

**U.S. Department of the Interior
U.S. Geological Survey**

New Publications of the U.S. Geological Survey

Lists 1122–1124—Publications issued January–March 2002

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Permanent catalogs “Publications of the Geological Survey, 1879–1961” and “Publications of the Geological Survey, 1962–1970” may be purchased in paperback book form for \$6.

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The quarterly catalog “New Publications of the U.S. Geological Survey” may be obtained free on request. Subscribers to this quarterly catalog are requested to provide notice for change of address promptly, giving new and old addresses and ZIP Codes. Those wishing to be placed on a free subscription list for the quarterly catalog “New Publications of the U.S. Geological Survey” or wishing to change their address should write to the U.S. Geological Survey, 903 National Center, Reston, VA 20192.

Prices of available publications, except reports released through the National Technical Information Service (NTIS), are given in current issues of the quarterly catalog “New Publications of the U.S. Geological Survey.” Limited quantities of Circulars and publications of general interest are free.

“New Publications of the U.S. Geological Survey” is also available electronically through the USGS at <http://pubs.usgs.gov/publications/>.

The U.S. Geological Survey Publications Data Base includes comprehensive bibliographic information on USGS reports and maps published from 1880 to the present and references for non-USGS publications with USGS authors published from 1983 to date—a total of approximately 110,000 publications. Free public access to the data base is provided as a public service by the U.S. Geological Survey at <http://usgs-georef.cos.com> and through the USGS home page at <http://www.usgs.gov>.

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* No new publications in this series for this quarter.

NEW PUBLICATIONS OF SPECIAL INTEREST

General Interest Publication

NEW MEXICO. Gila Cliff Dwellings National Monument, southwestern New Mexico, by J. C. Ratte. Prepared in cooperation with the National Park Service. 2001. Poster 24 by 32 inches (in color). \$7.

This poster provides geological information on the origin and development of the caves that contain the Anasazi cliff dwellings. The caves were formed in an east-facing cliff of Gila Conglomerate in Cliff Dweller Canyon, a minor tributary to the West Fork of the Gila River, in the Gila National Forest adjacent to the Gila Wilderness. The role of exfoliation in the later development of the caves is emphasized.



Fact Sheet 0084-01

FS 0084-01. HAWAII. New mapping techniques help assess the health of Hawaii's coral reefs, by M. E. Field, P. S. Chavez, Jr., K. R. Evans and S. A. Cochran. 2001. 4 p. Available on the web at <http://geopubs.wr.usgs.gov/fact-sheet/fs084-01>

The U.S. Geological Survey (USGS) is working closely with academic institutions and State and Federal agencies to assess the factors that affect the health of Hawaii's and our Nation's coral reefs. In order to establish a basis from which scientists can objectively detect changes in reef health, the USGS and its cooperators are applying many new techniques to the mapping and monitoring of coral reefs in Hawaii.

Circular 1198

C 1198. Beyond the Golden Gate; oceanography, geology, biology, and environmental issues in the Gulf of the Farallones, edited by H. A. Karl, J. L. Chin, Edward Ueber, P. H. Stauffer and J. W. Hendley, II. 2001. 78 p. CD-ROM in pocket. Available on the web at <http://geopubs.wr.usgs.gov/circular/c1198/>

In the 1990's, the U.S. Geological Survey sponsored a multidisciplinary, multiagency investigation of the Gulf of the Farallones, which lies offshore of the San Francisco Bay region. This book discusses the results of the endeavor, covering the topics of oceanography and geology, biology and ecological niches, and issues of environmental management. The CD-ROM in the pocket contains the 240-page technical version of Circular 1198.



TOPOGRAPHIC MAPS

Due to technical difficulties, the lists of new and revised topographic maps for January and March 2002 are unavailable. The topographic map listing presented in this quarterly catalog contains only those new and revised topographic maps published in February 2002.





FORMAL REPORTS

DIGITAL DATA SERIES

The Digital Data Series encompasses a broad range of digital data, including computer programs, interpreted results of investigations, comprehensive reviewed data bases, spatial data sets, digital images and animation, and multimedia presentations that are not intended for printed release. Scientific reports in this series cover a wide variety of subjects on all facets of U.S. Geological Survey investigations and research that are of lasting scientific interest and value. Releases in the Digital Data Series offer access to scientific information that is available in digital form; the information is primarily for viewing, processing, and (or) analyzing by computer.

DDS-0072. OREGON. 2000 multibeam sonar survey of Crater Lake, Oregon; data, GIS, images, and movies, by J. V. Gardner and Peter Dartnell. 2001. One CD-ROM. \$32. Available on the web at <http://geopubs.wr.usgs.gov/dds/dds-72/>

This CD-ROM has been produced in accordance with the ISO 9660 Standard and is therefore capable of being read on any computing platform that has appropriate CD-ROM driver software installed. All computers must have a CD-ROM drive and be capable of displaying at least 256 colors: (1) IBM-compatible computers running Window 95 or higher or NT 4.0 or higher with an Intel Pentium or equivalent processor, (2) Macintosh with a PowerPC processor, or (3) UNIX. Software requirements: (1) web browser, (2) ArcInfo or ArcView with Spatial Analyst, or any GIS software that is capable of importing ArcInfo GRID files, and (3) any software capable of viewing QuickTime movies.

In the summer of 2000, the U. S. Geological Survey, Pacific Seafloor Mapping Project, in cooperation with the National Park Service and the Center for Coastal and Ocean Mapping, University of New Hampshire, used a state-of-the-art multibeam sonar system to collect high-resolution bathymetry and calibrated, co-registered acoustic backscatter to support both biological and geological research in the Crater Lake area. This interactive CD-ROM contains the multibeam bathymetry and acoustic backscatter data, along with an ESRI ArcExplorer project (and software), images, and movies.

PROFESSIONAL PAPERS

Professional Papers are mainly comprehensive scientific reports of wide and lasting interest and importance to professional scientists and engineers. Included are reports on the results of resource studies, and of topographic, hydrologic, and geologic investigations. They also include collections of related papers addressing different aspects of a single scientific topic.

P 1606. OREGON. Debris flows from failures of Neoglacial-age moraine dams in the Three Sisters and Mount Jefferson Wilderness Areas, Oregon, by J. E. O'Connor, J. H. Hardison, III and J. E. Costa. 2001. 93 p., 2 plates in pocket. \$19.

The highest concentration of lakes dammed by Neoglacial moraines in the conterminous United States is in the Mount Jefferson and Three Sisters Wilderness Areas in central Oregon. Between 1930 and 1980, breakouts of these lakes have resulted in 11 debris

flows. The settings and sequences of events leading to breaching and the downstream flow behavior of the resulting debris flows provide guidance on the likelihood and magnitude of future lake breakouts and debris flows.

P 1647. Comparative water-quality assessment of the Hai He River basin in the People's Republic of China and three similar basins in the United States, by Joseph Domagalski, Zhou Xinquan, Lin Chao, Zhi Deguo, Fan Lan Chi, Xu Kaitai, Lu Ying, Luo Yang, Liu Shide, Liu Dewen, Guo Yong, Tian Qi, Liu Jing, Yu Weidong, Robert Shedlock and Donna Knifong. National Water-Quality Assessment Program; prepared in cooperation with the People's Republic of China, Ministry of Water Resources; Hai He River Water Conservancy Commission; Tangshan Water Resources Bureau. 2001. 58 p. \$16. Available on the web at <http://water.usgs.gov/pubs/pp/pp1647/>

Ground-water quality with respect to nitrate, major inorganic constituents, pesticides, stable isotopes, and tritium was assessed in the agricultural Tangshan region in the Hai He River basin of the People's Republic of China and compared with three similar regions in the United States: the Delmarva Peninsula of the States of Delaware, Maryland, and Virginia, and the San Joaquin and Sacramento Valleys of the State of California. These four regions are considered similar with respect to size, land use, or climate. Median nitrate concentrations were found to be similar in the four regions in most instances, and those median concentrations were below the American nitrate drinking water standard of 10 milligrams per liter; however, higher concentrations, and a greater range of concentration, were evident for the Tangshan region.

P 1653. Diagenesis and fracture development in the Bakken Formation, Williston Basin; implications for reservoir quality in the middle member, by J. K. Pitman and L. C. Price, U.S. Geological Survey; J. A. LeFever, North Dakota Geological Survey. 2001. 19 p. \$4.25. Available on the web at <http://greenwood.cr.usgs.gov/pub/ppapers/p1653/>

The middle member of the Bakken Formation is an attractive petroleum exploration target in the deeper part of the Williston Basin because it is favorably positioned with respect to source and seal units. Progressive rates of burial and minor uplift and erosion of this member led to a stable thermal regime and, consequently, minor variations in diagenesis across much of the basin. The simple diagenetic history recorded in sandstones and siltstones in the middle member can, in part, be attributed to the closed, low-permeability nature of the Bakken petroleum system during most of its burial history. Most diagenesis ceased in the middle member when oil entered the sandstones and siltstones in the Late Cretaceous. Most oil in the Bakken Formation resides in open, horizontal fractures in the middle member. Core analysis reveals that sandstones and siltstones associated with thick mature shales typically have a greater density of fractures than sandstones and siltstones associated with thin mature shales. Fractures were caused by superlithostatic pressures that formed in response to increased fluid volumes in the source rocks during hydrocarbon generation.

BULLETINS

Bulletins contain significant data and interpretations that are of lasting scientific interest but are generally more limited in scope or geographic coverage than Professional Papers. They include the results of resource studies and of



geologic and topographic investigations, as well as collections of short papers related to a specific topic.

- B 2184-D. Is there a basin-centered gas accumulation in Cotton Valley Group sandstones, Gulf Coast Basin, U.S.A.?, by C. E. Bartberger, T. S. Dyman and S. M. Condon. 2002. 38 p. (Geologic studies of basin-centered gas systems; edited by V. F. Nuccio and T. S. Dyman.) Available on the web at <http://greenwood.cr.usgs.gov/pub/bulletins/b2184-d/>

The U. S. Geological Survey, in cooperation with the U. S. Department of Energy, is reevaluating the resource potential of selected basin-centered gas accumulations in the United States in order to accommodate changing geologic perceptions since completion of the USGS 1995 National Petroleum Assessment. In 1995 the USGS assessed one basin-centered gas play and three conventional plays within the trend of Jurassic and Cretaceous Cotton Valley Group fluvial-deltaic sandstones across the onshore northern Gulf of Mexico Basin. Evaluation of geologic and production data provides new insights into these Cotton Valley plays. Data favorable and unfavorable for the presence of continuous-type basin-centered gas accumulations are summarized.

- B 2189. WYOMING, MONTANA, NORTH DAKOTA. A summary of the U.S. Geological Survey 1999 resource assessment of selected coal zones in the Northern Rocky Mountains and Great Plains region, Wyoming, Montana, and North Dakota, by M. S. Ellis and D. J. Nichols. 2002. 10 p. Available on the web at <http://greenwood.cr.usgs.gov/pub/bulletins/b2189/>

The National Coal Resource Assessment for the Northern Rocky Mountains and Great Plains region includes geologic, stratigraphic, palynologic, and geochemical studies and resource calculations for 18 major coal zones in 5 basins. Coal from this region has low ash content, and sulfur content is in compliance with Clean Air Act standards. The coal has a high potential for development.

- B 2190. Joint inversion of acoustic and resistivity data for the estimation of gas hydrate concentration, by M. W. Lee. 2002. 11 p. Available on the web at <http://greenwood.cr.usgs.gov/pub/bulletins/b2190/>

Downhole acoustic and electrical resistivity logs are most commonly used to identify and quantify natural gas hydrate resources. This report presents a method of estimating gas hydrate concentration by jointly inverting acoustic slowness (*P*-wave and *S*-wave slowness) and resistivity. This method was applied to log data acquired at the Mallik 2L-38 gas hydrate research well, Mackenzie Delta, Canada.

CIRCULAR

Circulars present technical or nontechnical information of wide popular interest in a format designed for distribution at no cost to the public. They are published to disseminate administrative information or important scientific information of an ephemeral nature.

- C 1198. Beyond the Golden Gate; oceanography, geology, biology, and environmental issues in the Gulf of the Farallones, edited by H. A. Karl, J. L. Chin, Edward Ueber, P. H. Stauffer and J. W. Hendley, II. 2001. 78 p. CD-ROM in pocket. Available on the web at <http://geopubs.wr.usgs.gov/circular/c1198/>

In the 1990's, the U.S. Geological Survey sponsored a multidisciplinary, multiagency investigation of the Gulf of the Farallones, which lies offshore of the San Francisco Bay region. This book discusses the results of the endeavor, covering the topics of oceanography and geology, biology and ecological niches, and issues of environmental management. The CD-ROM in the pocket contains the 240-page technical version of Circular 1198.

Beyond the Golden Gate; introduction, by H. A. Karl and Edward Ueber. p. 2-3.

Techniques and technology of exploration in the Gulf of the Farallones, by Kaye Kinoshita and J. L. Chin. p. 4-5.

Oceanography and geology of the Gulf of the Farallones, by Anonymous. p. 6-29.

Regional setting, by J. L. Chin and R. W. Graymer. p. 8-11.

Earthquakes, faults, and tectonics, by H. F. Ryan, S. L. Ross and R. W. Graymer. p. 12-15.

Landscape of the sea floor, by H. A. Karl and W. C. Schwab. p. 16-19.

Current patterns over the continental shelf and slope, by M. A. Noble. p. 20-23.

Sediment of the sea floor, by H. A. Karl. p. 24-25.

Chemical composition of surface sediments on the sea floor, by W. E. Dean and J. V. Gardner. p. 26-27.

Heavy-mineral provinces on the continental shelf, by F. L. Wong. p. 28-29.

Biology and ecological niches in the Gulf of the Farallones, by Anonymous. p. 30-59.

Phytoplankton, by G. W. Langlois and Patricia Smith. p. 32-35.

Krill, by Dan Howard. p. 36-39.

Free-floating larvae of crabs, sea urchins, and rockfishes, by S. R. Wing. p. 40-41.

Salmon, by Peter Adams. p. 42-43.

Seabirds, by Peter Pyle. p. 44-47.

Marine mammals, by Jan Roletto. p. 48-51.

White sharks, by Scot Anderson. p. 52-55.

Continental slope communities, by Tom Laidig. p. 56-59.

Issues of environmental management in the Gulf of the Farallones, by Anonymous. p. 60-71.

Disposal of dredged material and other waste on the continental shelf and slope, by J. L. Chin and Allan Ota. p. 62-65.

Search for containers of radioactive waste on the sea floor, by H. A. Karl. p. 66-67.

Measuring radioactivity from waste drums on the sea floor, by D. G. Jones, P. D. Roberts and Johannes Limburg. p. 68-71.

GENERAL INTEREST PUBLICATION

NEW MEXICO. Gila Cliff Dwellings National Monument, southwestern New Mexico, by J. C. Ratte. Prepared in cooperation with the National Park Service. 2001. Poster 24 by 32 inches (in color). \$7.

This poster provides geological information on the origin and development of the caves that contain the Anasazi cliff dwellings.



The caves were formed in an east-facing cliff of Gila Conglomerate in Cliff Dweller Canyon, a minor tributary to the West Fork of the Gila River, in the Gila National Forest adjacent to the Gila Wilderness. The role of exfoliation in the later development of the caves is emphasized.

MISCELLANEOUS AND SPECIAL BOOKS

Geographic Names Information System (GNIS)

GNIS, developed by the Geographic Names Office, Mapping Applications Center, is the basis for the Digital Gazetteer of the United States (CD-ROM) and includes all names in the data base as of July 1999, as well as the necessary software for searching, analyzing, and exporting the data. The software must be installed onto an IBM-compatible hard disk before the data can be used. The CD-ROM, which can be purchased for \$57 plus \$5.00 shipping, contains the National Geographic Names Data Base (NGNDB), Antarctica Geographic Names Data Base (AGNDB), Topographic Map Names Data Base (TMNDB), and Reference Data Base (RDB). Each record in the NGNDB, AGNDB, and TMNDB can contain a variety of location and description fields. All can be displayed, and most can be searched. Not all fields, however, contain data. The RDB contains one field—bibliography. The CD-ROM is no longer accompanied by a users manual. The installation procedures, readme file, and trouble shooting guide are provided in WordPerfect, HTML, and PDF formats. All necessary information regarding startup procedures are listed in the "Getting Started" directory on the CD.

The GNIS CD-ROM may be ordered from Information Services, U.S. Geological Survey, DFC, Building 810, MS 306, Denver, CO 80225, or by telephoning 1-888-ASK-USGS. Prepayment is required. Please make check or money order payable to Department of the Interior—USGS. VISA, MasterCard, American Express, and Discover Card are accepted. Prices are subject to change.

Information and Technical Specifications may be requested from U.S. Geological Survey, Manager GNIS, 523 National Center, Reston, VA 20192. 703-648-4544.

FACT SHEETS

Fact Sheets are used to disseminate timely information on scientific and technical programs of the U.S. Geological Survey and are available, at no cost, from USGS Information Services, Box 25286, Denver, CO 80225.

FS 0003-95. ARIZONA. Programs in Arizona. 1995. Available on the web at
<http://water.usgs.gov/wid/html/az.html/>

FS 0010-95. GEORGIA. Programs in Georgia. 1995. Available on the web at
<http://water.usgs.gov/wid/html/ga.html>

FS 0038-95. PENNSYLVANIA. Programs in Pennsylvania. 1995. Available on the web at
<http://water.usgs.gov/wid/html/pa.html>

FS 0004-97. COLORADO. Variability of nitrate concentrations in the shallow ground water in a selected area of the San Luis Valley, south-central Colorado, by R. W. Stogner, Sr. 1997. 4 p. Available on the web at
<http://co.water.usgs.gov/Pubs/fs/fs004-97/pdf/fs004-97.pdf>

FS 0032-97. Biological and contaminant investigations, upper Colorado River basin; what's been done and how can the information be used?, by J. R. Deacon. 1997. 2 p. Available on the web at
<http://co.water.usgs.gov/Pubs/fs/fs032-97/pdf/fs032-97.pdf>

FS 0043-97. COLORADO. Are aquatic resources of the Mt. Zirkel Wilderness Area in Colorado affected by acid deposition and what will emissions reductions at the local power plants do?, by J. T. Turk and D. H. Campbell. 1997. 4 p. Available on the web at
<http://co.water.usgs.gov/Pubs/fs/fs043-97/pdf/fs043-97.pdf>

FS 0089-97. Coastal wetlands and global change; overview, by G. R. Guntenspergen, Beth Vairin and V. R. Burkett. 1997. 4 p. Available on the web at
http://www.nwrc.usgs.gov/climate/fs89_97.pdf

FS 0090-97. Global change and submerged aquatic vegetation research, by H. A. Neckles, G. R. Guntenspergen, W. M. Risso and T. C. Michot. 1997. 2 p. Available on the web at
http://www.nwrc.usgs.gov/climate/fs90_97.pdf

FS 0091-97. Global warming, sea-level rise, and coastal marsh survival, by D. R. Cahoon. 1997. 2 p. Available on the web at
http://www.nwrc.usgs.gov/climate/fs91_97.pdf

FS 0092-97. Salt tolerance of southern baldcypress, by J. A. Allen and V. R. Burken. 1997. 2 p. Available on the web at
http://www.nwrc.usgs.gov/climate/fs92_97.pdf

FS 0093-97. Effects of climate change on southeastern forests, by P. A. Harcombe. 1997. 2 p. Available on the web at
http://www.nwrc.usgs.gov/climate/fs93_97.pdf

FS 0094-97. Predicting coastal flooding and wetland loss, by T. W. Doyle. 1997. 2 p. Available on the web at
http://www.nwrc.usgs.gov/climate/fs94_97.pdf

FS 0096-97. Using remote sensing to monitor global change, by E. W. Ramsey, III. 1997. 2 p. Available on the web at
http://www.nwrc.usgs.gov/climate/fs96_97.pdf

FS 0156-97. Increased use of Cheney Reservoir for Wichita area water supply benefits Equus Beds Aquifer, by H. C. Ross, N. C. Myers and W. R. Aucott. 1997. Available on the web at
<http://ks.water.usgs.gov/Kansas/pubs/fact-sheets/fs.156-97.html>

FS 0181-97. Herbicides in rainfall across the midwestern and north-eastern United States, 1990-91, by J. K. Stamer, D. A. Goolsby and E. M. Thurman. 1998. Available on the web at
<http://ks.water.usgs.gov/Kansas/pubs/fact-sheets/fs.181-97.html>

FS 0006-98. HAWAII. National Water-Quality Assessment Program; Island of Oahu, Hawaii, by S. S. Anthony. 1998. 4 p. Available on the web at
<http://hi.water.usgs.gov/pubs/fs006-98/fs006-98.pdf>

FS 0059-98. Improving ground-water flow model calibration with the Advective-Transport Observation (ADV) Package to MODFLOWP, by E. R. Anderman and M. C. Hill. 1998. 2 p. Available on the web at
ftp://water.usgs.gov/pub/software/ground_water/Modflowp/doc/fs05998.pdf

FS 0095-98. Modeling solute-transport and biodegradation with BIOMOC, by H. I. Essaid and B. A. Bekins. 1998. 4 p. Available on the web at
<ftp://www.geogr.uni-jena.de/pub/software/ground-water/biomoc/doc/fs09598.pdf>

FS 0163-98. Discharge of herbicides from the Mississippi River basin to the Gulf of Mexico, 1991-97, by G. M. Clark and D. A.



- Goolsby. 1999. 4 p. Available on the web at <http://ks.water.usgs.gov/Kansas/pubs/fact-sheets/fs.163-98.html>
- FS 0088-99. KANSAS. Channel stability of the Neosho River downstream from John Redmond Dam, Kansas, by K. E. Juracek. 1999. Available on the web at <http://ks.water.usgs.gov/Kansas/pubs/fact-sheets/fs.088-99.html>
- FS 0090-99. KANSAS. Water use in Kansas, 1990 and 1995, by J. F. Kenny. Prepared in cooperation with the Kansas Water Office. 1999. Available on the web at <http://ks.water.usgs.gov/Kansas/pubs/fact-sheets/fs.090-99.html>
- FS 0038-01. Evaluación de los recursos potenciales del petróleo y gas, en Centro y Suramérica [Evaluation of potential petroleum and gas resources in Central and South America], by C. S. Schenk. 2001. 2 p. Available on the web at <http://greenwood.cr.usgs.gov/pub/fact-sheets/fs-0038-01/>
- FS 0039-01. Estimativas de possíveis recursos de petróleo e gás na América Central e na América do Sul [Estimates of possible petroleum and gas resources in Central America and South America], by C. S. Schenk. 2001. 2 p. Available on the web at <http://greenwood.cr.usgs.gov/pub/fact-sheets/fs-0039-01/>
- FS 0059-01. MONTANA. Tenmile Creek, Montana; watershed of many uses, by Charles Parrett, Eloise Kendy, U.S. Geological Survey; and P. S. Hettinger, Lewis and Clark County Water Quality Protection District. Prepared in cooperation with the Lewis and Clark County Water Quality Protection District; Montana Department of Natural Resources and Conservation. 2001. 6 p.
- FS 0064-01. National survey of MTBE and other VOCs in community drinking-water sources, by R. M. Clawges, Barbara Rowe and John Zogorski. 2001. 4 p. Available on the web at http://sd.water.usgs.gov/nawqa/pubs/factsheet/fs064_01.html
- Methyl tert-butyl ether (MTBE) is a volatile organic compound (VOC) that is added to gasoline either seasonally or year round in many parts of the United States to increase the octane level and to reduce carbon monoxide and ozone levels in the air. The chemical properties and widespread use of MTBE can result in contamination of private and public drinking-water sources. MTBE contamination is a concern in drinking water because of the compound's low taste and odor threshold and potential human-health effects.
- FS 0067-01. WASHINGTON. PCBs in tissue of fish from the Spokane River, Washington, 1999, by D. E. MacCoy. National Water-Quality Assessment Program; prepared in cooperation with Washington State Department of Ecology. 2001. 6 p.
- FS 0068-01. TEXAS. Reconnaissance for trace metals in bed sediment, Wright Patman Lake, near Texarkana, Texas, by P. W. McKee. Prepared in cooperation with the Texarkana Water Utilities. 2001. 6 p.
- FS 0070-01. Water-quality monitoring of Sweetwater Reservoir, by Michael Majewski. 2001. 4 p. Available on the web at <http://water.usgs.gov/pubs/FS/fs-070-01/>
- FS 0071-01. The National Water-Quality Assessment Program; entering a new decade of investigations, by R. J. Gilliom, P. A. Hamilton and T. L. Miller. 2001. 8 p. Available on the web at <http://water.usgs.gov/pubs/FS/fs-071-01/>
- FS 0072-01. Effects of oil and gas production on Lake Meredith sediments, 1964-99, by B. J. Mahler and P. C. Van Metre. Prepared in cooperation with the National Park Service. 2001. 6 p.
- FS 0073-01. DELAWARE, MARYLAND. Flooding in Delaware and the Eastern Shore of Maryland from Hurricane Floyd, September 1999, by A. J. Tallman and G. T. Fisher. 2001. 4 p. Available on the web at <http://md.water.usgs.gov/publications/fs-073-01/html/index.html>
- FS 0074-01. NEBRASKA. Surface-water/ground-water interaction and implications for ground-water sustainability in the Dutch Flats area, western Nebraska, by G. V. Steele, I. M. Verstraeten, U.S. Geological Survey; and J. C. Cannia, North Platte Natural Resources District. Prepared in cooperation with the North Platte Natural Resources District. 2001. 4 p.
- FS 0075-01. Characterizing ground-water chemistry and hydraulic properties of fractured-rock aquifers using the multifunction Bedrock-Aquifer Transportable Testing Tool (BAT³), by A. M. Shapiro. 2001. 4 p. Available on the web at <http://toxics.usgs.gov/pubs/FS-075-01/index.html>
- FS 0077-01. The Universal Transverse Mercator (UTM) grid. 2001. 2 p. Available on the web at <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html>
- FS 0078-01. Cartographic services contract. 2001. 2 p. Available on the web at <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07801.html>
- FS 0081-01. TEXAS. Water budget for the Nueces Estuary, Texas, May-October 1998, by D. J. Ockerman. Prepared in cooperation with the Texas Water Development Board. 2001. 6 p.
- FS 0082-01. TEXAS. Discharge between San Antonio Bay and Aransas Bay, southern Gulf Coast, Texas, May-September 1999, by J. W. East. Prepared in cooperation with the Texas Water Development Board. 2001. 6 p.
- FS 0083-01. ALASKA. Distribution of arsenic in water and streambed sediments, Cook Inlet basin, Alaska, by R. L. Glass and S. A. Frenzel. National Water-Quality Assessment Program. 2001. 4 p. Available on the web at <http://water.usgs.gov/pubs/FS/fs-083-01/>
- FS 0084-01. HAWAII. New mapping techniques help assess the health of Hawaii's coral reefs, by M. E. Field, P. S. Chavez, Jr., K. R. Evans and S. A. Cochran. 2001. 4 p. Available on the web at <http://geopubs.wr.usgs.gov/fact-sheet/fs084-01>
- The U.S. Geological Survey (USGS) is working closely with academic institutions and State and Federal agencies to assess the factors that affect the health of Hawaii's and our Nation's coral reefs. In order to establish a basis from which scientists can objectively detect changes in reef health, the USGS and its cooperators are applying many new techniques to the mapping and monitoring of coral reefs in Hawaii.
- FS 0086-01. National Atlas of the United States maps. 2001. 3 p. Available on the web at <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs08601.pdf>
- FS 0092-01. MISSOURI. Streamflow information for the Jacks Fork and Current River in the Ozark National Scenic Riverways, south-central Missouri, by G. L. Wilson. Prepared in cooperation with the National Park Service. 2001. 4 p.

