

Publications of the Geological Survey, 1983

UNITED STATES DEPARTMENT OF THE INTERIOR



Publications of the Geological Survey, 1983

UNITED STATES DEPARTMENT OF THE INTERIOR



UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, *Secretary*

GEOLOGICAL SURVEY

Dallas L. Peck, *Director*

Single copies free on application to the Branch of Distribution, U.S.
Geological Survey, 604 South Pickett Street, Alexandria, VA 22304

CONTENTS

	Page
Availability of books and maps by mail	v
Availability of books and maps over the counter	v
Books	1
Professional Papers	1
Bulletins	5
Water-Supply Papers	6
Circulars	8
Techniques of Water-Resources Investigations	11
Annual Reports	11
Periodicals	11
Earthquake Information Bulletin	11
Preliminary Determination of Epicenters	11
Articles Published in Outside Journals/Books	11
Miscellaneous and Special Books	63
Catalogs	63
Reports Available Only Through the NTIS	63
Water-Resources Investigations	64
Open-File Reports	72
Reports Available Only Through the Open-File Services Section	72
Reports Available Only Through the National Cartographic Information Centers	119
Reports Available Only Through Certain Geological Survey Field Offices	121
Maps	130
Geologic Quadrangle Maps	130
Geophysical Investigations Maps	130
Miscellaneous Investigations Series Maps	130
Coal Investigations Maps	133
Oil and Gas Investigations Charts	134
Miscellaneous Field Studies Maps	134
Mineral Investigations Resources Maps	149
Special Geologic Maps	149
State Geologic Maps	149
Hydrologic Investigations Atlases	149
Land Use and Land Cover Maps	150
Index	151
General	151
Authors	293

Publications of the U.S. Geological Survey

This catalog is a list of (1) books and maps¹ that were published during 1983, and (2) articles by Geological Survey personnel in non-Geological Survey journals and books that came to our attention in 1983; it supplements the permanent catalogs "Publications of the Geological Survey, 1879-1961" and "Publications of the Geological Survey, 1962-1970." These permanent catalogs, as well as some others, are available under the conditions indicated below from the Eastern Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304, and the Western Distribution Branch, U.S. Geological Survey, Box 25286, Federal Center, Denver, CO 80225. The catalogs are also available over the counter at any of the Geological Survey offices that sell books.

Permanent catalogs "Publications of the Geological Survey, 1879-1961" and "Publications of the Geological Survey, 1962-1970" may be purchased for \$2.00 per copy.

Supplements for 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, and 1983 are available free of charge, but requests should be limited only to single copies because of high production and distribution costs.

State catalogs, and a monthly catalog "New Publications of the U.S. Geological Survey" may be obtained free on request from the Eastern Distribution Branch, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

Those wishing to be placed on a free subscription list of the monthly catalog "New Publications of the U.S. Geological Survey" should apply in writing to the U.S. Geological Survey, 582 National Center, Reston, VA 22092.

¹ Individual topographic quadrangle maps are not listed, they are shown on State indexes to topographic maps, which are free on application. These indexes also show commercial dealers in each State.

PUBLICATIONS OF THE U.S. GEOLOGICAL SURVEY, 1983

AVAILABILITY OF BOOKS AND MAPS BY MAIL

In ordering books give the series designation and number, such as Geological Survey Bulletin 738, and the full title. In ordering maps give name or series designation and number, such as Fairfax, Va., 7.5-minute or GQ-851. Include your full address and zip code, plainly printed. Prepayment is required and should be made by check or money order payable to Department of the Interior - USGS, except for periodicals (see below). Postage stamps are not accepted. Do not send cash. Remittances must be in United States funds.

For prices of publications listed in this catalog refer to the January through December 1983 issues of the monthly list "New Publications of the Geological Survey." Prices listed include cost of domestic surface transportation. For transmittal outside the U.S.A. (except to Canada and Mexico), a surcharge of 25 percent of the net bill should be included to cover surface transportation.

Books

Professional papers, bulletins, water-supply papers, Techniques of Water-Resources Investigations, circulars, publications of general interest (such as leaflets, pamphlets, booklets), single copies of the Earthquake Information Bulletin, Preliminary Determination of Epicenters, and some miscellaneous reports, including some from the foregoing series that have gone out of print at the Superintendent of Documents, are obtainable by mail from

**Eastern Distribution Branch, Text Products Section,
U.S. Geological Survey, 604 South Pickett Street,
Alexandria, VA 22304.**

On orders of 100 copies or more of the same report to the same address, a 25-percent discount is allowed (limited quantities of circulars and publications of general interest are usually free of charge). Open-file reports and reports available only through the NTIS should be ordered according to instructions under appropriate headings in this announcement.

Subscriptions to periodicals (Earthquake Information Bulletin and Preliminary Determination of Epicenters) can be obtained ONLY from the

**Superintendent of Documents, Government Printing Office,
Washington, DC 20402**

(Check or money order should be payable to Superintendent of Documents.)

Maps

Individual topographic quadrangle maps are not listed; they are shown on State indexes to topographic maps, which are free on application. These indexes also show commercial dealers in each State.

For maps of areas east of the Mississippi River, including Minnesota, Puerto Rico, and the Virgin Islands, address mail orders to

**Eastern Distribution Branch, U.S. Geological Survey,
1200 South Eads Street, Arlington, VA 22202.**

For maps of areas west of the Mississippi River, including Alaska, Hawaii, Louisiana, Guam, and American Samoa, address mail orders to

**Western Distribution Branch, U.S. Geological Survey,
Box 25286, Federal Center, Denver, CO 80225.**

Residents of Alaska may order Alaska maps from

**Alaska Distribution Section, U.S. Geological Survey,
New Federal Building-Box 12
101 Twelfth Avenue, Fairbanks, AK 99701.**

On an order amounting to \$500 or more at the list price, a 50-percent discount is allowed; no other discount is applicable. The discount applies to all maps and charts distributed by the Geological Survey. Check or money order should be payable to Department of the Interior - USGS.

AVAILABILITY OF BOOKS AND MAPS OVER THE COUNTER

Books

Book reports of the Geological Survey are available over the counter at the following Geological Survey offices, all of which are authorized agents of the Superintendent of Documents:

ALEXANDRIA, Virginia-604 South Pickett St.
WASHINGTON, D.C.-General Services Bldg., Rm. 1028, 19th and F Sts., NW.
DENVER, Colorado-Federal Bldg., Rm. 169, 1961 Stout St.
DALLAS, Texas-Federal Bldg. Rm. 1C45, 1100 Commerce St.
LOS ANGELES, California-Federal Bldg., Rm. 7638, 300 N. Los Angeles St.
MENLO PARK, California-Bldg. 3 (Stop 33), Rm. 122, 345 Middlefield Road
RESTON, Virginia-503 National Center, Rm. 1C402, 12201 Sunrise Valley Dr.
SALT LAKE CITY, Utah-Federal Bldg., Rm. 8105, 125 South State St.
SAN FRANCISCO, California-Customhouse, Rm. 504, 555 Battery St.
SPOKANE, Washington-U.S. Courthouse, Rm. 678, West 920 Riverside Ave.
ANCHORAGE, Alaska-Skyline Bldg., Rm. 108, 508 2d Ave.

Maps

Maps may be purchased over the counter at the U.S. Geological Survey offices where books are sold (all addresses in above list, except Alexandria, Va.) and at the following Geological Survey offices:

ARLINGTON, Virginia-1200 South Eads Street
ROLLA, Missouri-1400 Independence Road
DENVER, Colorado-Bldg. 41, Federal Center
FAIRBANKS, Alaska-New Federal Bldg., 101 Twelfth Avenue

Survey maps are also sold by some 2,500 commercial dealers throughout the United States. Dealers are listed in State indexes to topographic maps, which are obtainable free of charge by mail or over the counter from Geological Survey offices listed on this page.

BOOKS

PROFESSIONAL PAPERS

Professional papers include reports on the results of resource studies, and of topographic, hydrologic, paleontologic, and geologic investigations, that are of large size or have illustrations or tables requiring a large page size; they include also longer contributions to the literature on scientific and engineering subjects.

- P 0420-A. CALIFORNIA. Geology of the Los Angeles Basin, California; an introduction, by R. F. Yerkes, T. H. McCulloh, J. E. Schoellhamer, and J. G. Vedder. 1965. p. A1-A57; 4 plates in pocket. (Reprint.) (Geology of the eastern Los Angeles Basin, Southern California.)
- P 0492. Thermal springs of the United States and other countries of the world; a summary, by G. A. Waring. 1965. 383 p. (Reprint.) (Revised by R. R. Blankenship and Ray Bental.)
- P 0498-D. Chemical properties of ground water and their corrosion and encrustation effects on wells, by Ivan Barnes, and F. E. Clarke. 1969. p. D1-D58. (Reprint.) (Hydrology of aquifer systems.)
- P 0722. CALIFORNIA. Gold-bearing gravel of the ancestral Yuba River, Sierra Nevada, California, by W. E. Yeend. 1974. 44 p; 2 plates in pocket. (Reprint.)
- P 0774-G. OREGON. Biostratigraphy of the marine Neogene sequence at Cape Blanco, southwestern Oregon, by W. O. Addicott. 1983. p. G1-G20. (Shorter contributions to general geology.)
- P 0813-M. HAWAII. Summary appraisals of the Nation's ground-water resources; Hawaii region, by K. J. Takasaki. 1978. p. M1-M29. (Reprint.)
- P 0835. ALASKA. Quaternary geology of Alaska, by T. L. Péwé. 1975. 145 p; 1 plate and 2 tables in pocket. (Reprint.)
- P 0890. HAWAII. The August and October 1968 east rift eruptions of Kilauea Volcano, Hawaii, by D. B. Jackson, D. A. Swanson, R. Y. Koyanagi, and T. L. Wright. 1975. 33 p. (Reprint.)
- P 0964. A land use and land cover classification system for use with remote sensor data, by J. R. Anderson, E. E. Hardy, J. T. Roach, and R. E. Witmer. 1976. 28 p. (Reprint.)
- P 0989. WASHINGTON. Plutonism and orogeny in north-central Washington; timing and regional context, by K. F. Fox, Jr., C. D. Rinehart, and J. C. Engels. 1977. 27 p. (Reprint.)
- P 0999. MONTANA. Stillwater Complex, Montana; rock succession, metamorphism and structure of the complex and adjacent rocks, by N. J. Page. 1977. 79 p.; 2 plates in pocket. (Reprint.)
- P 1022-E. WASHINGTON. Origin, distribution, and rapid removal of hydrothermally formed clay at Mount Baker, Washington, by David Frank. 1983. p. E1-E31; 1 plate in pocket. (Volcanic activity at Mount Baker, Washington.)
- P 1028. SOUTH CAROLINA. Studies related to the Charleston, South Carolina, earthquake of 1886; a preliminary report, edited by D. W. Rankin. 1977. 204 p. (Reprint.)
- A. SOUTH CAROLINA. Studies related to the Charleston, South Carolina, earthquake of 1886; introduction and discussion, by D. W. Rankin. p. 1-15
- B. SOUTH CAROLINA. Reinterpretation of the intensity data for the 1886 Charleston, South Carolina, earthquake, by G. A. Bollinger. p. 17-32
- C. SOUTH CAROLINA. The seismicity of South Carolina prior to 1886, by G. A. Bollinger, and T. R. Visvanathan. p. 33-42
- D. SOUTH CAROLINA. Recent seismicity near Charleston, South Carolina, and its relationship to the August 31, 1886, earthquake, by A. C. Tarr. p. 43-57
- E. SOUTH CAROLINA. Lithostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina, by G. S. Gohn, B. B. Higgins, C. C. Smith, and J. P. Owens. p. 59-70
- F. SOUTH CAROLINA. Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina, by J. E. Hazel, L. M. Bybell, R. A. Christopher, N. O. Frederiksen, F. E. May, D. M. McLean, R. Z. Poore, C. C. Smith, N. F. Sohl, P. C. Valentine, and R. J. Witmer. p. 71-89
- G. SOUTH CAROLINA. Geochemistry of subsurface basalt from the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina; magma type and tectonic implications, by David Gottfried, C. S. Annell, and L. J. Schwarz. p. 91-113
- H. SOUTH CAROLINA. Heat flow from a corehole near Charleston, South Carolina, by J. H. Sass, and J. P. Ziagos. p. 115-117
- I. SOUTH CAROLINA, GEORGIA. The nature of the geophysical basement beneath the coastal plain of South Carolina and northeastern Georgia, by Peter Popenoe, and Isidore Zietz. p. 119-137
- J. SOUTH CAROLINA. Magnetic basement near Charleston, South Carolina; a preliminary report, by J. D. Phillips. p. 139-149
- K. SOUTH CAROLINA. Bouguer gravity map of the Summerville-Charleston, South Carolina, epicentral zone and tectonic implications, by L. T. Long, and J. W. Champion, Jr. p. 151-166
- L. SOUTH CAROLINA. Exploring the Charleston, South Carolina, earthquake area with seismic refraction; a preliminary study, by H. D. Ackermann. p. 167-175
- M. SOUTH CAROLINA. A preliminary shallow crustal model between Columbia and Charleston, South Carolina, determined from quarry blast monitoring and other geophysical data, by Pradeep Talwani. p. 177-187
- N. SOUTH CAROLINA. Electric and electromagnetic soundings near Charleston, South Carolina; a preliminary report, by D. L. Campbell. p. 189-198
- O. Correlation of major eastern earthquake centers with mafic/ultramafic masses, by M. F. Kane. p. 199-204
- P 1031. IDAHO, MONTANA. Medicine Lodge thrust system, east-central Idaho and Southwest Montana, by E. T. Ruppel. 1978. 23 p. (Reprint.)
- P 1044-A. CALIFORNIA. The hydrothermal system of Long Valley Caldera, California, by M. L. Sorey, R. E. Lewis, and F. H. Olmsted. 1978. p. A1-A60; 1 plate in pocket. (Reprint.) (Geohydrology of geothermal systems.)
- P 1044-H. UTAH. Reconnaissance of the hydrothermal resources of Utah, by F. E. Rush. 1983. p. H1-H49. (Geohydrology of geothermal systems.)

- P 1049-D. WYOMING. Geology and description of thorium and rare-earth deposits in the southern Bear Lodge Mountains, northeastern Wyoming, by M. H. Staatz. 1983. p. D1-D52; 2 plates in pocket. (Geology and resources of thorium in the United States.)
- P 1066-N. Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region, by R. J. Elias. 1983. p. N1-N13; 2 plates. (Contributions to the Ordovician paleontology of Kentucky and nearby States.)
- P 1067-F. Postdepositional alteration of surface and near-surface minerals in selected coastal plain formations of the Middle Atlantic States, by J. P. Owens, M. M. Hess, C. S. Denny, and E. J. Dwornik. 1983. p. F1-F45. (Surface and shallow subsurface geologic studies in the emerged coastal plain of the Middle Atlantic States.)
- P 1170-D. CALIFORNIA. Merced Peak Quadrangle, central Sierra Nevada, California; analytic data, by D. L. Peck, and G. K. Van Kooten. 1983. 29 p. (Shorter contributions to general geology.)
- P 1170-E. ALASKA. A sillimanite gneiss dome in the Yukon crystalline terrane, east-central Alaska; petrography and garnet-biotite geothermometry, by Cynthia Dusel-Bacon, and H. L. Foster. 1983. p. E1-E25. (Shorter contributions to general geology.)
- P 1173. ARIZONA. The Supai Group of Grand Canyon, by E. D. McKee. 1982. 502 p.
- A. ARIZONA. Introduction, by E. D. McKee. p. 1-19
 - B. ARIZONA. Introductory summary, by E. D. McKee. p. 21-27
 - C. ARIZONA. Stratigraphy and lithology, by E. D. McKee. p. 29-50
 - D. ARIZONA. Paleogeography, by E. D. McKee. p. 51-73
 - E. ARIZONA. Distribution and age of fauna and flora, by E. D. McKee. p. 75-112
 - F. ARIZONA. Biostratigraphy of the Watahomigi Formation, by E. D. McKee. p. 113-135
 - G. ARIZONA. Pre-Supai buried valleys, by E. D. McKee. p. 137-153
 - H. ARIZONA. Erosion surfaces, by E. D. McKee. p. 155-176
 - I. ARIZONA. Transgression and regression, by E. D. McKee. p. 177-186
 - J. ARIZONA. Conglomerates, by E. D. McKee. p. 187-203
 - K. ARIZONA. Sandstones, by E. D. McKee. p. 205-243
 - L. ARIZONA. Environment of deposition of sandstone bodies, by E. D. McKee. p. 245-262
 - M. ARIZONA. Insoluble residue patterns, by E. D. McKee. p. 263-272
 - N. ARIZONA. Minor sedimentary features, contorted structures, and homogeneous sedimentary rocks, by E. D. McKee. p. 273-285
 - O. ARIZONA. Clay mineralogy, by E. D. McKee. p. 287-331
 - P. ARIZONA. Petrography of the Supai Group and Paikoon Limestone, by E. D. McKee. p. 333-359
 - Q. ARIZONA. Stable isotope analyses, by E. D. McKee. p. 361-364
 - R. ARIZONA. Aphanitic silica rocks, by E. D. McKee. p. 365-374
 - S. ARIZONA. Evaporite deposits and magnesian carbonate rocks, by E. D. McKee. p. 375-385
- P 1181. ALASKA. Mineralogy and occurrence of europium-rich dark monazite, by Sam Rosenblum, and E. L. Mosier. 1983. 67 p.
- P 1183. Landslide overview map of the conterminous United States, by D. H. Radbruch-Hall, R. B. Colton, W. E. Davies, Ivo Lucchitta, B. A. Skipp, and D. J. Varnes. 1982. 25 p.; 1 plate in pocket.
- P 1198. Melanges and their bearing on late Mesozoic and Tertiary subduction and interplate translation at the west edge of the North American Plate, by K. F. Fox, Jr. 1983. 40 p.
- P 1200-NJ. NEW JERSEY. The National Gazetteer of the United States of America; New Jersey 1983. 1983. p. NJ1-NJ225. (Revised.)
- P 1207. NEVADA. Middle Triassic molluscan fossils of biostratigraphic significance from the Humboldt Range, northwestern Nevada, by N. J. Silberling, and K. M. Nichols. 1982. 77 p.; 38 plates in book and 3 plates in pocket.
- P 1213. CALIFORNIA. Studies in Tertiary stratigraphy of the California Coast Ranges, edited by E. E. Brabb. 1983. 93 p; 17 plates.
- CALIFORNIA. Paleogene benthic foraminiferal biostratigraphy and paleobathymetry of the central Coast Ranges of California, by W. A. Berggren, and Jane Aubert. p. 4-21
 - CALIFORNIA. Lower Tertiary nannoplankton biostratigraphy in the central Coast Ranges of California, by A. D. Warren. p. 22-38
 - CALIFORNIA. Calcareous nannofossil biostratigraphy of the Paleogene of the Santa Cruz Mountains, California, by B. U. Haq. p. 38-39
 - CALIFORNIA. Definition of the Lodo Formation, by E. E. Brabb. p. 39-40
 - CALIFORNIA. Large foraminifers of Eocene age from the Coast Ranges of California, by Alphonse Blondeau, and E. E. Brabb. p. 41-48
 - CALIFORNIA. Eocene to Miocene calcareous plankton from the Santa Cruz Mountains and northern Santa Lucia Range, by R. Z. Poore, and David Bukry. p. 48-61
 - CALIFORNIA. Upper Eocene to lower Miocene benthic foraminifers from the Santa Cruz Mountains area, California, by Kristin McDougall. p. 61-77
- P 1220. WASHINGTON. Intrusive rocks of the Holden and Lucerne quadrangles, Washington; the relation of depth zones, composition, textures, and emplacement of plutons, by F. W. Cater. 1982. 108 p.
- P 1236. MISSOURI. Investigations of the New Madrid, Missouri, earthquake region, edited by F. A. McKeown, and L. C. Pakiser. 1982. 201 p.
- A. Overview and discussion, edited by F. A. McKeown, and L. C. Pakiser. p. 1-14
 - B. Damaging earthquakes of the Central Mississippi Valley, by O. W. Nuttli. p. 15-20

- C. Present-day seismicity and identification of active faults in the New Madrid seismic zone, by William Stauder. p. 21-30
- D. MISSOURI, TENNESSEE. Microearthquakes and faulting in the area of New Madrid, Missouri-Reelfoot Lake, Tennessee, by Daniel O'Connell, C. G. Bufe, and M. D. Zoback. p. 31-38
- E. Magnetic basement in the upper Mississippi Embayment region; a preliminary report, by T. G. Hildenbrand, M. F. Kane, and J. D. Hendricks. p. 39-53
- F. Tectonic features of the New Madrid seismic zone from seismic-reflection profiles, by R. M. Hamilton, and M. D. Zoback. p. 55-82
- G. A crustal structure study of the Mississippi Embayment, by C. B. Austin, and G. R. Keller. p. 83-94
- H. MISSOURI, TENNESSEE. Style and significance of surface deformation in the vicinity of New Madrid, Missouri, by D. P. Russ. p. 95-114
- I. Configuration and deformation of the Paleozoic bedrock surface in the New Madrid seismic zone, by A. J. Crone, and S. R. Brockman. p. 115-135
- J. TENNESSEE. High-resolution seismic-reflection surveying on Reelfoot scarp, northwestern Tennessee, by J. L. Sexton, E. P. Frey, and Dave Malicki. p. 137-149
- K. ARKANSAS. Stratigraphy and structure of Post-Paleozoic sediments above the Newport Pluton of northeastern Arkansas, by E. E. Glick. p. 151-174
- L. The northeastern extension of the New Madrid fault seismic zone, by L. W. Braile, W. J. Hinze, G. R. Keller, and E. G. Lidiak. p. 175-184
- M. Heat flow in the upper Mississippi Embayment, by C. A. Swanberg, B. J. Mitchell, R. L. Lohse, and D. D. Blackwell. p. 185-189
- N. Radon emanation in the New Madrid seismic zone, by S. R. Steele, W. C. Hood, and J. L. Sexton. p. 191-201
- P 1239. CALIFORNIA. Tectonic setting of late Miocene, Pliocene, and Pleistocene rocks in part of the Coast Ranges north of San Francisco, California, by K. F. Fox, Jr. 1983. 33 p.; 1 plate in pocket.
- P 1241-E. Correlation chart for Precambrian rocks of the Eastern United States, by D. W. Rankin, T. W. Stern, James McLelland, R. E. Zartman, and A. L. Odom. 1983. p. E1-E18; 2 plates in pocket. (Correlation of Precambrian rocks of the United States and Mexico.)
- P 1247. Revision of *Lithostrotionella* (Coelenterata, Rugosa) from the Carboniferous and Permian, by W. J. Sando. 1983. 52 p.; 20 plates.
- P 1253. MINNESOTA. Stratigraphy and paleontology of Mid-Cretaceous rocks in Minnesota and contiguous areas, by W. A. Cobban, and E. A. Merewether. 1983. 52 p.; 15 plates.
- A. Molluscan fossil record from the northeastern part of the Upper Cretaceous seaway, Western Interior, by W. A. Cobban. p. 1-25
- B. MINNESOTA. Lower Upper Cretaceous strata in Minnesota and adjacent areas; time-stratigraphic correlations and structural attitudes, by E. A. Merewether. p. 26-52
- P 1254. CALIFORNIA. The Imperial Valley, California, earthquake of October 15, 1979. 1982. 451p.; 2 volumes; 4 plates in second volume.
- CALIFORNIA. Introduction. p. 1-3
- CALIFORNIA. Tectonic setting of the Imperial Valley region, by R. V. Sharp. p. 5-14
- CALIFORNIA. Seismicity of the Imperial Valley, by C. E. Johnson, and D. P. Hill. p. 15-24
- CALIFORNIA. Crustal structure of the Imperial Valley region, by G. S. Fuis, W. D. Mooney, J. H. Healey, G. A. McMechan, and W. J. Lutter. p. 25-49
- CALIFORNIA. Main-shock location and magnitude determination using combined U.S. and Mexican data, by Dave Chavez, Javier Gonzales, Alfonso Reyes, Mauro Medina, Carlos Duarte, J. N. Brune, F. L. Vernon, III, Richard Simons, L. K. Hutton, P. T. German, and C. E. Johnson. p. 51-54
- CALIFORNIA. Long-period surface waves, by Hiroo Kanamori, and Janice Regan. p. 55-58
- CALIFORNIA. Aftershocks and preearthquake seismicity, by C. E. Johnson, and L. K. Hutton. p. 59-76
- CALIFORNIA. The focal mechanism from the Global Digital Seismograph Network, by B. R. Julian, Madeleine Zirbes, and Russell Needham. p. 77-81
- CALIFORNIA. Data from the Global Digital Seismograph Network, by Madeleine Zirbes, and B. R. Julian. p. 83-100
- CALIFORNIA. Synthetic seismogram modeling for the laterally varying structure in the central Imperial Valley, by W. D. Mooney, and G. A. McMechan. p. 101-107
- CALIFORNIA. Preliminary study of selected aftershocks from digital acceleration and velocity recordings, by D. M. Boore, and J. B. Fletcher. p. 109-118
- CALIFORNIA. Surface faulting in the central Imperial Valley, by R. V. Sharp, J. J. Lienkaemper, M. G. Bonilla, D. B. Burke, B. F. Fox, D. G. Herd, D. M. Miller, D. M. Morton, D. J. Ponti, M. J. Rymer, J. C. Tinsley, J. C. Yount, J. E. Kahle, E. W. Hart, and K. E. Sieh. p. 119-143
- CALIFORNIA. Displacement on the Superstition Hills Fault triggered by the earthquake, by G. S. Fuis. p. 145-154
- CALIFORNIA. Slip along the San Andreas Fault associated with the earthquake, by K. E. Sieh. p. 155-159
- CALIFORNIA. Preearthquake and postearthquake creep on the Imperial Fault and the Brawley fault zone, by S. N. Cohn, C. R. Allen, Ralph Gilman, and N. R. Gouty. p. 161-167
- CALIFORNIA. Preearthquake and postearthquake near-field leveling across the Imperial Fault and the Brawley fault zone, by R. V. Sharp, and J. J. Lienkaemper. p. 169-182
- CALIFORNIA. Geodetic measurements of horizontal deformation on the Imperial Fault, by C. N. Crook, R. G. Mason, and P. R. Wood. p. 183-191

- CALIFORNIA. Distribution of afterslip along the Imperial Fault, by P. W. Harsh. p. 193-203
- CALIFORNIA. Geodetic observations of postseismic deformation around the north end of surface rupture, by J. O. Langbein, M. J. Johnston, and A. McGarr. p. 205-212
- CALIFORNIA. Comparison of 1979 surface faulting with earlier displacements in the Imperial Valley, by R. V. Sharp. p. 213-221
- CALIFORNIA. Liquefaction and secondary failure, by T. Leslie, and Wieczorek G. F. p. 223-246
- CALIFORNIA. Earthquake-generated sandblows formed during the main shock, by S. G. Muir, and R. F. Scott. p. 247-250
- CALIFORNIA. Preliminary evaluation of the distribution of seismic intensities, by B. G. Reagor, C. W. Stover, S. T. Algermissen, K. V. Steinbrugge, Peter Hubiak, M. G. Hopper, and L. M. Barnhard. p. 251-258
- CALIFORNIA. Seismic-intensity studies in the Imperial Valley, by Robert Nason. p. 259-264
- CALIFORNIA. Effects of shaking on residues near the Imperial Fault rupture, by C. R. Real. p. 265-271
- CALIFORNIA. Damage to engineered structures in California, by T. D. Wosser, D. E. Campi, M. A. Fovinci, and W. H. Smith. p. 273-288
- Strong-motion data recorded in the United States, by R. L. Porcella, R. B. Matthiesen, and R. P. Maley. p. 289-318
- Strong-motion data recorded in Mexico during the main shock, by J. N. Brune, F. L. Vernon, III, and R. S. Simons. p. 319-349
- CALIFORNIA. El Centro differential ground motion array, by G. N. Bycroft. p. 351-356
- CALIFORNIA. An analysis of strong-motion data from a severely damaged structure; the Imperial County Services Building, El Centro, California, by Christopher Rojahn, and P. N. Mork. p. 357-375
- CALIFORNIA. Main-shock strong-motion records from the Meloland Road-Interstate Highway 8 overcrossing, by Christopher Rojahn, J. T. Ragsdale, J. D. Raggett, and J. H. Gates. p. 377-383
- CALIFORNIA. Digitization and processing of main-shock ground-motion data from the U.S. Geological Survey accelerograph network, by A. G. Brady, Virgilio Perez, and P. N. Mork. p. 385-406
- CALIFORNIA. Data-processing procedures for main-shock motions recorded by the California Division of Mines and Geology strong-motion network, by L. D. Porter. p. 407-431
- CALIFORNIA. M_L and M_0 determination from strong-motion accelerograms, and expected-intensity distribution, by A. F. Espinosa. p. 433-438
- CALIFORNIA. Peak horizontal ground motions from the main shock; comparison with data from previous earthquakes, by D. M. Boore, and R. L. Porcella. p. 439-441
- CALIFORNIA. Aftershock accelerograms recorded on a temporary array, by J. G. Anderson, and T. H. Heaton. p. 443-451
- P 1255. CALIFORNIA. Wallrocks of the central Sierra Nevada Batholith, California; a collage of accreted tectono-stratigraphic terranes, by W. J. Nokleberg. 1983. 28 p.; 1 plate in pocket.
- P 1256. CALIFORNIA. Core KM-3, a surface-to-bedrock record of late Cenozoic sedimentation in Searles Valley, California, by G. I. Smith, V. J. Barczak, G. F. Moulton, and J. C. Liddicoat. 1983. 24 p.; 1 plate in pocket.
- P 1258-C. ALASKA. Calving speed of Alaska tidewater glaciers, with application to Columbia Glacier, by C. S. Brown, M. F. Meier, and Austin Post. 1982. p. C1-C13; 4 plates in pocket. (A study of 15 iceberg-calving glaciers in Alaska establishes a relation between calving speed and water depth at the terminus)
- P 1258-D. ALASKA. Finite-difference model predictions of the drastic retreat of Columbia Glacier, Alaska, by R. A. Bind-schadler, and L. A. Rasmussen. 1983. 17 p. (Studies of Columbia Glacier, Alaska.)
- P 1261. CALIFORNIA. Millerton Lake Quadrangle, west-central Sierra Nevada, California; analytic data, by P. C. Bate-man, and A. J. Busacca. 1983. 20 p.
- P 1262. Origin and character of loesslike silt in unglaciated south-central Yakutia, Siberia, USSR, by T. L. Péwé, and André Journaux. 1983. 46 p.
- P 1273-C. MONTANA, WYOMING. Relationship of porosity and permeability to petrology of the Madison Limestone in rock cores from three test wells in Montana and Wyoming, by P. A. Thayer. 1983. p. C1-C29; 3 plates and 1 table in pocket. (Geology and hydrology of the Madison Limestone and associated rocks in parts of Montana, Nebraska, North Dakota, South Dakota, and Wyoming.)
- P 1273-E. MONTANA, NORTH DAKOTA, SOUTH DAKOTA, WYOMING. Potentially favorable areas for large-yield wells in the Red River Formation and Madison Limestone in parts of Montana, North Dakota, South Dakota, and Wyoming, by L. M. MacCary, E. M. Cushing, and D. L. Brown. 1983. p. E1-E13; 1 plate in pocket. (Geology and hydrology of the Madison Limestone and associated rocks in parts of Montana, Nebraska, North Dakota, South Dakota and Wyoming.)
- P 1282. LOUISIANA. Predation on sub-Holocene scaphopod mollusks from southern Louisiana, by E. L. Yochelson, David Dockery, and Heidi Wolf. 1983. 13 p.; 4 plates.
- P 1285. NORTH CAROLINA. The Black Creek-Peedee formational contact (Upper Cretaceous) in the Cape Fear River region of North Carolina, by N. F. Sohl, and R. A. Christopher. 1983. 37 p.
- P 1288. An analytical treatment of channel-morphology relations, by W. R. Osterkamp, L. J. Lane, and G. R. Foster. 1983. 21 p.
- P 1294. Future supply of oil and gas from the Gulf of Mexico, by E. D. Attanasi, and J. L. Haynes. 1983. 21 p.
- P 1300. Wilderness mineral potential; assessment of mineral-resource potential in U.S. Forest Service lands studied in 1964-1984, by S. P. Marsh, S. J. Kropschot, and R. G. Dickinson. 1984. 1,183 p.; 2 volumes.

- P 1313. SOUTH CAROLINA. Studies related to the Charleston, South Carolina, earthquake of 1886; tectonics and seismicity, edited by G. S. Gohn. 1983. 8 plates in pocket.
- A. SOUTH CAROLINA. Geochemistry and tectonic significance of subsurface basalts near Charleston, South Carolina; Clubhouse Crossroads test holes #2 and #3, by David Gottfried, C. S. Ansell, and G. R. Byerly. p. A1-A19
- B. SOUTH CAROLINA. $^{40}\text{Ar}/^{39}\text{Ar}$ ages of basalt from Clubhouse Crossroads test hole #2 near Charleston, South Carolina, by M. A. Lanphere. p. B1-B8
- C. SOUTH CAROLINA. Paleomagnetic investigations of the Clubhouse Crossroads basalt, by J. D. Phillips. p. C1-C18
- D. SOUTH CAROLINA. Geology of the lower Mesozoic(?) sedimentary rocks in Clubhouse Crossroads test hole #3, near Charleston, South Carolina, by G. S. Gohn, B. B. Houser, and R. R. Schneider. p. D1-D17
- E. SOUTH CAROLINA. Geology of the basement rocks near Charleston, South Carolina; data from detrital rock fragments in lower Mesozoic(?) rocks in Clubhouse Crossroads test hole #3, by G. S. Gohn. p. E1-E22
- F. SOUTH CAROLINA. Seismic-refraction study in the area of the Charleston, South Carolina, 1886 earthquake, by H. D. Ackermann. p. F1-F20
- G. SOUTH CAROLINA. A reflection seismic study near Charleston, South Carolina, by B. R. Yantis, J. K. Costain, and H. D. Ackermann. p. G1-G20
- H. SOUTH CAROLINA. Subsurface structure near Charleston, South Carolina; results of COCORP reflection profiling in the Atlantic Coastal Plain, by F. S. Schilt, L. D. Brown, J. E. Oliver, and Sidney Kaufman. p. H1-H19
- I. SOUTH CAROLINA. Land multichannel seismic-reflection evidence for tectonic features near Charleston, South Carolina, by R. M. Hamilton, J. C. Behrendt, and H. D. Ackermann. p. I1-I18
- J. SOUTH CAROLINA. Marine multichannel seismic-reflection evidence for Cenozoic faulting and deep crustal structure near Charleston, South Carolina, by J. C. Behrendt, R. M. Hamilton, H. D. Ackermann, V. J. Henry, and K. C. Bayer. p. J1-J29
- K. Distribution of subsurface lower Mesozoic rocks in the Southeastern United States, as interpreted from regional aeromagnetic and gravity maps, by D. L. Daniels, Isidore Zietz, and Peter Popenoe. p. K1-K24
- L. GEORGIA. Pre-Cretaceous rocks beneath the Georgia Coastal Plain; regional implications, by T. M. Chowns, and C. T. Williams. p. L1-L42
- M. GEORGIA. Potassium-argon relations in diabase dikes of Georgia; the influence of excess ^{40}Ar on the geochronology of early Mesozoic igneous and tectonic events, by R. E. Dooley, and J. M. Wampler. p. M1-M24
- N. SOUTH CAROLINA. Mesozoic development and structure of the continental margin off South Carolina, by W. P. Dillon, K. D. Klitgord, and C. K. Paull. p. N1-N16
- O. SOUTH CAROLINA. Basement structure indicated by seismic-refraction measurements offshore from South Carolina and adjacent areas, by W. P. Dillon, and L. D. McGinnis. p. O1-O7
- P. Mesozoic tectonics of the Southeastern United States coastal plain and continental margin, by K. D. Klitgord, W. P. Dillon, and Peter Popenoe. p. P1-P15
- Q. SOUTH CAROLINA. Relocation of instrumentally recorded pre-1974 earthquakes in the South Carolina region, by J. W. Dewey. p. Q1-Q9
- R. SOUTH CAROLINA. Seismicity near Charleston, South Carolina, March 1973 to December 1979, by A. C. Tarr, and Susan Rhea. p. R1-R17
- S. Regenerated faults of small Cenozoic offset; probable earthquake sources in the Southeastern United States, by C. M. Wentworth, and Marcia Mergner-Keefer. p. S1-S20
- T. SOUTH CAROLINA. Speculations on the nature of seismicity at Charleston, South Carolina, by G. A. Bollinger. p. T1-T11

BULLETINS

Bulletins include either final or progress reports on the results of resource studies and of topographic and geologic investigations; shorter contributions to economic and general geology; and descriptions of Survey instruments and techniques. Among other kinds of reports included in the bulletin series are bibliographies, geophysical abstracts, and contributions to geochemistry.

- B 1141-I. Character and history of the upper Ohio River valley, by C. W. Carlston. 1962. p. I1-I10. (Reprint.)
- B 1291. The geologic story of the Uinta Mountains, by W. R. Hansen. 1969. 144 p. (Reprint.)
- B 1313-E. Automatic interpretation of Schlumberger sounding curves, using modified Dar Zarrouk functions, by A. A. Zohdy. 1975. p. E1-E39. (Reprint.) (New techniques in direct-current resistivity exploration.)
- B 1374. ALASKA. Placer deposits of Alaska, by E. H. Cobb. 1973. 213 p. 1 plate in pocket. (Reprint.)
- B 1510. VIRGINIA, WEST VIRGINIA. Mineral resources of the Mill Creek, Mountain Lake, and Peters Mountain Wilderness Study Areas, Craig and Giles counties, Virginia, and Monroe County, West Virginia, by F. G. Lesure, U.S. Geological Survey, and B. B. Williams and M. L. Dunn, Jr., U.S. Bureau of Mines, with a section on Oil and gas potential by W. J. Perry, Jr., U.S. Geological Survey. 1982. 76 p; 6 plates in pocket. (Studies related to wilderness-study areas.) (Supersedes Open-file report 76-1076).
- B 1529-B. ALASKA. Summit Island Formation, a new Upper Cretaceous formation in southwestern Alaska, by J. M. Hoare, W. L. Coonrad, and Scott McCoy. 1983. p. B1-B18. (Contributions to stratigraphy.)
- B 1529-C. ALASKA. Graywacke of Buchia Ridge and correlative Lower Cretaceous rocks in the Goodnews Bay and Bethel quadrangles, southwestern Alaska, by J. M. Hoare, and W. L. Coonrad. 1983. 17 p. (Contributions to stratigraphy.)
- B 1529-D. CALIFORNIA. The Kern River Formation, southeastern San Joaquin Valley, California, by J. A. Bartow, and G. M. Pittman. 1983. p. D1-D17; 1 plate in pocket. (Contributions to stratigraphy.)

- B 1529-E. CALIFORNIA. Cenozoic rocks in the Barstow Basin area of Southern California; stratigraphic relations, radiometric ages, and paleomagnetism, by D. B. Burke, J. W. Hillhouse, E. H. McKee, S. T. Miller, and J. L. Morton. 1982. p. E1-E16; 2 plates in pocket. (Reprint.) (Contributions to stratigraphy.)
- B 1529-G. COLORADO. Las Animas Formation (upper Precambrian) in the subsurface of southeastern Colorado, by Ogden Tweto. 1983. p. G1-G14. (Contributions to stratigraphy.)
- B 1529-H. Stratigraphic notes, 1980-1982. 1982. p. H1-H148. (Contributions to stratigraphy.)
- NEW YORK. Adoption of the name Hutchinson River Group and its subdivisions in Bronx and Westchester counties, southeastern New York, by C. A. Baskerville. p. H1-H10
- OREGON. Carboniferous formations in central Oregon, by H. J. Buddenhagen. p. H11-H12
- ALASKA. New Paleozoic formations in the northern Kuskokwim Mountains, west-central Alaska, by J. T. Dutro, Jr., and W. W. Patton, Jr. p. H13-H22
- ALABAMA, GEORGIA. New stratigraphic unit in the Wilcox Group (upper Paleocene-lower Eocene) in Alabama and Georgia, by T. G. Gibson. p. H23-H32
- Revision of the Hatchetigbee and Bashi formations (lower Eocene) in the eastern Gulf Coastal Plain, by T. G. Gibson. p. H33-H41
- MASSACHUSETTS. Formation names in the Worcester area, Massachusetts, by Richard Goldsmith, E. S. Grew, J. C. Hepburn, and G. R. Robinson, Jr. p. H43-H56
- MASSACHUSETTS. Stratigraphic names in eastern Massachusetts and adjacent states, by Richard Goldsmith, D. R. Wones, and A. F. Shride. p. H57-H72
- KENTUCKY. Mauzy Formation, a new stratigraphic unit of Permian age in western Kentucky, by T. M. Kehn, J. G. Beard, and A. D. Williamson. p. H73-H86
- ARIZONA. Signal Granite (Precambrian), west-central Arizona, by Ivo Lucchitta, and N. H. Suneson. p. H87-H90
- NEW YORK. Adoption of names of certain members of formations in the Hamilton Group (Middle Devonian) of New York, by W. A. Oliver, Jr. p. H91-H93
- CONNECTICUT. Correlation of Eastford Gneiss with Canterbury Gneiss, eastern Connecticut, by M. H. Pease, Jr. p. H95-H97
- MONTANA, SOUTH DAKOTA. Revision of Upper Cretaceous nomenclature in Montana and South Dakota, by D. D. Rice, G. W. Shurr, and D. L. Gautier. p. H99-H104
- SOUTH CAROLINA. Chandler Bridge Formation; a new Oligocene stratigraphic unit in the lower coastal plain of South Carolina, by A. E. Sanders, R. E. Weems, and E. M. Lemon, Jr. p. H105-H124
- WYOMING, MONTANA. New members of the Madison Limestone (Devonian and Mississippian), north-central Wyoming and southern Montana, by W. J. Sando. p. H125-H130
- VIRGINIA, NEW YORK. Huntersville Chert (Devonian) extending from southwestern Virginia into southwestern New York, and its Bobs Ridge Sandstone Member, by E. G. Weed. p. H131-H133
- VIRGINIA, NEW YORK. Nealmont Limestone (Middle Ordovician) extending from southwestern Virginia into southwestern New York in the Central Appalachians, by E. G. Weed. p. H135-H136
- SOUTH CAROLINA. Recognition and formalization of the Pliocene "Goose Creek phase" in the Charleston, South Carolina, area, by R. E. Weems, E. M. Lemon, Jr., Lucy McCartan, L. M. Bybell, and A. E. Sanders. p. H137-H148
- B 1532. Map projections used by the U.S. Geological Survey, by J. P. Snyder. 1983. 313 p.; 1 plate in pocket.
- B 1536. IDAHO. Paleozoic rocks in the Black Pine Mountains, Cassia County, Idaho, by J. F. Smith, Jr. 1983. 36 p.
- B 1537-C. SOUTH CAROLINA. The Fishburne Formation (lower Eocene), a newly defined subsurface unit in the South Carolina coastal plain, by G. S. Gohn, J. E. Hazel, L. M. Bybell, and L. E. Edwards. 1983. p. C1-C16. (Contributions to stratigraphy.)
- B 1540. Geology of Nimba County, Liberia, by E. R. Force. 1983. 27 p.
- B 1543. Submersed aquatic plants of the tidal Potomac River, by Virginia Carter, P. T. Gammon, and N. C. Bartow. 1983. 58 p.
- B 1547. The classical chemical analysis of silicate rocks; the old and the new, by Herbert Kirschenbaum. 1983. 55 p. (Supersedes Open-file report 81-0359.)
- B 1549. MICHIGAN. Mineral resources of the Rock River Canyon Wilderness Study Area, Alger County, Michigan, by J. W. Whitlow and P. J. Geraci, U.S. Geological Survey, and P. C. Mory, U.S. Bureau of Mines, with a section on Geophysical-data interpretation, by E. R. King, U.S. Geological Survey. 1983. 43 p. (Studies related to wilderness.) (Supersedes Open-file report 78-527.)
- B 1551. ARKANSAS. Mineral resources of the Caney Creek Wilderness, Polk County, Arkansas, by G. E. Erickson and S. H. Patterson, U.S. Geological Survey, and by M. L. Dunn, Jr., and D. K. Harrison, U.S. Bureau of Mines. 1983. 42 p. (Studies related to wilderness-Wilderness Areas.)
- B 1600. Land use/land cover environmental photointerpretation keys, by G. L. Loelkes, Jr., G. E. Howard, Jr., E. L. Schwertz, Jr., P. D. Lampert, and S. W. Miller. 1983. 142 p.

WATER-SUPPLY PAPERS

Water-supply papers include reports on the geology, hydrology, quality, recoverability, and utilization of water resources. They include also several series of statistical reports on streamflow, floods, ground-water levels, and water quality.

- W 0494. Outline of ground-water hydrology, with definitions, by O. E. Meinzer. 1923. 71 p. (Reprint.)
- W 1473. Study and interpretation of the chemical characteristics of natural water, by J. D. Hem. 1970. 363 p.; 2 plates in pocket. (Reprint.) (Second edition.)

- W 1535-I. CALIFORNIA, NEVADA. Sources of mineral constituents in water from granitic rocks, Sierra Nevada, California and Nevada, by J. H. Feth, C. E. Roberson, and W. L. Polzer. 1964. p. I1-I70; 1 plate in pocket. (Reprint.)
- W 1535-P. Chemical composition of atmospheric precipitation in the Northeastern United States, by F. J. Pearson, Jr., and D. W. Fisher. 1971. p. P1-P23. (Reprint.) (Geochemistry of water.)
- W 1536-I. Methods of determining permeability, transmissibility and drawdown, compiled by Ray Bentall. 1963. p. 243-341. (Reprint.) (Ground-water hydraulics.)
- Determining the permeability of water-aquifers, by C. E. Jacob. p. 245-271
- Correction of drawdowns caused by a pumped well tapping less than the full thickness of an aquifer, by C. E. Jacob. p. 272-282
- The recovery method for determining the coefficient of transmissibility, by C. E. Jacob. p. 283-292
- Determination of the coefficient of transmissibility from measurements of residual drawdown in a bailed well, by H. E. Skibitzke. p. 293-298
- The slug-injection test for estimating the coefficient of transmissibility of an aquifer, by J. G. Ferris, and D. B. Knowles. p. 299-304
- Cyclic water-level fluctuations as a basis for determining aquifer transmissibility, by J. G. Ferris. p. 305-318
- Drawdowns resulting from cyclic rates of discharge, by C. V. Theis. p. 319-323
- Drawdowns resulting from cyclic intervals of discharge, by R. H. Brown. p. 324-330
- Estimating the transmissibility of aquifers from the specific capacity of wells, by C. V. Theis, R. H. Brown, and R. R. Meyer. p. 331-340
- W 1541-A. General introduction and hydrologic definitions, by W. B. Langbein, and K. T. Iseri. 1960. 29 p. (Reprint.) (Manual of hydrology; Part 1, General surface-water techniques.)
- W 1988. Definitions of selected ground-water terms; revisions and conceptual refinements, by S. W. Lohman and others. 1972. 21 p. (Reprint.)
- W 2019-A. Estimating study-state evaporation rates from bare soils under conditions of high water table, by C. D. Ripple, Jacob Rubin, and T. E. van Hylckama. 1972. p. A1-A39. (Reprint.) (Techniques in unsaturated-zone hydrology.)
- W 2044. COLORADO. Modeling chloride movement in the alluvial aquifer at the Rocky Mountain Arsenal, Colorado, by L. F. Konikow. 1974. 43 p. (Reprint.)
- W 2175. Measurement and computation of streamflow: Volume 1. Measurement of stage and discharge; Volume 2. Computation of discharge, by S. E. Rantz and others. 1982. Volume 1, p. 1-284; Volume 2, p. 285-631.
- W 2179. NEBRASKA. A statistical analysis of the quality of surface water in Nebraska, by R. A. Engberg. 1983. 252 p.
- W 2185-E. NORTH CAROLINA. Water quality of North Carolina streams, by Douglas Harned, and Dann Meyer. 1983. p. E1-E71
- W 2193. Streamflow characteristics related to channel geometry of streams in Western United States, by E. R. Hedman, and W. R. Osterkamp. 1982. 17 p.
- W 2195. UTAH. Hydrology of the Ferron Sandstone aquifer and effects of proposed surface-coal mining in Castle Valley, Utah, by G. C. Lines and D. J. Morrissey with a section on Stratigraphy, by T. A. Ryer and a section on Leaching of overburden, by R. H. Fuller. 1983. 40 p; 3 plates in pocket.
- W 2196-A. FLORIDA. Wetland hydrology and tree distribution of the Apalachicola River flood plain, Florida, by H. M. Leitman, J. E. Sohm, and M. A. Franklin. 1983. p. A1-A52. (Apalachicola River quality assessment.)
- W 2196-B. FLORIDA. Production and decomposition of forest litter fall on the Apalachicola River flood plain, Florida, by J. F. Elder, and D. J. Cairns. 1982. p. B1-B42. (Reprint.)
- W 2200. KANSAS. Analysis and computer simulation of stream-aquifer hydrology, Arkansas River Valley, southwestern Kansas, by R. A. Barker, L. E. Dunlap, and C. G. Sauer. 1983. 59 p; 1 plate in pocket.
- W 2201. ARIZONA. Geohydrology and effects of water use in the Black Mesa area, Navajo and Hopi Indian reservations, Arizona, by J. H. Eychaner. 1983. 26 p.
- W 2202. KENTUCKY. Chloroform contamination in part of the alluvial aquifer, southwest Louisville, Kentucky, by R. W. Davis, and E. W. Matthews. 1983. 25 p. (Prepared in cooperation with the U.S. Environmental Protection Agency.)
- W 2204. Characterization of mineral precipitates by electron microscope photographs and electron diffraction patterns, by C. J. Lind. 1983. 18 p.
- W 2207. Flood characteristics of urban watersheds in the United States, by V. B. Sauer, W. O. Thomas, Jr., V. A. Stricker, and K. V. Wilson. 1983. 63 p.
- W 2210. FLORIDA. Connector well experiment to recharge the Floridan Aquifer, East Orange County, Florida, by P. W. Bush. 1983. 26 p.
- W 2213. Acoustic systems for the measurement of streamflow, by Antonius Laenen, and Winchell Smith. 1983. 26 p.
- W 2214. MASSACHUSETTS. Estimating peak discharges of small, rural streams in Massachusetts, by S. W. Wandle, Jr. 1983. 26 p.
- W 2216. Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach, by M. G. Fitzgerald, and M. R. Karlinger. 1983. 24 p.
- W 2220. Basic ground-water hydrology, by R. C. Heath. 1983. 84 p.
- W 2225. WEST VIRGINIA. Traveltimes of flood waves on the New River between Hinton and Hawks Nest, West Virginia, by D. H. Appel. 1983. 14 p.
- W 2236. NORTH DAKOTA. Guide to North Dakota's ground-water resources, by Q. F. Paulson. 1983. 25 p.
- W 2237. Regional flow in the Dakota Aquifer; a study of the role of confining layers, by J. D. Bredehoeft, C. E. Neuzil, and P. C. Milly. 1983. 45 p.
- W 2249. An evaluation of trends in the acidity of precipitation and the related acidification of surface water in North America, by J. T. Turk. 1983. 18 p.

CIRCULARS

Circulars provide an outlet for reports for which a simpler and less permanent format is deemed adequate. They are intended to be as sound scientifically and as accurate as the reports published in the formal series; but in general the treatment of their subjects is less comprehensive and final; and the necessary illustrations are fewer and less complex and generally published in black and white; only in exceptional cases may simple multicolor illustrations be used. Reports may be issued as circulars if they are of relatively local or restricted interest, or if they are of relatively temporary usefulness.

C 0793. ALASKA. The Alaskan mineral resource assessment program; background information to accompany folio of geologic and mineral resource maps of the Ambler River Quadrangle, Alaska, by C. F. Mayfield, I. L. Tailleux, N. R. Albert, Inyo Ellersieck, Donald Grybeck, and S. W. Hackett. 1983. 31 p.

C 0822. Paleoclimate and mineral deposits, edited by T. M. Cronin, W. F. Cannon, and R. Z. Poore. 1983. 59 p.

Continental aluminous weathering sequences and their climatic implications in the United States, by H. A. Tourtelot. p. 1-5

Effect of sea-level fluctuations on porosity and mineralogic changes in coastal aquifers, by William Back, and B. B. Hanshaw. p. 6-7

Pliocene and Pleistocene calcitic veins as indicators of paleohydrologic, paleoclimatologic, and neotectonic events, southern Great Basin; an initial appraisal, by I. J. Winograd, B. J. Szabo, T. B. Coplen, and G. C. Doty. p. 8-9

The oxygen minimum zone of continental margins, by T. M. Cronin. p. 10-12

Cenozoic paleoceanography, by R. Z. Poore. p. 13-15

The U.S. Atlantic continental margin; eustasy, paleoceanography and mineral deposits, by J. S. Schlee. p. 16-17

Building a biostratigraphic framework around an anoxic-kenoxic event, by J. E. Hazel. p. 18

Inorganic geochemistry of deep-sea black shales, by W. E. Dean. p. 19-23

Some climatic and oceanographic controls on the time and place of mineralization, by W. F. Cannon. p. 24-25

Influences of ocean anoxic events on manganese deposition and ophiolite-hosted sulfide preservation, by E. R. Force, W. F. Cannon, R. A. Koski, K. T. Passmore, and B. R. Doe. p. 26-29

Late Cretaceous and Paleogene nonmarine climates in North America, by J. A. Wolfe. p. 30-31

Volcanic manganese deposits in the Western Cordillera; lithologic associations and paleoceanographic settings and economic deposits associated with biogenic siliceous rocks, by J. R. Hein, and R. A. Koski. 1983. p. 32-33

Organic carbon, sulfur, and iron relationships as an aid to understanding depositional environments and syngenetic metals in Recent and ancient sediments, by J. S. Leventhal. p. 34-36

Paleozoic atmospheric circulation and oceanic upwelling, by J. T. Parrish. p. 37-39

Paleoclimatic controls on the occurrence and quality of coal, by C. B. Cecil, R. W. Stranton, S. G. Neuzil, F. T. Dulong, and L. F. Ruppert. p. 40-42

Carbon dioxide, geochemical modeling, and paleoenvironmental reconstructions, by E. T. Sundquist. p. 43

Isotopic research, climate, and the genesis of mineral deposits, by B. R. Doe. p. 44-48

C 0834. Worldwide directory of national earth-science agencies and related international organizations, by W. E. Bergquist, E. J. Tinsley, Laura Yordy, and R. L. Miller. 1981. 87 p. (Reprint.)

C 0850-D. WASHINGTON. Effects of volcanism on the glaciers of Mount St. Helens, by M. M. Brugman, and Austin Post. 1981. p. D1-D11. (Reprint.) (Hydrologic effects of the eruptions of Mount St. Helens, Washington, 1980.)

C 0850-J. WASHINGTON. Characteristics of Columbia River sediment following the eruption of Mount St. Helens on May 18, 1980, by D. W. Hubbell, J. M. Laenen, and S. W. McKenzie. 1983. p. J1-J21. (Hydrologic effects of the eruptions of Mount St. Helens, Washington, 1980.)

C 0850-K. WASHINGTON, OREGON. Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens, by F. P. Haeni. 1983. p. K1-K21. (Hydrologic effects of the eruptions of Mount St. Helens, Washington, 1980.)

C 0864. A review of classical silicate-rock analysis and recommended modifications of classical methods of analysis, by L. B. Jenkins. 1983. 34 p.

C 0866. IDAHO. Geothermal resources of southern Idaho, by D. R. Mabey. 1983. 24 p.

C 0867. ALASKA. The U.S. Geological Survey in Alaska; 1982 programs, K. M. Reed, editor. Technical assistance by R. F. Gilmore, Linda-Lee Harris, and L. D. Tension. 1982. 107 p.

C 0869. MISSOURI. Mineral-resource appraisal of the Rolla 1° by 2° Quadrangle, Missouri, as of September 1980; a nontechnical summary, by W. P. Pratt. 1983. 5 p.

C 0870. U.S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978, by D. W. Folger, and S. W. Needell. 1983. 67 p.

C 0871-D. Earthquakes in the United States, October-December 1981, by C. W. Stover, J. H. Minsch, and B. G. Reagor. 1982. p. D1-D27.

C 0872. Reclamation of mined lands in the western coal region, by P. F. Narten, S. F. Litner, J. W. Allingham, Lee Foster, D. M. Larsen, and H. C. McWreath, III. 1983. 56 p.

C 0873. International geomagnetic reference field 1980; charts and grid values (IAGA Bulletin No. 47), by E. B. Fabiano, N. W. Peddie, D. R. Barraclough, and A. K. Zunde. 1983. 142 p. (Supersedes Open-file report 82-377.)

C 0876. Subsidence from underground mining; environmental analysis and planning considerations, by F. T. Lee, and J. F. Abel, Jr. 1983. 28 p.

C 0878-B. A U.S. Geological Survey Data Standard. 1983. p. B1-B24 (Specifications for representation of geographic point locations for information interchange.)

- C 0880. Goals and tasks of the landslide part of a ground-failure hazards reduction program, U.S. Geological Survey. 1982. 48 p. (Reprint.)
- C 0881. Assessment of undiscovered conventionally recoverable petroleum resources of the Arabian-Iranian Basin, by C. D. Masters, H. D. Klemme, and A. B. Coury. 1982. 12 p.
- C 0885. Petroleum geology and resources of the Volga-Ural province, USSR, by J. A. Peterson, and J. W. Clarke. 1983. 27 p.
- C 0886. Analysis of the world distribution of metal-rich subsea manganese nodules, by V. E. McKelvey, N. A. Wright, and R. W. Bowen. 1983. 55 p.
- C 0887. MICHIGAN, WISCONSIN. Mineral resource assessment of the Iron River 1° by 2° Quadrangle, Michigan and Wisconsin, by W. F. Cannon. 1983. 21 p. (Supersedes Open-file report 82-223.)
- C 0891. Coal resource classification system of the U.S. Geological Survey, by G. H. Wood, Jr., T. M. Kehn, M. D. Carter, and W. C. Culbertson. 1983. 65 p.
- C 0892. Assessment of low-temperature geothermal resources of the United States; 1982, edited by M. J. Reed. 1983. 73 p.
- Regional heat flow and temperature gradients, by Manuel Nathenson, Marianne Guffanti, J. H. Sass, and R. J. Munroe. p. 9-16
- Methods for assessing low-temperature geothermal resources, by M. L. Sorey, Manuel Nathenson, and Christian Smith. p. 17-30
- Low-temperature geothermal resources in the Western United States, by R. H. Mariner, C. A. Brook, M. J. Reed, J. D. Bliss, A. L. Rapport, and R. J. Lieb. p. 31-50
- Low-temperature geothermal resources in the Central and Eastern United States, by M. L. Sorey, M. J. Reed, Duncan Foley, and J. L. Renner. p. 51-65
- C 0893. Water Resources Division in the 1980's, by E. B. Chase, J. E. Moore, and D. A. Rickert. 1983. 78 p.
- C 0894. Recommended procedures and methodology of coal description, by E. C. Chao, J. A. Minkin, and C. L. Thompson. 1983. 31 p.
- C 0895-A. Overview and USGS activities, edited by R. B. McEwen, H. W. Calkins, and B. S. Ramey. 1983. 20 p. (USGS digital cartographic data standards.)
- C 0895-D. Digital line graphs from 1:2,000,000-scale maps, by M. A. Domaratz, C. A. Hallam, W. E. Schmidt, and H. W. Calkins. 1983. 40 p. (USGS digital cartographic data standards.)
- C 0895-E. Land use and land cover digital data, by R. G. Fegeas, R. W. Claire, S. C. Gupta, K. E. Anderson, and C. A. Hallam. 1983. 21 p. (USGS digital cartographic data standards.)
- C 0895-F. Geographic Names Information System, by R. L. Payne. 1983. 25 p. (USGS digital cartographic data standards.)
- C 0896-A. Earthquakes in the United States, January-March 1982, by C. W. Stover, J. H. Minsch, B. G. Reagor, and F. W. Baldwin. 1983. p. A1-A42
- C 0899. Assessment of undiscovered conventionally recoverable petroleum resources of Indonesia, by J. P. Riva, Jr. 1983. 17 p. 1983. (Supersedes Open-file report 81-1142.)
- C 0901. Mineral surveys by the Geological Survey and the Bureau of Mines of Bureau of Land Management Wilderness Study Areas, by H. M. Beikman, M. E. Hinkle, Twila Frieders, S. M. Marcus, and J. R. Edward. 1983. 28 p.
- C 0902-A-P. Petroleum potential of wilderness lands in the Western United States, edited by B. M. Miller. 1983. 197 p.
- A. Petroleum resource assessments of the wilderness lands in the Western United States, by B. M. Miller. p. A1-A10
- B. Digital cartography, by M. A. Domaratz, and J. A. Stapleton. p. B1-B4
- C. WYOMING. Petroleum potential of wilderness lands in Arizona, by R. T. Ryder. p. C1-C22
- D. CALIFORNIA. Petroleum potential of wilderness lands in California, by E. W. Scott. p. D1-D12
- E. COLORADO. Petroleum potential of wilderness lands in Colorado, by C. W. Spencer. p. E1-E8
- F. IDAHO. Petroleum potential of wilderness lands in Idaho, by C. A. Sandberg. p. F1-F6
- G. MONTANA. Petroleum potential of wilderness lands in Montana, by W. J. Perry, Jr., D. D. Rice, and E. K. Maughan. p. G1-G23
- H. NEVADA. Petroleum potential of wilderness lands in Nevada, by C. A. Sandberg. p. H1-H11
- I. NEW MEXICO. Petroleum potential of wilderness lands in New Mexico, by R. T. Ryder. p. I1-I33
- J. OREGON. Petroleum potential of wilderness lands in Oregon, by T. D. Fouch. p. J1-J5
- K. UTAH. Petroleum potential of wilderness lands in Utah, by C. M. Molenaar, and C. A. Sandberg. p. K1-K14
- L. WASHINGTON. Petroleum potential of wilderness lands in Washington, by T. D. Fouch. p. L1-L5
- M. WYOMING. Petroleum potential of wilderness lands in Wyoming, by C.W. Spencer *with a section* The Wyoming part of the Wyoming-Utah-Idaho Overthrust Belt province. p. M1-M10
- N. WYOMING, UTAH, IDAHO. Petroleum potential of wilderness lands in Wyoming-Utah-Idaho Thrust Belt, by R. B. Powers. p. N1-N14
- O. Probabilistic methodology for petroleum resource appraisal of wilderness lands, by R. A. Crovelli. p. O1-O5
- P. Estimates of the potential petroleum resources in wilderness lands, by B. M. Miller. p. P1-P15
- C 0903. Disposal of high-level nuclear waste above the water table in arid regions, by E. H. Roseboom, Jr. 1983. 21 p.
- C 0906. The marine geology program of the U.S. Geological Survey, by N. T. Edgar. 1983. 23 p.
- C 0907. Hydrologic and geologic aspects of waste management and disposal; a bibliography of publications by U.S. Geological Survey authors, 1950-81, by E. H. Handman. 1983. 40 p.
- C 0908. Annual report on Alaska's mineral resources. 1983. 48 p.
- C 0909. Petroleum and mineral resources of Antarctica, edited by J. C. Behrendt. 1983. 75 p.
- Are there petroleum resources in Antarctica?, by J. C. Behrendt. p. 3-24
- Mineral occurrences of Antarctica, by P. D. Rowley, P. L. Williams, and D. E. Pride. p. 25-49
- The Dufek Intrusion of Antarctica and a survey of its minor metals and possible resources, by A. B. Ford. p. 51-75

- C 0910. Evidence for acid-precipitation-induced trends in stream chemistry at hydrologic bench-mark stations, by R. A. Smith, and R. B. Alexander. 1983. 12 p.
- C 0911. U.S. Geological Survey Polar research symposium; abstracts with program. 1983. 55 p.
- The Geological Survey in polar perspective, by J. C. Reed, Sr. p. 1
- Antarctic mapping and international coordination, by R. B. Southard, and W. J. Kosco. p. 1-2
- Configuration of eastern Gondwanaland, by Warren Hamilton. p. 2-3
- Speculations on the petroleum resources of Antarctica, by J. C. Behrendt, and C. D. Masters. p. 3-4
- Planned marine geophysical geological surveys of the Wilkes Land and Ross Sea margins, by S. L. Eittreim. p. 4-5
- Satellite image atlas of glaciers; the polar areas, by R. S. Williams, Jr., and J. G. Ferrigno. p. 5
- Surveying in Antarctica during the International Geophysical Year, by W. H. Chapman. p. 6-7
- Crystallization of the Dufek Intrusion, Antarctica, by G. R. Himmelberg, and A. B. Ford. p. 10-11
- Geophysical investigations of the Dufek Intrusion and the surrounding region, by J. C. Behrendt. p. 11-12
- Geology of the Neptune Range, Antarctica, by W. H. Nelson, and P. L. Williams. p. 12
- Proterozoic to Mesozoic mobile-belt geology, Pensacola Mountains, Antarctica, by D. L. Schmidt. p. 12-13
- Sedimentology of the Horlick Formation (Lower Devonian), Ohio Range, Transantarctic Mountains, by L. McCartan, M. A. Bradshaw, and Graeme Ayers. p. 13-14
- Small-scale magnetic features of the Polar regions, by J. C. Cain, and D. R. Schmitz. p. 14-15
- Paleomagnetic studies in Antarctica, by R. L. Reynolds, and K. S. Kellogg. p. 15-16
- Mars-analog studies in Wright and Victoria valleys, Antarctica, by E. C. Morris, and H. E. Holt. p. 17
- An isotopic and chemical study of Lake Vanda and Don Juan Pond, Antarctica, by Irving Friedman, Athol Rafter, and G. I. Smith. p. 17-18
- Climatic significance of lacustrine deposits around Lake Vanda and Don Juan Pond, Antarctica, by G. I. Smith, and Irving Friedman. p. 18
- Program for mapping Antarctica, by P. F. Bermel, and C. E. Morrison. p. 18-19
- The use of satellite technology in the search for meteorites in Antarctica, by T. K. Meunier. p. 19-20
- Glaciological and geological studies of Antarctica with satellite remote sensing technology, by J. G. Ferrigno, R. S. Williams, Jr., C. S. Southworth, and T. K. Meunier. p. 20-21
- USGS program at the South Pole, by Thomas Edmondson, and Kathy Covert. p. 21
- Modeling the movement at the polar ice cap at the South Pole, by Thomas Henderson. p. 21
- History of U.S. Geological Survey geologic exploration and mineral-resource evaluation, Arctic Alaska, by George Gryc, and R. M. Chapman. p. 22-23
- Tectonic evolution of the Arctic continental margin in the Beaufort and Chukchi seas; evidence from seismic reflections, by Arthur Grantz, and S. D. May. p. 23
- The Arctic platform in the National Petroleum Reserve in Alaska; deposition, deformation, and petroleum potential, by C. E. Kirschner. p. 24-27
- Oil and gas resources of the North Slope, Alaska, by K. J. Bird. p. 27-30
- Petroleum source rock richness, type and maturity for four rock units on the Alaskan North Slope; are they sources for the two oil types?, by L. B. Magoon, and G. E. Claypool. p. 30-31
- Emerging recognition of the nonfuel mineral resources of Arctic Alaska, by Donald Grybeck. p. 31-32
- Coal occurrence, quality, and resource assessment, National Petroleum Reserve in Alaska, by G. D. Stricker. p. 32-33
- Permafrost and the geothermal regime, by A. H. Lachenbruch, and B. V. Marshall. p. 33-34
- Glaciation in Arctic Alaska, by T. D. Hamilton. p. 34-36
- A Pleistocene sand desert in Arctic Alaska, by L. D. Carter. p. 36
- Sedimentary facies on an ice dominated shelf, Beaufort Sea, Alaska, by P. W. Barnes, and Erk Reimnitz. p. 37
- Quaternary sedimentation on the Alaskan Beaufort shelf; sediment sources, glacioeustatism, and regional tectonics, by D. A. Dinter. p. 37-38
- Permafrost and related engineering problems on the North Slope and Beaufort Shelf, Alaska, by O. J. Ferrians, Jr. p. 38-39
- Quaternary microfossils on the Arctic shelf, by Kristin McDougall. p. 39-40
- Land cover and terrain mapping for the development of digital data bases for wildlife habitat assessment in the Yukon Flats National Wildlife Refuge, Alaska, by M. B. Shasby, Carl Markon, M. D. Fleming, D. L. Murphy, and J. E. York. p. 41-43
- Geochemical detection of prospective petroleum areas in Arctic regions, by A. A. Roberts, T. J. Donovan, J. D. Hendricks, and K. I. Cunningham. p. 43
- Hydrology of the North Slope, Alaska, by C. E. Sloan. p. 44
- Paleogeographic affinities and endemism of Cretaceous and Paleocene marine faunas in the Arctic, by L. Marinovich, Jr., E. M. Brouwers, and D. M. Hopkins. p. 45-46
- Remote sensing studies of dynamic environmental phenomena in Iceland, by R. S. Williams, Jr. p. 46-47
- Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia, by J. K. Brigham. p. 47-51
- Possible origins of placer gold in Kovukuk and Chandalar districts, Brooks Range, Alaska, by J. C. Antweiler, J. R. Watterson, J. B. Cathrall, and E. L. Mosier. p. 52-53
- Permafrost studies in Alaska, by R. F. Black. p. 53
- Pleistocene of northern Greenland, by W. E. Davies. p. 53-54
- C 1001. Estimated use of water in the United States in 1980, by W. B. Solley, E. B. Chase, and W. B. Mann, IV. 1983. 56 p.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

- TWI 02-E1. Application of borehole geophysics to water-resources investigations, by W. S. Keys, and L. M. MacCary. 1971. 126 p. (Reprint.)
- TWI 03-A13. Computation of continuous records of stream-flow, by E. J. Kennedy. 1983. 53 p.
- TWI 03-A14. Use of flumes in measuring discharge, by F. A. Kilpatrick, and V. R. Schneider. 1983. 46 p.
- TWI 03-B1. Aquifer-test design, observation, and data analysis, by R. W. Stallman. 1983. 26 p.
- TWI 04-B2. Storage analyses for water supply, by H. C. Riggs, and C. H. Hardison. 1983. 20 p.
- TWI 05-A6. Quality assurance practices for the chemical and biological analyses of water and fluvial sediments, by L. C. Friedman, and D. E. Erdmann. 1982. 181 p.
- TWI 08-A2. Installation and service manual for U.S. Geological Survey manometers, by J. D. Craig. 1983. 57 p.

