Origin and evolution of the Rio Grande rift," to Plateau Sciences Society, "Episodic late Eocene-early Miocene volcanism in the southwestern United States," to U.S. Geological Survey workshop on laccoliths of southeastern Utah; talks presented to the U.S. Forest Service regional symposium were "Industrial mineral potential and trends on U.S. Forest Service lands in southwestern New Mexico" by **Jim Barker** and "Overview of metallic mineral resources on U. S. Forest Service lands in southern New Mexico and potential for future exploration and development" by **Bob Eveleth**; at the Second Annual Seminar on Adobe, Museum of International Folk Art in Santa Fe, **George Austin** presented "Pressed adobe, the portable adobemaking machine." Several of our staff attended one-day workshops in Albuquerque: "How to supervise people, for the newly appointed supervisor and manager," **Norma Meeks** and **Ruben Crespín**; "WordPerfect skill building for intermediate users," **Theresa Lopez**, **Lynne McNeil**, and **Debbie Goering**; "Building budgeting skills," **Lois Devlin** and **Judy Vaiza**. **Gretchen Hoffman** and **Frank Kottlowski** attended the AAPG

national meeting where **Gretchen** served as Education Councillor for Energy Minerals Division and **Frank** was citationist when **Sherman A. Wengert** (UNM Emeritus Professor) received the **Sidney Powers Memorial Award**, AAPG's highest honor. **Neil Whitehead, III** was coauthor of report receiving EMD's best paper award.

**Steve Haase** and **John Hawley** gave a presentation, "Hydrogeology of the northern Albuquerque Basin," to Sandia National Lab/Kirtland Air Force Base environmental interface group; **Steve's** talk to U. S. Bureau of Reclamation/City of Albuquerque seminar on current research on the Albuquerque Basin was "NMBMMR Albuquerque Basin research"; **Bill Haneberg** spoke on "Detailed observations of movement near an earth fissure in the Mimbres Basin" to Flat Earth Society of Albuquerque and also "Thin-plate analysis of land subsidence and fissuring in the Mimbres Basin, southern New Mexico" to GSA Cordilleran section meeting in Eugene, Oregon; **Dave Love** participated in the paleoflood workshop and field trip in Flagstaff, Arizona; **Neil Whitehead, III** attended the New Mexico Oil Conservation Division "State of the Industry" meeting and presented an exhibit about the petroleum section at NMBMMR; **Neil** also attended the sixth annual BLM nationwide natural gas policy act (NGPA) seminar in Albuquerque; **Jacques Renault** presented a talk, "X-ray diffraction analysis of crystallite size and strain" to the Materials/Metallurgical Engineering Department.

Articles by **George Austin**, **Steve Cather**, **Charles Chapin**, **Bill Haneberg**, **Gretchen Hoffman**, **Bill McIntosh**, **Frank Kottlowski**, and **Marshall Reiter** are referenced in *Service/News*, *Other publications*. **Virginia McLemore** contributed a paper to *Short papers of the U.S. Geological Survey Uranium Workshop, 1990*, U.S. Geological Survey Circular 1069.

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