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FS 0095-01. Mercury in U.S. coal; abundance, distribution, and modes of occurrence, by S. J. Tewalt, L. J. Bragg and R. B. Finkelman. 2001. 4 p. Available on the web at <http://pubs.usgs.gov/factsheet/fs095-01/>

The U.S. Geological Survey (USGS) has compiled a nationwide coal information database over the last 25 years. A subset of the data, called COALQUAL, contains analyses of over 7,000 coal samples that have been collected or calculated to represent the entire thickness of a coal bed in the ground. The COALQUAL database is an extremely valuable source of information for raw or in-ground trace-element concentrations in U.S. coals and, if adjusted for the effect of coal cleaning in appropriate coals, can provide a first estimate of as-shipped mercury concentration in coal where data are not available.

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- WRI 01-4255. Concentrations and annual fluxes for selected water-quality constituents from the USGS National Stream Quality Accounting Network, by V. J. Kelly, R. P. Hooper, B. T. Aulenbach and Mary Janet. 2001. (NC, M, Da.) Available on the web at <http://water.usgs.gov/nasqan/progdocs/wri014255/>
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2. Water-use data system (WUDS), by C. R. Baxter and J. E. Terry. Available on the web at <http://www-tampa.er.usgs.gov/nwisdoc/swuds/wu.sec2.html>

3. Site-specific water-use data system (SWUDS), by N. E. Williams, J. E. Terry and C. R. Baxter. Available on the web at <http://www-tampa.er.usgs.gov/nwisdoc/swuds/wu.coding.html>

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<http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-00-0303/>
- OF 00-0306. Initial report on IMAGES V cruise of the *Marion-Dufresne* to the Chesapeake Bay, June 20-22, 1999, edited by T. M. Cronin. Prepared in cooperation with the U.S. Naval Research Laboratory, Maryland Geological Survey, U.S. Environmental Protection Agency, Institut Français pour la Recherche et la Technologie Polaires. Available on the web at
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- OF 00-0398. Results of the U.S. Geological Survey's analytical evaluation program for standard reference samples; distributed in March 2000, by J. W. Farrar and A. M. Copen. 107 p. Available on the web at http://bqs.usgs.gov/srs/Report_Spr00.pdf
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- OF 00-0455. Program BOMTOM for crosswell radar and seismic tomography, by D. R. Tweeton. Available on the web at <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-00-0455/>
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- OF 01-0467. Citizen knowledge and perception of black-tailed prairie dog management; report to respondents, by N. R. Sexton, Ayeisha Brinson, P. D. Ponds and Kurt Cline. 23 p. (NC, Da, M; Conservation & Surv. Div., Institute of Agriculture & Natural Resources, 113 Nebraska Hall, Univ. of Nebraska, Lincoln, NE 68588-0517; Kansas Geol. Surv., 1930 Constant Ave., Campus West, Univ. of Kansas, Lawrence, KS 66046; Bur. of Economic Geol., The Univ. of Texas at Austin, Univ. Station at Austin, Univ. Station Box X, Austin, TX 78713-7508; New Mexico Bur. of Mines & Mineral Res., Campus Station, Socorro, NM 87801; Arizona Geol. Surv., 416 West Congress, Suite 100, Tucson, AZ 85701; Oklahoma Geol. Surv., The Univ. of Oklahoma, 830 VanVleet Oval, Room 163, Norman, OK 73109; Montana Bur. of Mines & Geol., Montana Coll. of Mineral Sci. & Technol., North Dakota Geol. Surv., Univ. Station, Grand Forks, NE 58202-8156; Dep. of Water & Natural Resources, South Dakota Geol. Surv., Science Ctr., Univ. of South Dakota, Vermillion, SD 57069; Geol. Surv. of Wyoming, P.O. Box 3008, University Station, Laramie, WY 82071; Denver, CO 80203-2277; Chief, Geotechnical Services Branch, Office of the State Engineer, 1313 Sherman St., Room 818, Denver, CO 80203-2277.) \$6.
- OF 01-0471. Citizen knowledge of and attitudes toward black-tailed prairie dogs; completion report, by B. L. Lamb, Kurt Cline, Ayeisha Brinson, N. R. Sexton and P. D. Ponds. 53 p. (NC, Da, M.) \$15.
- OF 01-0474. Compilation of post-wildfire run-off-event data from the Western United States, by E. R. Bigio and S. H. Cannon. (NC, Da, M.) Available on the web at <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-01-0474/>
- OF 01-0475. COLORADO. Colorado vermiculite deposits; mines, prospects, and occurrences, by B. S. VanGosen and A. L. Bush. 11 p. (NC, M, Da; Vicki J. Cowart, Colorado Geol. Surv., 1313 Sherman St., Room 715, Denver, CO 80203-2277; Chief, Geotechnical Services Branch, Office of the State Engineer, 1313 Sherman St., Room 818, Denver, CO 80203-2277.) Available on the web at <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-01-0475/>
- OF 01-0476. ALASKA. Basement geophysical interpretation of the National Petroleum Reserve Alaska (NPRA), Northern Alaska, by R. W. Saltus, T. L. Hudson and J. D. Phillips. 3 over-size sheets. (NC, M, Da, A; Div. of Geol. & Geophys. Surv., 794 University Ave., Suite 200, Fairbanks, AK 99709 3645; U.S. Dep. of Interior, Alaska Resources Library, 3150 C St. #100, Anchorage, AK 99503-3916.) Available on the web at <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-01-0476/>
- OF 01-0478. UTAH. Quality of life on the Colorado Plateau; a report to camera-survey collaborators in Southeast Utah, by Jonathan Taylor, J. B. Reis-Ruehrwein, N. R. Sexton and D. J. Blahna. 27 p. (NC, Da, M; Utah Geol. Surv., 1594 West North Temple, Suite 3110, P.O. Box 146100, Salt Lake City, UT 84114-6100.) \$15.50. Available on the web at <http://www.mesc.usgs.gov/products/presentations/rep/rep.shtml>
- OF 01-0479. CALIFORNIA. Geologic map of the Lake Mathews 7.5' quadrangle, Riverside County, California, by D. M. Morton, F. H. Weber, V. M. Diep and Ursula Edwards-Howells. Prepared



- in cooperation with California Division of Mines and Geology. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M; California Dep. of Conservation, Div. of Mines and Geol., Mail Stop 14-34, Library, 801 K St., Sacramento, CA 95814-3532; 185 Berry St., Suite 210, San Francisco, CA 94107-1728; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of01-479/>
- OF 01-0499. MASSACHUSETTS. Temporal changes in grain size and organic-mineral aggregates in surficial sediments near the Massachusetts Bay outfall site, by R. R. Rendigs and M. H. Bothner. 45 p. (NC, Da, M.) \$17.
- OF 01-0501. WASHINGTON. Assessment method for epithermal gold deposits in Northeast Washington State using weights-of-evidence GIS modeling, by D. E. Boleneus, G. L. Raines, J. D. Causey, A. A. Bookstrom, T. P. Frost and P. C. Hyndman. Prepared in cooperation with the USDA Forest Service, Pacific Northwest Region, Okanogan and Colville National Forests. 52 p. (NC, Da, M; Washington DNR/Geol. & Earth Resources Library, 1111 Washington St., S.E., Olympia, WA 98501.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of01-501/>
- OF 01-0504. ALASKA. GIS coverages of the Castle Mountain Fault, south central Alaska, by Keith Labay and P. J. Haeussler. Available on the web at <http://geopubs.wr.usgs.gov/open-file/of01-504/>
- OF 02-0005. FLORIDA. Multibeam mapping of the West Florida Shelf, Gulf of Mexico, by J. V. Gardner, Peter Dartnell and K. J. Sulak. Available on the web at <http://geopubs.wr.usgs.gov/open-file/of02-005/>
- OF 02-0006. Multibeam mapping of the Pinnacles region, Gulf of Mexico, by J. V. Gardner, Peter Dartnell and K. J. Sulak. Available on the web at <http://geopubs.wr.usgs.gov/open-file/of02-006/>
- OF 02-0008. Results of the U.S. Geological Survey's analytical evaluation program for standard reference samples distributed in September 2001, by M. T. Woodworth and B. F. Connor. 113 p. (NC, Da, M.) \$29. Available on the web at http://bqs.usgs.gov/srs/Report_Fall01.pdf
- OF 02-0010. IDAHO. Case study of the environmental signature of a recently abandoned, carbonate-hosted replacement deposit; the Clayton Mine, Idaho, by J. M. Hammarstrom, R. G. Eppinger, B. S. Van Gosen, P. H. Briggs and A. L. Meier. 44 p. (NC, Da, M; Idaho Geol. Surv., Univ. of Idaho, Morrill Hall, Room 332, Moscow, ID 83843.) \$25. Available on the web at <http://pubs.usgs.gov/openfile/of02-010/>
- OF 02-0012. NEVADA, CALIFORNIA. Physical data and biological data for algae, aquatic invertebrates, and fish from selected reaches on the Carson and Truckee rivers, Nevada and California, 1993-97, by S. J. Lawrence and R. L. Seiler. National Water-Quality Assessment Program. 216 p. Available on the web at <http://water.usgs.gov/pubs/of/of02-012/>
- OF 02-0014. NEVADA, CALIFORNIA. Land use change and effects on water quality and ecosystem health in the Lake Tahoe basin, Nevada and California; year-1 progress, by William Forney, Christian Raumann, T. B. Minor, J. L. Smith, John Vogel and Robert Vitales. 18 p. (NC, Da, M.) Available on the web at <http://pubs.usgs.gov/of/2002/of02-014/>
- OF 02-0017. HAWAII. Whole-rock and glass major-element geochemistry of Kilauea Volcano, Hawaii, near-vent eruptive products; September 1994 through September 2001, by C. R. Thornber, D. R. Sherrod, D. F. Siems, C. C. Heliker, G. P. Meeker, R. L. Oscarson and J. P. Kauahikaua. 9 p. (NC, Da, M.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of02-017/>
- OF 02-0019. CMGTool user's manual, by Jingping Xu, Fran Lightsom, M. A. Noble and Charles Denham. Available on the web at <http://geopubs.wr.usgs.gov/open-file/of02-19/>
- OF 02-0020. NEVADA. Aeromagnetic expression of buried basaltic volcanoes near Yucca Mountain, Nevada, by D. W. O'Leary, E. A. Mankinen, R. J. Blakely, V. E. Langenheim and D. A. Ponce. Prepared in cooperation with the U.S. Department of Energy, Nevada Operations Office. 48 p. Available on the web at <http://geopubs.wr.usgs.gov/open-file/of02-020/>
- OF 02-0026. NEW MEXICO. Mapped minerals at Questa, New Mexico, using airborne visible-infrared imaging, by K. E. Livo and R. N. Clark. Preliminary report for First quarterly report of the U.S. Geological Survey investigation of baseline and pre-mining ground-water quality in the Red River Valley basin, New Mexico, November 13, 2001. 13 p. (NC, M, Da; New Mexico Bur. of Mines & Mineral Resources, Campus Station, Socorro, NM 87801.) \$12. Available on the web at <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-02-0026/>
- OF 02-0039. NEVADA. Resistivity structures across the Humboldt River basin, north-central Nevada, by B. D. Rodriguez and J. M. Williams. 114 p. (NC, Da, M; Nevada Bur. of Mines & Geol., Univ. of Nevada-Reno, Reno, NV 89557-0088.) \$28.50. Available on the web at <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-02-0039/>
- OF 02-0043. MINNESOTA. Water-quality parameters and benthic algal communities at selected streams in Minnesota, August 2000; study design, methods, and data, by K. E. Lee. Prepared in cooperation with the Minnesota Pollution Control Agency; Minnesota Department of Natural Resources; U.S. Environmental Protection Agency. 54 p. (NC, Da, M.) \$14.50.
- OF 02-0044. NEW MEXICO. Magnetotelluric data in the middle Rio Grande basin, Albuquerque volcanoes, New Mexico, by J. M. Williams and B. D. Rodriguez. 90 p. (NC, M, Da; New Mexico Bur. of Mines & Mineral Resources, Campus Station, Socorro, NM 87801.) \$22.50. Available on the web at <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-02-0044/>
- OF 02-0052. Simulating solute transport across horizontal-flow barriers using the MODFLOW ground-water transport process, by G. Z. Hornberger, L. F. Konikow and P. T. Harte. 28 p. (NC, Da, M.) \$20.
- OF 02-0069. The U.S. tungsten market, by K. B. Shedd. 21 p. (NC, Da, M.) \$5.50. Available on the web at <http://pubs.usgs.gov/openfile/2002/of02-069/>
- OF 02-0119. ALASKA. Frontier areas and resource assessment; case of the 1002 area of the Alaska North Slope, by E. D. Attanasi and J. H. Schuenemeyer. 21 p. (NC, Da, M, A.) \$6.

Reports Available Only Through Certain USGS Field Offices

For information on availability and price of these reports, write to the address indicated by a dagger (†) in the listing for the report.

OF 96-0517. CALIFORNIA. Damage and restoration of geodetic infrastructure caused by the 1994 Northridge, California, earthquake, by K. M. Hodgkinson, R. S. Stein, K. W. Hudnut, Jay Satalich and J. H. Richards. 70 p., 1 over-size sheet. †Ross Stein, Earthquake Hazards Team, 345 Middlefield Rd., Mail Stop 977, Menlo Park, CA 94025 (telephone 415-329-4840, fax 415-329-5163). Available on the web at <http://pasadena.wr.usgs.gov/fema/>

OF 98-0335-B. VERMONT. Digital and preliminary bedrock geologic map of the Townshend 7.5 × 15 minute quadrangle, Vermont, by T. R. Armstrong and N. M. Ratcliffe. Three IBM-compatible computer diskettes. (NC, Da, M.) † Vermont Agency of Natural Resources, Vermont Geol. Surv., 103 South Main St., Laundry Bldg., Waterbury, VT 05671-0301 (telephone 802-241-3608; URL <http://www.anr.state.vt.us/geology/vgshmpg.htm>.)

Files are in ARC/INFO interchange format and were developed on an IBM-compatible personal computer using PC ARC/INFO version 3.5.



THEMATIC MAPS AND CHARTS

GEOLOGIC INVESTIGATIONS SERIES

In August 1996, the I-map series name was changed from Miscellaneous Investigations Series Maps to Geologic Investigations Series. All geologic maps approved for publication after August 1996 will be published in the Geologic Investigations Series. The series definition remains the same. Maps on planimetric or topographic bases; regular and irregular areas; various scales; a wide variety of format and subject matter. The series also includes 7 1/2-minute quadrangle photogeologic maps on planimetric bases which show geology as interpreted from aerial photographs. Series also includes maps of Mars and the Moon.

I-2652. ALASKA. Maps showing areas of potential for metallic mineral resources in the Valdez 1° × 3° quadrangle, Alaska, by G. R. Winkler, R. J. Goldfarb, W. J. Pickthorn and D. L. Campbell. 1999. Lat 61° to 62°, long 144° to 147°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 34 by 44 inches (in color). (Accompanied by 35 page text.) (Map-on-demand.) \$20. Available on the web at <http://greenwood.cr.usgs.gov/pub/i-maps/i-2652/i2652.pdf>

I-2739. WISCONSIN. Geology and tectonic significance of Early Proterozoic rocks in the Monico area, northern Wisconsin, by G. L. LaBerge and J. S. Klasner. 2001. Lat 45°30' to 45°37'30", long 89°02'30" to 89°17'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 57 by 41 inches (in color). (Accompanied by 8 page text.) \$7.

This map summarizes the geology and structural history of Early Proterozoic rocks of the Monico area in northern Wisconsin. Gneisses exposed in the northern part of the map area are shown to be overlain to the south by a bimodal suite of interlayered mafic pillow lavas and dacitic to rhyolitic lava flows, breccias, and welded ash-flow tuffs. Volcanogenic massive sulfide deposits are

associated with the felsic volcanic rocks. Polyphase deformation is attributed to collision between an island arc terrane and an Archean continental foreland to the north.

I-2745. COLORADO. Historic trail map of the Trinidad 1° × 2° quadrangle, southern Colorado, by G. R. Scott. Prepared in cooperation with the Denver Public Library, Western History and Genealogy Department. 2001. Lat 37° to 38°, long 104° to 106°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 56 by 40 inches (in color). (Accompanied by 62 page text.) \$7. Available on the web at <http://greenwood.cr.usgs.gov/pub/i-maps/i-2745/>

I-2749. MISSOURI. Geologic map of the Winona Quadrangle, Shannon County, Missouri, by R. C. Orndorff and R. W. Harrison. 2001. Lat 37° to 37°07'30", long 91°15' to 91°22'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 53 by 33 1/2 inches (in color). \$7.

I-2757. Controlled photomosaic map of Europa. Prepared for the National Aeronautics and Space Administration. 2002. Lat -57° to 57°, long 0° to 360°. Scale 1:15,000,000 (1 mm = 15 km) at 0°; 1:8,388,000 (1 mm = 8.39 km) at -56° latitude. Sheet 28 1/2 by 31 1/2 inches. (Mercator projection from 57°N to 57°S; Polar Stereographic projection from 55° to 90°N and from 55° to 90°S.) \$7.

This controlled photomosaic map of Europa was created by using the best image quality and moderate resolution coverage (from 20 km/pixel for gap fill to as much as 200 m/pixel) supplied by Galileo SSI and Voyager 1 and 2. The map uses the most recent geometric control network for Europa; the network was computed by the RAND Corporation in June 2000. Prominent features visible on the map are labeled with names approved by the International Astronomical Union.

MISCELLANEOUS FIELD STUDIES MAPS

Multicolor or black and white maps on topographic or planimetric bases; quadrangle or irregular areas; various scales. Pre-1971 maps show bedrock geology in relation to specific mining or mineral-deposit problems; the majority of post-1971 maps are preliminary black and white maps on various subjects such as environmental studies or Wilderness mineral investigations.

MF-2323. Extent of Pleistocene lakes in the western Great Basin, by Marith Reheis. 1999. Lat 37° to 42°, long 114° to 121°. Scale 1:800,000 (1 inch = about 12.6 miles). Sheet 36 by 45 inches (in color). Available on the web at <http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2323/>

MF-2325-A. CALIFORNIA. Map showing locations of damaging landslides in Napa County, California, resulting from 1997-98 El Niño rainstorms, by J. W. Godt, W. Z. Savage and R. C. Wilson. 1999. Lat 38°16'48" to 38°27'28", long 122°09'07" to 122°27'25". Scale 1:125,000 (1 inch = about 2 miles). Sheet 21 by 36 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at <http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-a/>

MF-2325-B. CALIFORNIA. Map showing locations of damaging landslides in Alameda County, California, resulting from 1997-98 El Niño rainstorms, by J. A. Coe, J. W. Godt, Dianne Brian and Nicolas Houdre. 1999. Lat 37°22'30" to 38°, long 121°31' to 122°22'30". Scale 1:125,000 (1 inch = about 2 miles). Sheet 35 by 23 inches (in color). (Accompanied by 12 page text.)



(Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-b/>

MF-2325-C. CALIFORNIA. Map showing locations of damaging landslides in Marin County, California, resulting from 1997-98 El Niño rainstorms, by M. M. Morrissey, G. F. Wiczorek and J. W. Godt. 1999. Lat 37°52'33" to 38°16'33", long 122°31'58" to 122°57'36". Scale 1:125,000 (1 inch = about 2 miles). Sheet 27 by 26 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-c/>

MF-2325-D. CALIFORNIA. Map showing locations of damaging landslides in Santa Cruz County, California, resulting from 1997-98 El Niño rainstorms, by R. L. Baum, R. L. Schuster and J. W. Godt. 1999. Lat 36°54'46" to 37°12'21", long 121°15'39" to 121°37'40". Scale 1:125,000 (1 inch = about 2 miles). Sheet 27 by 26 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-d/>

MF-2325-E. CALIFORNIA. Map showing locations of damaging landslides in Contra Costa County, California, resulting from 1997-98 El Niño rainstorms, by R. W. Graymer and J. W. Godt. 1999. Lat 37°30' to 38°30', Lat 121° to 123°. Scale 1:125,000 (1 inch = about 2 miles). Sheet 33 by 23 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-e/>

MF-2325-F. CALIFORNIA. Map showing locations of damaging landslides in Sonoma County, California, resulting from 1997-98 El Niño rainstorms, by D. W. Ramsey and J. W. Godt. 1999. Lat 38°22'58" to 38°37'30", lat 122°49'58" to 123°04'58". Scale 1:125,000 (1 inch = about 2 miles). Sheet 38 by 36 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-f/>

MF-2325-G. CALIFORNIA. Map showing locations of damaging landslides in San Francisco City and County, California, resulting from 1997-98 El Niño rainstorms, by J. W. Hillhouse and J. W. Godt. 1999. Lat 37°42'28" to 37°47'09", long 122°24'57" to 122°29'56". Scale 1:125,000 (1 inch = about 2 miles). Sheet 25.5 by 20 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-g/>

MF-2325-H. CALIFORNIA. Map showing locations of damaging landslides in San Mateo County, California, resulting from 1997-98 El Niño rainstorms, by A. S. Jayko, Jean De Mouthe, K. R. Lajoie, D. W. Ramsey and J. W. Godt. 1999. Lat 37°15'38" to 37°41'49", long 122°11'38" to 122°30'46". Scale 1:125,000 (1 inch = about 2 miles). Sheet 23 by 31.5 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-h/>

MF-2325-I. CALIFORNIA. Map showing locations of damaging landslides in Solano County, California, resulting from 1997-98 El Niño rainstorms, by D. G. Howell and J. W. Godt. 1999. Lat 38°04'30" to 38°27'43", long 121°59'34" to 122°14'16". Scale 1:125,000 (1 inch = about 2 miles). Sheet 31 by 26.5 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20.

Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-i/>

MF-2325-J. CALIFORNIA. Map showing locations of damaging landslides in Santa Clara County, California, resulting from 1997-98 El Niño rainstorms, by W. L. Ellis, E. L. Harp, C. H. Arnal and J. W. Godt. 1999. Lat 37° to 37°30', long 121° to 122°. Scale 1:125,000 (1 inch = about 2 miles). Sheet 35 by 28.5 inches (in color). (Accompanied by 12 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2325-j/>

MF-2327-A. NEVADA. Geologic map of part of the southern Toiyama Range and adjacent areas, Nye County, Nevada, by D. R. Shawe. 2002. Lat 38°30' to 38°45', long 116°45' to 117°07'30". Scale 1:48,000 (1 inch = 4,000 feet). Sheet 55 1/2 by 24 inches (in color). (Accompanied by 16 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2327-a/>

MF-2328. NEW MEXICO. Preliminary map of landslide deposits in the Los Alamos 30' × 60' quadrangle, New Mexico, by P. E. Carrara and D. P. Dethier. 1999. Lat 35°30' to 36°, long 106° to 107°. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 39 by 34 inches (in color). (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2328/>

MF-2333. ALABAMA. Distribution of a suite of elements including arsenic and mercury in Alabama coal, by M. B. Goldhaber, R. C. Bigelow, J. R. Hatch and J. C. Pashin. 2000. Lat 33.2° to 34°, long 87.6° to 87°. Sheet 58 by 46.5 inches (in color). (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2333/>

MF-2338. MONTANA. Generalized geologic map of the Absaroka-Beartooth study area, south-central Montana, compiled by B. S. Van Gosen, J. E. Elliott, E. J. LaRock, E. A. du Bray, R. R. Carlson and M. L. Zientek. 2000. Lat 45° to 45°45', long 109° to 111°. Scale 1:126,720 (1 inch = 2 miles). Sheet 58 by 42 inches (in color). (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2338/>

MF-2352. NEW MEXICO. Geologic map of the Tetilla Peak Quadrangle, Santa Fe and Sandoval counties, New Mexico, by D. A. Sawyer, R. R. Shroba, S. A. Minor and R. A. Thompson. 2002. Lat 35°30' to 35°37'30", long 106°07'30" to 106°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 33 1/2 by 28 1/2 inches (in color). (Accompanied by 25 page text.) (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2352/>

MF-2356. ARKANSAS. Geologic map of the Jasper Quadrangle, Newton and Boone counties, Arkansas, by M. R. Hudson, K. E. Murray and Deborah Pezzutti. 2001. Lat 36° to 36°07'30", long 93°07'30" to 93°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 38 1/2 by 35 inches (in color). (Map-on-demand.) \$20. Available on the web at
<http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2356/>

MF-2360. CALIFORNIA. Surface fractures formed in the Potrero Canyon, Tapo Canyon, and McBean Parkway areas in association with the 1994 Northridge, California, earthquake, by M. J. Rymer, J. A. Treiman, T. J. Powers, T. E. Fumal, D. P. Schwartz, J. C. Hamilton and F. R. Cinti. 2001. Lat 34°05' to 34°25', long 118°30'



to 118°45'. Scale 1:4,000 (1 inch = about 333 feet); 1:6,000 (1 inch = 500 feet); 1:12,000 (1 inch = 1,000 feet). Sheet 50 by 34 inches (in color). Available on the web at <http://geopubs.wr.usgs.gov/map-mf/mf2360/>

MF-2361. COLORADO. Geologic map of the Eagle Quadrangle, Eagle County, Colorado, by D. J. Lidke. 2002. Lat 39°37'30" to 39°45', long 106°45' to 106°52'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 38 by 32 inches (in color). (Accompanied by 18 page text.) (Map-on-demand.) \$20. Available on the web at <http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2361/>

MF-2363. COLORADO. Geologic map of the Grand Junction Quadrangle, Mesa County, Colorado, by R. B. Scott, P. E. Carrara, W. C. Hood and K. E. Murray. 2002. Lat 39° to 39°07'30", long 108°30' to 108°37'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 32 1/2 by 33 inches (in color). (Accompanied by 21 page text.) (Map-on-demand.) \$20. Available on the web at <http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2363/>

MF-2369. COLORADO. Geologic map of the Vail West Quadrangle, Eagle County, Colorado, by R. B. Scott, D. J. Lidke and D. J. Grunwald. 2002. Lat 39°37'30" to 39°45', long 106°22'30" to 106°30'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 34 1/2 by 35 1/2 inches (in color). (Accompanied by 18 page text.) (Map-on-demand.) \$20. Available on the web at <http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2369/>

MF-2380. Geologic map of the Nor Arvik coal site, southern Armenia, by E. A. Johnson, Artur Martirosyan, B. S. Pierce, Gourgen Malkhassian and M. E. Brownfield. 2002. Lat 39° to 41°, long 47° to 44°. Scale 1:1,000 (1 inch = about 83 feet). Sheet 30 by 22 inches (in color). (Accompanied by 16 page text.) (Map-on-demand.) \$20. Available on the web at <http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2380/>

MF-2382. ARIZONA, OKLAHOMA. Regional stratigraphic cross sections of Cretaceous rocks from east-central Arizona to the Oklahoma Panhandle, by C. M. Molenaar, W. A. Cobban, E. A. Merewether, C. L. Pillmore, D. G. Wolfe and J. M. Holbrook. 2002. Three sheets. Lat 34° to 38°, long 103° to 110°. Sheet 1, 57 by 36 inches; sheet 2, 44 by 33 inches; sheet 3, 42 by 32 inches (all in color). (Map-on-demand.) \$60. Available on the web at <http://greenwood.cr.usgs.gov/pub/mf-maps/mf-2382/>

MF-2385. CALIFORNIA. Map and map database of susceptibility to slope failure by sliding and earthflow in the Oakland area, California, by R. J. Pike, R. W. Graymer, Sebastian Roberts, N. B. Kalman and Steven Sobieszcyk. 2001. Lat 37°37'30" to 38°, long 122° to 122°22'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 30 by 50 inches (in color). (Accompanied by 37 page text.) (Map-on-demand.) \$20. Available on the web at <http://geopubs.wr.usgs.gov/map-mf/mf2385/>

MF-2386. CALIFORNIA. Logs and data from trenches across the Hayward Fault at Tyson's Lagoon (Tule Pond), Fremont, Alameda County, California, by J. J. Linenkaemper, T. E. Dawson, T. E. Davson, U.S. Geological Survey; G. G. Seitz, Lawrence Livermore National Laboratory; L. M. Reidy, University of California; and D. P. Schwartz, University of California. 2002. Two sheets. Lat 37°N to 38°N, long 122°W to 123°W. Sheet 1, 45 by 30 inches; sheet 2, 33 by 44 inches (both in color). (Accompanied by 12 page text.) (Map-on-demand.) \$40. Available on the web at <http://geopubs.wr.usgs.gov/map-mf/mf2386/>



OUTSIDE PUBLICATIONS

ARTICLES AND REPORTS

Articles by USGS personnel in non-USGS publications recently cited in the GeoRef data base of the American Geological Institute are listed below. Non-USGS personnel who share authorship in articles with USGS personnel are indicated by an asterisk (*) immediately following the name. **These publications are not available from the U.S. Geological Survey.**

S. S. Agard and L. C. S. Gundersen. PENNSYLVANIA. The geology and geochemistry of soils in Boyertown and Easton, Pennsylvania, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 51-63.

Greg Anderson, Hadley Johnson* and D. C. Agnew*. Comparing tests for static stress triggering using aftershock sequences, 2000. 18 p. *Available at:* U. S. Geological Survey, Library, Reston, VA, United States.

Jeff Arnold*, Ron Bingner*, P. A. DeBarry*, E. T. Engman*, B. M. Evans*, T. A. Evans*, Jurgen Garbrecht*, Luis Garcia*, L. E. Johnson*, J. D. Jorgeson*, Valentina Krysanova*, George Leavesley, D. R. Maidment*, E. J. Nelson*, F. L. Ogden*, Francisco Olivera*, R. G. Quimpo*, T. A. Seybert*, W. T. Sloan* and Fred Theurer*. GIS modules and distributed models of the watershed. Reston, VA: American Society of Civil Engineers, 1999. 120 p.

Sigrid Asher-Bolinder, D. E. Owen and R. R. Schumann. A preliminary evaluation of environmental factors influencing day-to-day and seasonal soil-gas radon concentrations, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 23-31.

A. Aslan*, A. G. Warne*, W. A. White, E. H. Guevara, R. C. Smyth, J. A. Raney and J. C. Gibeau. Mud volcanoes of the Orinoco Delta, eastern Venezuela. *Geomorphology*. v. 41, no. 4, December 2001. p. 323-336.

E. D. Attanasi. Geologic coal assessment; the interface with economics. *Natural Resources Research (International Association for Mathematical Geology)*. v. 10, no. 3, September 2001. p. 189-195.

E. D. Attanasi and J. H. DeYoung, Jr. Introduction. Mining Engineering, *in* Annual review 1993; exploration, mining, minerals processing, coal. v. 46, no. 5, May 1994. p. 405-406.

R. G. Baker*, E. A. Bettis, III*, R. F. Denniston*, L. A. Gonzalez*, L. E. Strickland and J. R. Krieg*. MINNESOTA. Holocene paleoenvironments in southeastern Minnesota; chasing the prairie-forest ecotone. *Palaeogeography, Palaeoclimatology, Palaeoecology*, *in* Reconstruction and modelling of grass-dominated ecosystems. (K. R. M. Beuning, editor and others). v. 177, no. 1-2, January 5, 2002. p. 103-122.

R. F. Balazik, L. McCartan, D. E. Morse and S. F. Sibley. Annual review 1999; the United States 1999. *Mining Engineering*, *in* Annual review 1999; mining exploration and coal overviews, State summaries and Canada. v. 52, no. 5, May 2000. p. 33-38.



- P. F. Ballance*, T. L. Vallier, C. S. Nelson* and R. S. Frisch. Petrology and sedimentology of mixed volcanoclastic and pelagic sedimentary rocks from the southern Tonga Platform, trench slope and trench, and the Lau Ridge. SOPAC Technical Bulletin, *in* Geology and submarine resources of the Tonga-Lau-Fiji region. (A. J. Stevenson, editor and others). 8, 1994. p. 235-259.
- J. E. Barbash, G. P. Thelin, D. W. Kolpin and R. J. Gilliom. Major herbicides in ground water; results from the National Water-Quality Assessment. *Journal of Environmental Quality*. v. 30, no. 3, June 2001. p. 831-845.
- Aykut Barka*, S. Akyuz*, E. Altunel*, G. Sunal*, Ziyadin Cakir*, A. Dikbas*, B. Yerli*, T. Rockwell*, J. Dolan*, R. Hartleb*, T. Dawson*, T. Fumal, R. Langridge, H. Stenner, S. Christofferson*, A. Tucker*, Rolando Armijo*, Bertrand Meyer*, Jean-Bernard de Chabaliere*, W. R. Lettis*, W. Page* and Jeff Bachhuber*. The August 17, 1999 Izmit earthquake, $M = 7.4$, eastern Marmara region, Turkey; study of surface rupture and slip distribution, *in* The 1999 Izmit and Duzce earthquakes; preliminary results. (Aykut Barka, editor and others). Istanbul: Istanbul Technical University, 2000. p. 15-30.
- G. R. Barth*, M. C. Hill, T. H. Illangasekare* and Harihar Rajaram*. Predictive modeling of flow and transport in a two-dimensional intermediate-scale, heterogeneous porous medium. *Water Resources Research*. v. 37, no. 10, October 2001. p. 2503-2512.
- G. R. Barth, M. C. Hill, T. H. Illangasekare* and Harihar Rajaram*. Predictive modelling of flow in a two-dimensional intermediate-scale, heterogeneous porous media. IAHS-AISH Publication, *in* Proceedings of the ModelCARE '99 conference; Calibration and reliability in groundwater modelling; coping with uncertainty. (F. Stauffer, editor and others). 265, 2000. p. 265-271.
- Claudio Bartolini*, Mariano Morales*, Edgardo Barrera*, Jose Dominguez*, L. M. Navarro*, Luis Soto*, S. C. Finney* and Claire Carter. Geological reconnaissance of Ordovician deep-marine sequences in central Sonora, Mexico. Field Trip Guidebook - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Ordovician odyssey; short papers for the Seventh international symposium on the Ordovician System. (J. D. Cooper, editor and others). 77, June 1995. p. 285-289.
- G. W. Bawden, Wayne Thatcher, R. S. Stein, K. W. Hudnut and Gilles Peltzer*. Tectonic contraction across Los Angeles after removal of groundwater pumping effects. *Nature (London)*. v. 412, no. 6849, August 23, 2001. p. 812-815.
- J. C. Behrendt. Innocents on the ice; a memoir of Antarctic exploration, 1957. Niwot, CO: University Press of Colorado, 1998. 428 p.
- B. A. Bekins, I. M. Cozzarelli, E. M. Godsy, Ean Warren, H. I. Essaid and M. E. Tuccillo*. Progression of natural attenuation processes at a crude oil spill site; II, Controls on spatial distribution of microbial populations. *Journal of Contaminant Hydrology*, *in* Natural attenuation of organic pollutants in groundwater. (Peter Grathwohl, editor and others). v. 53, no. 3-4, December 15, 2001. p. 387-406.
- J. M. Benoit*, R. P. Mason*, C. C. Gilmour* and G. R. Aiken. FLORIDA. Constants for mercury binding by dissolved organic matter isolates from the Florida Everglades. *Geochimica et Cosmochimica Acta*. v. 65, no. 24, December 2001. p. 4445-4451.
- Larry Benson, Michael Kashgarian*, Robert Rye, Steve Lund*, Fred Paillet, Joseph Smoot, Cynthia Kester*, Scott Mensing*, Dave Meko* and Susan Lindstrom*. CALIFORNIA, NEVADA. Holocene multidecadal and multicentennial droughts affecting Northern California and Nevada. *Quaternary Science Reviews*. v. 21, no. 4-6, February 2002. p. 659-682.
- B. A. Bergamaschi, K. M. Kuivila and M. S. Fram. Pesticides associated with suspended sediments entering San Francisco Bay following the first major storm of water year 1996. *Estuaries*. v. 24, no. 3, June 2001. p. 368-380.
- R. J. Blakely, R. E. Wells, C. S. Weaver and S. Y. Johnson. WASHINGTON. Location, structure, and seismicity of the Seattle fault zone, Washington; evidence from aeromagnetic anomalies, geologic mapping, and seismic-reflection data. *Geological Society of America Bulletin*. v. 114, no. 2, February 2002. p. 169-177.
- D. M. Boore. CALIFORNIA. Comparisons of ground motions from the 1999 Chi-Chi earthquake with empirical predictions largely based on data from California. *Bulletin of the Seismological Society of America*, *in* Dedicated issue on the Chi-Chi, Taiwan earthquake of 20 September 1999. (Ta-liang Teng, editor and others). v. 91, no. 5, October 2001. p. 1212-1217.
- D. M. Boore. Effect of baseline corrections on displacements and response spectra for several recordings of the 1999 Chi-Chi, Taiwan earthquake. *Bulletin of the Seismological Society of America*, *in* Dedicated issue on the Chi-Chi, Taiwan earthquake of 20 September 1999. (Ta-liang Teng, editor and others). v. 91, no. 5, October 2001. p. 1199-1211.
- J. C. Boothroyd*, J. H. Freedman*, H. B. Brenner* and J. R. Stone. RHODE ISLAND. The glacial geology of southern Rhode Island. Annual Meeting - New England Intercollegiate Geological Conference, Guidebook, *in* Guidebook to field trips in Rhode Island and adjacent regions of Connecticut and Massachusetts. (D. P. Murray, editor). 90, 1998. p. C5.1-C5.25.
- J. D. Bredehoeft. Waste remediation; a 21st-century issue. *Forum for Applied Research and Public Policy*. v. 8, no. 1, 1993. p. 135-139.
- G. L. Brewster-Wingard, J. R. Stone and C. W. Holmes. Molluscan faunal distribution in Florida Bay, past and present; an integration of down-core and modern data. *Bulletins of American Paleontology*, *in* Paleocological studies of South Florida. (B. R. Wardlaw, editor). 361, November 28, 2001. p. 199-231.
- T. M. Brocher and T. L. Pratt. WASHINGTON. Data files from the "Dry SHIPS" recordings of the Chi-Chi earthquake, Seattle, Washington. *Bulletin of the Seismological Society of America*, *in* Dedicated issue on the Chi-Chi, Taiwan earthquake of 20 September 1999. (Ta-liang Teng, editor and others). v. 91, no. 5, October 2001. p. 1395.
- P. D. Brooks*, D. M. McKnight* and K. E. Bencala. Annual maxima in Zn concentrations during spring snowmelt in streams impacted by mine drainage. *Environmental Geology (Berlin)*. v. 40, no. 11-12, October 2001. p. 1447-1454.
- K. M. Brown*, D. M. Saffer* and B. A. Bekins. Smectite diagenesis, pore-water freshening, and fluid flow at the toe of the Nankai wedge. *Earth and Planetary Science Letters*. v. 194, no. 1-2, December 30, 2001. p. 97-109.
- C. B. Burden. UTAH. Ground-water conditions in Utah, spring of 2001. Cooperative Investigations Report - Utah, Department of Natural Resources, Report no. 42, 2001. 120 p.



- A. J. Calvert* and M. A. Fisher. Imaging the Seattle fault zone with high-resolution seismic tomography. *Geophysical Research Letters*. v. 28, no. 12, June 15, 2001. p. 2337-2340.
- J. A. Cappa and C. J. Carroll. COLORADO. Annual review 1999; Colorado. Mining Engineering, in *Annual review 1999; mining exploration and coal overviews, state summaries and Canada*. v. 52, no. 5, May 2000. p. 64-67.
- D. R. Cayan, D. H. Peterson, L. Riddle, M. D. Dettinger and R. Smith*. The spring runoff pulse from the Sierra Nevada. Conference on Hydrology - Preprints, in *14th conference on Hydrology*. (E. F. Wood, chairperson). 14, 1999. p. 77-79.
- L. D. Cecil, L. A. Senior and K. L. Vogel. PENNSYLVANIA. Radium-226, radium-228, and radon-222 in ground water of the Chickies Quartzite, southeastern Pennsylvania, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 267-277.
- M. Celebi. Revelations from a single strong-motion record retrieved during the 27 June 1998 Adana (Turkey) earthquake. *Soil Dynamics and Earthquake Engineering* (1984), in *SDEE'99; the 9th international conference on Soil dynamics and earthquake engineering*. (K. Atakan, editor). v. 20, no. 5-8, December 2000. p. 283-288.
- M. Celebi. GPS in dynamic monitoring of long-period structures. *Soil Dynamics and Earthquake Engineering* (1984), in *SDEE'99; the 9th international conference on Soil dynamics and earthquake engineering*. (K. Atakan, editor). v. 20, no. 5-8, December 2000. p. 477-483.
- Mehmet Celebi, Selcuk Toprak and Thomas Holzer. Strong-motion, site-effects and hazard issue in rebuilding Turkey; in light of the 17 August, 1999 earthquake and its aftershocks, in *The 1999 Izmit and Duzce earthquakes; preliminary results*. (Aykut Barka, editor and others). Istanbul: Istanbul Technical University, 2000. p. 247-263.
- E. F. Chacho, Jr.*, R. L. Burrows and W. W. Emmett. Monitoring gravel movement in rivers. Miscellaneous Paper HL (Vicksburg), in *Streams above the line; channel morphology and flood control; Proceedings of the Corps of Engineers workshop on Steep streams*. (U. S. Army Engineer Waterways Experiment Station, Hydraulics Laboratory). Report no. WES/MP/HL-94-4, September 20, 1994. p. 4.1-4.11. Available at: National Technical Information Service, (703)605-6000, order number AD-A285 165/7NEG, Springfield, VA, United States.
- F. S. Chapin, III*, A. D. McGuire, J. R. Randerson*, R. Pielke, Sr.*, D. D. Baldocchi*, S. E. Hobbie*, N. Roulet*, Werner Eugster*, E. S. Kasiskhe*, E. B. Rastetter*, S. A. Zimov* and S. W. Running*. Arctic and boreal ecosystems of western North America as components of the climate system. *Global Change Biology, in Circumpolar extrapolation of Arctic-boreal feedbacks to climate*. (F. S. Chapin, III, editor). 6, Suppl. 1, December 2000. p. 211-223.
- I-Ming Chou, R. R. Seal, II and B. S. Hemingway. Determination of melanterite-rozenite and chalcantite-bonattite equilibria by humidity measurements at 0.1 MPa. *American Mineralogist*. v. 87, no. 1, January 2002. p. 108-114.
- H. K. Christiansen. Major areas of ground-water development; central Virgin River area. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah, spring of 2001*. (C. B. Burden). Report no. 42, 2001. p. 96-101.
- H. K. Christiansen. Major areas of ground-water development; Escalante Valley, Beryl-Enterprise area. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah, spring of 2001*. (C. B. Burden). Report no. 42, 2001. p. 90-95.
- J. S. Clein*, B. L. Kwiatkowski*, A. D. McGuire, J. E. Hobbie*, E. B. Rastetter*, J. M. Melillo* and D. W. Kicklighter*. Modelling carbon responses of tundra ecosystems to historical and projected climate; a comparison of a plot and a global-scale ecosystem and model to identify process-based uncertainties. *Global Change Biology, in Circumpolar extrapolation of Arctic-boreal feedbacks to climate*. (F. S. Chapin, III, editor). 6, Suppl. 1, December 2000. p. 127-140.
- T. A. Cohn, W. L. Lane* and J. R. Stedinger*. Confidence intervals for expected moments algorithm flood quantile estimates. *Water Resources Research*. v. 37, no. 6, June 2001. p. 1695-1706.
- Timothy Cohn. Research review presentations; contributions to natural disaster reduction and risk assessments; Department of Interior (DOI), U. S. Geological Survey (USGS), in *Proceedings of the Forum on Risk management and assessments of natural hazards; toward a safer America; building natural hazard resistant communities through risk management and assessments*. Washington, DC: U. S. Department of Commerce/National Oceanic and Atmospheric Administration, July 2001. p. 8.8.
- S. M. Colman, P. C. Baucom, J. F. Bratton, T. M. Cronin, J. P. McGeehin, Debra Willard, A. R. Zimmerman* and P. R. Vogt*. Radiocarbon dating, chronologic framework, and changes in accumulation rates of Holocene estuarine sediments from Chesapeake Bay. *Quaternary Research* (New York). v. 57, no. 1, January 2002. p. 58-70.
- T. W. Cooney. SOUTH CAROLINA. Hydrologic data collection activities by the U. S. Geological Survey (South Carolina District), in *Proceedings of the Southern weather data management workshop on National and regional climate data networks; issues and recommendations..* National Weather Service, 1991.
- S. R. Corsi, N. L. Booth and D. W. Hall. WISCONSIN. Aircraft and runway deicers at General Mitchell International Airport, Milwaukee, Wisconsin, USA; 1, Biochemical oxygen demand and dissolved oxygen in receiving streams. *Environmental Toxicology and Chemistry*. v. 20, no. 7, 2000. p. 1474-1482.
- S. R. Corsi, D. W. Hall and S. W. Geis*. WISCONSIN. Aircraft and runway deicers at General International Airport, Milwaukee, Wisconsin, USA; 2, Toxicity of aircraft and runway deicers. *Environmental Toxicology and Chemistry*. v. 20, no. 7, 2000. p. 1483-1490.
- I. M. Cozzarelli, B. A. Bekins, M. J. Baedecker, G. R. Aiken, R. P. Eganhouse and M. E. Tuccillo*. Progression of natural attenuation processes at a crude-oil spill site; I, Geochemical evolution of the plume. *Journal of Contaminant Hydrology, in Natural attenuation of organic pollutants in groundwater*. (Peter Grathwohl, editor and others). v. 53, no. 3-4, December 15, 2001. p. 369-385.
- T. M. Cronin, C. W. Holmes, G. L. Brewster-Wingard, S. E. Ishman*, H. J. Dowsett, D. Keyser* and N. Waibel. Historical trends in epiphytal ostracodes from Florida Bay; implications for



- seagrass and macro-benthic algal variability. *Bulletins of American Paleontology*, in *Paleoecological studies of South Florida*. (B. R. Wardlaw, editor). 361, November 28, 2001. p. 159-197.
- William Cunningham. *Hydrogeology*. *Geotimes*. v. 46, no. 7, July 2001. p. 23-24.
- G. K. Czamanske*, J. L. Wooden, R. J. Walker*, V. A. Fedorenko*, O. N. Simonov*, J. R. Budahn and D. F. Siems. Geochemical, isotopic, and SHRIMP age data for Precambrian basement rocks, Permian volcanic rocks, and sedimentary host rocks to the ore-bearing intrusions, Noril'sk-Talnakh District, Siberian Russia. *International Geology Review*. v. 42, no. 10, October 2000. p. 895-927.
- M. R. Danner. Major areas of ground-water development; Cache Valley. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah*, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 13-17.
- M. D. Dettinger, Kingtse Mo*, D. R. Cayan and A. E. Jeton. CALIFORNIA. Global to local scale simulations of streamflow in the Merced, American, and Carson rivers, Sierra Nevada, California. Conference on Hydrology - Preprints, in 14th conference on Hydrology. (E. F. Wood, chairperson). 14, 1999. p. 80-82.
- B. DeVivo*, R. Somma, R. A. Ayuso, G. Calderoni*, A. Lima*, S. Pagliuca* and A. Sava*. Pb isotopes and toxic metals in floodplain and stream sediments from the Volturno River basin, Italy. *Environmental Geology* (Berlin). v. 41, no. 1-2, November 2001. p. 101-112.
- Michele Di Filippo*, Salvatore Lombardi*, Giovanni Nappi*, G. M. Reimer, Alberto Renzulli* and Beniamino Toro*. Volcano; tectonic structures, gravity and helium in geothermal areas of Tuscany and Latium (Vulsini volcanic district), Italy. *Geothermics*. v. 28, no. 3, June 1999. p. 377-393.
- R. L. Dinehart. Bedform movement recorded by sequential single-beam surveys in tidal rivers. *Journal of Hydrology*. v. 258, no. 1-4, February 28, 2002. p. 25-39.
- Paul Downhour. Major areas of ground-water development; Sevier Desert. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah*, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 52-59.
- W. B. Durham*, L. A. Stern and S. H. Kirby. Rheology of ice I at low stress and elevated confining pressure. *Journal of Geophysical Research*, B, Solid Earth and Planets. v. 106, no. 6, June 10, 2001. p. 11,031-11,042.
- J. S. Duval. Use of aerial gamma-ray data to estimate relative amounts of radon in soil gas, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 155-162.
- G. S. Dwyer* and T. M. Cronin. Ostracode shell chemistry as a paleosalinity proxy in Florida Bay. *Bulletins of American Paleontology*, in *Paleoecological studies of South Florida*. (B. R. Wardlaw, editor). 361, November 28, 2001. p. 249-276.
- R. J. Eacret. Major areas of ground-water development; Juab Valley. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah*, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 46-51.
- A. S. Ellis*, T. M. Johnson* and T. D. Bullen. Chromium isotopes and the fate of hexavalent chromium in the environment. *Science*. v. 295, no. 5562, March 15, 2002. p. 2060-2062.
- M. S. Ellis. U. S. Geological Survey 1999 assessment of Wyodak-Anderson coal resources in the Powder River basin, Wyoming and Montana. Guidebook - Wyoming Geological Association, in *Wyoming Geological Association Guidebook*; coalbed methane and the Tertiary geology of the Powder River basin, Wyoming and Montana. (W. R. Miller, editor). 50, 1999. p. 43-60.
- E. T. Endo and Tom Murray*. Real-time seismic amplitude measurement (RSAM); a volcano monitoring and prediction tool. *Bulletin of Volcanology*. v. 53, no. 7, September 1991. p. 533-545.
- M. C. Eppes*, L. D. McFadden*, J. Matti and R. Powell. CALIFORNIA. Influence of soil development on the geomorphic evolution of landscapes; an example from the Transverse Ranges of California. *Geology* (Boulder). v. 30, no. 3, March 2002. p. 195-198.
- S. B. Feldman*, L. W. Zelazny*, M. J. Pavich and H. T. Millard, Jr. VIRGINIA. Late Pleistocene eolian activity and post-depositional alteration on the Piedmont of northern Virginia. *Southeastern Geology*, in *Regolith in the Central and Southern Appalachians*. (G. M. Clark and others). v. 39, no. 3-4, October 2000. p. 183-198.
- Imma Ferrer*, Damià Barceló* and E. M. Thurman. Double-disk solid-phase extraction; simultaneous cleanup and trace enrichment of herbicides and metabolites from environmental samples. *Analytical Chemistry* (Washington, DC). v. 71, no. 5, March 1, 1999. p. 1009-1015.
- J. H. Ficken. Instruments for measuring suspended sediment. Proceedings - Federal Interagency Sedimentation Conference, in *Proceedings of the Fourth federal interagency sedimentation conference*. v. 4, no. 1, 1986. p. 1.40-1.50.
- M. J. Fisher. UTAH. Major areas of ground-water development; Utah and Goshen valleys. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah*, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 38-45.
- M. J. Fisher. Major areas of ground-water development; East Shore area. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah*, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 18-23.
- M. J. Fisher. Major areas of ground-water development; other areas. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah*, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 102-120.
- N. S. Fishman, J. L. Ridgley and D. L. Hall*. Timing of gas generation in the Cretaceous Milk River Formation, southeastern Alberta and southwestern Saskatchewan; evidence from authigenic carbonates. Summary of Investigations by the Saskatchewan Geological Survey, in *Summary of investigations 2001*; Volume 1, Saskatchewan Geological Survey. (J. E. Christopher, editor and others). Report no. 2001-4.1, 2001. p. 125-136. Available at: Saskatchewan Energy and Mines, Communications Branch, Regina, SK, Canada.
- M. D. Fleming, F. S. Chapin, III*, Wolfgang Cramer*, G. L. Hufford*, Wolfgang Cramer* and M. C. Serreze*. ALASKA. Geographic patterns and dynamics of Alaska climate interpolated