ANNUAL REPORTS

- United States Geological Survey yearbook, fiscal year 1982. 1983. 99 p.

Periodicals

EARTHQUAKE INFORMATION BULLETIN

- For a complimentary copy write to Earthquake Information Bulletin, U.S. Geological Survey, 904 National Center, Reston, VA 22092.
- Earthquake Information Bulletin, v. 14, no. 6, November-December 1982. p. 203-239
- Earthquake Information Bulletin, v. 15, no. 1, January-February 1983. p. 1-43
- Earthquake Information Bulletin, v. 15, no. 2, March-April 1983. p. 45-84.
- Earthquake Information Bulletin, v. 15, no. 3, May-June 1983. p. 86-123
- Earthquake Information Bulletin, v. 15, no. 4, July-August 1983. p. 126-159
- Earthquake Information Bulletin, v. 15, no. 5, September-October 1983. p. 163-199

PRELIMINARY DETERMINATION OF EPICENTERS

- For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.
- Single copies of monthly issues may be purchased only from Eastern Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett St., Alexandria, VA 22304.
- Preliminary determination of epicenters. Monthly listing for July 1982. 18 p.
- Preliminary determination of epicenters. Monthly listing for August 1982. 16 p.
- Preliminary determination of epicenters. Monthly listing for September 1982. 15 p.
- Preliminary determination of epicenters. Monthly listing for October 1982. 12 p.

- Preliminary determination of epicenters. Monthly listing for November 1982. 14 p.
- Preliminary determination of epicenters. Monthly listing for December 1982. p. 17
- Preliminary determination of epicenters. Monthly listing for January 1983. p. 25
- Preliminary determination of epicenters. Monthly listing for February 1983. 15 p.
- Preliminary determination of epicenters. Monthly listing for March 1983. 17 p.
- Preliminary determination of epicenters. Monthly listing for April 1983. 20 p.
- Preliminary determination of epicenters. Monthly listing for May 1983. 19 p.
- Preliminary determination of epicenters. Monthly listing for June 1983. 16 p.

ARTICLES PUBLISHED IN OUTSIDE JOURNALS/BOOKS

Articles by Geological Survey personnel in non-Geological Survey publications that came to our attention in 1983. U.S. Geological Survey personnel who share authorship in articles with non-Geological Survey personnel are indicated by U.S. Geological Survey immediately following the name. **These publications are not available from the U.S. Geological Survey.**

- OP-1. D. P. Adam. CALIFORNIA. Pollen zonation and informal climatic units for Clear Lake, California, cores CL-73-4 and CL-73-7 [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 278.
- OP-2. D. P. Adam. CALIFORNIA. Correlations of the Clear Lake, Calif., Core CL-73-4 pollen sequence with other long climatic records [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 279.
- OP-3. D. P. Adam, U.S. Geological Survey and G. J. West. CALIFORNIA. Temperature and precipitation estimates through the last glacial cycle from Clear Lake, California, pollen data. *Science*, v. 219, no. 4581, January 14, 1983. p. 168-170.
- OP-4. D. P. Adam, U.S. Geological Survey and G. J. West. CALIFORNIA. Temperature and precipitation calibration of pollen records from Clear Lake, California, through the last full glacial cycle [abstr.] *Am. Quat. Assoc., Natl. Conf., Abstr.*, v. 7, 1982. p. 56.
- OP-5. R. H. Affolter and G. D. Stricker. ALASKA. Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska [abstr.] *Eos, Transactions, American Geophysical Union*, v. 64, no. 9, March 1, 1983. p. 88.
- OP-6. T. A. Ager. ALASKA. Vegetational history of western Alaska during the Wisconsin glacial interval and the Holocene, in *Paleoecology of Beringia* (D. M. Hopkins, editor and others). New York, NY: Acad. Press, 1982. p. 75-93.
- OP-7. T. A. Ager and J. D. Sims. ALASKA. Late Quarternary pollen record from Hidden Lake, Kenai Peninsula, Alaska [abstr.] *Palynology*, v. 6, 1982. p. 271-272.

- OP-8. B. G. Aitken. T-X_{CO2} stability relations and phase equilibria of a calcic carbonate scapolite. *Geochimica et Cosmochimica Acta*, v. 47, no. 3, March 1983. p. 351-362.
- OP-9. J. P. Albers. Distribution of mineral deposits in accreted terranes and cratonal rocks of Western United States. *Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre*, v. 20, no. 6, June 1983. p. 1019-1029.
- OP-10. J. N. Aleinikoff, R. I. Grauch, K. R. Simmons and C. J. Nutt. NEW YORK, NEW JERSEY. Chronology of metamorphic rocks associated with uranium occurrences, Hudson Highlands, New York - New Jersey [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 1.
- OP-11. L. R. Alldredge. Historic secular variation [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 35, August 31, 1982. p. 653-654.
- OP-12. L. R. Alldredge. Core and crustal geomagnetic fields. *JGR. Journal of Geophysical Research. B*, v. 88, no. 2, February 10, 1983. p. 1229-1234.
- OP-13. L. R. Alldredge. Main field and Recent secular variation. *Reviews of Geophysics and Space Physics*, v. 21, no. 3, April 1983. p. 599-603.
- OP-14. R. V. Allen and A. M. Pitt. CALIFORNIA. Realtime monitoring of the Mammoth Lakes, California earthquake swarm with automatic processing equipment [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 14-15.
- OP-15. Rex Allen. Automatic phase pickers; their present use and future prospects. *Bulletin of the Seismological Society of America*, v. 72, Part B. no. 6, December 1982. p. S393-S410.
- OP-16. W. M. Alley. COLORADO. Ground water for oil-shale development, Piceance Basin, Colorado. *Ground Water*, v. 21, no. 4, August 1983. p. 456-464.
- OP-17. Z. S. Altschuler, M. M. Schnepfe, C. C. Silber and F. O. Simon. Sulfur diagenesis in Everglades peat and origin of pyrite in coal. *Science*, v. 221, no. 4607, July 15, 1983. p. 221-227.
- OP-18. B. Ambuter, U.S. Geological Survey and J. H. Godley. A microprocessor based low-power data acquisition system [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 14.
- OP-19. J. R. Anderson. Land resources map making from remote sensing products, in *Remote sensing for resource management* (C. J. Johannsen, editor and others). Ankeny, IA: Soil Conserv. Soc. Am., 1982. p. 63-72.
- OP-20. R. C. Anderson, R. A. Wise and W. P. Dillon. Seismic investigation of gas hydrate reflectors, Blake Outer Ridge area off Southeastern United States [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 890.
- OP-21. R. E. Anderson and M. L. Zoback. Subsurface geometry of normal faults in the northern Basin and Range Province inferred from seismic reflection data [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 960.
- OP-22. D. J. Andrews. Could the Earth's core and Moon have formed at the same time?. *Geophysical Research Letters*, v. 9, no. 11, November 1982. p. 1259-1262.
- OP-23. D. J. Andrews. Separation of source and propagation spectra [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 951.
- OP-24. E. D. Andrews. WYOMING. Bank stability and channel width adjustment, East Fork River, Wyoming. *Water Resources Research*, v. 18, no. 4, August 1982. p. 1184-1192.
- OP-25. E. D. Andrews. Entrainment of gravel and cobbles from a non-uniform streambed [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 858.
- OP-26. E. D. Andrews. WYOMING. Adjustment of the East Fork River to bedload sediment contributed by Muddy Creek, in *American Geomorphological Field Group; Field trip guidebook, 1982 conference* (L. B. Leopold, editor). American Geomorphological Field Group, 1982. p. 57-76.
- OP-27. E. D. Andrews. Assessment of stream channel response to altered streamflow and sediment load, in *Proceedings; Workshop on downstream river channel changes resulting from diversions or reservoir construction* (D. B. Simons, editor and others). September 1981. p. 102-108. (Available from: U. S. Fish and Wildlife Service, Washington, DC, United States.)
- OP-28. E. D. Andrews. Entrainment of gravel from naturally sorted riverbed material. *Geological Society of America Bulletin*, v. 94, no. 10, October 1983. p. 1225-1231.
- OP-29. L. O. Anna. NORTH DAKOTA, SOUTH DAKOTA, WYOMING. Anorogenic tectonism in the Northern Great Plains (NGP) of Montana, North Dakota, South Dakota, and Wyoming [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 189.
- OP-30. J. C. Antweiler and W. L. Campbell. Gold in exploration geochemistry, in *Precious metals in the Northern Cordillera; proceedings of a symposium* (A. A. Levinson, editor). Rexdale, ON: Assoc. Explor. Geochem., 1982. p. 33-44.
- OP-31. M. M. Aral and M. L. Maslia, U.S. Geological Survey. GEORGIA. Unsteady seepage analysis of Wallace Dam. *Journal of Hydraulic Engineering*, v. 109, no. 6, June 1983. p. 809-826.
- OP-32. R. J. Archuleta. CALIFORNIA. Analysis of near-source static and dynamic measurements from the 1979 Imperial Valley earthquake. *Bulletin of the Seismological Society of America*, v. 72, Part A. no. 6, December 1982. p. 1927-1956.
- OP-33. R. J. Archuleta. CALIFORNIA. An in depth look at the 1979 Imperial Valley earthquake [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 62.
- OP-34. T. J. Armbrustmacher. WYOMING, COLORADO, MONTANA, CALIFORNIA. Mineral deposits associated with alkaline intrusive complexes; examples from Wyoming, Colorado, Montana, and California [abstr.] *Public Information Circular - Geological Survey of Wyoming*, v. 19, 1983. p. 23.
- OP-35. T. J. Armbrustmacher. COLORADO. Geologic occurrence and resource potential of thorium in the Wet Mountains area, Custer and Fremont counties, Colorado; an update [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 190.

- OP-36. T. J. Armbrustmacher and C. E. Hedge. COLORADO. Genetic implication of minor-element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado. *Contributions to Mineralogy and Petrology*, v. 79, no. 4, 1982. p. 424-435.
- OP-37. C. A. Armstrong. NORTH DAKOTA. Ground-water resources of Ransom and Sargent counties, North Dakota. *Bulletin - North Dakota Geological Survey*, v. 69, Part 3. 1982. 51 p.
- OP-38. M. A. Arthur. Supply of sediment to oceans; climate and eustatic sea level changes and interregional unconformities [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 891-892.
- OP-39. M. A. Arthur, P. A. Scholle and R. B. Halley. Report on the Second SEPM research conference; Stable isotopes in sedimentary geology. *Journal of Sedimentary Petrology*, v. 52, no. 3, September 1982. p. 1039-1045.
- OP-40. M. A. Arthur, P. A. Scholle, R. M. Pollastro, C. E. Barker and G. E. Claypool. COLORADO, KANSAS. Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 7, September 1981. p. 398-399.
- OP-41. Uri Ascher and Paul Spudich, U.S. Geological Survey. Yet another method for the calculation of complete theoretical seismograms in a vertically varying medium [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 960.
- OP-42. P. Ascoli, C. W. Poag, U.S. Geological Survey and J. Remane. Foraminiferal, ostracod and calpionellid correlation across the Jurassic-Cretaceous boundary in the Northwest Atlantic (Georges Bank; East Newfoundland Basin) [abstr.] *Journal of Paleontology*, v. 56, Suppl. to No. 2. March 1982. p. 1.
- OP-43. E. D. Attanasi, U.S. Geological Survey and J. L. Haynes. Economics and the appraisal of conventional oil and gas resources in the western Gulf of Mexico, in *Proceedings of the 1983 SPE hydrocarbon economics and evaluation symposium* (W. M. Cobb, chairperson). Dallas, TX: Soc. Pet. Eng., 1983. p. 83-94.
- OP-44. J. C. Aubele, U.S. Geological Survey and L. S. Crumpler. ARIZONA. Geology of the central and eastern parts of the Springerville-Show Low volcanic field, Arizona [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 303.
- OP-45. R. A. Ayuso, U.S. Geological Survey, D. R. Wones and A. K. Sinha. MAINE. Genesis of reversely zoned granites; Bottle Lake complex, Maine [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 3.
- OP-46. William Back, U.S. Geological Survey, B. B. Hanshaw, U.S. Geological Survey, L. N. Plummer, U.S. Geological Survey, P. H. Rahn, C. T. Rightmire, U.S. Geological Survey and Meyer Rubin, U.S. Geological Survey. Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer. *Geological Society of America Bulletin*, v. 94, no. 12, December 1983. p. 1415-1429.
- OP-47. C. R. Bacon. Possible relations between magmatism, rates of extension, and the state of stress in the crust [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 288.
- OP-48. M. J. Baedeker, U.S. Geological Survey and M. Apgar. DELAWARE. Hydrogeochemical studies of a landfill in Delaware [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 866.
- OP-49. M. J. Baedeker and William Back. Geochemical controls on organic and inorganic contamination in ground water and their hydrologic consequences [abstr.] *AAAS Publication*, v. 83-2, 1983. p. 27.
- OP-50. M. J. Baedeker and R. J. Spencer. UTAH. Hydrocarbons in sediments from Great Salt Lake, Utah [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 7, August 1982. p. 437.
- OP-51. G. B. Bailey, U.S. Geological Survey and P. D. Anderson. Applications of Landsat imagery to problems of petroleum exploration in Qaidam Basin, China. *AAPG Bulletin*, v. 66, no. 9, September 1982. p. 1348-1354.
- OP-52. R. A. Bailey. CALIFORNIA. Other potential eruption centers in California; Long Valley-Mono Lake, Coso, and Clear Lake volcano fields. *Special Publication - California Division of Mines and Geology*, v. 63, 1982. p. 17-28.
- OP-53. R. A. Bailey. CALIFORNIA. Geologic and petrologic data bearing on potential volcanic hazards in Long Valley Caldera, eastern California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 72.
- OP-54. A. H. Balch, M. W. Lee and J. J. Miller. WYOMING, MONTANA. Use of vertical and surface seismic profiles to investigate distribution of aquifers in Madison Group and Red River Formation, Powder River Basin, Wyoming-Montana [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 894.
- OP-55. K. J. Banaszak. Ground-water monitoring around coal mines for non-regulatory purposes [abstr.] *Ground Water Monitoring Review*, v. 3, no. 1, 1983. p. 152.
- OP-56. K. J. Banaszak. Deposition of sulfide and associated minerals in coal as a function of the ratios of A) iron to sulfur in the first deposited phase and B) swamp to sea water [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 7, August 1982. p. 438.
- OP-57. C. E. Barker. Influence of time on metamorphism of sedimentary organic matter in liquid-dominated geothermal systems, western North America. *Geology (Boulder)*, v. 11, no. 7, July 1983. p. 384-388.
- OP-58. Fred Barker and J. G. Arth. "Central Gneiss Complex" of the Coast Range Batholith; the roots of a high-K, calc-alkaline arc? [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 7, August 1982. p. 439.
- OP-59. C. R. Barnes, R. A. Schroeder and N. E. Peters. NEW YORK. Changes in the chemistry of bulk precipitation in New York State, 1965-1978. *Northeastern Environmental Science*, v. 1, no. 3-4, 1982. p. 187-197.

- OP-60. P. W. Barnes and Erk Reimnitz. ALASKA. Seabed changes resulting from combined sea ice and hydraulic processes on shelves of Arctic Basin; example from Harrison Bay, Alaska [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 895.
- OP-61. J. A. Barron. Enhanced late Miocene upwelling in the middle- and low-latitude Pacific [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 7, August 1982. 439 p.
- OP-62. J. A. Barron and Gerta Keller. Integration of diatom and planktonic foraminiferal data for biostratigraphic and paleoclimatic interpretation of middle and upper Miocene Monterey Shale [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 895-896.
- OP-63. J. A. Barron and Gerta Keller. Recognition of Miocene deep-sea hiatuses [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 7, September 1981. p. 404.
- OP-64. J. A. Barron and Gerta Keller. Paleotemperature oscillations in the middle and late Miocene of the northeastern Pacific. Micropaleontology, v. 29, no. 2, June 30, 1983. p. 150-181.
- OP-65. P. B. Barton, Jr. The many roles of organic matter in the genesis of mineral deposits [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 7, August 1982. p. 440.
- OP-66. P. B. Barton, Jr. Metallogenesis. Reviews of Geophysics and Space Physics, v. 21, no. 6, July 1983. p. 1407-1419.
- OP-67. J. A. Bartow. CALIFORNIA. Sedimentation of a middle Tertiary paludal deposit, northern San Joaquin Valley, California [abstr.] AAPG Bulletin, v. 66, no. 10, October 1982. p. 1684-1685.
- OP-68. Susan Bartsch-Winkler, A. T. Ovenshine and Reuben Kachadoorian. ALASKA. Holocene history of the estuarine area surrounding Portage, Alaska as recorded in a 93 m core. Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre, v. 20, no. 5, May 1983. p. 802-820.
- OP-69. C. A. Baskerville. Engineering problems in an urban setting; their geologic significance [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 4.
- OP-70. C. A. Baskerville. Collapse; a mechanism for Martian scarp retreat. NASA Technical Memorandum, v. 85127, December 1982. p. 244-252.
- OP-71. C. A. Baskerville. Computer enhancement as an aid to interpretation of geologic features on Viking imagery; a preliminary progress report. NASA Technical Memorandum, v. 85127, December 1982. p. 307-308.
- OP-72. C. A. Baskerville. NEW YORK. The foundation geology of New York City. Reviews in Engineering Geology, v. 5, 1982. p. 95-117.
- OP-73. A. R. Basu and H. S. Pettingill, U.S. Geological Survey. NEW YORK. Origin and age of Adirondack anorthosites re-evaluated with Nd isotopes. Geology (Boulder), v. 11, no. 9, September 1983. p. 514-518.
- OP-74. P. C. Bateman. CALIFORNIA. A summary of critical relations in the central part of the Sierra Nevada Batholith, California, U.S.A.. Memoir - Geological Society of America, v. 159, 1983. p. 241-254.
- OP-75. P. C. Bateman, U.S. Geological Survey, A. J. Busacca and W. N. Sawka. CALIFORNIA. Cretaceous deformation in the western foothills of the Sierra Nevada, California. Geological Society of America Bulletin, v. 94, no. 1, January 1983. p. 30-42.
- OP-76. R. M. Batson. Voyager cartography. NASA Technical Memorandum, v. 85127, December 1982. p. 355.
- OP-77. R. M. Batson. Special purpose Mars mapping. NASA Technical Memorandum, v. 85127, December 1982. p. 358.
- OP-78. R. M. Batson and P. M. Bridges. Revisions of 1:5,000,000 scale Mars maps. NASA Technical Memorandum, v. 85127, December 1982. p. 357.
- OP-79. R. M. Batson and S. L. Davis. Albedo map of Mars. NASA Technical Memorandum, v. 85127, December 1982. p. 359.
- OP-80. R. M. Batson and R. L. Tyner. 1:2,000,000 scale controlled photomosaics of Mars. NASA Technical Memorandum, v. 85127, December 1982. p. 356.
- OP-81. L. G. Batten, S. K. Jenson, D. A. Hastings, D. D. Greenlee and C. M. Trautwein. An overview of the geological applications of digital data bases [abstr.] Special Publication - Oklahoma Geological Survey, 82-4, Vol. 1. 1982. p. 192-193.
- OP-82. J. G. Beard, R. C. Kepferle, U.S. Geological Survey and J. D. Pollock. KENTUCKY. Stratigraphy and resource assessment of Mississippian and Devonian oil shales of northeastern Kentucky [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 897.
- OP-83. D. G. Bebout. Regional and local geologic setting of the Technadri-Fenix and Scisson, Department of Energy, Gladys McCall No. 1 well site, in Geopressured-geothermal energy resource appraisal; hydrogeology and well testing determine producibility (R. H. Wallace, editor). New Orleans, LA: Geol. Soc. Am., v. 14, September 1982. p. 49-71.
- OP-84. A. E. Becher, U.S. Geological Survey and L. E. Taylor. PENNSYLVANIA. Groundwater resources in the Cumberland and contiguous valleys of Franklin County, Pennsylvania. Water Resource Report (Harrisburg. 1973), v. 53, 1982. 67 p.
- OP-85. J. C. Behrendt and M. S. Grim. Digital filtering of high sensitivity aeromagnetic data over the U.S. Atlantic continental margin and its application to regional tectonics [abstr.] Geophysics, v. 48, no. 4, April 1983. p. 447-448.
- OP-86. J. C. Behrendt and R. M. Hamilton. Could a charleston-type earthquake occur elsewhere along the East Coast of North America? [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 7, September 1981. p. 406.
- OP-87. J. C. Behrendt and R. M. Hamilton. SOUTH CAROLINA. Preliminary interpretation of a seismic reflection profile crossing the South Carolina coastal plain and Piedmont, and implications concerning the origin of the Charleston, 1886, earthquake [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 954.
- OP-88. K. E. Bencala. Simulation of solute transport in a mountain pool-and-riffle stream with a kinetic mass transfer model for sorption. Water Resources Research, v. 19, no. 3, June 1983. p. 732-738.

- OP-89. K. E. Bencala and R. J. Avanzino. Simulation of the transport of an adsorbing solute in a small pool-and-riffle stream [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 867.
- OP-90. K. E. Bencala, A. P. Jackman, V. C. Kennedy, R. J. Avanzino and G. W. Zellweger. Kinetic analysis of strontium and potassium sorption onto sands and gravels in a natural channel. *Water Resources Research*, v. 19, no. 3, June 1983. p. 725-731.
- OP-91. B. K. Bender. Seismic hazard estimation using a finite fault rupture model [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 26.
- OP-92. Bernice Bender. Maximum likelihood estimation of b values for magnitude grouped data. *Bulletin of the Seismological Society of America*, v. 73, no. 3, June 1983. p. 831-851.
- OP-93. J. M. Berdan. Biostratigraphy of Late Silurian through Early Devonian ostracodes of the United States [abstr.] *Proceedings of the International Symposium on Ostracods*, v. 8, 1982. p. 28-29.
- OP-94. J. M. Berdan. KENTUCKY. Facies control of Ordovician leperditicoid ostracodes from Kentucky [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 7, September 1981. p. 407.
- OP-95. M. J. Bergin and E. R. Landis. Role of U.S. Geological Survey in assessment of conventional energy resources in countries other than USA [abstr.] *AAPG Bulletin*, v. 66, no. 7, July 1982. p. 958-959.
- OP-96. J. M. Bernhard and T. M. Cronin, U.S. Geological Survey. Atlantic continental margin Quaternary paleoenvironments [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 5.
- OP-97. F. A. Berry and Yousif Kharaka, K., U.S. Geological Survey. CALIFORNIA. Origins of abnormally-high fluid-pressure systems in California [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 7, September 1981. p. 409.
- OP-98. Patty Billings, U.S. Geological Survey and J. O. Kallikoski. COLORADO. Alteration and geologic setting of the Golden Wonder Mine, western San Juan Mountains, Colorado [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 7, August 1982. p. 443-444.
- OP-99. K. J. Bird, U.S. Geological Survey and Bernard Mamet. ALASKA. Carboniferous foraminifer *Mediocris*; first occurrence in northern Alaska [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 7, September 1981. p. 410.
- OP-100. J. L. Bischoff, D. Z. Piper and Kam Leong. The aluminosilicate fraction of North Pacific manganese nodules. *Geochimica et Cosmochimica Acta*, v. 45, no. 11, 1981. p. 2047-2063.
- OP-101. J. L. Bischoff and R. J. Rosenbauer. A note on the chemistry of seawater in the range 350°-500°C. *Geochimica et Cosmochimica Acta*, v. 47, no. 1, January 1983. p. 139-144.
- OP-102. D. F. Black. KENTUCKY. Relations of dolomite associated with faults to the stratigraphy and structure of central Kentucky [abstr.] *Circular - West Virginia Geological and Economic Survey*, C-31. 1983. p. 3-4.
- OP-103. D. F. Black and E. R. Force. Lexington Lineament; marginal graben fault not a metamorphic front [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 5-6.
- OP-104. M. C. Blake, Jr., A. S. Jayko and D. G. Howell. CALIFORNIA. Sedimentology and structure of Franciscan Assemblage, Yolla Bolly terrane, Northern California [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 902.
- OP-105. M. C. Blake, Jr., A. S. Jayko and D. G. Howell. CALIFORNIA. Geology of a subduction complex in the Franciscan assemblage of northern California. *Oceanologica Acta*, v. 4, supplement. 1981. p. 267-272.
- OP-106. M. C. Blake, Jr. and D. L. Jones. CALIFORNIA, OREGON. The late Mesozoic Coast Range orogeny and subsequent collision events in Northern California and southwestern Oregon [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 295.
- OP-107. R. J. Blakely. The ocean crustal tape recorder; distinguishing the signal from the noise [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 35, August 31, 1982. p. 653.
- OP-108. R. J. Blakely. A statistical comparator of two independent records of a sequence of geological events [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 848.
- OP-109. R. J. Blakely. Statistical averaging of marine magnetic anomalies and the aging of oceanic crust. *JGR. Journal of Geophysical Research*, B, v. 88, no. 3, March 10, 1983. p. 2289-2296.
- OP-110. R. C. Blakey, Fred Peterson, U.S. Geological Survey, M. V. Caputo, B. J. Voorhees and R. C. Geesaman. UTAH. Paleogeography of Middle Jurassic continental, shoreline and shallow marine sedimentation, southern Utah. *Rocky Mountain Paleogeography Symposium*, v. 2, 1983. p. 77-100.
- OP-111. H. R. Blank. A synoptic interpretation of the aeromagnetic map of the Arabian Shield [abstr.] *F. E. S. Research Series*, v. 13, 1982. p. 138-139.
- OP-112. C. D. Blome. ALASKA. Middle Jurassic (Callovian) Radiolaria from southern Alaska [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 7, 1981. p. 411.
- OP-113. C. D. Blome and W. P. Irwin. CALIFORNIA. Tectonic, significance of late Paleozoic to Jurassic radiolarians from the North Fork Terrane, Klamath Mountains, California, in *Pre-Jurassic rocks in western North American suspect terranes* (C. H. Stevens, editor). Los Angeles, CA: Soc. Econ. Paleontol. and Mineral., Pacific Sect., May 18, 1983. p. 77-89.
- OP-114. J. R. Blueford. Cenozoic radiolarian paleogeography of eastern Pacific [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 904.

- OP-115. D. J. Blunt and K. A. Kvenvolden, U.S. Geological Survey. CALIFORNIA. Amino-acid diagenesis in late Pleistocene sediments of core CL-80-1, Clear Lake, California [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 278.
- OP-116. John Boatwright. A dynamic model for far-field acceleration. Bulletin of the Seismological Society of America, v. 72, no. 4, August 1982. p. 1049-1068.
- OP-117. John Boatwright. Introduction to special papers on the dynamic characteristics of faulting inferred from recordings of strong ground motion. Bulletin of the Seismological Society of America, v. 72, Part A. no. 6, December 1982. p. 1823-1824.
- OP-118. John Boatwright and M. C. Astrue. Stress drops of the aftershocks of the 1982 New Brunswick earthquake [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 6.
- OP-119. John Boatwright and D. M. Boore. Analysis of the ground accelerations radiated by the 1980 Livermore Valley earthquakes for directivity and dynamic source characteristics. Bulletin of the Seismological Society of America, v. 72, Part A. no. 6, December 1982. p. 1843-1865.
- OP-120. M. W. Bodine, Jr. U.S. Geological Survey activities in oil shale [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 550-551.
- OP-121. R. J. Bodnar. A method of calculating fluid inclusion volumes based on vapor bubble diameters and P-V-T-X properties of inclusion fluids. Economic Geology and the Bulletin of the Society of Economic Geologists, v. 78, no. 3, May 1983. p. 535-542.
- OP-122. D. D. Bogard, D. M. Unruh, U.S. Geological Survey and M. Tatsumoto. Ar-40/Ar-39 and U-Th-Pb dating of separated clasts from the Abee E4 chondrite. Earth and Planetary Science Letters, v. 62, no. 1, January 1983. p. 132-146.
- OP-123. R. G. Bohannon. NEVADA. Mesozoic and Cenozoic tectonic development of the Muddy, North Muddy, and northern Black Mountains, Clark County, Nevada. Memoir - Geological Society of America, v. 157, 1983. p. 125-148.
- OP-124. B. F. Bohor and D. M. Triplehorn. KENTUCKY. Volcanic origin of the flint clay parting in the Hazard No. 4 (Fire Clay) coal bed of the Breathitt Formation in eastern Kentucky, in Coal and coal-bearing rocks of eastern Kentucky (J. C. Cobb, leader and others). Lexington, KY: Ky. Geol. Surv., 1981. p. 49-54.
- OP-125. G. A. Bollinger and R. L. Wheeler, U.S. Geological Survey. VIRGINIA. The Giles County, Virginia, seismic zone. Science, v. 219, no. 4588, March 4, 1983. p. 1063-1065.
- OP-126. D. M. Boore. Strong-motion seismology. Reviews of Geophysics and Space Physics, v. 21, no. 6, July 1983. p. 1308-1318.
- OP-127. D. M. Boore. Stochastic simulation of high frequency ground motions based on seismological models of the radiated spectra [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 70.
- OP-128. D. M. Boore and W. B. Joyner. The empirical prediction of ground motion. Bulletin of the Seismological Society of America, v. 72, Part B. no. 6, December 1982. p. S269-S286.
- OP-129. J. S. Booth, D. L. Marks, D. W. O'Leary and J. S. Robb. Role of mass movement in the formation of submarine-canyon systems on the United States east coast continental slope [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 7, 1981. p. 413.
- OP-130. J. S. Booth, T. L. Rice and R. A. Farrow. Geotechnical properties and slope stability analysis of surficial sediments on the Atlantic continental slope in two regions; Georges Bank and Baltimore Canyon, in Geotechnology in Massachusetts (O. C. Farquhar, editor). Amherst, MA: Univ. Mass., Grad. Sch., 1982. p. 567-603.
- OP-131. J. S. Booth, J. M. Robb and J. M. Aaron. Past and potential mass movement on continental slope off northeastern United States [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 904-905.
- OP-132. R. D. Borchardt. P and S waves in low-loss anelastic solids [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 959.
- OP-133. R. D. Borchardt, R. Maley and G. Brady. CALIFORNIA. Data recorded on U. S. national strong-motion network near Coalinga, California. Newsletter - Earthquake Engineering Research Institute, v. 17, no. 4, July 1983. p. 82-86.
- OP-134. Gary Boucher. Sign bit data in tau-p analysis of sonobuoy profiles [abstr.] Geophysics, v. 48, no. 4, April 1983. p. 427.
- OP-135. E. L. Boudette, U.S. Geological Survey and G. M. Boone. MAINE. Diamictite of the Chain Lakes Massif of Maine; a possible metasuevite? [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 7, August 1982. p. 448.
- OP-136. A. H. Bouma. Gulf of Mexico types of intraslope basins as determined by seismic reflection patterns [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 905.
- OP-137. A. H. Bouma, U.S. Geological Survey, H. L. Berryhill, U.S. Geological Survey, H. J. Knebel, U.S. Geological Survey and R. L. Brenner. Continental shelf. Memoir - American Association of Petroleum Geologists, v. 31, 1982. p. 281-327.
- OP-138. T. M. Bown. WYOMING. Catastrophic large-scale late Cenozoic detachment faulting, Absaroka Range, Northwest Wyoming [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 7, August 1982. p. 449.
- OP-139. J. P. Bradbury. CALIFORNIA. Diatom biostratigraphy of Clear Lake, California [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 279.
- OP-140. A. G. Brady and P. N. Mork. Synthetic accelerograms for testing processing procedures [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 55.
- OP-141. K. W. Bramlett, D. T. Secor, Jr. and D. C. Prowell, U.S. Geological Survey. The Belair Fault; a Cenozoic reactivation structure in the eastern Piedmont. Geological Society of America Bulletin, v. 93, no. 11, November 1982. p. 1109-1117.

- OP-142. J. D. Bredehoeft. Ground water; a review. *Reviews of Geophysics and Space Physics*, v. 21, no. 3, April 1983. p. 760-765.
- OP-143. J. D. Bredehoeft, S. S. Papadopoulos and H. H. Cooper, Jr. Groundwater; the water-budget myth, *in* Scientific basis of water-resource management (U. S., National Research Council). Washington, DC: Natl. Acad. Press, 1982. p. 51-57.
- OP-144. C. S. Breed, J. F. McCauley and M. J. Grolier. Relict drainages, conical hills, and the eolian veneer in Southwest Egypt; applications to Mars. *JGR. Journal of Geophysical Research. B*, v. 87, no. 12, November 30, 1982. p. 9929-9950.
- OP-145. G. F. Brem and D. B. Snyder. NEVADA. Lithologic and gravity characteristics of the southern Peavine volcanic center, Toiyabe Range, Nevada [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 280.
- OP-146. R. F. Bretz and G. W. Shurr, U.S. Geological Survey. SOUTH DAKOTA. The relation of natural gas occurrences to lineaments in South Dakota [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 192.
- OP-147. D. A. Brew and R. P. Morrell. ALASKA. Intrusive rocks and plutonic belts of southeastern Alaska, U.S.A. *Memoir - Geological Society of America*, v. 159, 1983. p. 171-193.
- OP-148. D. A. Brew and R. P. Morrell. ALASKA. Plutonic belts of southeastern Alaska, U.S.A. [abstr.] *Abstracts of Papers - Pacific Science Congress*, v. 14, 1979. p. 33-35.
- OP-149. J. C. Brice. Stream channel stability assessment. January 1982. 42 p. (*Available from*: NTIS, Springfield, VA, United States.)
- OP-150. N. D. Briggs, C. W. Naeser and T. H. McCulloh. CALIFORNIA. Thermal history by fission-track dating, Tejon oil field area, California [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 906.
- OP-151. R. P. Briggs, J. S. Klasner and K. J. Schulz, U.S. Geological Survey. Concentrically zoned pattern in the Bouguer gravity anomaly map of northeastern North America. *Geology (Boulder)*, v. 11, no. 5, May 1983. p. 318.
- OP-152. S. R. Briggs, D. M. Rubin and J. B. Southard. Spatial variations in sand-wave size and migration rate; implications for shoal dynamics [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 906.
- OP-153. C. S. Bromfield, R. I. Grauch, J. K. Otton and L. M. Osmonson. UTAH. Richfield Quadrangle, Utah. September 1982. 88 p. (*Available from*: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.)
- OP-154. W. E. Brooks. ARIZONA. Volcanic stratigraphy of part of McLendon Volcano, Yavapai County, Arizona [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 280.
- OP-155. E. M. Brouwers. ALASKA. Quaternary ostracode assemblages from the continental shelf of the Gulf of Alaska; application to depth zonation, paleoenvironment, and sediment-transport patterns [abstr.] *Proceedings of the International Symposium on Ostracods*, v. 8, 1982. p. 31-32.
- OP-156. C. E. Brown and R. A. Ayuso. NEW YORK. Magnesian tourmaline-rich metasediments in the Grenville Lowlands of New York; potential for occurrence of massive sulfide deposits [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 8.
- OP-157. C. S. Brown. ALASKA. Precipitation variations at Wolverine Glacier, Alaska [abstr.] *Eos, Transactions, American Geophysical Union*, v. 64, no. 9, March 1, 1983. p. 88.
- OP-158. P. E. Brown and J. S. Huebner. Geothermometry of (Ca,Fe,Mn)SiO₃ minerals; the experimental approach [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 7, 1981. p. 418.
- OP-159. W. R. Brown and Louis Pavlides, U.S. Geological Survey. VIRGINIA. Melange terrane in the central Virginia Piedmont [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 7, 1981. p. 419.
- OP-160. C. A. Brunner and W. R. Normark, U.S. Geological Survey. A quantitative index of mixing to determine the relative amount of downslope contamination in subsurface sediments of a submarine fan [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 7, August 1982. p. 453-454.
- OP-161. T. R. Bruns. ALASKA. Model for the origin of the Yakutat Block, an accreting terrane in the northern Gulf of Alaska. *Geology (Boulder)*, v. 11, no. 12, December 1983. p. 718-721.
- OP-162. T. R. Bruns, P. R. Carlson and George Plafker. ALASKA. Structural deformation in northern Gulf of Alaska; transition from transform to convergent plate motion [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 907.
- OP-163. R. C. Bucknam. Some geologic data used in seismic hazard evaluation in the Great Basin [abstr.] *Special Publication - Colorado Geological Survey*, v. 19, 1981. p. 8.
- OP-164. C. G. Bufe and P. M. Shearer. Geothermal induced seismicity; bane or blessing?. LBL (Lawrence Berkeley Laboratory, Energy and Environment Division), v. 11555, January 1981. p. 86-97.
- OP-165. R. T. Buffler and R. G. Martin, U.S. Geological Survey. Evolution of the Gulf of Mexico basin [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 7, August 1982. p. 454.
- OP-166. E. F. Bugliosi. SOUTH DAKOTA. Major aquifers in Yankton County, South Dakota. Information Pamphlet - South Dakota Geological Survey, v. 28, 1983. 7 p.
- OP-167. David Bukry. Neogene silicoflagellates of the eastern Equatorial Pacific, Deep Sea Drilling Project Hole 503A. *Initial Reports of the Deep Sea Drilling Project*, v. 68, October 1982. p. 311-323.
- OP-168. David Bukry. Cenozoic silicoflagellates from offshore Guatemala, Deep Sea Drilling Project Site 495. *Initial Reports of the Deep Sea Drilling Project*, v. 67, November 1982. p. 425-445.
- OP-169. B. C. Burchfiel, G. S. Hamill, IV and D. E. Wilhelms, U.S. Geological Survey. NEVADA, CALIFORNIA. Structural geology of the Montgomery Mountains and the northern half of the Nopah and Resting Spring ranges, Nevada and California. *Geological Society of America Bulletin*, v. 94, no. 11, November 1983. p. 1359-1376.

- OP-170. L. H. Burckle and D. W. Cooke, U.S. Geological Survey. Late Pleistocene Eucampia antarctica abundance stratigraphy in the Atlantic sector of the Southern Ocean. *Micropaleontology*, v. 29, no. 1, February 16, 1983. p. 6-10.
- OP-171. R. O. Burford and R. V. Sharp. Slip on the Hayward and Calaveras faults determined from offset powerlines. Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 261-269.
- OP-172. P. C. Burnley and S. H. Kirby. Plasticity of clinoamphibole single crystals [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1030.
- OP-173. F. D. Busche, M. B. Goldhaber and R. L. Reynolds, U.S. Geological Survey. TEXAS. Fault-leaked H₂S and the origin of South Texas uranium deposits; implications of sulfur isotopic studies [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 5, February 1981. p. 234.
- OP-174. P. W. Bush. Southeast Tertiary limestone aquifer flow-system, in *Proceedings of the Specialty conference on environmentally sound water and soil management* (E. G. Kruse, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 237-240.
- OP-175. R. F. Butler. NEW MEXICO, WYOMING. Magnetic mineralogy of continental deposits, San Juan Basin, New Mexico, and Clark's Fork Basin, Wyoming. *JGR. Journal of Geophysical Research*. B, v. 87, no. 9, September 10, 1982. p. 7843-7852.
- OP-176. L. M. Bybell. ALABAMA, MISSISSIPPI. Late Eocene to early Oligocene calcareous nannofossils in Alabama and Mississippi [abstr.] *AAPG Bulletin*, v. 66, no. 9, September 1982. p. 1426.
- OP-177. L. M. Bybell. ALABAMA. Late Eocene to early Oligocene calcareous nannofossils in Alabama. *Transactions - Gulf Coast Association of Geological Societies*, v. 32, 1982. p. 295-302.
- OP-178. L. M. Bybell and T. G. Gibson. Calcareous nannofossil and foraminiferal biostratigraphy of the Tallahatta Formation (Eocene) in the eastern Gulf Coastal Plain [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 2, January 1983. p. 59.
- OP-179. L. M. Bybell and R. Z. Poore. Calcareous nannofossil and planktic foraminiferal biostratigraphy of Pliocene and Pleistocene Atlantic Coastal Plain deposits [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 1, January 1981. p. 3.
- OP-180. R. A. Cadigan and K. B. Ketner. UTAH. Delta Quadrangle, Utah. September 1982. 73 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-181. J. W. Cady, T. E. Keith, M. C. Reheis and F. R. Weber. ALASKA. Layered igneous and sedimentary rocks of Rampart Group, central Alaska; roots of oceanic volcanoes? [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 275.
- OP-182. J. M. Cahill. SOUTH CAROLINA. Movement of radionuclides in unconsolidated coastal sediments at the low-level radwaste burial site near Barnwell, South Carolina, in *Waste management '82; Waste isolation in the U.S. and elsewhere, technical programs and public communications; proceedings of the symposium on waste management; Volume 2, Low level waste* (R. G. Post, editor and others). Ariz.: Ariz. Board Regents, 1982. p. 357-368.
- OP-183. J. C. Cain, Jeffory Frayser, Lorant Muth and D. R. Schmitz. The use of Magsat data to determine secular variation. *JGR. Journal of Geophysical Research*. B, v. 88, no. 7, July 10, 1983. p. 5903-5910.
- OP-184. J. P. Calzia. CALIFORNIA. Geology of granodiorite in the Coxcomb Mountains, southeastern California, in *Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada* (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 173-180.
- OP-185. C. C. Cameron. The significance of surficial mapping to peat exploration [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 3, February 1981. p. 125.
- OP-186. J. A. Campbell, K. J. Franczyk, S. J. Luft, R. D. Lupe, Fred Peterson and Keith Robinson. UTAH. Price Quadrangle, Utah. September 1982. 49 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-187. J. A. Campbell, K. J. Franczyk, S. J. Luft, Fred Peterson and Keith Robinson. UTAH. Salina Quadrangle, Utah. September 1982. 83 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-188. J. A. Campbell, K. J. Franczyk, R. D. Lupe and Fred Peterson. COLORADO, UTAH. Cortez Quadrangle, Colorado and Utah. September 1982. 65 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-189. J. A. Campbell, K. J. Franczyk, R. D. Lupe and Fred Peterson. COLORADO, UTAH. Moab Quadrangle, Colorado and Utah. September 1982. 68 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-190. W. H. Campbell. Quiet year variations of SQ current [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 846.
- OP-191. W. L. Campbell. Manganese dioxide causes spurious gold values in flame atomic-absorption readings from HBr-Br₂ digestions. *Journal of Geochemical Exploration*, v. 15, no. 1-3, 1981. p. 613-616.
- OP-192. F. C. Canney and G. A. Nowland. MAINE. Biogeochemical prospecting data from the Catheart Mountain porphyry copper-molybdenum prospect, west-central Maine [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 3, February 1981. p. 125.
- OP-193. W. F. Cannon. The Northern Complex, in 1981 Archean geochemistry field conference; Upper Peninsular & northern Wisconsin (J. O. Kalliokoski, convener and others). IGCP, Archean Geochem. Proj., U. S. Working Group, Wis. Geol. and Nat. Hist. Surv., Mich. Technol. Univ., Mich. Dep. Nat. Resour., 1981. p. 37-40.
- OP-194. W. F. Cannon. MICHIGAN. Michigan's iron ranges. *Rocks and Minerals*, v. 58, no. 3, June 1983. p. 118-120.
- OP-195. W. F. Cannon, J. S. Klasner and E. R. King. Geology of buried Precambrian rocks in the northern Midcontinent inferred from geophysical data [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 7, August 1982. p. 458.

- OP-196. G. T. Cardwell, D. C. Dial, D. J. Nyman and C. D. Whiteman, Jr. LOUISIANA. Ground-water conditions along route from New Orleans to Grand Cheniere, via Baton Rouge, Lafayette, and Abbeville, in *Geopressured-geothermal energy resource appraisal; hydrogeology and well testing determine producibility* (R. H. Wallace, editor). New Orleans, LA: Geol. Soc. Am., v. 14, September 1982. p. 10-13.
- OP-197. P. R. Carlson, H. A. Karl and K. A. Johnson. ALASKA. Morphology, sedimentology, and genesis of three large submarine canyons adjacent to Navarin Basin, Bering Sea [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 909.
- OP-198. P. R. Carlson, H. A. Karl and P. J. Quinterno. ALASKA. Sedimentologic processes in world's largest submarine canyons, Bering Sea, Alaska [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 7, August 1982. p. 459-460.
- OP-199. M. D. Carr. NEVADA. Geometry and structural history of the Mesozoic thrust belt in the Goodsprings District, southern Spring Mountains, Nevada. Geological Society of America Bulletin, v. 94, no. 10, October 1983. p. 1185-1198.
- OP-200. M. H. Carr. Martian geology. Nature (London), v. 294, no. 5839, December 2, 1981. p. 307-308.
- OP-201. M. H. Carr. The geology of the terrestrial planets. Reviews of Geophysics and Space Physics, v. 21, no. 2, March 1983. p. 160-172.
- OP-202. M. H. Carr. Periodic climate change on Mars; review of evidence and effects on distribution of volatiles. Icarus, v. 50, no. 2-3, June 1982. p. 129-139.
- OP-203. M. H. Carr and G. D. Clow. Martian channels and valleys; their characteristics, distribution, and age. Icarus, v. 48, no. 1, October 1981. p. 91-117.
- OP-204. Bobb Carson, Roland von Huene, U.S. Geological Survey and M. A. Arthur. Small-scale deformation structures and physical properties related to convergence in Japan Trench slope sediments. Tectonics, v. 1, no. 3, June 1982. p. 277-302.
- OP-205. Virginia Carter. Applications of remote sensing to wetlands, in *Remote sensing for resource management* (C. J. Johannsen, editor and others). Ankeny, IA: Soil Conserv. Soc. Am., 1982. p. 284-300.
- OP-206. W. D. Carter. Landsat analysis of the Yanchiatan tungsten district, Hunan Province, People's Republic of China [abstr.] COSPAR Plenary Meet., Program Abstr., v. 24, 1982. p. 71.
- OP-207. W. D. Carter. A strategy for mineral and energy resource independence; the North American Plate Mosaic Project [abstr.] COSPAR Plenary Meet., Program Abstr., v. 24, 1982. p. 96.
- OP-208. W. D. Carter. Significant results from using earth observation satellites for mineral and energy resource exploration. Advances in Space Research, v. 1, no. 10, 1981. p. 261-269.
- OP-209. W. D. Carter and L. C. Rowan. Objectives, accomplishments, and future plans of IGCP Project 143, Remote sensing and mineral exploration. Advances in Space Research, v. 1, no. 10, 1981. p. 227-236.
- OP-210. T. J. Casadevall, J. Ewert, D. Harris and W. Rose. WASHINGTON. Gas emissions and the prediction of eruptive behavior at Mount St. Helens, Washington [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 8, February 23, 1982. p. 174.
- OP-211. T. J. Casadevall, U.S. Geological Survey, W. Rose, T. Gerlach, L. P. Greenland, U.S. Geological Survey, J. Ewert, U.S. Geological Survey, R. Wunderman and R. Symonds, U.S. Geological Survey. Gas emissions and the eruptions of Mount St. Helens through 1982. Science, v. 221, no. 4618, September 20, 1983. p. 1383-1385.
- OP-212. J. E. Case, U.S. Geological Survey and Gabriel Dengo. The Caribbean region, in *Perspectives in regional geological synthesis; planning for The geology of North America* (A. R. Palmer, editor). Boulder, CO: Geol. Soc. Am., 1982. p. 163-170.
- OP-213. K. V. Cashman, Peter Popenoe and D. Chayes. Sidescan sonar depiction of slump features associated with diapirism on continental slope off southeastern United States [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 909.
- OP-214. K. V. Cashman and J. E. Taggart. WASHINGTON. Petrologic monitoring of 1981 and 1982 eruptive products from Mount St. Helens. Science, v. 221, no. 4618, September 20, 1983. p. 1385-1387.
- OP-215. M. A. Cervione, Jr. CONNECTICUT. Streamflow information for Connecticut with applications to land-use planning. Connecticut Water Resources Bulletin, v. 333, 1982. 35 p.
- OP-216. W. W. Chadwick, Jr., D. A. Swanson, E. Y. Iwatsubo, C. C. Heliker and T. A. Leighley. WASHINGTON. Deformation monitoring at Mount St. Helens in 1981 and 1982. Science, v. 221, no. 4618, September 20, 1983. p. 1378-1380.
- OP-217. D. E. Champion. Secular variation of field directions and intensity from young volcanic rocks [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 35, August 31, 1982. p. 650.
- OP-218. T. T. Chao, U.S. Geological Survey and Liyi Zhou. Extraction techniques for selective dissolution of amorphous iron oxides from soils and sediments. Soil Science Society of America Journal, v. 47, no. 2, April 1983. p. 225-232.
- OP-219. F. H. Chapelle. MARYLAND. Ground-water geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 9.
- OP-220. F. H. Chapelle. MARYLAND. Groundwater geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland. Water Resources Research, v. 19, no. 2, April 1983. p. 545-558.
- OP-221. F. H. Chapelle and L. L. Knobel. MARYLAND. Aqueous geochemistry and the exchangeable cation composition of glauconite in the Aquia Aquifer, Maryland. Ground Water, v. 21, no. 3, June 1983. p. 343-352.
- OP-222. A. T. Chen. Application of modulus degradation model of clays. Journal of the Geotechnical Engineering Division, v. 108, October 1982. p. 1203-1214.

- OP-223. D. R. Choi and C. W. Holmes, U.S. Geological Survey. Foundations of Quaternary reefs in south-central Belize Lagoon, Central America. AAPG Bulletin, v. 66, no. 12, December 1982. p. 2663-2671.
- OP-224. I-Ming Chou. Phase relations in the system NaCl-KCl-H₂O; Part I, Differential thermal analysis of the NaCl-KCl liquidus at 1 atmosphere and 500, 1000, 1500, and 2000 bars. *Geochimica et Cosmochimica Acta*, v. 46, no. 10, October 1982. p. 1957-1962.
- OP-225. G. L. Choy and John Boatwright. Broadband analysis of the extended foreshock sequence of the Miyagi-Oki earthquake of 12 June 1978. *Bulletin of the Seismological Society of America*, v. 72, Part A. no. 6, December 1982. p. 2017-2036.
- OP-226. G. L. Choy, John Boatwright, J. W. Dewey and S. A. Sipkin. A teleseismic analysis of the New Brunswick earthquake of January 9, 1982. *JGR. Journal of Geophysical Research*, B, v. 88, no. 3, March 10, 1983. p. 2199-2212.
- OP-227. S. C. Christenson. OKLAHOMA. Numerical simulation of the alluvium and terrace aquifer along the North Canadian River from Canton Lake to Lake Overholser, central Oklahoma [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 3, February 1982. p. 107.
- OP-228. R. L. Christiansen. CALIFORNIA. Volcanic hazard potential in the California Cascades. Special Publication - California Division of Mines and Geology, v. 63, 1982. p. 41-59.
- OP-229. R. A. Christopher. Holcopollenites pollen "lineage" from the Upper Cretaceous series of the Atlantic and eastern Gulf Coastal Plain Province [abstr.] *Palynology*, v. 6, 1982. p. 275-276.
- OP-230. R. A. Christopher. A review of quantitative interval-zone and assemblage-zone biostratigraphy [abstr.] *Palynology*, v. 6, 1982. p. 276.
- OP-231. J. W. Clarke. VIRGINIA. The core of the Blue Ridge Anticlinorium in northern Virginia [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 10.
- OP-232. J. W. Clarke. SOUTH CAROLINA. Fold events in the inner Piedmont of South Carolina [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 1, January 1981. p. 4-5.
- OP-233. G. E. Claypool and K. A. Kvenvolden. Methane and other hydrocarbon gases in marine sediments. *Annual Review of Earth and Planetary Science*, v. 11, 1983. p. 299-327.
- OP-234. J. M. Cleveland, T. F. Rees and K. L. Nash. Neptunium and americium speciation in selected basalt, granite, shale, and tuff ground waters. *Science*, v. 221, no. 4607, July 15, 1983. p. 271-273.
- OP-235. H. E. Clifton. Estuarine deposits. *Memoir - American Association of Petroleum Geologists*, v. 31, 1982. p. 179-184.
- OP-236. H. E. Clifton. WASHINGTON. Discrimination between subtidal and intertidal facies in Pleistocene deposits, Willapa Bay, Washington. *Journal of Sedimentary Petrology*, v. 53, no. 2, June 1983. p. 353-369.
- OP-237. G. D. Clow. Downward-travelling infrared flux at the Martian surface for past CO₂/H₂O atmospheres. *NASA Technical Memorandum*, v. 85127, December 1982. p. 271-273.
- OP-238. R. R. Coats, U.S. Geological Survey and J. F. Riva. NEVADA. Overlapping overthrust belts of late Paleozoic and Mesozoic ages, northern Elko County, Nevada. *Memoir - Geological Society of America*, v. 157, 1983. p. 305-327.
- OP-239. W. A. Cobban, U.S. Geological Survey and S. C. Hook. Mid-Cretaceous molluscan biostratigraphy and paleogeography of south-western part of Western Interior, United States [abstr.] *Journal of Paleontology*, v. 56, Suppl. to No. 2, March 1982. p. 6.
- OP-240. R. S. Cockerham. CALIFORNIA. A well-recorded 55-km-deep earthquake in western north-central California [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 959.
- OP-241. S. M. Colman. UTAH. Influence of the Onion Creek salt diapir on the late Cenozoic history of Fisher Valley, south-eastern Utah. *Geology (Boulder)*, v. 11, no. 4, April 1983. p. 240-243.
- OP-242. S. M. Colman, James McCalpin, U.S. Geological Survey and D. A. Ostenaar. COLORADO. Morphology of fault scarps in the Rio Grande Rift, Colorado, as an indicator of age of faulting [abstr.] *Special Publication - Colorado Geological Survey*, v. 19, 1981. p. 34-35.
- OP-243. S. M. Colman and Ken Watson. Ages estimated from a diffusion equation model for scarp degradation. *Science*, v. 221, no. 4607, July 15, 1983. p. 263-265.
- OP-244. S. M. Condon and A. R. Kirk. NEW MEXICO. Influence of geologic structure on sedimentation of the Upper Jurassic Morrison Formation, Southern Juan Basin, New Mexico [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 292.
- OP-245. T. J. Conelly and C. M. Conway, U.S. Geological Survey. ARIZONA. Relation of Proterozoic massive sulfide deposits to contemporaneous volcanic activity, Bagdad, Arizona [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 298.
- OP-246. Maura Connor and F. T. Manheim. World geoscience literature and translation [abstr.] *Special Publication - Oklahoma Geological Survey*, 82-4, Vol. 2. 1982. p. 404-409.
- OP-247. Jim Constantz. Temperature dependence of unsaturated hydraulic conductivity of two soils. *Soil Science Society of America Journal*, v. 46, no. 3, June 1982. p. 466-470.
- OP-248. C. M. Conway. ARIZONA. Volcanogenic mineralization at Copper Camp Creek and the potential for massive sulfide deposits in the Proterozoic Alder Formation, Arizona [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 298.
- OP-249. H. E. Cook and R. M. Egbert. Carbonate submarine fan facies along a Paleozoic prograding continental margin, Western United States [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 913.

- OP-250. H. E. Cook, M. E. Field and J. V. Gardner. Continental slopes. *Memoir - American Association of Petroleum Geologists*, v. 31, 1982. p. 329-364.
- OP-251. T. M. Cookro. IDAHO. Tungsten deposits in the Challis Quadrangle, Idaho [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 299.
- OP-252. R. L. Cooley. Incorporation of prior information on parameters into nonlinear regression groundwater flow models; 1, Theory. *Water Resources Research*, v. 18, no. 4, August 1982. p. 965-976.
- OP-253. R. L. Cooley. Analysis of an incongruity in the standard Galerkin finite element method. *Water Resources Research*, v. 19, no. 1, February 1983. p. 289-291.
- OP-254. R. L. Cooley. Incorporation of prior information on parameters into nonlinear regression ground-water flow models; 2, Applications. *Water Resources Research*, v. 19, no. 3, June 1983. p. 662-676.
- OP-255. E. J. Corbett and C. E. Johnson, U.S. Geological Survey. CALIFORNIA. The Santa Barbara, California earthquake of 13 August 1978. *Bulletin of the Seismological Society of America*, v. 72, Part A. December 1982. p. 2201-2226.
- OP-256. L. Cordell. Paleoelevation (by paleobotanical data) [abstr.] LPI Technical Report, v. 81-07, 1982. p. 17.
- OP-257. L. Cordell, U.S. Geological Survey and W. J. Peeples. Magnetics [abstr.] LPI Technical Report, v. 81-07, 1982. p. 17.
- OP-258. Lindrith Cordell. Extension in the Rio Grande Rift. *JGR. Journal of Geophysical Research*, B, v. 87, no. 10, October 10, 1982. p. 8561-8569.
- OP-259. Lindrith Cordell and V. J. Grauch. NEW MEXICO. Mapping basement magnetization zones from aeromagnetic data in the San Juan Basin, New Mexico [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 446.
- OP-260. A. B. Coury and R. B. Powers. WYOMING, UTAH, IDAHO. Impact of the Wyoming-Utah-Idaho thrust belt, Beaufort Sea on U.S. oil, gas resource estimates. *Oil and Gas Journal*, v. 81, no. 24, June 13, 1983. p. 143-152.
- OP-261. H. R. Covington. IDAHO. Structural evolution of the Raft River basin, Idaho. *Memoir - Geological Society of America*, v. 157, 1983. p. 229-237.
- OP-262. L. C. Craig, W. J. Hail, Jr. and S. J. Luft. COLORADO, UTAH. Vernal Quadrangle, Colorado and Utah. September 1982. 109 p. (Available from: Bendix Field Eng. Corp., Tech. Lib., Grand Junction, CO, United States.)
- OP-263. L. C. Craig, W. J. Hail, Jr., S. J. Luft, E. L. Boudette and G. L. Snyder. COLORADO. Craig Quadrangle, Colorado. September 1982. 107 p. (Available from: Bendix Field Eng. Corp., Tech. Lib., Grand Junction, CO, United States.)
- OP-264. Edward Cranswick and Paul Spudich. CALIFORNIA. What caused the large vertical arrivals observed in the 1979 Imperial Valley, California, earthquake? [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 972.
- OP-265. T. J. Crawford. GEORGIA. High Point and Steven Gap faults, Lookout Mountain, Georgia [abstr.] *Georgia Journal of Science*, v. 41, no. 1-2, April 1983. p. 22.
- OP-266. T. J. Crawford and C. W. Cressler, U.S. Geological Survey. GEORGIA. The Talladega "Series" - Great Smoky Fault - Emerson Fault; relationships in the Cartersville area, Georgia [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 1, January 1981. p. 5-6.
- OP-267. T. J. Crawford and C. W. Cressler, U.S. Geological Survey. GEORGIA. Talladega "Series," Great Smoky Fault, and Emerson Fault; relationships in the Cartersville area, Georgia. *Special Paper - Geological Society of America*, v. 191, 1982. p. 31-34.
- OP-268. M. D. Crittenden, Jr., U.S. Geological Survey, Nicholas Christie-Blick and P. K. Link. UTAH, IDAHO. Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho. *Geological Society of America Bulletin*, v. 94, no. 4, April 1983. p. 437-450.
- OP-269. J. G. Crock and F. E. Lichte. The separation and pre-concentration of the rare earth elements by ion exchange from geological materials for determination by ICAP-OES [abstr.] *ICP Information Newsletter*, v. 8, no. 4, September 1982. p. 221.
- OP-270. T. M. Cronin. FLORIDA. Bathyal ostracodes from the Florida-Hatteras Slope, the Straits of Florida, and Blake Plateau and their application to paleoceanography of continental margins [abstr.] *Proceedings of the International Symposium on Ostracods*, v. 8, 1982. p. 40-41.
- OP-271. T. M. Cronin. Rapid sea level and climatic change; evidence from the continental margin [abstr.] *Am. Quat. Assoc., Natl. Conf., Abstr.*, v. 7, 1982. p. 40-43.
- OP-272. T. M. Cronin and J. E. Hazel. The ostracode tribe Campylocytherini in Cenozoic marine deposits of North America [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 12.
- OP-273. R. S. Crosson and E. T. Endo, U.S. Geological Survey. HAWAII. Focal mechanisms and locations of earthquakes in the vicinity of the 1975 Kalapana earthquake aftershock zone 1970-1979; implications for tectonics of the south flank of Kilauea Volcano, Island of Hawaii. *Tectonics*, v. 1, no. 6, December 1982. p. 495-542.
- OP-274. W. C. Culbertson. WYOMING. Genesis and distribution of trona deposits in Southwest Wyoming [abstr.] *Public Information Circular - Geological Survey of Wyoming*, v. 19, 1983. p. 34.
- OP-275. P. B. Curwick and M. E. Jennings. Evaluation of rainfall-runoff models for the hydrologic characterization of surface-mined lands, in *Applied modeling in catchment hydrology* (V. P. Singh, editor). Littleton, CO: Water Resour. Publ., 1982. p. 259-274.
- OP-276. G. B. Dalrymple. Can the Earth be dated from decay of its magnetic field?. *Journal of Geological Education*, v. 31, no. 2, March 1983. p. 124-133.
- OP-277. R. G. Daniel. UTAH. Attenuation of seismic waves from local earthquakes at Roosevelt, Hot Springs, Utah [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 969.

- OP-278. J. J. Daniels. Hole-to-surface resistivity measurements. *Geophysics*, v. 48, no. 1, January 1983. p. 87-97.
- OP-279. J. J. Daniels and J. H. Scott. WYOMING. Automated lithologic interpretation from geophysical well logs in a coal depositional environment, Carbon County, Wyoming. *Bulletin - Utah Geological and Mineral Survey*, v. 118, May 1982. p. 220-232.
- OP-280. S. Das and John Boatwright, U.S. Geological Survey. Event J of the 1975 Oroville aftershock sequence; an example of the breaking of a single asperity? [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 33-34.
- OP-281. P. A. Davis, L. A. Soderblom and E. M. Eliason. Rapid estimate of Martian topography from Viking Orbiter image photometry. *NASA Technical Memorandum*, v. 85127, December 1982. p. 331-332.
- OP-282. Wallace de Witt, Jr. and J. B. Roen. Upper Devonian black shales across Appalachian Basin [abstr.] *AAPG Bulletin*, v. 66, no. 8, August 1982. p. 1167.
- OP-283. W. E. Dean, U.S. Geological Survey and R. Y. Anderson. TEXAS, NEW MEXICO. Continuous subaqueous deposition of the Permian Castile evaporites, Delaware Basin, Texas and New Mexico. *S. E. P. M. Core Workshop*, v. 3, June 1982. p. 324-353.
- OP-284. W. E. Dean, U.S. Geological Survey, E. J. Barron and R. E. Boyce. Cretaceous black-shale deposition within an oxidized red clay, turbidite environment, southern Angola Basin, South Atlantic Ocean [abstr.] *AAPG Bulletin*, v. 65, no. 5, 1981. p. 917.
- OP-285. W. E. Dean and J. V. Gardner. Origin and geochemistry of redox cycles of Jurassic to Eocene age, Cape Verde Basin (DSDP Site 367), continental margin of North-West Africa, in *Nature and origin of Cretaceous carbon-rich facies* (S. O. Schlanger, editor and others). New York, NY: Acad. Press, 1982. p. 55-78.
- OP-286. W. E. Dean, W. S. Moore and K. H. Nealson. NEW YORK. Manganese cycles and the origin of manganese nodules, Oneida Lake, New York, U.S.A.. *Chemical Geology*, v. 34, no. 1-2, 1981. p. 53-64.
- OP-287. R. W. Decker. Additional geophysical techniques for monitoring volcanoes; geodetic, gravity, thermal, electrical, magnetic and radioactivity. *Special Publication - California Division of Mines and Geology*, v. 63, 1982. p. 119-129.
- OP-288. R. W. Decker, R. Y. Koyanagi, J. J. Dvorak, J. P. Lockwood, A. T. Okamura, K. M. Yamashita and W. R. Tanigawa. HAWAII. Seismicity and surface deformation of Mauna Loa Volcano, Hawaii. *Eos, Transactions, American Geophysical Union*, v. 64, no. 37, September 13, 1983. p. 545-547.
- OP-289. J. V. DeGraff and C. G. Cunningham, U.S. Geological Survey. UTAH. Highway-related landslides in mountainous volcanic terrain; an example from West-central Utah. *Bulletin of the Association of Engineering Geologists*, v. 19, no. 4, November 1982. p. 319-325.
- OP-290. P. T. Delaney. Rapid intrusion of magma into wet rock; groundwater flow due to pore pressure increases. *JGR. Journal of Geophysical Research. B*, v. 87, no. 9, September 10, 1982. p. 7739-7756.
- OP-291. H. R. Delcourt, P. A. Delcourt and E. C. Spiker, U.S. Geological Survey. ALABAMA. Holocene paleohydrologic changes in the southern Ridge and Valley Province of Alabama [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 14.
- OP-292. C. R. Demas. LOUISIANA. Hydrology, water quality, and biology of Baptiste Collette Bayou in relation to the Lower Mississippi River at Venice, Louisiana. *Water Resources Technical Report*, v. 31, 1983. 40 p.
- OP-293. D. K. Demcheck and H. L. Leone, Jr. LOUISIANA. Water quality of the upper Vermilion River, Louisiana, April-August 1980. *Water Resources Technical Report*, v. 30, 1983. 37 p. (*Available from:* State La. Dep. Transp. Dev., La., United States.)
- OP-294. R. P. Denlinger and C. G. Bufe. CALIFORNIA. Reservoir conditions related to induced seismicity at The Geysers steam reservoir, Northern California. *Bulletin of the Seismological Society of America*, v. 72, no. 4, August 1982. p. 1317-1327.
- OP-295. R. P. Denlinger, M. C. Carpenter and F. S. Riley. ARIZONA. Strain history and failure conditions for earth fissures near Apache Junction, Arizona [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1038.
- OP-296. J. DeNoyer, reporter, U.S. Geological Survey, J. C. Cain, reporter, U.S. Geological Survey, S. Banerjee, reporter, E. R. Benton, reporter, R. J. Blakely, reporter, U.S. Geological Survey, Robert Coe, reporter, C. J. Harrison, reporter, M. Johnston, reporter, U.S. Geological Survey and R. D. Regan, reporter. *Geomagnetic workshop. Eos, Transactions, American Geophysical Union*, v. 63, no. 35, August 31, 1982. p. 645, 647-649.
- OP-297. J. W. Dewey. Instrumental seismicity of the Northern Rocky Mountains of the United States [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 48.
- OP-298. Ed DeWitt. ARIZONA. Precious metal contents of Proterozoic massive sulfide deposits in Arizona [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 298.
- OP-299. D. C. Dial. LOUISIANA. Ground-water data for the Mississippi River parishes in the greater New Orleans area, Louisiana. *Water Resources Basic Records Report*, v. 11, 1983. 47 p.
- OP-300. K. A. Dickinson, F. A. Hills, E. L. Boudette, A. M. Campbell, R. F. Dubiel, W. F. Dula, J. K. Felmlee, S. H. Ford, H. C. Granger, Kenneth Hon, Lauri McCardle, J. R. McDonnell, P. B. Mudgett, J. T. Nash, J. K. Otton, J. M. Parker, R. D. Priestley, Keith Robinson, R. B. Taylor and Mary Roshardt. COLORADO. Pueblo Quadrangle, Colorado. September 1982. 109 p. (*Available from:* Bendix Field Eng. Corp., Tech. Lib., Grand Junction, CO, United States.)
- OP-301. W. P. Dillon and M. M. Ball. Petroleum potential of continental margin off southeastern United States [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 563-564.

- OP-302. J. R. Dingler and R. J. Anima. Field study of subaqueous avalanching [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 918-919.
- OP-303. H. R. Dixon. CONNECTICUT. Multi-stage deformation of the Preston Gabbro, eastern Connecticut. Annual Meeting - New England Intercollegiate Geological Conference, v. 74, 1982. p. 453-463.
- OP-304. H. R. Dixon. WYOMING. Archean granitic rocks in the Seminoe Mountains, Wyoming, in 1982 Archean geochemistry field conference; Seminoe Mountains and Hartville Uplift, Wyoming; Part I, Guide to field trips (S. S. Goldich, chairperson). IGCP, Archean Geochem. Proj., U. S. Working Group, Colo. Sch. Mines, Geol. Surv. Wyo., U. S. Geol. Surv., 1982. p. 50-63.
- OP-305. H. W. Dodge, Jr. WYOMING, SOUTH DAKOTA, MONTANA. Gillette Quadrangle, Wyoming, South Dakota, and Montana. September 1982. 51 p. (Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.)
- OP-306. H. W. Dodge, Jr., U.S. Geological Survey and T. M. Crandall. WYOMING. Depositional environments of Upper Cretaceous Fox Hills Formation, Niobrara and Weston counties, east-central Wyoming [abstr.] AAPG Bulletin, v. 67, no. 8, August 1983. p. 1334-1335.
- OP-307. B. R. Doe and R. E. Zartman. Plumbotectonics of Japan; some evidence for a rejuvenated craton. Kozan Chishitsu = Mining Geology, v. 32, no. 174, 1982. p. 285-289.
- OP-308. J. C. Dohrenwend. Nivation and cryoplanation in the west-central Basin and Range [abstr.] Am. Quat. Assoc., Natl. Conf., Abstr., v. 7, 1982. p. 90.
- OP-309. J. C. Dohrenwend. NEVADA, CALIFORNIA. Paleoclimatic significance of nivation in the western and central Great Basin, Nevada and California [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 300.
- OP-310. J. F. Donoghue, C. R. Olsen and O. P. Bricker, U.S. Geological Survey. Radionuclide tracers for sediment in the upper Chesapeake Bay [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 15.
- OP-311. T. J. Donovan, A. A. Roberts and M. C. Dalziel. OKLAHOMA. Epigenetic zoning in surface and near-surface rocks resulting from seepage-induced redox gradients, Velma oil field, Oklahoma [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 919.
- OP-312. R. C. Douglass. OKLAHOMA. Fusulinids of the Atoka Formation, south-central Oklahoma [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 3, February 1982. p. 110.
- OP-313. R. C. Douglass. Carboniferous-Permian boundary in Southwestern United States [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 920-921.
- OP-314. J. E. Downey, T. S. Dyman, U.S. Geological Survey and L. A. Wilcox. Eastern Gas Shales Project (EGSP) data system; useful exploration and research tool [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 921.
- OP-315. F. J. Doyle. Topographic mapping from space [abstr.] AAAS Publication, v. 83-2, 1983. p. 16.
- OP-316. W. H. Doyle, Jr. and J. A. Lorens. Urban stormwater data management system, in Modeling components of hydrologic cycle (V. P. Singh, editor). Littleton, CO: Water Resour. Publ., 1982. p. 71-86.
- OP-317. A. A. Drake, Jr. NEW JERSEY, PENNSYLVANIA. The Reading Prong of New Jersey and eastern Pennsylvania; an appraisal of rock relations and chemistry of a major Proterozoic terrane in the Appalachians [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 15-16.
- OP-318. Harald Drewes, U.S. Geological Survey, P. T. Hayes, U.S. Geological Survey and W. L. Bilodeau. ARIZONA. Tectonic models for Early Cretaceous rifting in southeastern Arizona. Geology (Boulder), v. 11, no. 6, June 1983. p. 364-366.
- OP-319. David Drowley and K. B. Ketner, U.S. Geological Survey. NEVADA. Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada. Geology (Boulder), v. 11, no. 10, October 1983. p. 617-618.
- OP-320. E. A. du Bray. Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia [abstr.] F. E. S. Research Series, v. 13, 1982. p. 34-36.
- OP-321. E. A. du Bray. Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia [abstr.] Precambrian Research, v. 16, no. 4, January 1982. p. A16.
- OP-322. R. F. Dubiel. UTAH. The influence of tectonic movement on depositional environments in the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation, White Canyon area, southeastern Utah [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 285.
- OP-323. A. D. Duerr. FLORIDA. Estimating water use, Southwest Florida, in Proceedings of the Specialty conference on environmentally sound water and soil management (E. G. Kruse, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 431-439.
- OP-324. C. R. Dunrud. Coal mine subsidence and land use planning [abstr.] Public Information Circular - Geological Survey of Wyoming, Publ. Inf. Circ. No. 18. 1983. p. 9-16.
- OP-325. P. B. Duran and F. P. Haeni, U.S. Geological Survey. Electromagnetic conductivity techniques in delineating ground-water-pollution plumes [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 16.
- OP-326. D. L. Durham and J. K. Felmlee. CALIFORNIA, NEVADA. Walker Lake Quadrangle, California and Nevada. September 1982. 43 p. (Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.)
- OP-327. T. S. Dyman, U.S. Geological Survey and L. A. Wilcox. The Eastern Gas Shales Project (EGSP) Data System; a case study in data base design, development, and application. Journal of the International Association for Mathematical Geology, v. 15, no. 2, April 1983. p. 363-369.

- OP-328. Daniel Dzurisin, U.S. Geological Survey, A. G. Sylvester and K. V. Cashman. CALIFORNIA. Ground tilt since May 1982 at Long Valley Caldera, California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 75.
- OP-329. Daniel Dzurisin, U.S. Geological Survey, J. A. Westphal and D. J. Johnson, U.S. Geological Survey. WASHINGTON. Eruption prediction aided by electronic tiltmeter data at Mount St. Helens. *Science*, v. 221, no. 4618, September 20, 1983. p. 1381-1383.
- OP-330. Donna Eberhart-Phillips. CALIFORNIA. Seismicity in the Clear Lake area, California [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 279.
- OP-331. Donna Eberhart-Phillips and D. H. Oppenheimer. CALIFORNIA. Induced seismicity in The Geysers geothermal area, California [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 969.
- OP-332. D. D. Eberl, U.S. Geological Survey, B. F. Jones, U.S. Geological Survey and H. N. Khoury. NEVADA. Mixed-layer kerolite/stevensite from the Amargosa Desert, Nevada. *Clays and Clay Minerals*, v. 30, no. 5, October 1982. p. 321-326.
- OP-333. L. E. Edwards. Numerical and semi-objective biostratigraphy, review and prediction. *Proceedings - North American Paleontological Convention*, v. 3, 1982. p. 147-152.
- OP-334. L. E. Edwards. Biostratigraphically important species of *Pentadinium* Gerlich 1961 and a likely ancestor, *Hafniasphaera goodmanii* sp. nov., from the Eocene of the Atlantic and Gulf Coastal plains. *Palynology*, v. 6, 1982. p. 105-117.
- OP-335. L. E. Edwards. VIRGINIA. Early Tertiary dinoflagellates in the Putneys Mill core, Virginia Coastal Plain, U.S.A. [abstr.] *Palynology*, v. 6, 1982. p. 279.
- OP-336. L. E. Edwards. Quantitative biostratigraphy; the methods should suit the data, in *Quantitative stratigraphic correlation* (J. M. Cubitt, editor and others). Chichester: John Wiley & Sons, 1982. p. 45-60.
- OP-337. L. E. Edwards. Paleocene and early Eocene dinocyst biostratigraphy [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 2, January 1983. p. 59.
- OP-338. G. G. Ehrlich, D. F. Goerlitz, E. M. Godsy and M. F. Hult. MINNESOTA. Degradation of phenolic contaminants in ground water by anaerobic bacteria; St. Louis Park, Minnesota. *Ground Water*, v. 20, no. 6, December 1982. p. 703-710.
- OP-339. S. L. Eittreim, D. Z. Piper, D. M. Jones and Sara Monteith. Sedimentation in a low-energy abyssal environment [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 918.
- OP-340. E. B. Ekren. IDAHO. Van Horn Peak; a welded tuff vent in central Idaho, in *Montana Geological Society field conference and symposium guidebook to Southwest Montana* (T. E. Tucker, editor and others). *Mont. Geol. Soc.*, 1981. p. 311-315.
- OP-341. P. T. Eliason, T. J. Donovan and P. S. Chavez, Jr. OKLAHOMA. Integration of geologic, geochemical, and geophysical data of the Cement oil field, Oklahoma, using spatial array processing [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 474-475.
- OP-342. W. L. Ellsworth. CALIFORNIA. Applications of digital processing technology to the study of local earthquakes in California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 12-13.
- OP-343. W. L. Ellsworth, J. A. Olson, L. N. Shijo and S. M. Marks. CALIFORNIA. Seismicity and active faults in the eastern San Francisco Bay region. *Special Publication - California Division of Mines and Geology*, v. 62, 1982. p. 83-91.
- OP-344. W. W. Emmett. Helley-Smith bedload sampler, in *American Geomorphological Field Group; Field trip guidebook, 1982 conference* (L. B. Leopold, editor). *American Geomorphological Field Group*, 1982. p. 41-48.
- OP-345. W. W. Emmett. WYOMING. Variability of bedload and some hydraulic characteristics along a reach of East Fork River, in *American Geomorphological Field Group; Field trip guidebook, 1982 conference* (L. B. Leopold, editor). *American Geomorphological Field Group*, 1982. p. 49-56.
- OP-346. E. R. Engdahl, J. Peterson and N. A. Orsini. Global digital networks; current status and future directions. *Bulletin of the Seismological Society of America*, v. 72, Part B. no. 6, December 1982. p. S57-S73.
- OP-347. K. J. Englund, U.S. Geological Survey, W. H. Gillespie, U.S. Geological Survey, P. L. Johnson, U.S. Geological Survey and H. W. Pfefferkorn. VIRGINIA. Depositional model for Upper Mississippian and Lower Pennsylvanian coal-bearing rocks of southwestern Virginia [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 16.
- OP-348. R. C. Erd and G. K. Czamanske. CALIFORNIA. Orickite and coyoteite, two new sulfide minerals from Coyote Peak, Humboldt County, California. *American Mineralogist*, v. 68, no. 1-2, February 1983. p. 245-254.
- OP-349. R. M. Erickson and R. D. Cotter. WISCONSIN. Trends in ground-water levels in Wisconsin through 1981. *Information Circular - Wisconsin, Geological and Natural History Survey*, v. 43, 1983. 139 p.
- OP-350. J. R. Evans. Compressional-wave velocity structure of the Medicine Lake Volcano and vicinity from teleseismic relative traveltime residuals [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 478.
- OP-351. J. R. Evans. A teleseism-specific, digital detect algorithm for isolated, triggered seismographs [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 968.
- OP-352. J. R. Evans and H. M. Iyer. Compressional-wave-velocity structure of the Yellowstone-Snake River plain system to a depth of 300 km; fundamental constraints on system models [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 53.

- OP-353. K. V. Evans and R. E. Zartman, U.S. Geological Survey. IDAHO. Evidence from U-Th-Pb zircon ages for Cambrian-Ordovician plutonism in east-central Idaho [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 195.
- OP-354. S. H. Evans, Jr. and T. A. Steven, U.S. Geological Survey. UTAH. Rhyolites in the Gillies Hill-Woodtick Hill area, Beaver County, Utah. Geological Society of America Bulletin, v. 93, no. 11, November 1982. p. 1131-1141.
- OP-355. R. C. Evarts, U.S. Geological Survey and Peter Schiffman. CALIFORNIA. Submarine hydrothermal metamorphism of the Del Puerto ophiolite, California. American Journal of Science, v. 283, no. 4, April 1983. p. 289-340.
- OP-356. J. F. Evernden. Intensity patterns in eastern Asia. Chinese Geophysics, v. 2, no. 2, 1983. p. 405-438.
- OP-357. J. F. Evernden. Earthquake prediction; what we have learned and what we should do now. Bulletin of the Seismological Society of America, v. 72, Part B. no. 6, December 1982. p. S33-S39.
- OP-358. J. F. Evernden. Comments on seismological input to microzonation maps, in Proceedings, Third international earthquake microzonation conference; Vol. III (Mehmet Sherif, editor). Washington, DC: U. S. Natl. Sci. Found., June 1982. p. 1171-1204.
- OP-359. R. W. Fairchild and S. C. Christenson. OKLAHOMA. Potential contamination of the Roubidoux Aquifer by water from abandoned zinc mines, northeastern Oklahoma [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 3, February 1982. p. 110.
- OP-360. J. E. Fassett, U.S. Geological Survey and T. A. Ryer. UTAH. Transgressive-regressive cycles and the occurrence of coal in some Upper Cretaceous strata of Utah. Geology (Boulder), v. 11, no. 12, December 1983. p. 736-738.
- OP-361. G. L. Faulkner. Sinkhole formation from abnormal saturation of overburden in a karst area [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 2, January 1983. p. 58.
- OP-362. R. E. Faye and D. C. Prowell. Coastal Plain faults affect ground-water flow [abstr.], in Proceedings of the Specialty conference on environmentally sound water and soil management (E. G. Kruse, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 251-252.
- OP-363. R. D. Feltis. MONTANA. Potentiometric surface and quality of the water of Madison Group, Montana [abstr.] AAPG Bulletin, v. 67, no. 8, August 1983. p. 1336-1337.
- OP-364. Mario Fernandez, Jr. FLORIDA. Effects of a landfill operation on a coastal area, near-surface water table, Pinellas County, Florida, in Ground water management; proceedings of a Southeast regional conference (J. C. Warman, editor). Auburn, AL: Water Resour. Res. Inst., 1981. p. 136-138.
- OP-365. O. J. Ferrians, Jr., D. R. Nichols and J. R. Williams. ALASKA. Copper River basin, in Guidebook to permafrost and Quaternary geology along the Richardson and Glenn highways between Fairbanks and Anchorage, Alaska (T. L. Péwé, editor and others). Fairbanks, AK: Alaska, Dep. Nat. Resour., Div. Geol. & Geophys. Surv., 1983. p. 137-175.
- OP-366. W. H. Ficklin. The separation of tungstate and molybdate by ion chromatography and its application to natural waters. Analytical Letters, v. 15, no. 10, 1982. p. 865-871.
- OP-367. M. E. Field. Deposition on Pacific shelf edge; zone of contrasts [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 924.
- OP-368. M. E. Field and B. D. Edwards. CALIFORNIA. Large submarine slump off Eureka, California [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 924-925.
- OP-369. L. H. Filipek, T. T. Chao and P. K. Theobald, Jr. Comparison of hot hydroxylamine hydrochloride and oxalic acid leaching of stream sediment and coated rock samples as anomaly enhancement techniques. Journal of Geochemical Exploration, v. 17, no. 1, September 1982. p. 35-47.
- OP-370. J. H. Fink and D. D. Pollard, U.S. Geological Survey. CALIFORNIA. Structural evidence for dikes beneath silicic domes, Medicine Lake Highland Volcano, California. Geology (Boulder), v. 11, no. 8, August 1983. p. 458-461.
- OP-371. R. B. Finkelman. Modes of occurrence of trace elements and minerals in coal; an analytical approach, in Atomic and nuclear methods in fossil energy research; proceedings of the American Nuclear Society conference (R. H. Filby, editor and others). New York, NY: Plenum Press, 1982. p. 141-149.
- OP-372. F. S. Fisher. WYOMING. Controls and characteristics of metallic mineral deposits in the southern Absaroka Mountains, Wyoming, in Montana Geological Society field conference and symposium guidebook to Southwest Montana (T. E. Tucker, editor and others). Mont. Geol. Soc., 1981. p. 343-348.
- OP-373. M. A. Fisher. Geology of Norton Basin, northern Bering Sea [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 569.
- OP-374. M. A. Fisher. Controls of subduction geometry, location of magmatic arcs, and tectonics of arc and back-arc regions. Geological Society of America Bulletin, v. 94, no. 4, April 1983. p. 559-560.
- OP-375. D. V. Fitterman. Modeling of self-potential anomalies near vertical dikes. Geophysics, v. 48, no. 2, March 1983. p. 171-180.
- OP-376. M. G. Fitzgerald and C. F. Nordin, Jr. Sand waves on the Amazon River [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 870.
- OP-377. Michael Fleischer. Memorial to Sterling Brown Hendricks, 1902-1981. Memorials - Geological Society of America, v. 13, 1983. 3 p.
- OP-378. Michael Fleischer. Distribution of the lanthanides and yttrium in apatites from iron ores and its bearing on the genesis of ores of the kiruna type. Economic Geology and the Bulletin of the Society of Economic Geologists, v. 78, no. 5, August 1983. p. 1007-1010.
- OP-379. J. B. Fletcher and John Boatwright. SOUTH CAROLINA. The partition of radiated seismic energy and a comparison of three estimates of stress release for nine small earthquakes at Monticello, South Carolina [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 966-967.

- OP-380. R. M. Flores. WYOMING, MONTANA. Fluvial facies associations; guide to Tertiary coal development and exploration in Powder River basin, Wyoming and Montana [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 926.
- OP-381. E. E. Foord. Minerals of tin, titanium, niobium and tantalum in granitic pegmatites. Short Course Handbook, v. 8, May 1982. p. 187-238.
- OP-382. R. Q. Foote, R. G. Martin and R. B. Powers. Oil and gas potential of the Maritime Boundary region in the central Gulf of Mexico. AAPG Bulletin, v. 67, no. 7, July 1983. p. 1047-1065.
- OP-383. R. M. Forester. The importance of temperature, salinity, and solute composition on the distribution of limnic ostracodes [abstr.] Proceedings of the International Symposium on Ostracods, v. 8, 1982. p. 49-50.
- OP-384. R. M. Forester. CALIFORNIA. Ostracode paleoenvironmental implications in Clear Lake, California [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 279.
- OP-385. R. M. Forester. Ostracodes as indicators of rapid climate change [abstr.] Am. Quat. Assoc., Natl. Conf., Abstr., v. 7, 1982. p. 51-52.
- OP-386. R. M. Forester. Relationship of two lacustrine ostracode species to solute composition and salinity; implications for paleohydrochemistry. Geology (Boulder), v. 11, no. 8, August 1983. p. 435-438.
- OP-387. R. M. Forester and E. M. Brouwers. CALIFORNIA. Paleoenvironmental implications of some estuarine and non-marine ostracodes from Ridge Basin, Southern California, in Geologic history of Ridge Basin, Southern California (J. C. Crowell, editor and others). Los Angeles, CA: SEPM, Pac. Sec., 1982. p. 239-246.
- OP-388. T. D. Fouch. Character of ancient petroliferous lake basins of the world [abstr.] AAPG Bulletin, v. 66, no. 10, October 1982. p. 1680-1681.
- OP-389. T. D. Fouch. Character of ancient petroliferous lake basins of the world [abstr.] C.S.P.G. Reservoir, v. 10, no. 3, March 1983. p. 1-2.
- OP-390. T. D. Fouch and W. E. Dean. Lacustrine environments. Memoir - American Association of Petroleum Geologists, v. 31, 1982. p. 87-114.
- OP-391. R. O. Fournier. A method of calculating quartz solubilities in aqueous sodium chloride solutions. Geochimica et Cosmochimica Acta, v. 47, no. 3, March 1983. p. 579-586.
- OP-392. R. O. Fournier, U.S. Geological Survey and W. L. Marshall. Calculation of amorphous silica solubilities at 25° to 300°C and apparent cation hydration numbers in aqueous salt solutions using the concept of effective density of water. Geochimica et Cosmochimica Acta, v. 47, no. 3, March 1983. p. 587-596.
- OP-393. R. O. Fournier, U.S. Geological Survey and R. W. Potter, II. A revised and expanded silica (quartz) geothermometer. Bulletin - Geothermal Resources Council, v. 11, no. 10, November 1982. p. 3-9.
- OP-394. R. O. Fournier, U.S. Geological Survey and R. W. Potter, II. An equation correlating the solubility of quartz in water from 25° to 900°C at pressures up to 10,000 bars. Geochimica et Cosmochimica Acta, v. 46, no. 10, October 1982. p. 1969-1973.
- OP-395. R. O. Fournier, R. J. Rosenbauer and J. L. Bischoff. The solubility of quartz in aqueous sodium chloride solution at 350°C and 180 to 500 bars. Geochimica et Cosmochimica Acta, v. 46, no. 10, October 1982. p. 1975-1978.
- OP-396. R. O. Fournier and J. M. Thompson. CALIFORNIA. An isotopic study of the Coso, California, geothermal area. Transactions - Geothermal Resources Council, v. 6, 1982. p. 85-87.
- OP-397. J. E. Fox, P. W. Lambert and J. K. Pitman. ALASKA. Depositional environments and reservoir properties of sandstones of Lower Cretaceous Nanushuk and Upper Cretaceous Colville groups, Umiat Test Well 11, National Petroleum Reserve, Alaska [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 926.
- OP-398. N. O. Frederiksen. MASSACHUSETTS. Stratigraphic, paleoclimatic, and paleobiogeographic significance of Tertiary sporomorphs from Massachusetts [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 18.
- OP-399. N. O. Frederiksen. CALIFORNIA. Differences between middle Eocene plant communities of Southern California and those of the Atlantic and Gulf coastal plains [abstr.] Journal of Paleontology, v. 56, Suppl. to No. 2., March 1982. p. 10.
- OP-400. N. O. Frederiksen. CALIFORNIA. Comparison of middle Eocene sporomorph assemblages from Southern California and Gulf Coast [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 927.
- OP-401. N. O. Frederiksen, L. M. Bybell, R. A. Christopher, A. J. Crone, L. E. Edwards, T. G. Gibson, J. E. Hazel, J. E. Repetski, D. P. Russ, C. C. Smith and L. W. Ward. MISSOURI. Biostratigraphy and paleoecology of lower Paleozoic, Upper Cretaceous, and lower Tertiary rocks in U.S. Geological Survey New Madrid test wells, southeastern Missouri. Tulane Studies in Geology and Paleontology, v. 17, no. 2, October 28, 1982. p. 23-45.
- OP-402. N. O. Frederiksen, T. G. Gibson and L. M. Bybell. Paleocene-Eocene boundary in eastern Gulf Coast [abstr.] AAPG Bulletin, v. 66, no. 9, September 1982. p. 1429-1430.
- OP-403. N. O. Frederiksen, U.S. Geological Survey and V. D. Wiggins. Botanical, paleoecologic, paleobiogeographic, and paleoclimatic significance of the Eocene pollen species "Diporites" iszcaszentgyörgyi Kedves 1965 [abstr.] Palynology, v. 6, 1982. p. 281.
- OP-404. R. P. Freeman-Lynde, Peter Popenoe and F. W. Meyer. FLORIDA. Seismic stratigraphy of the western Straits of Florida [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 18-19.
- OP-405. M. H. Frimpter. MASSACHUSETTS. Estimating high groundwater levels from observed water levels in Massachusetts [abstr.], in Geotechnology in Massachusetts (O. C. Farquhar, editor). Amherst, MA: Univ. Mass., Grad. Sch., 1982. p. 73-74.

- OP-406. David Frishman, J. A. Pitkin, J. S. Duval, G. M. Reimer, M. R. Brock, W. F. Cannon, R. W. Ojakangas, W. L. Peterson, Jorma Kalliokoski and R. R. Wahl. MICHIGAN, WISCONSIN. Iron River Quadrangle, Michigan and Wisconsin. September 1982. 47 p. (*Available from:* Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.)
- OP-407. E. G. Frost and J. K. Otton, U.S. Geological Survey. Mid-Tertiary stratigraphic record produced during regional detachment faulting and development of extensional arches and basins, southwest of the Colorado Plateau margin [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 197.
- OP-408. H. K. Fuller. In the United States, Mapping falls, survey data show. *Geotimes*, v. 28, no. 4, April 1983. p. 15-16.
- OP-409. J. V. Gardner. Underway geophysics collected on Deep Sea Drilling Project Leg 68. Initial Reports of the Deep Sea Drilling Project, v. 68, October 1982. p. 245-268.
- OP-410. J. V. Gardner. High-resolution carbonate and organic-carbon stratigraphies for the late Neogene and Quaternary from the western Caribbean and eastern Equatorial Pacific. Initial Reports of the Deep Sea Drilling Project, v. 68, October 1982. p. 347-364.
- OP-411. J. M. Garihan, C. J. Schmidt and J. M. O'Neill, U.S. Geological Survey. MONTANA. Recurrent tectonic activity in the Ruby and Highland ranges, Southwest Montana [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 197.
- OP-412. Lawrence Garnezy and W. R. Greenwood, U.S. Geological Survey. IDAHO. Mylonitization coincident with batholith emplacement; Bitterroot Lobe, Idaho Batholith [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 197-198.
- OP-413. M. K. Garrett and V. Carter, U.S. Geological Survey, U.S. Geological Survey. Field reports; Installation of shallow sand-packed piezometers in loose saturated sediment. *Ground Water*, v. 21, no. 3, June 1983. p. 354-355.
- OP-414. D. L. Gautier. Siderite concretions; indicators of early diagenesis in the Gammon Shale (Cretaceous). *Journal of Sedimentary Petrology*, v. 52, no. 3, September 1982. p. 859-871.
- OP-415. D. L. Gautier. Diagenesis and methane generation in Upper Cretaceous Gammon Shale, northern Great Plains, United States [abstr.] *AAPG Bulletin*, v. 65, no. 5, 1981. p. 929.
- OP-416. D. L. Gautier. Pierre Shale as a natural gas reservoir [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 198.
- OP-417. D. L. Gautier. Gas reservoirs in composite shale-sandstone lithologies; a Rocky Mountain energy frontier [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1338.
- OP-418. D. L. Gautier, H. C. Starkey and K. I. Takahashi. NORTH DAKOTA. Clays, cations, and geophysical log response of gas-producing and nonproducing zones in the Gammon Shale (Cretaceous), southwestern North Dakota. *Clays and Clay Minerals*, v. 31, no. 2, April 1983. p. 122-128.
- OP-419. S. C. Gerlach. ALASKA. Prehistoric Inupiat adaptation at Tukuto Lake; a land use history and cultural sequence for the Arctic Foothills, interior northern Alaska [abstr.] *Am. Quat. Assoc., Natl. Conf., Abstr.*, v. 7, 1982. p. 94.
- OP-420. M. E. Gettings. A gravity model for the southern Arabian Shield [abstr.] *F. E. S. Research Series*, v. 13, 1982. p. 135-136.
- OP-421. R. T. Getzen. Soil mechanics related to permeability anisotropy of coastal sand deposits. *Proceedings of the Symposium on Coastal and Ocean Management*, v. 3, 1983. p. 2413-2430.
- OP-422. R. T. Getzen, U.S. Geological Survey and R. T. Levey. Rigid-peel technique for preserving structures in coarse-grained sediments [abstr.] *AAPG Bulletin*, v. 65, no. 5, 1981. p. 930.
- OP-423. T. G. Gibson. ALABAMA, GEORGIA. Stratigraphy of the Hatchetigbee Formation (lower Eocene) in eastern Alabama-western Georgia [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 1, January 1981. p. 8.
- OP-424. T. G. Gibson. NORTH CAROLINA, MARYLAND. Depositional framework and paleoenvironments of Miocene strata from North Carolina and Maryland. *Special Publication - Florida, Bureau of Geology*, v. 25, 1982. p. 1-22.
- OP-425. T. G. Gibson and L. M. Bybell. Stratigraphy of Paleocene and Eocene units of the Eastern United States and its relationship to global sea-level curves [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 20.
- OP-426. T. G. Gibson, U.S. Geological Survey, E. A. Mancini and L. M. Bybell. ALABAMA. Paleocene to middle Eocene stratigraphy of Alabama [abstr.] *AAPG Bulletin*, v. 66, no. 9, September 1982. p. 1430.
- OP-427. T. D. Gilmore and R. O. Castle. CALIFORNIA. Tectonic preservation of the divide between the Salton Basin and the Gulf of California. *Geology (Boulder)*, v. 11, no. 8, August 1983. p. 474-477.
- OP-428. A. Ginzburg, W. D. Mooney, W. J. Lutter and A. W. Walter. Crustal structure in the Mississippi Embayment; crossprofiles [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1046.
- OP-429. D. D. Given, R. S. Dollar and C. E. Johnson. CALIFORNIA. An unusual sequence of swarms in Indian Wells Valley, Southern California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 38.
- OP-430. J. L. Glenn, E. C. Spiker and H. J. Knebel. Holocene sedimentation in the tidal Potomac River and estuary [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 20.
- OP-431. P. G. Godfrey and Juergen Reinhardt, U.S. Geological Survey. Geological and ecological variations as factors in human use and development of coastal barriers [abstr.] *Proceedings of the Symposium on Coastal and Ocean Management*, v. 3, 1983. p. 480.

- OP-432. R. H. Godson and D. M. Scheibe. ALASKA, HAWAII. Preparation of a gravity anomaly map of the conterminous United States and aeromagnetic maps of Alaska and Hawaii [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 444.
- OP-433. M. B. Goldhaber. Experimental study of metastable sulfur oxyanion formation during pyrite oxidation at pH 6-9 and 30°C. *American Journal of Science*, v. 283, no. 3, March 1983. p. 193-217.
- OP-434. M. B. Goldhaber, U.S. Geological Survey and I. R. Kaplan. Controls and consequences of sulfate reduction in Recent marine sediments. *SSSA Special Publication*, v. 10, 1982. p. 19-36.
- OP-435. M. B. Goldhaber, R. L. Reynolds and R. O. Rye. TEXAS. Role of fluid mixing and fault-related sulfide in the origin of the Ray Point uranium district, South Texas. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 6, October 1983. p. 1043-1063.
- OP-436. Richard Goldsmith. CONNECTICUT. Recessional moraines and ice retreat in southeastern Connecticut, in *Late Wisconsinan glaciation of New England; proceedings of the symposium* (G. J. Larson, editor and others). Dubuque, IA: Kendall/Hunt Publ. Co., 1982. p. 61-76.
- OP-437. Richard Goldsmith, D. J. Milton and J. W. Horton, Jr. NORTH CAROLINA, SOUTH CAROLINA. Geologic map of the Charlotte 1° x 2° Quadrangle, North Carolina and South Carolina [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 20-21.
- OP-438. Mackenzie Gordon, Jr., U.S. Geological Survey and P. K. Sutherland. Correlation of the Middle Pennsylvanian *Diaboloceras neumeieri* and *D. varicostatum* zones in the South-central and Southeastern United States [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 3, February 1982. p. 112.
- OP-439. S. M. Gorelick. A model for managing sources of groundwater pollution. *Water Resources Research*, v. 18, no. 4, August 1982. p. 773-781.
- OP-440. S. M. Gorelick. A review of distributed parameter groundwater management modeling methods. *Water Resources Research*, v. 19, no. 2, April 1983. p. 305-319.
- OP-441. C. W. Gortner and A. G. Lindh. Crustal structure of the northern Sierras from an aftershock-traveltime analysis [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 961-962.
- OP-442. Arthur Grantz, I. L. Tailleux and Claire Carter. ALASKA. Tectonic significance of Silurian and Ordovician graptolites, Lisburne Hills, Northwest Alaska [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 274.
- OP-443. M. W. Green, V. P. Byers, S. M. Condon, A. C. Huffman, Jr., A. R. Kirk, R. D. Lupe, J. L. Ridgley, J. F. Robertson, P. G. Sikkink, R. E. Thaden and R. S. Zech. ARIZONA, NEW MEXICO, COLORADO, UTAH. Shiprock Quadrangle, Arizona, New Mexico, Colorado, Utah. September 1982. 70 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-444. M. W. Green, V. P. Byers, S. M. Condon, A. C. Huffman, Jr., R. F. Dubiel, A. R. Kirk, R. D. Lupe, C. T. Pierson, J. L. Ridgley, J. F. Robertson, Keith Robinson, P. G. Sikkink, M. R. Stanton, R. E. Thaden and R. S. Zech. NEW MEXICO, COLORADO. Aztec Quadrangle, New Mexico and Colorado. September 1982. 79 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-445. M. W. Green, V. P. Byers, S. M. Condon, A. C. Huffman, Jr., A. R. Kirk, R. D. Lupe, C. T. Pierson, J. L. Ridgley, J. F. Robertson, P. G. Sikkink, C. S. Spirakis, R. E. Thaden, K. J. Wenrich-Verbeek and R. S. Zech. ARIZONA, NEW MEXICO. Gallup Quadrangle, Arizona and New Mexico. September 1982. 73 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-446. M. W. Green, V. P. Byers, S. M. Condon, A. C. Huffman, Jr., J. J. Irwin, A. R. Kirk, R. D. Lupe, J. R. McDonnell, C. T. Pierson, J. L. Ridgley, J. F. Robertson, Keith Robinson, P. G. Sikkink, R. E. Thaden and R. S. Zech. NEW MEXICO. Albuquerque Quadrangle, New Mexico. September 1982. 91 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Grand Junction, CO, United States.*)
- OP-447. W. R. Greenwood and J. S. Stacey. U-Pb zircon ages of igneous rocks and a model for late Proterozoic crustal evolution in the most easterly region of the Arabian Shield, Kingdom of Saudi Arabia [abstr.] *F. E. S. Research Series*, v. 13, 1982. p. 45.
- OP-448. W. R. Greenwood and J. S. Stacey. U-Pb zircon ages of igneous rocks and a model for late Proterozoic crustal evolution in the easternmost region of the Arabian Shield, Kingdom of Saudi Arabia [abstr.] *Precambrian Research*, v. 16, no. 4, January 1982. p. A20-A21.
- OP-449. Andrew Griscom and J. E. Case. ALASKA. Magnetic expression of geologic terranes in southern Alaska [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 444-445.
- OP-450. G. H. Groenewold, U.S. Geological Survey and R. D. Koob. NORTH DAKOTA. Evaluation of the physical hydrology and hydrochemistry of active and proposed surface-mine sites and spoils in western North Dakota [abstr.] *Ground Water Monitoring Review*, v. 3, no. 1, 1983. p. 152.
- OP-451. M. J. Grolhier and P. A. Schultejann. Geology of the southern Gilf Kebir Plateau and vicinity, Western Desert, Egypt. *NASA Contractor Report*, v. 3611, 1982. p. 189-206.
- OP-452. G. E. Groschen, U.S. Geological Survey and E. C. Alexander, Jr. MINNESOTA. Geochemistry of Williams Lake, Hubbard County, Minnesota [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 33, August 17, 1982. p. 613.
- OP-453. D. B. Grove. Modeling the movement of contaminants in saturated ground-water systems, in *A Northeast conference; The impact of waste storage and disposal on ground-water resources* (R. P. Novitzki, editor and others). Ithaca, NY: Cornell Univ. Cent. Environ. Res., Reston, VA: U. S. Geol. Surv., 1982. p. 10.2.1-10.2.11.
- OP-454. J. A. Grow, W. P. Dillon and J. S. Schlee. Late Mesozoic carbonate banks and reefs along U. S. Atlantic margin [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 575.

- OP-455. J. A. Grow, D. R. Hutchinson and K. D. Klitgord. The structure of Baltimore Canyon Trough [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 22.
- OP-456. J. A. Grow, U.S. Geological Survey and R. E. Sheridan. Atlantic continental margin of the United States, *in* Perspectives in regional geological synthesis; planning for The geology of North America (A. R. Palmer, editor). Boulder, CO: Geol. Soc. Am., 1982. p. 143-156.
- OP-457. J. A. Grow, U.S. Geological Survey and R. E. Sheridan. Deep structure and evolution of the continental margin off the eastern United States. *Oceanologica Acta*, v. 4, supplement. 1981. p. 11-19.
- OP-458. P. W. Guild. Keynote paper; Tectonics and metallogenic provinces [abstr.] COSPAR Plenary Meet., Program Abstr., v. 24, 1982. p. 71.
- OP-459. P. W. Guild and M. P. Lee. Circum-Pacific minerals maps [abstr.] AAPG Bulletin, v. 66, no. 7, July 1982. p. 970.
- OP-460. E. D. Gutentag and J. B. Weeks. Evaluating vertical variability of transmissivity and specific yield for the High Plains regional aquifer system [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 199.
- OP-461. R. C. Gutschick and C. A. Sandberg, U.S. Geological Survey. Mississippian continental margins of conterminous United States [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 933.
- OP-462. Herbert Haas, D. W. Fisher, U.S. Geological Survey, D. C. Thorstenson, U.S. Geological Survey and E. P. Weeks, U.S. Geological Survey. $^{13}\text{CO}_2$ and $^{14}\text{CO}_2$ measurements on soil atmosphere sampled in the western Great Plains of the US. *Radiocarbon*, v. 25, no. 2, 1983. p. 301-314.
- OP-463. F. P. Haeni. CONNECTICUT, FLORIDA. High resolution seismic reflection methods and their application to hydrologic studies in Connecticut and Florida [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 862.
- OP-464. S. E. Haggerty, Ellen Raber and C. W. Naeser, U.S. Geological Survey. Fission track dating of kimberlitic zircons. *Earth and Planetary Science Letters*, v. 63, no. 1, April 1983. p. 41-50.
- OP-465. J. T. Hagstrum, P. W. Lipman and D. P. Elston. NEW MEXICO. Paleomagnetic evidence bearing on the structural development of the Latir volcanic field near Questa, New Mexico. *JGR. Journal of Geophysical Research. B*, v. 87, no. 9, September 10, 1982. p. 7833-7842.
- OP-466. B. R. Haley. OKLAHOMA, ARKANSAS. Geology and energy resources of the Arkoma Basin, Oklahoma and Arkansas. *UMR Journal*, v. 3, December 1982. p. 43-53.
- OP-467. B. R. Haley, U.S. Geological Survey and C. G. Stone. ARKANSAS. Structural framework of the Ouachita Mountains, Arkansas [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 5, February 1981. p. 239.
- OP-468. B. R. Haley, U.S. Geological Survey and C. G. Stone. ARKANSAS. Structural framework of the Ouachita Mountains, Arkansas [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 3, February 1982. p. 113.
- OP-469. R. B. Halley. FLORIDA. Burial cement in Sunniland reservoirs, Lower Cretaceous of southern Florida [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 934.
- OP-470. R. B. Halley and J. W. Schmoker. FLORIDA. Carbonate porosity versus depth; "compaction" curve for South Florida [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 576.
- OP-471. R. B. Halley and J. W. Schmoker. FLORIDA. High-porosity Cenozoic carbonate rocks of South Florida; progressive loss of porosity with depth. AAPG Bulletin, v. 67, no. 2, February 1983. p. 191-200.
- OP-472. A. N. Halliday, A. E. Fallick, A. P. Dickin, A. B. Mackenzie, W. E. Stephens and W. Hildreth, U.S. Geological Survey. WASHINGTON. The isotopic and chemical evolution of Mount St. Helens. *Earth and Planetary Science Letters*, v. 63, no. 2, May 1983. p. 241-256.
- OP-473. R. M. Hamilton. Geologic setting of seismicity in eastern North America [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 22-23.
- OP-474. T. D. Hamilton, T. A. Ager and S. W. Robinson. ALASKA. Late Holocene ice wedges near Fairbanks, Alaska, U.S.A.; environmental setting and history of growth. *Arctic and Alpine Research*, v. 15, no. 2, May 1983. p. 157-168.
- OP-475. Warren Hamilton. The relation to plate motions of United States Cordilleran foreland deformation [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 271.
- OP-476. Warren Hamilton. CALIFORNIA. Structural evolution of the Big Maria Mountains, northeastern Riverside County, southeastern California, *in* Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 1-27.
- OP-477. J. C. Hampson, Jr., J. M. Robb, J. R. Kirby and D. C. Twichell. NEW JERSEY. Mass movement features and geomorphology of the continental slope off New Jersey, *in* Geotechnology in Massachusetts (O. C. Farquhar, editor). Amherst, MA: Univ. Mass., Grad. Sch., 1982. p. 551-566.
- OP-478. T. C. Hanks. Reply to "Comments on 'The corner frequency shift, earthquake source models, and Q'". *Bulletin of the Seismological Society of America*, v. 72, no. 4, August 1982. p. 1433-1444.
- OP-479. T. C. Hanks. fmax. *Bulletin of the Seismological Society of America*, v. 72, Part A. no. 6, December 1982. p. 1867-1879.
- OP-480. D. L. Hanneman, U.S. Geological Survey and Ralph Nichols. MONTANA. Late Tertiary sedimentary rocks of the Big Hole Basin, Southwest Montana [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 199.

- OP-481. D. E. Hansen. WYOMING. Tectonic setting and depositional environments of Hanna Formation, south-central Wyoming [abstr.] AAPG Bulletin, v. 67, no. 8, August 1983. p. 1340.
- OP-482. D. S. Hansen. SOUTH DAKOTA. Major aquifers in Hanson and Davison counties, South Dakota. Information Pamphlet - South Dakota Geological Survey, v. 26, 1983. 11 p.
- OP-483. W. R. Hansen. COLORADO. Association of Earth Science Editors 1981 field trip; environmental geology of the greater Denver area, Colorado. Denver, CO: U. S. Geol. Surv., 1981. 10 p.
- OP-484. T. F. Harms, F. N. Ward and J. A. Erdman. Laser fluorometric analysis of plants for uranium exploration. Journal of Geochemical Exploration, v. 15, no. 1-3, 1981. p. 617-623.
- OP-485. A. G. Harris, N. L. Hatch, Jr. and J. T. Dutro, Jr. NEW HAMPSHIRE. Late Silurian conodonts update the metamorphosed Fitch Formation, Littleton area, New Hampshire. American Journal of Science, v. 283, no. 7, September 1983. p. 722-738.
- OP-486. A. G. Harris and J. E. Repetski. Conodonts revise the Lower-Middle Ordovician boundary and timing of miogeoclinal events in the East-Central Appalachian Basin [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 5, March 1982. p. 261.
- OP-487. L. D. Harris. Possible hydrocarbon resources beneath Blue Ridge-Piedmont thrust sheet [abstr.] AAPG Bulletin, v. 66, no. 8, August 1982. p. 1169.
- OP-488. L. D. Harris, Wallace de Witt, Jr. and K. C. Bayer. Seismic-reflection data in the Central Appalachians [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 23.
- OP-489. R. S. Harrison, Mario Coniglio and R. B. Halley, U.S. Geological Survey. FLORIDA. Late Pleistocene deposits of Florida Keys [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 578.
- OP-490. W. E. Harrison and J. A. Curiale. Gas hydrates in sediments of holes 497 and 498A, Deep Sea Drilling Project Leg 67. Initial Reports of the Deep Sea Drilling Project, v. 67, November 1982. p. 591-594.
- OP-491. W. E. Harrison, U.S. Geological Survey, Reinhard Hesse and J. M. Gieskes. Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67. Initial Reports of the Deep Sea Drilling Project, v. 67, November 1982. p. 603-614.
- OP-492. P. W. Harsh and R. O. Burford. CALIFORNIA. Alineament-array measurements of fault slip in the eastern San Francisco Bay area, California. Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 251-260.
- OP-493. Stephen Hartzell. CALIFORNIA. Simulation of ground accelerations for the May 1980 Mammoth Lakes, California, earthquakes. Bulletin of the Seismological Society of America, v. 72, Part A. December 1982. p. 2381-2387.
- OP-494. D. S. Harwood. CALIFORNIA. Stratigraphy of upper Paleozoic volcanic rocks and regional unconformities in part of the northern Sierra terrane, California. Geological Society of America Bulletin, v. 94, no. 3, March 1983. p. 413-422.
- OP-495. W. P. Hasbrouck, U.S. Geological Survey and Nigel Padgett. Use of shear-wave seismics in evaluation of strippable coal resources. Bulletin - Utah Geological and Mineral Survey, v. 118, May 1982. p. 203-210.
- OP-496. J. R. Hatch and R. H. Affolter. WYOMING. Weathering-induced chemical changes in surface coals from Paleocene Fort Union Formation, Red Rim area, Sweetwater and Carbon counties, Wyoming [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 936.
- OP-497. J. R. Hatch and J. S. Leventhal. OKLAHOMA, KANSAS, MISSOURI, IOWA. Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 579.
- OP-498. J. R. Hatch and J. S. Leventhal. OKLAHOMA, KANSAS, MISSOURI, IOWA. Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 936.
- OP-499. N. L. Hatch, Jr., U.S. Geological Survey, R. H. Moeen, U.S. Geological Survey and J. B. Lyons. NEW HAMPSHIRE. Silurian-Lower Devonian stratigraphy of eastern and south-central New Hampshire; extensions from western Maine. American Journal of Science, v. 283, no. 7, September 1983. p. 739-761.
- OP-500. P. G. Hatcher, U.S. Geological Survey, P. C. Lyons, U.S. Geological Survey, C. L. Thompson, U.S. Geological Survey, F. W. Brown, U.S. Geological Survey and G. E. Maciel. Organic matter in a coal ball; peat or coal? Science, v. 217, no. 4562, August 27, 1982. p. 831-833.
- OP-501. J. S. Havens. OKLAHOMA. Generalized altitude and configuration of the base of the High Plains regional aquifer, northwestern Oklahoma [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 3, February 1982. p. 113.
- OP-502. W. W. Hays. Evaluation of seismic risk to energy facilities and lifeline systems [abstr.] Geophysics, v. 48, no. 4, April 1983. p. 476.
- OP-503. W. W. Hays and S. T. Algermissen. Problems in the construction of a map to zone the earthquake ground shaking hazard, in Proceedings; Third international earthquake microzonation conference; Vol. I (Mehmet Sherif, editor). Washington, DC: U. S. Natl. Sci. Found., June 1982. p. 145-156.
- OP-504. W. W. Hays and K. W. King. UTAH. Zoning of the earthquake ground-shaking hazard along the Wasatch Fault zone, Utah, in Proceedings; Third international earthquake microzonation conference; Vol. III (Mehmet Sherif, editor). Washington, DC: U. S. Natl. Sci. Found., June 1982. p. 1307-1318.

- OP-505. W. W. Hays and K. W. King. UTAH. Estimating the characteristics of earthquake ground shaking in urban areas of Utah [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 10.
- OP-506. J. E. Hazel and E. M. Brouwers. Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maastrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province [abstr.] *Proceedings of the International Symposium on Ostracods*, v. 8, 1982. p. 55.
- OP-507. J. E. Hazel and E. M. Brouwers. Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maastrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province, in *Texas Ostracoda; guidebook of excursions and related papers for the Eighth international symposium on Ostracoda* (R. F. Maddocks, editor). Houston, TX: Univ. Houston, Dep. Geosci., 1982. p. 166-198.
- OP-508. J. E. Hazel, U.S. Geological Survey and Noriyuki Ikeya. Biostratigraphic utility of the ostracode genus *Malzella* [abstr.] *Proceedings of the International Symposium on Ostracods*, v. 8, 1982. p. 55-56.
- OP-509. J. H. Healy and T. C. Urban. Drilling holes for earthquake prediction [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1048-1049.
- OP-510. B. C. Hearn, R. J. McLaughlin and J. M. Donnelly-Nolan. CALIFORNIA. Tectonic framework of Clear Lake Basin, California [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 278.
- OP-511. B. C. Hearn, Jr. and E. S. McGee. MONTANA. Garnet peridotites from the Williams Kimberlites, north-central Montana [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 199.
- OP-512. P. P. Hearn, D. L. Parkhurst and E. Callender. Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides. *Journal of Sedimentary Petrology*, v. 53, no. 1, March 1983. p. 165-177.
- OP-513. T. H. Heaton. CALIFORNIA. The 1971 San Fernando earthquake; a double event?. *Bulletin of the Seismological Society of America*, v. 72, Part A. December 1982. p. 2037-2062.
- OP-514. T. H. Heaton. Tidal triggering of earthquakes. *Bulletin of the Seismological Society of America*, v. 72, Part A. December 1982. p. 2181-2200.
- OP-515. T. H. Heaton, U.S. Geological Survey and H. L. Liu. CALIFORNIA. Array analysis of the ground velocities and accelerations from the 1971 San Fernando earthquake [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 57.
- OP-516. C. E. Hedge, J. S. Stacey and Bruce Bryant. UTAH. Geochronology of the Farmington Canyon Complex, Wasatch Mountains, Utah. *Memoir - Geological Society of America*, v. 157, 1983. p. 37-44.
- OP-517. C. E. Hedge, R. J. Stern and F. B. Davies. Geochronology of basement rocks along the northern Red Sea [abstr.] *F. E. S. Research Series*, v. 13, 1982. p. 53-54.
- OP-518. E. L. Heffern, D. A. Coates, U.S. Geological Survey and C. W. Naeser, U.S. Geological Survey. MONTANA. Distribution and age of clinker in northern Powder River basin, Montana [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1342.
- OP-519. J. R. Hein and S. M. Karl. Comparisons between open-ocean and continental margin chert sequences [abstr.] *International Conference on Siliceous Deposits in the Pacific Region*, v. 2, 1981. p. 8-9.
- OP-520. D. R. Helsel and C. L. Pfaff. OHIO. Surface water quality in coal regions of Ohio, in *Proceedings of the Conference on water and energy technical and policy issues* (Fritz Kilpatrick, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 133-138.
- OP-521. R. T. Helz. Chapter 2, Experimental studies of amphibole stability; Phase relations and compositions of amphiboles produced in studies of the melting behavior of rocks. *Reviews in Mineralogy*, 9B. 1982. p. 279-353.
- OP-522. J. D. Hem and C. J. Lind. Some factors affecting the form of manganese oxides precipitated from aqueous solutions [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 871.
- OP-523. T. F. Hentz. VIRGINIA. Sedimentology and structure of Lower Jurassic lake beds in the Culpeper Basin at Thoroughfare Gap, Virginia [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 24-25.
- OP-524. O. D. Hermes and R. E. Zartman, U.S. Geological Survey. RHODE ISLAND. Timing of plutonic events in Rhode Island [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 25.
- OP-525. Norman Herz and E. R. Force, U.S. Geological Survey. VIRGINIA. Geology of the Roseland District, Virginia [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 25.
- OP-526. A. V. Heyl and W. S. West. WISCONSIN, IOWA, ILLINOIS, MINNESOTA. Outlying mineral occurrences related to the Upper Mississippi Valley mineral district, Wisconsin, Iowa, Illinois, and Minnesota. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 77, no. 8, December 1982. p. 1803-1817.
- OP-527. J. J. Hickey and John Vecchioli. FLORIDA. Subsurface injection of industrial liquid waste in Florida [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 25-26.
- OP-528. S. Hickman, J. Healy, M. D. Zoback and J. Svitek. CALIFORNIA. Recent in-situ stress measurements at depth in the western Mojave Desert [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1048.
- OP-529. M. W. Higgins, U.S. Geological Survey and R. L. Atkins. GEORGIA. Geology of the Piedmont between the Brevard and Towaliga fault zones in the Atlanta and Griffin, Ga., 1°×30', 1:100,000-scale quadrangles [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 26.

- OP-530. T. G. Hildenbrand. Magnetic terrane in the central U.S. from interpretation of digital magnetic data [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 451.
- OP-531. T. G. Hildenbrand and R. P. Kucks. SOUTH DAKOTA. Model of the geothermal system in southwestern South Dakota from gravity and aeromagnetic studies [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 454.
- OP-532. Wes Hildreth, U.S. Geological Survey and P. J. Michael. Chemical differentiation of the Bishop Tuff and other high-silica magmas through crystallization processes. *Geology* (Boulder), v. 11, no. 10, October 1983. p. 622-624.
- OP-533. G. W. Hill. Facies characteristics of modern size-graded shelf deposits, northwestern Gulf of Mexico [abstr.] *AAPG Bulletin*, v. 65, no. 5, 1981. p. 938.
- OP-534. J. W. Hillhouse and C. S. Grommé. ALASKA. Limits to northward drift of the Paleocene Cantwell Basin, central Alaska [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 854.
- OP-535. J. W. Hillhouse and C. S. Grommé. ALASKA. Paleomagnetic studies and hypothetical rotation of Arctic Alaska. *Journal of the Alaska Geological Society*, v. 2, 1983. p. 27-39.
- OP-536. F. A. Hills, K. A. Dickinson, J. T. Nash, J. K. Otton, H. W. Dodge, Jr., H. C. Granger, E. R. Bartels, A. M. Campbell, T. M. Crandall, R. F. Dubiel, W. F. Dula, M. R. Handy, J. R. McDonnell, P. B. Mudgett, J. M. Parker, K. J. Parsons, R. D. Priestley, Mary Roshardt, S. B. Sprague, A. R. Wallace and E. J. Young. COLORADO. Denver Quadrangle, Colorado. September 1982. 76 p. (*Available from: Bendix Field Eng. Corp., Tech. Lib., Grand Junction, CO, United States.*)
- OP-537. F. A. Hills, H. W. Dodge, Jr., J. T. Nash and H. C. Granger. COLORADO. Greeley Quadrangle, Colorado. September 1982. 64 p. (*Available from: Bendix Field Eng. Corp., Tech. Lib., Grand Junction, CO, United States.*)
- OP-538. W. J. Hinze and R. J. Wold, U.S. Geological Survey. Lake Superior geology and tectonics; overview and major unsolved problems. *Memoir - Geological Society of America*, v. 156, 1982. p. 273-280.
- OP-539. W. J. Hinze, R. J. Wold, U.S. Geological Survey and N. W. O'Hara. Gravity and magnetic anomaly studies of Lake Superior. *Memoir - Geological Society of America*, v. 156, 1982. p. 203-221.
- OP-540. T. W. Holland and A. H. Ludwig, U.S. Geological Survey. ARKANSAS. Use of water in Arkansas, 1980. *Water Resources Summary - Arkansas Geological Commission*, v. 14, 1981. 30 p.
- OP-541. C. W. Holmes. ^{210}Pb method for estimating the rate of carbonate sand sedimentation. *Geo-Marine Letters*, v. 1, no. 3-4, December 1981. p. 237-241.
- OP-542. C. W. Holmes. $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the Northeast Caribbean, late Holocene. *Journal of Sedimentary Petrology*, v. 53, no. 2, June 1983. p. 429-438.
- OP-543. M. L. Holmes, J. D. MacQueen and R. E. Sylwester. WASHINGTON. Marine geophysical measurements in central Puget Sound, Washington [abstr.] *AAPG Bulletin*, v. 66, no. 10, October 1982. p. 1690-1691.
- OP-544. D. M. Hopkins. Aspects of the paleogeography of Beringia during the late Pleistocene, in *Paleoecology of Beringia* (D. M. Hopkins, editor and others). New York, NY: Acad. Press, 1982. p. 3-28.
- OP-545. M. G. Hopper and S. T. Algermissen. The earthquakes of January 5, 1843, and October 31, 1895, in the central Mississippi Valley [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 7.
- OP-546. H. C. Hopps and G. L. Feder, U.S. Geological Survey. Geochemical environment related to human cancer and diseases of the heart and lung. *Journal of Environmental Science and Health, Part A: Environmental Science and Engineering*, v. 17, no. 4, 1982. p. 487-490.
- OP-547. C. A. Hopson and J. S. Pallister, U.S. Geological Survey. Plutonic processes in spreading ocean-ridge magma chambers, illustrated by the Samail Ophiolite, Oman. *LPI Technical Report*, v. 82-01, 1982. p. 83-85.
- OP-548. M. A. Horn. MINNESOTA. Data for water resource management in Minnesota, in *Unified river basin management; Stage II; proceedings of a symposium* (D. J. Allee, editor and others). Minneapolis, MN: Am. Water Resour. Assoc., 1982. p. 429-441.
- OP-549. B. B. Houser. SOUTH CAROLINA. Chert derived from magadiite in the middle Eocene McBean Formation, South Carolina [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 27.
- OP-550. B. B. Houser. Preservation of surficial materials in the Appalachian Valley and Ridge Province [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 27.
- OP-551. K. A. Howard, J. W. Goodge and B. E. John. ARIZONA. Detached crystalline rocks of the Mohave, Buck, and Bill Williams Mountains, western Arizona, in *Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada* (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 377-390.
- OP-552. K. A. Howard, D. M. Miller and B. E. John. CALIFORNIA. Regional character of mylonitic gneiss in the Cadiz Valley area, southeastern California, in *Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada* (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 441-447.
- OP-553. K. A. Howard, Paul Stone, M. A. Pernokas and R. F. Marvin. CALIFORNIA. Geologic and geochronologic reconnaissance of the Turtle Mountains area, California; west border of the Whipple Mountains detachment terrane, in *Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada* (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 341-354.
- OP-554. D. G. Howell and W. R. Normark. Submarine fans. *Memoir - American Association of Petroleum Geologists*, v. 31, 1982. p. 365-404.
- OP-555. N. K. Huber. MICHIGAN. Pink prehnite from Michigan, a mineral much confused. *Rocks and Minerals*, v. 58, no. 3, June 1983. p. 132-134.

- OP-556. H. H. Hudson. Availability and quality of water related to Western energy. AAPG Studies in Geology, v. 12, 1981. p. 419-423.
- OP-557. Travis Hudson. ALASKA. Calc-alkaline plutonism along the Pacific rim of southern Alaska. Memoir - Geological Society of America, v. 159, 1983. p. 159-169.
- OP-558. Travis Hudson and J. G. Arth. ALASKA. Tin granites of Seward Peninsula, Alaska. Geological Society of America Bulletin, v. 94, no. 6, June 1983. p. 768-790.
- OP-559. Travis Hudson and George Plafker. ALASKA. Paleogene metamorphism of an accretionary flysch terrane, eastern Gulf of Alaska. Geological Society of America Bulletin, v. 93, no. 12, December 1982. p. 1280-1290.
- OP-560. R. E. Hunter, B. M. Richmond and T. R. Alpha. OREGON. Storm-controlled oblique dunes of the Oregon coast. Geological Society of America Bulletin, v. 94, no. 12, December 1983. p. 1450-1465.
- OP-561. D. M. Hussong, E. L. Winterer and R. W. Decker, U.S. Geological Survey. HAWAII. The eastern Pacific and Hawaii, in Perspectives in regional geological synthesis; planning for The geology of North America (A. R. Palmer, editor). Boulder, CO: Geol. Soc. Am., 1982. p. 171-176.
- OP-562. D. R. Hutchinson, J. A. Grow and K. D. Klitgord. Crustal structure beneath the Southern Appalachians; nonuniqueness of gravity modeling. Geology (Boulder), v. 11, no. 10, October 1983. p. 611-615.
- OP-563. R. W. Imlay. Preliminary interpretations of the Jurassic paleobiogeography of North America [abstr.] Journal of Paleontology, v. 56, Suppl. to No. 2.. March 1982. p. 13.
- OP-564. R. W. Imlay, U.S. Geological Survey and George Herman. LOUISIANA, TEXAS, MISSISSIPPI. Upper Jurassic ammonites from Louisiana, Texas, and Mississippi [abstr.] Annual Research Conference. Gulf Coast Section. Society of Economic Paleontologists and Mineralogists. Program and Abstracts., v. 3, 1982. p. 48.
- OP-565. B. L. Ingram. Determination of fluoride in silicate rocks without separation of aluminum using a specific ion electrode. Analytical Chemistry (Washington, DC), v. 42, no. 14, December 1970. p. 1825-1827.
- OP-566. C. M. Isaacs. CALIFORNIA. Diagenesis in laterally equivalent sections of the Miocene Monterey Formation, Santa Barbara area, California [abstr.] International Conference on Siliceous Deposits in the Pacific Region, v. 2, 1981. p. 35.
- OP-567. C. M. Isaacs. CALIFORNIA. Lithostratigraphy of the Monterey Formation, Goleta to Point Conception, Santa Barbara coast, California. Guidebook - Pacific Section, American Association of Petroleum Geologists, v. 52, May 29, 1981. p. 9-23.
- OP-568. C. M. Isaacs. CALIFORNIA. Outline of diagenesis in the Monterey Formation examined laterally along the Santa Barbara coast, California. Guidebook - Pacific Section, American Association of Petroleum Geologists, v. 52, May 29, 1981. p. 25-38.
- OP-569. C. M. Isaacs. CALIFORNIA. Field characterization of rocks in the Monterey Formation along the coast near Santa Barbara, California. Guidebook - Pacific Section, American Association of Petroleum Geologists, v. 52, May 29, 1981. p. 39-53.
- OP-570. C. M. Isaacs. CALIFORNIA. Field trip guide for the Monterey Formation, Santa Barbara coast, California. Guidebook - Pacific Section, American Association of Petroleum Geologists, v. 52, May 29, 1981. p. 55.
- OP-571. C. M. Isaacs. CALIFORNIA. Porosity reduction during diagenesis of Monterey Formation, Santa Barbara, California [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 940-941.
- OP-572. H. M. Iyer and J. R. Evans. CALIFORNIA. Teleseismic traveltimes anomaly at Mono and Inyo craters, California; a dike-form low-velocity body? [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 92.
- OP-573. R. C. Jachens, Wayne Thatcher, C. W. Roberts and R. S. Stein. CALIFORNIA. Correlation of changes in gravity, elevation, and strain in Southern California. Science, v. 219, no. 4589, March 11, 1983. p. 1215-1217.
- OP-574. E. F. Jacobsen and P. C. Lyons. MARYLAND. Stratigraphy, structure, and coal-bed correlations in the Castleman Basin, Garrett County, Maryland [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 28.
- OP-575. R. L. Jacobson and W. L. Newell. VIRGINIA. Joint control of valley form and process in unconsolidated coastal plain sediments, Westmoreland County, Virginia [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 28-29.
- OP-576. O. B. James. Report of the Treasurer for 1979-1981. American Mineralogist, v. 68, no. 3-4, April 1983. p. 466-468.
- OP-577. O. B. James. Lunar basalts & highlands rocks. Geotimes, June 1983. p. 27-28.
- OP-578. O. B. James and M. K. Flohr. Subdivision of the Mg-suite noritic rocks into Mg-gabbro-norites and Mg-norites. JGR. Journal of Geophysical Research. B, 88, Suppl.. no. 2, February 15, 1983. p. A603-A614.
- OP-579. B. E. John. CALIFORNIA. Geologic framework of the Chemehuevi Mountains, southeastern California, in Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 317-325.
- OP-580. C. E. Johnson. CUSP; automated processing and management for large, regional seismic networks [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 13.
- OP-581. E. A. Johnson. CALIFORNIA. The geology of Marble Canyon Quadrangle, Death Valley, California. Research Reports - National Geographic Society, v. 14, 1982. p. 369-370.
- OP-582. J. G. Johnson and K. B. Ketner, U.S. Geological Survey. NEVADA. Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada. Geology (Boulder), v. 11, no. 1, January 1983. p. 60-62.

- OP-583. M. S. Johnson and D. T. Pederson. NEBRASKA. Groundwater levels in Nebraska 1982. Nebraska Water Survey Paper, v. 56, June 1983. 65 p.
- OP-584. S. S. Johnson and A. J. Froelich, U.S. Geological Survey. Aeromagnetic contour map of the Culpeper Basin and vicinity, Virginia. Virginia Division of Mineral Resources Publication, v. 41, 1982. 1 sheet.
- OP-585. M. J. Johnston. Tectonomagnetism [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 35, August 31, 1982. p. 654.
- OP-586. M. J. Johnston, R. J. Mueller, S. A. Silverman and V. G. Keller. Magnetic measurements across the Long Valley Caldera, 1972-1983; a comparison with observations and mechanisms during the Matsushiro earthquake swarm [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 90.
- OP-587. R. H. Johnston. The saltwater-freshwater interface in the Tertiary limestone aquifer, Southeast Atlantic outer-continental shelf of the U.S.A.. Journal of Hydrology, v. 61, no. 1-3, February 1983. p. 239-149.
- OP-588. B. F. Jones, U.S. Geological Survey and A. H. Weir. Clay minerals of Lake Abert, an alkaline, saline lake. Clays and Clay Minerals, v. 31, no. 3, June 1983. p. 161-172.
- OP-589. D. L. Jones, Brian Holdsworth and Benita Murchey. Depositional environments and age of radiolarian chert in western North America [abstr.] International Conference on Siliceous Deposits in the Pacific Region, v. 2, 1981. p. 15-16.
- OP-590. D. L. Jones, D. G. Howell and E. R. Schermer. Preliminary tectono-stratigraphic terrane map of Circum-Pacific region [abstr.] AAPG Bulletin, v. 66, no. 7, July 1982. p. 972.
- OP-591. D. L. Jones and N. J. Silberling. ALASKA. Mesozoic stratigraphy; the key to tectonic analysis of southern and central Alaska, in *Frontiers of geological exploration of western North America* (A. E. Leviton, editor and others). San Francisco, CA: Am. Assoc. Adv. Sci., Pacific Sect., 1982. p. 139-153.
- OP-592. M. N. Josselyn and B. F. Atwater, U.S. Geological Survey. CALIFORNIA. Physical and biological constraints on Man's use of the shore zone of the San Francisco Bay estuary, in *San Francisco Bay; use and protection; symposium convened during the 61st annual meeting of the Pacific Division of the American Association for the Advancement of Science* (W. J. Kockelman, editor and others). San Francisco, CA: American Association for the Advancement of Science, Pacific Division, 1982. p. 57-84.
- OP-593. W. B. Joyner and D. M. Boore. Sensitivity of probabilistic estimates of near-fault ground motion to parameters of the frequency-magnitude relationship [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 25.
- OP-594. B. R. Julian and R. S. Cockerham. CALIFORNIA. Mechanisms of the May 1980 earthquakes near Long Valley Caldera, California; evidence for dike injection [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 88-89.
- OP-595. M. F. Kane. Gravity evidence of crustal domains in the United States; the Appalachian System [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 29.
- OP-596. M. F. Kane, T. G. Hildenbrand, R. W. Simpson, Jr., R. H. Godson and R. E. Bracken. Crust and mantle structure of the conterminous U.S. from wavelength-filtered gravity data [abstr.] Geophysics, v. 48, no. 4, April 1983. p. 445.
- OP-597. O. L. Karklins. KENTUCKY. Ptilodictyoid Cryptostomata Bryozoa from the Middle and Upper Ordovician rocks of central Kentucky. Memoir - Paleontological Society, v. 14, January 1983. 31 p.
- OP-598. H. A. Karl, P. R. Carlson and D. A. Cacchione. Factors influencing sediment transport at shelf break [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 943.
- OP-599. H. A. Karl, D. E. Drake and D. A. Cacchione. Response of the suspended sediment transport system to continental shelf dynamics. Geo-Marine Letters, v. 1, no. 3-4, December 1981. p. 243-248.
- OP-600. C. A. Kaye. MASSACHUSETTS. Bedrock and Quaternary geology of the Boston area, Massachusetts. Reviews in Engineering Geology, v. 5, 1982. p. 25-40.
- OP-601. C. W. Keighin. UTAH. Characteristics of some oil shale, east-central Uinta Basin, Utah [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 944.
- OP-602. T. E. Keith, J. M. Thompson and R. E. Mays. WYOMING. Selective concentration of cesium in analcime during hydrothermal alteration, Yellowstone National Park, Wyoming. Geochimica et Cosmochimica Acta, v. 47, no. 4, April 1983. p. 795-804.
- OP-603. Gerta Keller. Miocene paleo-oceanography and paleo-productivity [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 587-588.
- OP-604. Gerta Keller and J. A. Barron. Paleooceanographic implications of Miocene deep-sea hiatuses. Geological Society of America Bulletin, v. 94, no. 5, May 1983. p. 590-613.
- OP-605. Gerta Keller, U.S. Geological Survey, Steven D'Hondt and T. L. Vallier, U.S. Geological Survey. Multiple microtektite horizons in upper Eocene marine sediments; no evidence for mass extinctions. Science, v. 221, no. 4606, July 8, 1983. p. 150-152.
- OP-606. M. A. Keller. CALIFORNIA. Lithostratigraphy and diagenesis of Monterey Formation near Ojai, California [abstr.] AAPG Bulletin, v. 66, no. 10, October 1982. p. 1691.
- OP-607. K. S. Kellogg, U.S. Geological Survey and G. E. Beckmann. Paleomagnetic investigation of upper Proterozoic rocks in the eastern Arabian Shield, Kingdom of Saudi Arabia [abstr.] F. E. S. Research Series, v. 13, 1982. p. 62-64.
- OP-608. K. S. Kellogg, U.S. Geological Survey and G. E. Beckmann. Paleomagnetic investigation of upper Proterozoic rocks in the eastern Arabian Shield, Kingdom of Saudi Arabia [abstr.] Precambrian Research, v. 16, no. 4, January 1982. p. A26-A27.
- OP-609. L. L. Kemper and W. F. Graser. NCIC; a service to the geologic community [abstr.] Special Publication - Oklahoma Geological Survey, 82-4, Vol. 2. 1982. p. 403.
- OP-610. G. L. Kennedy. Historical evolution and application of the Pleistocene province concept along the eastern Pacific margin of North America [abstr.] Annual Report - Western Society of Malacologists, v. 14, 1981. p. 14-15.

- OP-611. G. L. Kennedy, and K. R. Lajoie. Aminostratigraphy and faunal correlations of late Quaternary marine terraces, Pacific Coast, USA. *Nature (London)*, v. 299, no. 5883, October 13, 1982. p. 545-547.
- OP-612. G. L. Kennedy, K. R. Lajoie, D. J. Blunt and S. A. Mathieson. CALIFORNIA. The Half Moon Bay terrace, San Mateo County, California, and the age of its Pleistocene invertebrate faunas [abstr.] *Annual Report - Western Society of Malacologists*, v. 14, 1981. p. 11-12.
- OP-613. J. F. Kenny, U.S. Geological Survey and J. R. McCauley. KANSAS. Remote sensing investigations in the coal fields of southeastern Kansas, in *Remote sensing for resource management* (C. J. Johannsen, editor and others). Ankeny, IA: Soil Conserv. Soc. Am., 1982. p. 338-346.
- OP-614. W. S. Keys. Borehole geophysics and ground water; state of the art [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 863.
- OP-615. Y. K. Kharaka, W. W. Carothers and R. J. Rosenbauer. Thermal decarboxylation of acetic acid; implications for origin of natural gas. *Geochimica et Cosmochimica Acta*, v. 47, no. 3, March 1983. p. 397-402.
- OP-616. Y. K. Kharaka, L. M. Law, W. W. Carothers and S. W. Robinson. NEVADA. Soda Lake, Nevada; I, Hydrogeochemistry of an alkaline meromictic desert lake [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 922.
- OP-617. Y. K. Kharaka, M. S. Lico and L. M. Law. CALIFORNIA. Chemical geothermometers applied to formation waters, Gulf of Mexico and California basins [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 588.
- OP-618. H. N. Khoury, D. D. Eberl, U.S. Geological Survey and B. F. Jones, U.S. Geological Survey. NEVADA. Origin of magnesium clays from the Amargosa Desert, Nevada. *Clays and Clay Minerals*, v. 30, no. 5, October 1982. p. 327-336.
- OP-619. S. W. Kieffer. Thermodynamics and lattice vibrations of minerals; 5, Applications to phase equilibria, isotopic fractionation, and high-pressure thermodynamic properties. *Reviews of Geophysics and Space Physics*, v. 20, no. 4, November 1982. p. 827-849.
- OP-620. J. O. Kimrey. FLORIDA. Distribution and use of drainage wells in Florida, in *Proceedings of the Specialty conference on environmentally sound water and soil management* (E. G. Kruse, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 317-324.
- OP-621. J. L. Kindinger, R. J. Miller and C. W. Holmes. Sedimentology of Southwestern Roads region, U.S. Virgin Islands; origin and rate of sediment accumulation. *Journal of Sedimentary Petrology*, v. 53, no. 2, June 1983. p. 439-447.
- OP-622. Chi-Yu King. Do radon anomalies predict earthquakes?. *Nature (London)*, v. 293, no. 5830, September 24, 1981. p. 262.
- OP-623. N. E. King and W. H. Prescott. CALIFORNIA. Deformation across the San Andreas Fault near San Francisco, California, 1978-1982 [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 17.
- OP-624. N. E. King and J. C. Savage. CALIFORNIA. Strain-rate profile across the Elsinore, San Jacinto and San Andreas faults near Palm Springs, California, 1973-81. *Geophysical Research Letters*, v. 10, no. 1, January 1983. p. 55-57.
- OP-625. S. H. Kirby. Rheology of the lithosphere. *Reviews of Geophysics and Space Physics*, v. 21, no. 6, July 1983. p. 1458-1487.
- OP-626. S. H. Kirby. Mechanisms of mechanical weakening of the lithosphere [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1024.
- OP-627. J. E. Kircher. NEBRASKA. Changes in channel cross-section area and streamflow in the Platte River, Nebraska [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 33, August 17, 1982. p. 614.
- OP-628. R. M. Kirkham and S. M. Colman, U.S. Geological Survey. COLORADO. An overview of the tectonic history of Colorado, with emphasis on the Cenozoic [abstr.] *Special Publication - Colorado Geological Survey*, v. 19, 1981. p. 16-19.
- OP-629. R. W. Kistler. Configuration of the pre-Middle Jurassic continental margin in the Western United States [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 272.
- OP-630. J. S. Klasner and W. J. Jones, U.S. Geological Survey. MICHIGAN, WISCONSIN. Geologic interpretation of gravity and magnetic data in northern Michigan and Wisconsin [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 451.
- OP-631. J. S. Klasner, K. J. Schulz and W. F. Cannon, U.S. Geological Survey. A large-scale positive-gravity anomaly in northeastern North America; possible evidence for large-scale meteorite impact [abstr.] *Program with Abstracts - Geological Association of Canada*, v. 7, 1982. p. 60.
- OP-632. R. L. Klausing. NORTH DAKOTA. Ground-water resources of Logan County, North Dakota. *Bulletin - North Dakota Geological Survey*, v. 77, Part III. 1983. 42 p.
- OP-633. D. P. Klein. ARIZONA. Regional gravity and magnetic evidence for a tectonic weakness across southwestern Arizona, in *Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada* (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 61-67.
- OP-634. F. W. Klein. HAWAII. Earthquakes at Loihi submarine volcano and the Hawaiian hot spot. *JGR. Journal of Geophysical Research. B*, v. 87, no. 9, September 10, 1982. p. 7719-7726.
- OP-635. P. C. Klingeman and W. W. Emmett, U.S. Geological Survey. Gravel bedload transport processes, in *Gravel-bed rivers; fluvial processes, engineering and management* (R. D. Hey, editor and others). Sons: John Wiley, 1982. p. 141-179.
- OP-636. D. Knepper, U.S. Geological Survey, K. Meehan, M. Abrams and A. Kron. Electromagnetic remote sensing [abstr.] *LPI Technical Report*, v. 81-07, 1982. p. 11-12.
- OP-637. C. F. Koch and N. F. Sohl, U.S. Geological Survey. Preservation effects in paleoecological studies; Cretaceous mollusc examples. *Paleobiology*, v. 9, no. 1, 1983. p. 26-34.