- from a sparse station record. *Global Change Biology*, in *Circumpolar extrapolation of Arctic-boreal feedbacks to climate*. (F. S. Chapin, III, editor). 6, Suppl. 1, December 2000. p. 49-58.
- R. M. Flores. WYOMING, MONTANA. Wyodak-Anderson coal zone in the Powder River basin, Wyoming and Montana; a tale of uncorrelatable coal beds. Guidebook - Wyoming Geological Association, in *Wyoming Geological Association Guidebook; coalbed methane and the Tertiary geology of the Powder River basin, Wyoming and Montana*. (W. R. Miller, editor). 50, 1999. p. 1-24.
- Yves Fouquet*, Robert Zierenberg, Jay Miller*, J. M. Bahr*, P. A. Baker*, Terje Bjerksgarden*, C. A. Brunner*, R. C. Duckworth*, Robert Gable*, Joris Gieskes*, W. D. Goodfellow*, H. M. Groschel Baker*, Gilles Guerin*, Junichiro Ishibashi*, Gerardo Iturrino*, R. H. James*, K. S. Lackschewitz*, L. L. Marquez*, Pierre Nehlig*, J. M. Peter*, C. A. Rigsby*, Peter Schultheiss*, W. C. Shanks, III*, B. R. T. Simoneit*, Melanie Summit*, D. A. H. Teagle*, Michael Urbat* and G. G. Zuffa*. Leg 169 drills a major massive sulfide deposit on a sediment-buried spreading center. *JOIDES Journal*. v. 23, no. 1, 1997. p. 4-5, 31.
- K. Fredriksson*, A. Dube*, D. J. Milton and M. S. Balasundaram*. Lonar Lake, India; an impact crater in basalt. *Memoir - Geological Society of India*, in *Deccan volcanic province (geomorphology, mineralogy and petrology, geochemistry, Lonar Lake)*. (K. V. Subbarao, editor). 43, Part 2, 1999. p. 921-927.
- R. F. Fudali*, D. J. Milton, K. Fredriksson* and A. Dube*. Morphology of Lonar Crater, India; comparisons and implications. *Memoir - Geological Society of India*, in *Deccan volcanic province (geomorphology, mineralogy and petrology, geochemistry, Lonar Lake)*. (K. V. Subbarao, editor). 43, Part 2, 1999. p. 933-947.
- Richard Goldfarb, C. J. R. Hart*, Marti Miller, Lance Miller*, G. L. Farmer* and David Groves*. The Tintina gold belt; a global perspective, in *The Tintina gold belt; concepts, exploration, and discoveries; Special Volume 2*. (T. L. Tucker, chairperson and others). January 2000. p. 5-34. *Available at: British Columbia and Yukon Chamber of Mines, Vancouver, BC, Canada*.
- J. R. Gray and R. H. Webb. NEW MEXICO, ARIZONA. Radionuclides in the Puerco and lower Little Colorado River basins, New Mexico and Arizona, before 1987, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 297-311.
- Ken Greager*, Robert Crosson*, Thomas Pratt, Craig Weaver, Steven Kramer*, Gregory MacRae*, Dawn Lehman*, Marc Eberhard*, Laura Lowes*, John Stanton*, Don Ballantyne*, Peter May* and Stephanie Chang*. WASHINGTON. The Nisqually, Washington, earthquake of February 28, 2001; EERI learning from earthquakes; preliminary reconnaissance report, Report no. 2001-01, March 2001. 25 p. *Available at: Earthquake Engineering Research Institute, Oakland, CA, United States*.
- J. R. Green, L. D. Cecil, D. L. Naftz and P. F. Schuster. USGS research on three mid-latitude glaciers. *Proceedings of the Western Snow Conference*, in *Proceedings of the Western snow conference; 68th annual meeting*. (Kelly Elder, editor). 68, April 2000. p. 49-56.
- T. R. Green*, J. E. Constantz and D. L. Freyberg*. Upscaled soil-water retention using van Genuchten's function. *Journal of Hydrologic Engineering*. v. 1, no. 3, July 1996. p. 123-130.
- C. A. Grosbois*, A. J. Horowitz, J. J. Smith and K. A. Elrick. IDAHO. The effect of mining and related activities on the sediment-trace element geochemistry of Lake Coeur d'Alene, Idaho, USA; Part III, Downstream effects; the Spokane River basin. *Hydrological Processes*. v. 15, no. 5, April 15, 2001. p. 855-875.
- J. N. Grossman, C. M. O. Alexander*, Jianhua Wang* and A. J. Brearley*. Zoned chondrules in Semarkona; evidence for high- and low-temperature processing. *Meteoritics & Planetary Science*. v. 37, no. 1, January 2002. p. 49-73.
- J. N. Grossman and Jutta Zipfel*. The Meteoritical Bulletin, No. 85, 2001 September. *Meteoritics & Planetary Science*, in 64th annual meeting of the Meteoritical Society; abstracts. (G. J. Consolmagno, chairperson). v. 36, no. 9, Suppl. September 2001. p. 293-322.
- Jean-Marc Guarini, G. F. Blanchard* and Philippe Gros*. Quantification of the microphytobenthic primary production in European intertidal mudflats; a modelling approach. *Continental Shelf Research*, in *Intertidal mudflats, properties and processes; Part II, Mudflat processes*. (K. R. Dyer, editor). v. 20, no. 12-13, 2000. p. 1771-1788.
- S. P. S. Gulick*, A. S. Meltzer* and S. H. Clarke, Jr. CALIFORNIA. Effect of the northward-migrating Mendocino triple junction on the Eel River forearc basin, California; stratigraphic development. *Geological Society of America Bulletin*. v. 114, no. 2, February 2002. p. 178-191.
- L. C. S. Gundersen. Radon in sheared metamorphic and igneous rocks, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 39-50.
- L. C. S. Gundersen and R. B. Wanty (editors). *Field studies of radon in rocks, soils, and water*. Boca Raton, FL: CRC Press, 1993. 334 p.
- P. L. Haraden. Major areas of ground-water development; Salt Lake valley. *Cooperative Investigations Report - Utah*, Department of Natural Resources, in *Ground-water conditions in Utah, spring of 2001*. (C. B. Burden). Report no. 42, 2001. p. 24-31.
- J. W. Harden, S. E. Trumbore*, B. J. Stocks*, A. Hirsch*, S. T. Gower*, K. P. O'Neill* and E. S. Kasischke*. The role of fire in the boreal carbon budget. *Global Change Biology*, in *Circumpolar extrapolation of Arctic-boreal feedbacks to climate*. (F. S. Chapin, III, editor). 6, Suppl. 1, December 2000. p. 174-184.
- A. G. Harris, J. A. Dumoulin, J. E. Repetski and Claire Carter. ALASKA. Correlation of Ordovician rocks of Northern Alaska. *Field Trip Guidebook - Pacific Section, Society of Economic Paleontologists and Mineralogists*, in *Ordovician odyssey; short papers for the Seventh international symposium on the Ordovician System*. (J. D. Cooper, editor and others). 77, June 1995. p. 21-26.
- Masaki Hayashi* and D. O. Rosenberry. Effects of groundwater exchange on the hydrology and ecology of surface waters. *Journal of Groundwater Hydrology*, in *Special issue on Submarine groundwater discharge and saltwater intrusion*. v. 43, no. 4, November 2001. p. 327-341.



- J. D. Hem and F. N. Robertson. ARIZONA. Hydrogeochemistry of ground water recharge in alluvial aquifers, southern Arizona. Symposium on Artificial Recharge of Groundwater. Symposium Proceedings, in Third symposium on Artificial recharge of groundwater in Arizona; let's get moving; symposium proceedings. 3, 1987. p. 30-51.
- M. E. Henry, M. E. Kaeding* and Donald Monteverde*. NEW JERSEY. Radon in soil gas and gamma-ray activity of rocks and soils at the Mulligan Quarry, Clinton, New Jersey, in Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 65-75.
- M. C. Hill, F. A. D'Agnese and C. C. Faunt. Guidelines for model calibration and application to flow simulation in the Death Valley regional groundwater system. IAHS-AISH Publication, in Proceedings of the ModelCARE '99 conference; Calibration and reliability in groundwater modelling; coping with uncertainty. (F. Stauffer, editor and others). 265, 2000. p. 195-204.
- Z. D. Hill. NEBRASKA. Estimated water use in Nebraska, 1990, December 1994. 58 p. Available at: Nebraska Natural Resources Commission, United States.
- S. M. Hodge and S. K. Doppelhammer. Satellite imagery of the onset of streaming flow of ice streams C and D, West Antarctica. Journal of Geophysical Research, C, Oceans. v. 101, no. 3, March 15, 1996. p. 6669-6677.
- Joern Hoffmann*, H. A. Zebker*, D. L. Galloway and Falk Amelung*. NEVADA. Seasonal subsidence and rebound in Las Vegas Valley, Nevada, observed by synthetic aperture radar interferometry. Water Resources Research. v. 37, no. 6, June 2001. p. 1551-1566.
- C. W. Holmes, John Robbins*, Robert Halley, Michael Bothner, Marilyn Ten Brink and Marci Marot. Sediment dynamics of Florida Bay mud banks on a decadal time scale. Bulletins of American Paleontology, in Paleocological studies of South Florida. (B. R. Wardlaw, editor). 361, November 28, 2001. p. 31-40.
- Yoon-Seok Hong* and M. R. Rosen. Identification of an urban fractured-rock aquifer dynamics using an evolutionary self-organizing modelling. Journal of Hydrology. v. 259, no. 1-4, March 1, 2002. p. 89-104.
- A. J. Horowitz, K. R. Lum*, J. R. Garbarino, G. E. M. Hall*, Claire Lemieux* and C. R. Demas. The effect of membrane filtration on dissolved trace element concentrations. Water, Air and Soil Pollution. v. 90, no. 1-2, 1996. p. 281-294.
- S. E. Hough. Earthquakes. Geotimes. v. 46, no. 7, July 2001. p. 14-15.
- P. K. House*, A. R. Ramelli* and C. T. Wrucke. NEVADA. Geologic map of the Battle Mountain Quadrangle, Lander County, Nevada. Map - Nevada Bureau of Mines and Geology, Report no. 130, 2001. 1 sheet.
- J. H. Howells. Major areas of ground-water development; Parowan Valley. Cooperative Investigations Report - Utah, Department of Natural Resources, in Ground-water conditions in Utah, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 78-83.
- J. H. Howells. Major areas of ground-water development; Cedar Valley, Iron County. Cooperative Investigations Report - Utah, Department of Natural Resources, in Ground-water conditions in Utah, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 72-77.
- Chien-Cheng Huang*, Yuan-Hsi Lee*, Hsi-Ping Liu, D. K. Keefer and R. W. Jibson. Influence of surface-normal ground acceleration on the initiation of the Jih-Feng-Erh-Shan Landslide during the 1999 Chi-Chi, Taiwan, Earthquake. Bulletin of the Seismological Society of America, in Dedicated issue on the Chi-Chi, Taiwan earthquake of 20 September 1999. (Ta-liang Teng, editor and others). v. 91, no. 5, October 2001. p. 953-958.
- S. E. Ingebritsen, D. L. Galloway, E. M. Colvard, M. L. Sorey and R. H. Mariner. Time-variation of hydrothermal discharge at selected sites in the Western United States; implications for monitoring. Journal of Volcanology and Geothermal Research. v. 111, no. 1-4, November 2001. p. 1-23.
- S. R. Jacobson*, S. C. Finney*, J. R. Hatch and G. A. Ludvigson*. NEVADA, IOWA. Gloeocapsomorpha prisca-driven organic carbon isotope excursion, late Middle Ordovician (Rocklandian), North American Mid-Continent; new data from Nevada and Iowa. Field Trip Guidebook - Pacific Section, Society of Economic Paleontologists and Mineralogists, in Ordovician odyssey; short papers for the Seventh international symposium on the Ordovician System. (J. D. Cooper, editor and others). 77, June 1995. p. 305-308.
- M. E. Jennings (editor). Symposium proceedings on Urban hydrology. Proceedings Series - American Water Resources Association. 26, October 1990.
- D. A. John. Miocene and early Pliocene epithermal gold-silver deposits in the northern Great Basin, Western United States; characteristics, distribution, and relationship to magmatism. Economic Geology and the Bulletin of the Society of Economic Geologists. v. 96, no. 8, December 2001. p. 1827-1853.
- E. G. Josberger, Per Gloersen*, Al Chang* and Albert Rango*. The effects of snowpack grain size on satellite passive microwave observations from the upper Colorado River basin. Journal of Geophysical Research, C, Oceans. v. 101, no. 3, March 15, 1996. p. 6679-6688.
- E. G. Josberger and N. M. Mognard*. Southern Ocean monthly wave fields for austral winters 1985-1988 by Geosat radar altimeter. Journal of Geophysical Research, C, Oceans. v. 101, no. 3, March 15, 1996. p. 6689-6696.
- K. S. Kellogg. COLORADO. Tectonic controls on a large landslide complex; Williams Fork Mountains near Dillon, Colorado. Geomorphology. v. 41, no. 4, December 2001. p. 355-368.
- W. J. Kennedy*, N. H. Landman*, W. A. Cobban and G. R. Scott*. Late Campanian (Cretaceous) heteromorph ammonites from the Western Interior of the United States. Bulletin of the American Museum of Natural History. 251, 2000. 88 p.
- T. A. Kenney. Major areas of ground-water development; Tooele Valley. Cooperative Investigations Report - Utah, Department of Natural Resources, in Ground-water conditions in Utah, spring of 2001. (C. B. Burden). Report no. 42, 2001. p. 32-37.
- S. I. Khan*, V. S. Williams, S. K. Das* and K. Z. Hassan*. Geology of Panchagarh District, Rajshahi Division, Bangladesh. Records of the Geological Survey of Bangladesh. 6, Part 2, 1990. 38 p., 3 sheets.



- B. A. Kimball, R. L. Runkel and L. J. Gerner. UTAH. Quantification of mine-drainage inflows to Little Cottonwood Creek, Utah, using a tracer-injection and synoptic-sampling study. *Environmental Geology* (Berlin). v. 40, no. 11-12, October 2001. p. 1390-1404.
- Chi-Yu King, Calvin Walkingstick and David Basler. CALIFORNIA. Radon in soil gas along active faults in Central California, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 77-143.
- L. F. Konikow and R. C. Ewing*. Is a probabilistic performance assessment enough? *Ground Water*. v. 37, no. 4, August 1999. p. 481-482.
- R. D. Koster* and P. C. D. Milly. The interplay between transpiration and runoff formations in land surface schemes used with atmospheric models. *Journal of Climate*. v. 10, no. 7, July 1997. p. 1578-1591.
- T. F. Kraemer. Uranium, radium, and radon in deeply buried sediments of the U. S. Gulf Coast, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 313-318.
- E. R. Landa. Radon emanation from uranium mill tailings, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 145-154.
- R. J. Langel*, L. S. Seigley*, T. F. Wilton*, J. E. May, M. D. Schueller*, M. W. Birmingham*, G. Wunder*, V. Polton*, J. Tisl* and E. Palas*. IOWA. Sny Magill Nonpoint Source Pollution Monitoring Project, Clayton County, Iowa; water years 1995-1998. Geological Survey Bureau Technical Information Series, Report no. 45, May 2001. 186 p.
- Claudio Latorre*, J. L. Betancourt, K. A. Rylander and Jay Quade*. Vegetation invasions into absolute desert; a 45 000 yr rodent midden record from the Calama-Salar de Atacama basins, northern Chile (lat 22°-24°S). *Geological Society of America Bulletin*. v. 114, no. 3, March 2002. p. 349-366.
- B. M. Laurs*, J. H. Dilles* and L. W. Snee. Emerald mineralization and metasomatism of amphibolite, Khaltaro granitic pegmatite-hydrothermal vein system, Haramosh Mountains, northern Pakistan. *The Canadian Mineralogist*. 34, Part 6, December 1996. p. 1253-1286.
- R. W. Lee and E. F. Hollyday. TENNESSEE. Use of radon measurements in Carters Creek, Maury County, Tennessee, to determine location and magnitude of ground-water seepage, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 237-242.
- M. S. Lico and T. G. Rowe. NEVADA. Radon in ground water of Carson Valley, west-central Nevada, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 279-288.
- T. J. Lopes and D. A. Bender. Nonpoint sources of volatile organic compounds in urban areas; relative importance of land surfaces and air. *Environmental Pollution* (1987). v. 101, no. 2, 1998. p. 221-230.
- J. B. Lowenstern, C. J. Janik, R. O. Fournier, Theodoros Tesfai*, W. A. Duffield*, M. A. Clynne, J. G. Smith, Leake Woldegiorgis*, Kidane Weldemariam* and Gabreab Kahsai*. A geochemical reconnaissance of the Alid volcanic center and geothermal system, Danakil Depression, Eritrea. *Geothermics*. v. 28, no. 2, April 1999. p. 161-187.
- K. R. Ludwig* and J. B. Paces. NEVADA. Uranium-series dating of pedogenic silica and carbonate, Crater Flat, Nevada. *Geochimica et Cosmochimica Acta*. v. 66, no. 3, February 2002. p. 487-506.
- R. H. Mariner and C. J. Janik. Hydrothermal systems in granitic rocks; a synoptic survey of geochemical conditions during early stages of development, *in* Federal Geothermal Research Program update; fiscal year 1995. (U. S. Department of Energy, Geothermal Division). March 1996. p. 4.125-4.133. Available at: U. S. Department of Energy, United States.
- R. H. Mariner and H. W. Young. IDAHO. Lead and strontium isotopes indicate deep thermal-aquifer in Twin Falls, Idaho, area, *in* Federal Geothermal Research Program update; fiscal year 1995. (U. S. Department of Energy, Geothermal Division). March 1996. p. 4.135-4.140. Available at: U. S. Department of Energy, United States.
- Nicolas Massei*, M. Lacroix*, H. Q. Wang*, B. J. Mahler and J. P. Dupont*. Transport of suspended solids from a karstic to an alluvial aquifer; the role of the karst/alluvium interface. *Journal of Hydrology*. v. 260, no. 1-4, March 15, 2002. p. 88-101.
- N. C. Matalas. A scientific focus on island hydrology. Proceedings of the ... IAHR International Symposium on Stochastic Hydraulics, *in* Stochastic hydraulics '92; proceedings of the Sixth IAHR international symposium. (Jan-Tai Kuo, editor and others). 6, 1992. p. 17-35.
- A. D. McGuire, J. S. Clein*, J. M. Melillo*, D. W. Kicklighter*, R. A. Meier*, C. J. Vorosmarty* and M. C. Serreze*. Modelling carbon responses of tundra ecosystems to historical and projected climate; sensitivity of pan-Arctic carbon storage to temporal and spatial variation in climate. *Global Change Biology*, *in* Circumpolar extrapolation of Arctic-boreal feedbacks to climate. (F. S. Chapin, III, editor). 6, Suppl. 1, December 2000. p. 141-159.
- G. F. McIsaac*, M. B. David*, G. Z. Gertner* and D. A. Goolsby. Nitrate flux in the Mississippi River. *Nature* (London). v. 414, no. 6860, November 8, 2001. p. 166-167.
- Steffen Mehl and M. C. Hill. A comparison of solute-transport solution techniques based on inverse modelling results. IAHS-AISH Publication, *in* Proceedings of the ModelCARE '99 conference; Calibration and reliability in groundwater modelling; coping with uncertainty. (F. Stauffer, editor and others). 265, 2000. p. 205-212.
- C. S. Melching and C. G. Yoon*. Key sources of uncertainty in QUAL2E model of Passaic River. *Journal of Water Resources Planning and Management*. v. 122, no. 2, April 1996. p. 105-113.
- Mark Meremonte, Oguz Ozel*, Edward Cranswick, Mustafa Erdik*, Erdal Safak, Dee Overturf, Arthur Frankel and Thomas Holzer. Damage and site response in Avcilar, west of Istanbul, *in* The 1999 Izmit and Duzce earthquakes; preliminary results. (Aykut Barka, editor and others). Istanbul: Istanbul Technical University, 2000. p. 265-276.
- John Metesh, Alan English, Jeff Lonn, Eloise Kendy and Charles Parrett. MONTANA. Hydrogeology of the upper Soda Butte Creek basin, Montana; with sections on climate and streamflow in



- Soda Butte Creek. Report of Investigation - Montana Bureau of Mines and Geology, Report no. 7, 1999. 66 p.
- M. J. Mihalasky and G. F. Bonham-Carter*. NEVADA. Lithodiversity and its spatial association with metallic mineral sites, Great Basin of Nevada. *Natural Resources Research (International Association for Mathematical Geology)*. v. 10, no. 3, September 2001. p. 209-226.
- J. F. Miller* and M. E. Taylor. UTAH. Biostratigraphic significance of *Iapetognathus* (Conodonts) and *Jujuyaspis* (Trilobites) in the House Limestone, Ibex area, Utah. *Field Trip Guidebook - Pacific Section, Society of Economic Paleontologists and Mineralogists, in Ordovician odyssey; short papers for the Seventh international symposium on the Ordovician System*. (J. D. Cooper, editor and others). 77, June 1995. p. 109-112.
- P. C. D. Milly. Sensitivity of greenhouse summer dryness to changes in plant rooting characteristics. *Geophysical Research Letters*. v. 24, no. 3, February 1, 1997. p. 269-271.
- B. F. Molnia. ALASKA. Program feasibility document; OCS hard minerals leasing sand and gravel resources of the continental shelf of Alaska; Appendix 4, August 1979. 73 p. *Available at*: U.S. Geological Survey, Library, Reston, VA, United States.
- D. W. Moore and E. G. Sable. UTAH, ARIZONA. Geologic map of the Smithsonian Butte Quadrangle, Washington County, Utah and Mohave County, Arizona. *Miscellaneous Publication - Utah Geological Survey*, Report no. 01-1, 2001. 30 p., 2 sheets.
- J. B. Moring. TEXAS. Biological aspects of water quality assessments in the Trinity River basin, Texas, in *Program of the 55th annual meeting of the Association of Southeastern Biologists.. Association of Southeastern Biologists*, 1994 1 page.
- J. B. Moring and D. R. Rose. Occurrence and concentrations of polycyclic aromatic hydrocarbons in semipermeable membrane devices and clams in three urban streams of the Dallas-Fort Worth Metropolitan area, Texas. *Chemosphere (Oxford)*. v. 34, no. 3, February 1997. p. 551-566.
- J. L. Morton, G. J. Massoth*, J. E. Lupton* and M. G. Bac. Valu Fa Ridge, Lau Basin; evidence for hydrothermal circulation (S. P. Lee Cruise L3-84-SP). *SOPAC Technical Bulletin, in Geology and submarine resources of the Tonga-Lau-Fiji region*. (A. J. Stevenson, editor and others). 8, 1994. p. 299-306.
- P. A. Mueller*, A. L. Heatherington*, D. M. Kelly*, J. L. Wooden and D. W. Mogk*. Paleoproterozoic crust within the Great Falls tectonic zone; implications for the assembly of southern Laurentia. *Geology (Boulder)*. v. 30, no. 2, February 2002. p. 127-130.
- D. R. Muhs, E. A. Bettis, III*, J. Been and J. P. McGeehin. Impact of climate and parent material on chemical weathering in loess-derived soils of the Mississippi River valley. *Soil Science Society of America Journal*. v. 65, no. 6, December 2001. p. 1761-1777.
- Ann Mullin and R. B. Wanty. A comparison of two techniques for radon-222 measurement in water samples, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 231-235.
- J. L. Mullins, L. D. Hothem and C. A. Hallam. Antarctic geodesy and mapping. *Antarctic Journal of the United States*. v. 32, no. 5, 1998. p. 209-210.
- D. L. Naftz and James Rice*. WYOMING. Geochemical processes controlling selenium concentrations in rocks disturbed by mining and in ground water after mining; Powder River basin, Wyoming. *Proceedings of the ... Annual American Geophysical Union Hydrology Days, in Proceedings of the Eighth annual AGU Front Range Branch hydrology days*. (H. J. Morel-Seytoux, editor). 8, 1988. p. 163-173.
- Manuel Nathenson. NEW MEXICO. The dependence of permeability on effective stress from flow tests at hot dry rock reservoirs at Rosemanowes (Cornwall) and Fenton Hill (New Mexico). *Geothermics*. v. 28, no. 3, June 1999. p. 315-340.
- C. G. Newhall, J. A. Power and R. S. Punongbayan*. "To make grow". *Science*. v. 295, no. 5558, February 15, 2002. p. 1241-1242.
- D. J. Nichols. MONTANA, WYOMING. Stratigraphic palynology of the Fort Union Formation (Paleocene) in the Powder River basin, Montana and Wyoming; a guide to correlation of methane-producing coal zones. *Guidebook - Wyoming Geological Association, in Wyoming Geological Association Guidebook; coalbed methane and the Tertiary geology of the Powder River basin, Wyoming and Montana*. (W. R. Miller, editor). 50, 1999. p. 25-41.
- D. K. Niyogi, C. M. Tate, D. M. McKnight, J. H. Duff and A. S. Alger*. Species composition and primary production of algal communities in dry valley streams in Antarctica; examination of the functional role of biodiversity, in *Ecosystem processes in Antarctic ice-free landscapes*. (W. B. Lyons, editor and others). Rotterdam: A.A. Balkema, 1997. p. 171-179.
- P. E. O'Brien*, A. K. Cooper, C. Richter*, M. Macphail* and E. M. Truswell*. Milestones in Antarctic ice sheet history; preliminary results from Leg 188 drilling in Prydz Bay, Antarctica. *JOIDES Journal*. v. 26, no. 2, 2000. p. 4-10.
- W. A. Oliver, Jr. The principal Pridolian and Lochkovian rugose coral assemblages or communities in eastern North America. *World and Regional Geology, in Paleocommunities; a case study from the Silurian and Lower Devonian*. (A. J. Boucot, editor and others). 11, 1999. p. 800-805.
- Jeff Ollerhead*, D. J. Huntley*, A. R. Nelson and H. M. Kelsey*. OREGON. Optical dating of tsunami-laid sand from an Oregon coastal lake. *Quaternary Science Reviews*. v. 20, no. 18, December 2001. p. 1915-1926.
- W. R. Osterkamp and J. R. Gray. U. S. Geological Survey programs and investigations related to soil and water conservation. *International Journal of Sediment Research*. v. 16, no. 3, 2001. p. 421-429.
- J. K. Otton and G. M. Reimer. WASHINGTON. Radon, helium, and other gases in shallow ground waters of uraniferous Holocene alluvium, Flodelle Creek, Stevens County, Northeast Washington, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 319-334.
- Nurcan Ozel*, Dogan Kalafat*, Ali Pinar*, Gunduz Horasan, Mehmet Yilmazer*, A. M. Isikara*, Edward Cranswick* and Levent Gulen*. Aftershock distribution of the August 17, 1999 Izmit (Kocaeli) earthquake (Mw = 7.4) determined by MARNET in Marmara region, Turkey, in *The 1999 Izmit and Duzce earth-*