- OP-638. W. J. Kockelman, U.S. Geological Survey and J. S. Blanchfield. CALIFORNIA. Protecting Suisun Marsh - 85,000 acres of aquatic and wildlife habitat, *in* San Francisco Bay; use and protection; symposium convened during the 61st annual meeting of the Pacific Division of the American Association for the Advancement of Science (W. J. Kockelman, editor and others). San Francisco, CA: American Association for the Advancement of Science, Pacific Division, 1982. p. 109-115.
- OP-639. W. M. Kohler and G. S. Fuis. CALIFORNIA. A time-term study of the Imperial Valley, California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 67.
- OP-640. W. M. Kohler and J. H. Healy. CALIFORNIA. The mechanism of anisotropic wave velocity in crystalline rocks of the Mojave Desert [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 961.
- OP-641. L. F. Konikow. Role of solute-transport models in the analysis of groundwater salinity problems in agricultural areas. *Agric. Water Manage.*, v. 4, no. 1-3, August 1981. p. 187-205.
- OP-642. L. F. Konikow, U.S. Geological Survey and D. W. Thompson. COLORADO. Groundwater contamination and aquifer reclamation at the Rocky Mountain Arsenal, Colo. [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 865.
- OP-643. R. W. Kopf. Hydrotectonics; principles and relevance [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1047.
- OP-644. R. M. Kosanke. KENTUCKY. Palynomorph content of the Hazard No. 7 Coal Bed, Kentucky, *in* Coal and coal-bearing rocks of eastern Kentucky (J. C. Cobb, leader and others). Lexington, KY: Ky. Geol. Surv., 1981. p. 163-165.
- OP-645. R. M. Kosanke. Illustrations and comments concerning the type specimens of Calamospira, Florinites, and Raistrickia. *Journal of Paleontology*, v. 56, no. 5, September 1982. p. 1171-1176.
- OP-646. R. A. Koski and D. A. Clague. Zinc-rich massive sulfide deposits from the southern Juan de Fuca Ridge [abstr.] *Program with Abstracts - Geological Association of Canada*, v. 7, 1982. p. 61.
- OP-647. R. A. Koski and J. R. Hein. Volcanogenic manganese deposits in Western Cordillera [abstr.] *AAPG Bulletin*, v. 66, no. 7, July 1982. p. 973-974.
- OP-648. R. A. Koski, U.S. Geological Survey, W. R. Normark, U.S. Geological Survey, J. L. Morton and J. R. Delaney. Metal sulfide deposits on the Juan de Fuca Ridge. *Oceanus (Woods Hole)*, v. 25, no. 3, 1982. p. 43-48.
- OP-649. R. A. Koski and J. S. Rubin. ALASKA. Amorphous and crystalline ferromanganese deposits from seamounts in Gulf of Alaska [abstr.] *AAPG Bulletin*, v. 65, no. 5, 1981. p. 945.
- OP-650. Carl Kotteff. MASSACHUSETTS. Deglacial history of Glacial Lake Nashua, east-central Massachusetts, *in* Late Wisconsinan glaciation of New England; proceedings of the symposium (G. J. Larson, editor and others). Dubuque, IA: Kendall/Hunt Publ. Co., 1982. p. 129-143.
- OP-651. Jack Kovach and R. E. Zartman, U.S. Geological Survey. U-Th-Pb dating of conodonts [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 6, March 1981. p. 285.
- OP-652. W. N. Krebs and J. P. Bradbury, U.S. Geological Survey. IDAHO, OREGON. Neogene lacustrine diatom biostratigraphy of western Snake River basin, Idaho and Oregon [abstr.] *AAPG Bulletin*, v. 66, no. 10, October 1982. p. 1693.
- OP-653. M. D. Krohn and J. D. Phillips. VIRGINIA. A principal component enhancement for Landsat images; possible structural applications in vegetated Virginia piedmont [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 590.
- OP-654. G. E. Kues. NEW MEXICO. Review of selected ground-water resource studies in the Albuquerque Basin, New Mexico. *Guidebook - New Mexico Geological Society*, v. 33, 1982. p. 112-113.
- OP-655. L. K. Kuiper. A numerical procedure for the solution of the steady state variable density groundwater flow equation. *Water Resources Research*, v. 19, no. 1, February 1983. p. 234-240.
- OP-656. R. L. Kuzniar and P. G. Randich. NORTH DAKOTA. Ground-water data for Bottineau and Rolette counties, North Dakota. *Bulletin - North Dakota Geological Survey*, v. 78, Part II. 1982. 742 p.
- OP-657. R. L. Kuzniar and P. G. Randich. NORTH DAKOTA. Ground-water data for Towner County, North Dakota. *Bulletin - North Dakota Geological Survey*, v. 79, Part II. 1983. 280 p.
- OP-658. K. A. Kvenvolden. Occurrence and origin of marine gas hydrates, *in* Proceedings of the Fourth Canadian permafrost conference; the Roger J. E. Brown memorial volume (H. M. French, editor). Ontario, ON: Natl. Res. Council of Canada, v. 19810302, 1982. p. 305-311.
- OP-659. K. A. Kvenvolden and D. J. Blunt. Amino acids in sediments from Leg 68, Site 502. *Initial Reports of the Deep Sea Drilling Project*, v. 68, October 1982. p. 475-480.
- OP-660. K. A. Kvenvolden and G. E. Claypool. Origin of natural-gas hydrates in oceanic sediment [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 900.
- OP-661. T. K. Kyser. Stable isotope compositions of glasses from the Juan de Fuca Ridge [abstr.] *Eos, Transactions, American Geophysical Union*, v. 64, no. 5, February 1, 1983. p. 45.
- OP-662. A. H. Lachenbruch, J. H. Sass, B. V. Marshall and T. H. Moses, Jr. ALASKA. Permafrost, heat flow, and the geothermal regime at Prudhoe Bay, Alaska. *JGR. Journal of Geophysical Research. B*, v. 87, no. 11, November 10, 1982. p. 9301-9316.
- OP-663. J. W. Ladd, A. K. Ibrahim, K. J. McMillen, G. V. Latham and Roland von Huene, U.S. Geological Survey. Interpretation of seismic-reflection data of the Middle America Trench offshore Guatemala. *Initial Reports of the Deep Sea Drilling Project*, v. 67, November 1982. p. 675-689.

- OP-664. R. LaForge and W. H. Lee, U.S. Geological Survey. CALIFORNIA. Seismicity and tectonics of the Ortigalita Fault and Southeast Diablo Range, California. Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 93-101.
- OP-665. J. C. Lahr and C. D. Stephens. ALASKA. Seismic activity in the vicinity of Anchorage, Alaska, 1972-82 [abstr.] Eos, Transactions, American Geophysical Union, v. 64, no. 9, March 1, 1983. p. 89-90.
- OP-666. K. R. Lajoie, S. W. Robinson, R. M. Forester and J. P. Bradbury. Rapid climatic cycles recorded in closed-basin lakes [abstr.] Am. Quat. Assoc., Natl. Conf., Abstr., v. 7, 1982. p. 53.
- OP-667. M. A. Lanphere, U.S. Geological Survey and J. J. Pamić. $^{40}\text{Ar}/^{39}\text{Ar}$ ages and tectonic setting of ophiolite from the Neyriz area, Southeast Zagros Range, Iran. Tectonophysics, v. 96, no. 3-4, July 20, 1983. p. 245-256.
- OP-668. B. E. Law and C. W. Spencer. WYOMING. Abnormally high-pressured, low-permeability, Upper Cretaceous and Tertiary gas reservoirs, northern Green River basin, Wyoming [abstr.] AAPG Bulletin, v. 65, no. 5, 1981. p. 948.
- OP-669. Jim LeAnderson, convener, Steve Ludington, convener, U.S. Geological Survey and Art Bookstrom, convener. Origin of fluids and metals in porphyry and epithermal mineral deposits. Geology (Boulder), v. 11, no. 9, September 1983. p. 557-558.
- OP-670. R. E. Learned, T. T. Chao and R. F. Sanzolone. The partitioning of copper among selected phases of geologic media of two porphyry copper districts, Puerto Rico. Journal of Geochemical Exploration, v. 15, no. 1-3, 1981. p. 563-581.
- OP-671. B. D. Leavy, U.S. Geological Survey, A. E. Grosz and S. S. Johnson. VIRGINIA. Total-count aeroradiometric contour map of the Culpeper Basin and vicinity, Virginia. Virginia Division of Mineral Resources Publication, v. 40, 1982. 1 sheet.
- OP-672. D. R. LeBlanc. MASSACHUSETTS. Sewage plume in a sand and gravel aquifer, Cape Cod, Massachusetts [abstr.], in A Northeast conference; The impact of waste storage and disposal on ground-water resources (R. P. Novitzki, editor and others). Ithaca, NY: Cornell Univ. Cent. Environ. Res., Reston, VA: U. S. Geol. Surv., 1982. p. 4.4.1.
- OP-673. D. R. LeBlanc. Distribution of dissolved substances in ground water resulting from infiltration of treated sewage through sand filter beds [abstr.], in Geotechnology in Massachusetts (O. C. Farquhar, editor). Amherst, MA: Univ. Mass., Grad. Sch., 1982. p. 75.
- OP-674. D. E. Lee, I. Friedmann and J. D. Gleason. NEVADA. The oxygen isotope composition of granitoid and sedimentary rocks of the southern Snake Range, Nevada. Contributions to Mineralogy and Petrology, v. 79, no. 2, 1982. p. 150-158.
- OP-675. H. J. Lee. Bulk density and shear strength of several deep-sea calcareous sediments. ASTM Special Technical Publication = American Society for Testing and Materials Special Technical Publication, v. 777, August 1982. p. 54-78.
- OP-676. K. Y. Lee. VIRGINIA. Thermal metamorphism of Triassic and Jurassic sedimentary rocks in the Culpeper Basin, Virginia [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 34.
- OP-677. M. W. Lee, U.S. Geological Survey and A. H. Balch. Computer processing of vertical seismic profile data. Geophysics, v. 48, no. 3, March 1983. p. 272-287.
- OP-678. R. W. Lee and S. H. Kirby. Experimental deformation of topaz; possible embrittlement by intracrystalline "water" [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1029.
- OP-679. A. P. LeHuray. SOUTH CAROLINA. U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 33.
- OP-680. A. P. LeHuray and S. E. Church. WASHINGTON, OREGON. Lead isotopes in the "Cascades mineral belt", Washington and Oregon [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 277.
- OP-681. L. B. Leopold and W. W. Emmett, U.S. Geological Survey. WYOMING. Bedload trap, East Fork River, in American Geomorphological Field Group; Field trip guidebook, 1982 conference (L. B. Leopold, editor). American Geomorphological Field Group, 1982. p. 30-40.
- OP-682. J. Leutgert and W. D. Mooney. CALIFORNIA. High resolution recording of aftershocks of the January 1983 Mammoth Lakes, California earthquakes [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 91.
- OP-683. G. W. Leve. FLORIDA. Relation of concealed faults to water quality and the formation of solution features in the Floridan Aquifer, northeastern Florida, U.S.A.. Journal of Hydrology, v. 61, no. 1-3, February 1983. p. 251-264.
- OP-684. G. W. Leve and William Back. Source and rate of recharge to an artesian aquifer based on geochemical evidence [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 2, January 1983. p. 47.
- OP-685. J. S. Leventhal. Limitations of Rock-Eval pyrolysis assay to characterize kerogen [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 593.
- OP-686. J. S. Leventhal. An interpretation of carbon and sulfur relationships in Black Sea sediments as indicators of environments of deposition. Geochimica et Cosmochimica Acta, v. 47, no. 1, January 1983. p. 133-137.
- OP-687. J. S. Leventhal and R. C. Kepferle. Geochemistry and geology of strategic metals and uranium in Devonian shales of the Eastern interior United States, in Symposium papers; synthetic fuels from oil shale II (P. B. Tarman, chairperson and others). Chicago, IL: Inst. Gas Technol., March 1982. p. 73-96.
- OP-688. G. S. Lichtman, U.S. Geological Survey and Jean-Philippe Eissen. Time and space constraints on the evolution of medium-rate spreading centers. Geology (Boulder), v. 11, no. 10, October 1983. p. 592-595.

- OP-689. J. C. Liddicoat, J. E. Hazel, U.S. Geological Survey, E. M. Brouwers, U.S. Geological Survey, W. A. Bryant, U.S. Geological Survey and D. J. Bottjer. Magnetostratigraphy of Upper Cretaceous deposits in the northwestern Mississippi Embayment [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 5, February 1981. p. 240-241.
- OP-690. D. J. Lidke. MONTANA. Sequence of compressional deformation in a segment of the Sapphire thrust plate, southwestern Montana [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 297.
- OP-691. W. B. Lind. TEXAS. Chemical and physical characteristics of water in estuaries of Texas; October 1975-September 1976. Report - Texas Department of Water Resources, v. 275, May 1983. 203 p.
- OP-692. R. J. Lindgren. KANSAS. Determination of irrigation pumpage for an area in southwestern Kansas [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 33, August 17, 1982. p. 614.
- OP-693. A. G. Lindh, M. E. O'Neill, W. H. Bakun and D. B. Reneau. CALIFORNIA. Seismicity patterns near Parkfield, California [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 61-62.
- OP-694. D. A. Lindsey, R. F. Clark, S. J. Ashe and R. J. Flores. Minturn and Sangre de Cristo formations of southern Colorado; a prograding fan-delta to alluvial-fan sequence shed from ancestral Rocky Mountains [abstr.] AAPG Bulletin, v. 67, no. 8, August 1983. p. 1348.
- OP-695. P. W. Lipman. Volcano-tectonic setting of Tertiary ore deposits, Southern Rocky Mountains. Kozan Chishitsu = Mining Geology, v. 32, no. 171, 1982. p. 1-23.
- OP-696. P. W. Lipman. Cenozoic magmatism associated with extensional tectonics in the Rocky Mountains [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 288.
- OP-697. R. D. List. The solution of the dynamic field of the Haskell fault model reconsidered. Bulletin of the Seismological Society of America, v. 72, no. 4, August 1982. p. 1069-1083.
- OP-698. Hsi-Ping Liu and Louis Peselnick. Investigation of internal friction in fused quartz, steel, Plexiglass and Westerly Granite from 0.01 to 1.00 Hertz at 10^{-8} to 10^{-7} strain amplitude. JGR. Journal of Geophysical Research. B, v. 88, no. 3, March 10, 1983. p. 2367-2379.
- OP-699. Hsi-Ping Liu, R. E. Westerlund and J. B. Fletcher. Precise measurement of seismic traveltimes; investigation of variation from tidal stress in shallow crust. Geophysical Research Letters, v. 10, no. 5, May 1983. p. 377-380.
- OP-700. Hsi-Ping Liu, R. E. Westerlund and J. B. Fletcher. Precise measurement of seismic travel time; variations from tidal stress? [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 967-968.
- OP-701. R. A. Loney and G. R. Himmelberg, U.S. Geological Survey. ALASKA. Structural evolution of the La Perouse layered gabbro Fairweather Range, southeastern Alaska [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 275.
- OP-702. C. L. Loskot, W. M. Sandeen and C. R. Follett. TEXAS. Ground-water resources of Colorado, Lavaca, and Wharton counties, Texas. Report - Texas Department of Water Resources, v. 270, July 1982. 240 p.
- OP-703. B. K. Lucchitta. Ice sculpture in the Martian outflow channels. JGR. Journal of Geophysical Research. B, v. 87, no. 12, November 30, 1982. p. 9951-9973.
- OP-704. B. K. Lucchitta. Lakes or playas in Vallis Marineris. NASA Technical Memorandum, v. 85127, December 1982. p. 233-234.
- OP-705. B. K. Lucchitta. Preferential development of chaotic terrains on sedimentary deposits, Mars. NASA Technical Memorandum, v. 85127, December 1982. p. 235-236.
- OP-706. B. K. Lucchitta. The Galilean Satellite Geological Mapping Program, continued. NASA Technical Memorandum, v. 85127, December 1982. p. 397.
- OP-707. B. K. Lucchitta. Mars and Earth; comparison of cold-climate features. Icarus, v. 45, no. 2, February 1981. p. 264-303.
- OP-708. B. K. Lucchitta. Planetary geology. Geology (Boulder), v. 11, no. 12, December 1983. p. 682-683.
- OP-709. B. K. Lucchitta and H. M. Ferguson. Chryse Basin channels; low-gradients and ponded flows. JGR. Journal of Geophysical Research. B, 88, Suppl., no. 2, February 15, 1983. p. A553-A568.
- OP-710. B. K. Lucchitta, U.S. Geological Survey and J. H. Persky. Ground ice and debris flows in the fretted terrain, Mars. NASA Technical Memorandum, v. 85127, December 1982. p. 268-270.
- OP-711. Ivo Lucchitta. Perspectives from Earth. Geology (Boulder), v. 11, no. 12, December 1983. p. 691.
- OP-712. Ivo Lucchitta and J. D. Hendricks. ARIZONA. Characteristics, depositional environment, and tectonic interpretations of the Proterozoic Cardenas Lavas, eastern Grand Canyon, Arizona. Geology (Boulder), v. 11, no. 3, March 1983. p. 177-181.
- OP-713. K. R. Ludwig, Bruce Rubin, N. S. Fishman and R. L. Reynolds. NEW MEXICO. U-Pb ages of uranium ores in the Churchrock uranium district, New Mexico. Economic Geology and the Bulletin of the Society of Economic Geologists, v. 77, no. 8, December 1982. p. 1942-1945.
- OP-714. Gretchen Luepke. Use of heavy-mineral density ratios to determine the degree of sediment homogenization in offshore areas [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 282.
- OP-715. M. T. Lukert and J. W. Clarke, U.S. Geological Survey. VIRGINIA. Age relationships in Proterozoic Z rocks of the Blue Ridge Anticlinorium of northern Virginia [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 1, January 1981. p. 29.
- OP-716. Karen Lund, Robert Scholten and W. F. McCollough. Consequences of interfingering lithologies in the Seven Devils island arc [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 284.

- OP-717. S. N. Luoma and J. E. Cloern. CALIFORNIA. The impact of waste-water discharge on biological communities in San Francisco Bay, *in* San Francisco Bay; use and protection; symposium convened during the 61st annual meeting of the Pacific Division of the American Association for the Advancement of Science (W. J. Kockelman, editor and others). San Francisco, CA: American Association for the Advancement of Science, Pacific Division, 1982. p. 137-160.
- OP-718. Robert Lupe. Late Triassic cyclic deposition on the Colorado Plateau and its regional implications [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 285.
- OP-719. W. J. Lutter, D. Peters, W. D. Mooney and J. H. Healy. Crustal structure of the Mississippi Embayment; axial profile [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1046.
- OP-720. P. C. Lyons and Richard Goldsmith. MASSACHUSETTS. Pseudo plant fossils in the Boston Basin, Massachusetts. *Northeastern Geology*, v. 5, no. 1, 1983. p. 23-28.
- OP-721. P. C. Lyons and C. R. Meissner, Jr. ALABAMA. Age of the Black Creek and Jefferson coal beds, Warrior coal field, Alabama [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 36.
- OP-722. L. M. MacCary. Geophysical logging in carbonate aquifers. *Ground Water*, v. 21, no. 3, June 1983. p. 334-342.
- OP-723. M. N. Machette. NEW MEXICO. Quaternary and Pliocene faults in the La Jencia and southern part of the Albuquerque-Belen basins, New Mexico; evidence of fault history from fault-scarp morphology and Quaternary geology. *Guidebook - New Mexico Geological Society*, v. 33, 1982. p. 161-169.
- OP-724. R. W. Maclay. Hydrogeologic investigation of the Edwards Aquifer [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 5, February 1981. p. 241.
- OP-725. R. W. Maclay and T. A. Small. TEXAS. Hydrostratigraphic subdivisions and fault barriers of the Edwards Aquifer, south-central Texas, U.S.A.. *Journal of Hydrology*, v. 61, no. 1-3, February 1983. p. 127-146.
- OP-726. N. S. MacLeod. OREGON. Newberry Volcano, Oregon; a Cascade Range geothermal prospect. *Oregon Geology*, v. 44, no. 11, November 1982. p. 123-131.
- OP-727. R. F. Madole. COLORADO. Probable nonglacial origin of "till" in the mountains of north-central Colorado [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 219.
- OP-728. L. B. Magoon and G. E. Claypool. ALASKA. Petroleum geology of Cook Inlet Basin, Alaska; an exploration model. *AAPG Studies in Geology*, v. 12, 1981. p. 355-374.
- OP-729. L. B. Magoon and G. E. Claypool. ALASKA. Petroleum geochemistry of the North Slope of Alaska; time and degree of thermal maturity. *Proceedings of the International Meeting on Organic Geochemistry*, v. 10, 1983. p. 28-38.
- OP-730. L. B. Magoon and C. E. Kirschner. ALASKA. Evolution of sedimentary systems during Mesozoic and Cenozoic in southern Alaska; an overview [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 953.
- OP-731. Gail Mahood and Wes Hildreth, U.S. Geological Survey. Large partition coefficients for trace elements in high-silica rhyolites. *Geochimica et Cosmochimica Acta*, v. 47, no. 1, January 1983. p. 11-30.
- OP-732. Gail Mahood and Wes Hildreth, U.S. Geological Survey. Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily. *Geology (Boulder)*, v. 11, no. 12, December 1983. p. 722-726.
- OP-733. R. P. Maley. Fifty years of the United States strong-motion program [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 54.
- OP-734. M. C. Malin, Daniel Dzurisin, U.S. Geological Survey and R. P. Sharp. HAWAII. Stripping of Keanakakoi tephra on Kilauea Volcano, Hawaii. *Geological Society of America Bulletin*, v. 94, no. 10, October 1983. p. 1148-1158.
- OP-735. S. D. Malone, Christina Boyko and C. S. Weaver, U.S. Geological Survey. WASHINGTON. Seismic precursors to the Mount St. Helens eruptions in 1981 and 1982. *Science*, v. 221, no. 4618, September 20, 1983. p. 1376-1378.
- OP-736. E. A. Mankinen and C. S. Grommé. CALIFORNIA. Paleomagnetic data from the Coso Range, California and current status of the Cobb Mountain normal geomagnetic polarity event. *Geophysical Research Letters*, v. 9, no. 11, November 1982. p. 1279-1282.
- OP-737. L. Marincovich. ALASKA. Late Miocene mollusks of Tachilni Formation, Alaska Peninsula, Alaska, *in* Proceedings of IGCP-114 international workshop on Pacific Neogene biostratigraphy (Nobuo Ikebe, editor and others). *Osaka: Osaka Mus. Nat. Hist.*, 1981. p. 123A.
- OP-738. H. W. Markewich. WYOMING. An hypothesis for bedrock control on surface morphology of Wind River basin [abstr.], *in* American Geomorphological Field Group; Field trip guidebook, 1982 conference (L. B. Leopold, editor). American Geomorphological Field Group, 1982. p. 144.
- OP-739. H. W. Markewich, M. J. Pavich and V. M. Gonzalez. VIRGINIA, SOUTH CAROLINA. Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 2, January 1983. p. 56.
- OP-740. H. W. Markewich and D. R. Soller. NORTH CAROLINA. The Cape Fear River; a late Quaternary drainage [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 2, January 1983. p. 56.
- OP-741. M. S. Marlow and A. K. Cooper. ALASKA. Wandering terranes in southern Alaska; the Aleutia microplate and implications for the Bering Sea. *JGR. Journal of Geophysical Research. B*, v. 88, no. 4, April 10, 1983. p. 3439-3446.
- OP-742. M. S. Marlow, A. K. Cooper and J. R. Childs. Geophysical survey of Anadyr and Navarin basins, northern Bering Sea [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 953.
- OP-743. M. S. Marlow, A. K. Cooper and J. R. Childs. Tectonic evolution of Gulf of Anadyr and formation of Anadyr and Navarin basins. *AAPG Bulletin*, v. 67, no. 4, April 1983. p. 646-665.

- OP-744. S. P. Marsh and J. B. Cathrall. ALASKA. Geochemical evidence for a Brooks Range mineral belt, Alaska. *Journal of Geochemical Exploration*, v. 15, no. 1-3, 1981. p. 367-380.
- OP-745. R. G. Martin, U.S. Geological Survey and A. H. Bouma. Active diapirism and slope steepening, northern Gulf of Mexico continental slope. *Marine Geotechnology*, v. 5, no. 1, 1982. p. 63-91.
- OP-746. H. Masursky. Internal crustal modification of the satellites of Saturn and Jupiter and implications for Venus [abstr.] COSPAR Plenary Meet., Program Abstr., v. 24, 1982. p. 121.
- OP-747. Nick Matalas. Walter B. Langbein; 1907-1982. *Eos, Transactions, American Geophysical Union*, v. 64, no. 5, February 1, 1983. p. 41.
- OP-748. R. K. Matthews and R. Z. Poore, U.S. Geological Survey. Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 954.
- OP-749. E. K. Maughan and W. J. Perry, Jr. Lineaments and their tectonic implications in Rocky Mountains and adjacent plains region [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1349.
- OP-750. B. B. Mavko. CALIFORNIA. Focal mechanisms of Central California earthquakes [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 958.
- OP-751. B. B. Mavko, U.S. Geological Survey and G. A. Thompson. CALIFORNIA. Crustal and upper mantle structure of the northern and central Sierra Nevada. *JGR. Journal of Geophysical Research*, B, v. 88, no. 7, July 10, 1983. p. 5874-5892.
- OP-752. G. M. Mavko. CALIFORNIA. Fault interaction near Hollister, California. *JGR. Journal of Geophysical Research*, B, v. 87, no. 9, September 10, 1982. p. 7807-7816.
- OP-753. G. M. Mavko. Easy computation of static stress drop, slip, and moment on two-dimensional heterogeneous faults. *Bulletin of the Seismological Society of America*, v. 72, no. 5, October 1982. p. 1499-1508.
- OP-754. C. H. Maxwell. NEW MEXICO. Mesozoic stratigraphy of the Laguna-Grants region. *Guidebook - New Mexico Geological Society*, v. 33, 1982. p. 261-266.
- OP-755. C. H. Maxwell. El Malpais. *Guidebook - New Mexico Geological Society*, v. 33, 1982. p. 299-301.
- OP-756. S. D. May and Arthur Grantz. ALASKA. Origin of the Canada Basin as inferred from the seismic geology of offshore northern Alaska. *Journal of the Alaska Geological Society*, v. 2, 1983. p. 9-15.
- OP-757. Larry Mayer and C. M. Wentworth, U.S. Geological Survey. VIRGINIA. Geomorphic differences east and west of the Stafford fault system, northeastern Virginia [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 2, January 1983. p. 56.
- OP-758. W. B. Maze and R. R. Carlson, U.S. Geological Survey. MONTANA. Fe-Ti oxides of the Stillwater Complex, Montana; mineralogy, chemistry, and implications. *LPI Technical Report*, v. 82-01, 1982. p. 95-98.
- OP-759. L. A. McBroome, U.S. Geological Survey, D. J. Doherty and G. F. Embree. IDAHO. Correlation of major Pliocene and Miocene ash-flow sheets, eastern Snake River plain, Idaho, in *Montana Geological Society field conference and symposium guidebook to Southwest Montana* (T. E. Tucker, editor and others). *Mont. Geol. Soc.*, 1981. p. 323-330.
- OP-760. R. B. McCammon. Introduction to the special issue on geostatistics, geomathematics, and computer applications. *Journal of the International Association for Mathematical Geology*, v. 15, no. 2, April 1983. p. 235-236.
- OP-761. M. W. McCann, Jr. and D. M. Boore, U.S. Geological Survey. CALIFORNIA. Variability in ground motions; root mean square acceleration and peak acceleration for the 1971 San Fernando, California, earthquake. *Bulletin of the Seismological Society of America*, v. 73, no. 2, April 1983. p. 615-632.
- OP-762. M. W. McCann, Jr. and D. M. Boore, U.S. Geological Survey. Variability in ground motions; a factor in microzonation, in *Proceedings; Third international earthquake microzonation conference; Vol. I* (Mehmet Sherif, editor). Washington, DC: U. S. Natl. Sci. Found., June 1982. p. 471-482.
- OP-763. Lucy McCartan, J. P. Owens and B. J. Szabo. Absolute and relative dating of Atlantic Coastal Plain Pleistocene formations; evaluation of amino-acid epimerization age estimates [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 39.
- OP-764. K. P. McCarthy, J. M. Been, G. M. Reimer, C. G. Bowles and D. G. Murrey. COLORADO. Helium and ground temperature surveys at Steamboat Springs, Colorado. *Geothermal Energy*, v. 10-12, September 1982. p. 13-16.
- OP-765. J. F. McCauley, C. S. Breed and M. J. Grolier. The interplay of fluvial, mass-wasting and eolian processes in the eastern Gilf Kebir region. *NASA Contractor Report*, v. 3611, 1982. p. 207-239.
- OP-766. J. F. McCauley, G. G. Schaber, C. S. Breed and M. J. Grolier. SIR-A images reveal major subsurface drainages in the eastern Sahara; applications to Mars. *NASA Technical Memorandum*, v. 85127, December 1982. p. 311-313.
- OP-767. P. H. McClellan. UTAH. Nonmarine carbonates of Neogene Lake Idaho in Utah [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 955-956.
- OP-768. T. H. McCulloh. CALIFORNIA. Middle Tertiary laumontite isograd offset 37 km by left-lateral strike-slip on Santa Ynez Fault, California [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 956.
- OP-769. S. C. McCutcheon. Comparison of one-dimensional stream water-quality models [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 868.
- OP-770. Kristin McDougall. CALIFORNIA. Microfossil assemblages from the Castaic Formation, Ridge Basin, Southern California, in *Geologic history of Ridge Basin, Southern California* (J. C. Crowell, editor and others). Los Angeles, CA: SEPM, Pac. Sec., 1982. p. 219-228.

- OP-771. Kristin McDougall, R. Z. Poore and J. A. Barron. CALIFORNIA. Microfossils from type Relizian and Luisian stages of California [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 957.
- OP-772. A. S. McEwen and L. A. Soderblom. Identification of two classes of Io's volcanic plumes. NASA Technical Memorandum, v. 85127, December 1982. p. 3-4.
- OP-773. A. McGarr. Analysis of states of stress between provinces of constant stress. JGR. Journal of Geophysical Research. B, v. 87, no. 11, November 10, 1982. p. 9279-9288.
- OP-774. A. McGarr. Upper bounds on near-source peak ground motion based on a model of inhomogeneous faulting. Bulletin of the Seismological Society of America, v. 72, Part A. no. 6, December 1982. p. 1825-1841.
- OP-775. A. McGarr. Peak velocity and seismic moment [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 68-69.
- OP-776. A. McGarr, M. D. Zoback and T. C. Hanks. CALIFORNIA. Implications of an elastic analysis of in situ stress measurements near the San Andreas Fault. JGR. Journal of Geophysical Research. B, v. 87, no. 9, September 10, 1982. p. 7797-7806.
- OP-777. A. McGarr, M. D. Zoback and T. C. Hanks. CALIFORNIA. Analysis of deep in situ stress measurements in the Mojave Desert; implications for the state of stress along the San Andreas Fault [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1048.
- OP-778. J. B. McHugh. Determination of uranium in geologic materials by laser-excited fluorescence. Analytical Letters, v. 15, no. 12, 1982. p. 1009-1015.
- OP-779. E. H. McKee and P. R. Klock. NEVADA. K-Ar ages of micas related to mineralization in selected mining districts, Lyon and Mineral counties, Nevada. Isochron/West, v. 36, April 1983. p. 9-11.
- OP-780. M. McLaren, D. Farrell, L. Shijo and W. H. Bakun. CALIFORNIA. Source parameters of microearthquakes near San Juan Bautista, California [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 958.
- OP-781. R. J. McLaughlin, K. R. Lajoie, D. H. Sorg, S. D. Morrison and J. A. Wolfe. CALIFORNIA. Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California. Geology (Boulder), v. 11, no. 1, January 1983. p. 35-39.
- OP-782. Hugh McLean, J. R. Hein and T. L. Vallier. ALASKA. Reconnaissance geology of Amlia Island, Aleutian Islands, Alaska. Geological Society of America Bulletin, v. 94, no. 8, August 1983. p. 1020-1027.
- OP-783. M. W. McLellan, L. N. Robinson, Laura Haschke, M. D. Carter and A. L. Medlin. NEW MEXICO. Fence Lake Formation (Tertiary), west-central New Mexico. New Mexico Geology, v. 4, no. 4, November 1982. p. 53-55.
- OP-784. M. K. McNutt. CALIFORNIA. Tectonic zonation in Northern California; evidence from gravity anomalies [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1032.
- OP-785. M. K. McNutt, U.S. Geological Survey and H. W. Menard. Constraints on yield strength in the oceanic lithosphere derived from observations of flexure [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1025.
- OP-786. B. F. McPherson and Wayne Sonntag. FLORIDA. Sediment and nutrient loads associated with a tropical storm, Loxahatchee River estuary, southeastern Florida [abstr.] Proceedings of the Symposium on Coastal and Ocean Management, v. 3, 1983. p. 2250.
- OP-787. A. L. Medlin, M. A. Carey, L. N. Robinson and W. C. Culbertson. MONTANA. Application of computer graphics to coal geology and coal-resource-assessment studies, Canyon coal bed, Birney 1° sheet, Montana [abstr.] AAPG Bulletin, v. 66, no. 5, May 1982. p. 605.
- OP-788. H. W. Menard and Marcia McNutt, U.S. Geological Survey. Evidence for and consequences of thermal rejuvenation. JGR. Journal of Geophysical Research. B, v. 87, no. 10, October 10, 1982. p. 8570-8580.
- OP-789. H. W. Menard and Marcia McNutt, U.S. Geological Survey. Aprons, moats, arches, swells and guyot relief [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1028.
- OP-790. Charles Merguerian, C. A. Baskerville, U.S. Geological Survey and Steven Okulewicz. NEW YORK. Cameron's Line in the vicinity of New York City [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 65.
- OP-791. M. L. Merritt. FLORIDA. Subsurface storage and recovery of freshwater, South Florida, in Proceedings of the Specialty conference on environmentally sound water and soil management (E. G. Kruse, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 242-250.
- OP-792. D. F. Meyer, R. J. Janda and H. A. Martinson. WASHINGTON. Initial and subsequent drainage basin and channel responses to the 1980 eruption of Mount St. Helens [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 8, February 23, 1982. p. 174.
- OP-793. C. A. Michaelson and C. S. Weaver, U.S. Geological Survey. WASHINGTON. Deep earthquakes under the Puget Sound basin [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 41-42.
- OP-794. A. T. Miesch. Estimation of the geochemical threshold and its statistical significance. Journal of Geochemical Exploration, v. 16, no. 1, 1981. p. 49-76.
- OP-795. A. T. Miesch. Correspondence analysis in geochemistry. Journal of the International Association for Mathematical Geology, v. 15, no. 3, June 1983. p. 501-509.
- OP-796. A. J. Miller. MARYLAND, VIRGINIA. Computer-supported photogrammetry applied to measurements of shore erosion in the tidal Potomac River and estuary, Maryland and Virginia [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 65.
- OP-797. C. D. Miller. CALIFORNIA. Description of U.S. Geological Survey studies of potential hazards from future eruptions in California. Special Publication - California Division of Mines and Geology, v. 63, 1982. p. 61-62.

- OP-798. D. M. Miller. IDAHO, UTAH, NEVADA. Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada. *Memoir - Geological Society of America*, v. 157, 1983. p. 191-213.
- OP-799. J. A. Miller. NORTH CAROLINA. Stratigraphy, structure and phosphate deposits of the Pungo River Formation of North Carolina. *Bulletin - North Carolina, Department of Natural Resources and Community Development, Division of Land Resources, Geological Survey Section*, v. 87, 1982. 32 p.
- OP-800. J. A. Miller. ALABAMA, FLORIDA. Structural control of Jurassic sedimentation in Alabama and Florida. *AAPG Bulletin*, v. 66, no. 9, September 1982. p. 1289-1301.
- OP-801. J. A. Miller. NORTH CAROLINA, FLORIDA. Structural and sedimentary setting of phosphorite deposits in North Carolina and in northern Florida. *Special Publication - Florida, Bureau of Geology*, v. 25, 1982. p. 162-182.
- OP-802. J. A. Miller. FLORIDA. Regional hydrogeologic framework of the Floridan Aquifer [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 2, January 1983. p. 47.
- OP-803. W. R. Miller, W. H. Ficklin and R. E. Learned. Hydrogeochemical prospecting for porphyry copper deposits in the tropical-marine climate of Puerto Rico. *Journal of Geochemical Exploration*, v. 16, no. 3, 1982. p. 217-233.
- OP-804. J. D. Milliman and R. H. Meade, U.S. Geological Survey. World-wide delivery of river sediment to the oceans. *Journal of Geology*, v. 91, no. 1, January 1983. p. 1-21.
- OP-805. Charles Milton. Restudy of patronite (VS₄) ore, Minasragra, Peru; two new minerals; unnamed VOSO₄·3H₂O and dwornikite (Ni_{0.8}Fe_{0.2})SO₄·H₂O [abstr.] *Program with Abstracts - Geological Association of Canada*, v. 7, 1982. p. 67.
- OP-806. Charles Milton and E. J. Dwornik. Prehistoric copper-smelting "scoriae" from Tal-e Malyan, Iran; methodology and implications of a pioneer study [abstr.] *Program with Abstracts - Geological Association of Canada*, v. 7, 1982. p. 67.
- OP-807. Charles Milton, E. J. Dwornik and John Marinenko. NEVADA, ARKANSAS. Vashegyite from Nevada and "palfevite" from Nevada (= richmondite) and Arkansas (= kingite) [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 5, February 1981. p. 242.
- OP-808. N. M. Milton. UTAH. Use of reflectance spectra of native plant species for interpreting airborne multispectral scanner data in the East Tintic Mountains, Utah. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 4, July 1983. p. 761-769.
- OP-809. C. M. Molenaar. OREGON. Depositional relations of the Umpqua and Tyee formations (Eocene) of southwestern Oregon [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 284.
- OP-810. C. M. Molenaar. ALASKA. Depositional history and seismic stratigraphy of Lower Cretaceous rocks, National Petroleum Reserve, Alaska and adjacent areas [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 608.
- OP-811. C. M. Molenaar. Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas. *Rocky Mountain Paleogeography Symposium*, v. 2, 1983. p. 201-224.
- OP-812. C. M. Molenaar. ALASKA. Depositional relations of Cretaceous and lower Tertiary rocks, northeastern Alaska. *AAPG Bulletin*, v. 67, no. 7, July 1983. p. 1066-1080.
- OP-813. C. M. Molenaar, A. C. Huffman and A. R. Kirk. ALASKA. Cretaceous-lower Tertiary depositional relations, northeastern Alaska [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 608.
- OP-814. B. F. Molnia. Glacial-marine sedimentation; a model [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 959.
- OP-815. M. Monfort. CALIFORNIA. Seismic structure of the Lassen volcanic area [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 8, February 23, 1982. p. 174.
- OP-816. Walter Montero P. and J. W. Dewey, U.S. Geological Survey. Shallow-focus seismicity, composite focal mechanism, and tectonics of the Valle Central of Costa Rica. *Bulletin of the Seismological Society of America*, v. 72, no. 5, October 1982. p. 1611-1626.
- OP-817. W. D. Mooney, M. C. Andrews, A. Ginzburg, D. A. Peters and R. M. Hamilton. Crustal structure of the northern Mississippi Embayment and a comparison with other continental rift zones. *Tectonophysics*, v. 94, no. 1-4, May 1, 1983. p. 327-348.
- OP-818. D. E. Moore, C. A. Morrow and J. D. Byerlee. Use of swelling clays to reduce permeability and its potential application to nuclear waste repository sealing. *Geophysical Research Letters*, v. 9, no. 9, September 1982. p. 1009-1012.
- OP-819. D. E. Moore, C. A. Morrow and J. D. Byerlee. Chemical reactions accompanying fluid flow through granite held in a temperature gradient. *Geochimica et Cosmochimica Acta*, v. 47, no. 3, March 1983. p. 445-453.
- OP-820. D. E. Moore, R. Summers and J. D. Byerlee. Strengths of clay and non-clay fault gouges at elevated temperatures and pressures. *Proceedings - Symposium on Rock Mechanics*, v. 24, 1983. p. 489-500.
- OP-821. D. W. Moore, U.S. Geological Survey and W. H. Johnson. ILLINOIS. Stratigraphy of Woodfordian till and lake beds in Iroquois and neighboring counties, Illinois [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 6, March 1981. p. 310.
- OP-822. G. W. Moore. Tertiary dismemberment of western North America [abstr.] *AAPG Bulletin*, v. 66, no. 7, July 1982. p. 977.
- OP-823. G. W. Moore. Shelf-slope boundary at active subduction zones [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 959.
- OP-824. H. J. Moore. Mapping volcanic features on Mars. *NASA Technical Memorandum*, v. 85127, December 1982. p. 132-133.
- OP-825. H. J. Moore. Erosion of surface materials at the Mutch Memorial Station (Lander I), Mars. *NASA Technical Memorandum*, v. 85127, December 1982. p. 180-181.

- OP-826. H. J. Moore. Channel deposits on Mars. NASA Technical Memorandum, v. 85127, December 1982. p. 213-215.
- OP-827. H. J. Moore, G. D. Clow and R. E. Hutton. A summary of Viking sample-trench analyses for angles of internal friction and cohesions. JGR. Journal of Geophysical Research. B, v. 87, no. 12, November 30, 1982. p. 10043-10050.
- OP-828. J. C. Moore, Bernard Bijou-Duval, J. A. Bergen, Grant Blackinton, G. E. Claypool, U.S. Geological Survey, D. S. Cowan, Fred Duennebier, R. T. Guerra, C. H. Hemleben, Donald Hussong, M. S. Marlow, U.S. Geological Survey, J. H. Natland, C. J. Pudsey, G. W. Renz, Marc Tardy, M. E. Willis, Douglas Wilson and A. A. Wright. Offscraping and underthrusting of sediment at the deformation front of the Barbados Ridge; Deep Sea Drilling Project Leg 78A. Geological Society of America Bulletin, v. 93, no. 11, November 1982. p. 1065-1077.
- OP-829. R. B. Moore. HAWAII. Distribution of differentiated tholeiitic basalts on the lower East Rift Zone of Kilauea Volcano, Hawaii; a possible guide to geothermal exploration. Geology (Boulder), v. 11, no. 3, March 1983. p. 136-140.
- OP-830. W. J. Moore and E. H. McKee. UTAH. Phanerozoic magmatism and mineralization in the Toole $1^{\circ} \times 2^{\circ}$ Quadrangle, Utah. Memoir - Geological Society of America, v. 157, 1983. p. 183-190.
- OP-831. W. L. Moore, Earl Cook, Roberts Gooch and C. F. Nordin, Jr., U.S. Geological Survey. TEXAS. The Austin, Texas, flood of May 24-25, 1981. 1982. 54 p. (Available from: Natl. Acad. Press, Washington, DC, United States.)
- OP-832. Daniel Moos and M. D. Zoback. In situ studies of velocity in fractured crystalline rocks. JGR. Journal of Geophysical Research. B, v. 88, no. 3, March 10, 1983. p. 2345-2358.
- OP-833. J. W. Morgan and G. A. Wandless. Strangways Crater, Northern Territory, Australia; siderophile element enrichment and lithophile element fractionation. JGR. Journal of Geophysical Research. B, 88, Suppl., no. 2, February 15, 1983. p. A819-A829.
- OP-834. N. A. Mörner, R. J. McLaughlin, U.S. Geological Survey, K. R. Lajoie, U.S. Geological Survey, D. H. Sorg, U.S. Geological Survey, S. D. Morrison, U.S. Geological Survey and J. A. Wolfe, U.S. Geological Survey. CALIFORNIA. Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California. Geology (Boulder), v. 11, no. 10, October 1983. p. 621-622.
- OP-835. E. C. Morris. Geologic map of Olympus Mons. NASA Technical Memorandum, v. 85127, December 1982. p. 134-136.
- OP-836. H. T. Morris. UTAH. Interrelations of thrust and transcurrent faults in the central Sevier orogenic belt near Leamington, Utah. Memoir - Geological Society of America, v. 157, 1983. p. 75-81.
- OP-837. C. Morrow, D. Moore and J. D. Byerlee. Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient. Proceedings - Symposium on Rock Mechanics, v. 24, 1983. p. 819-827.
- OP-838. C. E. Mortensen. CALIFORNIA. Short-term tilt events preceding some local earthquakes on the central Calaveras Fault; additional evidence. Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 289-298.
- OP-839. B. L. Moths, A. G. Lindh, W. L. Ellsworth and L. Fluty. CALIFORNIA. Comparison between the seismicity of the San Juan Bautista and Parkfield regions, California [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 958.
- OP-840. W. E. Motzer. IDAHO. Tertiary epizonal plutonic rocks of the Selway-Bitterroot Wilderness, Idaho [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 220.
- OP-841. C. S. Mueller, D. M. Boore and R. L. Porcella. CALIFORNIA. Detailed study of site amplification at El Centro strong-motion array station No. 6, in Proceedings; Third international earthquake microzonation conference; Vol. I (Mehmet Sherif, editor). Washington, DC: U. S. Natl. Sci. Found., June 1982. p. 413-424.
- OP-842. P. A. Mueller, J. L. Wooden, K. J. Schulz, U.S. Geological Survey and D. R. Bowes. MONTANA, WYOMING. Incompatible-element-rich andesitic amphibolites from the Archean of Montana and Wyoming; evidence for mantle metasomatism. Geology (Boulder), v. 11, no. 4, April 1983. p. 203-206.
- OP-843. O. H. Muller and W. H. Diment. Persistent zones of weakness in North America [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1032-1033.
- OP-844. D. R. Mullineaux. WASHINGTON. U.S. Geological Survey role at Mount St. Helens before and during early 1980; geologic studies and coordination with public agencies. Special Publication - California Division of Mines and Geology, v. 63, 1982. p. 187-191.
- OP-845. J. R. Murphy and T. J. Bennett. A discrimination analysis of short-period regional seismic data recorded at Tonto Forest Observatory. Bulletin of the Seismological Society of America, v. 72, no. 4, August 1982. p. 1351-1366.
- OP-846. D. A. Myers. NEW MEXICO. Stratigraphic summary of Pennsylvanian and Lower Permian rocks, Manzano Mountains, New Mexico. Guidebook - New Mexico Geological Society, v. 33, 1982. p. 233-237.
- OP-847. C. W. Naeser, N. D. Briggs, J. D. Obradovich and G. A. Izett. Geochronology of Quaternary tephra deposits, in Tephra studies; proceedings of the NATO Advanced Study Institute "Tephra studies as a tool in Quaternary research" (S. Self, editor and others). Dordrecht: D. Reidel Publ. Co., 1981. p. 13-47.
- OP-848. C. W. Naeser, Bruce Bryant, M. D. Crittenden, Jr. and M. L. Sorensen. UTAH. Fission-track ages of apatite in the Wasatch Mountains, Utah; an uplift study. Memoir - Geological Society of America, v. 157, 1983. p. 29-36.
- OP-849. J. K. Nakata. ARIZONA. Preliminary report on diking events in the Mohave Mountains, Arizona, in Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 85-89.

- OP-850. Robert Nason. CALIFORNIA. History of creep-slip-page rates on the Hayward Fault [abstr.] Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 22.
- OP-851. Robert Nason. CALIFORNIA. 1906 earthquake effects east of San Francisco Bay [abstr.] Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 320.
- OP-852. S. W. Needell, W. P. Dillon and H. J. Knebel. MASSACHUSETTS. Erosional channels on the shoreface of Nauset Beach, Cape Cod, Massachusetts. *Geo-Marine Letters*, v. 2, no. 1-2, June 1982. p. 61-64.
- OP-853. S. W. Needell, C. J. O'Hara and H. J. Knebel. RHODE ISLAND. Quaternary geology of the Rhode Island inner shelf. *Marine Geology*, v. 53, no. 1-2, August 1983. p. 41-53.
- OP-854. A. E. Nelson, U.S. Geological Survey and Isidore Zietz. The Clingman Lineament; aeromagnetic evidence for a major discontinuity in the North American basement [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 1, January 1981. p. 31.
- OP-855. C. H. Nelson, U.S. Geological Survey, Emiliano Mutti and Franco Ricci Lucchi. Comparison of proximal and distal thin-bedded turbidites with current-winnowed deep-sea sands. *International Congress on Sedimentology = Congres International de Sedimentologie*, v. 9, Theme 5. 1975. p. 317-324.
- OP-856. C. M. Nelson. Paleontology in the United States Federal service, 1804-1904. *Earth Sciences History*, v. 1, 1982. p. 48-58.
- OP-857. C. M. Nelson and M. C. Rabbitt. The role of Clarence King in the advancement of geology in the public service, 1867-1881, in *Frontiers of geological exploration of western North America* (A. E. Leviton, editor and others). San Francisco, CA: Am. Assoc. Adv. Sci., Pacific Sect., 1982. p. 19-35.
- OP-858. C. E. Neuzil, J. D. Bredehoeft and D. W. Pollock. SOUTH DAKOTA. The hydrology of the Pierre Shale of South Dakota; some observations [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 221.
- OP-859. C. E. Neuzil and D. W. Pollock. Erosional unloading and fluid pressures in hydraulically "tight" rocks. *Journal of Geology*, v. 91, no. 2, March 1983. p. 179-193.
- OP-860. C. G. Newhall. CALIFORNIA. Historical activity at calderas of the world as a framework for interpreting recent activity at Long Valley Caldera, California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 73.
- OP-861. E. G. Newton. Development of publicly owned oil shale lands of United States; prospect for 1980s [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 612-613.
- OP-862. D. J. Nichols. Phyletic gradualism or punctuated equilibria; the evidence from fossil pollen of the Juglandaceae [abstr.] *Palynology*, v. 6, 1982. p. 288.
- OP-863. D. J. Nichols, U.S. Geological Survey and S. R. Jacobson. UTAH, WYOMING. Palynostratigraphic framework for the Cretaceous (Albian-Maestrichtian) of the Overthrust Belt of Utah and Wyoming. *Palynology*, v. 6, 1982. p. 119-147.
- OP-864. K. M. Nichols. MONTANA. Facies in upper part of Madison Group, Sawtooth Range, northwestern Montana [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1350.
- OP-865. T. H. Nilsen. Alluvial fan deposits. *Memoir - American Association of Petroleum Geologists*, v. 31, 1982. p. 49-86.
- OP-866. T. H. Nilsen. CALIFORNIA. Early Cenozoic stratigraphy, tectonics and sedimentation of the central Diablo Range between Hollister and New Idria, in *Geology of the central and northern Diablo Range, California* (Virgil Frizzell, editor). Los Angeles, CA: Soc. Econ. Paleontol. and Mineral., Pac. Sect., May 29, 1981. p. 21-34.
- OP-867. T. H. Nilsen. Influence of the Greenland-Scotland Ridge on the geological history of the North Atlantic and Norwegian-Greenland sea areas. *NATO Conference Series. IV. Marine Sciences*, v. 8, 1983. p. 457-478.
- OP-868. T. H. Nilsen and G. M. Barats. OREGON, CALIFORNIA. Sedimentology of the Upper Cretaceous Hornbrook Fm., southwestern Oregon and north-central California [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 283.
- OP-869. T. H. Nilsen, U.S. Geological Survey and R. L. Carlson. CALIFORNIA. Cenozoic convergence along the California coast; a qualitative test of the hot-spot approximation. *Geology* (Boulder), v. 11, no. 11, November 1983. p. 673-674.
- OP-870. T. H. Nilsen and T. W. Dibblee, Jr. CALIFORNIA. Geology of the central and northern Diablo Range; introduction, in *Geology of the central and northern Diablo Range, California* (Virgil Frizzell, editor). Los Angeles, CA: Soc. Econ. Paleontol. and Mineral., Pac. Sect., May 29, 1981. p. 1-4.
- OP-871. T. H. Nilsen and T. W. Dibblee, Jr. CALIFORNIA. Description of field trip stops and roadlog, central Diablo Range between Hollister and New Idria, in *Geology of the central and northern Diablo Range, California* (Virgil Frizzell, editor). Los Angeles, CA: Soc. Econ. Paleontol. and Mineral., Pac. Sect., May 29, 1981. p. 41-58.
- OP-872. T. H. Nilsen, U.S. Geological Survey and Svend Saxov. The structure and development of the Greenland-Scotland Ridge. *Episodes*, v. 1982, no. 1, April 1982. p. 3-8.
- OP-873. D. C. Noble and E. H. McKee, U.S. Geological Survey. Nevado Portuguese volcanic center, central Peru; a Pliocene central volcano-collapse caldera complex with associated silver mineralization. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 77, no. 8, December 1982. p. 1893-1900.
- OP-874. K. M. Nolan and R. J. Janda. CALIFORNIA. Sediment discharge from two earthflows in Franciscan terrane, northwestern California [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 857-858.
- OP-875. K. M. Nolan and R. J. Janda. The role of hillslope/stream channel interaction in controlling sediment yield in steep terrane, in *American Geomorphological Field Group; Field trip guidebook, 1982 conference* (L. B. Leopold, editor). American Geomorphological Field Group, 1982. p. 138.

- OP-876. G. L. Nord, Jr. Cooling history; can we tell a magma ocean from a magma puddle? evidence from microstructures. LPI Technical Report, v. 82-01, 1982. p. 109-113.
- OP-877. G. L. Nord, Jr. and Mary-Virginia Wandless. Petrology and comparative thermal and mechanical histories of clasts in breccia 62236. JGR. Journal of Geophysical Research. B, 88, Suppl., no. 2, February 15, 1983. p. A645-A657.
- OP-878. C. F. Nordin, Jr. COLORADO. Probable impact of proposed reservoirs on several reaches of the Yampa River in Colorado; summary of discussions, in *Proceedings; Workshop on downstream river channel changes resulting from diversions or reservoir construction* (D. B. Simons, editor and others). September 1981. p. 16-20. (*Available from*: U. S. Fish and Wildlife Service, Washington, DC, United States.)
- OP-879. C. F. Nordin, Jr. and R. H. Meade. Discharge of organic carbon from rivers; estimates and sources of errors [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 867.
- OP-880. C. F. Nordin, Jr., R. H. Meade, W. F. Curtis, N. J. Bosio and P. M. Landim. Distribution of sediments in the Amazon River bed; no appreciable change along the river. *Acta Amazonica*, v. 11, no. 4, 1981. p. 769-772.
- OP-881. D. K. Nordstrom. The effect of sulfate on aluminum concentrations in natural waters; some stability relations in the system $\text{Al}_2\text{O}_3\text{-SO}_3\text{-H}_2\text{O}$ at 298 K. *Geochimica et Cosmochimica Acta*, v. 46, no. 4, 1982. p. 681-692.
- OP-882. D. I. Norman and G. P. Landis, U.S. Geological Survey. Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 3, May 1983. p. 451-465.
- OP-883. W. R. Normark. Geologic setting of polymetallic sulfide deposits on East Pacific Rise at 21°N and Juan de Fuca Ridge near 45°N [abstr.] *AAPG Bulletin*, v. 66, no. 7, July 1982. p. 979.
- OP-884. H. R. Northrop, M. B. Goldhaber, G. P. Landis, R. O. Rye and C. G. Whitney. UTAH. Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 613.
- OP-885. J. J. Norton. Sequence of mineral assemblages in differentiated granitic pegmatites. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 5, August 1983. p. 854-874.
- OP-886. J. J. Norton. SOUTH DAKOTA. Iron content of spodumene in different mineral assemblages of pegmatites, Black Hills, South Dakota [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 221.
- OP-887. J. J. Norton. SOUTH DAKOTA. Origin of lithium-rich pegmatitic magmas, southern Black Hills, South Dakota [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 221.
- OP-888. J. J. Norton, U.S. Geological Survey, D. D. Carr and H. H. Murray. Introduction; symposium on industrial minerals of the upper Midwest. *Geological Society of America Bulletin*, v. 94, no. 4, April 1983. p. 547-559.
- OP-889. R. P. Novitzki. WISCONSIN. Hydrology of Wisconsin wetlands. *Information Circular - Wisconsin, Geological and Natural History Survey*, v. 40, October 1982. 22 p.
- OP-890. R. P. Novitzki, editor, U.S. Geological Survey and Gilbert Levine, editor. A Northeast conference; The impact of waste storage and disposal on ground-water resources. Ithaca, NY: Cornell Univ. Cent. Environ. Res., Reston, VA: U. S. Geol. Surv., 1982. variously paginated.
- OP-891. G. A. Nowlan. Guidelines for finding concretionary Mn-Fe oxides in streams. *Journal of Geochemical Exploration*, v. 17, no. 1, September 1982. p. 77-79.
- OP-892. C. J. Nutt. NEW YORK. Uranium occurrences in Precambrian rocks of the Adirondack region, New York. *Empire State Geogram*, v. 18, no. 2, 1982. p. 3-18.
- OP-893. J. D. Obradovich. NDS 157; Albian, K-Ar/biotite-bentonite, Middle West N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 838-839.
- OP-894. J. D. Obradovich. NDS 161; Ordovician; Caradoc, K-Ar/biotite, Eastern Interior American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 844.
- OP-895. J. D. Obradovich and C. W. Naeser. CALIFORNIA. Geochronology bearing on age of Monterey Formation, California [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 966.
- OP-896. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 92; Palaeocene, K-Ar/glaucopy, NE American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 757.
- OP-897. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 102; Bajocian, K-Ar; Rb-Sr/biotite-bentonite, Middle West N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 766-767.
- OP-898. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 103; Palaeocene, K-Ar/biotite-pumice, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 767-768.
- OP-899. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 104; Maastrichtian, K-Ar/biotite-bentonite, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 768-769.
- OP-900. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 105; Campanian, K-Ar/minerals-bentonite, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 769-770.

- OP-901. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 107; Santonian, K-Ar/biotite-bentonite, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 771.
- OP-902. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 108; Coniacian/Turonian, K-Ar/biotite-bentonite, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 772.
- OP-903. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 109; Turonian, K-Ar/biotite-bentonite, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 772-773.
- OP-904. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 110; Cenomanian, K-Ar/biotite-bentonite, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 773-774.
- OP-905. G. S. Odin and J. D. Obradovich, U.S. Geological Survey. NDS 111; Albian, K-Ar/minerals-bentonite, Interior N American Basin [abstr.], in *Numerical dating in stratigraphy* (G. S. Odin, editor). Chichester: John Wiley & Sons, 1982. p. 774-775.
- OP-906. R. N. Oldale. MASSACHUSETTS. Pleistocene stratigraphy of Nantucket, Martha's Vineyard, the Elizabeth Islands, and Cape Cod, Massachusetts, in *Late Wisconsinan glaciation of New England; proceedings of the symposium* (G. J. Larson, editor and others). Dubuque, IA: Kendall/Hunt Publ. Co., 1982. p. 1-34.
- OP-907. R. N. Oldale. Permafrost in the northeastern United States coastal plain [abstr.]. *Am. Quat. Assoc., Natl. Conf., Abstr.*, v. 7, 1982. p. 150.
- OP-908. D. W. O'Leary, U.S. Geological Survey and W. B. Ryan. Geomorphic features of shelf-slope revealed by sidescan sonar images [abstr.]. *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 966-967.
- OP-909. G. R. Olhoeft. Warburg impedances at single water-mineral interfaces [abstr.]. *Geophysics*, v. 48, no. 4, April 1983. p. 487.
- OP-910. H. W. Oliver, R. W. Saltus, D. R. Mabey and T. G. Hildenbrand. Comparison of Bouguer anomaly and isostatic residual-gravity maps of the southwestern Cordillera [abstr.]. *Geophysics*, v. 48, no. 4, April 1983. p. 454.
- OP-911. W. A. Oliver, Jr. Arborescent corals [abstr.]. *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 69.
- OP-912. C. G. Olson. WASHINGTON. Use of stratigraphy in studying erosion of Recent tephra, Shultz Creek, Mt. St. Helens, Washington [abstr.]. *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 857.
- OP-913. C. L. Oman, C. R. Meissner, Jr. and Jean Kane. Chemical composition of Gulf Coast lignites; data as of 1981 [abstr.]. *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 70.
- OP-914. J. M. O'Neill. NEW MEXICO. Precambrian rocks of the Mora-Rociada area, southern Sangre de Cristo Mountains, New Mexico [abstr.]. *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 222.
- OP-915. J. M. O'Neill, U.S. Geological Survey and D. A. Lopez. IDAHO, MONTANA. Great Falls lineament, Idaho and Montana [abstr.]. *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1350-1351.
- OP-916. W. A. O'Neill, J. F. Sutter, U.S. Geological Survey and K. O. Stanley. WYOMING, UTAH. Sedimentation history of rich oil-shale sequences in Eocene lakes Gosiute and Uinta, Wyoming and Utah [abstr.]. *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 222.
- OP-917. D. H. Oppenheimer and Donna Eberhart-Phillips. CALIFORNIA. Induced seismicity at The Geysers, California [abstr.]. *Geophysics*, v. 48, no. 4, April 1983. p. 478-479.
- OP-918. R. S. Oremland. Geochemical prospecting for oil and gas; microbiologist's viewpoint [abstr.]. *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 967.
- OP-919. R. S. Oremland. Methane in association with seismic activity. *Eos, Transactions, American Geophysical Union*, v. 64, no. 24, June 14, 1983. p. 410.
- OP-920. R. S. Oremland, L. M. Marsh and Sandra Polcin. Methane production and simultaneous sulphate reduction in anoxic, salt marsh sediments. *Nature (London)*, v. 296, no. 5853, March 17, 1982. p. 143-145.
- OP-921. D. G. Orr, C. M. Trautwein and D. D. Greenlee. ALASKA. Digital data base application to porphyry copper mineralization in Alaska; a case study [abstr.]. *Geophysics*, v. 48, no. 4, April 1983. p. 475.
- OP-922. W. R. Osterkamp and P. E. Harrold. Dynamics of alluvial channels; a process model, in *Modeling components of hydrologic cycle* (V. P. Singh, editor). Littleton, CO: Water Resour. Publ., 1982. p. 283-296.
- OP-923. M. M. O'Toole. Assessing the volcanic probability of Martian landforms. *NASA Technical Memorandum*, v. 84894, September 1982. p. 556-558.
- OP-924. J. K. Otton. ARIZONA. Tertiary extensional tectonics and associated volcanism in west-central Arizona, in *Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada* (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 143-157.
- OP-925. J. K. Otton. ARIZONA. Tertiary stratigraphy and geochronologic problems, west-central Arizona [abstr.]. *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 222.
- OP-926. J. P. Owens, Lucy McCartan and E. M. Lemon, Jr. NEW JERSEY, SOUTH CAROLINA. Mineral phases produced by weathering on surfaces of different ages from New Jersey to South Carolina; a comparison of rate and duration of weathering [abstr.]. *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 71.
- OP-927. N. J. Page, U.S. Geological Survey, Daniel Cassard and Joseph Haffty, U.S. Geological Survey. Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiébaghi Massif, New Caledonia. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 77, no. 6, October 1982. p. 1571-1577.

- OP-928. N. J. Page, U.S. Geological Survey, Gerhard Von Gruenewaldt, Joseph Haffty, U.S. Geological Survey and P. J. Aruscavage, U.S. Geological Survey. Comparison of platinum, palladium, and rhodium distributions in some layered intrusions with special reference to the late differentiates (upper zone) of the Bushveld Complex, South Africa. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 77, no. 6, October 1982. p. 1405-1418.
- OP-929. R. A. Page, J. A. Waller and C. D. Stephens. ALASKA. Recent seismicity around Spurr, Redoubt, and Iliamna volcanoes, southern Alaska [abstr.] *Eos, Transactions, American Geophysical Union*, v. 64, no. 9, March 1, 1983. p. 90.
- OP-930. R. W. Page and G. L. Bertoldi. CALIFORNIA. A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County. *California Geology*, v. 36, no. 1, January 1983. p. 14-20.
- OP-931. F. L. Paillet. Application of borehole geophysics to the acoustic characterization of low permeability rocks, in *Proceedings of the Fourth annual participants' information meeting, DOE Low-Level Waste Management Program* (D. E. Large, compiler and others). October 1982. p. 457-458. (*Available from*: NTIS, Springfield, VA, United States.)
- OP-932. F. L. Paillet. Acoustic character of hydraulic fractures in granite. *Proceedings - Symposium on Rock Mechanics*, v. 24, 1983. p. 327-334.
- OP-933. J. S. Pallister, U.S. Geological Survey and R. T. Gregory. Composition of the Samail ocean crust. *Geology (Boulder)*, v. 11, no. 11, November 1983. p. 638-642.
- OP-934. F. D. Palluconi and H. H. Kieffer, U.S. Geological Survey. Thermal inertia mapping of Mars from 60°S to 60°N. *Icarus*, v. 45, no. 2, February 1981. p. 415-426.
- OP-935. J. T. Parrish. Phanerozoic paleoceanography and phosphorites [abstr.] *International Field Workshop and Seminar on Phosphorite*, v. 5, 1982. p. 101-104.
- OP-936. P. J. Patchett. Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution. *Geochimica et Cosmochimica Acta*, v. 47, no. 1, January 1983. p. 81-91.
- OP-937. P. J. Patchett, O. Kouvo, C. E. Hedge and M. Tatsumoto. Evolution of continental crust and mantle heterogeneity; evidence from Hf isotopes. *Contributions to Mineralogy and Petrology*, v. 78, no. 3, 1981. p. 279-297.
- OP-938. S. H. Patterson, compiler. Selected bibliography on laterites of N. America. *Newsletter - I. G. C. P. Project 129: Lateritisation Processes*, v. 5, December 1982. p. 35-38.
- OP-939. S. H. Patterson. Exploration methods for laterite-type bauxite and nickel laterite. *Newsletter - I. G. C. P. Project 129: Lateritisation Processes*, v. 2, June 1981. p. 4-12.
- OP-940. T. G. Payne. ALASKA. Use of Apple II in mapping geology of coastal plain of NPR Alaska [abstr.] *AAPG Bulletin*, v. 66, no. 10, October 1982. p. 1706.
- OP-941. Virgilio Perez. Comparison of decrease of response peaks and the degradation of "ductile" detailing strength during earthquake induced excitation [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 59-60.
- OP-942. W. J. Perry, Jr., R. T. Ryder and E. K. Maughan. MONTANA. The southern part of the Southwest Montana thrust belt; a preliminary re-evaluation of structure, thermal maturation and petroleum potential, in *Montana Geological Society field conference and symposium guidebook to Southwest Montana* (T. E. Tucker, editor and others). *Mont. Geol. Soc.*, 1981. p. 261-273.
- OP-943. W. J. Perry, Jr., B. R. Wardlaw, N. H. Bostick and E. K. Maughan. MONTANA. Structure, burial history, and petroleum potential of frontal thrust belt and adjacent foreland, Southwest Montana. *AAPG Bulletin*, v. 67, no. 5, May 1983. p. 725-743.
- OP-944. W. J. Person. Public information aspects of earthquake hazards [abstr.] *Special Publication - Colorado Geological Survey*, v. 19, 1981. p. 15.
- OP-945. E. A. Pessagno, Jr. and C. D. Blome, U.S. Geological Survey. Bizarre Nassellarina (Radiolaria) from the Middle and Upper Jurassic of North America. *Micropaleontology*, v. 28, no. 3, 1982. p. 289-318.
- OP-946. F. Pessl, Jr., D. P. Dethier and R. F. Keuler. WASHINGTON. Sedimentary facies and depositional environments of late Wisconsinian glacial-marine deposits in central Puget Lowland, Washington [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 969-970.
- OP-947. Z. E. Peterman. WYOMING. Geochronology of the southern Wyoming age province; a summary, in *1982 Archean geochemistry field conference; Seminoe Mountains and Hartville Uplift, Wyoming; Part I, Guide to field trips* (S. S. Goldich, chairperson). IGCP, Archean Geochem. Proj., U. S. Working Group, Colo. Sch. Mines, Geol. Surv. Wyo., U. S. Geol. Surv., 1982. p. 1-23.
- OP-948. D. C. Peters. Use of airborne multispectral scanner data to map alteration related to roll-front uranium migration. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 4, July 1983. p. 641-653.
- OP-949. D. S. Peterson. MASSACHUSETTS. Management of the Lawrence Swamp Aquifer, Amherst, Massachusetts [abstr.] *Ground Water*, v. 21, no. 4, August 1983. p. 518.
- OP-950. D. W. Peterson. WASHINGTON. Operations of the U.S. Geological Survey at Mount St. Helens. *Special Publication - California Division of Mines and Geology*, v. 63, 1982. p. 193-204.
- OP-951. Fred Peterson. UTAH. Depositional systems in the Salt Wash Member of the Morrison Formation (Upper Jurassic) in southern Utah [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 286.
- OP-952. Fred Peterson. UTAH, ARIZONA. Late Jurassic tectonism on west side of Colorado Plateau, Utah and Arizona [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1351.
- OP-953. Fred Peterson, J. A. Campbell, K. J. Franczyk and R. D. Lupe. UTAH. Escalante Quadrangle, Utah. September 1982. 65 p. (*Available from*: Bendix Field Eng. Corp., Tech. Lib., Grand Junction, CO, United States.)
- OP-954. D. R. Pevear and R. F. Keuler, U.S. Geological Survey. WASHINGTON. Calcium carbonate cementation of tills rich in ultramafic rocks, northern Puget Sound region, Washington [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 970.

- OP-955. H. W. Pfefferkorn and W. H. Gillespie, U.S. Geological Survey. Plant megafossils at Carboniferous-Permian boundary [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 970.
- OP-956. J. D. Phillips and D. L. Daniels. The Eastern overthrust hypothesis; analysis of aeromagnetic and gravity data [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 73.
- OP-957. Jeff Phillips. Crustal magnetic anomalies measured by satellite; problems and possibilities [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 35, August 31, 1982. p. 655.
- OP-958. R. L. Phillips. Depositional and structural controls on heavy-petroleum tar sands in Santa Cruz Mountains [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 970.
- OP-959. F. W. Pierce, B. H. Kent and W. D. Grundy. WYOMING. Geostatistical analysis of a 113-billion-ton coal deposit, central part of the Powder River basin, northwestern Wyoming. Bulletin - Utah Geological and Mineral Survey, v. 118, May 1982. p. 262-272.
- OP-960. J. E. Pike. ARIZONA. Composition of Tertiary volcanic rocks, Mohave Mountains, Arizona [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 304.
- OP-961. J. E. Pike, U.S. Geological Survey and V. L. Hansen. ARIZONA. Complex Tertiary stratigraphy and structure, Mohave Mountains, Arizona; a preliminary report, in Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 91-96.
- OP-962. R. J. Pike. Crater peaks to basin rings; the transition on Mercury and other bodies. NASA Technical Memorandum, v. 85127, December 1982. p. 117-119.
- OP-963. R. J. Pike and G. D. Clow. Geomorphology of craters on Mercury; first results from a new sample. NASA Technical Memorandum, v. 85127, December 1982. p. 120-122.
- OP-964. R. J. Pike, U.S. Geological Survey and H. J. Melosh. A schematic model of crater modification by gravity. JGR. Journal of Geophysical Research. B, v. 88, no. 3, March 10, 1983. p. 2500-2507.
- OP-965. P. R. Pinet and Peter Popenoe. Late Cretaceous depositional patterns of the Blake Plateau [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 73.
- OP-966. D. J. Piper and W. R. Normark, U.S. Geological Survey. Acoustic interpretation of Quaternary sedimentation and erosion on the channelled upper Laurentian Fan, Atlantic margin of Canada. Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre, v. 19, no. 10, October 1982. p. 1974-1984.
- OP-967. D. J. Piper and W. R. Normark, U.S. Geological Survey. Slumps and debris flows on the Laurentian Fan; fact and fiction [abstr.] Program with Abstracts - Geological Association of Canada, v. 7, 1982. p. 74.
- OP-968. D. Z. Piper and J. R. Blueford. Distribution, mineralogy, and texture of manganese nodules and their relation to sedimentation at DOMES Site A in the equatorial North Pacific. Deep-Sea Research. Part A: Oceanographic Research Papers, v. 29, no. 8, 1982. p. 927-952.
- OP-969. J. K. Pitman. COLORADO. Regional stratigraphic and depositional analysis of rock units in the upper Garden Gulch and Parachute Creek members of the Green River Formation, Piceance Creek basin, Colorado. Oil Shale Symposium Proceedings, v. 15, 1982. p. 79-100.
- OP-970. J. K. Pitman, T. D. Fouch and M. B. Goldhaber. UTAH. Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah. AAPG Bulletin, v. 66, no. 10, October 1982. p. 1581-1596.
- OP-971. A. M. Pitt and R. S. Cockerham. CALIFORNIA. Long Valley Caldera earthquake swarm; January 7, 1983 [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 73.
- OP-972. George Plafker and D. L. Jones. ALASKA. Geology and tectonic evolution of Alaska, in Perspectives in regional geological synthesis; planning for The geology of North America (A. R. Palmer, editor). Boulder, CO: Geol. Soc. Am., 1982. p. 77-80.
- OP-973. L. N. Plummer and Eurybiades Busenberg. The solubilities of calcite, aragonite and vaterite in CO₂-H₂O solutions between 0 and 90°C, and an evaluation of the aqueous model for the system CaCO₃-CO₂-H₂O. Geochimica et Cosmochimica Acta, v. 46, no. 6, 1982. p. 1011-1040.
- OP-974. L. N. Plummer, D. L. Parkhurst and D. C. Thorstenson. Development of reaction models for ground-water systems. Geochimica et Cosmochimica Acta, v. 47, no. 4, April 1983. p. 665-686.
- OP-975. L. N. Plummer and E. T. Sundquist. Total individual ion activity coefficients of calcium and carbonate in seawater at 25°C and 35‰ salinity, and implications to the agreement between apparent and thermodynamic constants of calcite and aragonite. Geochimica et Cosmochimica Acta, v. 46, no. 2, 1982. p. 247-258.
- OP-976. C. W. Poag. Stratigraphic reference section for Georges Bank Basin; depositional model for New England passive margin. AAPG Bulletin, v. 66, no. 8, August 1982. p. 1021-1041.
- OP-977. C. W. Poag. Generic predominance facies among deep-water benthic foraminifera of Gulf of Mexico [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 973.
- OP-978. C. W. Poag. Bolivianids as paleoenvironmental monitors on continental slopes [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 2, January 1983. p. 60.
- OP-979. C. W. Poag and J. S. Schlee. Chronostratigraphic sequences beneath Northeastern United States continental margin [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 973.
- OP-980. M. H. Podwysocki, D. B. Segal and O. D. Jones. UTAH. Mapping of hydrothermally altered rocks using airborne multispectral scanner data, Marysvale, Utah, mining area [abstr.] COSPAR Plenary Meet., Program Abstr., v. 24, 1982. p. 82-83.

- OP-981. J. F. Poland. Subsidence in United States due to ground-water withdrawal. *Journal of the Irrigation and Drainage Division*, v. 108, December 1982. p. 276.
- OP-982. S. Polcin, L. Marsh and R. S. Oremland. Methanogenesis and sulfate-reduction; a mechanism for simultaneity [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 925.
- OP-983. D. D. Pollard, Paul Segall and P. T. Delaney. Formation and interpretation of dilatant echelon cracks. *Geological Society of America Bulletin*, v. 93, no. 12, December 1982. p. 1291-1303.
- OP-984. J. S. Pomeroy. PENNSYLVANIA. Relict debris flows in northwestern Pennsylvania. *Northeastern Geology*, v. 5, no. 1, 1983. p. 1-7.
- OP-985. F. G. Poole, Benita Murchey and J. H. Stewart. Bedded barite deposits of middle and late Paleozoic age in central Sonora, Mexico [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 299.
- OP-986. F. G. Poole, C. A. Sandberg and G. N. Green. NEVADA. Allochthonous Devonian eugeosynclinal rocks in southern Fish Creek Range of central Nevada [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 304.
- OP-987. R. S. Poore, J. A. Barron and W. O. Addicott. Biochronology of the northern Pacific Miocene, in *Proceedings of IGCP-114 international workshop on Pacific Neogene biostratigraphy* (Nobuo Ikebe, editor and others). Osaka: Osaka Mus. Nat. Hist., 1981. p. 91-97.
- OP-988. R. Z. Poore. CALIFORNIA. Planktonic calibration of provincial Miocene stages of California [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 974.
- OP-989. Peter Popenoe. NORTH CAROLINA. The middle Tertiary origin of Albemarle Sound, North Carolina [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 73-74.
- OP-990. Peter Popenoe, K. D. Klitgord, W. P. Dillon, P. R. Pinet and J. A. Grow. Structure and history of the Carolina Platform (Cape Fear Arch) [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 74.
- OP-991. D. S. Powars and R. B. Mixon. VIRGINIA. Evidence for massive slumping along the Potomac River, Virginia Coastal Plain [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 2, January 1983. p. 54.
- OP-992. R. B. Powers. COLORADO. Geology of Willow Creek foreland thrust play, Moffat County, Colorado [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 619.
- OP-993. W. H. Prescott. CALIFORNIA. Circumstances surrounding the preparation and suppression of a report on the 1868 California earthquake. *Bulletin of the Seismological Society of America*, v. 72, Part A. December 1982. p. 2389-2393.
- OP-994. W. H. Prescott and M. Lisowski. CALIFORNIA. Deformation along the Hayward and Calaveras faults; steady aseismic slip or strain accumulation. *Special Publication - California Division of Mines and Geology*, v. 62, 1982. p. 231-237.
- OP-995. W. H. Prescott and Michael Lisowski. CALIFORNIA. Strain accumulation along the San Andreas Fault system east of San Francisco Bay, California. *Tectonophysics*, v. 97, no. 1-4, September 1, 1983. p. 41-56.
- OP-996. L. C. Price. Time as factor in organic metamorphism and use of vitrinite reflectance as an absolute paleogeothermometer [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 619-620.
- OP-997. W. C. Prinz, leader. MICHIGAN. Wakefield, Michigan, area, in *1981 Archean geochemistry field conference; Upper Peninsular & northern Wisconsin* (J. O. Kalliokoski, convener and others). IGCP, Archean Geochem. Proj., U. S. Working Group, Wis. Geol. and Nat. Hist. Surv., Mich. Technol. Univ., Mich. Dep. Nat. Resour., 1981. p. 1-5.
- OP-998. P. J. Quinterio, J. R. Blueford and J. G. Baldauf. ALASKA. Micropaleontologic analysis of Navarin Basin, Bering Sea, Alaska [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 975.
- OP-999. P. V. Raab. Comments on a colonization curve. *Lethaia*, v. 14, no. 4, December 15, 1981. p. 342.
- OP-1000. M. C. Rabbitt. I. C. Russell; frontiersman of science, in *Frontiers of geological exploration of western North America* (A. E. Leviton, editor and others). San Francisco, CA: Am. Assoc. Adv. Sci., Pacific Sect., 1982. p. 79-83.
- OP-1001. G. L. Raines and J. C. Wynn. Mapping of ultramafic rocks in a heavily vegetated terrain using Landsat data. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 77, no. 7, November 1982. p. 1755-1761.
- OP-1002. N. M. Ratcliffe. External massifs of western New England; variously reactivated North American cratonic basement [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 75.
- OP-1003. N. M. Ratcliffe. Tectonic versus frost-wedging origin of faulted glacially polished surfaces in the lower Hudson River valley area [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 76.
- OP-1004. J. C. Ratte, R. F. Marvin, C. W. Naeser, W. E. Brooks and T. L. Finnell. NEW MEXICO, ARIZONA. Volcanic history of southwestern Mogollon-Datil volcanic field as recorded along the Morenci Lineament, New Mexico and Arizona [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 303.
- OP-1005. K. W. Ratzlaff. TEXAS. Land-surface subsidence in the Texas coastal region. Report - Texas Department of Water Resources, v. 272, November 1982. 26 p.
- OP-1006. O. B. Raup. UTAH, COLORADO. Evaporite mineral cycles, Paradox Basin, Utah and Colorado [abstr.] *AAPG Bulletin*, v. 66, no. 10, October 1982. p. 1698.
- OP-1007. A. C. Razem. OHIO. Ground-water monitoring in three small surface-mined watersheds of eastern Ohio [abstr.] *Ground Water Monitoring Review*, v. 3, no. 1, 1983. p. 153.
- OP-1008. D. K. Rea and T. L. Vallier, U.S. Geological Survey. Two Cretaceous volcanic episodes in the western Pacific Ocean. *Geological Society of America Bulletin*, v. 94, no. 12, December 1983. p. 1430-1437.

- OP-1009. Ze'ev Reches and J. H. Dieterich, U.S. Geological Survey, U.S. Geological Survey. Faulting of rocks in three-dimensional strain fields; I, Failure of rocks in polyaxial, servo-control experiments. *Tectonophysics*, v. 95, no. 1-2, May 20, 1983. p. 111-132.
- OP-1010. J. A. Redden, J. D. Obradovich, C. W. Naeser, R. E. Zartman and J. J. Norton. SOUTH DAKOTA. Early Tertiary age of pitchstone in the northern Black Hills, South Dakota. *Science*, v. 220, no. 4602, June 10, 1983. p. 1153-1154.
- OP-1011. B. L. Reed, A. T. Miesch and M. A. Lanphere. ALASKA. Plutonic rocks of Jurassic age in the Alaska-Aleutian Range Batholith; chemical variations and polarity. *Geological Society of America Bulletin*, v. 94, no. 10, October 1983. p. 1232-1240.
- OP-1012. J. Reed. Stratigraphic studies; geologic studies [abstr.] LPI Technical Report, v. 81-07, 1982. p. 14.
- OP-1013. R. D. Reeves, compiler, R. W. Maclay, compiler and M. F. Davis, compiler. TEXAS. Records of ground-water recharge, discharge, water levels, and chemical quality of water for the Edwards Aquifer in the San Antonio area, Texas, 1934-80. *Bulletin - Edwards Underground Water District*, v. 40, October 1982. 128 p.
- OP-1014. G. M. Reimer. Soil-gas helium variations related to seismic activity [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 962.
- OP-1015. Erk Reimnitz and P. W. Barnes. ALASKA. Depositional complexities in sea-ice environment of Arctic shelves; example from Harrison Bay, Alaska [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 978.
- OP-1016. Juergen Reinhardt. ALABAMA. Deformational structures in the Inner Coastal Plain, western Georgia-eastern Alabama [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 2, January 1983. p. 55.
- OP-1017. C. A. Repenning. ALASKA. New evidence for the age of the Gubik Formation, Alaskan North Slope. *Quaternary Research (New York)*, v. 19, no. 3, May 1983. p. 356-372.
- OP-1018. C. A. Repenning, U.S. Geological Survey and Oldrich Fejfar. Evidence for earlier date of Ubeidiya, Israel, hominid site. *Nature (London)*, v. 299, no. 5881, September 23, 1982. p. 344-347.
- OP-1019. J. E. Repetski. TENNESSEE. Magnitude of the post-Knox unconformity (Lower/Middle Ordovician) in the Central Basin of Tennessee, as measured by conodonts [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 76.
- OP-1020. J. E. Repetski, U.S. Geological Survey and R. L. Ethington. *Rossodus manitouensis* (Conodonts), a new Early Ordovician index fossil. *Journal of Paleontology*, v. 57, no. 2, March 1983. p. 289-301.
- OP-1021. P. L. Rettman. Theories of playa lake development in the High Plains, in *Proceedings of the Playa lakes symposium* (U. S. Fish and Wildlife Service, Office of Biological Services). February 1981. p. 4-6. (Available from: U. S. Fish Wildlife Serv., Off. Biol. Serv., Washington, DC, United States.)
- OP-1022. L. A. Reynolds. Modern benthic foraminifera from Gyre intraslope basin, northern Gulf of Mexico [abstr.] *AAPG Bulletin*, v. 66, no. 9, September 1982. p. 1436.
- OP-1023. L. A. Reynolds. Modern benthic foraminifera from the Gyre intraslope basin, Gulf of Mexico. *Transactions - Gulf Coast Association of Geological Societies*, v. 32, 1982. p. 341-351.
- OP-1024. R. L. Reynolds. TEXAS. Post-depositional alteration of titanomagnetite in a Miocene sandstone, South Texas (U.S.A.). *Earth and Planetary Science Letters*, v. 61, no. 2, December 1982. p. 381-391.
- OP-1025. R. L. Reynolds and M. B. Goldhaber. Iron disulfide minerals and the genesis of roll-type uranium deposits. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 1, February 1983. p. 105-120.
- OP-1026. Susan Rhea. SOUTH CAROLINA. Analysis of digital data from local Charleston, S.C., earthquakes [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 32.
- OP-1027. C. L. Rice. KENTUCKY. Introduction; the stratigraphic framework of the Pennsylvanian rocks in eastern Kentucky, in *Coal and coal-bearing rocks of eastern Kentucky* (J. C. Cobb, leader and others). Lexington, KY: Ky. Geol. Surv., 1981. p. 2-5.
- OP-1028. C. L. Rice. KENTUCKY. Stream piracy near Ivyton in eastern Kentucky, in *Coal and coal-bearing rocks of eastern Kentucky* (J. C. Cobb, leader and others). Lexington, KY: Ky. Geol. Surv., 1981. p. 166-169.
- OP-1029. D. D. Rice. NEW MEXICO, COLORADO. Relation of natural gas composition to thermal maturity and source rock type in San Juan Basin, northwestern New Mexico and southwestern Colorado. *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1199-1218.
- OP-1030. D. D. Rice and G. E. Claypool. Significance of shallow gas in ancient marine sequences [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 978.
- OP-1031. D. D. Rice, U.S. Geological Survey, D. L. Gautier, U.S. Geological Survey and G. W. Shurr. MONTANA. Example of inner-shelf sand ridges from Upper Cretaceous Eagle Sandstone, Central Montana Uplift [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1352.
- OP-1032. D. D. Rice and G. W. Shurr. Patterns of sedimentation and paleogeography across the Western Interior Seaway during time of deposition of Upper Cretaceous Eagle Sandstone and equivalent rocks, Northern Great Plains. *Rocky Mountain Paleogeography Symposium*, v. 2, 1983. p. 337-358.
- OP-1033. D. D. Rice and C. N. Threlkeld. The San Juan Basin contains large reserves of nonassociated gas. *Oil and Gas Journal*, v. 81, no. 10, March 7, 1983. p. 129-132.
- OP-1034. B. M. Richmond and R. E. Hunter. OREGON. Oblique dunes of Oregon coast [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 978.
- OP-1035. G. M. Richmond and J. P. Bradbury. Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park [abstr.] *Am. Quat. Assoc., Natl. Conf., Abstr.*, v. 7, 1982. p. 156.

- OP-1036. W. C. Richmond, D. J. Burdick and D. J. Krotser. CALIFORNIA. Geologic hazards and constraints, Federal oil and gas lease sale 53 area, offshore central and Northern California [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 978-979.
- OP-1037. F. S. Riley, R. P. Denlinger, J. K. Boling and M. C. Carpenter. CALIFORNIA. Surface deformation in the Long Valley, California caldera since 1975 [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 75.
- OP-1038. S. M. Rimmer and D. D. Eberl, U.S. Geological Survey. Origin of an underclay as revealed by vertical variations in mineralogy and chemistry. Clays and Clay Minerals, v. 30, no. 6, December 1982. p. 422-430.
- OP-1039. A. Rite and H. M. Iyer. OREGON. Oregon seismicity; 1981 [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 966.
- OP-1040. E. I. Robbins. Economic potential of ancient lakebeds in the Newark rift system (eastern North America) [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 77.
- OP-1041. E. I. Robbins. Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes. Tectonophysics, v. 94, no. 1-4, May 1, 1983. p. 633-658.
- OP-1042. E. C. Robertson. Continuous formation of gouge and breccia during fault displacement. Proceedings - Symposium on Rock Mechanics, v. 23, 1982. p. 397-404.
- OP-1043. J. B. Robertson. Lessons learned in the geohydrology of low-level radioactive waste disposal [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 865.
- OP-1044. G. R. Robinson, Jr. and J. L. Haas, Jr. Heat capacity, relative enthalpy, and calorimetric entropy of silicate minerals; an empirical method of prediction. American Mineralogist, v. 68, no. 5-6, June 1983. p. 541-553.
- OP-1045. S. W. Robinson, D. P. Adam and J. D. Sims. CALIFORNIA. Radiocarbon content, sedimentation rates, and a time scale for Clear Lake, California, core CL-73-4 [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 279.
- OP-1046. S. W. Robinson and Y. K. Kharaka. NEVADA. Big Soda Lake, Nevada; Part II, Carbon isotopes [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 922.
- OP-1047. E. W. Roedder. Origin of fluid inclusions and changes that occur after trapping. Short Course Handbook, v. 6, May 1981. p. 101-137.
- OP-1048. E. W. Roedder. Fluid inclusions in gemstones; valuable defects, in Proceedings of the International gemological symposium (D. M. Eash, editor). Santa Monica, CA: Gemol. Inst. Amer., 1982. p. 479-502.
- OP-1049. E. W. Roedder. Significance of Ca-Al-rich silicate melt inclusions in olivine crystals from the Murchison type II carbonaceous chondrite. Bulletin de Mineralogie, v. 104, no. 4, 1981. p. 339-353.
- OP-1050. E. W. Roedder. Problems in the use of fluid inclusions to investigate fluid-rock interactions in igneous and metamorphic processes. Fortschritte der Mineralogie, v. 59, no. 2, 1981. p. 267-302.
- OP-1051. H. W. Roehler. WYOMING. Physical evidence for saline cycles of deposition in Eocene Lake Gosiute in Southwest Wyoming [abstr.] AAPG Bulletin, v. 66, no. 10, October 1982. p. 1698-1699.
- OP-1052. A. M. Rogers, J. C. Tinsley and R. D. Borchardt. CALIFORNIA. Geographic variation in ground shaking as a function of changes in near-surface properties and geologic structure near Los Angeles, California [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 71-72.
- OP-1053. C. Rojahn and R. D. Borchardt, U.S. Geological Survey. On the status of in-situ strong ground motion and structural response investigations, in Proceedings; Third international earthquake microzonation conference; Vol. I (Mehmet Sherif, editor). Washington, DC: U. S. Natl. Sci. Found., June 1982. p. 329-363.
- OP-1054. J. N. Rosholt. Isotopic composition of uranium and thorium in crystalline rocks [abstr.], in 1982 Archean geochemistry field conference; Seminoe Mountains and Hartville Uplift, Wyoming; Part II, Program (S. S. Goldich, chairperson). IGCP, Archean Geochem. Proj., U. S. Working Group, Colo. Sch. Mines, Geol. Surv. Wyo., U. S. Geol. Surv., 1982. p. 16.
- OP-1055. D. C. Ross. CALIFORNIA. The Salinian Block; a structurally displaced granitic block in the California Coast Ranges. Memoir - Geological Society of America, v. 159, 1983. p. 255-264.
- OP-1056. D. M. Rubin and R. E. Hunter. Bedform climbing in theory and nature. Sedimentology, v. 29, no. 1, 1982. p. 121-138.
- OP-1057. D. M. Rubin and R. E. Hunter. Dune size in paleodeserts of Colorado Plateau [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 982.
- OP-1058. E. T. Ruppel. Lemhi Arch [abstr.] AAPG Bulletin, v. 67, no. 8, August 1983. p. 1353.
- OP-1059. E. T. Ruppel, C. A. Wallace, R. G. Schmidt and D. A. Lopez. MONTANA, IDAHO. Preliminary interpretation of the thrust belt in Southwest and west-central Montana and east central Idaho, in Montana Geological Society field conference and symposium guidebook to Southwest Montana (T. E. Tucker, editor and others). Mont. Geol. Soc., 1981. p. 139-159.
- OP-1060. D. P. Russ. Structural framework and tectonic evolution of the New Madrid seismic zone, central United States [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 79.
- OP-1061. G. N. Ryals. LOUISIANA. Ground-water resources of the Arcadia-Minden area, Louisiana. Water Resources Technical Report, v. 28, 1982. 35 p.
- OP-1062. B. J. Ryan and K. L. Kipp. RHODE ISLAND. Ground-water contamination plume from low-level radioactive wastes, Wood River Junction, Rhode Island [abstr.] Ground Water, v. 21, no. 4, August 1983. p. 517.

- OP-1063. R. O. Rye, William Back, B. B. Hanshaw, C. T. Rightmire and F. J. Pearson, Jr. FLORIDA, TEXAS. The origin and isotopic composition of dissolved sulfide in groundwater from carbonate aquifers in Florida and Texas. *Geochimica et Cosmochimica Acta*, v. 45, no. 10, 1981. p. 1941-1950.
- OP-1064. T. A. Ryer. UTAH. Eustatic control of distribution of lower Upper Cretaceous coal beds in Utah; application in coal exploration [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 984.
- OP-1065. T. A. Ryer and Maureen McPhillips. UTAH. Early Late Cretaceous paleogeography of east-central Utah. Rocky Mountain Paleogeography Symposium, v. 2, 1983. p. 253-272.
- OP-1066. M. J. Rymer. CALIFORNIA. Late Cenozoic stratigraphic setting of the Clear Lake area, Lake County, California [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 278.
- OP-1067. A. H. Sallenger, Jr., P. C. Howard, C. H. Fletcher, III and P. A. Howd. A system for measuring bottom profile, waves and currents in the high-energy nearshore environment. *Marine Geology*, v. 51, no. 1-2, February 1983. p. 63-76.
- OP-1068. C. A. Sandberg. Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. [abstr.] Utah Geological Association Publication, v. 11, 1982. p. 4.
- OP-1069. C. A. Sandberg. The Devonian-Carboniferous boundary in North America [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 6, March 1981. p. 315.
- OP-1070. C. A. Sandberg, U.S. Geological Survey and Roland Dreesen. Phylogeny and ranges of Late Devonian taxa of the conodont family Icriodontidae [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 5, March 1982. p. 286.
- OP-1071. R. F. Sanford. Three Fortran programs for finite-difference solutions to binary diffusion in one and two phases with composition- and time-dependent diffusion coefficients. *Computers & Geosciences*, v. 8, no. 3-4, 1982. p. 235-263.
- OP-1072. D. A. Sangrey and H. J. Knebel, U.S. Geological Survey. Geotechnical studies in the Baltimore Canyon trough area. JPT. *Journal of Petroleum Technology*, v. 33, no. 4, April 1981. p. 576-584.
- OP-1073. E. S. Santos. WYOMING, SOUTH DAKOTA. Newcastle Quadrangle, Wyoming and South Dakota. September 1982. 48 p. (Available from: Bendix Field Eng. Corp., Tex. Lib., Grand Junction, CO, United States.)
- OP-1074. E. S. Santos and K. R. Ludwig. WYOMING. Age of uranium mineralization at the Highland Mine, Powder River basin, Wyoming, as indicated by U-Pb isotope analyses. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 3, May 1983. p. 498-501.
- OP-1075. R. F. Sanzalone and T. T. Chao. Atomic-absorption determination of mercury in geological materials by flame and carbon-rod atomisation after solvent extraction and using co-extracted silver as a matrix modifier. *Analyst (London)*, v. 108, no. 1282, 1983. p. 58-63.
- OP-1076. J. C. Savage. Strain accumulation in Western United States. *Annual Review of Earth and Planetary Science*, v. 11, 1983. p. 11-43.
- OP-1077. J. C. Savage. A dislocation model of strain accumulation and release at a subduction zone. *JGR. Journal of Geophysical Research*, B, v. 88, no. 6, June 10, 1983. p. 4984-4996.
- OP-1078. J. C. Savage and M. M. Clark. CALIFORNIA. Magmatic resurgence in Long Valley Caldera, California; possible cause of the 1980 Mammoth Lakes earthquakes. *Science*, v. 217, no. 4559, August 6, 1982. p. 531-533.
- OP-1079. J. C. Savage, W. H. Prescott and Michael Lisowski. CALIFORNIA. Deformation across the Long Valley (California) Caldera from 1980 (postearthquake) to January 1983 [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 74.
- OP-1080. W. Z. Savage and A. F. Chleborad. A model for creeping flow in landslides. *Bulletin of the Association of Engineering Geologists*, v. 19, no. 4, November 1982. p. 333-338.
- OP-1081. G. G. Schaber. Syrtis Major; a low-relief volcanic shield. *JGR. Journal of Geophysical Research*, B, v. 87, no. 12, November 30, 1982. p. 9852-9866.
- OP-1082. G. G. Schaber, P. A. Davis, R. C. Kozak and E. M. Eliason. Tectonics and surface roughness of Venus; a progress report. NASA Technical Memorandum, v. 85127, December 1982. p. 75-76.
- OP-1083. D. H. Schaefer and D. K. Maurer. NEVADA. Geophysical reconnaissance of Lemmon Valley, Nevada [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 862-863.
- OP-1084. C. J. Schenk. Porosity and textural characteristics of eolian stratification [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 986.
- OP-1085. J. S. Schlee, U.S. Geological Survey and L. F. Jansa. The paleoenvironment and development of the eastern North American continental margin. *Oceanologica Acta*, v. 4, supplement. 1981. p. 71-80.
- OP-1086. D. L. Schmidt and G. F. Brown. Chemistry of volcanic and plutonic rocks of the Precambrian Shield, Kingdom of Saudi Arabia [abstr.] *F. E. S. Research Series*, v. 13, 1982. p. 90-92.
- OP-1087. D. L. Schmidt and G. F. Brown. Chemistry of volcanic and plutonic rocks of the Precambrian shield, Kingdom of Saudi Arabia [abstr.] *Precambrian Research*, v. 16, no. 4, January 1982. p. A37.
- OP-1088. R. G. Schmidt. High-alumina hydrothermal systems in volcanic rocks of the Carolina slate belt [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 80.
- OP-1089. D. R. Schmitz and J. C. Cain, U.S. Geological Survey. Geomagnetic spherical harmonic analyses; I, Techniques [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 35, August 31, 1982. p. 653.
- OP-1090. D. R. Schmitz and J. C. Cain, U.S. Geological Survey. Geomagnetic spherical harmonic analyses; I, Techniques. *JGR. Journal of Geophysical Research*, B, v. 88, no. 2, February 10, 1983. p. 1222-1228.

- OP-1091. D. R. Schmitz and J. B. Frayser. Application of dipole modeling to magnetic anomalies [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 846.
- OP-1092. J. W. Schmoker and R. B. Halley. FLORIDA. Carbonate porosity versus depth; a predictable relation for South Florida. *AAPG Bulletin*, v. 66, no. 12, December 1982. p. 2561-2570.
- OP-1093. G. B. Schneider, S. S. Crowley and M. A. Carey. WYOMING. Coal resources of the Cache Bed, Recluse geologic model area, Campbell County, Wyoming [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 224.
- OP-1094. G. B. Schneider and J. W. Mytton. NEW MEXICO. Geology of Chaco Canyon National Monument, New Mexico [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 224.
- OP-1095. M. E. Schoenberg. MINNESOTA. Seasonal versus long-term variations in potentiometric levels in the Mount Simon-Hinckley and Prairie du Chien-Jordan aquifers, Twin Cities metropolitan area, Minnesota [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 33, August 17, 1982. p. 613.
- OP-1096. M. E. Schoenberg and J. H. Guswa. MINNESOTA. Evaluating ground-water data by a flow model of the Twin Cities metropolitan area, Minnesota [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 33, August 17, 1982. p. 612.
- OP-1097. P. A. Scholle. Porosity prediction in shallow vs. deep-water limestones. *JPT. Journal of Petroleum Technology*, v. 33, no. 11, November 1981. p. 2236-2242.
- OP-1098. J. H. Schuenemeyer and L. J. Drew, U.S. Geological Survey. A procedure to estimate the parent population of the size of oil and gas fields as revealed by a study of economic truncation [abstr.], in *Abstracts of the proceedings of the 10th Geochautauqua on computer applications in the earth sciences; use of computers in mineral-resources evaluation* (F. P. Agterberg, convener). Ottawa, ON: Geol. Surv. Can., 1981. p. 10.
- OP-1099. L. G. Schultz. Chemical characteristics and origin of Ordovician K-bentonites along the Cincinnati Arch; a discussion. *Clays and Clay Minerals*, v. 30, no. 6, December 1982. p. 445-446.
- OP-1100. L. G. Schultz, H. A. Tourtelot, J. R. Gill and J. G. Boerngen. Mineralogical and chemical composition of the Pierre Shale and equivalent rocks, northern Great Plains, U.S.A. [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 225.
- OP-1101. K. J. Schulz. WISCONSIN. Geochemistry of the volcanic rocks of northeastern Wisconsin [abstr.] *Proceedings - Annual Institute on Lake Superior Geology*, v. 29, 1983. p. 39-40.
- OP-1102. R. L. Schuster. Engineering aspects of the 1980 Mount St. Helens eruptions. *Bulletin of the Association of Engineering Geologists*, v. 20, no. 2, May 1983. p. 125-143.
- OP-1103. R. L. Schuster. Engineering geology. *Geology (Boulder)*, v. 11, no. 12, December 1983. p. 684.
- OP-1104. E. C. Schwarzman, C. E. Meyer and H. C. Wilshire. Pseudotachylite from the Vredefort Ring, South Africa, and the origins of some lunar breccias. *Geological Society of America Bulletin*, v. 94, no. 7, July 1983. p. 926-935.
- OP-1105. C. E. Schweger, J. V. Matthews, Jr., D. M. Hopkins, U.S. Geological Survey and S. B. Young. Paleocology of Beringia; a synthesis, in *Paleocology of Beringia* (D. M. Hopkins, editor and others). New York, NY: Acad. Press, 1982. p. 425-444.
- OP-1106. A. G. Scott and R. M. Hirsch. WEST VIRGINIA. Trends in flooding in the Tug Fork basin, in *Proceedings of the Conference on water and energy technical and policy issues* (Fritz Kilpatrick, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 127-133.
- OP-1107. D. H. Scott. Volcanoes and volcanic provinces; Martian western hemisphere. *JGR. Journal of Geophysical Research*, B, v. 87, no. 12, November 30, 1982. p. 9839-9851.
- OP-1108. D. H. Scott. Meander relics; evidence of extensive flooding on Mars. *NASA Technical Memorandum*, v. 85127, December 1982. p. 216-218.
- OP-1109. D. H. Scott. Mars; subdivisions of highland rocks. *NASA Technical Memorandum*, v. 85127, December 1982. p. 304-306.
- OP-1110. D. H. Scott and K. L. Tanaka. Mars; paleostratigraphic restoration of buried surfaces in Tharsis Montes. *Icarus*, v. 45, no. 2, February 1981. p. 304-319.
- OP-1111. J. H. Scott, J. J. Daniels, R. L. Reynolds and R. L. Seeley. Magnetic-susceptibility logging in sedimentary uranium environments. *The Log Analyst*, v. 24, no. 2, April 1983. p. 16-21.
- OP-1112. David Seeland, A. C. Christiansen, N. M. Denson, H. C. Granger, D. J. Hammond, F. A. Hills, J. D. Love, D. L. Macke, Mark Mercer, P. B. Mudgett, G. M. Reimer, E. S. Santos and C. K. Sever. WYOMING, NEBRASKA. Torrington Quadrangle, Wyoming and Nebraska. September 1982. 52 p. (Available from: Bendix Field Eng. Corp., Tech. Lib., Grand Junction, CO, United States.)
- OP-1113. D. B. Segal. Use of Landsat multispectral scanner data for the definition of limonitic exposures in heavily vegetated areas. *Economic Geology and the Bulletin of the Society of Economic Geologists*, v. 78, no. 4, July 1983. p. 711-722.
- OP-1114. Paul Segall and D. D. Pollard. Nucleation and growth of strike slip faults in granite. *JGR. Journal of Geophysical Research*, B, v. 88, no. 1, January 10, 1983. p. 555-568.
- OP-1115. Paul Segall and D. D. Pollard. CALIFORNIA. Joint formation in granitic rock of the Sierra Nevada. *Geological Society of America Bulletin*, v. 94, no. 5, May 1983. p. 563-575.
- OP-1116. V. M. Seiders. CALIFORNIA. Correlation and provenance of upper Mesozoic chert-rich conglomerate of California. *Geological Society of America Bulletin*, v. 94, no. 7, July 1983. p. 875-888.

- OP-1117. J. J. Sepkoski, Jr. and E. L. Yochelson, U.S. Geological Survey. Evolutionary and geologic problems at the Precambrian-Cambrian boundary; historical perspectives [abstr.] AAAS Publication, v. 83-2, 1983. p. 39.
- OP-1118. E. G. Shaw. Application of Eastman Kodak's Technical Pan 2415 Film to palynological photomicrography. *Palynology*, v. 6, 1982. p. 267-269.
- OP-1119. P. M. Shearer and D. H. Oppenheimer. CALIFORNIA. A dipping Moho and crustal low-velocity zone from Pn arrivals at The Geysers-Clear Lake, California. *Bulletin of the Seismological Society of America*, v. 72, no. 5, October 1982. p. 1551-1566.
- OP-1120. K. M. Shedlock and S. T. Harding. Mississippi River seismic survey. *Geophysical Research Letters*, v. 9, no. 11, November 1982. p. 1275-1278.
- OP-1121. R. J. Shedlock and S. E. Eikenberry. INDIANA. Saline formation waters in the Cambrian-Ordovician aquifer in Northwest Indiana [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 5, March 1982. p. 287-288.
- OP-1122. R. P. Sheldon. Phosphogenic provinces of Circum-Pacific region. *AAPG Studies in Geology*, v. 12, 1981. p. 537-539.
- OP-1123. R. P. Sheldon, U.S. Geological Survey and W. C. Burnett. Changing patterns of phosphogenesis in Mesozoic and Cenozoic [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 991.
- OP-1124. R. A. Sheppard, U.S. Geological Survey and F. A. Mumpton. NEW MEXICO. Pelletal and oolitic fluorite in a lacustrine zeolitic tuff near Buckhorn, Grant County, New Mexico [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 226.
- OP-1125. E. A. Shinn. Birdseyes, fenestrae, shrinkage pores, and loferites; a reevaluation. *Journal of Sedimentary Petrology*, v. 53, no. 2, June 1983. p. 619-628.
- OP-1126. E. A. Shinn, C. W. Holmes, J. H. Hudson, D. M. Robbin and B. H. Lidz. FLORIDA. Non-oolitic, high-energy carbonate sand accumulation; the Quicksands, Southwest Florida Keys [abstr.] *AAPG Bulletin*, v. 66, no. 5, May 1982. p. 629.
- OP-1127. E. A. Shinn and D. M. Robbin. Mechanical and chemical compaction in fine-grained shallow-water limestones. *Journal of Sedimentary Petrology*, v. 53, no. 2, June 1983. p. 595-618.
- OP-1128. E. A. Shinn, D. M. Robbin, B. H. Lidz and J. H. Hudson. NEW MEXICO. Influence of deposition and early diagenesis on porosity and chemical compaction in two Paleozoic buildups; Mississippian and Permian age rocks in the Sacramento Mountains, New Mexico. *S. E. P. M. Core Workshop*, v. 4, 1983. p. 182-222.
- OP-1129. E. M. Shoemaker. Thermal evolution of Ganymede and Callisto [abstr.] *COSPAR Plenary Meet., Program Abstr.*, v. 24, 1982. p. 120.
- OP-1130. E. M. Shoemaker. Impacts and extinctions; a planetary perspective on evolutionary biology [abstr.] *AAAS Publication*, v. 83-2, 1983. p. 13-14.
- OP-1131. G. W. Shurr. MONTANA. Landsat linear features in Montana plains [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1355.
- OP-1132. G. W. Shurr, U.S. Geological Survey and T. A. Gognat. Paleotectonism reflected in the Niobrara Formation of the northern Great Plains [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 226.
- OP-1133. G. W. Shurr, U.S. Geological Survey and J. T. Jenkins, Jr. Depositional setting and geometric characteristics of the Shannon Sandstone Member of Gammon Shale; a continental shelf sand ridges field [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 226.
- OP-1134. G. L. Sideler and C. E. Stelling. TEXAS. Sedimentary processes in restricted Gulf Coast estuarine system; Corpus Christi Bay, Texas [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 992.
- OP-1135. D. I. Siegel, A. L. Kontis and R. J. Mandle. The chemical evolution of water quality in the Cambrian-Ordovician aquifer, north-central United States [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 33, August 17, 1982. p. 612.
- OP-1136. D. I. Siegel and R. J. Mandle. Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 5, March 1982. p. 288.
- OP-1137. R. W. Simpson, U.S. Geological Survey, R. E. Wells, U.S. Geological Survey and J. R. Magill. WASHINGTON, OREGON. Tectonic rotations recorded by flows in the Columbia River Basalt Group, Washington and Oregon [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 8, February 23, 1982. p. 174.
- OP-1138. J. D. Sims, M. J. Rymer and J. A. Perkins. CALIFORNIA. Late Quaternary stratigraphy and paleolimnology, Clear Lake, California [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 278.
- OP-1139. P. K. Sims, U.S. Geological Survey, K. D. Card and S. B. Lumbers. Evolution of early Proterozoic basins of the Great Lakes region. Paper - *Geological Survey of Canada*, v. 81-10, 1981. p. 379-397.
- OP-1140. P. K. Sims, U.S. Geological Survey and G. B. Morey. Memorial to George Melvin Schwartz, 1892-1980. *Memorials - Geological Society of America*, v. 13, 1983. 4 p.
- OP-1141. W. C. Sinclair. FLORIDA. Sinkhole development resulting from ground-water withdrawal in the Tampa area, Florida [abstr.] *AAAS Publication*, v. 83-2, 1983. p. 31.
- OP-1142. S. A. Sipkin. Determination of seismic source parameters from the inversion of waveform data [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 950.

- OP-1143. B. A. Skipp. IDAHO. A synopsis of the structure and stratigraphy of south-central Idaho; contributions by the U.S. Geological Survey since 1975, *in* Montana Geological Society field conference and symposium guidebook to Southwest Montana (T. E. Tucker, editor and others). Mont. Geol. Soc., 1981. p. 365-372.
- OP-1144. J. F. Slack. Stratabound sulfide deposits of the New England region; an overview [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 3, February 1981. p. 177.
- OP-1145. J. F. Slack, U.S. Geological Survey and M. P. Annis. VERMONT. Time-space relations of tourmaline-rich rocks at the Elizabeth Mine and vicinity, Vermont copper belt [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 3, February 1981. p. 177.
- OP-1146. L. E. Slater, Art McGarr, U.S. Geological Survey, J. O. Langbein, U.S. Geological Survey and M. F. Linker, U.S. Geological Survey. CALIFORNIA. Multiwavelength EDM measurements in Southern California [abstr.] Tectonophysics, v. 97, no. 1-4, September 1, 1983. p. 39.
- OP-1147. C. C. Smith, U.S. Geological Survey, E. A. Mancini and C. W. Copeland, Jr. ALABAMA, MISSISSIPPI. Preliminary report on Upper Cretaceous geological studies along the Tombigbee River, western Alabama and eastern Mississippi [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 1, January 1981. p. 34.
- OP-1148. G. I. Smith. CALIFORNIA. Long-cycle paleohydrologic regimes in Southeast California; a possible cause [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 300.
- OP-1149. T. N. Smith and G. W. Petering. ALASKA. Petroleum potential of Shelikof Strait based on outcrops in Katmai National Monument, Alaska [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 994.
- OP-1150. J. L. Snider. LOUISIANA. Premining hydrology of the lignite area in southeastern De Soto Parish, Louisiana. Water Resources Technical Report, v. 29, 1982. 40 p.
- OP-1151. D. B. Snyder. NEVADA. Gravity interpretation of Yucca Mountain, Nye County, Nevada and its implications for southern Nevada structure [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1039.
- OP-1152. G. L. Snyder and Z. E. Peterman. WYOMING. Precambrian geology and geochronology of the Hartville Uplift, Wyoming, *in* 1982 Archean geochemistry field conference; Seminole Mountains and Hartville Uplift, Wyoming; Part I, Guide to field trips (S. S. Goldich, chairperson). IGCP, Archean Geochem. Proj., U. S. Working Group, Colo. Sch. Mines, Geol. Surv. Wyo., U. S. Geol. Surv., 1982. p. 64-94.
- OP-1153. L. A. Soderblom. Searching for terrestrial analogs on other planets; within 3AU [abstr.] AAAS Publication, v. 83-2, 1983. p. 11.
- OP-1154. N. F. Sohl, U.S. Geological Survey and C. F. Koch. Substrate preference among some Late Cretaceous shallow-water benthic mollusks [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 84.
- OP-1155. N. F. Sohl, U.S. Geological Survey and C. F. Koch. MISSISSIPPI, ALABAMA, GEORGIA. Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 1, January 1981. p. 35.
- OP-1156. I. G. Sohn. TEXAS. Biostratigraphic evaluation of the Carboniferous and Permian ostracodes of Texas, *in* Texas Ostracoda; guidebook of excursions and related papers for the Eighth international symposium on Ostracoda (R. F. Maddocks, editor). Houston, TX: Univ. Houston, Dep. Geosci., 1982. p. 103-109.
- OP-1157. I. G. Sohn. In Houston, Ostracoda symposium convenes. Geotimes, v. 28, no. 5, May 1983. p. 19.
- OP-1158. I. G. Sohn. WEST VIRGINIA. Ostracodes of the "Winifrede Limestone" (Middle Pennsylvanian) in the region of the proposed Pennsylvanian System stratotype, West Virginia. Bulletins of American Paleontology, v. 84, no. 316, May 9, 1983. 53 p.
- OP-1159. G. C. Solomon, J. H. Dilles, R. E. Criss, U.S. Geological Survey and H. P. Taylor. NEVADA. 18O/16O and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 277.
- OP-1160. Wayne Sonntag. FLORIDA. Freshwater for deep-well injection, South Florida [abstr.], *in* Proceedings of the Specialty conference on environmentally sound water and soil management (E. G. Kruse, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 241.
- OP-1161. M. L. Sorey and C. D. Farrar. CALIFORNIA. Monitoring hot springs and shallow groundwater in the Long Valley Caldera, California [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 77.
- OP-1162. Henry Spall. Science publishing. Geology (Boulder), v. 11, no. 12, December 1983. p. 690.
- OP-1163. C. W. Spencer. Geologic aspects of tight gas reservoirs in the Rocky Mountain region, *in* Proceedings of the 1983 SPE/DOE joint symposium on low permeability gas reservoirs (K. M. Kersch, chairperson). Denver, CO: Soc. Pet. Eng., 1983. p. 399-408.
- OP-1164. C. W. Spencer. Overpressured reservoirs in Rocky Mountain region [abstr.] AAPG Bulletin, v. 67, no. 8, August 1983. p. 1356-1357.
- OP-1165. J. E. Spencer. CALIFORNIA, ARIZONA. Origin of folds of Tertiary low-angle fault surfaces, southeastern California and western Arizona, *in* Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 123-134.
- OP-1166. J. E. Spencer and R. D. Turner. CALIFORNIA. Dike swarms and low-angle faults, Homer Mountain and the northwestern Sacramento Mountains, southeastern California, *in* Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 97-107.

- OP-1167. R. J. Spencer, H. P. Eugster and B. F. Jones, U.S. Geological Survey. UTAH. Geochemical evolution of Great Salt Lake, Utah [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 301.
- OP-1168. E. C. Spiker, U.S. Geological Survey and B. R. Simoneit. Radiocarbon dating of Recent sediments from Leg 64, Gulf of California. Initial Reports of the Deep Sea Drilling Project, v. 64, no. 2, October 1982. p. 757-758.
- OP-1169. C. L. Sprinkle. GEORGIA, FLORIDA. Geochemistry of water from two wells in the Tertiary limestone aquifer system, Georgia and Florida [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 85.
- OP-1170. Paul Spudich. Frequency domain calculation of extended source seismograms [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 960.
- OP-1171. P. D. Spudis. Modeling Mars, Moon surfaces. *Geotimes*, June 1983. p. 22-24.
- OP-1172. M. H. Staatz. WYOMING. Disseminated thorium and rare-earth deposits in the southern Bear Lodge Mountains, Wyoming [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 4, February 1981. p. 227.
- OP-1173. J. S. Stacey and L. B. Fischer. WYOMING. Implications for continental evolution from U-Pb zircon and common lead isotope data in and around the Archean craton of Wyoming [abstr.], in 1982 Archean geochemistry field conference; Seminole Mountains and Hartville Uplift, Wyoming; Part II, Program (S. S. Goldich, chairperson). IGCP, Archean Geochem. Proj., U. S. Working Group, Colo. Sch. Mines, Geol. Surv. Wyo., U. S. Geol. Surv., 1982. p. 16.
- OP-1174. J. S. Stacey and D. C. Hedlund. NEW MEXICO. Lead-isotopic compositions of diverse igneous rocks and ore deposits from southwestern New Mexico and their implications for early Proterozoic crustal evolution in the western United States. *Geological Society of America Bulletin*, v. 94, no. 1, January 1983. p. 43-57.
- OP-1175. R. S. Stanley and N. M. Ratcliffe, U.S. Geological Survey. Palinspastic analysis of west-central New England [abstr.] *The Green Mountain Geologist*, v. 9, no. 4, 1983. p. 9.
- OP-1176. R. S. Stanley and D. L. Roy, U.S. Geological Survey. VERMONT. Tectonic geology of the northern Vermont ultramafic belt [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 85.
- OP-1177. R. S. Stanley, D. L. Roy, M. H. Gale and P. R. Tauvers. VERMONT. Thrust zones in the pre-Silurian eugeoclinal rocks of Vermont [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 85.
- OP-1178. W. D. Stanley. Signal processing and data analysis for SQUID-based geophysical measurement systems, in *SQUID applications to geophysics* (Harold Weinstock, editor and others). Tulsa, OK: Soc. Explor. Geophys., 1981. p. 26-30.
- OP-1179. D. A. Stauber. Linearized inversion of transmitted acoustic wavefields for modulus and density perturbations; comparison with a linearized travel time inversion technique [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 95.
- OP-1180. R. S. Stein and Michael Lisowski. CALIFORNIA. The 1979 Homestead Valley earthquake sequence, California; control of aftershocks and postseismic deformation. *JGR. Journal of Geophysical Research. B*, v. 88, no. 8, August 10, 1983. p. 6477-6490.
- OP-1181. C. D. Stephens, J. C. Lahr and R. A. Page. ALASKA. Recent microseismicity along the eastern Gulf of Alaska and its relation to the Yakataga seismic gap [abstr.] *Eos, Transactions, American Geophysical Union*, v. 64, no. 9, March 1, 1983. p. 90.
- OP-1182. J. C. Stephens. Circuit riders, workshops, and county agents; experiments in information delivery [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 86.
- OP-1183. A. J. Stevenson, D. W. Scholl and T. L. Vallier. Tectonic and geologic implications of the Zodiac Fan, Aleutian abyssal plain, Northeast Pacific. *Geological Society of America Bulletin*, v. 94, no. 2, February 1983. p. 259-273.
- OP-1184. J. H. Stewart. CALIFORNIA. Extensional tectonics in the Death Valley area, California; transport of the Panamint Range structural block 80 km northwestward. *Geology (Boulder)*, v. 11, no. 3, March 1983. p. 153-157.
- OP-1185. J. H. Stewart. Spatial variation, style, and age of Cenozoic extensional tectonics in the Great Basin [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 287.
- OP-1186. J. H. Stewart. Depositional provinces of Paleozoic and uppermost Precambrian rocks in Great Basin, Western United States [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 998.
- OP-1187. J. W. Stewart. FLORIDA. Ground-water degradation incidents, west-central Florida, in *Proceedings of the Specialty conference on environmentally sound water and soil management* (E. G. Kruse, editor and others). New York, NY: Am. Soc. Civ. Eng., 1982. p. 445-452.
- OP-1188. J. M. Stock, U.S. Geological Survey and Peter Molnar. Some geometrical aspects of uncertainties in combined plate reconstructions. *Geology (Boulder)*, v. 11, no. 12, December 1983. p. 697-701.
- OP-1189. B. D. Stone. MASSACHUSETTS. The Massachusetts state surficial geologic map, in *Geotechnology in Massachusetts* (O. C. Farquhar, editor). Amherst, MA: Univ. Mass., Grad. Sch., 1982. p. 11-28.
- OP-1190. B. D. Stone and J. D. Peper. MASSACHUSETTS. Topographic control of the deglaciation of eastern Massachusetts; ice lobation and the marine incursion, in *Late Wisconsinan glaciation of New England; proceedings of the symposium* (G. J. Larson, editor and others). Dubuque, IA: Kendall/Hunt Publ. Co., 1982. p. 145-166.
- OP-1191. C. G. Stone and B. R. Haley, U.S. Geological Survey. ARKANSAS, OKLAHOMA. Deep-water deposition of Ordovician strata in the Ouachita Mountains, Arkansas and Oklahoma [abstr.] Abstracts with Programs - Geological Society of America, v. 13, no. 5, February 1981. p. 263.

- OP-1192. C. G. Stone and B. R. Haley, U.S. Geological Survey. ARKANSAS. Summary of the stratigraphy and sedimentology of the Paleozoic rocks, Ouachita Mountains, Arkansas [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 3, February 1982. p. 137.
- OP-1193. J. R. Stone, J. P. Schafer and E. H. London. CONNECTICUT. The surficial geologic maps of Connecticut illustrated by a field trip in central Connecticut. Annual Meeting - New England Intercollegiate Geological Conference, v. 74, 1982. p. 5-25.
- OP-1194. Paul Stone, K. A. Howard and Warren Hamilton. CALIFORNIA, ARIZONA. Correlation of metamorphosed Paleozoic strata of the southeastern Mojave Desert region, California and Arizona. Geological Society of America Bulletin, v. 94, no. 10, October 1983. p. 1135-1147.
- OP-1195. W. J. Stone, F. P. Lyford, U.S. Geological Survey, P. F. Frenzel, U.S. Geological Survey, N. H. Mizell and E. T. Padgett, U.S. Geological Survey. NEW MEXICO. Hydrogeology and water resources of San Juan Basin, New Mexico. Hydrologic Report - New Mexico Bureau of Mines and Mineral Resources, v. 6, 1983. 70 p.
- OP-1196. J. D. Stoner. Probable hydrologic effects of subsurface mining. Ground Water Monitoring Review, v. 3, no. 1, 1983. p. 128-137.
- OP-1197. N. C. Sturchio, C. E. Hedge, U.S. Geological Survey and M. Sultan. Age of Meatiq Dome, central Eastern Desert, Egypt [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 33, August 17, 1982. p. 615.
- OP-1198. Wilhelm Sturmer and E. L. Yochelson, U.S. Geological Survey. Soft parts of stylolinites (Devonian) [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 87.
- OP-1199. N. H. Suneson and Ivo Lucchitta, U.S. Geological Survey. ARIZONA. Origin of bimodal volcanism, southern Basin and Range Province, west-central Arizona. Geological Society of America Bulletin, v. 94, no. 8, August 1983. p. 1005-1019.
- OP-1200. J. F. Sutter. Timing of metamorphism in the Appalachian Orogen based on $^{40}\text{Ar}/^{39}\text{Ar}$ dates of hornblende and biotite [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 87.
- OP-1201. J. F. Sutter, U.S. Geological Survey and R. D. Dallmeyer. Interpretation of $\text{Ar-40}/\text{Ar-39}$ ages from the Appalachian Grenville terrane [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 1-2, February 1982. p. 87.
- OP-1202. D. A. Swanson. Volcanic studies in the Pacific Northwest, 1879-1979, in *Frontiers of geological exploration of western North America* (A. E. Leviton, editor and others). San Francisco, CA: Am. Assoc. Adv. Sci., Pacific Sect., 1982. p. 193-207.
- OP-1203. D. A. Swanson. Forecasts and predictions. Eos, Transactions, American Geophysical Union, v. 64, no. 28, July 12, 1983. p. 452.
- OP-1204. D. A. Swanson and T. J. Casadevall. Volcanology. Reviews of Geophysics and Space Physics, v. 21, no. 6, July 1983. p. 1419-1435.
- OP-1205. D. A. Swanson, U.S. Geological Survey, T. J. Casadevall, U.S. Geological Survey, Daniel Dzurisin, U.S. Geological Survey, S. D. Malone, C. G. Newhall, U.S. Geological Survey and C. S. Weaver, U.S. Geological Survey. WASHINGTON. Predicting eruptions at Mount St. Helens, June 1980 through December 1982. Science, v. 221, no. 4618, September 20, 1983. p. 1369-1376.
- OP-1206. D. A. Swanson and R. T. Holcomb. WASHINGTON. Forecasting eruptions at Mount St. Helens by monitoring ground deformation [abstr.] Eos, Transactions, American Geophysical Union, v. 63, no. 8, February 23, 1982. p. 174.
- OP-1207. B. A. Swift, J. A. Grow and K. D. Klitgord. Deep crustal structure of Georges Bank Basin [abstr.] Eos, Transactions, American Geophysical Union, v. 62, no. 45, November 10, 1981. p. 1022.
- OP-1208. H. S. Swolfs. Aspects of the size-strength relationship of unjointed rocks. Proceedings - Symposium on Rock Mechanics, v. 24, 1983. p. 501-510.
- OP-1209. J. J. Taber and C. S. Weaver, U.S. Geological Survey. WASHINGTON. Seismicity of the Olympic Peninsula, Washington [abstr.] Earthquake Notes, v. 54, no. 1, March 1982. p. 41.
- OP-1210. James Taggart and Frank Baldwin. NEW MEXICO. Earthquake sequence of 1938-1939 in Mogollon Mountains, New Mexico. New Mexico Geology, v. 4, no. 4, November 1982. p. 49-52.
- OP-1211. K. L. Tanaka. A new time-saving crater-count technique, with application to narrow features. NASA Technical Memorandum, v. 85127, December 1982. p. 123-125.
- OP-1212. K. L. Tanaka. ARIZONA. Landslides of Vermillion Cliffs, Arizona; application to Mars. NASA Technical Memorandum, v. 85127, December 1982. p. 253-255.
- OP-1213. G. D. Tasker. Simplified testing of hydrologic regression regions. Journal of the Hydraulics Division, v. 108, October 1982. p. 1218-1222.
- OP-1214. G. D. Tasker. Effective record length for the T-year event. Journal of Hydrology, v. 64, no. 1-4, July 1983. p. 39-47.
- OP-1215. G. D. Tasker. Approximate sampling distribution of the serial correlation coefficient for small samples. Water Resources Research, v. 19, no. 2, April 1983. p. 579-582.
- OP-1216. G. D. Tasker and E. J. Gilroy. Comparison of estimators of standard deviation for hydrologic time series. Water Resources Research, v. 18, no. 5, October 1982. p. 1503-1508.
- OP-1217. M. Tatsumoto, D. M. Unruh and P. J. Patchett. Comment; problems regarding meteorite and lunar chronology [abstr.] LPI Technical Report, v. 82-02, 1982. p. 152.
- OP-1218. R. B. Taylor and T. A. Steven. Definition of mineral resource potential. Economic Geology and the Bulletin of the Society of Economic Geologists, v. 78, no. 6, October 1983. p. 1268-1270.

- OP-1219. M. J. Terman. The last 200 million years in eastern Asia; Yanshanian subduction and post-Yanshanian extension [abstr.] AAPG Bulletin, v. 66, no. 7, July 1982. p. 985-986.
- OP-1220. W. Thatcher. Seismic triggering and earthquake prediction. *Nature* (London), v. 299, no. 5878, September 8, 1982. p. 12-13.
- OP-1221. W. Thatcher, U.S. Geological Survey and J. B. Rundle. A viscoelastic model for periodically recurring earthquakes in subduction zones [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 1031.
- OP-1222. Wayne Thatcher. Nonlinear strain buildup and the earthquake cycle on the San Andreas Fault. *JGR. Journal of Geophysical Research. B*, v. 88, no. 7, July 10, 1983. p. 5893-5902.
- OP-1223. P. A. Thayer, E. I. Robbins, U.S. Geological Survey and D. G. Ziegler. NORTH CAROLINA, VIRGINIA. Hydrocarbon potential of the Dan River-Danville Triassic basin, North Carolina and Virginia [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 89.
- OP-1224. T. G. Theodore and E. H. McKee. NEVADA. Geochronology and tectonics of the Buckingham porphyry molybdenum deposit, Lander County, Nevada [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 275.
- OP-1225. J. M. Thompson. CALIFORNIA. Preliminary chemical studies of thermal waters in Lassen Volcanic National Park and vicinity. *Transactions - Geothermal Resources Council*, v. 6, 1982. p. 115-118.
- OP-1226. C. R. Thornber and J. S. Huebner. Techniques for using iron crucibles in experimental igneous petrology. *American Mineralogist*, v. 67, no. 11-12, December 1982. p. 1144-1154.
- OP-1227. R. I. Thorpe, E. T. Spooner, N. H. Gale and B. R. Doe, U.S. Geological Survey. The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria, and the Sultanate of Oman. *Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre*, v. 19, no. 8, August 1982. p. 1710-1726.
- OP-1228. D. C. Thorstenson, U.S. Geological Survey, E. P. Weeks, U.S. Geological Survey, Herbert Haas and D. W. Fisher, U.S. Geological Survey. Distribution of gaseous $^{12}\text{CO}_2$, $^{13}\text{CO}_2$, and $^{14}\text{CO}_2$ in the sub-soil unsaturated zone of the western US Great Plains. *Radiocarbon*, v. 25, no. 2, 1983. p. 315-346.
- OP-1229. R. I. Tilling. Volcanic cloud may alter Earth's climate. *National Geographic*, v. 162, no. 5, November 1982. p. 672-684.
- OP-1230. R. I. Tilling. WASHINGTON. Overview of Mount St. Helens volcanic eruption. *Proceedings of SPIE - The International Society for Optical Engineering*, v. 278, 1981. p. 3-10.
- OP-1231. V. R. Todd. UTAH. Late Miocene displacement of pre-Tertiary and Tertiary rocks in the Matlin Mountains, northwestern Utah. *Memoir - Geological Society of America*, v. 157, 1983. p. 239-270.
- OP-1232. E. W. Tooker. UTAH. Variations in structural style and correlation of thrust plates in the Sevier foreland thrust belt, Great Salt Lake area, Utah. *Memoir - Geological Society of America*, v. 157, 1983. p. 61-73.
- OP-1233. E. W. Tooker. Correlation of metal occurrence and terrane attributes in the northwestern conterminous United States. *Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre*, v. 20, no. 6, June 1983. p. 1030-1039.
- OP-1234. Laura Toran. Isotopes in ground-water investigations. *Ground Water*, v. 20, no. 6, December 1982. p. 740-745.
- OP-1235. Arturo Torres-González and Ferdinand Quiñonas-Marquez. Carbon tetrachloride spill in the shallow limestone aquifer, Barceloneta, Puerto Rico [abstr.] *Ground Water*, v. 21, no. 4, August 1983. p. 519.
- OP-1236. R. M. Tosdal. CALIFORNIA, ARIZONA. The Mule Mountains Thrust in the Mule Mountains, California, and its probable extension in the southern Dome Rock Mountains, Arizona; a preliminary report, in *Mesozoic-Cenozoic tectonic evolution of the Colorado River region, California, Arizona, and Nevada* (E. G. Frost, editor and others). San Diego, CA: Cordilleran Publ., 1982. p. 55-60.
- OP-1237. M. I. Toth. Petrology and structure of the east-central Bitterroot Lobe of the Idaho Batholith [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 228.
- OP-1238. J. I. Tracey, Jr., U.S. Geological Survey, G. H. Sutton, W. D. Nesteroff, Jon Galehouse, C. C. von der Borch, J. H. Lipps, B. U. Haq, J. P. Beckmann and T. C. Moore. Introduction. *Initial Reports of the Deep Sea Drilling Project*, v. 8, November 1971. p. 5-15.
- OP-1239. B. M. Troutman. The effect of input errors in using precipitation-runoff models for runoff prediction, in *Statistical analysis of rainfall and runoff* (V. P. Singh, editor). Littleton, CO: Water Resour. Publ., 1982. p. 305-314.
- OP-1240. A. H. Truesdell, M. Nathenson and G. A. Frye. CALIFORNIA. Downhole measurements and fluid chemistry of a Castle Rock steam well, The Geysers, Lake County, California. *Geothermics*, v. 10, no. 2, 1981. p. 103-114.
- OP-1241. Patrick Tucci. ARIZONA. Density of basin-fill deposits calculated from borehole gravity data in four basins in central and southern Arizona [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 863.
- OP-1242. J. T. Turk and D. B. Adams. COLORADO. Sensitivity to acidification of lakes in the Flat Tops Wilderness Area, Colorado. *Water Resources Research*, v. 19, no. 2, April 1983. p. 346-350.
- OP-1243. C. E. Turner-Peterson. PENNSYLVANIA, NEW JERSEY. Tectonism and sedimentation in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 92.
- OP-1244. R. L. Tyner and R. D. Carroll. A catalog of selected Viking orbiter images. *NASA Reference Publication*, v. 1093, 1983. 391 p.

- OP-1245. R. G. Tysdal. MONTANA. Foreland deformation in the northern part of the Ruby Range of southwestern Montana, in Montana Geological Society field conference and symposium guidebook to Southwest Montana (T. E. Tucker, editor and others). Mont. Geol. Soc., 1981. p. 215-224.
- OP-1246. G. E. Ulrich. ARIZONA. Compositional and chronologic variations in volcanic rocks across the Colorado Plateau margin in Arizona [abstr.] Abstracts with Programs - Geological Society of America, v. 15, no. 5, March 1983. p. 303.
- OP-1247. T. C. Urban and W. H. Diment. NEVADA. An interpretation of precision temperature logs in a deep geothermal well near Desert Peak, Churchill County, Nevada. Transactions - Geothermal Resources Council, v. 6, 1982. p. 317-320.
- OP-1248. P. J. Valent, A. G. Altschaeffl and H. J. Lee, U.S. Geological Survey. Geotechnical properties of two calcareous oozes. ASTM Special Technical Publication = American Society for Testing and Materials Special Technical Publication, v. 777, August 1982. p. 79-96.
- OP-1249. T. L. Vallier, U.S. Geological Survey, W. E. Dean, U.S. Geological Survey, D. K. Rea and Jörn Thiede. Geologic evolution of Hess Rise, central North Pacific Ocean. Geological Society of America Bulletin, v. 94, no. 11, November 1983. p. 1289-1307.
- OP-1250. D. J. Varnes. Slope-stability problems of Circum-Pacific region as related to mineral and energy resources. AAPG Studies in Geology, v. 12, 1981. p. 489-505.
- OP-1251. D. J. Varnes and International Association of Engineering Geology, Commission on Landslide and Other Mass Movements. The principles and practice of landslide hazard zonation. Bulletin of the International Association of Engineering Geology, v. 23, June 1981. p. 13-14.
- OP-1252. A. N. Verdes. Two methods for determining volumes for explosion and impact craters. NASA Technical Memorandum, v. 84894, September 1982. p. 568-573.
- OP-1253. T. M. Vogel, K. A. Kvenvolden and P. R. Carlson. Geochemical prospecting for hydrocarbons in Navarin Basin province [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 1004.
- OP-1254. Roland von Huene. COSOD; a critique. Eos, Transactions, American Geophysical Union, v. 63, no. 48, November 30, 1982. p. 1194.
- OP-1255. Roland von Huene. Introduction to papers presented at the geology of continental margins symposium (active margins section). Oceanologica Acta, v. 4, supplement. 1981. p. 171-172.
- OP-1256. Roland von Huene, U.S. Geological Survey and Jean Aubouin. Summary; Leg 67, Middle America Trench transect off Guatemala. Initial Reports of the Deep Sea Drilling Project, v. 67, November 1982. p. 775-793.
- OP-1257. Roland von Huene, T. R. Bruns and Michael Fisher. Subduction-related structure along eastern Aleutian Trench [abstr.] AAPG Bulletin, v. 65, no. 5, May 1981. p. 1004.
- OP-1258. Roland von Huene, U.S. Geological Survey, J. W. Ladd and Ian Norton. Geophysical observations of slope deposits, Middle America Trench off Guatemala. Initial Reports of the Deep Sea Drilling Project, v. 67, November 1982. p. 719-732.
- OP-1259. Roland von Huene, U.S. Geological Survey and S. Uyeda. A summary of results from the IPOD transects across the Japan, Mariana, and Middle-America convergent margins. Oceanologica Acta, v. 4, supplement. 1981. p. 233-239.
- OP-1260. R. B. Votaw and J. E. Repetski, U.S. Geological Survey. TENNESSEE. Conodonts from the Stones River Group (Middle Ordovician) of the central basin of Tennessee [abstr.] Abstracts with Programs - Geological Society of America, v. 14, no. 5, March 1982. p. 291.
- OP-1261. C. R. Wagner. Organization of instrumentation within the U.S. Geological Survey, Water Resources Division. Proceedings of the Annual Eastern Snow Conference, v. 38, 1981. p. 103-105.
- OP-1262. R. B. Waitt, Jr. Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future, in Frontiers of geological exploration of western North America (A. E. Leviton, editor and others). San Francisco, CA: Am. Assoc. Adv. Sci., Pacific Sect., 1982. p. 167-192.
- OP-1263. R. B. Waitt, Jr. WASHINGTON. Late Wisconsin deglaciation of high-relief alpine terrain in northern Washington compared to New England [abstr.] Am. Quat. Assoc., Natl. Conf., Abstr., v. 7, 1982. p. 171.
- OP-1264. R. B. Waitt, Jr., T. C. Pierson, N. S. MacLeod, R. J. Janda, Barry Voight and R. T. Holcomb. WASHINGTON. Eruption-triggered avalanche, flood, and lahar at Mount St. Helens; effects of winter snowpack. Science, v. 221, no. 4618, September 20, 1983. p. 1394-1397.
- OP-1265. A. R. Wallace. COLORADO. Structural and mineralogical characteristics and distribution of carbonate-dominated fault breccias associated with uranium deposits, Front Range, Colorado. Economic Geology and the Bulletin of the Society of Economic Geologists, v. 77, no. 8, December 1982. p. 1945-1950.
- OP-1266. R. H. Wallace, Jr., editor. Geopressured-geothermal energy resource appraisal; hydrogeology and well testing determine producibility. New Orleans, LA: Geol. Soc. Am., v. 14, September 1982. 111 p.
- OP-1267. R. H. Wallace, Jr. LOUISIANA. Road log, in Geopressured-geothermal energy resource appraisal; hydrogeology and well testing determine producibility (R. H. Wallace, editor). New Orleans, LA: Geol. Soc. Am., v. 14, September 1982. p. 3-9.
- OP-1268. R. H. Wallace, Jr. Geopressured-geothermal resources in the northern Gulf of Mexico Basin; an overview, in Geopressured-geothermal energy resource appraisal; hydrogeology and well testing determine producibility (R. H. Wallace, editor). New Orleans, LA: Geol. Soc. Am., v. 14, September 1982. p. 14-48.
- OP-1269. R. M. Waller. Information resources useful for evaluating waste-disposal sites [abstr.], in A Northeast conference; The impact of waste storage and disposal on groundwater resources (R. P. Novitzki, editor and others). Ithaca, NY: Cornell Univ. Cent. Environ. Res., Reston, VA: U. S. Geol. Surv., 1982. p. 3.1.1.