- quakes; preliminary results. (Aykut Barka, editor and others). Istanbul: Istanbul Technical University, 2000. p. 201-207.
- Tom Parsons, Aykut Barka*, Shinji Toda*, R. S. Stein* and J. H. Dieterich. Influence of the 17 August 1999 Izmit earthquake on seismic hazards in Istanbul, *in* The 1999 Izmit and Duzce earthquakes; preliminary results. (Aykut Barka, editor and others). Istanbul: Istanbul Technical University, 2000. p. 295-310.
- R. T. Peake* and R. R. Schumann. Regional radon characterizations, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 163-175.
- N. E. Peters and S. J. Kandell*. GEORGIA. Evaluation of stream water quality in Atlanta, Georgia, and the surrounding region (USA). IAHS-AISH Publication, *in* Impacts of urban growth on surface water and groundwater quality; proceedings of an international symposium held during IUGG 99. (J. B. Ellis, editor). 259, 1999. p. 279-290.
- S. G. Peters. Use of structural geology in exploration for and mining of sedimentary rock-hosted Au deposits. Special Publication - Geological Society of Nevada, *in* Regional tectonics and structural control of ore; the major gold trends of northern Nevada; proceedings and field trip guide. (D. R. Shaddrick, editor and others). 33, 2001. p. 147-181.
- L. N. Plummer, Eurybiades Busenberg and A. C. Riggs. NEVADA. In-situ growth of calcite at Devils Hole, Nevada; comparison of field and laboratory rates to a 500,000 year record of near-equilibrium calcite growth. Aquatic Geochemistry, *in* The geochemistry of carbonates and aqueous-solution-solid-solution systems at low temperature; a tribute to Friedrich Lippmann. (M. E. Böttcher, editor). v. 6, no. 2, June 2000. p. 257-274.
- F. F. Pollitz, Chuck Wicks and Wayne Thatcher. Mantle flow beneath a continental strike-slip fault; postseismic deformation after the 1999 Hector Mine earthquake. *Science*. v. 293, no. 5536, September 7, 2001. p. 1814-1818.
- F. G. Poole, J. H. Stewart, W. B. N. Berry*, A. G. Harris, J. E. Repetski, R. J. Madrid*, K. B. Ketner, Claire Carter and J. M. Morales-Ramirez*. Ordovician ocean-basin rocks of Sonora, Mexico. Field Trip Guidebook - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Ordovician odyssey; short papers for the Seventh international symposium on the Ordovician System. (J. D. Cooper, editor and others). 77, June 1995. p. 277-284.
- F. G. Poole, J. H. Stewart, J. E. Repetski, A. G. Harris, R. J. Ross, Jr.*, K. B. Ketner, R. Amaya-Martínez* and J. M. Morales-Ramirez*. Ordovician carbonate-shelf rocks of Sonora, Mexico. Field Trip Guidebook - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Ordovician odyssey; short papers for the Seventh international symposium on the Ordovician System. (J. D. Cooper, editor and others). 77, June 1995. p. 267-275.
- Y. A. Popov*, D. F. C. Pribnow*, J. H. Sass, C. F. Williams* and Hans Burkhardt*. Characterization of rock thermal conductivity by high-resolution optical scanning. *Geothermics*. v. 28, no. 2, April 1999. p. 253-276.
- P. J. Quinterio. Cenozoic calcareous nannoplankton, Lau Ridge (Cruise L3-84-SP), Southwest Pacific Ocean. SOPAC Technical Bulletin, *in* Geology and submarine resources of the Tonga-Lau-Fiji region. (A. J. Stevenson, editor and others). 8, 1994. p. 197-199.
- P. J. Quinterio. Cenozoic calcareous nannoplankton from southern Tonga Platform (Cruise L3-84-SP). SOPAC Technical Bulletin, *in* Geology and submarine resources of the Tonga-Lau-Fiji region. (A. J. Stevenson, editor and others). 8, 1994. p. 67-80.
- P. J. Quinterio, J. A. Barron, David Bukry and C. D. Blome. Late Cretaceous microfossils in a single dredge haul from the Tonga Trench; evidence of Late Cretaceous environment at the Louisville Hotspot. SOPAC Technical Bulletin, *in* Geology and submarine resources of the Tonga-Lau-Fiji region. (A. J. Stevenson, editor and others). 8, 1994. p. 285-291.
- A. R. Ramelli*, P. K. House*, C. T. Wrucke and D. A. John. NEVADA. Geologic map of the Stony Point Quadrangle, Lander County, Nevada. Map - Nevada Bureau of Mines and Geology, Report no. 131, 2001. 1 sheet.
- J. A. Rech*, Jay Quade* and J. L. Betancourt. Late Quaternary paleohydrology of the central Atacama Desert (lat 22°-24°S), Chile. *Geological Society of America Bulletin*. v. 114, no. 3, March 2002. p. 334-348.
- G. M. Reimer. Simple techniques for soil-gas and water sampling for radon analysis, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 19-22.
- G. M. Reimer. Derivation of radon migration rates in the surficial environment by use of helium injection experiments, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 33-38.
- G. M. Reimer, L. C. S. Gundersen, S. L. Szarzi and J. M. Been. Reconnaissance approach to using geology and soil-gas radon concentrations for making rapid and preliminary estimates of indoor radon potential, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 177-181.
- J. L. Ridgley. Lithofacies architecture of the Milk River Formation (Alderson Member of the Lea Park Formation), southwestern Saskatchewan and southeastern Alberta; its relation to gas accumulation. Summary of Investigations by the Saskatchewan Geological Survey, *in* Summary of investigations 2000; Volume 1, Saskatchewan Geological Survey. (J. E. Christopher, editor and others). Report no. 2000-4.1, 2000. p. 106-120. Available at: Saskatchewan Energy and Mines, Communications Branch, Regina, SK, Canada.
- J. L. Ridgley and C. F. Gilboy*. MONTANA. Lithofacies architecture of Upper Cretaceous Belle Fourche Formation, Saskatchewan, Alberta, and Montana; its relationship to sites of shallow biogenic gas production. Summary of Investigations by the Saskatchewan Geological Survey, *in* Summary of investigations 2001; Volume 1, Saskatchewan Geological Survey. (J. E. Christopher, editor and others). Report no. 2001-4.1, 2001. p. 106-120. Available at: Saskatchewan Energy and Mines, Communications Branch, Regina, SK, Canada.
- J. L. Ridgley, T. C. Hester, S. M. Condon, L. O. Anna, E. L. Rowan, T. Cook and P. G. Lillis. Re-evaluation of the shallow biogenic gas accumulation, Northern Great Plains, USA; is the similar gas accumulation in southeastern Alberta and southwestern Saskatchewan



- a good analog? Summary of Investigations by the Saskatchewan Geological Survey, in *Summary of investigations 1999; Volume 1*, Saskatchewan Geological Survey. (J. E. Christopher, editor and others). Report no. 99-4.1, 1999. p. 64-78. Available at: Saskatchewan Energy and Mines, Communications Branch, Regina, SK, Canada.
- A. C. Roberts*, L. A. Groat*, M. Raudsepp*, T. S. Ercit*, R. C. Erd, E. A. Moffatt* and J. A. R. Stirling*. CALIFORNIA. Clearcreekite, a new polymorph of $\text{Hg}^{1+}(\text{CO}_3)(\text{OH})\cdot 2\text{H}_2\text{O}$, from the Clear Creek Claim, San Benito County, California. *The Canadian Mineralogist*. 39, Part 3, June 2001. p. 779-784.
- D. M. Robertson, J. F. Elder, G. L. Goddard and W. F. James*. WISCONSIN. Dynamics in phosphorus retention in wetlands upstream of Delavan Lake, Wisconsin. *Lake and Reservoir Management*. v. 14, no. 4, December 1998. p. 466-477.
- W. I. Rose*, G. J. S. Bluth*, D. J. Schneider, G. G. J. Ernst*, C. M. Riley*, L. J. Henderson* and R. G. McGimsey. ALASKA. Observations of volcanic clouds in their first few days of atmospheric residence; the 1992 eruptions of Crater Peak, Mount Spurr Volcano, Alaska. *Journal of Geology*. v. 109, no. 6, November 2001. p. 677-694.
- H. J. Rossmessl and K. A. Irby. Implementing the spatial data transfer standard. *International Archives of Photogrammetry and Remote Sensing = Archives Internationales de Photogrammetrie et de Télédétection = International Archiv der Photogrammetrie und Fernerkundung*, in *Proceeding of the Symposium on Global and environmental monitoring techniques and impacts*. v. 28, no. 7-1, 1990. p. 624-632.
- E. L. Rowan, M. B. Goldhaber and J. R. Hatch. Regional fluid flow as a factor in the thermal history of the Illinois Basin; constraints from fluid inclusions and the maturity of Pennsylvanian coals. *AAPG Bulletin*. v. 86, no. 2, February 2002. p. 257-277.
- L. F. Ruppert, S. J. Tewalt, L. J. Bragg and R. N. Wallack*. Digital assessment of northern and central Appalachian Basin coals. *Mining Engineering*. v. 51, no. 10, October 1999. p. 37-43.
- E. Safak. Characterization of seismic hazard and structural response by energy flux. *Soil Dynamics and Earthquake Engineering* (1984), in *SDEE'99; the 9th international conference on Soil dynamics and earthquake engineering*. (K. Atakan, editor). v. 20, no. 1-4, December 2000. p. 39-43.
- D. M. Saffer* and B. A. Bekins. Hydrologic controls on the morphology and mechanics of accretionary wedges. *Geology (Boulder)*. v. 30, no. 3, March 2002. p. 271-274.
- Masakatsu Sasada*, Nobuo Doi*, L. J. P. Muffler and J. W. Hedenquist* (editors). Deep geothermal systems Japanese National Project at Kakkonda. *Geothermics*. v. 27, no. 5-6, December 1998. p. 505-721.
- Masakatsu Sasada*, Nobuo Doi*, L. J. P. Muffler and J. W. Hedenquist*. Preface. *Geothermics*, in *Deep geothermal systems Japanese National Project at Kakkonda*. (Masakatsu Sasada, editor and others). v. 27, no. 5-6, December 1998. p. 505.
- J. W. Schmoker, T. D. Fouch and R. R. Charpentier. UTAH. Gas in the Uinta Basin, Utah; resources in continuous accumulations. *The Mountain Geologist*. v. 33, no. 4, October 1996. p. 95-104.
- D. W. Scholl and R. H. Herzer*. Geology and resource potential of the southern Tonga-Lau region. *SOPAC Technical Bulletin*, in *Geology and submarine resources of the Tonga-Lau-Fiji region*. (A. J. Stevenson, editor and others). 8, 1994. p. 329-350.
- D. W. Scholl, R. H. Herzer* and T. L. Vallier. New geophysical and geological data on the mineral and petroleum resource potential of the Tonga region, in *Extended abstracts; Petroleum geology of South Pacific island countries*. Canberra: Australian Bureau of Mineral Resources, 1985. p. 55-62.
- Hans Schouten* and C. R. Denham. Comparison of volcanic construction in the Troodos Ophiolite and oceanic crust using paleomagnetic inclinations from Cyprus Crustal Study Project (CCSP) CY-1 and CY-1A and Ocean Drilling Program (ODP) 504B drill cores. *Special Paper - Geological Society of America, in Ophiolites and oceanic crust; new insights from field studies and the Ocean Drilling Program*. (Yildirim Dilek, editor and others). 349, 2000. p. 181-194.
- J. B. Shanley, Paul Schuster, M. M. Reddy, D. A. Roth, H. E. Taylor and G. R. Aiken. Mercury on the move during snowmelt in Vermont. *Eos, Transactions, American Geophysical Union*. v. 83, no. 5, January 29, 2002. p. 45, 47-48.
- H. A. Short* and D. B. Stewart. MAINE. Faults bounding the north-eastern end of the Liberty-Orrington Belt, south-central Maine. *Annual Meeting - New England Intercollegiate Geological Conference, Guidebook*, in *Guidebook for field trips in coastal and east-central Maine*. (M. G. Yates, editor and others). 92, 2000. p. 38-53.
- Andrew Simon, Massimo Rinaldi* and Greg Hadish*. Channel evolution in the loess area of the Midwestern United States. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Sixth Federal interagency sedimentation conference*. 6, Vol. 1, 1996. p. 86-93.
- S. A. Sipkin, C. G. Bufe and M. D. Zirbes. Moment-tensor solutions estimated using optimal filter theory; global seismicity, 2000. *Physics of the Earth and Planetary Interiors*. v. 130, no. 1-2, March 15, 2002. p. 129-142.
- J. F. Slack, A. R. Ramsden*, W. L. Griffin*, T. T. Win*, D. H. French* and C. G. Ryan*. Trace elements in tourmaline from the Kidd Creek massive sulfide deposit and vicinity, Timmins, Ontario; a proton microprobe study. *Economic Geology Monographs*, in *The giant Kidd Creek volcanogenic massive sulfide deposit, western Abitibi Subprovince, Canada*. (M. D. Hannington, editor and others). 10, 1999. p. 415-429.
- B. A. Slauch. Major areas of ground-water development; Escalante Valley, Milford area. *Cooperative Investigations Report - Utah, Department of Natural Resources*, in *Ground-water conditions in Utah, spring of 2001*. (C. B. Burden). Report no. 42, 2001. p. 84-89.
- B. A. Slauch. Major areas of ground-water development; central Sevier Valley. *Cooperative Investigations Report - Utah, Department of Natural Resources*, in *Ground-water conditions in Utah, spring of 2001*. (C. B. Burden). Report no. 42, 2001. p. 60-65.
- M. C. Smith*, M. R. Perfit*, D. J. Fornari*, W. I. Ridley, M. H. Edwards*, G. J. Kurras* and K. L. Von Damm*. Magmatic processes and segmentation at a fast spreading mid-ocean ridge; detailed investigation of an axial discontinuity on the East Pacific Rise crest



- at 9°37'N. Geochemistry, Geophysics, Geosystems - G 3. 2001, October 16, 2001. 32 p., Paper 2000GC000134.
- P. E. Smith, R. N. Olthmann and M. R. Simpson. CALIFORNIA. Data set for verification of 3-D free-surface hydrodynamic models, Carquinez Strait, California, in *Environmental engineering; saving a threatened resource; proceedings*. New York, NY: American Society of Civil Engineers, 1992. p. 430-435.
- J. D. Sory. Major areas of ground-water development; Curlew Valley. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah, spring of 2001*. (C. B. Burden). Report no. 42, 2001. p. 7-12.
- Jan Srodon*, V. A. Drits*, D. K. McCarty*, J. C. C. Hsieh* and D. D. Eberl. Quantitative x-ray diffraction analysis of clay-bearing rocks from random preparations. *Clays and Clay Minerals*. v. 49, no. 6, 2001. p. 514-528.
- A. J. Stevenson, R. J. Herzer* and P. F. Ballance* (editors). *Geology and submarine resources of the Tonga-Lau-Fiji region*. SOPAC Technical Bulletin. 8, 1994. 350 p.
- J. R. Stone, Mary DiGiacomo-Cohen*, R. S. Lewis* and Richard Goldsmith. CONNECTICUT. Recessional moraines and associated deglacial record of southeastern Connecticut and Long Island Sound. Annual Meeting - New England Intercollegiate Geological Conference, Guidebook, in *Guidebook to field trips in Rhode Island and adjacent regions of Connecticut and Massachusetts*. (D. P. Murray, editor). 90, 1998. p. B7.1-B7.20.
- G. W. Su, J. T. Geller*, Karsten Pruess* and J. R. Hunt*. Solute transport along preferential flow paths in unsaturated fractures. *Water Resources Research*. v. 37, no. 10, October 2001. p. 2481-2491.
- V. Sucha*, J. Srodon*, N. Clauer*, F. Elsass*, D. D. Eberl, I. Kraus* and J. Madejová*. Weathering of smectite and illite-smectite under temperate climatic conditions. *Clay Minerals*. v. 36, no. 3, September 2001. p. 403-419.
- R. L. Swenson. Major areas of ground-water development; Pahvant Valley. Cooperative Investigations Report - Utah, Department of Natural Resources, in *Ground-water conditions in Utah, spring of 2001*. (C. B. Burden). Report no. 42, 2001. p. 66-71.
- P. N. Swift* and E. R. Force. ARIZONA. Subduction-margin assemblages in the Proterozoic Pinal and Cochise blocks, southeastern Arizona. *American Journal of Science*. v. 301, no. 9, November 2001. p. 755-772.
- Zoltan Szabo and O. S. Zapeczka. NEW JERSEY. Geologic and geochemical factors controlling uranium, radium-226, and radon-222 in ground water, Newark Basin, New Jersey, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 243-265.
- J. E. Tagudin and D. W. Scholl. The westward migration of the Tofua volcanic arc toward Lau Basin. SOPAC Technical Bulletin, in *Geology and submarine resources of the Tonga-Lau-Fiji region*. (A. J. Stevenson, editor and others). 8, 1994. p. 121-129.
- A. B. Tanner. Methods of characterization of ground for assessment of indoor radon potential at a site, in *Field studies of radon in rocks, soils, and water*. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 1-18.
- D. R. Tappin*, R. H. Herzer* and A. J. Stevenson. Structure and history of an oceanic forearc; the Tonga Ridge 22° to 26° south. SOPAC Technical Bulletin, in *Geology and submarine resources of the Tonga-Lau-Fiji region*. (A. J. Stevenson, editor and others). 8, 1994. p. 81-100.
- B. E. Taylor*, M. R. Palmer* and J. F. Slack. Mineralizing fluids in the Kidd Creek massive sulfide deposit, Ontario; evidence from oxygen, hydrogen, and boron isotopes in tourmaline. *Economic Geology Monographs*, in *The giant Kidd Creek volcanogenic massive sulfide deposit, western Abitibi Subprovince, Canada*. (M. D. Hannington, editor and others). 10, 1999. p. 389-414.
- J. F. Taylor* and J. E. Repetski. NEW MEXICO. High-resolution trilobite and conodont biostratigraphy across the Cambrian-Ordovician boundary in south-central New Mexico. *Field Trip Guidebook - Pacific Section, Society of Economic Paleontologists and Mineralogists*, in *Ordovician odyssey; short papers for the Seventh international symposium on the Ordovician System*. (J. D. Cooper, editor and others). 77, June 1995. p. 133-136.
- S. F. Tebbens*, S. M. Burroughs*, C. C. Barton and D. F. Naar*. Statistical self-similarity of hotspot seamount volumes modeled as self-similar criticality. *Geophysical Research Letters*. v. 28, no. 14, July 15, 2001. p. 2711-2714.
- E. R. Thieler, O. H. Pilkey*, W. J. Cleary* and W. C. Schwab. Modern sedimentation on the shoreface and inner continental shelf at Wrightsville Beach, North Carolina, U.S.A. *Journal of Sedimentary Research, Section B: Stratigraphy and Global Studies*. v. 71, no. 6, November 2001. p. 958-970.
- K. A. Thorn and M. A. Mikita*. Nitrate fixation by humic substances; nitrogen-15 nuclear magnetic resonance evidence for potential intermediates in chemodenitrification. *Soil Science Society of America Journal*. v. 64, no. 2, April 2000. p. 568-582.
- C. R. Thorber. Olivine-liquid relations of lava erupted by Kilauea Volcano from 1994 to 1998; implications for shallow magmatic processes associated with the ongoing east-rift-zone eruption. *The Canadian Mineralogist*, in *Phase equilibria in basaltic systems; a tribute to Peter L. Roeder*. (Dante Canil, editor and others). 39, Part 2, April 2001. p. 239-266.
- C. R. Tobias*, S. A. Macko*, I. C. Anderson*, E. A. Canuel* and J. W. Harvey. Tracking the fate of a high concentration groundwater nitrate plume through a fringing marsh; a combined groundwater tracer and in situ isotope enrichment study. *Limnology and Oceanography*. v. 46, no. 8, December 2001. p. 1977-1989.
- Jack Townshend. ALASKA. Fifty years of monitoring geophysical data at Barrow, Alaska, in *Fifty more years below zero; tributes and meditations for the Naval Arctic Research Laboratory's first half century at Barrow, Alaska*. (D. W. Norton, editor). Calgary, AB: Arctic Institute of North America, 2001. p. 61-64.
- P. V. Unnikrishna*, J. J. McDonnell* and Carol Kendall. Isotope variations in a Sierra Nevada snowpack and their relation to melt-water. *Journal of Hydrology*. v. 260, no. 1-4, March 15, 2002. p. 38-57.
- Steve Vandas and N. L. Cronin*. Hazardous waste; cleanup and prevention. *Science and Children*. v. 33, no. 7, April 1996. p. 23-24, 35.