- OP-1270. A. W. Walter and W. D. Mooney. CALIFORNIA. Crustal structure of the Diablo and Gabilan ranges, central California; a reinterpretation of existing data. *Bulletin of the Seismological Society of America*, v. 72, no. 5, October 1982. p. 1567-1590.
- OP-1271. S. R. Walter, A. Kollman, P. Dawson and H. M. Iyer. CALIFORNIA. Seismicity of the Mount Shasta and Lassen Peak areas, California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 39.
- OP-1272. R. J. Walton. Application and management of digital data collection in the geosciences. Special Publication - Oklahoma Geological Survey, 82-4, Vol. 1. 1982. p. 173-179.
- OP-1273. B. R. Wardlaw, U.S. Geological Survey and J. W. Collinson. IDAHO, UTAH, NEVADA. Smithian (Lower Triassic) conodont biofacies in Idaho, Utah and Nevada [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 6, March 1981. p. 321.
- OP-1274. B. R. Wardlaw, U.S. Geological Survey and J. W. Collinson. Unraveling *Neogondolella carinata* Clark, an Early Triassic conodont [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 5, March 1982. p. 291.
- OP-1275. P. D. Warwick, R. M. Flores, U.S. Geological Survey and V. B. Cavaroc. NORTH DAKOTA. Paleocene lignite-bearing fluvial deposits, southwestern North Dakota [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 93-94.
- OP-1276. Kenneth Watson. Regional thermal-inertia mapping from an experimental satellite. *Geophysics*, v. 47, no. 12, December 1982. p. 1681-1687.
- OP-1277. C. S. Weaver. WASHINGTON. Seismicity and seismotectonic boundaries in Washington [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 40.
- OP-1278. C. S. Weaver, U.S. Geological Survey and J. E. Zollweg. WASHINGTON. Deep earthquakes and possible magmatic gas transport at Mount St. Helens, Washington [abstr.] *Eos, Transactions, American Geophysical Union*, v. 64, no. 9, March 1, 1983. p. 90.
- OP-1279. C. S. Weaver, U.S. Geological Survey, J. E. Zollweg and S. D. Malone. WASHINGTON. Deep earthquakes beneath Mount St. Helens; evidence for magmatic gas transport?. *Science*, v. 221, no. 4618, September 20, 1983. p. 1391-1394.
- OP-1280. P. L. Weis, I. Friedman and J. P. Gleason. The origin of epigenetic graphite; evidence from isotopes. *Geochimica et Cosmochimica Acta*, v. 45, no. 12, 1981. p. 2325-2332.
- OP-1281. A. E. Weissenborn and T. H. Kiilgaard. 100 years of geology by the United States Geological Survey in the Pacific Northwest, in *Frontiers of geological exploration of western North America* (A. E. Leviton, editor and others). San Francisco, CA: Am. Assoc. Adv. Sci., Pacific Sect., 1982. p. 93-96.
- OP-1282. A. H. Welch, M. L. Sorey and F. H. Olmsted. NEVADA. Hydrology of the hydrothermal system in southern Grass Valley, Pershing County, Nevada [abstr.] *Ground Water*, v. 21, no. 2, April 1983. p. 222-223.
- OP-1283. F. A. Welder. COLORADO. Ground-water potential for oil shale development in northwestern Colorado [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 1006.
- OP-1284. K. J. Wenrich-Verbeek, P. J. Modreski, R. A. Zielinski and J. L. Seeley. Margaritasite; a new mineral of hydrothermal origin from the Peña Blanca uranium district, Mexico. *American Mineralogist*, v. 67, no. 11-12, December 1982. p. 1273-1289.
- OP-1285. K. J. Wenrich-Verbeek, C. S. Spirakis, G. H. Billingsley, R. Hereford, L. D. Nealey, G. E. Ulrich, E. R. Verbeek and E. W. Wolfe. ARIZONA. Flagstaff Quadrangle, Arizona. September 1982. 59 p. (*Available from: Bendix Field Eng. Corp., Tech. Libr., Golden, CO, United States.*)
- OP-1286. C. M. Wentworth and Stephen Ellen. CALIFORNIA. Physical properties of bedrock as an aid in estimating slope stability; San Francisco Bay region, California [abstr.] Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 228.
- OP-1287. R. L. Wesson. Physical processes responsible for successive earthquakes [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 64.
- OP-1288. J. A. Westgate, T. D. Hamilton and M. P. Gorton, U.S. Geological Survey. ALASKA. Old Crow tephra; a new late Pleistocene stratigraphic marker across North-central Alaska and western Yukon Territory. *Quaternary Research* (New York), v. 19, no. 1, January 1983. p. 38-54.
- OP-1289. G. W. Wetherill and E. M. Shoemaker, U.S. Geological Survey. Collision of astronomically observable bodies with the Earth. Special Paper - Geological Society of America, v. 190, 1982. p. 1-13.
- OP-1290. W. J. Whan and J. J. Daniels. Numerical modeling of three-dimensional surface topography for buried electrode resistivity surveys [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 465.
- OP-1291. R. L. Wheeler. WEST VIRGINIA. Middle and Late Devonian sedimentation and tectonism at the Petersburg Lineament, northeastern West Virginia [abstr.] *Abstracts with Programs - Geological Society of America*, v. 14, no. 1-2, February 1982. p. 95.
- OP-1292. R. L. Wheeler. Earthquake hazard zoning in the central and eastern United States; improvements based on new geologic foundations [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 8.
- OP-1293. R. L. Wheeler. Rifts, passive margins, and seismicity in southeastern North America [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 2, January 1983. p. 55.
- OP-1294. R. L. Wheeler, U.S. Geological Survey and D. U. Wise. Linesmanship and the practice of linear geo-art. *Geological Society of America Bulletin*, v. 94, no. 11, November 1983. p. 1377-1379.
- OP-1295. D. E. White. Geothermal resources of Circum-Pacific region. *AAPG Studies in Geology*, v. 12, 1981. p. 557-571.

- OP-1296. J. M. White and R. A. Farrow, U.S. Geological Survey. MONTANA. Subsidence of reclaimed coal mine spoils, Colstrip, Montana. *Bulletin of the Association of Engineering Geologists*, v. 19, no. 4, November 1982. p. 385-388.
- OP-1297. F. C. Whitmore, Jr. and J. E. Repetski. Memorial to John Warfield Huddle, 1907-1975. *Memorials - Geological Society of America*, v. 13, 1983. 7 p.
- OP-1298. Gene Whitney and D. D. Eberl. Mineral paragenesis in a talc-water experimental hydrothermal system. *American Mineralogist*, v. 67, no. 9-10, October 1982. p. 944-949.
- OP-1299. J. W. Whitney, U.S. Geological Survey and William Trousdale. Catastrophic floods, wind erosion, and historical occupation on the Helmand River delta, Southwest Afghanistan [abstr.] *Am. Quat. Assoc., Natl. Conf., Abstr.*, v. 7, 1982. p. 180.
- OP-1300. G. F. Wieczorek and John Sarmiento. CALIFORNIA. Significance of storm intensity-duration for triggering debris flows near La Honda, California [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 289.
- OP-1301. D. E. Wilhelms. Procellarum, a giant planetary basin. *NASA Technical Memorandum*, v. 85127, December 1982. p. 111-113.
- OP-1302. D. L. Williams and Carol Finn. Gravity studies in volcanic terranes [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 454.
- OP-1303. D. L. Williams, U.S. Geological Survey and R. P. Von Herzen. OREGON. On the terrestrial heat flow and physical limnology of Crater Lake, Oregon. *JGR. Journal of Geophysical Research. B*, v. 88, no. 2, February 10, 1983. p. 1094-1104.
- OP-1304. G. P. Williams. Improper use of regression equations in earth sciences. *Geology (Boulder)*, v. 11, no. 4, April 1983. p. 195-197.
- OP-1305. R. S. Williams, Jr. Satellite glaciology (glaciers) [abstr.] *AAAS Publication*, v. 83-2, 1983. p. 15.
- OP-1306. R. S. Williams, Jr., J. G. Ferrigno, T. M. Kent and J. W. Schoonmaker, Jr. Landsat images and mosaics of Antarctica for mapping and glaciological studies. *Annals of Glaciology*, v. 3, 1982. p. 321-326.
- OP-1307. F. A. Wilson and D. L. Daniels. NORTH CAROLINA, SOUTH CAROLINA. A geophysical study of plutons in the northern Charlotte Belt, North Carolina and South Carolina [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 1, January 1981. p. 38.
- OP-1308. R. C. Wilson and D. K. Keefer. CALIFORNIA. Dynamic analysis of a slope failure from the 6 August 1979 Coyote Lake, California, earthquake. *Bulletin of the Seismological Society of America*, v. 73, no. 3, June 1983. p. 863-877.
- OP-1309. D. A. Wiltshire. Computerized information-retrieval systems [abstr.], in *A Northeast conference; The impact of waste storage and disposal on ground-water resources* (R. P. Novitzki, editor and others). Ithaca, NY: Cornell Univ. Cent. Environ. Res., Reston, VA: U. S. Geol. Surv., 1982. p. 3.4.1-3.4.2.
- OP-1310. S. L. Wing, U.S. Geological Survey and L. J. Hickey. Time scales of megafloral assemblages [abstr.] *Journal of Paleontology*, v. 56, Suppl. to No. 2., March 1982. p. 30-31.
- OP-1311. I. J. Witkind. UTAH. Salt diapirism in central Utah [abstr.] *Utah Geological Association Publication*, v. 11, 1982. p. 11-12.
- OP-1312. I. J. Witkind. UTAH. Overthrusts and salt diapirs, central Utah. *Memoir - Geological Society of America*, v. 157, 1983. p. 45-59.
- OP-1313. I. J. Witkind. UTAH. Salt diapirism in central Utah [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1362.
- OP-1314. R. A. Wobus and C. E. Hedge, U.S. Geological Survey. NEW MEXICO. Redefinition of the Precambrian Tusas Mountain and Tres Piedras granites, north-central New Mexico. *The Mountain Geologist*, v. 19, no. 4, October 1982. p. 105-114.
- OP-1315. R. J. Wold, editor, U.S. Geological Survey and W. J. Hinze, editor. *Geology and tectonics of the Lake Superior Basin. Memoir - Geological Society of America*, v. 156, 1982. 280 p.
- OP-1316. R. J. Wold, U.S. Geological Survey, D. R. Hutchinson, U.S. Geological Survey and T. C. Johnson. Topography and surficial structure of Lake Superior bedrock as based on seismic reflection profiles. *Memoir - Geological Society of America*, v. 156, 1982. p. 257-272.
- OP-1317. J. A. Wolfe and R. Z. Poore. Tertiary marine and nonmarine climatic trends, in *Climate in Earth history* (U. S., National Research Council, Geophysics Study Committee). Washington, DC: Natl. Acad. Press, 1982. p. 154-158.
- OP-1318. F. C. Wolff and M. F. Kane. Density estimates of crystalline rocks [abstr.] *Geophysics*, v. 48, no. 4, April 1983. p. 448.
- OP-1319. G. H. Wood, Jr., W. C. Culbertson, T. M. Kehn and M. D. Carter. Coal resource classification system of the United States Geological Survey, 1982. *Bulletin - Utah Geological and Mineral Survey*, v. 118, May 1982. p. 233-238.
- OP-1320. S. H. Wood. UTAH. Vertical movement on the Wasatch fault zone, northern Utah [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 102.
- OP-1321. D. G. Woodward and G. N. Delin. MINNESOTA. Potentiometric surface of regional aquifers in the Hollandale Embayment, southeastern Minnesota [abstr.] *Eos, Transactions, American Geophysical Union*, v. 63, no. 33, August 17, 1982. p. 612.
- OP-1322. J. R. Wray. Estimating irrigation water use and withdrawal of ground water on the Great Plains, U.S.A. [abstr.] *COSPAR Plenary Meet., Program Abstr.*, v. 24, 1982. p. unpaginated.
- OP-1323. J. E. Wright and Gordon Haxel, U.S. Geological Survey. ARIZONA. A garnet-two-mica granite, Coyote Mountains, southern Arizona; geologic setting, uranium-lead isotopic systematics of zircon, and nature of the granite source region. *Geological Society of America Bulletin*, v. 93, no. 11, November 1982. p. 1176-1188.

- OP-1324. S. S. Wu. The solution of the layover problem of side-looking radar images. NASA Technical Memorandum, v. 85127, December 1982. p. 370-372.
- OP-1325. S. S. Wu. The completion of photogrammetric compilation of the global topographic map of the Moon. NASA Technical Memorandum, v. 85127, December 1982. p. 373-375.
- OP-1326. S. S. Wu, Loretta Barcus and F. J. Schafer. Mapping precision of the Viking lander images. NASA Technical Memorandum, v. 85127, December 1982. p. 363-366.
- OP-1327. S. S. Wu and F. J. Schafer. Planetwide control network of Mars. NASA Technical Memorandum, v. 85127, December 1982. p. 367-369.
- OP-1328. J. C. Wynn. Strategic minerals geophysical research; the chromite example. *Mining Engineering*, v. 35, no. 3, March 1983. p. 246-251.
- OP-1329. K. M. Yamashita. HAWAII. The Seco inclinometer; a monitor of the deformation tied to volcanic activity in Hawaii. *Boletín de Vulcanología*, v. 12, May 1982. p. 11-17.
- OP-1330. T. E. Yancey and R. C. Douglass. U.S. Geological Survey. IDAHO, UTAH. Carboniferous-Permian boundary sequence of northern Oquirrh Basin, Idaho-Utah [abstr.] *AAPG Bulletin*, v. 65, no. 5, May 1981. p. 1010.
- OP-1331. I. C. Yang. Evaluation of direct-precipitation and gas-evolution methods for radiocarbon dating of ground water. *Radiocarbon*, v. 25, no. 2, 1983. p. 511-518.
- OP-1332. R. F. Yerkes, W. L. Ellsworth and J. C. Tinsley. CALIFORNIA. Triggered reverse fault and earthquake due to crustal unloading, Northwest Transverse Ranges, California. *Geology (Boulder)*, v. 11, no. 5, May 1983. p. 287-291.
- OP-1333. Yin Hong-fu, E. L. Yochelson, U.S. Geological Survey. Middle Triassic Gastropoda from Qingyan, Guizhou Province, China; 1, Pleurotomariacea and Murchisoniacea. *Journal of Paleontology*, v. 57, January 1983. p. 162-187.
- OP-1334. Yin Hong-fu, E. L. Yochelson, U.S. Geological Survey. Middle Triassic Gastropoda from Qingyan, Guizhou Province, China; 2, Trochacea and Neritacea. *Journal of Paleontology*, v. 57, no. 3, May 1983. p. 515-538.
- OP-1335. E. L. Yochelson. ALABAMA. A Devonian aptychus (Cephalopoda) from Alabama. *Journal of Paleontology*, v. 57, January 1983. p. 124-127.
- OP-1336. E. L. Yochelson. Walcott's discovery of Middle Ordovician vertebrates. *Earth Sciences History*, v. 2, no. 1, 1983. p. 66-75.
- OP-1337. E. L. Yochelson. Odds favor the mollusks. *Earth Science*, v. 36, no. 1, 1983. p. 17-18.
- OP-1338. E. L. Yochelson, U.S. Geological Survey and G. D. Stanley, Jr. An Early Ordovician patelliform gastropod, *Palaelophacmaea*, reinterpreted as a coelenterate. *Lethaia*, v. 14, no. 4, December 15, 1981. p. 323-330.
- OP-1339. T. L. Youd. CALIFORNIA. Liquefaction hazards in the eastern San Francisco Bay area. Special Publication - California Division of Mines and Geology, v. 62, 1982. p. 345-354.
- OP-1340. S. B. Yu and W. H. Prescott. CALIFORNIA. Geodetic measurements of horizontal deformation in the northern San Francisco Bay region, California [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 17.
- OP-1341. E-An Zen. MONTANA. Geology of north end of East Pioneer Mountains, Beaverhead County, Montana [abstr.] *AAPG Bulletin*, v. 67, no. 8, August 1983. p. 1362.
- OP-1342. R. A. Zielinski. NEVADA. Uraniferous opal, Virgin Valley, Nevada; conditions of formation and implications for uranium exploration. *Journal of Geochemical Exploration*, v. 16, no. 3, 1982. p. 197-216.
- OP-1343. R. A. Zielinski. COLORADO. The mobility of uranium and other elements during alteration of rhyolite ash to montmorillonite; a case study in the Troublesome Formation, Colorado, U.S.A.. *Chemical Geology*, v. 35, no. 3-4, 1982. p. 185-204.
- OP-1344. R. A. Zielinski, Z. E. Petermann, J. S. Stuckless, J. N. Rosholt and I. T. Nkomo. WYOMING, COLORADO. The chemical and isotopic record of rock-water interaction in the Sherman Granite, Wyoming and Colorado. *Contributions to Mineralogy and Petrology*, v. 78, no. 3, 1981. p. 209-219.
- OP-1345. D. R. Zimbelman. MONTANA. Stratigraphy of Precambrian and Cambrian sedimentary rocks, Polaris 1SE Quadrangle, Beaverhead County, Montana [abstr.] *Abstracts with Programs - Geological Society of America*, v. 13, no. 4, February 1981. p. 231.
- OP-1346. M. D. Zoback. State of stress in the lithosphere. *Reviews of Geophysics and Space Physics*, v. 21, no. 6, July 1983. p. 1503-1511.
- OP-1347. M. D. Zoback. Friction, faulting, and in-situ stress [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 63.
- OP-1348. M. D. Zoback and R. N. Anderson. Ultrasonic borehole televiewer investigation of oceanic crustal layer 2A, Costa Rica Rift. *Nature (London)*, v. 295, no. 5848, 1982. p. 375-379.
- OP-1349. M. D. Zoback, U.S. Geological Survey and R. N. Anderson. Permeability, underpressures, and convection in the oceanic crust at Deep Sea Drilling Project Hole 504B. *Initial Reports of the Deep Sea Drilling Project*, v. 69, May 1983. p. 245-254.
- OP-1350. M. D. Zoback, U.S. Geological Survey and B. C. Haimson. Status of the hydraulic fracturing method for in-situ stress measurements. *Proceedings - Symposium on Rock Mechanics*, v. 23, 1982. p. 143-156.
- OP-1351. M. D. Zoback and M. L. Zoback. In-situ crustal deformation, and intraplate seismicity [abstr.] *Earthquake Notes*, v. 54, no. 1, March 1982. p. 44-45.
- OP-1352. M. L. Zoback. UTAH. Preliminary interpretation of a 30 km long seismic reflection profile in the Hingeline-Overthrust region near Nephi, Utah [abstr.] *Utah Geological Association Publication*, v. 11, 1982. p. 16-17.
- OP-1353. M. L. Zoback. UTAH. Shallow structure of the Sevier Desert Detachment [abstr.] *Abstracts with Programs - Geological Society of America*, v. 15, no. 5, March 1983. p. 287.

OP-1354. M. L. Zoback. UTAH. Structure and Cenozoic tectonism along the Wasatch fault zone, Utah. *Memoir - Geological Society of America*, v. 157, 1983. p. 3-27.

OP-1355. A. A. Zohdy. Resistivity exploration for groundwater [abstr.] *Eos, Transactions, American Geophysical Union*, v. 62, no. 45, November 10, 1981. p. 861-862.

Miscellaneous and Special Books

GEOGRAPHIC NAMES INFORMATION SYSTEM (GNIS)

The Geographic Names Information System currently consists of approximately two million name entries with information about the feature name and category and its geographic location by coordinates, county, and USGS topographic maps. The name file was developed from published 7.5-minute topographic quadrangles. In areas where 7.5-minute quadrangles have not been published, 15-minute quadrangles or 1:250,000-scale maps provided basic name data.

Presently available are Alphabetical Findings Lists for Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Utah, Virginia, Washington, Washington, D.C., West Virginia, Wisconsin, Wyoming and for populated places in the U.S. and territories. These lists consist of spiral-bound computer printouts of name files. Included with each State list are definitions, the Federal Information Processing Standards (FIPS) code designation, quadrangle map name in alphabetical order and also numerical sequence, and alphabetical listings with coordinates. State files are also available in microfiche.

Unedited computer printouts, specialized searches, and computer tapes may also be purchased.

GNIS, developed by Geographic Names Information Section, Branch of Geographic Names, Office of Geographic Research, National Mapping Division, is the basis for Professional Paper 1200. The first chapter, P-1200-NJ (New Jersey) was published in 1982 (revised 1983) and the others will follow. The interim materials described may meet the needs of a wide variety of potential users until all chapters have been published.

Products may be ordered from U.S. Geological Survey, NCIC, 507 National Center, Reston, Virginia 22092, (703) 860-6039. Unedited computer printouts are available for all other States and territories.

Information and Specialized searches may be requested from U.S. Geological Survey, Manager GNIS, 523 National Center, Reston, Virginia 22092. Telephone (703) 860-6261.

CATALOGS

Publications of the Geological Survey, 1982. 1983. 498 p.

REPORTS AVAILABLE ONLY THROUGH NTIS

The following reports may be obtained from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. When ordering, please use the NTIS number preceding each item.

ADA-114 818. MINNESOTA. Quality of surface water before implementation of a flood-control project in Chaska, Minnesota, by L. H. Tornes. 1981. 58 p. (Water-Resources Investigations 81-83.)

PB-82 237 637. KANSAS. Saline ground-water discharge to the Smoky Hill River between Salina and Abilene, central Kansas, by J. B. Gillespie, U.S. Geological Survey, and G. D. Hargadine, Kansas Water Office. 1981. 72 p. (Water-Resources Investigations 81-43.)

PB-83 124 651. NEW YORK. Geology and ground-water resources of Oswego County, New York, by T. S. Miller. 1982. 42 p. (Water-Resources Investigations 81-60.)

PB-83 149 229. CALIFORNIA. Ground water in the Seaside area, Monterey County, California, by K. S. Muir. 1982. 42 p. (Water-Resources Investigations 82-10.)

PB-83 151 431. OKLAHOMA. Preliminary projections of the effects of chloride-control structures on the Quaternary aquifer at Great Salt Plains, Oklahoma, by J. E. Reed. 1981. 50 p. (Water-Resources Investigations 80-120.)

PB-83 151 852. DELAWARE, NEW JERSEY. Chemical-quality reconnaissance of the water and surficial bed material in the Delaware River estuary and adjacent New Jersey tributaries, 1980-81, by J. J. Hochreiter, Jr. 1982. 50 p. (Water-Resources Investigations 82-36.)

PB-83 152 223. ALABAMA. Methodology for hydrologic evaluation of a potential surface mine; Loblolly Branch basin, Tuscaloosa County, Alabama, by L. M. Shown, D. G. Frickel, R. F. Miller, and F. A. Branson. 1982. 101 p. (Water-Resources Investigations 82-50.)

PB-83 155 614. Quadratic spline subroutine package, by L. A. Rasmussen. 1982. 20 p. (Water-Resources Investigations 82-41.)

PB-83 156 653. FLORIDA. Water resources and data-network assessment of the Manasota Basin, Manatee and Sarasota counties, Florida, by D. P. Brown. 1982. 87 p. (Water-Resources Investigations 82-37.)

PB-83 165 175. WISCONSIN. Aquatic biology in Nederlo Creek, southwestern Wisconsin, by P. A. Kammerer, Jr., R. A. Lidwin, J. W. Mason, and R. P. Narf. 1982. 32 p. (Water-Resources Investigations 82-56.)

PB-83 171 884. FLORIDA. Magnitude and frequency of flooding on small urban watersheds in the Tampa Bay area, west-central Florida, by M. A. Lopez, and W. M. Woodham. 1983. 59 p. (Water-Resources Investigations 82-42.)

PB-83 184 309. INDIANA. Ground-water resources of the White River basin, Hamilton and Tipton counties, Indiana, by L. D. Arihood. 1982. 76 p. (Water-Resources Investigations 82-48.)

PB-83 188 235. Method for relating suspended-chemical concentrations to suspended-sediment particle-size classes in storm-water runoff, by J. F. Rinella, and S. W. McKenzie. 1983. 49 p. (Water-Resources Investigations 82-39.)

PB-83 196 022. An engineering economic analysis of artificial recharge in a conjunctive irrigation plan in the Columbia Basin Project, by M. R. Karlinger, and A. J. Hansen, Jr. 1981. 33 p. (Water-Resources Investigations 81-67.)

PB-83 196 147. INDIANA. Ground-water resources of the White River basin, Delaware County, Indiana, by L. D. Arihood, and W. W. Lapham. 1982. 76 p. (Water-Resources Investigations 82-47.)

PB-83 202 002. PENNSYLVANIA. Evaluation of the stream-flow-data program in Pennsylvania, by H. N. Flippo, Jr. 1982. 61 p. (Water-Resources Investigations 82-21.)

- PB-83 205 070. FLORIDA. Hydrogeology of a landfill, Pinellas County, Florida, by M. Fernandez, Jr. 1983. 41 p. (Water-resources Investigations 82-30.)
- PB-83 215 731. FLORIDA. Continuous seismic-reflection survey defining shallow sedimentary layers in the Charlotte Harbor and Venice areas, Southwest Florida, by R. M. Wolansky, F. P. Haeni, and R. E. Sylvester. 1983. 83 p. (Water-Resources Investigations 82-57.)
- PB-83 218 396. FLORIDA. Water resources of Manatee County, Florida, by D. P. Brown. 1983. 120 p. (Water-Resources Investigations 81-74.)
- PB-83 220 814. MISSOURI. Tape of aeromagnetic data from southeastern Missouri, Irish Wilderness Area, parts of Shannon, Carter, Oregon, and Ripley counties, Missouri, by P. Raab, G. Abrams, J. Bradley, and C. Mitchell. 1983. 1 tape and 4 pages.
- PB-83 220 863. NEW MEXICO, ARIZONA. Analytical results for stream-sediment concentrate, sieved stream-sediment, rock, and water samples from the Silver City $1^{\circ} \times 2^{\circ}$ Quadrangle, New Mexico and Arizona, by S. K. McDanal, C. L. Forn, J. R. Hassemer, and K. C. Watts. 1983. 1 tape.
- PB-83 237 370. CALIFORNIA. Principal facts, accuracies, sources, and base station descriptions for 701 gravity stations and 1,922 gridded values on the Long Beach $1^{\circ} \times 2^{\circ}$ Quadrangle, California, by D. A. Pounce. 1983.
- PB-83 255 042. Lithologic, petrographic and resource data to accompany report on estimation of uranium endowment in the Westwater Canyon Member, Morrison Formation, San Juan Basin, Colorado Plateau, by J. O. Kork, N. J. Bridges, and R. B. McCammon. 1983. 1 tape.
- PB-83 255 059. OREGON, IDAHO. Spectrographic, chemical, and radio-activity analyses of rock, stream sediment, and soil samples from the Hell's Canyon study area, Wallowa County, Oregon, and Idaho and Adams counties, Idaho, by S. K. McDanal, S. J. Sutley, J. G. Viets, and G. C. Simmons. 1983. 1 tape.
- PB-84 107 705 GEOTHERM data tape giving geochemistry of geothermal springs, wells in the United States, by J. D. Bliss. 1984. 1 tape.
- PB-84 109 149. DELAWARE. Ground-water temperature of the Wyoming Quadrangle in central Delaware, with application to ground-water-source heat pumps, by A. L. Hodges, Jr. 1982. 36 p. (Water-Resources Investigations 82-53.)
- PB-84 119 924. CALIFORNIA. A study of seismic response at stations 6 and 7, El Centro strong motion array, Imperial Valley, California, by A. T. Chen. 1983.
- WRI 82-4000. NEW YORK. Ground-water appraisal of the Pine Bush area, Albany County, New York, by D. S. Snively. 1982. 54 p. (NC; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 82-4001. CALIFORNIA. Graphical method for estimating occurrence and duration of a critical low flow in the Sacramento River at Freeport, California, by J. G. Harmon. 1983. 20 p. (NC, M, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677; Public Inquiries Office, USGS, 345 Middlefield Rd., Mail Stop 33, Menlo Park, CA 94025.)
- WRI 82-4004. IDAHO. Reconnaissance of ground-water quality, eastern Snake River basin, Idaho, by D. J. Parliman. 1982. 107 p., 4 over-size sheets. (NC, M, Wb; USGS, WRD, Box 036, Federal Bldg., 500 West Fort St., Boise, ID 83724.)
- WRI 82-4005. KANSAS. Water-quality and fluvial-sediment characteristics of selected streams in Northeast Kansas, by H. E. Bevans. 1982. 53 p. (Db, Da, NC, M, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- WRI 82-4006. IDAHO. Thermal springs in the Boise River basin, south-central Idaho, by R. E. Lewis, and H. W. Young. 1982. 28 p. (M, NC; USGS, WRD, Federal Bldg., Room 365, Box 036, 550 West Fort St., Boise, ID 83724.)
- WRI 82-4007. WYOMING. Hydrogeologic features of the alluvial deposits in the Owl Creek valley, Bighorn Basin, Wyoming, by M. E. Cooley, and W. J. Head. 1982. 37 p., 2 over-size sheets, scale 1:63,360 (1 inch = 1 mile). (NC, Da, Wb; USGS, WRD, Room 4007, Federal Bldg., 2120 Capitol Ave., Cheyenne, WY 82003.)
- WRI 82-4009. UTAH. Hydrology of coal-resource areas in the southern Wasatch Plateau, central Utah, by T. W. Danielson, and D. A. Sylla. 1982. 71 p., 3 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (U, NC, M, Da, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- WRI 82-4011. KANSAS. Determination of irrigation pumpage in parts of Kearny and Finney counties, southwestern Kansas, by R. J. Lindgren. 1982. 26 p. (Db, Da, NC, M, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- WRI 82-4012. FLORIDA. Technique for estimating magnitude and frequency of floods on natural-flow streams in Florida, by W. C. Bridges. 1982. 49 p., 1 over-size sheet. (WB, NC; USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; Libraries of the State University System of Florida.)
- WRI 82-4013. INDIANA. Reconnaissance for determining effects of land use and surficial geology on concentrations of selected elements on streambed materials from the coal-mining region, southwestern Indiana, October 1979 to March 1980, by W. G. Wilber, and R. R. Boje. 1982. 45 p. (NC, M, Da, Wb; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.)

WATER-RESOURCES INVESTIGATIONS

"Water-Resources Investigations" (WRI) in this listing is applied to reports that are of an interpretative nature made available to the public outside the formal USGS publications series. WRI's are not reproduced and distributed in quantity as are formal USGS publications, but are available for public inspection at the indicated depositories.

The following WRI reports are available from the Open-File Services Section, Western Distribution Branch, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225 (telephone 303-234-5888). For specific ordering instructions, please refer to "Reports Available Only Through the Open-File Services Section" under "Open-File Reports." When ordering, use the WRI number preceding each item, and do not mix orders for WRI reports and Open-File Reports with other Geological Survey products.

- WRI 82-4016. INDIANA. Ground-water resources of the glacial outwash along the White River, Johnson and Morgan counties, Indiana, by Z. C. Bailey, and T. E. Imbriotta. 1982. 89 p. (NC, Da, M, Wb; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.)
- WRI 82-4017. NEW YORK. Water levels in Nassau County sewer districts 2 and 3, Long Island, New York, by H. F. Ku, and D. L. Simmons. 1982. 34 p., 1 over-size sheet. (NC; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 82-4018. Determination of dissolved aluminum in water samples, by A. A. Afifi. 1983. 16 p. (NC, Da, M, Wb.)
- WRI 82-4019. OHIO. Model modifications for simulation of flow through stratified rocks in eastern Ohio, by J. O. Helgesen, S. P. Larson, and A. C. Razem. 1982. 113 p. (NC, M, Da, Wb; USGS, WRD, 975 West Third Ave., Columbus, OH 43212.)
- WRI 82-4020. PENNSYLVANIA. Effect of urbanization on the water resources of Warminster Township, Bucks County, Pennsylvania, by R. A. Sloto, and D. K. Davis. 1982. 78 p. (NC, Da, M, Wb; USGS, WRD (P.O. Box 1107), Fourth Floor, Federal Bldg., 228 Walnut St., Harrisburg, PA 17108.)
- WRI 82-4021. NEW YORK. Analysis of three tests of the unconfined aquifer in southern Nassau County, Long Island, New York, by J. B. Lindner, and T. E. Reilly. 1982. 51 p. (NC; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 82-4023. A three-dimensional ground-water-flow model modified to reduce computer-memory requirements and better simulate confining-bed and aquifer pinchouts, by P. P. Leahy. 1982. 62 p. (Da, M, Wb; USGS, WRD, Room 430, Federal Bldg., 502 East State St., Trenton, NJ 08608; USGS, Room 5B410, National Ctr., 12201 Sunrise Valley Dr., Reston, VA 22092; Office of Scientific Publications, Geol. Div., 919 National Ctr., Reston, VA 22092.)
- WRI 82-4024. TENNESSEE. Effects of urban development on the aquifers in the Memphis area, Tennessee, by D. D. Graham. 1982. 24 p., 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Wb, Da, M; USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203; USGS, WRD, 204 Federal Bldg., 167 North Main St., Memphis, TN 38103.)
- WRI 82-4025. Modifications and corrections to the finite-difference model for simulation of three-dimensional ground-water flow, by L. J. Torak. 1982. 67 p. (Db, M, NC, Wb.)
- WRI 82-4026. MONTANA. Map showing total thickness of the Lakota Formation and equivalent rocks, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4027. MONTANA. Map showing altitude of the top of the Judith River Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4028. MONTANA. Map showing total thickness of the Judith River Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4029. MONTANA. Map showing altitude of the top of the Swift Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4030. MONTANA. Map showing cumulative thickness of sandstone in the Swift Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4031. MONTANA. Map showing total thickness of the Swift Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4032. MONTANA. Map showing cumulative thickness of sandstone in the Eagle Sandstone and Telegraph Creek Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4033. MONTANA. Map showing total thickness of the Eagle Sandstone and Telegraph Creek Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4034. MONTANA. Map showing altitude of the top of the Eagle Sandstone, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4035. MONTANA. Map showing cumulative thickness of sandstone in the "Dakota Sandstone," Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4036. MONTANA. Map showing altitude of the top of the "Dakota Sandstone," Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4037. MONTANA. Map showing total thickness of the "Dakota Sandstone," Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)

- WRI 82-4038. MONTANA. Map showing cumulative thickness of sandstone in the Judith River Formation, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4039. MONTANA. Map showing altitude of the top of the Lakota Formation and equivalent rocks, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4040. MONTANA. Map showing cumulative thickness of sandstone in the Lakota Formation and equivalent rocks, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4041. MONTANA. Map showing altitude of the top of the Fox Hills-Lower Hell Creek Aquifer, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4042. MONTANA. Map showing total thickness of the Fox Hills-Lower Hell Creek Aquifer, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4043. MONTANA. Map showing cumulative thickness of sandstone in the Fox Hills-Lower Hell Creek Aquifer, Montana, by R. D. Feltis. 1982. 1 over-size sheet. (Da, M, Wb, Db, S, U; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4044. OHIO. Flood of June 13-15, 1981, in the Blanchard River basin, northwestern Ohio, by E. E. Webber. 1982. 35 p. (NC, Da, M, Wb; USGS, WRD, 975 West Third Ave., Columbus, OH 43212.)
- WRI 82-4045. NEW YORK. Effects of sanitary sewers on ground-water levels and streams in Nassau and Suffolk counties, New York; Part I, Geohydrology, modeling strategy, and regional evaluation, by T. E. Reilly, H. T. Buxton, O. L. Franke, and R. L. Wait. 1982. 51 p. (NC; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 82-4046. COLORADO. Evaluation of sediment yield and sediment data-collection network in the Piceance basin, northwestern Colorado, by J. E. Kircher, and Paul Von Guerard. 1982. 31 p. (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80226.)
- WRI 82-4047. ILLINOIS. Hydrologic effects of storing liquified sewage sludge on strip-mined land, Fulton County, Illinois, by G. L. Patterson. 1982. 34 p. (NC, Da, M, Wb; USGS, WRD, Champaign County Bank Plaza, 102 East Main St., Fourth Floor, Urbana, IL 61801.)
- WRI 82-4048. ARKANSAS. Time of travel of selected Arkansas streams, by T. E. Lamb. 1982. 64 p. (NC, Da, M; USGS, WRD, 2301 Federal Office Bldg., Little Rock, AR 72201; Arkansas Geol. Commission, 3815 West Roosevelt Rd., Little Rock, AR 72203.)
- WRI 82-4051. MONTANA. Potential effects of surface coal mining on the hydrology of the Snider Creek area, Rosebud and Ashland coal fields, southeastern Montana, by M. R. Cannon. 1982. 32 p. (Da, NC, Db, U, S, Wb; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4052. FLORIDA. Origins and distribution of saline ground waters in the Floridan Aquifer in coastal Southwest Florida, by W. C. Steinkampf. 1982. 38 p. (NC; USGS, Room 5B410, National Ctr., Reston, VA 22092; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155; USGS, WRD, 4415 Beach Blvd., Suite 106, Jacksonville, FL 32207; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614; Libraries of the State University System of Florida.)
- WRI 82-4056. NEW YORK. Geology of the "20-foot" clay and Gardiners Clay in southern Nassau and southwestern Suffolk counties, Long Island, New York, by T. P. Doriski, and Franceska Wilde-Katz. 1983. 21 p., 8 over-size sheets. (NC, M; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 82-4059. TENNESSEE. Use of digital land-cover data from the Landsat satellite in estimating the streamflow characteristics in the Cumberland Plateau of Tennessee, by E. F. Hollyday, and G. R. Hansen. 1983. 48 p. (Wb, NC, M, Da; USGS, WRD, Room A-413, Federal Bldg., U.S. Courthouse, Nashville, TN 37203.)
- WRI 82-4060. CALIFORNIA. Ground water in the Twenty-Nine Palms Indian Reservation and vicinity, San Bernardino County, California, by J. R. Freckleton. 1982. 50 p., 1 over-size sheet. (NC, M, LA, SF, Wb; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677; Public Inquiries Office, USGS, 345 Middlefield Rd., Mail Stop 33, Menlo Park, CA 94025.)
- WRI 82-4061. MISSISSIPPI. Water-level maps of the alluvial aquifer, northwestern Mississippi, April 1982, by Daphne Darden. 1982. 1 over-size sheet, scale 1:1,000,000 (1 inch = about 16 miles). (NC, M, Da; USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39269.)
- WRI 82-4062. MARYLAND. Downstream effects of reservoir releases to the Potomac River from Luke, Maryland, to Washington, DC, by T. J. Trombley. 1982. 41 p. (NC, Da, M, Wb, Wa; USGS, WRD, 208 Carroll Bldg., 8600 La Salle Rd., Towson, MD 21204.)
- WRI 82-4063. ARKANSAS. Water-quality assessment of White River between Lake Sequoyah and Beaver Reservoir, Washington County, Arkansas, by J. E. Terry, E. E. Morris, and C. T. Bryant. 1982. 113 p., 2 over-size sheets. (NC, M, Da, Wb; USGS, WRD, 2301 Federal Office Bldg., Little Rock, AR 72201.)

- WRI 82-4064. SOUTH DAKOTA. A digital-computer model of the Big Sioux Aquifer in Minnehaha County, South Dakota, by N. C. Koch. 1982. 56 p. (NC, Da, M, Wb; USGS, WRD, Room 317, Federal Bldg., 200 Fourth St., SW., Huron, SD 57350; Public Inquiries Office, 302 National Ctr., Room 1C402, Reston, VA 22092.)
- WRI 82-4068. WYOMING. Digital model of the Bates Creek alluvial aquifer near Casper, Wyoming, by K. C. Glover. 1982. 50 p. (NC, Da, Wb; USGS, WRD, Room 4007, Federal Bldg., 2120 Capitol Ave., Cheyenne, WY 82003.)
- WRI 82-4069. FLORIDA. Drainage areas in Duval County, Florida, by R. B. Stone, and J. B. Largen. 1982. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet) and scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, Wb; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, Suite 106, 4415 Beach Blvd., Jacksonville, FL 32207.)
- WRI 82-4072. COLORADO, KANSAS, NEBRASKA, NEW MEXICO, OKLAHOMA, SOUTH DAKOTA, TEXAS, WYOMING. A data management system for areal interpretive data for the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming, by R. R. Luckey, and C. F. Ferrigno. 1982. 118 p. (NC, Da, M, Db, T; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 412), Denver Federal Ctr., Denver, CO 80225.)
- WRI 82-4074. KANSAS. Physical and hydrologic environments of the Mulberry coal reserves in eastern Kansas, by J. F. Kenny, H. E. Bevans, and A. M. Diaz. 1982. 50 p. (NC, M, Da, Db, T, U, Wb; USGS, WRD, 1950 Ave. A., Campus West, Univ. Kansas, Lawrence, KS 66044.)
- WRI 82-4075. NEW YORK. Geologic reconnaissance of an extensive clay unit in north-central Suffolk County, Long Island, New York, by R. K. Krulikas, and E. J. Koszalka. 1983. 13 p., 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 82-4076. COLORADO. Hydrologic-information needs for oil-shale development, northwestern Colorado, by O. J. Taylor. 1982. 101 p. (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- Water for oil-shale development, by G. A. Miller, and V. W. Norman. p. 14-21
- Test-well drilling and logging, by F. A. Welder. p. 22-25
- Aquifer testing, by O. J. Taylor. p. 26-30
- Mathematical modeling of the ground-water flow system, by O. J. Taylor. p. 31-32
- Ground-water quality, by R. L. Tobin, and D. B. Adams. p. 33-36
- Springs, by K. E. Goddard. p. 37-42
- Streamflow analysis, by R. S. Parker. p. 43-48
- Surface-water quality, by K. J. Covay, and R. O. Hawkins. p. 49-58
- White River basin quality assessment, by D. P. Bauer. p. 59-68
- Emissions to the atmosphere, by J. T. Turk. p. 69-76
- Spoil-pile geochemistry and hydrology, by K. G. Stollenwerk. p. 77-81
- Oil-shale processing wastes, by J. A. Leenheer. p. 82-88
- WRI 82-4078. OREGON. Magnitude and frequency of floods in eastern Oregon, by D. D. Harris, and L. E. Hubbard. 1982. 45 p. (M, NC, Da, LA, S, Wb, SF; USGS, WRD, 847 NE. 19th Ave., Suite 300, Portland, OR 97232; Public Inquiries Office, Menlo Park, CA 94025.)
- WRI 82-4081. CALIFORNIA. Limnological study of Shasta Lake, Shasta County, California, with emphasis on the effect of the 1977 drought, by S. A. Rettig, and G. C. Bortleson. 1983. 66 p. (NC, M, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- WRI 82-4083. NORTH CAROLINA. The effects of channel excavation on water-quality characteristics of the Black River and ground-water levels near Dunn, North Carolina, by C. E. Simmons, and S. A. Watkins. 1982. 33 p. (NC, Da, M, Wb; USGS, WRD (P.O. Box 2857), Room 436, Century Station, Post Office Bldg., Raleigh, NC 27602; Public Inquiries Office, National Ctr., Mail Stop 302, Room 1C402, Reston, VA 22092.)
- WRI 82-4085. NEVADA, CALIFORNIA. Two-dimensional, steady-state model of ground-water flow, Nevada Test Site and vicinity, Nevada-California, by R. K. Waddell. 1982. 77 p. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, LA, SF, Wb; USGS, WRD, Nuclear Hydrology Program, Room H-2115, Bldg. 53 (Box 25046, Mail Stop 416), Denver Federal Ctr., Denver, CO 80225.)
- WRI 82-4086. FLORIDA. Trends and fluctuations in the potentiometric surface of the Floridan Aquifer, west-central Florida, 1961-80, by D. K. Yobbi. 1982. 1 over-size sheet, scale 1:1,000,000 (1 inch = about 16 miles). (NC, Da, M, Wb; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, Suite B-5, 4710 Eisenhower Blvd., Tampa, FL 33614.)
- WRI 82-4087. MONTANA. Suspended sediment in selected streams of southeastern Montana, by D. W. Litke. 1982. 57 p. (Da, M, NC, Db, U, S, Wb; USGS, WRD, 428 Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 3 North Seventh St., West, Billings, MT 59101; Billings City-County Library, 510 North Broadway, Billings, MT 59101; Henry Malley Memorial Library, 101 South Lincoln, Broadus, MT 59317; Miles City Public Library, 1 South Tenth St. Miles City, MT 59301; Rosebud County Library, 201 North Ninth Ave., Forsyth, MT 59327.)
- WRI 82-4089. FLORIDA. Hydrogeology of the Sarasota-Port Charlotte area, Florida, by R. M. Wolansky. 1983. 54 p. (Wb, NC, Da, M; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, Suite B-5, 4710 Eisenhower Blvd., Tampa, FL 33614.)
- WRI 82-4090. FLORIDA. Source, use, and disposition of water in Florida, 1980, by S. D. Leach. 1982. 343 p. (NC; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155; USGS, WRD, 4415 Beach Blvd., Suite 106, Jacksonville, FL 32207; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801; USGS, WRD, 4710 Eisenhower Blvd., Suite B5, Tampa, FL 33614; Libraries of the State University System of Florida.)

- WRI 82-4092. MONTANA. Mean annual runoff and peak flow estimates based on channel geometry of streams in southeastern Montana, by R. J. Omang, Charles Parrett, and J. A. Hull. 1982. 38 p. (Da, NC, M, Db, S, U, Wb; USGS, WRD, Federal Bldg., Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101; Lewis and Clark Library, 120 South Last Change Gulch, Helena, MT 59601; USGS, Geol. Div., 919 National Ctr., 12201 Sunrise Valley Dr., Reston, VA 22092.)
- WRI 82-4093. FLORIDA. Effects of land use on ground-water quality in the East Everglades, Dade County, Florida, by B. G. Waller. 1982. 75 p. (NC; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155; USGS, WRD, 4415 Beach Blvd., Suite 106, Jacksonville, FL 32207; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614; Libraries of the State University System of Florida.)
- WRI 82-4094. FLORIDA. Effects of recharge from drainage wells on quality of water in the Floridan Aquifer in the Orlando area, central Florida, by G. R. Schiner, and E. R. German. 1983. 130 p. (NC, Da, M, Wb; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301.)
- WRI 82-4095. KANSAS. A numerical model to evaluate proposed ground-water allocations in Southwest Kansas, by D. G. Jorgensen, H. F. Grubb, C. H. Baker, Jr., G. E. Hilmes, and E. D. Jenkins. 1982. 46 p. (NC, Da, M, Db, T, U, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- WRI 82-4096. NEW MEXICO. Estimated natural streamflow in the Rio San Jose upstream from the pueblos of Acoma and Laguna, New Mexico, by D. W. Risser. 1982. 56 p. (NC, Db, T; USGS, WRD, Room 720, 505 Marquette, NW., Albuquerque, NM 87102.)
- WRI 82-4097. ALASKA. Hydrologic information for land-use planning, Badger Road area, Fairbanks, Alaska, by A. P. Krumhardt. 1982. 18 p. (NC, M, A, LA, SF, S; USGS, WRD, 1515 East 13th Ave., Anchorage, AK 99501; USGS, WRD, Federal Bldg., 101 12th Ave., Fairbanks, AK 99701; Fairbanks North Star Borough, 520 Fifth Ave. (P.O. Box 1267), Fairbanks, AK 99707.)
- WRI 82-4098. TENNESSEE. Man-induced channel adjustment in Tennessee streams, by C. H. Robbins, and Andrew Simon. 1983. 137 p., 1 over-size sheet. (Wb, NC, Da, M; USGS, WRD, Room A-413, Federal Bldg., U.S. Courthouse, Nashville, TN 37203.) (Supersedes Open-file report 83-43.)
- WRI 82-4099. OKLAHOMA. Preliminary appraisal of the hydrology of the Stigler area, Haskell County, Oklahoma, by M. V. Marcher, T. L. Huntzinger, J. D. Stoner, and S. P. Blumer. 1982. 41 p., 3 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (Da, NC, M, Wb, T; USGS, WRD, 215 Dean A. McGee Ave., Room 621, Oklahoma City, OK 73102; Library Div. (SLL), U.S. Government Printing Office, Washington, DC 20401.)
- WRI 82-4100. CALIFORNIA. Land application of wastewater and its effect on ground-water quality in the Livermore-Amador Valley, Alameda County, California, by M. A. Sylvester. 1983. 58 p., 2 over-size sheets. (NC, M, Da, Wb, SF; Public Inquiries Office, 345 Middlefield Rd., Mail Stop 33, Menlo Park, CA 94025.)
- WRI 82-4101. MONTANA. Potential effects of surface coal mining on the hydrology of the Greenleaf-Miller area, Ashland coal field, southeastern Montana, by G. W. Levings. 1982. 35 p. (Da, M, NC, Db, U, S, Wb; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 82-4104. UTAH. Characteristics of suspended sediment in the San Juan River near Bluff, Utah, by K. R. Thompson. 1982. 25 p. (NC, Da, U, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104; Utah Dept. Natural Resources, Div. Water Rights, 1636 NW. Temple, Salt Lake City, UT 84111.)
- WRI 82-4106. IDAHO. Effects of volcanic ash on the benthic environment of a mountain stream, northern Idaho, by S. A. Frenzel. 1982. 37 p. (NC, M, Wb; USGS, WRD, Box 036, Federal Bldg., 550 West Fort St., Boise, ID 83724.)
- WRI 82-4107. MONTANA, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA, WYOMING. Machine-readable data files from the Madison Limestone and Northern Great Plains regional aquifer system analysis projects, Montana, Nebraska, North Dakota, South Dakota, and Wyoming, by J. S. Downey. 1982. 30 p. (Da, Db, M, NC, Wb; Library Div. (SLL), U.S. Gov. Printing Office, Washington, DC 20402.)
- WRI 82-4108. ALABAMA. Results of a test well in the Nanafalia Formation near Melvin, Choctaw County, Alabama, by M. E. Davis, A. K. Sparkes, and B. S. Peacock. 1982. 21 p. (NC, Da, M, Wb; USGS, WRD, 520 19th Ave., Tuscaloosa, AL 35401.)
- WRI 82-4109. FLORIDA. Appraisal of the interconnection between the St. Johns River and the surficial aquifer, east-central Duval County, Florida, by R. M. Spechler, and R. B. Stone, Jr. 1982. 38 p. (NC, Da, M, Wb; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, Suite 106, 4415 Beach Blvd. Jacksonville, FL 32207.)
- WRI 82-4110. FLORIDA. Hydrology of the sand-and-gravel aquifer, southern Okaloosa and Walton counties, Northwest Florida, by L. R. Hayes, and D. E. Barr. 1982. 49 p. (NC; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, 4415 Beach Blvd., Suite 106, Jacksonville, FL 32207; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614; Libraries of the State University System of Florida.)
- WRI 82-4111. NEW MEXICO. Geologic and well-construction data for the H-9 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico, by S. L. Drellack, Jr., and J. G. Wells. 1982. 36 p., 1 over-size sheet. (NC, Da, Db, T, Wb; USGS, WRD, Room 815, Western Bank Bldg., 505 Marquette, NW., Albuquerque, NM 87125.)

- WRI 82-4112. NEW YORK. Computation of inflows and outflows of eight regulated lakes in the Oswego River basin, New York, 1930-79, by Richard Lumia, and R. B. Moore. 1982. 55 p. (NC; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 82-4113. NEW MEXICO. Estimation of natural streamflow in the Jemez River at the boundaries of Indian lands, central New Mexico, by E. E. Fischer, and J. P. Borland. 1983. 33 p. (NC, Da, Db, T, Wb; USGS, WRD, Room 815, Western Bank Bldg., 505 Marquette, NW., Albuquerque, NM 87125.)
- WRI 82-4118. NEW MEXICO. Geologic and well-construction data for the H-8 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico, by S. L. Drellack, Jr., and J. G. Wells. 1982. 46 p., 1 over-size sheet. (NC, Da, Db, T, Wb; USGS, WRD, Room 815, Western Bank Bldg., 505 Marquette, NW., Albuquerque, NM 87125.)
- WRI 82-4119. LOUISIANA. A two-dimensional finite-element model study of backwater and flow distribution at the I-10 crossing of the Pearl River near Slidell, Louisiana, by J. K. Lee, D. C. Froehlich, J. J. Gilbert, and G. J. Wiche. 1982. 66 p., 8 over-size sheets, scale 1:18,000 (1 inch = 1,500 feet). (NC, Da, M; USGS, WRD, Box 66492, Baton Rouge, LA 70896; Asst. Chief Hydrologist, R&TC, 12201 Sunrise Valley Dr., Mail Stop 414, Reston, VA 22092.)
- WRI 82-4121. CALIFORNIA. Injection of treated wastewater for ground-water recharge in the Palo Alto Baylands, California, hydraulic and chemical inter-actions; preliminary report, by S. N. Hamlin. 1983. 54 p. (NC, Wb, M, LA, SF, Da; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- WRI 82-4122. CALIFORNIA. Artificial recharge in the northern part of Chino ground-water basin, upper Santa Ana Valley, California, by J. H. Koehler. 1983. 27 p. (NC, M, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- WRI 82-4123. KANSAS. Flood of June 15, 1981, in Great Bend and vicinity, central Kansas, by R. W. Clement, and D. G. Johnson. 1982. 12 p. (NC, M, Da, Db, T, U, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- WRI 82-4124. TEXAS. Water quality of Somerville Lake, south-central Texas, by Emma McPherson, and H. B. Mendieta. 1983. 94 p. (T, NC; USGS, WRD, 300 East Eighth St., Room 651, Austin, TX 78701.)
- WRI 82-4125. WASHINGTON. Mudflow hazards along the Toutle and Cowlitz rivers from a hypothetical failure of Spirit Lake blockage, by C. H. Swift, III, and D. L. Kresch. 1982. 15 p., 10 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC, M, Da, Wb; USGS, WRD, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402.)
- WRI 83-4000. CALIFORNIA. Geology of the Tulare Formation and other continental deposits, Kettleman City area, San Joaquin Valley, California, with a section on ground-water management considerations and use of texture maps, by R. W. Page. 1983. 28 p., 2 over-size sheets. (NC, Da, M, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677; Public Inquiries Office, 345 Middlefield Rd., Mail Stop 33, Menlo Park, CA 94025.)
- WRI 83-4002. MICHIGAN. Ground-water contamination at Wurtsmith Air Force Base, Michigan, by J. R. Stark, T. R. Cummings, and F. R. Twenter. 1983. 101 p., 1 over-size sheet. (NC, Wb; USGS, WRD, 6520 Mercantile Way, Suite 5, Lansing, MI 48910.)
- WRI 83-4003. FLORIDA. Water quality at and adjacent to the South Dade County Solid-Waste Disposal Facility, Florida, by D. J. McKenzie. 1983. 42 p. (NC; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155; Libraries of the State University System of Florida.)
- WRI 83-4005. Hydraulic considerations in sampling the unsaturated zone with inclined gravity lysimeters, by E. T. Oakford. 1983. 21 p. (NC, M, Wb; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- WRI 83-4006. A guide to the larvae of the Nearctic Diamesinae (Diptera; Chironomidae); the genera *Boreoheptagya*, *Protanypus*, *Diamesa*, and *Pseudokiefferiella*, by J. S. Doughman. 1983. 61 p. (NC, M, Da, Wb; USGS, WRD, National Water Quality Laboratory-Atlanta, 6481-H Peachtree Industrial Blvd., Doraville, GA 30340.)
- WRI 83-4008. MONTANA. Significance of water quality to fish propagation, waterfowl habitat, livestock watering, and recreation use for 24 lakes and reservoirs in Valley and Phillips counties, Montana, by R. F. Ferreira. 1983. 63 p. (Da, M, NC, Db, U, S, Wb; USGS, WRD, 428 Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 3 North Seventh St., West, Billings, MT 59101; Glasgow City-County Library, 408 Third Ave., South, Glasgow, MT 59230; Phillips County Library, 133 South First West, Melfa, MT 59538.)
- WRI 83-4010. CONNECTICUT. Hydrogeologic evaluation of selected stratified-drift deposits in Connecticut, by S. J. Grady, and E. H. Handman. 1983. 56 p. (NC, Da, M, Wb.)
- WRI 83-4020. MAINE. Initial assessment of time of travel and mixing through Gulf Island Pond and the lower Androscoggin River, Maine, by G. W. Parker, and G. S. Hunt. 1983. 60 p. (NC, M, Da; USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.)
- WRI 83-4022. OHIO. Simulations of non-steady flow in a glacial outwash aquifer, southern Franklin County, Ohio, by A. C. Razem. 1983. 21 p. (NC, Da, M, Wb; USGS, WRD, 975 West Third Ave., Columbus, OH 43212.)
- WRI 83-4028. NEW JERSEY. Computer simulation model of the Pleistocene valley-fill aquifer in southwestern Essex and southeastern Morris counties, New Jersey, by Harold Meisler. 1983. 76 p., 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Wb; USGS, WRD, Room 430, Federal Bldg., 402 East State St., Trenton, NJ 08608.)

- WRI 83-4029. NEW JERSEY. Geology and ground-water resources of Camden County, New Jersey, by G. M. Farlekas, Bronius Nemickas, and H. E. Gill. 1983. 158 p., 9 over-size sheets. (NC, Wb; USGS, WRD, Room 430, Federal Bldg., 402 East State St., Trenton, NJ 08608.)
- WRI 83-4030. MINNESOTA. Availability and chemical quality of water from surficial aquifers in Southwest Minnesota, by D. G. Adolphson. 1983. 41 p., 8 over-size sheets. (NC, Da, M, Wa, Wb; USGS, WRD, 702 Post Office Bldg., St. Paul, MN 55101; Office of Scientific Publications, USGS, 919 National Ctr., Reston, VA 22092.)
- WRI 83-4032. PENNSYLVANIA. Water-quality assessment of Francis E. Walter Reservoir, Luzerne and Carbon counties, Pennsylvania, by J. L. Barker. 1983. 56 p. (NC, Da, M, Wb; USGS, WRD, Federal Bldg., 228 Walnut St., Harrisburg, PA 17108.)
- WRI 83-4033. MINNESOTA. Ground-water-use trends in the Twin Cities metropolitan area, Minnesota, 1880-1980, by M. A. Horn. 1983. 41 p. (NC, Da, M, Wa, Wb; USGS, WRD, 702 Post Office Bldg., St. Paul, MN 55101.)
- WRI 83-4034. Front-tracking model for convective transport in flowing ground water, by S. P. Garabedian, and L. F. Konikow. 1983. 57 p. (NC, Da, M, Wb; USGS, WRD, Mail Stop 431, National Ctr., Reston, VA 22092.)
- WRI 83-4043. ARIZONA. Streamflow losses and changes in ground-water levels along the Salt and Gila rivers near Phoenix, Arizona; February 1978 to June 1980, by L. J. Mann, and P. B. Rohne, Jr. 1983. 15 p., 3 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, M, Da; USGS, WRD, Federal Bldg., 301 West Congress, FB-44, Tucson, AZ 85701, USGS, WRD, Flagstaff Field Ctr., 2255 North Gemini Dr., Flagstaff, AZ 86001; USGS, WRD, Suite 1880, Valley Ctr., Phoenix, AZ 85073; USGS, WRD (P.O. Box 5774), 1940 South Third Ave., Yuma, AZ 85364.)
- WRI 83-4044. CALIFORNIA. Evaluation of the San Dieguito, San Elijo, and San Pasqual hydrologic subareas for reclaimed water use, San Diego County, California, by J. A. Izbicki. 1983. 138 p. (NC, M, Da, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- WRI 83-4046. MONTANA. Mean annual runoff and peak flow estimates based on channel geometry of streams in northeastern and western Montana, by Charles Parrett, R. J. Omang, and J. A. Hull. 1983. 57 p. (Da, NC, Db, U, S, Wb; USGS, WRD, 428 Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 83-4050. TENNESSEE. Technique for estimating depth of floods in Tennessee, by C. R. Gamble. 1983. 25 p. (NC, Da, M, Wb; USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203.)
- WRI 83-4051. Fortran computer programs to plot and process aquifer pressure and temperature data, by J. B. Czarnecki. 1983. 53 p. (NC, Da, M, Wa, Wb; USGS, WRD, 702 U.S. Post Office Bldg., St. Paul, MN 55101.)
- WRI 83-4052. CALIFORNIA. Ground water in the Redding Basin, Shasta and Tehama counties, California, by M. J. Pierce. 1983. 41 p. (NC, Wb, M, LA, SF, Da; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- WRI 83-4053. CALIFORNIA. Ground water in the northeast part of Twentynine Palms Marine Corps Base, Bagdad area, California, by J. H. Koehler. 1983. 19 p. (NC, M, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- WRI 83-4054. SOUTH CAROLINA. Impact of discharges from point and nonpoint sources on water quality of the upper Reedy River near Greenville, South Carolina, by D. I. Cahal, and G. K. Speiran. 1983. 41 p. (NC, Da, Wb; USGS, WRD, 1835 Assembly St., Suite 658, Columbia, SC 29201.)
- WRI 83-4056. Preliminary plasma spectrometric analyses for selected elements in some geothermal waters from Cerro Prieto, Mexico, by J. W. Ball, and E. A. Jenne. 1983. 12 p. (NC, Da, M, Wb.)
- WRI 83-4065. LOUISIANA, MISSISSIPPI. Backwater and discharge at highway crossings with multiple bridges in Louisiana and Mississippi, by B. E. Colson, and V. R. Schneider. 1983. 46 p. (NC; USGS, WRD, Federal Bldg., 100 West Capitol St., Suite 710, Jackson, MS 39269.)
- WRI 83-4068. TENNESSEE. Base flow and ground water in upper Sweetwater Valley, Tennessee, by R. D. Evaldi, and J. G. Lewis. 1983. 35 p. (NC, M, Da, Wb; USGS, WRD, Room A-413, Federal Bldg., U.S. Courthouse, Nashville, TN 37203; USGS, WRD, 1013 North Broadway, Knoxville, TN 37917.)
- WRI 83-4069. COLORADO. Hydrology and subsidence potential of proposed coal-lease tracts in Delta County, Colorado, by Tom Brooks. 1983. 32 p. (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225; USGS, WRD (P.O. Box 2027), Grand Junction, CO 81502.)
- WRI 83-4075. FLORIDA. Water resources of the Santa Fe River basin, Florida, by J. D. Hunn, and L. J. Slack. 1983. 111 p. (Wb, NC, Da, M; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301.)
- WRI 83-4083. WASHINGTON. Flood elevations for the Sole-duck River at Sol Duc Hot Springs, Clallam County, Washington, by L. M. Nelson. 1983. 20 p. (NC, M, Da, Wb; USGS, WRD, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402; USGS Library, WRD, Room 656, West 920 Riverside, Spokane, WA 99201.)
- WRI 83-4084. COLORADO. Simulated effects of anticipated coal mining on dissolved solids in selected tributaries of the Yampa River, northwestern Colorado, by R. S. Parker, and J. M. Norris. 1983. 72 p. (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- WRI 83-4088. Automatic dilution gaging of rapidly varying flow, by M. D. Duerk. 1983. 22 p. (NC, Da, M; USGS, WRD, 1815 University Ave., Madison, WI 53706.)
- WRI 83-4090. Quality-assurance data for routine water analysis in the laboratories of the U.S. Geological Survey; 1981 annual report, by D. B. Peart, and Nancy Thomas. 1983. 120 p. (NC, Da, M, Wb.)

- WRI 83-4091. OREGON. Hydrology of the Newberry Volcano caldera, Oregon, by E. A. Sammel, and R. W. Craig. 1983. 57 p. (NC, Da, M, SF, LA, Wb.)
- WRI 83-4094. WASHINGTON. Impact of changes in land use on the ground-water system in the Sequim-Dungeness Peninsula, Clallam County, Washington, by B. W. Drost. 1983. 69 p. (NC, Da, M, Wb; USGS, WRD, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402; USGS Library, Room 656, West 920 Riverside, Spokane, WA 92201.)
- WRI 83-4096. ALASKA. Surface-water quality in the Campbell Creek basin, Anchorage, Alaska, by T. P. Brabets, and L. A. Wittenberg. 1983. 32 p. (NC, M, A, LA, SF, S; USGS, WRD, 1515 East 13th Ave., Anchorage, AK 99501; USGS, WRD, Room 168, Federal Bldg., 101 12th Ave., Fairbanks, AK 99701; USGS, WRD, Room 441, Federal Bldg., 710 West Ninth Ave., Juneau, AK 99801.)
- WRI 83-4100. OREGON. Debris flow hazard assessment for the Oregon Caves National Monument, by John Friday. 1983. 25 p. (M, NC, Da, LA, S, Wb, SF; Public Inquiries Office, USGS, 345 Middlefield Rd., Menlo Park, CA 94025; USGS Library, 5400 McArthur, Vancouver, WA 98661.)
- WRI 83-4105. U.S. Geological Survey research in radioactive waste disposal; fiscal year 1981, by Robert Schneider and N. J. Trask. 1983. 128 p. (NC, Da, M, Wb.)
- WRI 83-4107. FLORIDA. Selected flow characteristics of Florida streams and canals, by D. W. Foose. 1983. 269 p. (Wb, NC, Da, M; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301.)
- WRI 83-4123. COLORADO, KANSAS, NEBRASKA, NEW MEXICO, OKLAHOMA, SOUTH DAKOTA, TEXAS, WYOMING. Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming, by F. J. Heimes, and R. R. Luckey. 1983. 40 p. (NC, Da, M, T, Db, LA, U, SF, S, Wa, Wb; High Plains RASA, WRD (Box 25046, Mail Stop 412), Denver Federal Ctr., Denver, CO 80225.)
- WRI 83-4124. NEW MEXICO. Geologic and well-construction data for the H-10 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico, by S. L. Drellack, Jr., and J. G. Wells. 1983. 38 p., 1 over-size sheet. (NC, Da, M, Wb, T, Db; USGS, WRD, 505 Marquette, NW., Room 720, Albuquerque, NM 87102.)
- WRI 83-4126. FLORIDA. Chemical and hydrologic assessment of the Caloosahatchee River basin, Lake Okeechobee to Franklin Lock, Florida, by H. R. La Rose, and B. F. McPherson. 1983. 66 p. (Wb, NC, Da, M; USGS, WRD, 227 North Bronough St., Suite 3015, Tallahassee, FL 32301; USGS, WRD, Suite 106, Federal Reserve Bank Bldg., 9100 NW. 36th St., Miami, FL 33172.)
- WRI 83-4133. MISSISSIPPI. Water-level maps of the alluvial aquifer, northwestern Mississippi, September 1982, by Daphne Darden. 1983. 1 over-size sheet, scale 1:1,000,000 (1 inch = about 16 miles). (NC, M, Da, Wb.)
- WRI 83-4136. ILLINOIS. Measurement of bedload discharge in nine Illinois streams with the Helley-Smith sampler, by J. B. Graf. 1983. 79 p. (NC, Da, M, Wb, Wa; Public Inquiries Office, 12201 Sunrise Valley Dr., National Ctr., Reston, VA 22092; USGS, WRD, Champaign County Bank Plaza, 102 East Main St., Fourth Floor, Urbana, IL 61801.)
- WRI 83-4137. WYOMING. Computer program and data listing for two-dimensional ground-water model for Laramie County, Wyoming, by M. A. Crist. 1983. 141 p. (NC, Da, M, Wb; USGS, WRD, Federal Bldg., 2120 Capitol Ave., Cheyenne, WY 82001.)
- WRI 83-4141. MISSOURI. Floods in Kansas City, Missouri, and vicinity, August 12-13, 1982, by L. D. Becker, T. W. Alexander, and L. A. Waite. 1983. 41 p. (NC, Da, M, Wb.)
- WRI 83-4146. MONTANA. Hydrogeology and simulation of water flow in the Kootenai Aquifer of the Judith Basin, central Montana, by J. F. Levings. 1983. 44 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (Da, M, NC, Db, U, S, Wb; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 83-4147. MONTANA. Flood estimates for ungaged streams in Glacier and Yellowstone national parks, Montana, by R. J. Omang, Charles Parrett, and J. A. Hull. 1983. 13 p. (Da, M, NC, Db, U, S, Wb; USGS, WRD, 428 Federal bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- WRI 83-4150. WYOMING. Hydrologic evaluation of proposed ground-water withdrawals in Muleshoe Flat near Wheatland, southwestern Wyoming, by D. T. Hoxie. 1983. 20 p. (NC, Da; USGS, WRD, 2120 Capitol Ave., J. C. O'Mahoney Federal Ctr., Room 4007, Cheyenne, WY 82001.)
- WRI 83-4153. FLORIDA. Water-quality assessment of storm-water runoff from a heavily used urban highway bridge in Miami, Florida, by D. J. McKenzie, and G. A. Irwin. 1983. 50 p. (Wb, NC, Da, M; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, 9100 NW. 36th St., Miami, FL 33172.)
- WRI 83-4155. OHIO. Ground-water hydrology before, during, and after coal strip mining of a small watershed in Coshocton County, Ohio, by A. C. Razem. 1983. 40 p. (NC, Da, M, Wb.)
- WRI 83-4169. MISSISSIPPI. Preliminary report of the geohydrology near Cypress Creek and Richton salt domes, Perry County, Mississippi, by C. B. Bentley. 1983. 45 p. (NC, M, Da; USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39269; Dept. of Energy, National Waste Terminal, Storage Program Office, 505 King Ave., Columbus, OH 43201.)
- WRI 83-4173. ALASKA. Trace metals in surface water and stream sediments of Healy and Lignite Creek basins, Alaska, by Bruce Parks. 1983. 30 p. (NC, M, A, LA, SF, S; USGS, WRD, 1515 East 13th Ave., Anchorage, AK 99501; USGS, WRD, Room 168, Federal Bldg., 101 12th Ave., Fairbanks, AK 99701; USGS, WRD, Room 441, Federal Bldg., 710 West Ninth Ave., Juneau, AK 99801.)

WRI 83-4234. SOUTH DAKOTA. Evaluation of the response of the Big Sioux Aquifer to extreme drought conditions in Minnehaha County, South Dakota, by N. C. Koch. 1983. 10 p. (Wb, NC, Da, M.)

OPEN-FILE REPORTS

Open-file reports include unpublished manuscript reports, maps, and other material and are made available for public consultation and use. They are a nonpermanent form of publication that may be cited in other publications as sources of information. They are not considered to be a part of the formal literature.

Most open-file reports are available from the Open-File Services Section (OFSS), Western Distribution Branch, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225 (telephone: 303-234-5888). The following listing of open-file reports is subdivided to show which reports are available from the Denver OFSS and which ones are not. Specific instructions for ordering and availability of reports are given under each sublisting.

In the open-file report listings that follow, offices where reports may be inspected are identified by the symbols listed below:

A	Public Inquiries Office, Rm. 108, Skyline Bldg., 508 2d Ave., Anchorage, AK 99501.
Da	Library, 1526 Cole Blvd. at West Colfax Ave., Golden, Colo. (Mail address: Stop 914, Box 25046, Federal Center, Denver, CO 80225.)
Db	Public Inquiries Office, Federal Bldg., Rm. 169, 1961 Stout St., Denver, CO 80294.
F	Library, 2255 North Gemini Dr., Flagstaff, AZ 86001.
LA	Public Inquiries Office, Rm. 7638, Federal Bldg., 300 North Los Angeles St., Los Angeles, CA 90012.
M	Library, 345 Middlefield Rd., Menlo Park, CA 94025.
NC	Library, Rm. 4A100, National Center, 12201 Sunrise Valley Dr., Reston, VA 22092.
S	Public Inquiries Office, Rm. 678, U.S. Courthouse, West 920 Riverside Ave., Spokane, WA 99201.
SF	Public Inquiries Office, Rm. 504, Customhouse, 555 Battery St., San Francisco, CA 94111.
T	Public Inquiries Office, Rm. 1C45, Federal Bldg., 1100 Commerce St., Dallas, TX 75242.
U	Public Inquiries Office, Rm. 8105, Federal Bldg., 125 South State St., Salt Lake City, UT 84138.
Wa	Public Inquiries Office, Rm. 1028, General Services Bldg., 19th and F Sts., NW, Washington, DC 20244.
Wb	U.S. Department of Interior, Natural Resources Library, Gifts and Exchange Section, 18th and C Sts., NW, Washington, DC 20240.

Reports Available Only Through the Open-File Services Section

Microfiche and (or) black and white paper copies of most reports may be obtained from the Open-File Services Section (OFSS), Western Distribution Branch, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225 (telephone: 303-234-5888). When ordering, please use the open-file number and full title. Do not mix orders for open-file reports with orders for other Geological Survey products. Prices for microfiche and (or) black and white paper duplicates and prices for duplicate slides and color photographs can be obtained on request. Check or money order, in exact amount for open-file reports ordered, should be payable to Department of the Interior—USGS. Prepayment is required. No discount is applicable. For transmittal outside the U.S.A. (except Canada and Mexico), a surcharge of 25 percent of the bill should be included to cover surface transportation.

A microfiche copy of a computer listing of reports showing report number and paper copy and microfiche prices is available from the OFSS. The listing does not show author or title of the reports. This "Open File Report Price Listing" is updated monthly. Contact the OFSS for information concerning the price of the listing.

OF 78-0556-I. MAINE. Drainage areas of surface water bodies of central Maine coastal river basins, by R. A. Fontaine. 31 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114; USGS, WRD, 26 Gannett Dr., Augusta, ME 04330.)

OF 79-0303. OKLAHOMA. Federal coal resource occurrence and Federal coal development potential maps of the Wilburton 7.5-minute Quadrangle, Latimer County, Oklahoma, by Geological Services of Tulsa, Inc., and B. T. Brady, USGS. 33 p., 25 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (M, NC, Da, T.)

OF 79-0306. OKLAHOMA. Federal coal resource occurrence and Federal coal development potential maps of the Stigler West 7.5-minute Quadrangle, Muskogee and Haskell counties, Oklahoma, by Geological Services of Tulsa, Inc., and B. T. Brady, USGS. 37 p., 6 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (M, NC, Da, T.)

OF 79-0307. OKLAHOMA. Federal coal resource occurrence and Federal coal development potential maps of the Stigler east 7.5-minute quadrangle, Muskogee and Haskell counties, Oklahoma, by Geological Services of Tulsa, Inc., and B. T. Brady, USGS. 39 p., 11 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (M, NC, Da, T.)

OF 79-0619. NEW MEXICO. Coal resource occurrence and coal development potential maps of the Nageezi NE Quadrangle, Rio Arriba and San Juan counties, New Mexico, by Dames and Moore. 18 p., 9 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, U.)

OF 79-1254. IOWA. Water quality of Threemile Creek, Badger Creek, and Little River watersheds, Iowa, by L. J. Slack. 77 p. (NC, Da; USGS, WRD, Room 269, Federal Bldg., 400 South Clinton St., Iowa City, IA 52240.)

OF 79-1597. Mining, reclamation, and water quality, by G. L. Feder. 2 p. (NC, Da.)

OF 79-1598. Assessment of potential impacts to the hydrologic system related to surface mining, by R. F. Hadley. 3 p. (NC, Da; USGS, WRD, Mail Stop 420, Box 25046, Denver Federal Ctr., Denver, CO 80225.)

OF 79-1635. Physical and chemical properties of the Potomac River and environs, August-September 1977, by R. E. Smith, and R. E. Herndon. 80 p. (NC, M; USGS, WRD, 345 Middlefield Rd., Mail Stop 96, Menlo Park, CA 94025.)

OF 80-0016. OHIO. Flood of June 18, 1978, on Honey Creek tributary at Thornville, Ohio, by E. E. Webber, and R. I. Mayo. 9 p. (NC; USGS, WRD, 975 West Third Ave., Columbus, OH 43212.)

OF 80-0326. The use of minicomputers in a distributed information processing system; feasibility study, by S. M. Longwill, J. M. McNellis, and D. R. Posson. 68 p. (NC.)

OF 80-0341. Determining the availability of sediment-bound trace metals to aquatic deposit-feeding animals, by S. N. Luoma, D. J. Cain, E. A. Thomson, C. Johansson, E. A. Jenne, and G. W. Bryan. 405 p. (NC, M.)

1. Uptake by the clam *Macoma balthica* of sediment-bound Cd from well-defined types of sediment, by S. N. Luoma, and E. A. Jenne. p. 14-30

2. Uptake of ⁶⁰Co, ^{110m}Ag, and ⁶⁵Zn from well-defined sediments by *Macoma balthica*, by S. N. Luoma, and E. A. Jenne. p. 31-52

3. Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types, by S. N. Luoma, and E. A. Jenne. p. 53-66
 4. Determining the form of metals in oxidized sediments; assessing the action of chemical extractants, by S. N. Luoma, and G. W. Bryan. p. 67-106
 5. Determining the form of metals in oxidized estuarine sediments; statistical assessments, by S. N. Luoma, and G. W. Bryan. p. 107-143
 6. Effect of sample storage on metal extractability from oxidized estuarine sediments, by S. N. Luoma, D. J. Cain, E. A. Thomson, and C. Johansson. p. 144-171
 7. Correlation of Pb concentrations and chemistry of sediments with Pb in the bivalve *Scrobicularia plana*, by S. N. Luoma, and G. W. Bryan. p. 172-183
 8. Development of methodology for incorporating sediment chemistry into predictions of metal bioavailability in sediments; case study, Zn, by S. N. Luoma, and G. W. Bryan. p. 184-206
 9. Controls on the availability of Ag, Cd, Co, Fe and Mn to estuarine bivalves (*Scrobicularia plana*) and polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*), by S. N. Luoma, and G. W. Bryan. p. 207-235
 10. Controls on Cu concentrations in estuarine bivalves (*Scrobicularia plana*), polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*), by S. N. Luoma, and G. W. Bryan. p. 236-257
 11. CALIFORNIA. Concentrations of metals in sediments and shellfish in San Francisco Bay, by W. L. Bradford, and S. N. Luoma. p. 258-283
 12. CALIFORNIA. Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge, by S. N. Luoma, and D. J. Cain. p. 284-306
 13. Detection of trace contaminant effects; theory, by S. N. Luoma. p. 307-313
 14. Bioaccumulation and toxicity to Cu in *Macoma balthica*; inter-population heterogeneity and the role of Ag, by D. J. Cain, and S. N. Luoma. p. 314-320
- OF 80-0742. Physical and chemical properties of the Potomac River and environs, January 1978, by R. E. Smith, and R. E. Herndon. 37 p. (NC, M.)
- OF 80-0745. Physical and chemical properties of the Potomac River and environs, April-May 1978, by R. E. Smith, and R. E. Herndon. 59 p. (NC, M.)
- OF 80-0746. Physical and chemical properties of the Potomac River and environs, August 1978, by R. E. Smith, and R. E. Herndon. 55 p. (NC, M.)
- OF 80-0751. CONNECTICUT. Ground-water availability and water quality, Farmington, Connecticut, by D. L. Mazzaferro. 68 p., 7 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC; USGS, WRD, 135 High St., Room 235, Hartford, CT 06103.) (Water-Resources Investigations.)
- OF 80-0811-G. ALASKA. Mineral resource assessment map of the Medfra Quadrangle, Alaska, by W. W. Patton, Jr., and E. J. Moll. 3 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 80-0811-H. ALASKA. Distribution and abundance of gold and silver in nonmagnetic and moderately magnetic heavy-mineral-concentrate and minus-80-mesh stream-sediment samples and silver in ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska, by H. D. King, E. F. Cooley, A. L. Gruzensky, and D. L. Spiesman, Jr. 3 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 80-0811-I. ALASKA. Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska, by H. D. King, R. B. Tripp, R. M. O'Leary, and E. F. Cooley. 6 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 80-0811-J. ALASKA. Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska, by H. D. King, D. A. Risoli, and R. B. Tripp. 4 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 80-0811-K. ALASKA. Distribution and abundance of arsenic and bismuth in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and arsenic in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska, by H. D. King, E. F. Cooley, and D. L. Spiesman, Jr. 3 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 80-0811-L. ALASKA. Distribution and abundance of antimony and mercury in minus-80-mesh stream-sediment and antimony in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples, Medfra Quadrangle, Alaska, by H. D. King, R. M. O'Leary, D. A. Risoli, and D. W. Galland. 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)

- OF 80-0811-M. ALASKA. Multi-element maps showing the distribution and relative amounts of selected elements in four geochemical sampling media, Medfra Quadrangle, Alaska, by H. D. King, and R. B. Tripp. 4 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 80-1050. MAINE. Ground water availability in Acadia National Park and vicinity, Hancock and Knox counties, Maine, by B. P. Hansen. 10 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.)
- OF 80-1120. MAINE. Reconnaissance of the effect of landfill leachate on the water quality of Marshall Brook, Southwest Harbor, Hancock County, Maine, by B. P. Hansen. 17 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.)
- OF 80-1191. CALIFORNIA. Physical and chemical properties of San Francisco Bay waters, 1977, by R. E. Smith, and R. E. Herndon. 53 p. (NC, M.)
- OF 80-1220-B. Water-use file, Chapter II, National aggregated data base (WATSTORE User's Guide, Volume 7), by J. W. Harding, N. L. Ebersole, and C. F. Merk. 218 p. (NC; Automated Data Sec., WRD, USGS, Mail Stop 437, Reston, VA 22092.)
- OF 80-1220-E. Water-use file, Chapter V, Codes used in water-use file (WATSTORE User's Guide, Volume 7), by J. W. Harding, N. L. Ebersole, and C. F. Merk. 34 p. (NC; Automated Data Sec., WRD, USGS, Mail Stop 437, Reston, VA 22092.)
- OF 80-1224. NEVADA. Mathematical model analysis of the Eagle Valley ground-water basin, west-central Nevada, by F. E. Arteaga. 62 p., 6 over-size sheets. (NC; USGS, WRD, Room 227, Federal Bldg., 705 North Plaza St., Carson City, NV 89701; Nevada Dept. Conservation and Natural Resources, Div. Water Resources, 201 South Fall St., Carson City, NV 89701.)
- OF 80-1297. CALIFORNIA. Working notes on current-meter deployment, recovery, maintenance, and data processing for San Francisco Bay, by R. T. Cheng, and J. W. Gartner. 71 p. (NC, M; USGS, WRD, 345 Middlefield Rd., Mail Stop 96, Menlo Park, CA 94025.)
- OF 81-0059. ALABAMA. A method of estimating average streamflow and headwater limits in U.S. Army Corps of Engineers Mobile District, Alabama and adjacent states, by J. R. Harkins, J. D. Shell, R. F. Carter, and R. P. Rumenik. 2 over-size sheets. (NC; USGS, WRD (P.O. Box V), University, AL 35486.) (Water-Resources Investigations.)
- OF 81-0070. PENNSYLVANIA. Water resources of the Clarion River and Redbank Creek basins, northwestern Pennsylvania, by T. F. Buckwalter, C. H. Dodge, G. R. Schiner, and H. F. Koester. 125 p., 1 over-size sheet. (NC; USGS, WRD (P.O. Box 1107), Fourth Floor, Federal Bldg., 228 Walnut St., Harrisburg, PA 17108; Clarion Free Library, Main St., Clarion, PA 16214; Ridgway Public Library, 329 Center St., Ridgway, PA 15853; USGS, WRD, 1000 Liberty Ave., Pittsburgh, PA 15222.) (Water-Resources Investigations.)
- OF 81-0128. KANSAS, NEBRASKA, COLORADO. Sediment and channel-geometry investigations for the Kansas River bank stabilization study, Kansas, Nebraska, and Colorado, by W. R. Osterkamp, R. E. Curtis, Jr., and H. G. Crowther. 71 p. (NC, Da, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66045.)
- OF 81-0140. SOUTH CAROLINA. Fluoride concentrations in water from four principal coastal plain aquifer systems, South Carolina, by P. W. Johnson, and J. M. Rhett. 14 p. (NC; USGS, WRD, Strom Thurmond Federal Bldg., Suite 658, 1835 Assembly St., Columbia, SC 29201; Office of SCDHEC, Room 408, 2600 Bull St., Columbia, SC 29201.) (Water-Resources Investigations.)
- OF 81-0141. UTAH. Preliminary hydrologic evaluation of the North Horn Mountain coal-resource area, Utah, by M. J. Graham, J. E. Tooley, and Don Price. 34 p. (NC, Da; USGS, WRD, Room 1016, Admin. Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- OF 81-0216. UTAH. Hydrologic studies of the USGS in major coal-resource areas of Utah through 1980, by G. C. Lines. 22 p., 1 over-size sheet, (NC, U, Da, Wb; USGS, WRD, 1016 Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104; Utah Dept. Natural Resources, Div. Water Rights, 231 East Fourth South, Salt Lake City, UT 84111.)
- OF 81-0222. SOUTH DAKOTA. Water-level records for the Big Sioux Aquifer, Minnehaha County, South Dakota, by W. L. Bradford. 52 p. (NC, Da, Wb; USGS, WRD, Room 317, Federal Bldg., 200 Fourth St., SW., Huron, SD 57350.)
- OF 81-0225. FLORIDA. Altitude of water table, Biscayne Aquifer, Dade County, Florida, April 1978, by L. J. Swayze. 1 over-size sheet. (NC; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155.)
- OF 81-0254. CALIFORNIA. Geochemical analyses for gold and zinc of 137 stream-sediment samples from the John Muir Wilderness, California, by M. F. Diggles, D. A. Dellinger, and E. A. du Bray. 4 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 81-0317. Modeling the cumulative onshore effects of offshore oil and gas development, by E. T. Smith, and L. G. Hecht, Jr. 20 p. (NC, Da, M.)
- OF 81-0327. FLORIDA. Altitude of water table, Biscayne Aquifer, Dade County, Florida, October 1978, by L. J. Swayze. 1 over-size sheet. (NC; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155.)
- OF 81-0349. IOWA. Water-resources investigations of the USGS in Iowa; fiscal year 1981, by I. L. Burmeister and D. E. Riddle. 47 p. (NC, Da; USGS, WRD, Room 269, Federal Bldg. (P.O. Box 1230), Iowa City, IA 52244; USGS, WRD, Room 456, Federal Bldg. (P.O. Box 693), Fort Dodge, IA 50501; USGS, WRD, Room 250, Federal Bldg. (P.O. Box 917), Council Bluffs, IA 51502.)

- OF 81-0494. FLORIDA. Hydrologic description of Lake Jackson, Sebring, Florida, by K. M. Hammett. 1 over-size sheet. (Wb, NC, Da, M; USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; USGS, Suite B-5, 4710 Eisenhower Blvd., Tampa, FL 33614; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)
- OF 81-0499. NEW YORK. Ground-water pumpage in Nassau County, Long Island, New York, 1920-77; Introduction and user's guide to the data compilation, by Chabot Kilburn. 70 p., 2 over-size sheets. (USGS, WRD, 5 Aerial Way, Syosset, NY 11791.)
- OF 81-0540. ALABAMA. Assessment of hydrologic conditions in potential coal-lease tracts in the Warrior coal field, Alabama, by Celso Puente, J. F. Newton, and R. H. Bingham. 47 p., 1 over-size sheet. (USGS, 1317 McFarland Blvd., East, Tuscaloosa, AL 35405.)
- OF 81-0605. An oilspill risk analysis for the Southern California (proposed sale 68) outer continental shelf lease area, by W. B. Samuels, K. J. Lanfear, and Dorothy Hopkins. 211 p. (Da, M, NC.)
- OF 81-0673. COLORADO. Stream-sediment geochemical survey of the Bureau of Land Management's Arkansas Canyon Planning Unit in south-central (Canon City area) Colorado, by E. F. Weiland, and R. I. Grauch. 97 p., 1 over-size sheet, scale 1:50,000 (1 inch = about 4,200 feet). (NC, Da, M, Db, U.)
- OF 81-0677. CALIFORNIA. Water-quality assessment of Cache Creek, Yolo, Lake, and Colusa counties, California, by S. K. Sorenson, and A. L. Elliott. 46 p., 1 over-size sheet. (NC, M, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677; Public Inquiries Office, 345 Middlefield Rd., Mail Stop 33, Menlo Park, CA 94025.)
- OF 81-0685. ALASKA. Hydrology and the effects of industrial pumping in the Nikiski area, Alaska, by G. L. Nelson. 26 p. (NC, A, LA, SF, S.)
- OF 81-0688. Application of Gauss algorithm and Monte Carlo simulation to the identification of aquifer parameters, by T. J. Durbin. 30 p. (NC, Da, Wb, M, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- OF 81-0888. MISSOURI. Earthquake hazard studies in south-eastern Missouri, by William Stauder, R. B. Herrmann, and B. J. Mitchell. 130 p. (Available for inspection only at NC, Da, M.)
- OF 81-0916. DELAWARE. Hydrologic data for the Potomac Formation in New Castle County, Delaware, by M. M. Martin, and J. M. Denver. 157 p. (USGS, WRD, 300 South New St., Federal Bldg., Room 1201, Dover, DE 19901.)
- OF 81-0918. NEVADA. Geothermal resources of the western arm of the Black Rock Desert, northwestern Nevada; Part I, Geology and geophysics, by D. H. Schaefer, A. H. Welch, and D. K. Mauzer. 42 p., 4 over-size sheets. (NC, M; USGS, WRD, Room 229, Federal Bldg., 705 North Plaza St., Carson City, NV 89701; U.S. Bur. Land Management, 300 Booth St., Reno, NV 89509.)
- OF 81-0958. COLORADO. Audio-magnetotelluric and telluric profiling studies in the Shaw Warm Springs region, Colorado, by K. R. Christopherson, K. H. Nervick, and W. D. Heran. 16 p. (NC, Da, M, Db, U.)
- OF 81-1001. KANSAS. January 1981 water levels, and data related to water-level changes, western and south-central Kansas, by M. E. Pabst. 168 p. (NC, Da, Db, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66045; USGS, WRD, 206 Fulton Terrace, Garden City, KS 67846.)
- OF 81-1005. ALASKA. Hydrologic reconnaissance of the Noatak River basin, Alaska, 1978, by J. M. Childers, and D. R. Kernodle. 47 p. (NC, M, A, LA, SF, S; USGS, 733 West Fourth Ave., Suite 400, Anchorage, AK 99501.)
- OF 81-1014. OREGON. Potential hydrologic effects of developing coal and other geo-energy resources of Oregon; a review, by W. C. Sidle. 34 p. (S., M, NC; USGS, WRD, 830 NE. Holladay St., Portland, OR 97232.)
- OF 81-1021. WASHINGTON. Water resources of the Gig Harbor Peninsula and adjacent areas, Washington, by B. W. Drost. 154 p., 1 over-size sheet. (NC; USGS, WRD, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402.) (Water-Resources Investigations.)
- OF 81-1161. IDAHO, WYOMING. Aeromagnetic map of the Palisades area, Idaho and Wyoming. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, Db, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843; Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 81-1187. OKLAHOMA. Preliminary appraisal of the hydrology of the Blocker area, Pittsburg County, by M. V. Marcher, D. L. Bergman, J. D. Stoner, and S. P. Blumer. 52 p., 3 over-size sheets. (NC, M, T, Da, Mb; USGS, WRED, 215 Dean A. McGee Ave., Room 621, Oklahoma City, OK 73102; Oklahoma Geol. Survey, Univ. Oklahoma, 830 Van Vleet Oval, Room 163, Norman, OK 73069; U.S. Bur. Land Management, Room 548, A.P. Murrah Federal Bldg., 200 NW. Fifth St., Oklahoma City, OK 73102; Library Div. (SLL), U.S. Government Printing Office, Washington, DC 20401.) (Water-Resources Investigations.)
- OF 81-1300. Effects of nuclear and conventional chemical explosions on vegetation, by H. L. Cannon, M. E. Strobell, C. A. Bush, and J. M. Bowles. 142 p. (NC, Da, M.)
- OF 81-1301. ALASKA. Surficial geology and peat resources map of the Houston area, Susitna Valley, Alaska, by C. C. Cameron, T. J. Malterer, S. E. Rawlinson, and S. B. Hardy. 2 over-size sheets, scale 1:15,840 (1 inch = 1,320 feet). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 81-1302. ALASKA. Surficial geology and peat resources map of the Rogers Creek area, Susitna Valley, Alaska, by C. C. Cameron, T. J. Malterer, S. E. Rawlinson, and S. B. Hardy. 3 over-size sheets, scale 1:15,840 (1 inch = 1,320 feet). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 81-1358. Evaluation of radar imagery for geological and cartographic applications, by G. K. Moore, and C. A. Sheehan. 50 p. (NC, Da, M.)
- OF 82-0014. ARIZONA. Landsat monitoring of albedo changes in northwestern Arizona, 1977-1980, by C. J. Robino. 14 p. (NC, Da, M.)
- OF 82-0023. VIRGINIA. Land-use implications of flooding; Ashburn-Arcola area of northern Virginia, by D. B. Harper. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M.)
- OF 82-0033. CALIFORNIA. A summary of geologic hazards for proposed OCS oil and gas lease sale 68, Southern California, by D. J. Burdick, and W. C. Richmond. 41 p., 11 over-size sheets, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M, Db, LA, SF, T, A, S; USGS, 1725 K St., NW., Suite 204, Washington, DC 20006; USGS, 3301 North Causeway Blvd., Metairie, LA 70011.)
- OF 82-0034. Estimated oil and gas reserves, Gulf of Mexico outer continental shelf and continental slope, December 31, 1981, by J. E. Hewitt, J. P. Brooke, J. H. Knipmeyer, and R. M. Surcouf. 17 p. (NC, Da, M, Db, U, LA, SF, T, A, S; USGS, 1725 K St., NW., Suite 204, Washington, DC 20006; USGS, 3301 North Causeway Blvd., Metairie, LA 70011.) (Supersedes Open-file report 81-604.)
- OF 82-0036. Potential geologic hazards and constraints for blocks in proposed North Atlantic OCS oil and gas lease sale 52, by G. B. Carpenter, A. P. Cardinell, D. K. Francois, L. K. Good, R. L. Lewis, and N. T. Stiles. 54 p., 3 over-size sheets. (NC, Da, M, La, A, T; Minerals Management Service, Atlantic OCS/ER, 1951 Kidwell Dr., Suite 601, Vienna, VA 22180.)
- OF 82-0037. CALIFORNIA. Estimated oil and gas reserves, Southern California outer continental shelf, December 31, 1981, by F. F. Kalil. 10 p. (NC, Da, M, Db, LA, SF, T, A, S; USGS, 1725 K St., NW., Suite 204, Washington, DC 20006; USGS, 3301 North Causeway Blvd., Metairie, LA 70011.) (Supersedes Open-file report 81-623.)
- OF 82-0060-A. MICHIGAN. Airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan, by Geoterrex Limited *with an introduction by* W. D. Heran. 27 p., 5 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M.)
- OF 82-0060-B. MICHIGAN. Analog records from an airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan, by Geoterrex Limited *with an introduction by* W. D. Heran. 6 p., 147 logs (NC, Da, M.) Available only on microfiche.
- OF 82-0111. NEVADA. Gravity survey of Dixie Valley, west-central Nevada, by D. H. Schaefer. 22 p., 2 over-size sheets. (NC, M, SF, LA, U; USGS, WRD, 705 North Plaza St., Room 229, Carson City, NV 89701.)
- OF 82-0124. Determination of pentachlorophenol in water and aquifer sediments by high-performance liquid chromatography, by D. F. Goerlitz. 15 p. (NC, M.)
- OF 82-0160. NEW YORK. Potentiometric surface of the Magog Aquifer, Long Island, New York, March 1979, by C. D. Donaldson, and E. J. Koszalka. 2 over-size sheets. (NC, Da, M, Wb; USGS, WRD (P.O. Box 1350), Albany, NY 12201; USGS, WRD, 5 Aerial Way, Syosset, NY 1179.)
- OF 82-0161. WASHINGTON. Estimation of nonpoint sources of phosphorus for lakes in the Puget Sound region, Washington, by R. J. Gilliom. 45 p. (NC, Da, M, Wb.)
- OF 82-0162. NEW YORK. Potentiometric surface of the Lloyd Aquifer, Long Island, New York, in January 1979, by C. D. Donaldson, and E. J. Koszalka. 2 over-size sheets. (NC, Da, M, Wb; USGS, WRD (P.O. Box 1350), Albany, NY 12201; USGS, WRD, 5 Aerial Way, Syosset, NY 11791.)
- OF 82-0163. NEW YORK. Water table on Long Island, New York, March 1979, by C. D. Donaldson, and E. J. Koszalka. 2 over-size sheets. (NC, Da, M, Wb; USGS, WRD (P.O. Box 1350), Albany, NY 12201; USGS, WRD, 5 Aerial Way, Syosset, NY 11791.)
- OF 82-0164. TEXAS. Hydrologic data for urban studies in the Houston, Texas, metropolitan area, 1979, by Fred Liscum, J. F. Weigel, and J. P. Bruchmiller. 308 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 82-0172. WASHINGTON. Groundwater-surfacewater relationships in the Bonaparte Creek basin, Okanogan County, Washington, 1979-80, by F. A. Packard, S. S. Sumioka, and K. J. Whiteman. 52 p. (NC; USGS, WRD, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402.)
- OF 82-0174. TEXAS. Water levels and salinities of water within the Evangeline Aquifer in an area southwest of Corpus Christi, Texas, by P. L. Rettman. 30 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 82-0233. SOUTH CAROLINA. Earthquake hazards information dissemination; a study of Charleston, South Carolina, by P. L. Gori, U.S. Geological Survey, and M. R. Greene, Battelle Human Affairs Research Centers. 61 p. (M, F, Da, NC, WB.)
- OF 82-0235. Before the well runs dry; a workshop on how to design a local water conservation plan, by U.S. Geological Survey and Missouri River Basin Commission. 126 p., 1 over-size sheet. (F, M, Da, NC; Don Lee Kulow Memorial Library, EROS Data Ctr., Sioux Falls, SD 57198.)
- OF 82-0283. CALIFORNIA. Geochemical element maps of the Hoover Wilderness and adjacent study area, Mono and Tuolumne counties, California, by M. A. Chaffee, R. H. Hill, and S. J. Sutley. 13 p., 11 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0289. Index map of published 1:100,000 scale geologic quadrangle maps, Kingdom of Saudi Arabia. 1 over-size sheet, scale 1:2,000,000 (1 inch = about 32 miles). (NC, Da, M.)
- OF 82-0294. Sensitivity analysis for seismic risk using a fault rupture model, by Bernice Bender. 75 p. (NC, Da, M.)
- OF 82-0300-J. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, October 1982, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 24 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)

- OF 82-0300-K. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, November 1982, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 24 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 82-0300-L. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, December 1982, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 25 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 82-0316. 1981 Annual index of current earthquake literature, by B. S. Hayashida, M. L. Kauffmann, and W. H. Lee. 649 p. (NC, Da, M, Db, U, S, SF, LA, T, W, A.)
- OF 82-0334. Procedures for assessment of cumulative impacts of coal mining on the hydrologic balance, by A. M. Lumb. 56 p. (NC.)
- OF 82-0341. Report of the River Master of the Delaware River for the period of December 1, 1980 to November 30, 1981, by F. T. Schaefer, and R. E. Fish. 110 p. (NC.)
- OF 82-0346. UTAH. Results of hydraulic tests in U.S. Dept. of Energy's wells DOE-4, 5, 6, 7, 8, and 9, Salt Valley, Grand County, Utah, by L. E. Wollitz, William Thordarson, M. S. Whitfield, Jr., and J. E. Weir, Jr. 78 p. (NC, Da, M, Db, U, Wb.)
- OF 82-0409. NEVADA. Three-dimensional modeling of the Nevada Test Site and vicinity from teleseismic P-wave residuals, by M. E. Monfort, and J. R. Evans. 70 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-0431. TEXAS. Ground-water withdrawals and changes in water levels in the Houston District, Texas, by R. K. Gabrysch. 35 p., 10 over-size sheets. (NC, T; USGS, 2320 La Branch St., Room 1112, Houston, TX 77004; USGS, 300 East Eighth St., Room 651, Austin, TX 78701.)
- OF 82-0432. VIRGINIA. An index of geophysical well logging in Virginia by the U.S. Geological Survey, by M. P. Mulheren, J. D. Larson, and H. T. Hopkins. 37 p. (NC; USGS, WRD, 200 West Grace St., Room 304, Richmond, VA 23220.)
- OF 82-0433. MINNESOTA. Small-stream flood investigations in Minnesota, October 1958 to September 1980, by K. T. Gunard, and C. J. Smith. 229 p. (NC; USGS, WRD, 702 Post Office Bldg., St. Paul, MN 55101.)
- OF 82-0445. NEVADA, UTAH. Aquifer systems in the Great Basin region of Nevada, Utah, and adjacent states; a study plan, by J. R. Harrill and others. 54 p., 1 over-size sheet. (NC, S, LA, U, M; USGS, WRD, 705 North Plaza St., Room 229, Carson City, NV 89701; USGS, WRD, 833 Nevada Hwy., Suite 3B, Boulder City, NV 89005; USGS, WRD, Federal Bldg., Room 10, Elko, NV 89801; USGS, WRD, 1745 West 1700 South, Room 1016, Salt Lake City, UT 84104; USGS, WRD, 82 North 100 East, Cedar City, UT 84720.)
- OF 82-0450. CALIFORNIA. Water-quality assessment of the Merced River, California, by S. K. Sorenson. 51 p., 1 over-size sheet. (NC, M, Wb; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- OF 82-0475. COLORADO. Geophysical logs of nine holes drilled in 1978 in the Yampa coal field, Hamilton and Pagoda quadrangles, Moffat County, Colorado, by R. F. Meyer, and R. R. Brown. 34 p. (NC, M, Da, Db, U.)
- OF 82-0501. MICHIGAN. Ground water and geology of Marquette County, Michigan, by C. J. Doonan and J. L. Van Alstine. 52 p., 1 over-size sheet. (NC; USGS, 6520 Mercantile Way, Suite 5, Lansing, MI 48910.)
- OF 82-0526. CALIFORNIA. Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California, by W. R. Lettis. 203 p., 26 over-size sheets, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0533. WYOMING. Geologic map and coal sections of the Meadow Draw Quadrangle, Uinta County, Wyoming, by M. L. Schroeder. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, M, Da, Db, U.)
- OF 82-0562. MONTANA. Potentiometric-surface map of water in the Judith River Formation in the Northern Great Plains area of Montana, by G. W. Levings. 1 over-size sheet. (NC, Da, Db, U, S, Wb; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave. North, Billings, MT 59101.)
- OF 82-0563. MONTANA. Potentiometric-surface map of water in the Lakota Formation and equivalent units in the Northern Great Plains area of Montana, by G. W. Levings. 1 over-size sheet. (NC, Da, Db, U, S, Wb; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave. North, Billings, MT 59101.)
- OF 82-0564. MONTANA. Potentiometric-surface map of water in the Fox Hills-Lower Hell Creek aquifer in the Northern Great Plains area of Montana, by G. W. Levings. 1 over-size sheet. (NC, Da, Db, U, S, Wb; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave. North, Billings, MT 59101.)
- OF 82-0565. MONTANA. Potentiometric-surface map of water in the Eagle Sandstone and equivalent units in the Northern Great Plains area of Montana, by G. W. Levings. 1 over-size sheet. (NC, Da, Db, U, S, Wb; USGS, WRD, Room 428, Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave. North, Billings, MT 59101.)
- OF 82-0567. MICHIGAN. Ground water for public water supply at Windigo, Isle Royale National Park, Michigan, by N. G. Grannemann, and F. R. Twenter. 20 p. (NC.)
- OF 82-0568. NEW YORK. Instructions for using the U.S. Geological Survey data base of wells on Long Island, New York, by G. W. Hawkins, and G. M. Terlecki. 194 p. (NC; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201; USGS, WRD, 5 Aerial Way, Syosset, NY 11791.)

- OF 82-0571. TEXAS. Ground-water withdrawals and land-surface subsidence in the Houston-Galveston region, Texas, by R. K. Gabrysch. 74 p. (NC, Da.)
- OF 82-0572. NEW JERSEY. Drainage areas in New Jersey; Delaware River basin and streams tributary to Delaware Bay, by A. J. Velnich. 50 p. (NC; USGS, WRD, Room 430, Federal Bldg., 402 East State St., Trenton, NJ 08608.)
- OF 82-0608. ALASKA. Erosion and migration of an artificial sand and gravel island, Niakuk III, Beaufort Sea, Alaska, by Peter Barnes, and Thomas Reiss. 10 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 82-0621. User's manual for ZMP, by C. A. Carlson. 20 p. (NC, Da, M.)
- OF 82-0622. User's manual for STATMAP, by C. A. Carlson. 12 p. (NC, Da, M.)
- OF 82-0623. User's manual for RASSMP, by C. A. Carlson. 11 p. (NC, Da, M.)
- OF 82-0628. HAWAII. Water resources of southeastern Oahu, Hawaii, by K. J. Takasaki, and J. F. Mink. 97 p. (NC, M; USGS, WRD, 300 Ala Moana Blvd., Room 6110 (P.O. Box 50166), Honolulu, HI 96850.)
- OF 82-0639. INDIANA. Hydrologic data collected in and around a surface coal mine, Clay and Vigo counties, Indiana, 1977-80, by L. L. Bobo, and S. E. Eikenberry. 123 p. (NC; USGS, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.)
- OF 82-0645. Determination of ultimate carbonaceous BOD and the specific rate constant (K_1), by J. K. Stamer, J. P. Bennett, and S. W. McKenzie. 25 p. (NC; USGS, WRD, Champaign County Bank Plaza, 102 East Main St., Fourth Floor, Urbana, IL 61801.)
- OF 82-0650. TEXAS. Water quality of Belton Lake, central Texas, by H. B. Mendieta, and D. L. Pate. 75 p., 1 over-size sheet. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 82-0676. TEXAS. Water quality of Lake Granbury, north-central Texas, by Freeman Andrews, and J. L. Strause. 161 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 82-0680. Support by the U.S. Geological Survey for adjudications, compacts, and treaties, by Alberto Condes de la Torre. 28 p. (NC, Da, M, Wb.)
- OF 82-0686. VIRGINIA. Summary of hydrologic data collected at Wytheville National Fish Hatchery No. 2, Max Meadows, Virginia, 1976 to 1979, by W. E. Hendrick, Jr. 28 p. (NC.)
- OF 82-0690. LOUISIANA. Analyses of native water, bottom material, elutriate samples, and dredged material from selected southern Louisiana waterways and selected areas in the Gulf of Mexico, 1979-81, by D. L. Lurry. 121 p., 2 over-size sheets. (NC, Da, Wb; USGS, WRD, 6554 Florida Blvd., Baton Rouge, LA 70896.)
- OF 82-0691. LOUISIANA. Water quality of the Barataria Unit; Jean Lafitte National Historical Park, Louisiana, by C. R. Garrison. 38 p. (NC, Da, Wb; USGS, WRD, 6554 Florida Blvd., Baton Rouge, LA 70896.)
- OF 82-0693. ILLINOIS. Work plan for the Sangamon River basin, Illinois, by J. K. Stamer, and D. M. Mades. 31 p., 1 over-size sheet. (NC; USGS, WRD, 102 East Main St., Fourth Floor, Urbana, IL 61801.)
- OF 82-0696. COLORADO. Hydrologic data from Naval Oil Shale Reserves, Parachute Creek basin, northwestern Colorado, 1975-79, by R. O. Patt, D. B. Adams, and D. L. Collins. 134 p. (NC, Da, Db, Wb; USGS, WRD, Room H-2103, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225; Wayne Aspinall Federal Bldg., Room 223), Fourth St. and Rood Ave. (P.O. Box 2027), Grand Junction, CO 81502.)
- OF 82-0700. FLORIDA. Occurrence and use of ground water in the Venice-Englewood area, Sarasota and Charlotte counties, Florida, by Horace Sutcliffe, Jr., and T. H. Thompson. 64 p. (NC, Da; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155; USGS, WRD, 4415 Beach Blvd., Suite 106, Jacksonville, FL 32207; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614; Libraries of the State University System of Florida.)
- OF 82-0716. ALASKA. Sediment content of nearshore fast ice; fall 1980, Beaufort Sea, Alaska, by P. W. Barnes, Thomas Reiss, and Erk Reimnitz. 19 p. (NC, Da, M, A, S, SF, LA; USGS Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 82-0726. A computer program from projecting and plotting stereograms, by Peter German, and Carl Johnson. 74 p. (NC, Da, M)
- OF 82-0755. IDAHO. Water resources of Rockland Basin, southeastern Idaho, by R. P. Williams, and H. W. Young. 68 p. (NC, M; USGS, WRD, Box 036, Federal Bldg. and Courthouse, 550 West Fort St., Boise, ID 83724.)
- OF 82-0756. ALASKA. Columbia Glacier photogrammetric altitude and velocity; data set (1975-1981), Alaska, by A. G. Fountain. 229 p. (NC, M, S.)
- OF 82-0757. NEW MEXICO. Annual water-resources review, White Sands Missile Range, New Mexico, by R. R. Cruz. 24 p. (NC, Da, Db, T, Wb; USGS, WRD, Western Bank Bldg., 505 Marquette, NW., Room 815, Albuquerque, NM 87102.)
- OF 82-0758. WYOMING. A plan for hydrologic investigations of in situ oil-shale retorting near Rock Springs, Wyoming, by K. C. Glover, E. A. Zimmerman, L. R. Larson, and J. C. Wallace. 30 p. (NC, Da, Wb; USGS, WRD, O'Mahoney Federal Ctr., Room 4007, Federal Bldg., 2120 Capitol Ave., Cheyenne, WY 82003.)
- OF 82-0761. ARKANSAS. Reconnaissance of stormwater-run-off water quality of the Big Piney Creek segment of the Cedar-Piney Creeks watershed, Yell County, Arkansas, by J. C. Petersen. 23 p. (NC; USGS, WRD, Room 2301, Federal Office Bldg., 700 West Capitol Ave., Little Rock, AR 72201; U.S. Dept. Agriculture, Soil Conservation Service, 5209 Federal Office Bldg., Little Rock, AR 72201.)

- OF 82-0763. CALIFORNIA. Water-quality assessment of the American River, California, by M. V. Shulters. 77 p., 1 over-size sheet. (NC, M; USGS, WRD, Federal Bldg., Room W-2235, 2800 College Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- OF 82-0768. A generic guide to the larvae of the Nearctic Tanytarsini, by J. W. Steiner, J. S. Doughman, and C. R. Moore. 47 p. (NC.)
- OF 82-0769. WASHINGTON, IDAHO. Evaluation of water-quality characteristics of part of the Spokane Aquifer, Washington and Idaho, using a solute-transport digital model, by J. J. Vaccaro, and E. L. Bolke. 75 p. (NC; USGS, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402.)
- OF 82-0771. WASHINGTON. Filling of Spirit Lake, Washington, May 18, 1980 to July 31, 1982, by William Meyer, and P. J. Carpenter. 23 p. (NC, M, Da, A, S, LA, SF, Wb; USGS, WRD, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402.)
- OF 82-0772. FLORIDA. Hydrologic data from monitoring of saline-water intrusion in the Cape Coral area, Lee County, Florida, by D. J. Fitzpatrick. 53 p. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155.)
- OF 82-0773. TENNESSEE. A survey of benthic macroinvertebrates of streams of coal surface mining areas of the Cumberland Plateau in Tennessee, by J. A. Gore, J. D. Hughes, Jr., and W. A. Swartley. 666 p. (NC, Wb; USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203.)
- OF 82-0774. NORTH DAKOTA, MINNESOTA. Changes in flood response of the Red River of the North Basin, North Dakota-Minnesota, by J. E. Miller, and D. L. Frink. 166 p. (NC; USGS, WRD, 821 East Interstate Ave., Bismarck, ND 58501.)
- OF 82-0801. ALASKA. Digital data base application to porphyry copper mineralization in Alaska; case study summary, by C. M. Trautwein, D. D. Greenlee, and D. G. Orr. 17 p. (NC, Da, M, Wb; Don Lee Kulow Memorial Library, EROS Data Ctr., Sioux Falls, SD 57198.)
- OF 82-0813. Evaluation of the Geological Survey's experiments with alternative work schedules, by Anne Strange. 116 p. (F, M, Da, NC, Wb; Don Lee Kulow Memorial Library, EROS Data Ctr., Sioux Falls, SD 57198.)
- OF 82-0814. ARIZONA. Arizona Vegetation Resource Inventory (AVRI) accuracy assessment, by John Szajgin, L. R. Pettinger, D. S. Linden, and D. O. Ohlen. 40 p. (NC, Da, Wb.)
- OF 82-0815. Test of airborne radar for mapping two types of land cover; forested wetland and perennial snow and ice, by J. L. Place. 15 p. (F, M, Da, NC, Wb.)
- OF 82-0816. A hybrid structure for the storage and manipulation of very large spatial data sets, by D. J. Peuquet. 36 p. (M, F, Da, NC, Wb.)
- OF 82-0818-A. CALIFORNIA. Geologic map of the Lion Canyon, Matilija, Ojai, Wheeler Springs, and White Ledge Peak quadrangles, California, by F. C. Moser, and V. A. Frizzell, Jr. 1 over-size sheet, scale 1:50,000 (1 inch = about 4,200 feet). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0819. CALIFORNIA. Measurement of heat flow by a downhole probe technique in the San Joaquin Valley, California, by J. H. Sass, S. P. Galanis, Jr., and R. J. Munroe. 27 p. (NC, DA, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0822. OREGON. Mineral resource potential of the Pine Creek Roadless Area, Harney County, Oregon, by G. W. Walker, U.S. Geological Survey, and D. K. Denton, Jr., U.S. Bureau of Mines. 9 p. (NC, Da, M, S, SF, LA; Oregon Dep. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.) (Supersedes Open-File report 80-989.)
- OF 82-0824. CALIFORNIA. Seismic reflection profiles, south-central Monterey (California), by G. W. Hill, and J. L. Chin. 3 over-size sheets. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0825. CALIFORNIA. Geochemical analyses of panned heavy-mineral concentrates, stream sediments and rock samples from the East Yuba and West Yuba Roadless Areas, Plumas and Sierra counties, California, by S. S. Page, and J. R. Bergquist. 118 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0833. CALIFORNIA. In-situ measurements of seismic velocity at 22 locations in the Los Angeles, California region, by T. E. Fumal, J. F. Gibbs, and E. F. Roth. 140 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0841. Geotechnical profiles for 31 sites on the mid-Atlantic upper continental slope, by H. W. Olsen, and T. L. Rice. 154 p. (NC, Da, M.)
- OF 82-0851. The evaluation of selected one-dimensional stream water quality models with field data, by S. C. McCutcheon. 185 p., 1 over-size sheet. (NC, Da, Wb; Gulf Coast Hydroscience Ctr., NSTL Station, MS 39529.)
- OF 82-0852. ARKANSAS. Ground-water levels in Arkansas, spring 1982, by Joe Edds. 56 p. (NC, Da, T; USGS, WRD, Room 2301, Federal Office Bldg., 700 West Capitol Ave., Little Rock, AR 72201; Arkansas Geol. Commission, 3815 West Roosevelt Rd., Little Rock, AR 72203.)
- OF 82-0853. MICHIGAN. Time of travel of the Flint River, Utah Dam to Highway M-13, Michigan, August 4-8, 1981, by T. R. Cummings, and J. B. Miller. 26 p., 1 over-size sheet. (NC, Wb; USGS, WRD, 6520 Mercantile Way, Suite 5, Lansing, MI 48910; Michigan Dept. Natural Resources, Geol. Survey Div., Fourth Floor, Mason Bldg., Lansing, MI 48909.)

- OF 82-0855. CALIFORNIA. Water resources of Borrego Valley and vicinity, California; Phase 1, Definition of geologic and hydrologic characteristics of the basin, by W. R. Moyle, Jr. 43 p., 12 over-size sheets. (NC, M, LA, SF, Wb; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677; USGS, Public Inquiries Office, 345 Middlefield Rd., Mail Stop 33, Menlo Park, CA 94025.)
- OF 82-0856. WYOMING. Ground-water data from selected wells in alluvial aquifers, Powder River basin, northeastern Wyoming, by D. K. Wells. 38 p., 1 over-size sheet. (NC, Da, Wb; USGS, WRD, O'Mahoney Federal Ctr., Room 4007, Federal Bldg., 2120 Capitol Ave., Cheyenne, WY 82003.)
- OF 82-0857. NEW MEXICO. Supplement to the New Mexico three-dimensional model, by G. A. Hearne. 95 p. (NC, Da, Db, T, Wb; USGS, WRD (P.O. Box 26659), Albuquerque, NM 87125.) (Supplement to Open-file report 80-421.)
- OF 82-0859. WYOMING. Ground-water levels in Wyoming, 1971 through part of 1980, by J. O. Ragsdale. 203 p. (NC, Da, Wb; USGS, WRD, O'Mahoney Federal Ctr., Room 4007, Federal Bldg., 2120 Capitol Ave., Cheyenne, WY 82003.)
- OF 82-0860. FLORIDA. Geohydrologic reconnaissance of drainage wells in Florida; an interim report, by J. O. Kimrey, and L. D. Fayard. 63 p. (NC; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155; USGS, WRD, 4415 Beach Blvd., Suite 106, Jacksonville, FL 32207; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614; Libraries of the State University System of Florida.)
- OF 82-0861. PENNSYLVANIA. Time-of-travel and dispersion studies, Lehigh River, Francis E. Walter Lake to Easton, Pennsylvania, by C. D. Kauffman, Jr. 36 p. (NC; USGS, WRD, Room 450, Federal Bldg. (P.O. Box 1107), Harrisburg, PA 17108.)
- OF 82-0862. A national water-use information program, by W. B. Mann, IV, J. E. Moore, and E. B. Chase. 15 p. (NC.)
- OF 82-0863. SOUTH CAROLINA. Hydrology of the low-level radioactive solid waste burial site and vicinity near Barnwell, South Carolina, by J. M. Cahill. 109 p. (NC, Da, Wb; USGS, WRD, 1835 Assembly St., Suite 658, Columbia, SC 29201.)
- OF 82-0866. UTAH. Bedrock aquifers in the northern San Rafael Swell area, Utah, with special emphasis on the Navajo Sandstone, by J. W. Hood, and D. J. Patterson. 113 p., 39 over-size sheets. (NC; USGS, 1016 Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104; Utah Dept. Natural Resources, Div. Water Rights, 1636 West North Temple St., Salt Lake City, UT 84104.)
- OF 82-0867. FLORIDA. Ground-water levels in selected well fields and in west-central Florida, May 1982, by G. L. Barr. 2 over-size sheets. (NC, Wb; USGS, WRD, Suite B-5, 4710 Eisenhower Blvd., Tampa, FL 33614; USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; Southwest Florida Water Management District, Brooksville, FL 33512.)
- OF 82-0868. KANSAS. Geohydrologic data from sandstone aquifers in southwestern Kansas, by Jack Kume, and J. M. Spinazola. 116 p. (NC, Da, M, Db, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044; USGS, WRD, 206 Fulton Terrace, Garden City, KS 67846.)
- OF 82-0871. Use of flumes in metering discharge at gaging stations, by F. A. Kilpatrick, and V. R. Schneider. 174 p. (NC.)
- OF 82-0872. COLORADO. Hydrologic data for urban storm runoff in the Denver metropolitan area, Colorado, by J. W. Gibbs, and J. T. Doefer. 570 p., 2 over-size sheets. (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 423), Denver Federal Ctr., Denver, CO 80225.)
- OF 82-0873. COLORADO. Rainfall-runoff data from small watersheds in Colorado, October 1977 through September 1980, by B. J. Cochran, D. R. Minges, R. D. Jarrett, and J. E. Veenhuis. 754 p. (Da, Db, NC, Wb; USGS, WRD (Box 25046, Mail Stop 415), Denver Federal Ctr., Bldg. 53, Denver, CO 80225; USGS, WRD (Box 25046, Mail Stop 423), Denver Federal Ctr., Bldg. 53, Denver, CO 80225.)
- OF 82-0874. COLORADO. Plan for hydrologic study of an area to be surface mined for coal in northwestern Colorado, by R. S. Williams, Jr., and N. E. Driver. 23 p. (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- OF 82-0893. CALIFORNIA. Tilt measurements at Long Valley caldera, California, May-August 1982, by Daniel Dzurisin, Katherine Cashman, D. A. Johnston, and A. G. Sylvester. 34 p. (NC, Da, M, SF, LA, S; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814, Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0901. Microcomputer computation of water quality discharges, by D. R. Helsel. 51 p. (NC; USGS, WRD, 975 West Third Ave., Columbus, OH 43212.)
- OF 82-0902. Directory of member organizations of the National Water Data Exchange, by C. D. Blackwell, and J. M. Nokes. 74 p. (NC, Da, M.) (Supersedes Open-file report 81-497.)
- OF 82-0906. MONTANA, NORTH DAKOTA, SOUTH DAKOTA, WYOMING, NEBRASKA. Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska, by D. L. Brown, R. K. Blankennagel, L. M. MacCary, and J. A. Peterson. 80 p., 35 over-size sheets. (NC, Da, Db, M, Wb; Library Div. (SLL), U.S. Government Printing Office, Washington, DC 20401.)
- OF 82-0907. WASHINGTON. Lake phosphorus loading from septic systems by seasonally perched ground water, Puget Sound region, Washington, by R. J. Gilliom, and C. R. Patmont. 28 p. (NC, M, Da, Wb.)
- OF 82-0908. TEXAS. Projected effects of proposed salinity-control projects on shallow ground water; preliminary results for the upper Brazos River basin, Texas, by Sergio Garza. 47 p., 6 over-size sheets. (NC, T; USGS, WRD, 300 East Eighth St., Room 651, Austin, TX 78701.)

- OF 82-0909. MINNESOTA. Baseline water-quality data for sand-plain aquifers in Hubbard, Morrison, Otter Tail, and Wadena counties, Minnesota, by C. F. Myette. 110 p. (NC; USGS, WRD, 702 Post Office Bldg., St. Paul, MN 55101; USGS, WRD, 415 Pokegama Ave., Grand Rapids, MN 55744.)
- OF 82-0911. TENNESSEE. Effects of urbanization on the magnitude and frequency of floods on small streams in Tennessee; basic data report no. 2, by C. H. Robbins. 28 p. (NC, Wb; USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203; USGS, WRD, 1013 North Broadway, Knoxville, TN 37917.)
- OF 82-0912. SOUTH DAKOTA. Water-resources investigations of the U.S. Geological Survey in South Dakota, E. F. LeRoux and E. M. Decker. 50 p. (NC, Da, Wb; USGS, WRD, Room 317, Federal Bldg., 200 Fourth St., SW., Huron, SD 57350.)
- OF 82-0913. ALABAMA. A summary of selected publications, project activities, and data sources related to hydrology in the Warrior and Plateau coal fields of Alabama, by R. E. Kidd, and T. J. Hill. 63 p. (NC; USGS, WRD, 520 19th Ave., Tuscaloosa, AL 35401.)
- OF 82-0914. MONTANA, NORTH DAKOTA, SOUTH DAKOTA, WYOMING. Geohydrology of the Madison and associated aquifers in parts of Montana, North Dakota, South Dakota, and Wyoming, by J. S. Downey. 120 p., 1 over-size sheet. (NC, Da, Db, Wb.)
- OF 82-0915. FLORIDA. Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, May 1982, by G. R. Schiner, and E. C. Hayes. 1 over-size sheet. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801.)
- OF 82-0916. UTAH. Selected hydrologic data, Price River basin, Utah, water 1979 and 1980, by K. M. Waddell, J. E. Dodge, D. W. Darby, and S. M. Theobald. 76 p., 1 over-size sheet. (U, Da, NC, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104; Utah Dept. Natural Resources, Div. Water Rights, 1636 West North Temple, Salt Lake City, UT 84111.)
- OF 82-0917. CALIFORNIA. Map of the Antelope Valley-East Kern Water Agency area, California, showing ground-water subunits and areas, and well hydrographs (1962-1982), by F. M. Glenn. 1 over-size sheet. (NC, M, LA, SF, Wb; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- OF 82-0918. INDIANA. Lineaments and fracture traces, Decatur County, Indiana, by T. K. Greeman. 21 p., 1 over-size sheet. (NC; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.)
- OF 82-0920. FLORIDA. Index of hydrologic data for selected sites in Broward County, Florida, 1939-80, by R. S. Sonenshein, J. E. Fish, C. R. Causaras, and D. M. Poore. 42 p., 4 over-size sheets. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155.)
- OF 82-0921. Identification codes for organizations listed in computerized data systems of the U.S. Geological Survey, by M. D. Edwards, and B. M. Josefson. 119 p. (NC.) (Supersedes Open-file report 81-904.)
- OF 82-0922. OREGON, WASHINGTON. Analyses of elutriates, native water, and bottom material in selected rivers and estuaries in western Oregon and Washington, by G. J. Fuhrer, and F. A. Rinella. 157 p. (NC, M, S, Wb; USGS, WRD, 847 NE. 19th, Suite 300, Portland, OR 97232.)
- OF 82-0923. Definitions of components of the Water Data Sources Directory maintained by the National Water Data Exchange, by M. D. Edwards. 126 p., 2 over-size sheets. (NC.) (Supersedes Open-file report 79-1541.)
- OF 82-0925. Directory of assistance centers of the National Water Data Exchange (NAWDEX), by B. M. Josefson, and C. D. Blackwell. 35 p. (NC.)
- OF 82-0931. NEVADA. Preliminary appraisal of gravity and magnetic data at Syncline Ridge, western Yucca Flat, Nevada Test Site, Nye County, Nevada, by D. A. Ponce, and W. F. Hanna. 22 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-0937. ARIZONA, UTAH, NEW MEXICO. Aspects of the palynology of the Chinle Formation (Upper Triassic), Colorado Plateau, Arizona, Utah, and New Mexico, by R. A. Scott. 21 p. (NC, Da, M, Db, U, SF, LA, T; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 82-0954. CALIFORNIA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Carson-Iceberg and Leavitt Lake Roadless Areas, Alpine, Mono, and Tuolumne counties, California, by S. J. Sutley, M. A. Chaffee, D. L. Fey, R. H. Hill, and W. S. Speckman. 53 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-0967. PENNSYLVANIA. Disturbed zones; indicators of deep-seated subsurface faults in the Valley and Ridge and Appalachian structural front of Pennsylvania, by H. A. Pohn, and T. L. Purdy. 82 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M.)
- OF 82-0975. CALIFORNIA. Marine geological profiles in the southern California continental borderland collected in 1974 on the R/V S.P. Lee, by R. W. Rowland, S. H. Clarke, Jr., and H. G. Greene. 2 p., description of shipboard records. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.) Shipboard records can be inspected at USGS office, Room B-164, Deer Creek Facility, 3475 Deer Creek Rd., Palo Alto, California. †Copies of those records can be purchased only from the National Geophysical Data Ctr. Write to NOAA, Code E64, 325 Broadway, Boulder, CO 80303. Telephone (303) 497-6338.

- OF 82-0976. CALIFORNIA, OREGON. Geochemical analyses of rock and stream-sediment samples from the North Fork Smith River Roadless Area, Del Norte County, California, and Curry County, Oregon, by Floyd Gray, J. Haffty, E. F. Cooley, and N. J. Page. 24 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA, S; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 82-0984. CALIFORNIA, NEVADA. Chemical data for samples of rocks, stream-sediment, and nonmagnetic dense-mineral concentrate in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Area, White Mountains, California and Nevada, by M. F. Diggles, D. A. Dellinger, S. J. Sutley, D. L. Fey, and R. H. Hill. 190 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA, U; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-0988. MONTANA. Mineral resource potential of the Reservoir-North and the Deep Creek Roadless Areas, Teton County, Montana, by M. R. Mudge, R. L. Earhart, and L. Y. Marks. 15 p. (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 82-0996. CALIFORNIA. Chemical analyses of samples of rock and stream-sediment, and nonmagnetic heavy-mineral concentrate, Coyote-SE and Table Mountain Roadless Areas, Inyo County, California, by G. S. Elliott, M. F. Diggles, M. A. Chaffee, D. L. Fey, S. J. Sutley, R. H. Hill, and G. Van Gaalen. 119 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-1001. ILLINOIS. Proceedings, Illinois water-data users meeting, compiled by L. G. Toler. 93 p. (NC; USGS, WRD, Champaign County Bank Plaza, 102 East Main St., Fourth Floor, Urbana, IL 61801.)
- ILLINOIS. Illinois Environmental Protection Agency, by Kenneth Rogers. p. 5-9
- ILLINOIS. Illinois State Water Survey, by R. J. Schicht, and M. L. Terstriep. p. 10-15
- ILLINOIS. Illinois State Geological Survey, by R. D. Brower. p. 15-22
- ILLINOIS. Illinois Department of Conservation, by Gregg Tichacek. p. 23-28
- ILLINOIS. Illinois Division of Water Resources, by Mel Allison. p. 28-31
- ILLINOIS. U.S. Geological Survey, compiled by L. G. Toler. p. 31-34
- ILLINOIS. Functions and activities of Office of Water Data Coordination, by P. E. Ward. p. 34-37
- OF 82-1002. CALIFORNIA. Plankton studies in San Francisco Bay; V, Zooplankton species composition and abundance in the South Bay, 1980-1981, by Anne Hutchinson. 151 p. (M, NC.)
- OF 82-1003. CALIFORNIA. Plankton studies in San Francisco Bay; VI, Zooplankton species composition and abundance in the North Bay, 1979-1980, by Anne Hutchinson. 202 p. (M, NC.)
- OF 82-1004. Methods for the determination of organic substances in water and fluvial sediments, USGS TWRI, Book 5, Laboratory analysis, Chapter A3, by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe. 180 p. (NC, Da, M, Wb.)
- OF 82-1006. ARIZONA, CALIFORNIA. Use of a three-dimensional model for the analysis of the ground-water flow system in Parker Valley, Arizona and California, by Patrick Tucci. 60 p. (NC; USGS, WRD, 5-A Federal Bldg., 301 West Congress St., Tucson, AZ 85701; USGS, WRD, Suite 1880, 201 North Central Ave., Valley Ctr., Phoenix, AZ 85073; USGS, WRD, 2255 North Gemini Dr., Bldg. 3, Flagstaff, AZ 86001.)
- OF 82-1007. INDIANA. Low-flow characteristics of Indiana streams, by J. A. Stewart. 284 p. (NC, Wb, M, Da; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.)
- OF 82-1010. KANSAS. Percentage change in saturated thickness of the High Plains Aquifer, west-central Kansas, 1950 to average 1980-82, by M. E. Pabst. 1 over-size sheet. (NC, DA; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- OF 82-1011. FLORIDA. Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, September 1982, by G. L. Barr, and G. R. Schiner. 1 over-size sheet. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614; Southwest Florida Water Management District, Brooksville, FL 33512.)
- OF 82-1012. An assessment of the hydrologic information required for the U.S. Bureau of Land Management-U.S. Geological Survey coal-hydrology program in the West, by R. A. Herbert. 32 p. (NC, Da, Db, Wb; USGS, WRD, Room H-2103, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- OF 82-1013. NEW MEXICO. Water resources of the Zuni Tribal Lands, McKinley and Cibola counties, New Mexico, by B. R. Orr. 178 p., 2 over-size sheets. (NC, Da, Db, T, Wb; USGS, WRD, Room 710, 505 Marquette, NW., Albuquerque, NM 87102.)
- OF 82-1015. MARYLAND. Test well DO-CE 88 at Cambridge, Dorchester County, Maryland, by Henry Trapp, Jr., L. L. Knobel, Harold Meisler, and P. P. Leahy. 87 p. (NC; USGS, WRD, Room 430, Federal Bldg., 402 East State St., Trenton, NJ 08608.)
- OF 82-1016. ALASKA. Vertical movement of ground water under the Merrill Field landfill, Anchorage, Alaska, by G. L. Nelson and L. L. Dearborn. 28 p. (NC, M, A, LA, SF, S; USGS, WRD, 733 West Fourth Ave., Suite 400, Anchorage, AK 99501.)