- J. F. Walker and Dapei Wang*. Measurement of flow under ice covers in North America. *Journal of Hydraulic Engineering*. v. 123, no. 11, November 1997. p. 1037-1040.
- R. B. Wanty, P. H. Briggs and L. C. S. Gundersen. PENNSYLVANIA. Geochemistry of groundwater and radionuclide mobility in two areas of the Reading Prong, eastern Pennsylvania, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 289-296.
- R. B. Wanty and Robert Schoen. A review of the chemical processes affecting the mobility of radionuclides in natural waters, with applications, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 183-194.
- B. R. Wardlaw. FLORIDA. Introduction to paleoecological studies of South Florida and the implications for land management decisions. *Bulletins of American Paleontology*, *in* Paleoecological studies of South Florida. (B. R. Wardlaw, editor). 361, November 28, 2001. p. 5-15.
- B. R. Wardlaw (editor). FLORIDA. Paleoecological studies of South Florida. *Bulletins of American Paleontology*. 361, November 28, 2001. 280 p.
- H. S. Washington. Deccan Traps and other Plateau basalts. *Memoir-Geological Society of India*, *in* Deccan volcanic province (geomorphology, mineralogy and petrology, geochemistry, Lonar Lake). (K. V. Subbarao, editor). 43, Part 2, 1999. p. 823-836.
- W. D. Watson*, L. F. Ruppert, L. J. Bragg and S. J. Tewalt. A geostatistical approach to predicting sulfur content in the Pittsburgh coal bed. *International Journal of Coal Geology*. v. 48, no. 1-2, December 2001. p. 1-22.
- R. E. Weems and W. C. Lewis. SOUTH CAROLINA. Structural and tectonic setting of the Charleston, South Carolina, region; evidence from the Tertiary stratigraphic record. *Geological Society of America Bulletin*. v. 114, no. 1, January 2002. p. 24-42.
- R. L. Wershaw, J. A. Leenheer, K. R. Kennedy and T. I. Noyes. Use of ^{13}C NMR and FTIR for elucidation of degradation pathways during natural litter decomposition and composting; I, Early stage leaf degradation. *Soil Science*. v. 161, no. 10, October 1996. p. 667-679.
- A. J. West*, S. E. G. Findlay*, D. A. Burns, K. C. Weathers* and G. M. Lovett*. NEW YORK. Catchment-scale variation in the nitrate concentrations of groundwater seeps in the Catskill Mountains, New York, U.S.A. *Water, Air and Soil Pollution*. v. 132, no. 3-4, December 2001. p. 389-400.
- L. R. Wetzel*, J. P. Raffensperger and E. L. Shock*. Predictions of hydrothermal alteration within near-ridge oceanic crust from coordinated geochemical and fluid flow models. *Journal of Volcanology and Geothermal Research*, *in* Evolution of magmatic systems in the ocean crust and in layered intrusions; toward a more unified perspective; selected papers from the symposium. (W. P. Meurer, editor and others). v. 110, no. 3-4, October 2001. p. 319-341.
- D. R. Wilburn. Annual review 1999; exploration. *Mining Engineering*, *in* Annual review 1999; mining exploration and coal overviews, state summaries and Canada. v. 52, no. 5, May 2000. p. 38-48.
- D. A. Willard, C. W. Holmes and L. M. Weimer. FLORIDA. The Florida Everglades ecosystem; climatic and anthropogenic impacts over the last two millennia. *Bulletins of American Paleontology*, *in* Paleoecological studies of South Florida. (B. R. Wardlaw, editor). 361, November 28, 2001. p. 41-55.
- C. F. Williams, J. H. Sass and A. H. Lachenbruch. Heat-flow studies at The Geysers, *in* Federal Geothermal Research Program update; fiscal year 1995. (U. S. Department of Energy, Geothermal Division). March 1996. p. 4.189-4.193. Available at: U. S. Department of Energy, United States.
- R. S. Williams, Jr., J. G. Ferrigno, Charles Swithinbank*, B. K. Lucchitta, B. A. Seekings and C. E. Rosanova. Glaciological delineation of the dynamic coastline of Antarctica. *Antarctic Journal of the United States*. v. 32, no. 5, 1998. p. 225-227.
- A. M. Wilson, Ward Sanford, Fiona Whitaker* and Peter Smart*. Spatial patterns of diagenesis during geothermal circulation in carbonate platforms. *American Journal of Science*. v. 301, no. 8, October 2001. p. 727-752.
- I. J. Winograd. The magnitude and proximate cause of ice-sheet growth since 35,000 yr B.P. *Quaternary Research* (New York). v. 56, no. 3, November 2001. p. 299-307.
- R. P. Wintsch*, Margaret Coleman*, Michael Pulver*, Tim Byrne*, J. N. Aleinikoff, M. J. Kunk and M. K. Roden-Tice*. CONNECTICUT. Late Paleozoic deformation, metamorphism, and exhumation in central Connecticut. *Annual Meeting - New England Intercollegiate Geological Conference, Guidebook*, *in* Guidebook to field trips in Rhode Island and adjacent regions of Connecticut and Massachusetts. (D. P. Murray, editor). 90, 1998. p. C2.1-C2.21.
- R. P. Wintsch*, M. J. Kunk and J. N. Aleinikoff. The hinterland of the Alleghanian Orogen in southern New England; late Paleozoic metamorphic and structural overprint on Acadian metamorphic rocks. *Annual Meeting - New England Intercollegiate Geological Conference, Guidebook*, *in* Guidebook to field trips in Rhode Island and adjacent regions of Connecticut and Massachusetts. (D. P. Murray, editor). 90, 1998. p. A4.1-A4.16.
- W. W. Wood, W. E. Sanford and A. R. S. Al Habshi*. Source of solutes to the coastal sabkha of Abu Dhabi. *Geological Society of America Bulletin*. v. 114, no. 3, March 2002. p. 259-268.
- Jeff Wynn. Evaluating groundwater in arid lands using airborne magnetic/EM methods; an example in the southwestern U.S. and northern Mexico. *The Leading Edge* (Tulsa, OK), *in* Geophysics and the environment; proceedings of the TLE forum II. (Chris Liner, chairperson). v. 21, no. 1, January 2002. p. 62-64.
- I. C. Yang. Sampling and analysis of dissolved radon-222 in water by the de-emanation method, *in* Field studies of radon in rocks, soils, and water. (L. C. S. Gundersen, editor and others). Boca Raton, FL: CRC Press, 1993. p. 227-230.
- T. H. Yorke and J. R. Ward. Accuracy of sediment discharge estimates. *Proceedings - Federal Interagency Sedimentation Conference*, *in* Proceedings of the Fourth federal interagency sedimentation conference. v. 4, no. 1, 1986. p. 4.49.



ABSTRACTS

Abstracts are condensed but informative summaries of presentations made at meetings of scientific and professional organizations. Typically they summarize the principal conclusions of an author's current work but contain little supporting data. Non-USGS personnel who share authorship in abstracts with USGS personnel are indicated by an asterisk (*) immediately following the name. **These publications are not available from the U.S. Geological Survey.**

- A. D. Addison. GEORGIA. Characterization of fractures using borehole geophysics in a crystalline-bedrock aquifer, Lawrenceville, Georgia [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 81.
- J. N. Aleinikoff. U-Pb geochronology of Grenville rocks in the Eastern U.S.; deciphering complex multi-age zircons [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 28-29.
- R. E. Anderson, Byron Berger and L. W. Snee. NEVADA. Heterogeneous uplift and tilting of basement blocks in an extensional tectonic setting, Wassuk Range-Coal Valley area, Nevada [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 43.
- P. L. Applin and E. R. Applin. MISSISSIPPI. Lithologic features of cores of Jurassic limestone from a deep well in South Mississippi [abstr.] Transactions - Gulf Coast Association of Geological Societies, *in* Gulf Coast Association of Geological Societies and Gulf Coast Section SEPM, 4th annual meeting. (S. L. Mason, editor). 4, 1954. p. 109.
- B. J. Armitage* and S. R. Moulton. The caddisfly genus *Marilia* Möller (Trichoptera, Odontoceridae) in North America [abstr.] Bulletin of the North American Benthological Society, *in* NABS '96; 44th annual meeting of the North American Benthological Society; annual program issue. v. 13, no. 1, 1996. p. 252.
- T. R. Armstrong, J. N. Aleinikoff and W. C. Burton. NEW HAMPSHIRE. Structural and geochronologic constraints on the tectonothermal evolution of the Massabesic Gneiss Complex, southeastern New Hampshire [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34th annual meeting. v. 31, no. 2, March 1999. p. 2.
- I. M. Artemieva* and W. D. Mooney. Mantle heat flow in stable continental regions; a global study [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, Suppl. November 16, 1999. p. 966-967.
- G. M. Ashley*, J. R. Stone and D. M. Peteet*. CONNECTICUT. Chronology and paleoclimate implications from radiocarbon-dated paleobotanical records, Connecticut River valley, CT [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34th annual meeting. v. 31, no. 2, March 1999. p. 2.
- W. H. Asquith and J. S. Famiglietti*. TEXAS. Areal-reduction factors for the rainfall of the one-day design storm in Texas [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 299-300.
- C. E. Barker. WYOMING. Natural desorption of gas from exhumed coaly rocks as a cause of overpressuring in eroding basins of the Rocky Mountain region; an example from the Madden Anticline, Wind River basin, Wyoming [abstr.] Publ. - Chalmers Tekniska Högskola, Geologiska Institutionen, B, *in* Nordic symposium on Petrophysics in computer modelling of reservoir and basin processes; abstracts. (M. F. Middleton, chairperson). 399, 1994. p. 13-16.
- P. M. Barlow. Geoscience information to support ground-water-resource management decisions in the Atlantic coastal zone; recent activities of the U. S. Geological Survey Ground-Water Resources Program [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 42.
- J. R. Bartolino and A. E. Stewart. NEW MEXICO. Use of water temperature to delineate ground-water/surface-water interaction of the Rio Grande, Albuquerque, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 1.
- Laura Bexfield and S. K. Anderholm. NEW MEXICO. Predevelopment water-level map of the Santa Fe Group aquifer system in the middle Rio Grande Basin between Cochiti Lake and San Acacia, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 53.
- D. C. Bradley, L. Hanson*, R. D. Tucker*, D. Lux*, A. G. Harris and D. C. McGregor*. Ludlow to Eifelian evolution of the Acadian foreland basin in northern New England and adjacent Canada [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34th annual meeting. v. 31, no. 2, March 1999. p. 5.
- G. L. Brewster-Wingard. FLORIDA. Shaping South Florida's unique coastal ecosystems; natural and anthropogenic influences [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 64.
- G. L. Brewster-Wingard, B. R. Wardlaw, C. W. Holmes, R. G. Stamm, C. A. Trappe, J. B. Murray and J. R. Stone*. FLORIDA. Use of ecosystem history data in resource management and restoration; a case study from Florida Bay, Everglades National Park [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 167.
- John Brock, Mark Duffy*, William Krabill*, Melanie Harris, Laura Moore and Asbury Sallenger. USGS-NPS-NASA research on coastal change and habitats within US national seashores [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 165.
- A. R. Brockman* and D. L. Richardson. VIRGINIA. The Cornwallis Cave Aquifer; a new aquifer designation for York County, Virginia [abstr.], *in* Abstracts of the 1993 Virginia water resources



- conference; Water resources 93. (E. B. Crumley, editor). Virginia Water Resources Research Center, 1993. p. 66.
- R. C. Burruss. Assessing the potential for sequestration of carbon dioxide from electrical power generation; a national GIS of carbon dioxide sources [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 38.
- W. C. Burton, J. N. Aleinikoff and C. S. Southworth. VIRGINIA, MARYLAND. Record of late Grenvillian magmatism and deformation in the northern Blue Ridge Anticlinorium, VA and MD, and comparison to other massifs [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 28.
- W. C. Burton, D. M. Sutphin, L. J. Drew and J. H. Schuenemeyer. VIRGINIA. Analysis of water well yields in the fractured-rock aquifer of the Blue Ridge geologic province, Loudoun County, Virginia [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 81.
- I. V. Buynevich*, D. M. FitzGerald*, T. A. Kniskern* and Kenneth Parolski. MAINE. Sediment dispersal along the central peninsular coast of Maine; new constraints from nearshore geophysical and sedimentological data [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34th annual meeting. v. 31, no. 2, March 1999. p. 8.
- W. F. Cannon, W. E. Dean and J. H. Bullock. MINNESOTA. 11,000 years of mercury deposition in Elk Lake, Minnesota; effects of climate and vegetation change on the mercury cycle [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 186.
- R. W. Carlson*, Douglas Walker*, Ross Black*, Allen Glazner*, Lang Farmer* and Jeffrey Grossman. NAVDAT; a western North American volcanic and intrusive rock geochemical database [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 175.
- T. J. Casadevall, T. B. Thompson* and J. W. Ewert. Volcanic hazards and aviation safety [abstr.], *in* Natural disaster reduction; proceedings of the conference sponsored by the American Society of Civil Engineers. (G. W. Housner, editor and others). New York, NY: American Society of Civil Engineers, 1996. p. 363-364.
- P. J. Castiglia*, D. T. Rodbell*, C. M. Moy*, B. G. Mark*, G. O. Seltzer* and J. G. Rosenbaum. Magnetic record of late Holocene glacier fluctuations recorded in a lake sediment core from the Cordillera Blanca, Peru [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34th annual meeting. v. 31, no. 2, March 1999. p. 9.
- C. B. Cecil, F. T. Dulong and S. G. Neuzil. The coalification phase of coal systems [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 55.
- J. A. Chamberlain*, D. O. Terry*, P. W. Stoffer and M. A. Becker*. SOUTH DAKOTA. Fossils of the Cretaceous/Tertiary transition, Badlands region of South Dakota [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 69.
- M. J. Chapman. GEORGIA. Fracture zones and lithologic characteristics associated with high-yield wells in Lawrenceville, Georgia [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 81.
- Zhensheng Chen*, L. R. Ricuputi*, C. I. Mora*, R. J. Bodnar* and N. S. Fishman. Diagenetic fluids of the Mt. Simon Sandstone in the Illinois Basin fluid inclusion and cathodoluminescence from diagenetic quartz [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 11.
- T. G. Cleveland*, T. Nishikawa and R. T. Hanson. Vertical distribution of hydraulic conductivity estimated from flowmeter and drawdown data using gradient optimization [abstr.] *Eos, Transactions, American Geophysical Union*, *in* AGU 1993 fall meeting. v. 74, no. 43, Suppl. October 26, 1993. p. 244.
- J. C. Cole, B. D. Stone, D. A. Sawyer, S. A. Minor and M. R. Hudson. NEW MEXICO. Geologic framework for ground-water modeling, middle Rio Grande Basin, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 1.
- J. C. Cole, B. D. Stone, R. R. Shroba and D. P. Dethier*. NEW MEXICO. Pliocene incision of the Rio Grande in northern New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 48.
- R. E. Cooper, M. J. Focazio and M. E. Rowan*. VIRGINIA. Selected characteristics of hydrology and water quality in the Chickahominy River, Virginia, 1989-91 [abstr.], *in* Abstracts of the 1993 Virginia water resources conference; Water resources 93. (E. B. Crumley, editor). Virginia Water Resources Research Center, 1993. p. 58-59.
- F. A. Corsetti*, J. H. Stewart and J. W. Hagadorn*. Neoproterozoic diamictite-cap carbonate succession from eastern Sonora, Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 21.
- R. H. Coupe and D. A. Goolsby. Herbicides in the Mississippi River and its major tributaries, April through June 1991 [abstr.] Proceedings of the Annual Meeting of the Mississippi River Research Consortium, *in* Proceedings of the Mississippi River Research Consortium. 24, 1992. p. 18-19.
- K. J. Cunningham, Alexander Aviantara*, Janine Carlson*, N. F. Hurley* and G. L. Wingard. FLORIDA. Use of ground-penetrating radar, digital optical borehole images and cores for characterization of the karstic Biscayne Aquifer, southeastern Florida [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 8.



- C. C. Daniel. Estimating ground-water recharge in the North Carolina Piedmont for land-use planning [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 80.
- W. C. Day, C. M. Seeger* and R. O. Rye. Review of the iron oxide deposits of Missouri; magmatic end members of the iron oxide-Cu-Au-U-REE deposit family [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 4.
- Kathleen DeGraaff Surpless*, S. A. Graham* and J. L. Wooden. CALIFORNIA. Detrital zircon provenance analysis of the Great Valley Group, Sacramento Valley, California [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 72.
- J. F. Denny, T. F. O'Brien, W. S. Schwab, W. W. Danforth, V. A. Cross, C. Polloni, B. A. Swift and E. R. Thieler. Advances in sea floor mapping technology; seagoing data acquisition, interpretation, and archival [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34th annual meeting. v. 31, no. 2, March 1999. p. 12.
- M. D. Dettinger and A. E. Jeton. CALIFORNIA, NEVADA. Simulated streamflow responses to climate changes in the American and Carson rivers of the Sierra Nevada, California and Nevada [abstr.] Workshop on Climate Variability of the Eastern North Pacific and Western North America, in 9th annual PACLIM workshop on Climate variability of the eastern North Pacific and western North America; abstracts of oral presentations. 9, 1992.
- C. L. Deyell*, R. O. Rye and G. P. Landis. Mineralogy, stable isotopes and fluid inclusion gas chemistry of alunite from the Tambo Deposit, El Indio District, Chile [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 48.
- W. P. Dillon, J. W. Nealon, C. K. Paull*, D. C. Kelly* and T. D. Lorenson. Structure of a major blowout vent on the Blake Ridge, resulting from inferred gas hydrate processes [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 36.
- J. J. A. Dillow, W. S. L. Banks and M. J. Smigaj. MARYLAND. Ground-water quality and discharge to Chincoteague and Sinepuxent bays adjacent to Assateague Island National Seashore, Maryland [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 42.
- R. W. Dudley, J. T. Kelley* and S. M. Dickson*. MAINE. Mapping riverbed sediments in the Kennebec River, Maine using side scan sonar and ground penetrating radar [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34th annual meeting. v. 31, no. 2, March 1999. p. 13.
- L. F. W. Dueil, Jr. CALIFORNIA, NEVADA. Use of regression models to estimate effects of climate change on monthly streamflow in the American and Carson River basins, California-Nevada [abstr.] Workshop on Climate Variability of the Eastern North Pacific and Western North America, in 9th annual PACLIM workshop on Climate variability of the eastern North Pacific and western North America; abstracts of oral presentations. 9, 1992.
- F. T. Dulong and C. B. Cecil. Geochemistry of Pennsylvanian coal-bearing strata; prediction of mine drainage water quality in the Appalachian Basin [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 37-38.
- Cynthia Dusel-Bacon, J. L. Wooden and J. R. Bressler*. ALASKA. New U-Pb zircon and geochemical evidence for bimodal mid-Paleozoic magmatism and syngenetic base metal mineralization in the Yukon-Tanana Terrane, Alaska [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 185-186.
- J. T. Dutro, Jr. Total immersion factor in working hypothesis formulation; G. A. Cooper's career as an example [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 59.
- L. S. Eaton*, G. F. Wiczorek and B. A. Morgan. VIRGINIA. Weathering characteristics and ages of debris-flow deposits at Graves Mill, VA [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 59.
- N. T. Edgar, C. W. Holmes, P. W. Swarzenski, J. M. McNeal and G. L. Jacobson*. FLORIDA. Elemental mercury concentration and 40-element ICP analyses for last 70 Ky; Lake Tulane, FL [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 186.
- J. L. Eimers, Mary Giorgino and Silvia Terziotti. NORTH CAROLINA. Estimated depth to ground water in North Carolina [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 62.
- J. B. Epstein. SOUTH DAKOTA. Gypsum-karst collapse and hydrological effects in the northern Black Hills, South Dakota, USA [abstr.] Cave and Karst Science, in 8th international karstological school; "Classical karst". (Franci Gabrovsek, chairperson). v. 27, no. 1, April 2000. p. 40.
- R. L. Eves*, L. E. Davis*, K. I. Takahashi and T. S. Dyman. U. S. Geological Survey CD-ROM based national coal assessment for use in undergraduate geology laboratories [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 9.
- C. D. Farrar, J. F. Howle, J. M. Neil*, M. L. Sorey and W. C. Evans. CALIFORNIA. Volcanogenic CO₂ emissions at Mammoth Mountains, California USA [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 941.
- J. E. Fassett. NEW MEXICO, COLORADO. Competing models for the Fruitland Formation coal and coal-bed methane system of the San Juan Basin, New Mexico and Colorado [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 57.



- C. R. Fenton*, T. E. Cerling*, R. H. Webb, P. A. Pearthree* and R. J. Poreda*. ARIZONA. New offset rates on the Toroweap and Hurricane faults in western Grand Canyon, Arizona; implications for Quaternary downcutting of the Colorado River [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 41.
- C. W. Field*, R. O. Rye, J. H. Dilles* and L. B. Gustafson*. Sulfur isotope abundances of hypogene sulfate-sulfide assemblages in porphyry-type deposits of the American Western Cordillera [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 48.
- R. H. Fifarek* and R. O. Rye. Stable isotope systematics of the Pierina Au-Ag deposit, Peru; implications for magmatic-hydrothermal processes in the epithermal acid-sulfate environment [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 49.
- R. B. Finkelman, J. A. Centeno* and Zheng Baoshan*. Health impacts of coal; facts, fallacies, and some solutions [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 27.
- R. M. Flores, T. A. Moore*, R. W. Stanton and G. D. Stricker. Textural controls on coalbed methane content in the subbituminous coal of the Powder River basin [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 57.
- Michael Foose, Jean Morrison* and James McLelland*. NEW YORK. High temperature, hydrothermal origin of low-Ti, Fe-oxide (REE-Au-U-Cu) deposits and sodic alteration, Adirondack Mts., New York, U.S.A. [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 4.
- A. Frankel, C. Mueller, D. Perkins, T. Barnhard, E. Leyendecker, E. Safak, S. Hanson, N. Dickman and M. Hopper. New USGS seismic hazard maps for the United States [abstr.], *in* Natural disaster reduction; proceedings of the conference sponsored by the American Society of Civil Engineers. (G. W. Housner, editor and others). New York, NY: American Society of Civil Engineers, 1996. p. 173-174.
- N. O. Frederiksen. Possibilities and problems in carrying Paleocene pollen correlations beyond the Southeast to other parts of the U.S. [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 58.
- P. T. Gayes*, W. C. Schwab, Robert Morton, Wayne Baldwin* and Erin Boyle*. Interim report on the Grand Strand beach nourishment projects; beach fill, borrow site and nearshore reef changes [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 10.
- D. J. Gellenbeck and Alissa Coes. ARIZONA. Ground-water quality in alluvial basins that have minimal urban development, south-central Arizona [abstr.] *Eos, Transactions, American Geophysical Union*, *in* AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998.
- J. A. Gellici*, K. E. Waters* and D. C. Prowell. SOUTH CAROLINA. Hydrostratigraphic units delineated from a deep corehole in Orangeburg, South Carolina [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 26.
- H. J. Gluskoter, N. T. Edgar, C. B. Cecil, F. T. Dulong and H. H. Damberger*. The Gulf of Carpentaria as a modern tectonic and eustatic analogue for the Illinois Basin during the Pennsylvanian [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 55.
- Hal Gluskoter and R. W. Stanton. Sequestering carbon dioxide from coal combustion in coal beds; a felicitous recycling of carbon [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 38.
- G. S. Gohn, D. S. Powars, T. S. Bruce*, J. M. Self-Trail, R. E. Weems, L. E. Edwards, J. W. Horton, G. A. Izett* and G. H. Johnson*. VIRGINIA. Preliminary interpretation of the USGS-NASA Langley Corehole, Chesapeake Bay impact structure, York-James Peninsula, Hampton, VA [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 24.
- M. B. Gotkowitz*, J. A. Simo*, M. E. Schreiber*, R. J. Hunt and D. P. Krabbenhoft. WISCONSIN. Geologic and geochemical controls on arsenic release to groundwater in eastern Wisconsin [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 54.
- V. J. S. Grauch. NEW MEXICO. Comparing the patterns of faults in the near-surface versus the deep subsurface from their geophysical expression in the Albuquerque Basin, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 5.
- Brad Griffith, Knut Kielland*, D. E. Russell* and Anne Gunn*. Caribou and heterogeneity in Arctic ecosystem processes [abstr.] Program and Abstracts - Arctic Science Conference, *in* Crossing borders; science and community; Arctic science 2000; program and abstracts. (Joan Eamer, editor). 51, 2000. p. 97.
- D. J. Groves*, R. J. Goldfarb and François Robert*. Gold deposits in orogenic belts; current understanding, outstanding problems and significance to exploration [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 2.
- L. Guo*, E. C. Alexander, Jr.*, M. K. Landon, G. N. Delin and C. P. Regan*. MINNESOTA. Geochemical characteristics and transport of agricultural leachates in a surficial sand-and-gravel aquifer near Princeton, Minnesota, 1991-92 [abstr.] *Eos, Transactions, American Geophysical Union*, *in* AGU 1993 fall meeting. v. 74, no. 43, Suppl. October 26, 1993. p. 269.
- R. B. Halley and K. K. Yates. Geochemical monitoring of marine benthic communities in national parks [abstr.] Abstracts with Pro-



- grams - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 167.
- J. M. Hammarstrom, J. C. Jackson, Ryan Barden and R. R. Seal. VERMONT. Characterization of mine waste at the abandoned Elizabeth copper mine, Vermont [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 20.
- D. A. Hamed. ALABAMA. The Mobile River basin water-quality assessment; results of surface-water quality monitoring in Alabama 1999-2000 [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 63.
- W. W. Hays. Toward A.D. 2000 in the IDNDR [abstr.], *in* Natural disaster reduction; proceedings of the conference sponsored by the American Society of Civil Engineers. (G. W. Housner, editor and others). New York, NY: American Society of Civil Engineers, 1996. p. 285-286.
- W. W. Hays. Natural hazard zonation [abstr.], *in* Natural disaster reduction; proceedings of the conference sponsored by the American Society of Civil Engineers. (G. W. Housner, editor and others). New York, NY: American Society of Civil Engineers, 1996. p. 361-362.
- W. W. Hays. Damaging earthquakes; a scientific laboratory [abstr.], *in* Natural disaster reduction; proceedings of the conference sponsored by the American Society of Civil Engineers. (G. W. Housner, editor and others). New York, NY: American Society of Civil Engineers, 1996. p. 151-152.
- M. J. Heller*, Sandra Goodman-Cash*, C. C. Daniel, III and M. J. Chapman. NORTH CAROLINA. Character of the regolith; bedrock transition at a Piedmont site underlain by quartz diorite, Iredell County, North Carolina [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 80.
- J. P. Hibbard*, D. W. Rankin, C. R. Van Staal* and Harold Williams*. Preliminary framework for the new lithotectonic map of the Appalachian Orogen [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 23-24.
- J. P. Hibbard*, C. R. van Staal*, D. W. Rankin and H. Williams*. Preliminary compilation of the new lithotectonic map of the Appalachian Orogen [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 81.
- A. H. Hofstra and O. D. Christensen*. Carlin-type gold deposits; defining characteristics, district comparisons, genetic models, and exploration frontiers [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 3.
- M. G. Honeycutt* and D. E. Krantz. Deciphering the role of antecedent geology in shaping modern coastal evolution; examples from the Delmarva Peninsula [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 64-65.
- A. B. Hoos. TENNESSEE. Storm-runoff quality and its relation to land use in the Nashville metropolitan area, Tennessee [abstr.] Proceedings Series - American Water Resources Association, *in* Symposium proceedings on Urban hydrology. (M. E. Jennings, editor). 26, October 1990.
- J. W. Horton, J. D. Peper, W. C. Burton, R. E. Weems and P. E. Sacks*. VIRGINIA, NORTH CAROLINA. Geologic map of the South Boston 30x60-minute quadrangle, Virginia and North Carolina [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 23.
- K. A. Howard, J. E. Faulds*, L. S. Beard and M. J. Kunk. Reverse-drag folding across the path of the antecedent early Pliocene Colorado River below the mouth of the Grand Canyon; implications for plateau uplift [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 41.
- M. R. Hudson, S. A. Minor and V. J. S. Grauch. Fault framework for the Albuquerque Basin, Rio Grande Rift [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 47-48.
- C. R. Hupp and Andrew Simon. Plant ecology and fluvial geomorphology of the Southern Appalachians; a diagnostic reflection of landuse [abstr.] Proceedings of the ... Annual Southern Appalachian Man and the Biosphere Conference, *in* Proceedings of the Fifth annual Southern Appalachians man and the biosphere conference. 5, 1994. p. 42.
- M. E. Ikehara, D. L. Galloway, Eric Fielding*, Roland Burgmann*, A. S. Lewis and Behzad Ahmadi*. CALIFORNIA. InSAR imagery reveals seasonal and longer-term land-surface elevation changes influenced by ground-water levels and fault alignment in Santa Clara Valley, California [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 37.
- Alexander Iriondo and W. R. Premo. A testable hypothesis for the distribution of Paleoproterozoic provinces along the SW margin of Laurentia; insights from NW Sonora, Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 3.
- C. J. Jenkins*, J. A. Reid and M. E. Field. Digital maps of the seabed color rendered in true color [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 174.
- C. Juliani*, C. M. D. Nunes*, J. S. Bettencourt*, R. H. C. Silva*, L. V. S. M. Monteiro*, N. A. Alcover* and R. O. Rye. Early Proterozoic volcanic-hosted quartz-alunite epithermal deposits in the Tapajos gold province, Amazonian Craton, Brazil [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 49.



- K. E. Juracek. The utility of geographic information system technology for addressing the effect of agricultural pesticide use on surface-water quality [abstr.] Water and the Future of Kansas Conference, Proceedings, in 9th annual Water and the future of Kansas conference; long-term water availability; proceedings. 9, 1992. p. 29-30.
- R. L. Kane and G. M. Russell. FLORIDA. Surface-geophysical investigation of northeastern Palm Beach County, Florida [abstr.] Florida Scientist, in The 56th annual meeting; Florida Academy of Sciences. v. 55, no. 1, Suppl. March 1992. p. 30.
- J. S. Kargel. Gas hydrates; abundant and widespread building blocks of the solar system [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 35.
- M. C. Kasmarek. TEXAS. Hydrogeology and simulation of ground-water flow and land-surface subsidence in the Chicot and Evangeline aquifers, Houston, Texas [abstr.] The Bulletin of the Houston Geological Society. v. 44, no. 5, January 2002. p. 9.
- M. P. Katuna*, D. C. Prowell and J. E. Mirecki*. SOUTH CAROLINA. A composite stratigraphic section of Cenozoic units from the South Carolina Coastal Plain near Charleston, SC [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 26.
- W. G. Kepner*, W. C. Hunter*, W. R. Eddleman* and D. B. Radtke. Selenium bioaccumulation in Yuma Clapper Rail and other rallids from the lower Colorado River valley [abstr.], in American Fisheries Society, Arizona-New Mexico Chapter; the Wildlife Society, Arizona and New Mexico chapters; joint annual meeting. (Rodney Lucas, chairperson and others). American Fisheries Society, 1990.
- K. C. Kilroy. NEVADA. Hydrologic conditions in Thousand Springs Valley and vicinity, Elko County, Nevada [abstr.], in 1995 Nevada water conference; water resources technology shaping Nevada's future; abstracts of technical papers and posters. NV: Nevada Water Resources Association, 1995. p. 8.
- Jack Kindinger, Shea Penland*, James Flocks, Mark Kulp* and Del Britsch*. LOUISIANA. Finding sand in a sand-deficient environment; sand resources, regional geology, and coastal processes for the restoration of the Barataria barrier shoreline, southeastern Louisiana [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 41.
- J. C. Kingston and J. P. Kociolek*. Taxonomy, ultrastructure, and distributions of some small Gomphonema (Bacillariophyta) species from the United States [abstr.] Bulletin of the North American Benthological Society, in NABS '96; 44th annual meeting of the North American Benthological Society; annual program issue. v. 13, no. 1, 1996. p. 209.
- S. E. Kopczynski*, Daniel Lawson* and Jon Denner. ALASKA. Preliminary results from the application of the Brook90 hydrologic water balance model to a glacierized basin in South Central Alaska [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 28.
- D. E. Krantz. Geology and hydrogeology of the Delmarva coastal bays [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 76.
- D. E. Krantz*, F. T. Manheim and J. F. Bratton. MARYLAND, DELAWARE. Hydrostratigraphic framework and controls on ground-water discharge to Maryland and Delaware coastal bays [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 42-43.
- R. K. Krulikas. FLORIDA. Hydrologic effects of the 1988-90 drought on aquifers of Lee County, Florida [abstr.] Florida Scientist, in The 56th annual meeting; Florida Academy of Sciences. v. 55, no. 1, Suppl. March 1992. p. 29.
- K. M. Kuivila, K. L. Crepeau, D. D. Copeland and K. Goelman. CALIFORNIA. Input and transport of a dormant spray pesticide to the San Francisco Bay, California, February 1993 [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1993 spring meeting; special session on Advanced data handling and visualization tools for space and atmospheric sciences. v. 74, no. 16, Suppl. April 20, 1993.
- K. M. Kuivila, K. L. Crepeau and J. L. Domagalski. CALIFORNIA. Input and transport of select alfalfa pesticides to the San Francisco Bay, California [abstr.] Abstracts - Annual Meeting - Society of Environmental Toxicology and Chemistry (SETAC), in SETAC 92; 13th annual meeting of the Society of Environmental Toxicology and Chemistry; abstracts. 13, 1992. p. 33.
- K. M. Kuivila, K. L. Crepeau and J. L. Domagalski. Input and transport of pesticides applied to alfalfa in the Sacramento-San Joaquin Delta [abstr.] Limnology and Oceanography, in ASLO 92; program abstracts. 37, 1992.
- K. A. Kvenvolden. Methane content of global gas-hydrate deposits [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 35.
- G. P. Landis and R. O. Rye. Gas chemistry and noble gas isotopes of inclusion fluids in magmatic hydrothermal, magmatic steam, and steam-heated alunite [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 48.
- J. E. Landmeyer, F. H. Chapelle and P. M. Bradley. Natural microbial remediation of contaminated ground water in Appalachian hydrologic systems [abstr.] Proceedings of the ... Annual Southern Appalachian Man and the Biosphere Conference, in Proceedings of the Fifth annual Southern Appalachians man and the biosphere conference. 5, 1994. p. 37.
- J. C. Liddicoat*, R. H. Willoughby* and L. E. Edwards. SOUTH CAROLINA. Paleomagnetic polarity and magnetic minerals in the Eocene Santee Limestone and Warley Hill Formation, central South Carolina [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 75-76.
- J. H. List, A. S. Farris and K. K. Weber. Improving the determination of shoreline change within national seashores [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 165.



- R. F. Livaccari*, T. J. Bowring*, E. T. Farmer*, K. S. Garhart*, A. M. Hosack*, A. K. Navarre*, J. S. Peterman*, S. M. Rollins*, C. A. Williams*, M. Kunk, R. B. Scott and D. Unruh. COLORADO, UTAH. Proterozoic rocks of the Uncompahgre Plateau, western Colorado and eastern Utah [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 44.
- Festo Lugolobi*, J. C. Varekamp*, Ellen Thomas* and M. R. Buchholtz-ten Brink. Historical changes in water chemistry and summer hypoxia in Long Island Sound [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 182.
- Florian Maldonado, D. W. Love*, S. D. Connell*, J. L. Slate and K. E. Karlstrom*. NEW MEXICO. Geology of Isleta Reservation, central New Mexico [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 6.
- F. T. Manheim, D. E. Krantz, D. S. Snyder*, J. F. Bratton, E. A. White, J. A. Madsen* and Brian Sturgis*. Streaming resistivity surveys and core drilling define groundwater discharge into coastal bays of the Delmarva Peninsula [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 42.
- David Marchetti*, T. E. Cerling* and R. B. Waitt. UTAH. Cosmogenic ^3He exposure age dating of a Pleistocene debris flow deposit, Capitol Reef National Park, Utah [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 27.
- J. B. Martin*, J. E. Cable*, Peter Swarzenski and M. K. Lindenberg*. FLORIDA. Sources of ground water discharge and nutrient loading to the Indian River Lagoon, FL [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 43.
- R. G. Marvinney*, R. H. Moench, R. Marquis*, Pierre Cousineau* and W. A. Bothner*. MAINE, NEW HAMPSHIRE. Resolved Silurian-Devonian stratigraphic correlation across the Québec-Maine-NH borders and its bearing on Silurian extension [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 32.
- D. P. McCAda. NEW MEXICO. Simulation of a long-term aquifer test conducted near the Rio Grande, Albuquerque, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 53.
- J. H. McBride*, R. D. Hatcher* and W. J. Stephenson. Toward a reconciliation of seismic reflection and field geologic mapping from the Pine Mountain Belt; preliminary results [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 74.
- C. R. McClung*, M. W. Hitzman*, D. L. Leach and J. A. Zieg*. WASHINGTON. A new outlook for the Pend Oreille carbonate-hosted Zn-Pb deposit, Washington State [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 184.
- K. C. McKinney, R. H. Tedford*, G. S. Morgan* and T. E. Williamson*. NEW MEXICO. Fossil mammals of the middle Rio Grande; annotated dataset and bibliography of New Mexico vertebrate paleontology [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 56.
- M. R. Meador. The U. S. Geological Survey's National Water-Quality Assessment Program [abstr.], in *The year 2000; will we be ready technically? Socially? Politically?*. American Fisheries Society, 1992. p. 82.
- C. M. Menges, E. M. Taylor, J. B. Workman, P. A. Denning, Carma San Juan, D. J. Grunwald, A. S. Jayko and J. C. Dohrenwend*. CALIFORNIA, NEVADA. Surficial deposit mapping in support of the Death Valley regional flow system (DVRFS) ground-water model, California and Nevada [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 19.
- H. E. Mew*, K. M. Farrell*, T. B. Spruill, Kirsten Hofmockel* and Kenneth Reckhow*. Near-surface aquifer development, nitrogen saturation, and Theis capture; lessons from Lizzie [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 63.
- William Meyers, K. M. Kuivila and K. M. Scow*. CALIFORNIA. Microbial degradation of carbofuran in the Sacramento-San Joaquin Delta, California [abstr.] Abstracts - Annual Meeting - Society of Environmental Toxicology and Chemistry (SETAC), in SETAC 92; 13th annual meeting of the Society of Environmental Toxicology and Chemistry; abstracts. 13, 1992. p. 103.
- D. P. Miggins, R. A. Thompson and C. L. Pillmore. Initial stages of rifting in the northern Rio Grande Rift; evidence from $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology from the southern Sangre de Cristo Mountains [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 5.
- R. C. Milici. Coal resource assessment GIS; a gateway to cleaner use of fossil energy [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 37.
- R. C. Milici, P. D. Warwick, C. B. Cecil and H. J. Gluskoter. Coal systems; an integrated approach to the study of coal geology [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 55.
- M. S. Mills and E. M. Thurman. Solid-phase extraction of herbicides from soil extracts by mixed-mode adsorption [abstr.], in *Pittsburgh conference presents PITTCON'92.. Pittsburgh Conference, 1992.*



- R. H. Moench, W. A. Bothner* and Pierre Cousineau*. VERMONT. Silurian stratigraphy from Woburn, Quebec, to Fairlee, Vermont [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 58.
- R. B. Moore, G. E. Schwarz, S. F. Clark, Jr., G. J. Walsh, J. R. Degnan and T. J. Mack. NEW HAMPSHIRE. Relating well yields to site characteristics in fractured bedrock of New Hampshire [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 169.
- S. J. Moore and S. K. Anderholm. NEW MEXICO. Ground-water monitoring in the middle Rio Grande Basin, central New Mexico; implications of water-level variations in nested piezometers [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 54.
- S. C. Moran, R. A. Hansen*, S. D. Stihler* and J. M. Lees*. ALASKA. A tectonic earthquake sequence preceding the April-May 1999 eruption of Shishaldin Volcano, Alaska [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1999 fall meeting. v. 80, no. 46, Suppl. November 16, 1999. p. 972.
- R. A. Morton, A. H. Sallenger, Jr., R. L. Peterson and N. A. Elko. Integrated morphological and historical coastal mapping; a key to real-time forecasting of storm impacts [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 40.
- R. J. Moscati, C. A. Johnson and J. F. Whelan. NEVADA. Vapor-phase garnet at Yucca Mountain, Nevada; geochemistry and oxygen-isotope thermometry [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 183.
- S. R. Moulton, J. P. Slusark and S. C. Harris*. A review of the Nearctic species of Ithytrichia Eaton (Trichoptera, Hydroptilidae) [abstr.] Bulletin of the North American Benthological Society, in NABS '96; 44th annual meeting of the North American Benthological Society; annual program issue. v. 13, no. 1, 1996. p. 253.
- K. F. Mullins and D. A. Sawyer. NEW MEXICO. Digital geologic map and database of the Collier Draw-Benavidez Ranch quads, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 62.
- D. L. Nelms and R. J. Ahlin. VIRGINIA. Use of chlorofluorocarbons to age date ground water in Prince William County, Virginia [abstr.], in Abstracts of the 1993 Virginia water resources conference; Water resources 93. (E. B. Crumley, editor). Virginia Water Resources Research Center, 1993. p. 67.
- S. G. Neuzil and C. B. Cecil. Peat formation; initial phase of coal systems [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 55.
- S. G. Neuzil and C. B. Cecil. Trends in sulfur, arsenic, and mercury concentrations in Pennsylvanian coal in the Appalachian Basin, U.S.A. [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 37.
- D. J. Nichols. Palynology in coal systems analysis; the key to floras, climate, and stratigraphy of coal-forming environments [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 56.
- S. W. Nicholson, K. J. Schulz and L. G. Woodruff. WISCONSIN. Transitional epithermal-to-typical volcanogenic massive sulfide deposits in the early Proterozoic Penokean Orogen, northern Wisconsin [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 185.
- Tracy Nishikawa, D. L. Lewis, Michelle Sneed and D. L. Galloway. Regional- and site-scale simulations of aquifer-system compaction; the effect of delayed aquitard drainage on land subsidence projections [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 307.
- Concetta Nostro*, R. S. Stein, Massimo Cocco*, M. E. Belardinelli* and Warner Marzocchi*. Evidence for Coulomb stress interaction between volcanic eruptions and earthquakes in the Apennines (Italy) [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1999 fall meeting. v. 80, no. 46, Suppl. November 16, 1999. p. 971.
- J. E. O'Connor, T. L. Haluska, M. A. Jones and Tina Marie. WASHINGTON. Channel and floodplain dynamics, Quinault and Queets rivers, Washington [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 23.
- R. C. Orndorff, D. J. Weary and K. M. Laguerre. MISSOURI. Using a geographic information system to determine geological controls on the distribution of sinkholes in the Ozarks of south-central Missouri [abstr.] Cave and Karst Science, in 8th international karstological school; "Classical karst". (Franci Gabrovsek, chairperson). v. 27, no. 1, April 2000. p. 40.
- J. T. C. Parker. ARIZONA. Low- and zero-discharge control on the morphology of tributaries in the East Dinnebito Wash drainage basin, Black Mesa, northeastern Arizona [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 305.
- J. T. C. Parker. ARIZONA. Effects of storm type on flood characteristics in southern Arizona; implications for climatic influences on incision and aggradation of alluvial channels in the Southwestern United States [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1995 spring meeting. v. 76, no. 17, Suppl. 1995. p. 110.
- C. K. Paull*, W. Ussler, III*, T. Naehr*, V. Orphan*, K. Farnsworth*, W. P. Dillon, J. W. Nealon, C. Schupp, T. D. Lorenson*, W. Borowski* and W. Gwilliam*. Piston cores from the Blake Ridge collapse structure [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 36.



- Shea Penland* and S. J. Williams. Understanding the geologic processes of coastal land loss for the restoration of North America's largest river delta; the Mississippi [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 40.
- R. B. Perkins and D. Z. Piper. The Meade Peak Member of the Phosphoria Formation; temporal and spatial variations in sediment geochemistry [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 38.
- C. A. Perry. KANSAS. The future of rainfall in Kansas [abstr.] Water and the Future of Kansas Conference, Proceedings, *in* 9th annual Water and the future of Kansas conference; long-term water availability; proceedings. 9, 1992. p. 36.
- G. G. Phelps. FLORIDA. Origins of mineralized waters in the Floridan aquifer system, northeastern Florida [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 62-63.
- D. Z. Piper and R. B. Perkins. IDAHO. Seawater circulation and chemistry of the Permian Phosphoria Sea; Southeast Idaho [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 39.
- L. N. Plummer, L. M. Bexfield, S. K. Anderholm, W. E. Sanford and Eurybiades Busenberg. NEW MEXICO. Using geochemical data to trace and date ground water recharge in parts of the Santa Fe Group aquifer system, middle Rio Grande Basin, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 1.
- Colin Poellot*, P. U. Clark* and S. W. Hostetler. ARIZONA. Energy balance modeling of late Pleistocene glaciers, San Francisco Mountain, AZ [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 17.
- M. P. Poland*, Roland Bürgmann*, J. H. Fink* and Daniel Dzurisin. CALIFORNIA. Deformation field at Medicine Lake Volcano, Northern California; new results from GPS measurements [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, Suppl. November 16, 1999. p. 960.
- D. S. Powars, G. H. Johnson*, T. S. Bruce* and L. E. Edwards. VIRGINIA. The relation between the Chesapeake Bay impact structure and the structure and stratigraphy of Cenozoic deposits in eastern Virginia [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 76.
- Alex Pupacko. Potential effects of climate change on a windward and on a leeward drainage basin in the northern Sierra Nevada [abstr.] Workshop on Climate Variability of the Eastern North Pacific and Western North America, *in* 9th annual PACCLIM workshop on Climate variability of the eastern North Pacific and western North America; abstracts of oral presentations. 9, 1992.
- Ellen Raabe, Jeff DiMaggio* and Melanie Harris. FLORIDA. Application of airborne laser mapping for management of a coastal Florida preserve [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 167.
- N. M. Ratcliffe. Examination of the slice concept and evidence for primary emplacement structures in the Taconic Allochthons of western New England [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 62.
- N. M. Ratcliffe. VERMONT. Catastrophic rock avalanches of Bird Mountain, Vermont [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 61.
- N. M. Ratcliffe, J. N. Aleinikoff, T. R. Armstrong, G. J. Walsh and W. E. Hames*. VERMONT. Intrusive relations and isotopic ages of Devonian granites in southern and central Vermont; evidence for a prolonged Acadian Orogeny and partitioning of compressional strain [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 81.
- S. A. Richmond and J. F. Braddock*. Hydrogeochemistry and microbiology in subarctic ground water; implications for natural attenuation of trichloroethene [abstr.] Abstracts from the Arctic Forum, *in* Abstracts from the Arctic forum 2000; the Arctic Research Consortium of the U.S. (ARCUS). (Wieslaw Maslowski, chairperson). 2000, May 2000. p. 68.
- T. G. Rowe. NEVADA. Seasonal variation of nutrient and sediment loadings and of streamflow into Lake Tahoe from Incline Creek basin, Nevada, water year 1993 [abstr.], *in* 1995 Nevada water conference; water resources technology shaping Nevada's future; abstracts of technical papers and posters. NV: Nevada Water Resources Association, 1995. p. 18.
- R. L. Runkel, B. A. Kimball, P. L. Verplanck and S. S. Paschke. The importance of iron colloids in acid mine drainage and implications for remediation [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 190.
- R. O. Rye. A review of the stable isotope geochemistry of sulfate minerals in volcanic environments and related hydrothermal systems [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 47-48.
- A. H. Sallenger, Jr. Challenges to quantifying coastal change hazards [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 39-40.
- W. E. Sanford, L. N. Plummer, D. P. McAda, L. M. Bexfield and S. K. Anderholm. Use of carbon-14 and water levels to calibrate a ground-water model of the middle Rio Grande Basin [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 1.
- D. A. Sawyer, V. J. S. Grauch, S. A. Minor, D. P. Dethier* and G. A. Smith*. Geologic framework of the northern Santo Domingo Basin; structural overlap of the La Bajada and Pajarito fault zones



- [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 48.
- W. C. Schwab, E. R. Thieler, D. S. Foster, B. A. Swift, J. F. Denny, W. W. Danforth and J. S. Allen. NEW YORK. The influence of antecedent geology on the coastal sediment budget of southern Long Island, New York [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 65-66.
- W. C. Schwab, E. R. Thieler, J. H. List and A. H. Sallenger, Jr. Geological mapping of the coastal zone; critical information for management of coastal resources [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 40.
- T. M. Scott* and G. L. Wingard. The Hawthorn Group; a historical perspective [abstr.] Florida Scientist, *in* The 60th annual meeting; Florida Academy of Sciences; The next 60 years of science in Florida. (Lisa Beever, president). v. 59, no. 1, Suppl. March 1996. p. 24.
- R. R. Seal, II, D. P. Haffner, A. L. Meier, Rama Krishnaswamy and J. M. Hammarstrom. VERMONT. Geochemistry of acid mine drainage from the abandoned Elizabeth copper mine, South Strafford, Vermont [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 66.
- P. K. Sims and C. A. Finn. COLORADO. Precambrian basement map of Colorado; a geologic interpretation of an aeromagnetic anomaly map [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 44.
- P. K. Sims and C. A. Finn. WYOMING. Precambrian basement map showing geologic-geophysical domains, Wyoming [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 44.
- P. K. Sims and H. J. Stein*. Tectonic history of the Proterozoic Colorado Province, Southern Rocky Mountains [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 4.
- J. F. Slack. VERMONT. Coarse garnet schists at the Elizabeth Mine, VT; products of seafloor-hydrothermal alteration not synmetamorphic Acadian fluid flow [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 69.
- J. F. Slack, M. P. Foose, K. J. Schulz, C. J. Busby*, R. A. Ayuso, A. K. Sinha* and A. G. Harris. MAINE. The Bald Mountain Terrane, Aroostook County, ME; a composite island arc assemblage exotic to the Ordovician Winterville Formation [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 68.
- Gregory Smith, J. M. Grebmeier*, Steven Kohl* and A. V. Tsyban*. BERPAC; a long-term ecological research program of the Bering and Chukchi seas and Pacific Ocean [abstr.] Abstracts from the Arctic Forum, *in* Abstracts from the Arctic forum 2000; the Arctic Research Consortium of the U.S. (ARCUS). (Wieslaw Maslowski, chairperson). 2000, May 2000. p. 73.
- Michelle Sneed and D. L. Galloway. CALIFORNIA. The role of aquitard drainage in land-subsidence predictions at Edwards Air Force Base, Antelope Valley, California [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 243.
- D. R. Soller and T. M. Berg*. The National Geologic Map Database [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 175.
- G. K. Speiran. VIRGINIA. Nitrate concentrations in ground water beneath a riparian wooded wetland near Townsend, Virginia [abstr.], *in* Abstracts of the 1992 Virginia water resources conference; Water resources 92.. Virginia Water Resources Research Center, 1992. p. 14.
- J. O. Stanley, R. B. Scott, M. J. Kunk and K. D. Hopkins*. COLORADO. Enigmatic tuff units along the southeastern edge of the White River Plateau, northwestern Colorado [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 26-27.
- Jean-Daniel Stanley* and A. G. Warne. COLORADO. Consequences of water diversion in arid coastal systems within the Rio Grande, Colorado, and other world deltas [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 41-42.
- M. R. Stanton, R. F. Sanzalone, S. J. Sutley, D. J. Grimes, A. M. Meier and P. J. Lamothe. NEW MEXICO. Abundance, residence, and mobility of arsenic in Santa Fe Group sediments, Albuquerque Basin, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 2.
- H. J. Stein* and P. K. Sims. Synchronous shearing and magmatism at 1430 Ma and subsequent magmatism at 1410 Ma in the Colorado Province [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 10.
- M. G. Steltenpohl*, W. E. Hames*, M. J. Kunk and J. W. Mies*. ⁴⁰Ar/³⁹Ar data from the western Blue Ridge and their implications for timing of metamorphism [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 6.
- J. H. Stewart and Ricardo Amaya-Martínez*. Neoproterozoic Rodinian epicontinental strata in Sonora, Mexico [abstr.] Ab-



- stracts with Programs - Geological Society of America, *in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting*. v. 33, no. 5, April 2001. p. 21.
- J. H. Stewart, A. Sarna-Wojcicki, M. E. Perkins* and T. A. Dumitru*. NEVADA. Age of Basin and Range faulting based on coarse clastics in Miocene sedimentary rocks, west-central Nevada [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 44.
- B. D. Stone, Jim Cole and R. R. Shroba. NEW MEXICO. Quaternary climate-cycle control of inset alluvial terrace deposits in the Rio Grande drainage, northern New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting*. v. 33, no. 5, April 2001. p. 48.
- J. R. Stone. Effects of glacio-isostasy and relative sea level on late-glacial and postglacial water levels in the Connecticut River valley and Long Island Sound [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Northeastern Section, 34rd annual meeting*. v. 31, no. 2, March 1999. p. 71.
- Robert Stottlemeyer. ALASKA. Climate change and treeline watershed nutrient export, Noatak National Preserve, Alaska [abstr.] Program and Abstracts - Arctic Science Conference, *in Crossing borders; science and community; Arctic science 2000; program and abstracts*. (Joan Eamer, editor). 51, 2000. p. 161-162.
- M. L. Strobel, C. C. Daniel and M. J. Chapman. NORTH CAROLINA. Characterization of Piedmont and Blue Ridge fractured bedrock ground-water systems in North Carolina; a federal and state cooperative study [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Southeastern Section, 50th annual meeting*. v. 33, no. 2, March 2001. p. 17.
- D. M. Sutphin, L. J. Drew and B. K. Fowler*. NEW HAMPSHIRE. Estimated gravel resources of the Soucook River valley, Loudon, New Hampshire, 7.5' quadrangle using improved techniques for assessing gravel resources in glacio-fluvial deposits [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Northeastern Section, 34rd annual meeting*. v. 31, no. 2, March 1999. p. 71.
- Peter Swarzenski, J. Martin* and R. Bowker. Groundwater-surface water exchange in Tampa Bay; results from a preliminary geochemical and geophysical survey [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, 2001 annual meeting*. v. 33, no. 6, 2001. p. 43.
- Zoltan Szabo, A. A. Pucci, Jr.* and M. D. Feigenson*. NEW JERSEY. Disequilibrium of strontium-isotope rates in pore water and shell mineral from silt, lower Miocene Kirkwood Formation, Atlantic City, New Jersey [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 1995 spring meeting*. v. 76, no. 17, Suppl. 1995. p. 137.
- K. L. Tanaka, R. C. Anderson*, J. M. Dohm*, V. L. Hansen*, G. E. McGill*, R. A. Schultz* and T. R. Watters*. Planetary structural mapping [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 39.
- R. L. Taylor and R. J. Hoffman. Protocol for collecting and processing surface-water samples for subsequent determination of inorganic constituents in filtered water [abstr.], *in 1995 Nevada water conference; water resources technology shaping Nevada's future; abstracts of technical papers and posters*. NV: Nevada Water Resources Association, 1995. p. 14.
- S. J. Tewalt, E. I. Robbins, Yogesh Shapiro, L. F. Ruppert, K. K. Kohli* and J. W. Hawkins*. Examining hydrologic impacts of underground coal mining in the Northern Appalachian coal region using geologic models and geographic information system (GIS) [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 38.
- E. R. Thieler, W. C. Schwab, R. P. Signell, P. T. Gayes* and M. S. Harris*. The shoreface as a source and sink for beach nourishment [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Southeastern Section, 50th annual meeting*. v. 33, no. 2, March 2001. p. 20.
- R. A. Thompson, D. A. Sawyer, W. C. McIntosh*, S. A. Minor and R. R. Shroba. NEW MEXICO. Geology and geochronology of the Cerros del Rio volcanic field, New Mexico [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting*. v. 33, no. 5, April 2001. p. 6.
- R. P. Tollo* and J. N. Aleinikoff. VIRGINIA. Timing of Grenville-age magmatism and deformation, Blue Ridge Province, central Virginia [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Southeastern Section, 50th annual meeting*. v. 33, no. 2, March 2001. p. 7.
- Richard Tollo* and J. N. Aleinikoff. VIRGINIA. Petrologic and temporal characteristics of Grenville-age orogenesis, Blue Ridge Province, Virginia [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, 2001 annual meeting*. v. 33, no. 6, 2001. p. 28.
- M. L. W. Tuttle, M. B. Goldhaber and G. N. Breit. Mobility of metals from weathered black shale; the role of salt efflorescences [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, 2001 annual meeting*. v. 33, no. 6, November 2001. p. 191.
- D. C. Twichell and K. W. Able*. Response of an inner shelf and sand ridge to storms [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Northeastern Section, 34rd annual meeting*. v. 31, no. 2, March 1999. p. 74.
- T. S. Unger, J. L. Baker and P. C. Valentine. Sea floor sediment mapping based on acoustic backscatter strength; Stellwagen Bank National Marine Sanctuary [abstr.] Abstracts with Programs - Geological Society of America, *in Geological Society of America, Northeastern Section, 34rd annual meeting*. v. 31, no. 2, March 1999. p. 74.
- P. C. Valentine, J. L. Baker and T. S. Unger. MASSACHUSETTS. Glacial and modern sea floor features in the Stellwagen Bank National Marine Sanctuary region off Boston, Massachusetts [abstr.] Abstracts with Programs - Geological Society of America, *in Geo-*



- logical Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 74.
- P. C. Van Metre and Edward Callender. Historical trends in hydrophobic contaminants in urban watersheds as recorded in sediment cores [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 318.
- J. E. Veenhuis. Hydrologic recovery of two watersheds after a wildfire, Bandelier National Monument [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 16.
- C. S. Verdel*, D. H. Knepper, K. E. Livo and V. T. McLemore*. NEW MEXICO. Mapping alteration in the Hillsboro mining district, New Mexico, using AVIRIS data [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 58.
- P. L. Verplanck, S. H. Mueller, D. K. Nordstrom, R. J. Goldfarb, R. F. Sanzolone, E. K. Youcha* and Michelle Roller*. ALASKA. Arsenic variability in ground water, Ester Dome, Alaska [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 54.
- M. B. Vogel*, J. L. Wooden and A. P. Barth*. CALIFORNIA. Detrital zircon age provenance of late Precambrian to Early Cambrian sediments from the San Bernadino Mountains, California [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Rocky Mountain Section, 53rd annual meeting; Geological Society of America, South-Central Section, 35th annual meeting. v. 33, no. 5, April 2001. p. 42.
- G. J. Walsh and S. F. Clark, Jr. NEW HAMPSHIRE. Bedrock geology of the Windham Quadrangle, New Hampshire [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 77.
- A. G. Warne, W. A. White*, Andres Aslan* and E. H. Guevara*. Extensive late Holocene peat deposits in the Orinoco Delta, Venezuela; a modern analog for coal development in a tropical delta [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 55.
- P. D. Warwick, R. W. Hook*, C. E. Barker, Matt Gose*, J. M. Klein*, D. J. Nichols, J. R. SanFilipo and A. W. Karlsen. TEXAS. Coals of the lower Olmos Formation (Upper Cretaceous) in South Texas, and Coahuila, Mexico; preliminary CSM (coal-system model) data [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, 2001. p. 57.
- K. A. Wetzel*, K. R. M. Beuning* and J. R. Stone. Origin and evolution of pingo scars(?) on glacial Lake Middletown sediments [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 78.
- L. J. Williams and Marcel Belaval. GEORGIA. Two-dimensional direct-current-resistivity profiling in a crystalline rock aquifer near Lawrenceville, Georgia [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 1.
- G. L. Wingard and D. A. Willard. FLORIDA. South Florida ecosystem reconstruction; the past is the key to the present (and future) [abstr.] *Florida Scientist*, in The 60th annual meeting; Florida Academy of Sciences; The next 60 years of science in Florida. (Lisa Beever, president). v. 59, no. 1, Suppl. March 1996. p. 22-23.
- R. P. Wintsch*, J. N. Aleinikoff, M. J. Dorais* and C. M. Fanning*. Electron microprobe and SHRIMP analysis of composition- and age-zoning in sphene; a record of multiple magmatic and tectonic events [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Northeastern Section, 34rd annual meeting. v. 31, no. 2, March 1999. p. 80.
- W. J. Wolfe. TENNESSEE. Hydrologic monitoring of remnant bogs and potential wetland restoration sites in Shady Valley, Johnson County, East Tennessee [abstr.] Proceedings of the ... Annual Southern Appalachian Man and the Biosphere Conference, in Proceedings of the Fifth annual Southern Appalachians man and the biosphere conference. 5, 1994. p. 33.
- D. M. Wolock. VERMONT. Effects of topography and subbasin size on simulated flow pathways in Sleepers River watershed, Vermont [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 1993 fall meeting. v. 74, no. 43, Suppl. October 26, 1993.
- L. G. Woodruff and W. F. Cannon. MICHIGAN, MINNESOTA. The effect of fire on mercury and carbon in forest soils; results from northern Michigan and Minnesota [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 186.
- B. M. Wrege and C. C. Daniel, III. NORTH CAROLINA. Use of cores, borehole geophysical logs, and high-resolution seismic-reflection data to delineate paleochannels underlying the U.S. Marine Corps Air Station, Cherry Point, North Carolina [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, Southeastern Section, 50th annual meeting. v. 33, no. 2, March 2001. p. 25.
- Eric Wright*, M. S. Harris*, Adam Sapp*, Kellie Lewis*, Sarah Kruse* and N. T. Edgar. SOUTH CAROLINA. Stratigraphic development of a northeastern South Carolina barrier island, Waite Island [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2001 annual meeting. v. 33, no. 6, November 2001. p. 193.
- A. Zang*, F. C. Wagner*, C. Janssen*, G. Dresen* and S. Stanchits. Fracture process zone in granite cores [abstr.] *Geophysical Research Abstracts*, in European Geophysical Society, 25th general assembly. 2, 2000.
- R. A. Zielinski, J. K. Otton and C. A. Johnson. COLORADO. Identifying sources of salinity and trace metals near a coal mine spoil pile, north-central Colorado [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 37.





TOPOGRAPHIC MAPS

Standard topographic maps are usually published in 7.5-minute quadrangles. The map location is given by the latitude and longitude of the southeast (lower right) corner of the quadrangle. Location, scale, and contour interval are indicated for each map in the computer-generated list below. The date shown indicates the latest revision. Provisional maps are essentially standard topographic maps published with modified map finishing and field and compilation procedures. Photorevised maps have not been field checked. Series converted maps include 7.5-minute maps compiled from 15-minute source materials initially published as 15-minute maps (15-minute maps are no longer available from the U.S. Geological Survey). Orthophotomaps are multicolor photographic-image maps in standard quadrangle format with added topographic detail. Orthophotoquads are monochrome or multicolor photographic-image maps in standard quadrangle format without topographic detail. Most monochrome orthophotoquads are not being published but are available in the form of diazo or photographic prints. The Index to Orthophotoquad Mapping showing information about available published and unpublished orthophotoquads is free on request from the distribution centers listed at the back of the catalog. County maps are multicolor topographic

maps at scales of 1:50,000 or 1:100,000. County maps are \$7.00 per sheet. Level of content may vary between States, and State sales indexes should be consulted for a more detailed description of each map. Planimetric maps at intermediate scales of 1:50,000 or 1:100,000 are available in both quadrangle and county format for selected areas of the country. Most of these maps are not being published but are available in other forms. Copies of the drawings that compose these maps are available either as a composite of all features or separately by feature. An Index to Intermediate-Scale Series Mapping showing information about available published and unpublished intermediate-scale maps is free on request from the distribution centers listed at the back of the catalog.

Standard quadrangle maps and orthophotoquads are sold for \$4.00 per copy. Discount rates and ordering instructions are given at the back of the catalog. State topographic indexes and catalogs are free on request. Each State index shows the areas mapped and the catalog contains ordering information and forms, along with a list of local dealers who sell topographic maps.

February 2002 - List of New and Revised Topographic Maps

State	Map Name	Map Type	Revision Type	Currentness Year	SE Corner DDMMSS		Scale	Contour	
					Lat	Long		Value	Unit
AK	Anchorage (D-3)	63K TOPO MAP (AK)	STANDARD UPDATE (ANALOG REVISION)	1993	614500N	1474500W	00063360	100	FT
AK	McCarthy (B-5)	63K TOPO MAP (AK)	STANDARD UPDATE (ANALOG REVISION)	1994	611500N	1423000W	00063360	100	FT
AK	Valdez (A-6)	63K TOPO MAP (AK)	STANDARD UPDATE (ANALOG REVISION)	1993	610000N	1455230W	00063360	100	FT
AK	Valdez (B-1)	63K TOPO MAP (AK)	STANDARD UPDATE (ANALOG REVISION)	1995	611500N	1440000W	00063360	100	FT
AK	Valdez (C-1)	63K TOPO MAP (AK)	STANDARD UPDATE (ANALOG REVISION)	1996	613000N	1440000W	00063360	100	FT
AK	Valdez (C-8)	63K TOPO MAP (AK)	STANDARD UPDATE (ANALOG REVISION)	1993	613000N	1463730W	00063360	100	FT
AZ	Ben Nevis Mountain	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	320000N	1120730W	00024000	20	FT
AZ	Brown Mountain	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	320730N	1110730W	00024000	20	FT
AZ	Chupan Mountain	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	315230N	1122230W	00024000	20	FT
AZ	Grand Canyon	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	360000N	1120000W	00100000	50	MR
AZ	Kom Vo	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	315230N	1121500W	00024000	20	FT
AZ	Mammoth	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	323000N	1100000W	00100000	50	MR
AZ	Sells West	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	315230N	1115230W	00024000	10	FT



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AZ	Tucson East	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	320730N 1104500W	00024000	10	FT
AZ	Vainom Kug	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	320000N 1120000W	00024000	20	FT
AZ	Winslow	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	350000N 1100000W	00100000	50	MR
CA	Alberhill	24K TOPO MAP	MINOR CHANGE REPRINT	1997	333730N 1172230W	00024000	40	FT
CA	Four Corners Rock	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	400000N 1230730W	00024000	20	MR
CA OR	High Divide	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	415230N 1240000W	00024000	40	FT
CA	Point Loma	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1996	323730N 1170730W	00024000	20	FT
CA	Red Bluff	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	1998	400000N 1220000W	00100000	50	MR
CA	Swim Ridge	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	400730N 1230730W	00024000	20	MR
CA	Taft	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	350000N 1190000W	00100000	40	MR
CA	Tecate	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1997	323000N 1163730W	00024000	40	FT
CO	Colorado Springs	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	383000N 1040000W	00100000	10	MR
CO	Colorado Springs	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	383000N 1040000W	00100000	10	MR
CO	Historic Trail Map of Trinidad Colorado	MISCELLANEOUS FIELD STUDY	NEW MAPPING	2001	370000N 1040000W	00250000	100	MR
CO	Mount Elbert	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1995	390000N 1062230W	00024000	40	FT
HI	Ahumoa	24K TOPO MAP	MINOR REVISION REPRINT	1992	194500N 1553000W	00024000	40	FT
HI	Na'ohuele'elua	24K TOPO MAP	MINOR REVISION REPRINT	1993	193730N 1553730W	00024000	40	FT
HI	Nali'ikakani Point	24K TOPO MAP	MINOR REVISION REPRINT	1995	190730N 1551500W	00024000	20	FT
HI	Pu' u'o'o	24K TOPO MAP	MINOR REVISION REPRINT	1995	193730N 1552230W	00024000	40	FT
HI	Pu'ukoli	24K TOPO MAP	MINOR REVISION REPRINT	1993	193730N 1553000W	00024000	40	FT
HI	Pu'umaka'ala	24K TOPO MAP	MINOR REVISION REPRINT	1994	193000N 1550730W	00024000	20	FT
HI	Pua'akala	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1993	194500N 1551500W	00024000	40	FT



HI	Umikoa	24K TOPO MAP	MINOR REVISION REPRINT	1993	195230N 1552230W	00024000	40	FT
HI	Waikoloa Ponds	24K TOPO MAP	MINOR REVISION REPRINT	1994	193730N 1551500W	00024000	40	FT
HI	Wood Valley	24K TOPO MAP	MINOR REVISION REPRINT	1995	191500N 1552230W	00024000	20	FT
ID MT	Coeur D'Alene	100K TOPO MAP	MINOR CHANGE REPRINT	1982	473000N 1160000W	00100000	50	MR
IL	Baylis	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	393730N 0905230W	00024000	20	FT
IL-IN	Dennison	24K TOPO MAP	MINOR REVISION REPRINT	1998	392230N 0873000W	00024000	10	FT
IL	Florence	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	393730N 0903000W	00024000	10	FT
IN IL	Merom	24K TOPO MAP	MINOR REVISION REPRINT	1998	390000N 0873000W	00024000	10	FT
IN IL	Sandford	24K TOPO MAP	MINOR REVISION REPRINT	1998	393000N 0873000W	00024000	10	FT
LA	Bay Dosgrais	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	292230N 0900000W	00024000	5	FT
LA	Buhler	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	301500N 0931500W	00024000	5	FT
LA	Curlew Islands	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	293730N 0885130W	00024000		
LA	Gonzales	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	300730N 0905230W	00024000	5	FT
LA	Lacombe	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	301500N 0895230W	00024000	5	FT
LA	Madisonville	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	302230N 0900730W	00024000	5	FT
LA	Slidell	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1998	301500N 0894500W	00024000	5	FT
MD WV	Cresaptown	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1997	393000N 0784500W	00024000	20	FT
MT	Bad Luck Creek	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	445230N 1113000W	00024000	40	FT
MT	Butte North	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	460000N 1120000W	00100000	50	MR
MT	Butte North	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	460000N 1120000W	00100000	50	MR
MT	Butte South	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	453000N 1120000W	00100000	50	MR
MT	Butte South	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	453000N 1120000W	00100000	50	MR



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MT	Cattle Gulch	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	453730N 1124500W	00024000	40	FT
MT WY	Ennis	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	450000N 1110000W	00100000	10	MR
MT WY	Ennis	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	450000N 1110000W	00100000	10	MR
MT	Fort Peck Lake West	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2000	473000N 1070000W	00100000	20	MR
MT	Fort Peck Lake West	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2000	473000N 1070000W	00100000	20	MR
MT ND	Glendive	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	470000N 1040000W	00100000	20	MR
MT ND	Glendive	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	470000N 1040000W	00100000	20	MR
MT	Great Falls South	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	470000N 1110000W	00100000	50	MR
MT	Great Falls South	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	470000N 1110000W	00100000	50	MR
MT	Hardin	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	453000N 1070000W	00100000	20	MR
MT	Hardin	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	453000N 1070000W	00100000	20	MR
MT	Leonard Creek	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	452230N 1114500W	00024000	40	FT
MT	Long Peak	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	455230N 1131500W	00024000	40	FT
MT	Lower Miner Lake	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	451500N 1133000W	00024000	40	FT
MT	Maltbys Mound	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	453000N 1114500W	00024000	40	FT
MT	Maurice Mountain	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	453000N 1130000W	00024000	40	FT
MT	Missoula East	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	463000N 1130000W	00100000	50	MR
MT	Missoula East	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	463000N 1130000W	00100000	50	MR
MT	Stewart Mountain	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	453000N 1131500W	00024000	40	FT



MT	Stine Mountain	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	453730N 1130000W	00024000	40	FT
MT	Stonehouse Mountain	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	444500N 1120000W	00024000	40	FT
MT	Storm Peak	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	453000N 1124500W	00024000	40	FT
MT	Swamp Creek	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	445230N 1120730W	00024000	40	FT
MT	Tash Peak	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	451500N 1130730W	00024000	40	FT
MT ID	Thompson Falls	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	473000N 1150000W	00100000	50	MR
MT ID	Thompson Falls	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	473000N 1150000W	00100000	50	MR
MT	Warm Springs Creek	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	450000N 1115230W	00024000	40	FT
MT ND	Wibaux	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	463000N 1040000W	00100000	20	MR
MT ND	Wibaux	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	463000N 1040000W	00100000	20	MR
MT	Glacier National Park	NATL PARK THEMATIC SERIES	NEW MAPPING	1998	481300N 1131000W	00100000	80	FT
NC	Fontana Dam	24K TOPO MAP	MINOR REVISION REPRINT	2000	352230N 0834500W	00024000	40	FT
NC	Hewitt	24K TOPO MAP	MINOR REVISION REPRINT	2000	351500N 0833730W	00024000	40	FT
NC	Robbinsville	24K TOPO MAP	MINOR REVISION REPRINT	2000	351500N 0834500W	00024000	40	FT
NC TN	Tapoco	24K TOPO MAP	MINOR REVISION REPRINT	2000	352230N 0835230W	00024000	40	FT
NH	Tamworth	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1998	434500N 0711500W	00024000	20	FT
NM	Apache Gap	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1996	325230N 1070730W	00024000	40	FT
NM	Crocker	24K TOPO MAP	MINOR REVISION REPRINT	1996	331500N 1070000W	00024000	20	FT
NM	Gardner Peak	24K TOPO MAP	MINOR REVISION REPRINT	1996	324500N 1063000W	00024000	40	FT
NM	Hockett	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1996	323000N 1071500W	00024000	20	FT
NM	Jug Canyon	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1996	323730N 1072230W	00024000	20	FT
NM	Lake Valley	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1996	323730N 1073000W	00024000	20	FT



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NM	Mount Aden	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1996	320730N 1070730W	00024000	10	FT
NM	Organ	24K TOPO MAP	MINOR REVISION REPRINT	1996	322230N 1063000W	00024000	20	FT
NM	Prisor Hill	24K TOPO MAP	MINOR REVISION REPRINT	1996	325230N 1065230W	00024000	10	FT
NM	Rough And Ready Hills	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1996	322230N 1070000W	00024000	20	FT
NM	Selden Canyon NE	24K GRAPHIC ORTHO MAP	MINOR REVISION REPRINT	1996	323730N 1064500W	00024000	10	FT
NM	Sierra Alta	24K TOPO MAP	MINOR REVISION REPRINT	1996	323000N 1070000W	00024000	20	FT
NM	Skute Stone Arroyo	24K TOPO MAP	MINOR REVISION REPRINT	1996	325230N 1072230W	00024000	20	FT
NM	Souse Springs	24K TOPO MAP	MINOR REVISION REPRINT	1996	323000N 1070730W	00024000	20	FT
NV OR	Denio	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	413000N 1180000W	00100000	50	MR
NV CA	Vya	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	413000N 1190000W	00100000	50	MR
OR	Christmas Valley	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	430000N 1200000W	00100000	20	MR
OR	Christmas Valley	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	430000N 1200000W	00100000	20	MR
OR	Lake Abert	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	1990	423000N 1200000W	00100000	20	MR
OR	Lake Abert	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	423000N 1200000W	00100000	20	MR
OR	Military Crossing	24K TOPO MAP	MINOR CHANGE REPRINT	1998	425230N 1213730W	00024000	20	FT
OR	Salem West	24K TOPO MAP	MINOR CHANGE REPRINT	1982	445230N 1230000W	00024000	10	FT
OR	South Sister	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	440000N 1214500W	00024000	40	FT
OR	Willamette Pass	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1997	433000N 1220000W	00024000	40	FT
PA	Airville	24K TOPO MAP	LIMITED UPDATE (DIGITAL REVISION)	1999	394500N 0762230W	00024000	20	FT
PA	Newfoundland	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1999	411500N 0751500W	00024000	20	FT
PA	Orwigsburg	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1999	403730N 0760000W	00024000	20	FT
PA	Seven Valleys	24K TOPO MAP	LIMITED UPDATE (DIGITAL REVISION)	1999	394500N 0764500W	00024000	20	FT



PA	Wakefield	24K TOPO MAP	LIMITED UPDATE (DIGITAL REVISION)	1999	394500N 0760730W	00024000	20	FT
TN	Windrock	24K TOPO MAP	MINOR REVISION REPRINT	2000	360000N 0841500W	00024000	20	FT
TX	Arlington	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1995	323730N 0970000W	00024000	10	FT
TX	Britton	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1995	323000N 0970000W	00024000	10	FT
TX	Dallas	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	324500N 0964500W	00024000	10	FT
TX	Hurst	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1995	324500N 0970730W	00024000	10	FT
UT WY	Deadman Mountain	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1998	405230N 1104500W	00024000	20	FT
UT WY	Hole In The Rock	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1998	405230N 1100730W	00024000	20	FT
UT	Logan	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1998	413730N 1114500W	00024000	40	FT
UT	Mantua	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1998	412230N 1115230W	00024000	40	FT
UT	Mount Pisgah	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1998	413000N 1115230W	00024000	40	FT
UT WY	Seven Tree Flat	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1998	405230N 1105230W	00024000	20	FT
UT	Sigurd	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1997	384500N 1115230W	00024000	40	FT
UT	Ecoregions of Utah	STATE BIO-DIVERSITY	NEW MAPPING	2000	365952N 1090227W			
VA	Big Island	24K TOPO MAP	MINOR REVISION REPRINT	1999	373000N 0791500W	00024000	20	FT
VA	Boyce	24K TOPO MAP	MINOR REVISION REPRINT	1999	390000N 0780000W	00024000	10	FT
VA	Covesville	24K TOPO MAP	MINOR REVISION REPRINT	1999	375230N 0783730W	00024000	20	FT
VA	Elliott Knob	24K TOPO MAP	MINOR REVISION REPRINT	1999	380730N 0791500W	00024000	40	FT
VA	Hog Island	24K TOPO MAP	MINOR REVISION REPRINT	1999	370730N 0763730W	00024000	10	FT
VA	Mc Gaheysville	24K TOPO MAP	MINOR REVISION REPRINT	1999	381500N 0783730W	00024000	40	FT
VA NC	Mouth of Wilson	24K TOPO MAP	MINOR REVISION REPRINT	2000	363000N 0811500W	00024000	40	FT
VA WV	Round Hill	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1997	390730N 0774500W	00024000	20	FT
VA	Trout Dale	24K TOPO MAP	MINOR REVISION REPRINT	2000	363730N 0812230W	00024000	40	FT
VA	Whitotop Mountain	24K TOPO MAP	MINOR REVISION REPRINT	2000	363730N 0813000W	00024000	40	FT



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VA	Winchester	24K TOPO MAP	STANDARD UPDATE (ANALOG REVISION)	1997	390730N 0780730W	00024000	10	FT
VT	Sterling Mountain	24K TOPO MAP, PROVISIONAL	MINOR REVISION REPRINT	1998	443000N 0723730W	00024000	6	MR
WA	Bumping Lake	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	464500N 1211500W	00024000	40	FT
WA	Darland Mountain	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	463000N 1210730W	00024000	40	FT
WA	Meeks Table	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	464500N 1210000W	00024000	40	FT
WA	Nile	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	464500N 1205230W	00024000	40	FT
WA	Norse Peak	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	465230N 1212230W	00024000	40	FT
WA	Old Scab Mountain	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	465230N 1210730W	00024000	40	FT
WA	Pinegrass Ridge	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	463000N 1211500W	00024000	40	FT
WA	Priest Rapids	BLM SURFACE MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	463000N 1190000W	00100000	50	MR
WA	Priest Rapids	BLM SURFACE MINERALS MANAGEMENT STATUS MAP	TOPOGRAPHIC EDITIONS	2001	463000N 1190000W	00100000	50	MR
WA	Rimrock Lake	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	463730N 1210730W	00024000	40	FT
WA	Weddle Canyon	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	2000	463730N 1205230W	00024000	40	FT
WV MD PA	Cherry Run	24K TOPO MAP	MINOR REVISION REPRINT	1998	393730N 0780000W	00024000	20	FT
WV	Quick	24K TOPO MAP	MINOR REVISION REPRINT	2000	381500N 0812230W	00024000	20	FT
WV	Racine	24K TOPO MAP	MINOR REVISION REPRINT	2000	380730N 0813730W	00024000	40	FT
WV	Sissonville	24K TOPO MAP	MINOR REVISION REPRINT	2000	383000N 0813730W	00024000	20	FT
WV	Winona	24K TOPO MAP	MINOR REVISION REPRINT	2000	380000N 0805230W	00024000	40	FT
WY	Meeks Cabin Reservoir	24K TOPO MAP	LIMITED UPDATE (ANALOG REVISION)	1998	410000N 1103000W	00024000	20	FT





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1:100,000 Maps	
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3-B (1:3,168,000), same as 3-A except seven colors and historical boundaries and public land surveys	
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Mineral Investigations Resources (MR)	
Oil and Gas Investigations Charts (OC)	
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