- OF 82-1017. COLORADO. Water-quality data for streams in the southern Yampa River basin, northwestern Colorado, by W. S. Maura. 116 p., 1 over-size sheet. (Db, Da, NC, Wb, M; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- OF 82-1019. A study of trends in dissolved oxygen and fecal coliform bacteria at NASQAN stations, by R. A. Smith, and R. B. Alexander. 8 p. (NC, Da, Wb; Quality of Water Branch, WRD, USGS, Mail Stop 412, National Ctr., Reston, VA 22092.)
- OF 82-1020. SOUTH DAKOTA. Records of water levels in the Big Sioux Aquifer, Minnehaha County, South Dakota, 1981, by D. R. Winter. 27 p. (NC, Da, Wb; USGS, WRD, Room 317, Federal Bldg., 200 Fourth St., SW., Huron, SD 57350.)
- OF 82-1021. KANSAS. Quality-of-water data and statistical summary for selected coal-mined strip pits in Crawford and Cherokee counties, southeastern Kansas, by L. M. Pope, and A. M. Diaz. 28 p. (NC, Da, Wb, Db; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- OF 82-1022. IDAHO, OREGON. Configuration of the water table, March, 1980, in the Snake River plain regional aquifer system, Idaho and eastern Oregon, by G. F. Lindholm, S. P. Garabedian, G. D. Newton, and R. L. Whitehead. 1 over-size sheet. (NC, M; USGS, WRD, Box 036, Federal Bldg., 550 West Fort St., Boise, ID 83724.)
- OF 82-1024. Guidelines and techniques to obtain valid ground-water quality samples, by H. C. Claassen. 54 p. (NC, Da, Db, M, A, LA, SF, Wa, T, U, S, Wb; USGS, WRD, Room H-2120, Bldg. 53 (Box 25046, Mail Stop 416), Denver Federal Ctr., Denver, CO 80225.)
- OF 82-1025. MONTANA. Appraisal of water in bedrock aquifers, northern Cascade County, Montana, by K. R. Wilke. 33 p., 2 over-size sheets. (Da, NC, Db, U, S, Wb; USGS, WRD, 428 Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- OF 82-1030. MONTANA. Geologic map of the Mitten Lake, Half Dome Crag, Hyde Creek, East Glacier Park, Big Rock, and Magee Range quadrangles, Pondera and Glacier counties, Montana, by M. R. Mudge, R. L. Earhart, W. J. Perry, Jr., and R. G. Bohannon. 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 82-1032. ALASKA. Distribution of uranium and thorium in the lower Tertiary Orca Group and related rocks in part of the Cordova Quadrangle, southern Alaska, by K. A. Dickinson, and J. F. Morrone. 12 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 82-1039. ALASKA. Depth and temperature of permafrost on the Alaskan Arctic Slope; preliminary results, by A. H. Lachenbruch, J. H. Sass, L. A. Lawver, M. C. Brewer, and T. H. Moses, Jr. 30 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501, and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 82-1041. NEVADA. Principal facts of gravity stations with gravity and magnetic profiles from the Southwest Nevada Test Site, Nye County, Nevada, as of January, 1982, by P. E. Jansma, D. B. Snyder, and D. A. Ponce. 46 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-1042. NEVADA. E-field ratio telluric traverses near Forty Mile Wash, Nevada Test Site, Nevada, by D. B. Hoover, M. P. Chornack, and M. M. Broker. 15 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-1043. NEVADA. Resistivity sounding investigation by the Schlumberger method in the Yucca Mountain and Jackass Flats area, Nevada Test Site, Nevada, by R. M. Senterfit, D. B. Hooper, and M. P. Chornack. 39 p., 1 over-size sheet. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-1044. NEVADA. A study of surface and subsurface ground motions at Calico Hills, Nevada Test Site, by K. W. King. 20 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-1048. An aeromagnetic interpretation of eleven map sheets, scale 1:250,000, in the southern Najd and part of the southern Tuwayq quadrangles, Kingdom of Saudi Arabia, by Andrew Griscom. 25 p., 12 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M.)
- OF 82-1050. CALIFORNIA. Chemical analyses and statistical summaries for samples of rock, minus 60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Raymond Peak Roadless Area, Toiyabe National Forest, Alpine County, California, by S. J. Sutley, M. A. Chaffee, D. L. Fey, and R. H. Hill. 22 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-1052. ARIZONA. Preliminary report on the geology and gold mineralization of the Gold Basin-Lost Basin mining districts, Mohave County, Arizona, by T. G. Theodore, W. N. Blair, and J. T. Nash. 336 p., 4 over-size sheets. (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- ARIZONA. K/Ar chronology of mineralization and igneous activity, by E. H. McKee. p. 23-29
- ARIZONA. Implications of the compositions of lode and placer gold, by J. C. Antweiler, and W. L. Campbell. p. 245-263
- OF 82-1054. ALASKA. Use of microcomputer in mapping depth of stratigraphic horizons in National Petroleum Reserve in Alaska, by T. G. Payne. 42 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 82-1061. IDAHO. Preliminary geologic map of the Coolin area, Idaho, by F. K. Miller. 21 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 82-1062. IDAHO. Preliminary geologic map of the Continental area, Idaho, by F. K. Miller. 33 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 82-1063. IDAHO. Preliminary geologic map of the Priest Lake area, Idaho, by F. K. Miller. 26 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 82-1065. A comprehensive system for interpreting seismic-refraction arrival-time data using interactive computer methods, by H. D. Ackermann, L. W. Pankratz, and D. A. Dansereau. 268 p. (NC, Da, M.)
- OF 82-1066. WASHINGTON. Analytical results for stream sediments, panned concentrates from stream sediments, and rocks collected from the Wonder Mountain Roadless Area (6086), Washington, by S. E. Church, J. G. Frisken, E. L. Mosier, and S. K. McDanal. 87 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 82-1070. Lake Bonneville; selected features of relevance to neotectonic analysis, by D. R. Currey. 31 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, Db, U.)
- OF 82-1071. ALASKA. Regional bedrock geologic maps along the Dalton Highway, Yukon Crossing to Toolik, Alaska, compiled by W. P. Brosge, and W. W. Patton, Jr. 11 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 82-1074-A. NORTH CAROLINA, SOUTH CAROLINA. Index to slides of geological map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program), by J. E. Gair. 17 p. (NC, Da, M; North Carolina Div. Land Resources, Dept. Natural Resources and Community Development (P.O. Box 27687), Raleigh, NC 27611; South Carolina Geol. Survey, Harbison Forest Rd., Columbia, SC 29210.)
- OF 82-1074-B. NORTH CAROLINA, SOUTH CAROLINA. Slides of geologic map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource potential maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program), by J. E. Gair. 89 35-mm color slides only. Available from OFSS only. Available only as 35-mm color slides. Use number when ordering. (Open-file report 82-1074-A is index for Open-file report 82-1074-B.)
- OF 82-1075. Proceedings of Workshop XVII; workshop on hydraulic fracturing stress measurements (volumes 1 and 2), by M. D. Zoback and B. C. Haimson. 738 p. (NC, Da, M.)
- Hydraulic fracturing stress measurements along the eastern boundary of the SW-German block, by F. Rummel, J. Baumgärtner, and H. J. Alheid. p. 1-35
- In-situ stress measurements by means of the hydraulic fracturing technique in the Kanto-Tokai area, Japan, by Hiroaki Tsukahara. p. 36-61
- Experience with hydraulic fracturing as a means of estimating in-situ stress in Australian coal basin sediments, by J. R. Enever, and B. A. Wooltorton. p. 62-102
- The interpretation of hydraulic fracturing pressure-time data for in-situ stress determination, by S. H. Hickman, and M. D. Zoback. p. 103-146
- Instantaneous shut in pressure and its relationship to the minimum in situ stress, by J. M. Gronseth, and P. R. Kry. p. 147-166
- Hydraulic fracturing to estimate minimum stress and rock-mass stability at a pumped hydro project, by Nick Barton. p. 167-180
- Do instantaneous shut-in pressures accurately represent the minimum principal stress?, by J. D. McLennan, and J. C. Roegiers. p. 181-207
- UTAH. Stress measurements in salt in a deep borehole, southeastern Utah, by M. R. Schnapp, J. G. Kocherhaus, and R. A. Nelson. p. 208-226
- In-situ stress determination in deep wells as an aid to stimulation design, by M. D. Voegele, H. R. Pratt, and A. Abou-Sayed. p. 227-236
- Hydraulic fracturing in Alberta tar sand formations; a unique material for in situ stress measurements, by W. F. Bawden. p. 237-275
- NEVADA. A comparative study of deep hydrofracturing and overcoring stress measurements at six locations with particular interest to the Nevada Test Site, by B. C. Haimson. p. 276-304
- Determination of the state of stress at the Stripa Mine, Sweden, by T. W. Doe. p. 305-331
- Experiments in the in-situ stress measurements using the stress relieving and hydraulic fracturing techniques, by Li Fang-quan, Li Yan-mei, Wang En-fu, Zhai Qing-shan, Bi Shang-xu, Zhang-Jun, Liu-Peng, Wi Qing-yun, and Zhao Shi-Guang. p. 332-352
- CALIFORNIA. Strain relief stress measurements along the San Andreas Fault, by M. L. Sbar, R. M. Richardson, Christopher Flaccus, and Terry Engelder. p. 353-393
- Measurement of instantaneous shut-in pressure in crystalline rock, by R. L. Aamodt, and Michio Kuriyagawa. p. 394-402
- Note on effects of infiltration on the criterion for breakdown pressure in hydraulic fracturing stress measurements, by L. G. Alexander. p. 403-413
- Analysis of injection tests for in-situ stress determination, by F. H. Cornet. p. 414-443
- A statistical fracture mechanics determination of the apparent tensile strength in hydraulic fracture, by J. L. Rati-gan. p. 444-462
- Hydraulic fracture in arbitrarily oriented boreholes; an analytic approach, by R. M. Richardson. p. 463-488
- Factors influencing the initiation orientation of hydraulically induced fractures, by J. C. Roegiers, and J. D. McLennan. p. 489-502
- Hydraulic fracture initiation related to the stress field at failure, by M. J. Callanan. p. 503-523
- Studies of earth stress and rock properties and the hydraulic fracturing process, by Merle Hanson, and Donald Towse. p. 524-538
- The use of borehole breakouts in the study of crustal stress, by J. S. Bell, and D. I. Gough. p. 539-557

- Acoustic emissions detected by hydrophone during hydraulic fracturing stress measurement, by Ryuji Ikeda, and Hiroaki Tsukahara. p. 558-568
- Stripa acoustic emission experiment, by E. L. Majer, and T. V. McEvilly. p. 569-581
- The relation between in situ ultrasonic properties of rock and in situ stress, by Terry Engelder, and R. A. Plumb. p. 582-595
- The correlation between the orientation of induced fractures and in situ stress of rock anisotropy, by R. A. Plumb. p. 596-623
- A note on downhill detection of conductive fractures, by W. F. Brace. p. 624-634
- Differential strain curve analysis; does it work?, by C. T. Montgomery, and N. K. Ren. p. 635-660
- Some examples and implications of observed elastic deformations associated with the growth of hydraulic fractures in the Earth, by Keith Evans. p. 661-698
- State of the art and future plans about hydraulic fracturing stress measurements in Sweden, by Ove Stephansson. p. 699-720
- OF 82-1078. MONTANA. Stratigraphic sections of the uppermost part of the Madison Group (Mississippian) disturbed belt, Montana, by K. M. Nichols. 1 over-size sheet, scale 1:125,000 (1 inch = about 2 miles). (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 82-1080. CALIFORNIA. Principal facts for seventy-four gravity stations in the Northern California Cascade Mountains, by Carol Finn. 7 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-1086. UTAH. Petrology of igneous rocks and wall rock alteration, Mayflower Mine, Wasatch County, Utah; Part I, Primary rock and mineral compositions, by J. T. Nash. 57 p. (NC, Da, M, Db, U.)
- OF 82-1087. Test and calibration of the digital world-wide standardized seismograph, by Jon Peterson, and C. R. Hutt. 174 p. (NC, Da, M.)
- OF 82-1088. ALASKA. Map and table describing fossil collections and related samples in the Ketchikan and Prince Rupert quadrangles, southeastern Alaska, by H. C. Berg, and E. L. Cruz. 27 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 82-1089. CALIFORNIA, ARIZONA. Principal facts for gravity stations in and near the Whipple Mountains Wilderness Study Area (CDCA-312), San Bernardino County, California, and Mohave County, Arizona, by T. B. Gage, and R. W. Simpson. 22 p. (NC, Da, M, SF, LA, U, Db; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 82-1090. Multichannel seismic-reflection profiles collected in 1980 in the northern Bering Sea, by M. S. Marlow, A. K. Cooper, G. L. Smith, and T. E. Chase. 3 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 82-1091. Heavy-mineral variability in beach and dune sands in the vicinity of the mouth of the Columbia River, by Gretchen Luepke. 18 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 82-1092. UTAH. Illustrations of plant microfossils from the Chinle Formation, Garfield County, Utah, by L. I. Doherty. 36 p. (NC, Da, M, U, Db.)
- OF 82-1093. UTAH. Geologic map and coal sections of the Old Woman Plateau Quadrangle, Sevier County, Utah, by L. F. Blanchard, and J. D. Sanchez. 3 over-size sheets. (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 82-1096. Progress report on the potash deposits of the Khorat Plateau, Thailand, by R. J. Hite. 75 p. (NC, Da, M.)
- OF 82-1097. Preliminary geologic map of Patillas and Guayama quadrangles, Puerto Rico, by Lynn Glover, III. 11 p., 2 over-size sheets, scale 1:20,000 (1 inch = 1,667 feet). NC; USGS, Puerto Rico Dept. Natural Resources, Stop 3, Ave. Ponce de Leon Puerto de Tierro (Box 5917, Puerto de Tierro Station), San Juan, PR 00906.)
- OF 82-1099. IDAHO. Analytical determinations from samples taken in the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho, by T. H. Kiilsgaard. 36 p., 2 over-size sheets. (NC, Da, M, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 82-1100. NEVADA. Preliminary map of the mineralized areas in the Basin and Range area of Nevada, by George Wong. 47 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 82-1126. OREGON. Reconnaissance geologic map of the Borax Lake Quadrangle, Harney County, Oregon, by J. J. Rytuba, D. B. Vander Meulen, T. L. Vercoutere, and S. A. Minor. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 82-1127. OREGON. Reconnaissance geologic map of the Tum Tum Lake Quadrangle, Harney County, Oregon, by J. J. Rytuba, D. B. Vander Meulen, T. L. Vercoutere, S. A. Minor, M. E. Caress, and B. J. Kriens. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet), (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)

- OF 82-1128. CALIFORNIA. Contour map showing minimum depth to ground water, upper Santa Ana River valley, California, 1973-1979, by S. E. Carson, and J. C. Matti. 49 p., 2 over-size sheets, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 82-1130. Mineralization and other geologic factors related to the Morrison Formation in particular the northern two-thirds of the Colorado Plateau region; basic data and factor-analysis results, by R. A. Cadigan. 176 p. (NC, Da, M, Db, U.)
- OF 82-1131. A critique of "Brine migration in salt and its implications in the geologic disposal of nuclear waste," Oak Ridge National Laboratory Report 5818, by G. H. Jenks, H. C. Claiborne, E. W. Roedder, and I-Ming Chou. 33 p. (NC, Da, M.)
- OF 83-0001. WASHINGTON. Chemical analyses of selected Tertiary and Quaternary volcanic rocks, Cascade Range, Washington, by K. M. Ort, R. W. Tabor, and V. A. Frizzell, Jr. 15 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0002. ARIZONA, NEW MEXICO, UTAH. Geologic references index for the Navajo Indian Reservation, Arizona, New Mexico, and Utah, by J. D. Bliss. 101 p. (NC, Da, M, Db, U, SF, LA, T; USGS, Seventh Floor, 505 Marquette, NW. (P.O. Box 26659), Albuquerque, NM 87125; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0003. CALIFORNIA. Geochemical analyses of rock, stream-sediment, and nonmagnetic heavy-mineral concentrate samples, Laurel-McGee and Wheeler Ridge Roadless Areas, Inyo and Mono counties, California, by M. A. Cosca, M. A. Chaffee, M. F. Diggles, D. L. Fey, R. H. Hill, and S. J. Sutley. 110 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0004. MAINE. Surficial geology map of the Great Heath, Washington County, Maine, by C. C. Cameron, and M. K. Mullen. 26 p., 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC; Maine Geol. Survey, Dept. Conservation, State House, Station 22, Augusta, ME 04333.)
- OF 83-0005. PENNSYLVANIA. A reconnaissance geochemical survey of the Allegheny Front and Hickory Creek Roadless Areas, Allegheny National Forest, Warren County, Pennsylvania, by N. L. Hickling, S. P. Schweinfurth, and B. M. Adrian. 23 p., 1 over-size sheet, scale 1:50,000 (1 inch = about 4,200 feet). (NC, Da, M; Pennsylvania Bur. Topographic and Geol. Survey, Dept. Environmental Resources (P.O. Box 2357), Harrisburg, PA 17120.)
- OF 83-0007. NEW MEXICO. Geochemical data for the Guadalupe Escarpment Wilderness Study Area, Eddy County, New Mexico, by T. D. Light, and J. A. Domenico. 20 p. (NC, Da, M, Db, U, T; USGS, Seventh Floor, 505 Marquette, NW. (P.O. Box 26659), Albuquerque, NM 87102; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87101.)
- OF 83-0008. NEW MEXICO. Petrography of some Ambrosia Lake, New Mexico, prefault uranium ores, and implications for their genesis, by J. D. Webster. 75 p. (NC, Da, M, Db, U, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0009. The mineral resource potential of the Wadi Habawnah and Najran quadrangles, sheets 17/44A and 17/44C, Kingdom of Saudi Arabia, by M. D. Fenton. 42 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0011. ALASKA. Tectono-stratigraphic map and interpretive bedrock geologic map of the Mount McKinley region, Alaska, by D. L. Jones, N. J. Silberling, W. J. Gilbert, and P. J. Coney. 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0012. CALIFORNIA. Chemical and statistical analysis of stream sediments, panned heavy-mineral concentrates, and rocks of the Coxcomb Mountains Wilderness Study Area (CDCA-328), Riverside and San Bernardino counties, California, by J. E. Kilburn, D. E. Detra, and Barbara Chazin. 151 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0013. CALIFORNIA. Geochemical analyses of rock and stream-sediment samples from Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California, by J. A. Peterson, M. E. Caress, and J. E. Quick. 17 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0014. ALASKA. Catalog of earthquakes in southern Alaska, April-June 1980, by K. A. Fogleman, C. D. Stephens, J. C. Lahr, J. A. Rogers, R. S. Cancilla, Roy Tam, J. A. Freiberg, and J. P. Melnick. 56 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0015. ALASKA. Catalog of earthquakes in southern Alaska, July-September 1980, by K. A. Fogleman, C. D. Stephens, J. C. Lahr, J. A. Rogers, R. S. Cancilla, Roy Tam, S. M. Helton, J. A. Freiberg, and J. P. Melnick. 56 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 83-0016. CALIFORNIA. Rainfall associated with the January 1982 rainstorm in the San Francisco Bay region, California, by R. K. Mark, E. B. Newman, C. R. Northcut, and B. R. Hamachi. 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0017. UTAH, COLORADO. Descriptions of four stratigraphic sections of parts of the Green River and Uinta formations in the eastern Uinta Basin, Uintah County, Utah, and Rio Blanco County, Colorado, by W. B. Cashion. 44 p. (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, Ut 84108.)
- OF 83-0018. MAINE. Sketch maps, sections and laboratory analyses of peat resources in deposits of southern and western Maine, by C. C. Cameron, and M. K. Mullen. 149 p. (NC; Maine Geol. Survey, Dept. Conservation, State House, Station 22, Augusta, ME 04333.)
- OF 83-0019. WASHINGTON. Proceedings of workshop XIV; Earthquake hazards of the Puget Sound region, Washington, J. C. Yount and R. S. Crosson, editors and convenors. 309 p. (NC, Da, M.)
- WASHINGTON. Review of seismicity in the Puget Sound region from 1970 through 1978, by R. S. Crosson. p. 6-18
- WASHINGTON. Some comments on the seismicity of the northern Puget Sound-southern Vancouver Island region, by G. C. Rogers. p. 19-39
- WASHINGTON. The magnitude 4.6 South Puget Sound earthquake of March 11, 1978; main shock and after-shocks, by T. S. Yelin, and R. S. Crosson. p. 40-58
- WASHINGTON. A study of Puget Sound strong ground motion, by C. A. Langston. p. 59-104
- WASHINGTON. A comparison of the rate of seismic activity and several estimates of deformation in the Puget Sound area, by D. H. Weichert, and R. D. Hyndman. p. 105-130
- WASHINGTON. Elevation changes related to seismic hazard evaluation with the use of gravity meters, by N. H. Rasmussen. p. 131-140
- Horizontal tectonic stress during the late Cenozoic in the Northwestern United States, by K. F. Fox, Jr., and D. C. Engbreton. p. 141-164
- WASHINGTON. Relationships between late Quaternary faults and earthquakes in the Puget Sound, Washington area, by J. R. Wilson. p. 165-177
- WASHINGTON. Offshore Quaternary geology of the northern Puget Sound-eastern Strait of Juan de Fuca region, Washington, by H. C. Wagner, and M. C. Wiley. p. 178-267
- WASHINGTON. Geologic units that likely control seismic ground shaking in the Greater Seattle area, by J. C. Yount. p. 268-279
- WASHINGTON. Landslides, soil liquefaction, and related ground failures in Puget Sound earthquakes, by D. K. Keefer. p. 280-299
- WASHINGTON. Isostatic effects of the last glaciation in the Puget Lowland, Washington, by R. M. Thorson. p. 300-301
- WASHINGTON. Geologic constraints on the movement history of the Straight Creek Fault, by J. A. Vance, and R. B. Miller. p. 302-306
- OF 83-0020. WASHINGTON, OREGON. Geophysical data collected across the continental margin between Washington and Oregon along line 16, USGS R/V S. P. Lee cruise 11-80, by P. D. Snively, Jr., and H. C. Wagner. 1 over-size sheet. (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland OR 97201; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0021. KENTUCKY. Bryozoan fauna of the Upper Clays Ferry, Kope, and Lower Fairview formations (Edenian, Upper Ordovician) at Moffett Road, northern Kentucky, by O. L. Karklins. 56 p., 2 over-size sheets. (NC, Da, M.)
- OF 83-0022. PENNSYLVANIA. A reconnaissance geochemical survey of the Clarion River Roadless Area, Allegheny National Forest, Elk County, Pennsylvania, by N. L. Hickling, S. P. Schweinfurth, and B. M. Adrian. 16 p. (NC, Da, M; Pennsylvania Bur. Topographic and Geol. Survey, Dept. Environmental Resources (P.O. Box 2357), Harrisburg, PA 17120.)
- OF 83-0023. Multichannel seismic measurements on the northern edge of the Bahaman-Cuban collision zone, edited by M. M. Ball. 74 p. (NC, M.)
- Introduction, by M. M. Ball. p. 1-4
- Equipment, by R. M. Bowles, M. M. Ball, David Taylor, and E. L. Coward. p. 4-5
- Seismic data processing, by David Taylor, M. M. Ball, Richard Sylwester, and E. L. Coward. p. 6-10
- Reflection seismic measurements, by M. M. Ball, R. G. Martin, W. D. Bock, and Richard Sylwester. p. 10-21
- Gravity and magnetic measurements, by M. M. Ball, R. M. Bowles, Lewis Gilbert, and E. L. Coward. p. 21-22
- Discussion, edited by M. M. Ball. p. 22-29
- OF 83-0024. ALASKA. Two newly discovered submarine canyons on the Alaskan continental margin of Bering Sea, by P. R. Carlson, J. M. Fischer, and H. A. Karl. 38 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0025. SOUTH DAKOTA. Temperatures, thermal conductivity, and heat flow from a well in Pierre Shale near Hayes, South Dakota, by J. H. Sass, and S. P. Galanis, Jr. 10 p. (NC, Da, M, Db; Library, South Dakota School of Mines and Tech., Rapid City, SD 57701.)
- OF 83-0026. OKLAHOMA. Urban flood analysis in Oklahoma City, Oklahoma, by R. L. Tortorelli, T. L. Huntzinger, D. L. Bergman, and A. L. Patneade. 98 p. (NC, Da, M, Wb, T; USGS, WRD, Old Post Office Bldg., Room 621, 215 Dean McGee St., Oklahoma City, OK 73102; City Engineer, 200 North Walker, Oklahoma City, OK 73102; Library Division (SLL), U.S. Gov. Printing Office, Washington, DC 20402.)

- OF 83-0027. OKLAHOMA. Ground-water records for the area surrounding the Chickasaw National Recreational Area, Murray County, Oklahoma, by R. L. Goemaat, and C. C. Willard. 16 p. (NC, Da, M, Wb, T; USGS, WRD, Old Post Office Bldg., Room 621, 215 Dean McGee St., Oklahoma City, OK 73102; National Park Service, Southwest Region (P.O. Box 728), Santa Fe, NM 87501; Library Division (SLL), U.S. Gov. Printing Office, Washington, DC 20402.)
- OF 83-0029. WYOMING, NEBRASKA. Pumpage data from irrigation wells in eastern Laramie County, Wyoming, and Kimball County, Nebraska, by Charles Avery. 25 p. (NC, Da, Wb; USGS, WRD, Room 4007, Federal Bldg., 2120 Capitol Ave., Cheyenne, WY 82003.)
- OF 83-0030. FLORIDA. Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, September 1982, by G. R. Schiner, and E. C. Hayes. 1 over-size sheet. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801.)
- OF 83-0031. FLORIDA. Ground-water levels in selected well fields and in west-central Florida, by G. L. Barr. 2 over-size sheets. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614; Southwest Florida Water Management District, Brooksville, FL 33512.)
- OF 83-0035. TEXAS. Hydrologic data for urban studies in the San Antonio, Texas, metropolitan area, 1981, by Roberto Perez. 62 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 83-0036. TEXAS. Gain-loss study along two streams in the upper Sabine River basin, Texas; August-September 1981, by D. R. Myers. 14 p., 1 over-size sheet. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 83-0037. FLORIDA. Revised description of index of Florida water data collection active stations and a user's guide for station or site information retrieval computer program FINDEX H578, by L. H. Geiger. 79 p. (NC, Wb; USGS, WRD, 325 John Knox Rd., Tallahassee, FL 32303; Libraries of the State University System of Florida.)
- OF 83-0039. IDAHO. Compilation of ground-water quality data for selected wells in Elmore, Owyhee, Ada, and Canyon counties, Idaho, 1945 through 1982, by D. J. Parlman. 156 p. (NC, M, Wb; USGS, WRD, Box 036, Federal Bldg., 550 West Fort St., Boise, ID 83724.)
- OF 83-0040. IDAHO. Activities in Idaho; status of projects, fiscal years 1982-83, compiled by L. K. Channel. 48 p. (NC, M, Wb; USGS, WRD, Room 365, Box 036, Federal Bldg., 550 West Fort St., Boise, ID 83724.)
- OF 83-0041. FLORIDA. Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, May 1982, by L. A. Bradner. 1 over-size sheet. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801.)
- OF 83-0042. FLORIDA. Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, September 1982, by L. A. Bradner. 1 over-size sheet. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 80 North Hughey Ave., Suite 216, Orlando, FL 32801.)
- OF 83-0043. TENNESSEE. Man-induced channel adjustment in Tennessee streams, by C. H. Robbins, and Andrew Simon. 95 p., 42 over-size sheets. (NC, Wb, Da, M; USGS, WRD, A-433 Federal Bldg., U.S. Courthouse, Nashville, TN 37203.)
- OF 83-0044. TEXAS. Hydrologic data for urban studies in the Austin, Texas, metropolitan area, 1981, by R. M. Slade, Jr., J. E. Veenhuis, M. E. Dorsey, Heather Gardiner, and A. E. Smith. 299 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 83-0045. FLORIDA. Estimated water use in Southwest Florida, 1981, and summary of annual water use, 1970, 1975, and 1977-81, by A. D. Duerr, and J. E. Sohm. 80 p. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614.)
- OF 83-0046. ARKANSAS, OKLAHOMA. Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma, by T. E. Lamb, and M. A. Moore. 28 p. (NC, Da, T, Wb; USGS, WRD, Room 2301, Federal Office Bldg., 700 West Capitol Ave., Little Rock, AR 72201.)
- OF 83-0047. Funding history of the U.S. Geological Survey Federal data collection and analysis program, 1973-1982, by Alberto Condes de la Torre. 17 p. (NC, Da, Wb.)
- OF 83-0049. Instructions for the submission of data to the Master Water Data Index, by O. O. Williams. 23 p. (NC, Da, M, Wb; USGS, WRD, Mail Stop 421, National Ctr., 12201 Sunrise Valley Dr., Reston, VA 22092.)
- OF 83-0051. MONTANA, IDAHO. Principal facts and complete Bouguer gravity anomaly map for the Dillon 1° by 2° Quadrangle, Montana and Idaho, by H. E. Kaufmann, S. B. Sorensen, and K. J. O'Neill. 76 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0052. ALASKA. Marine free-air gravity map of the western Gulf of Alaska, lower Cook Inlet and Shelikof Strait, Alaska, by M. A. Fisher, Roland von Huene, and W. C. Steele. 2 over-size sheets, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0053. ARKANSAS. Preliminary report on near-surface lignite occurrences, Cleveland County, Arkansas, by S. E. Heermann. 9 p., 5 over-size sheets. (NC, Da, T.)

- OF 83-0054. IDAHO, MONTANA. Statistical tables, sample locality maps, and an explanation of data sets for samples from the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana, by B. W. Cox, and M. I. Toth. 96 p., 2 over-size sheets, scale 1:125,000 (1 inch = about 2 miles). (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0055. CALIFORNIA. Aeromagnetic maps of the southern and central Sierra Nevada foothills and adjacent San Joaquin Valley, California. 7 over-size sheets, scales 1:62,500 (1 inch = about 1 mile) and scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0056. NEW MEXICO. Distribution of trace elements in drilling chip samples around a roll-type uranium deposit, San Juan Basin, New Mexico, by H. C. Day, C. S. Spirakis, R. S. Zech, and A. R. Kirk. 28 p. (NC, Da, M, Db, U, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0057. CALIFORNIA. Some preliminary findings of a reconnaissance geochemistry study, West Shasta District, California, by J. R. Hassemer. 16 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0058. UTAH. Preliminary surficial geologic map of the Fisher Valley-Professor Valley area, southeastern Utah, by S. M. Colman, and F. F. Hawkins. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0059. OHIO. Aeromagnetic map of southern Ohio. 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M.)
- OF 83-0060. COLORADO. Aeromagnetic map of the Sangre de Cristo Mountains, Colorado. 3 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, Db, U.)
- OF 83-0061. Magnetic observatory hourly average digital data for Magsat correlation (Sept. 1979-June 1980), by Barbara Dodge, Suzanne Weston, and J. C. Cain. 46 p. (NC, Da, M.)
- OF 83-0062. CALIFORNIA. Reconnaissance geology and geologic hazards of selected areas of the Southern California continental borderland, by S. H. Clarke, H. G. Greene, M. E. Field, and W. H. Lee. 81 p., 18 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012)
- CALIFORNIA. Gulf of Santa Catalina and adjacent shelf, by S. H. Clarke, and H. G. Greene. p. 7-29
- CALIFORNIA. Central Santa Rosa-Cortes Ridge, by M. E. Field. p. 29-41
- CALIFORNIA. Western Santa Barbara Channel-Point Conception, by H. G. Green. p. 41-61
- OF 83-0063. CALIFORNIA. Preliminary assessment of long-term probabilities for large earthquakes along selected fault segments of the San Andreas fault system, California, by A. G. Lindh. 15 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0065. HAWAII. Estimation of fresh water abundances by electrical-resistivity sounding on the Kalaupapa Peninsula, Island of Molokai, Hawaii, by Jim Kauahikaua. 17 p. (NC, Da, M, SF, LA.)
- OF 83-0066. HAWAII. Complete data listings for CSEM soundings on Kilauea Volcano, Hawaii, by Jim Kauahikaua, D. B. Jackson, and C. J. Zablocki. 49 p. (NC, Da, M, SF, LA; Hawaii Dept. Land and Natural Resources, Div. Water and Land Devel. (P.O. Box 373), Honolulu, HI 96809.)
- OF 83-0067. HAWAII. Ground-water exploration in the South Kohala District, Hawaii County, Hawaii, using vertical electrical sounding, by Jim Kauahikaua, and Dallas Jackson. 26 p. (NC, Da, M, SF, LA.)
- OF 83-0068. Eruptive history of the Dieng Mountains region, central Java, and potential hazards from future eruptions, by C. D. Miller, R. Sushyar, Santoso, and S. Hamidi. 22 p. (NC, Da, M.)
- OF 83-0069. WYOMING. Geologic, geotechnical, and geophysical properties of core from the Acme Fire-Pit-1 drill hole, Sheridan County, Wyoming, by D. S. Collins. 20 p., 1 over-size sheet. (NC, Da, M, Db, U; Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 83-0070. VIRGINIA. Principal facts for gravity stations in part of the central Virginia Piedmont, by S. L. Snyder, D. L. Daniels, K. R. Bond, J. M. Russell, and F. E. Riggle. 16 p. (NC, Da, M.)
- OF 83-0071. ALASKA. A summary of U.S. Geological Survey marine geologic studies on the inner shelf of the Chuckchi Sea, Alaska, 1975 and 1981, by Thomas Reiss, R. L. Phillips, R. E. Hunter, and P. W. Barnes. 11 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0072. ALASKA. Quaternary stratigraphic sections with radiocarbon dates, Survey Pass Quadrangle, Alaska, by T. D. Hamilton, and L. B. Brubaker. 49 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0073. ALASKA. Occurrences of lead minerals in Alaska, by E. H. Cobb. 21 p., 1 over-size sheet, scale 1:2,500,000 (1 inch = about 40 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.) (Supersedes Mineral Resources Map MR-69.)

- OF 83-0074. UTAH. Analyses of the less than 0.180-mm fraction of drainage sediments, Richfield 1° by 2° Quadrangle, Utah, by J. M. Motooka, and W. R. Miller. 103 p. (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0075. Atlas of discovery rate profiles showing oil and gas discovery rates by geological province in the United States, by L. J. Drew, G. C. Grender, and R. M. Turner. 259 p. (NC.)
- OF 83-0076. Borehole gravity surveys; theory, mechanics, and nature of measurements, by L. A. Beyer. 91 p. (NC, Da, M, T, SF, LA.)
- OF 83-0077. CALIFORNIA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Freel and Dardanelles Roadless Areas, Alpine and El Dorado counties, California, by S. J. Sutley, M. A. Chaffee, D. L. Fey, and R. H. Hill. 22 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0078. ALASKA. Preliminary lithologic, geotechnical, and geophysical data from drill hole CW-81-2, Chuitna West coal field, Cook Inlet region, Alaska, by J. K. Odum, C. A. Gardner, L. A. Yehle, H. R. Schmoll, and L. L. Dearborn. 14 p., 2 over-size sheets. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0079. Thermodynamic and thermophysical properties of selected phases in the $\text{MgO-SiO}_2\text{-H}_2\text{O-CO}_2$, $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2\text{-H}_2\text{O-CO}_2$, and $\text{Fe-FeO-Fe}_2\text{O}_3\text{-SiO}_2$ chemical systems, with special emphasis on the properties of basalts and their mineral components, by G. R. Robinson, Jr., J. L. Hass, Jr., C. M. Schafer, and H. T. Haselton, Jr. 465 p. (NC, Da, M.)
- OF 83-0081. PENNSYLVANIA. Stratigraphic cross sections within the Homer City, Pennsylvania, dedicated coal reserve area, by R. W. Stanton, and C. B. Cecil. 7 p., 1 over-size sheet. (NC.)
- OF 83-0082. CALIFORNIA. Examples of the use of geologic and seismologic information for earthquake-hazard reduction in Southern California, by W. J. Kockelman. 59 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0083. CALIFORNIA. Quantitative microfossil, sedimentologic, and geochemical data on cores V1-80-P3, V1-80-G1, and V1-80-P8 from continental slope off Northern California, by J. V. Gardner, J. A. Barron, W. E. Dean, L. E. Heusser, D. H. Klise, R. Z. Poore, P. J. Quinterio, and S. M. Stone. 54 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0084. ARIZONA, NEW MEXICO. Analytical results for 328 water samples from the Silver City 1° by 2° Quadrangle, Arizona and New Mexico, by J. R. Hassemer, W. H. Ficklin, J. M. Motooka, and K. C. Watts, *with contributions from* D. J. Preston, S. M. Smaglik, and F. N. Ward. 42 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, U, T, LA, SF; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0085. A practical, low-noise coil system for magnetotellurics, by W. D. Stanley, and R. D. Tinkler. 36 p. (NC, Da, M.)
- OF 83-0086. An earthquake catalog for the Basin and Range Province, 1803-1977, by Bonny Askew, and S. T. Algermissen. 42 p., 3 over-size sheets. (NC, Da, M.)
- OF 83-0088. MONTANA. Analytical data, geographic coordinates, and sample locality map of geochemical samples from the Mount Henry Roadless Area, Lincoln County, Montana, by D. F. Siems, R. W. Leinz, R. E. Van Loenen, Gail Wadsworth, and C. M. McDougal. 36 p., 1 over-size sheet. (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 83-0089. Geologic and grade-tonnage information on volcanic-hosted copper-zinc-lead massive sulfide deposits, by D. L. Mosier, D. A. Singer, and B. B. Salem. 79 p. (NC, Da, M.)
- OF 83-0090. Summaries of technical reports, Volume XV, compiled by M. L. Jacobson, T. R. Rodriguez, and W. H. Seiders. 523 p. (NC, Da, M.)
- OF 83-0091. ALASKA. Geology of the Craig Quadrangle, Alaska, by G. D. Eberlein, Michael Churkin, Jr., Claire Carter, H. C. Berg, and A. T. Ovenshine. 53 p., 4 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0092. Airborne electromagnetic surveys of the Cascade Range, western United States, by D. C. Fraser, *with a preface by* D. B. Hoover. 64 p., 30 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M.)
- OF 83-0093. NORTH CAROLINA, SOUTH CAROLINA. Geophysical and geologic studies in southern Mecklenburg County and vicinity, North Carolina and South Carolina, by F. A. Wilson. 199 p., 3 over-size sheets. (NC; North Carolina Dept. National Resources, Div. Land Resources (P.O. Box 27687), Raleigh, NC 27611; South Carolina Geol. Survey, Harbison Forest Rd., Columbia, SC 29210.)
- OF 83-0094. ALASKA. Chemical analyses of 102 tonalite samples for the Jurassic magmatic arc, Alaska-Aleutian Range batholith, Alaska, by B. L. Reed, M. A. Lanphere, and A. T. Miesch. 18 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 83-0095. CALIFORNIA. Preliminary map of the mining districts in the Basin and Range area of California, by George Wong. 20 p., 3 over-size sheets, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0096. CALIFORNIA. Preliminary Bouguer gravity map of California; San Bernardino sheet, by Shawn Biehler, R. W. Tang, D. A. Ponce, and H. W. Oliver. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0097. WASHINGTON. Annotated guide to geologic reports and maps of the Glacier Peak Wilderness and adjacent areas, northern Cascades, Washington, by A. B. Ford. 36 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0098. CALIFORNIA. Aerial views in color of the San Andreas Fault, California, by R. E. Wallace, and S. S. Schulz. 17 p., 40 2" by 2" color slides. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0099. Landsat analysis for uranium exploration in Northeast Turkey, by Kennan Lee. 45 p. (NC, Da, M.)
- OF 83-0100. OREGON. Summary map of the status of the Oregon wilderness and roadless areas resource potential evaluation, by R. B. Fiebelkorn, and G. W. Walker. 1 over-size sheet, scale 1:1,000,000 (1 inch = about 16 miles). (NC, Da, M, S, SF, LA.)
- OF 83-0102. Land use and natural resource mapping; glossary of terms, by E. L. Schwertz, Jr., S. W. Miller, G. L. Loelkes, Jr., and W. C. Good. 31 p. (F, M, Da, NC, Wb.)
- OF 83-0104. ALASKA. Isopach map of Holocene sediment on the outer continental shelf between Yakutat Bay and Dry Bay, eastern Gulf of Alaska, by P. J. Hoose, G. P. Thrasher, and L. D. Lybeck. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, LA, T, A, S.)
- OF 83-0116. Specifications for updating USGS land use and land cover maps, by V. A. Milazzo. 65 p. (F, Da, M, NC, Wb.)
- OF 83-0117. CALIFORNIA. An oilspill risk analysis for the central California outer continental shelf lease offering (October 1983), by R. P. LaBelle, K. J. Lanfear, and R. M. Karpas. 71 p. (DA, M, NC.)
- OF 83-0118. LOUISIANA. The oil and gas industry of coastal Louisiana and its effects on land use and other socioeconomic patterns, by D. W. Davis, and J. L. Place. 78 p. (F, M, Da, NC, Wb.)
- OF 83-0119. An oilspill risk analysis for the central Gulf (April 1984) and western Gulf of Mexico (July 1984) lease offerings, by R. P. LaBelle. 65 p. (Da, M, NC, A.)
- OF 83-0120. ALASKA. An oilspill risk analysis for the Navarin Basin lease offering (March 1984), Alaska, by W. B. Samuels, K. J. Lanfear, and Doreen Banks. 36 p. (Da, M, NC, A.)
- OF 83-0122. Estimated oil and gas reserves, Gulf of Mexico outer continental shelf and continental slope, December 31, 1982, by J. E. Hewitt, J. P. Brooke, and J. H. Knipmeyer. 19 p. (NC, Da, M, Db, U, LA, SF, T.) (Supersedes Open-file report 82-34.)
- OF 83-0123. General characteristics and availability of Landsat 3 and heat capacity mapping mission thermal infrared data, by C. S. Southworth. 30 p. (NC, M, F, Da; USGS, Don Lee Kulow Memorial Library, EROS Data Ctr., Sioux Falls, SD 57198.)
- OF 83-0124. ALASKA. Geological and operational summary, Norton Sound COST No. 1 well, Norton Sound, Alaska, by R. F. Turner, editor, J. G. Bolm, C. M. McCarthy, D. A. Steffy, Paul Lowry, and T. O. Flett. 168 p., 7 over-size sheets. (NC, Da, M, Db, LA, SF, T, A, S.)
- ALASKA. Operational summary, by C. M. McCarthy. p. 5-16
- ALASKA. Shallow geologic setting, Norton Sound COST No. 1 well, by D. A. Steffy. p. 17-20
- ALASKA. Seismic reflection correlation and velocity analysis, by D. A. Steffy. p. 21-38
- ALASKA. Paleontology and biostratigraphy, by R. F. Turner. p. 39-57
- ALASKA. Lithology and geophysical log interpretation, by J. G. Bolm. p. 58-97
- ALASKA. Geochemistry; Norton COST well 1, by T. O. Flett. p. 98-128
- ALASKA. Environmental considerations, by Paul Lowry. p. 129-140
- OF 83-0126. Proceedings of the Fourth national conference, Water Resources Division, U.S. Geological Survey, Ocean City, Maryland, October 18-23, 1981, edited by E. B. Chase, M. Brigida, and J. M. Rubin. 112 p. (NC, Da, M, Wb; USGS, WRD, 12201 Sunrise Valley Dr., Mail Stop 440, Reston, VA 22092.)
- Challenging times for the Water Resources Division, by D. G. Frederick. p. 8-11
- The role of the U.S. Geological Survey as seen by the Director, edited by E. B. Chase, M. Brigida, and J. M. Rubin. p. 12-15
- A look at the years since Albuquerque; summary of Water Resources Division accomplishments, 1975-81, by R. H. Langford. p. 16-31
- A look ahead, by Philip Cohen. p. 32-35
- Ground water, by G. D. Bennett. p. 36
- Quality of water, by R. J. Pickering. p. 37
- Surface water, by M. E. Moss. p. 38
- The Federal-State cooperative program, reported by R. C. Averett. p. 41-45
- Working with restricted resources in the 1980's, by T. Arnou. p. 46-48
- Role of computers in WRD programs in the 1980's, by J. S. Rosenshein. p. 49-50
- Digital simulation models and the role of the Water Resources Division in documenting, verifying, and distributing them, by L. F. Konikow. p. 51-54
- WRD goals for the 1980's, by J. F. Daniel. p. 55-57

- Solute-transport modeling, by L. F. Konikow. p. 58-59
- Distributed parameter precipitation-runoff modeling, by G. H. Leavesley. p. 60-63
- Surface geophysics in hydrologic investigations, by F. P. Haeni. p. 64-69
- Improvements in instrumentation, by R. W. Paulson. p. 70-71
- Contaminated ground water, by J. B. Robertson. p. 72-74
- Surface-water network evaluation, by M. E. Moss. p. 75-76
- Acid rain, by V. C. Kennedy, and R. A. Schroeder. p. 77-81
- Distributed processing; promises and possible pitfalls, by Uyless Black. p. 82-92
- OF 83-0127. FLORIDA. Literature assessment of the Charlotte Harbor estuarine system and surrounding area, Southwest Florida, by Y. E. Stoker, and G. A. Karavitis. 143 p. (NC, Da, M, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 4710 Eisenhower Blvd., Suite B-5, Tampa, FL 33614.)
- OF 83-0129. MONTANA. Selective annotated bibliography of ground-water resources, records of wells and springs, and availability of streamflow data on Indian reservations in Montana, by G. W. Levings, and M. K. White. 141 p. (Da, NC, Db, S, Wb; USGS, WRD, 428 Federal Bldg., 301 South Park, Drawer 10076, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- OF 83-0130. FLORIDA. Nutrient and detritus transport in the Apalachicola River, Florida, by H. C. Mattraw, Jr., and J. F. Elder. 117 p. (NC, Da, M, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303.)
- OF 83-0134. FLORIDA. Records of selected wells and lithologic logs of test holes, Hendry County and adjacent areas, Florida, by J. E. Fish, C. R. Causaras, and T. H. O'Donnell. 120 p. (NC, Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155.)
- OF 83-0135. CALIFORNIA. Sediment and stream-velocity data for the Sacramento River near Hood, California, May 1978 to September 1981, by J. G. Harmon. 83 p. (NC, M, Wb, La, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- OF 83-0136. MONTANA, NORTH DAKOTA. Data from the surface-water hydrologic investigations of the Hay Creek Study Area, Montana, and the West Branch Antelope Creek Study Area, North Dakota, October 1976 through April 1982, by D. G. Emerson, S. W. Norbeck, and K. L. Boespflug. 278 p. (NC, Da, Wb; USGS, WRD, 821 East Interstate Ave., Bismarck, ND 58501.)
- OF 83-0138. COLORADO. Water-resources investigations of the U.S. Geological Survey in Colorado; fiscal year 1983, by R. O. Hawkinson, and D. J. Lystrom. 83 p., 1 over-size sheet. (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- OF 83-0139. COLORADO. Hydrologic data from the Tamarack Wildlife Area and vicinity, Logan County, Colorado, by A. W. Burns. 126 p., 2 over-size sheets (Db, Da, NC, Wb; USGS, WRD, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- OF 83-0141. NEVADA. Geohydrologic and drill-hole data for test well USW-H1, adjacent to Nevada Test Site, Nye County, Nevada, by F. E. Rush, William Thordarson, and Laura Bruckheimer. 43 p. (Da, M, NC, Db, LA, SF, Wb; USGS, WRD, Nuclear Hydrology Program, Bldg. 53, Room H2115, Denver Federal Ctr., Denver, CO 80225.)
- OF 83-0142. ALASKA. Hydrologic data for Point MacKenzie area, south-central Alaska, by R. L. Glass. 47 p., 1 over-size sheet. (A, LA, SF, NC, M, Wb; USGS, WRD, 1515 East 13th Ave., Anchorage, AK 99501.)
- OF 83-0143. MAINE. Hydrologic data from the Johnson Brook phosphorus loading study, Kennebec County, Maine, by T. J. Maloney, D. R. Dominie, II, and W. J. Nichols, Jr. 27 p. (NC, Wb; USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114; USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.)
- OF 83-0144. NEW MEXICO. Instrumentation used for hydraulic testing of potential water-bearing formations at the Waste Isolation Pilot Plant site in southeastern New Mexico, by J. A. Basler. 34 p. (Da, NC, Db, T, Wb; USGS, Western Bank Bldg., Room 815, 505 Marquette, NW., Albuquerque, NM 87125.)
- OF 83-0147. Water quality of the Potomac River at Chain Bridge at Washington, DC; hydrologic-data report, 1978 water year, by S. F. Blanchard. 14 p. (NC, Da, Wb; USGS, WRD, National Ctr., Mail Stop 430, Reston, VA 22092.)
- OF 83-0148. TENNESSEE. Results of pesticide sampling in Tennessee, by M. W. Gaydos. 24 p., 1 over-size sheet. (NC, Da, Wb; USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203.)
- OF 83-0150. TEXAS. Approximate water-level changes in wells in the Chicot and Evangeline aquifers, 1977-83 and 1983-83 and measured compaction, 1973-83 in Harris and Galveston counties, Texas, by J. L. Strause, and C. E. Ranzau. 7 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 83-0151. IDAHO. Preliminary report on geology, geochemical exploration, and biogeochemical exploration of the Red Mountain stockwork, Yellow Pine District, Valley County, Idaho, by B. F. Leonard, and J. A. Erdman. 52 p. (NC, Da, M, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0152. Natural gas analyses from offshore Gulf of Mexico, by D. D. Rice, and C. N. Threlkeld. 8 p. (NC, Da, M.)
- OF 83-0153. Bibliography on the world's subsea mineral resources and related geological and geophysical studies (1960-1972), by F. F. Wang, and P. J. Quinterio. 373 p. (NC, Da, M.)
- OF 83-0154. BASIC programs to calculate gravity and magnetic anomalies for 2 1/2-dimensional prismatic bodies, by D. L. Campbell. 38 p. (NC, Da, M.)

- OF 83-0155. **WELLMAP**, a Fortran computer program for the generation of maps of specified geographic areas with a variety of well symbols available to depict the current status of given oil and gas drilling, by E. G. Boyce, Jr., and R. M. Turner. 30 p. (NC, Da, M.)
- OF 83-0156. **MICHIGAN**. Lake Ellen kimberlite, Michigan, U.S.A., by E. S. McGee, and B. C. Hearn, Jr. 24 p. (NC, Da, M.)
- OF 83-0163. An introduction to the Jabiluka Project; regional and mine geology of the unconformity-type uranium deposit at Jabiluka, Northern Territory, Australia, by C. J. Nutt, and R. I. Grauch. 31 p. (NC, Da, M.)
- OF 83-0164. **KENTUCKY**. Magnetic and gravity features of western Kentucky; their geologic significance, by T. G. Hildenbrand, and G. R. Keller. 13 p., 4 over-size sheets, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M.)
- OF 83-0165. **ARIZONA**. Geochemical data for the West Clear Creek Roadless Area, Yavapai and Coconino counties, Arizona, by G. E. Ulrich. 11 p. (NC, Da, M, Db, U, LA, SF; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0166. **CALIFORNIA**. Processed accelerograms from Coyote Dam, California, March 25, 1978, by A. G. Brady, and Virgilio Perez. 84 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0167. Coal quality loss from acquisition to analysis; a preliminary time study, by R. G. Hobbs, J. D. Cathcart, and G. A. Correia. 61 p. (NC, Da, M.)
- OF 83-0168. **MONTANA**. Preliminary geologic map of the Dillon 1° by 2° Quadrangle, Montana, by E. T. Ruppel, J. M. O'Neill, and D. A. Lopez. 1 over-size sheet. (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 83-0169. **ALASKA**. Summary of radiometric anomalies in Alaska, by K. A. Dickinson, J. E. Morrone, and M. E. Roberts. 1 over-size sheet. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.) (Supersedes Open-file report 81-428.)
- OF 83-0170-A. **ALASKA**. Preliminary geologic map of the Circle Quadrangle, Alaska, by H. L. Foster, Jo Laird, T. E. Keith, G. W. Cushing, and W. D. Menzie. 32 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0170-B. **ALASKA**. Mineral resource assessment of the Circle Quadrangle, Alaska, by W. D. Menzie, H. L. Foster, R. B. Tripp, and W. E. Yeend. 61 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 83-0171. **ALASKA**. Geotechnical framework study of the Kodiak Shelf, Alaska, by M. A. Hampton. 87 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501, and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0172. **MONTANA**. Garnet peridotites from Williams kimberlites, north-central Montana, U.S.A., by B. C. Hearn, Jr., and E. S. McGee. 28 p. (NC, Da, M.)
- OF 83-0173. **NORTH CAROLINA**. Analyses and descriptions of geochemical samples, Snowbird Roadless Area, Graham County, North Carolina, by M. S. Erickson, F. G. Lesure, G. W. Day, and J. D. Sharkey. 25 p. (NC, Da, M; North Carolina Dept. Natural Resources and Community Development, Div. Land Resources (P.O. Box 27687), Raleigh, NC 27611.)
- OF 83-0175. **UTAH**. Geochemical analyses of rock and stream-sediment samples from Birdseye, Nephi, and Santaquin Roadless areas, Juab and Utah counties, Utah, by M. L. Sorensen, Henry Pietropaoli, and S. M. Haley. 96 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0178. **ALASKA**. Description of magnetic tapes of digital sonobuoy-refraction data obtained over Norton Basin, Alaska, by M. A. Fisher, and M. L. Holmes. 4 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.) (Tapes can be obtained from: Arcus, Inc., 2975 Whipple Rd., Union City, CA 94587. Telephone (415) 489-5100.)
- OF 83-0179. Estimation of earthquake effects associated with a great earthquake in the New Madrid seismic zone, by M. G. Hopper, S. T. Algermissen, and E. E. Dobrovolsky. 101 p. (NC, Da, M, Db, U.)
- OF 83-0180. Final report on the permeability of geopressured Gulf Coastal shale cores, by J. D. Byerlee, and C. A. Morrow. 9 p. (NC, Da, M.)
- OF 83-0181. **UTAH**. Preliminary geologic map of the Beaver Lake Mountains Quadrangle, Beaver and Millard counties, Utah, by D. M. Lemmon, and H. T. Morris. 15 p., 2 over-size sheets, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)

- OF 83-0183. ALASKA. Reconnaissance geologic map of the De Long Mountains A3, B3, and parts of A4, B4 quadrangles, Alaska, by C. F. Mayfield, S. M. Curtis, Inyo Ellersieck, and I. L. Tailleir. 60 p., 2 over-size sheets, scale 1:63,360 (1 inch = 1 mile). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0184. ALASKA. Reconnaissance geologic map of the De Long Mountains A2, B2, and part of C2 quadrangles, Alaska, by Inyo Ellersieck, S. M. Curtis, C. F. Mayfield, and I. L. Tailleir. 54 p., 2 over-size sheets, scale 1:63,360 (1 inch = 1 mile). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0185. ALASKA. Reconnaissance geologic map of the De Long Mountains A1, B1, and part of C1 quadrangles, Alaska, by S. M. Curtis, Inyo Ellersieck, C. F. Mayfield, and I. L. Tailleir. 54 p., 2 over-size sheets, scale 1:63,360 (1 inch = 1 mile). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0187. Zinc, lead, and barite deposits and occurrences in Paleozoic rocks, east-central United States, by S. H. Clark, and C. L. Neeley. 81 p., 1 over-size sheet, scale 1:2,500,000 (1 inch = about 40 miles). (NC, Da, M.)
- OF 83-0188. UTAH. Stratigraphic sections of the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation in the northern part of the White Canyon, Red Canyon, and Blue Notch Canyon area, southeastern Utah, by R. F. Dubiel. 32 p. (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0190. ALASKA. Chemical composition and variability of soils from the Capps coal field, Alaska, by R. C. Severson, and L. P. Gough. 39 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0191. NEW MEXICO. The nonopaque, detrital heavy mineralogy of the Morrison Formation near Crownpoint, San Juan Basin, New Mexico, by P. L. Hansley. 34 p. (NC, Da, M, Db, U, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0192. CALIFORNIA. Precision gravity networks at Lassen Peak and Mount Shasta, California, by R. C. Jachens, Daniel Dzurisin, W. P. Elder, and R. W. Saltus. 20 p., 2 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0193. CALIFORNIA. Precision gravity network for monitoring the Lassen geothermal system, Northern California, by R. C. Jachens, and R. W. Saltus. 17 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0194. NEW MEXICO. Geochemical characteristics of the Church Rock 1 and 1 East uranium deposits, Grants uranium region, New Mexico, by N. S. Fishman, and R. L. Reynolds. 28 p. (NC, Da, M, U, Db, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0195-A. MICHIGAN, WISCONSIN. Airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin. 72 p., 46 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M.)
- OF 83-0195-B. MICHIGAN, WISCONSIN. Stacked profiles of data from an airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin. 5 p., 230 over-size sheets. (NC, Da, M.) Available only on microfiche.
- OF 83-0196. MONTANA. Analytical results and sample locality map for 340 rock, 322 stream-sediment and soil, and 263 panned-concentrate samples from the Sapphire Wilderness Study Area, Granite and Ravalli counties, Montana, by W. L. Campbell, R. T. Hopkins, G. K. Lee, and J. C. Antweiler. 76 p., 1 over-size sheet, scale 1:50,000 (1 inch = about 4,200 feet). (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 83-0197. ARIZONA. Spectrographic analyses of stream-sediment samples from the Mazatzal Wilderness Area and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona, by S. P. Marsh, M. S. Erickson, C. L. Forn, and C. M. McDougal. 38 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0198. Hewlett Packard 9845A computer program to invert complex resistivity data, by J. C. Washburne. 48 p. (NC, Da, M.)
- OF 83-0199. ALASKA. Occurrences of zinc minerals in Alaska, by E. H. Cobb. 18 p., 1 over-size sheet, scale 1:2,500,000 (1 inch = about 40 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.) (Supersedes Mineral Resources Map-67.)
- OF 83-0200. ALASKA. Geotechnical framework study of Shelikof Strait, Alaska, by M. A. Hampton. 123 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 83-0201. ARIZONA, NEW MEXICO. Floods of November 1978 to March 1979 in Arizona and west-central New Mexico, by B. N. Aldridge, and T. A. Hales. 170 p., 2 over-size sheets. (NC, Da, Db, M, Wb; USGS, WRD, Federal Bldg. 44, 301 West Congress St., Tucson, AZ 85701.)
- OF 83-0204. OREGON. Water-quality data for Smith and Bybee lakes, Portland, Oregon, June to November, 1982, by D. G. Clifton. 62 p. (NC, Da, M, S, SF, LA, Wb; USGS, WRD, 847 NE. 19th Ave., Suite 300, Portland, OR 97232; USGS, Public Inquiries Office, 345 Middlefield Rd., Menlo Park, CA 94025.)
- OF 83-0205. WASHINGTON. Data supplement to: Quality of coal mine drainage to Washington, 1975-77, by L. A. Fuste, F. A. Packard, M. O. Fretwell, and D. P. Garland. 66 p. (NC, M, S, SF, LA, Wb; USGS, WRD, 1201 Pacific Ave., Suite 600, Tacoma, WA 98402.)
- OF 83-0207. Summary of water withdrawals in the United States, 1950-1980, by W. B. Mann, IV, W. B. Solley, and E. B. Chase. 22 p. (NC, Da, Wb, M.)
- OF 83-0208. UTAH. Hydrology of the Price River basin, Utah, with emphasis on selected coal-field areas, by K. M. Waddell, J. E. Dodge, D. W. Darby, and S. M. Theobald. 176 p., 3 over-size sheets. (NC, Da, Db, M; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- OF 83-0211. NORTH CAROLINA. Drainage areas of selected sites on streams in North Carolina, by R. L. Meikle. 167 p. (NC, Da, Wb; USGS, WRD, Room 436, Century Postal Station, 300 Fayetteville St. Mall, Raleigh, NC 27602.)
- OF 83-0212. MINNESOTA. Streamflow and suspended-sediment transport in Garvin Brook, Winona County, southeastern Minnesota; hydrologic data for 1982, by G. A. Payne. 25 p. (NC, Da, Wb; USGS, WRD, 702 Post Office Bldg., St. Paul, MN 55101.)
- OF 83-0213. Floods of December 1982 and January 1983 in central and southern Mississippi River basin, by V. B. Sauer, and J. M. Fulford. 46 p., 1 over-size sheet. (NC, Da, M, Wb.)
- OF 83-0214. ARKANSAS. Discharge data at water-quality monitoring stations in Arkansas, 1981 water year, by R. K. Knott. 38 p. (NC, Da, T, Wb; USGS, WRD, 2301 Federal Office Bldg., 700 West Capitol Ave., Little Rock, AR 72201.)
- OF 83-0215. INDIANA. Water and streambed-material data, Eagle Creek watershed, Indiana, August 1980-December 1982, by D. J. Wangsness. 48 p. (NC, Da, M, Wb; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.)
- OF 83-0216. UTAH, COLORADO. Water resources and potential hydrologic effects of oil-shale development in the southeastern Uinta Basin, Utah and Colorado, by K. L. Lindskov, and B. A. Kimball. 100 p., 1 over-size sheet. (NC, Da, Db, M, U, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- OF 83-0217. OHIO. Drift-mine reclamation in Big Four Hollow near Lake Hope, Ohio; a preliminary data report, by V. E. Nichols. 120 p. (NC, Da, M, Wb; USGS, WRD, 975 West Third Ave., Columbus, OH 43212.)
- OF 83-0218. MINNESOTA, NORTH DAKOTA, SOUTH DAKOTA. Water-resources investigations of the U.S. Geological Survey in the Souris-Red rivers basin in Minnesota, North Dakota, and South Dakota, by J. E. Heisel. 106 p. (NC, Da, M, Wb.)
- OF 83-0219. NORTH DAKOTA. Ground-water data for selected coal areas in western North Dakota, by J. D. Wald, and S. W. Norbeck. 226 p., 9 over-size sheets. (NC, Da, M, Wb; USGS, WRD, 821 East Interstate Ave., Bismarck, ND 58501.)
- OF 83-0220. NORTH DAKOTA. Water-resources investigations in North Dakota; fiscal year 1983, by N. K. Lankford, and L. L. Albright. 55 p. (NC, Da, M, Wb; USGS, WRD, 821 East Interstate Ave., Bismarck, ND 58501.)
- OF 83-0222. KANSAS. Geohydrology and model analysis of the stream-aquifer system along the Arkansas River in Kearny and Finney counties, south-western Kansas, by L. E. Dunlap, R. J. Lindgren, and C. G. Sauer. 94 p. (NC, Da, Db, M, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- OF 83-0224. MISSISSIPPI. Estimated water use in Mississippi, 1980, by J. A. Callahan. 3 p., 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD, Suite 710, Federal Bldg., 100 West Capitol St., Jackson, MS 39269.)
- OF 83-0225. IDAHO. Hydrographs of water levels in observation wells in Idaho, 1971-82, by H. W. Young. 288 p. (NC, Da, M, Wb, SF, S; USGS, WRD, Room 365, Federal Bldg., Box 036, 550 West Fort St., Boise, ID 83724.)
- OF 83-0226. NEW YORK. Paleomagnetic study of diabasic dikes and miscellaneous granitic gneisses in St. Lawrence and Jefferson counties, New York, by K. G. Brooks, with foreword and footnotes by C. E. Brown. 21 p. (NC, Da, M.)
- OF 83-0227. WASHINGTON. Geochemical analyses of rock and stream-sediment samples from the Long Swamp Roadless Area, Okanogan County, Washington, by R. C. Evarts, J. G. Frisken, and K. R. Bishop. 13 p. (NC, Da, M, S, SF, LA, S; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0229. Oblique map of Rabaul, Papua New Guinea, by T. R. Alpha, S. A. Boore, and W. A. Austin. 1 over-size sheet. (NC, Da, M, SF, LA.)
- OF 83-0230. CALIFORNIA. Oblique map of Mono-Inyo Craters, California, by T. R. Alpha, R. A. Bailey, and J. M. Morley. 1 over-size sheet. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0231. CALIFORNIA. Generalized geologic map of the southern Sierra Nevada, California, showing the location of samples for which K-Ar radiometric age data and Rb/Sr data have been determined, compiled by D. C. Ross. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)

- OF 83-0232. ALASKA. Preliminary bibliography of geologic literature on the Killik River and Chandler Lake quadrangles, north-central Brooks Range, Alaska, by J. S. Kelley, and D. M. Peterson. 31 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0233. CALIFORNIA. Inversion results of time-domain electromagnetic soundings near Medicine Lake, California, geothermal area, by W. L. Anderson, F. C. Frischknecht, P. V. Raab, J. A. Bradley, J. Turnross, and T. W. Buckley. 31 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0234. WASHINGTON. Geochemical and statistical analysis of analytical results for stream sediments, panned concentrates from stream sediments, rocks, ores, and waters collected from the Indian Heaven Roadless Area, Skamania County, Washington, by S. E. Church, E. L. Mosier, P. E. Hammond, J. M. Motooka, J. G. Frisken, A. L. Gruzensky, W. H. Ficklin, D. J. Preston, and S. K. McDaniel. 62 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0236. IDAHO. Geochemical sample locality map for the White Cloud-Boulder Roadless Area, Custer County, Idaho, by F. S. Fisher, G. D. May, and D. H. McIntyre. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, S, SF, U; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0237. FFTFIL; a filtering program based on two-dimensional Fourier analysis of geophysical data, by T. G. Hildenbrand. 61 p. (NC, Da, M.)
- OF 83-0238. ARIZONA. Audio-magnetotelluric and telluric profile data near the Mohawk Mountains and the Table Top Mountains, southwestern Arizona, by D. P. Klein, and M. J. Baer. 23 p. (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0239. Chemical data and statistical interpretations for rocks and ores from the Ranger uranium mine, N. T., Australia, by J. T. Nash, and David Frishman. 139 p. (NC, Da, M.)
- OF 83-0240. Desktop computer processing of coincident and central loop time domain electromagnetic data, by Paul Raab, and F. C. Frischknecht. 43 p. (NC, Da, M.)
- OF 83-0241. Hypermag; an interactive, two-dimensional gravity and magnetic modeling program, by R. W. Saltus, and R. J. Blakely. 91 p. (NC, Da, M.)
- OF 83-0242. ARIZONA. Analytical and statistical results for stream sediment, panned concentrate, water, and rock samples collected from the Whetstone Roadless Area, Pima and Cochise counties, Arizona, by R. S. Werschky, D. E. Detra, A. L. Meier, and C. M. McDougal. 113 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0244. NEVADA. Principal facts and density estimates for borehole gravity stations in exploratory wells Ue7h, Ue4al, and Ue11a at the Nevada Test Site, Nye County, Nevada, by S. L. Robbins, and F. G. Clutson. 22 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0245. IDAHO. Analytical data on the Meade Peak Phosphatic Shale Member of the Phosphoria Formation in the central Wooley Range, southeastern Idaho, by R. D. Hovland. 31 p. (NC, Da, M, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0246. ALASKA. Chemical analyses of native soil and vegetation samples, Capps coal field, Alaska, by L. P. Gough, and R. C. Severson. 58 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0247. Map of potential geologic hazards on the north Aleutian Shelf (lease sale 92), Bering Sea, by B. F. Molnia, W. C. Schwab, and W. A. Austin. 4 p., 1 over-size sheet. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0248. Transformation of mapped data to grid systems with applications to earthquake data, by Bonny Askew. 42 p. (NC, Da, M.)
- OF 83-0249. SIROTEM II IEEE 488-1978 interface and controlling software, by Jerry Bradley, and Paul Raab. 17 p. (NC, Da, M.)
- OF 83-0250. Selected data for low-temperature (less than 90°C) geothermal systems in the United States; reference data for U.S. Geological Survey Circular 892, by M. J. Reed, R. H. Mariner, C. A. Brook, and M. L. Sorey. 132 p. (NC, Da, M.)
- OF 83-0251. MISSOURI. Water resources investigations of the U.S. Geological Survey in Missouri, fiscal year 1983, compiled by W. M. Kratzer. 55 p. (NC, Da, M, Wb; USGS, WRD, 1400 Independence Rd., Mail Stop 200, Rolla, MO 65401.)
- OF 83-0252. UTAH. Chemical and physical characteristics of water and sediment in Scofield Reservoir, Carbon County, Utah, by K. M. Waddell, D. W. Darby, and S. M. Theobald. 98 p., 2 over-size sheets. (NC, Da, Db, M, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- OF 83-0253. COLORADO. Water-level records for the northern High Plains of Colorado, 1979-83, by J. L. Blattner, and B. D. Rasmuson. 37 p. (NC, Da, Db, Wb; USGS, WRD, Room H-2103, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- OF 83-0254. WYOMING. Water-resources investigations of the U.S. Geological Survey in Wyoming, fiscal years 1981 and 1982, by S. L. Green. 122 p. (NC, Da, M, Wb; USGS, WRD, 2120 Capitol Ave., Room 4007, Cheyenne, WY 82003.)

- OF 83-0255. WASHINGTON. Relationships between water quality and phosphorus concentrations for lakes of the Puget Sound region, Washington, by R. J. Gilliom, and G. C. Bortleson. 29 p. (NC, Da, M, Wb.)
- OF 83-0256. ALASKA. Preliminary bathymetry of upper Icy Bay, Alaska, by Austin Post. 1 over-sized sheet. (NC, Da, M, LA, SF, S, Wb; USGS, WRD, 1201 Pacific Ave., Suite 850, Tacoma, WA 98402.)
- OF 83-0257. MISSISSIPPI. Background hydrologic information in potential lignite mining areas in Mississippi, July 1982, by S. J. Kalkhoff. 25 p. (NC, Da, Wb; USGS, WRD, 100 West Capitol St., Suite 710, Federal Bldg., Jackson, MS 39269.)
- OF 83-0258. ALASKA. Floods from small drainage basins in Alaska, by S. H. Jones. 64 p., 1 over-size sheet. (NC, Da, M, A, LA, SF, S, Wb; USGS, WRD, 1515 East 13th Ave., Anchorage, AK 99501.)
- OF 83-0260. MONTANA. Water-resources investigations of the U.S. Geological Survey in Montana, October 1982 through September 1983, by R. S. Roberts. 48 p. (NC, Da, M, Db, U, S, Wb; USGS, WRD, 428 Federal Bldg., 301 South Park, Helena, MT 59626; USGS, WRD, 2525 Fourth Ave., North, Billings, MT 59101.)
- OF 83-0261. MAINE. Cost-effectiveness of the stream-gaging program in Maine, by R. A. Fontaine, M. E. Moss, J. A. Smath, and W. O. Thomas, Jr. 86 p. (NC, Da, M, Wb; USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.)
- OF 83-0262. Directory of assistance centers of the National Water Data Exchange (NAWDEX), by B. M. Josefson, and C. D. Blackwell. 37 p. (NC, Da, M, Wb.)
- OF 83-0263. KANSAS. Statistical summaries of selected chemical constituents in Kansas ground-water supplies, by T. B. Spruill. 33 p. (NC, Da, M, Wb, Db, T, U; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044.)
- OF 83-0264. TEXAS. Hydrologic data for urban studies in the Houston, Texas, metropolitan area, 1980, by Fred Liscum, J. S. Hutchison, J. P. Bruchmiller, and L. S. Walther. 280 p. (NC, Da, T, Wb, M; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 83-0267. TENNESSEE. Cane Creek flood-flow characteristics at State Route 30 near Spencer, Tennessee, by C. R. Gamble. 15 p., 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203.)
- OF 83-0268. ARKANSAS. Ground-water levels in Arkansas, spring 1983, by Joe Edds. 54 p. (NC, Da, M, Wb; USGS, WRD, Room 2301, Federal Office Bldg., Little Rock, AR 72201.)
- OF 83-0270. NEW YORK. The U.S. Geological Survey's water resources program in New York, by D. A. Wiltshire. 15 p. (NC, Da, M, Wb; USGS, WRD, 343 U.S. Post Office and Courthouse, Albany, NY 12201.)
- OF 83-0271. UTAH, COLORADO. Ground water in the southeastern Uinta Basin, Utah and Colorado, by W. F. Holmes, and B. A. Kimball. 164 p., 1 over-size sheet. (NC, Da, Db, M, U, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- OF 83-0272. The weathering of brick; causes, assessment and measurement, by R. E. Hughes, and B. L. Bargh. 92 p. (NC, Da, M, A; Wb.)
- OF 83-0273. CALIFORNIA. Data for ground-water test hole near Nicolaus, Central Valley aquifer project, California, by J. J. French, R. W. Page, and G. L. Bertoldi. 64 p., 1 over-size sheet. (NC, M, Wb, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, Public Inquiries Office, 345 Middlefield Rd., Mail Stop 33, Menlo Park, CA 94025; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- OF 83-0275. MISSOURI. Suspended-sediment data in the Salt River basin, Missouri, by W. R. Berkas. 42 p. (NC, Da, Wb, M; USGS, WRD, 1400 Independence Rd., Mail Stop 200, Rolla, MO 65401.)
- OF 83-0276. AGRAM; a series of computer programs for processing digitized strong-motion accelerograms (version 1.0), compiled by April Converse. 147 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0278. ALASKA. Summaries of data on and lists of references to metallic and selected nonmetallic mineral deposits, in the Chandalar Quadrangle, Alaska, by E. H. Cobb, and E. L. Cruz. 92 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.) (Supersedes the part of Open-file report 76-340 pertaining to the Chandalar Quadrangle.)
- OF 83-0279. ALASKA. Engineering-geologic maps of northern Alaska, Lookout Ridge Quadrangle, by Warren Yeend. 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0280. Geologic assessment of the fossil energy potential of Bangladesh, by M. M. Ball, E. R. Landis, and P. R. Woodside. 65 p. (NC, Da, M.)
- OF 83-0281. OREGON. Geologic map of the Trout Creek Canyon Quadrangle, Harney County, Oregon, by J. J. Rytuba, S. A. Minor, W. K. Conrad, and D. B. Vander Meulen. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet.) (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 83-0282. OREGON. Geologic map of the Red Mountains Quadrangle, Harney County, Oregon, by J. J. Rytuba, S. A. Minor, R. J. Miller, and D. B. Vander Meulen. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet.) (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)

- OF 83-0283. OREGON. Geologic map of the Red Lookout Butte Quadrangle, Harney County, Oregon, by J. J. Rytuba, S. A. Minor, R. J. Miller, and D. B. Vander Meulen. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 83-0284. OREGON. Reconnaissance geologic map of the Whitehorse Ranch Quadrangle, Harney and Malheur counties, Oregon, by J. J. Rytuba, S. A. Minor, and D. B. Vander Meulen. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 83-0285. OREGON. Geologic map of the Pole Canyon Quadrangle, Harney County, Oregon, by J. J. Rytuba, S. A. Minor, and D. B. Vander Meulen. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 83-0286. NEVADA. A hydrogeochemical survey in east-central Nevada, by J. B. McHugh, W. R. Miller, and W. H. Ficklin. 30 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0287. Trace-element geochemistry of postorogenic granites from the northeastern Arabian Shield, Kingdom of Saudi Arabia, by J. S. Stuckless, R. J. Knight, G. VanTrump, Jr., and J. R. Budahn. 37 p. (NC, Da, M.)
- OF 83-0288. WYOMING, UTAH. Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah, by A. B. Gibbons, and D. D. Dickey. 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0289. NEVADA. Preliminary geologic map of the Peko Hills, Elko County, Nevada, by K. B. Ketner, and J. G. Evans. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0290. NEVADA. Preliminary geologic map of the northern Adobe Range, Elko County, Nevada, by K. B. Ketner, and R. J. Ross, Jr. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, SF, LA, U; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0291. Preliminary mineralogic, fluid inclusion, and stable isotope study of the Mahd adh Dhahab gold mine, Kingdom of Saudi Arabia, by R. O. Rye, W. E. Hall, C. G. Cunningham, G. K. Czamanske, A. M. Afifi, and J. S. Stacey. 26 p. (NC, Da, M.)
- OF 83-0292. ARIZONA. Residual aeromagnetic map of the Hat Mountain Quadrangle, Arizona, by D. P. Klein. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, Db, SF, LA, U; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0293. Hydrocarbon resource studies in the Southwest Pacific, 1982, by H. G. Greene, and F. L. Wong. 27 p. (NC, Da, M.)
- OF 83-0294. ALASKA. Engineering-geologic maps of northern Alaska, Meade River Quadrangle, by R. J. Williams. 32 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0295. Reconnaissance geology of the Al Ufayriyah Quadrangle, sheet 20/42 A, Kingdom of Saudi Arabia, by R. C. Greene. 21 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0296. Late Proterozoic island-arc complexes and tectonic belts in the southern part of the Arabian Shield, Kingdom of Saudi Arabia, by W. R. Greenwood, D. B. Stoeser, R. J. Fleck, and J. S. Stacey. 49 p. (NC, Da, M.)
- OF 83-0297. WASHINGTON, OREGON. Semiquantitative spectrographic analyses of stream-sediment samples from the Wenaha Tucannon Wilderness, Washington and Oregon, by D. A. Swanson, and T. L. Wright. 6 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 83-0298. Geophysical investigations of the Umm ar Rummf copper prospect, Al Qunfudhah Quadrangle, Kingdom of Saudi Arabia, by H. S. Sadek, and H. R. Blank. 37 p., 6 over-size sheets. (NC, Da, M.)
- OF 83-0299. Reconnaissance geochemical survey of Al Jurdhawiyah and Wadi al Jarir quadrangles, sheets 25/42 D and 25/42 C, Kingdom of Saudi Arabia, by R. M. Samater. 21 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0300-A. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, January 1983, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 23 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 83-0300-B. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, February 1983, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 23 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 83-0300-C. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 25 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 83-0300-D. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 26 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)

- OF 83-0300-E. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, May 1983, by J. B. Townshend, J. E. Papp, E. A. Sauter, L. Y. Torrence, and T. K. Cunningham. 24 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 83-0300-F. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, June 1983, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 23 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 83-0300-G. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, July 1983, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 21 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 83-0300-H. ALASKA. Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, August 1983, by J. B. Townshend, J. E. Papp, E. A. Sauter, T. K. Cunningham, and L. Y. Torrence. 23 p. (NC, Da, M, A; USGS, College Observatory, 800 Yukon Dr., Fairbanks, AK 99701.)
- OF 83-0301. NEVADA. Preliminary geologic map of the Spruce Mountain-4 Quadrangle, Elko County, Nevada, by G. D. Fraser, K. B. Ketner, and M. C. Smith. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0302. COLORADO. Self-potential surveys near several Denver Water Department dams, by D. V. Fitterman. 58 p. (NC, Da, M, Db, U.)
- OF 83-0303. NEVADA. Preliminary geologic map of the southern Snake Mountains, Elko County, Nevada, by J. F. Smith, Jr., G. X. Hernandez, K. B. Ketner, and M. C. Smith. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0310. Preliminary chart of stratigraphic nomenclature of Paleocene and Eocene lignite-bearing and associated strata of the Gulf Coast Plain-Mississippi Embayment, by B. S. Hackman, and C. R. Meissner, Jr. 1 over-size sheet. (NC, Da; Missouri Geol. Surv. Dept. Natural Resources, Div. Geol. and Land Surveys (P.O. Box 250), Rolla, MO 65401; Georgia Geol. Survey, Room 400, Dept. Natural Resources, 19 Martin Luther King Dr., SW., Atlanta, GA 30334.)
- OF 83-0311. CALIFORNIA. Chemical analyses of thermal and nonthermal springs in Lassen Volcanic National Park and vicinity, California, by J. M. Thompson. 27 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0312. CALIFORNIA. Holocene sedimentation in Richardson Bay, California, by C. L. Connor. 29 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0313. International minerals resource assessment project, by C. A. Hodges, D. P. Cox, and D. A. Singer. 25 p. (NC, Da, M.)
- OF 83-0315. KANSAS. Short-range vertical variation in organic carbon, carbonate carbon, total sulfur contents and Munsell color values in a core from the Upper Pennsylvanian Stark Shale Member of the Dennis Limestone, Wabaunsee County, Kansas, by M. R. Stanton, J. S. Leventhal, and J. R. Hatch. 10 p. (NC, Da, M, Db.)
- OF 83-0316. NEW MEXICO. Report of reprocessing of reflection seismic profile X-5 Waste Isolation Pilot Plant site, Eddy County, New Mexico, by J. J. Miller. 16 p. (NC, Da, M, Db, U, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0318. ALASKA. Ordovician-Silurian volcanogenic massive sulfide deposits on the southern Prince of Wales Island and the barrier islands, southeastern Alaska, by G. E. Gehrels, H. C. Berg, and J. B. Saleeby. 10 p., 1 over-size sheet. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0319. Operator's manual for a four-film computer-based, sonic digitizing table to locate earthquakes, by M. C. Astrue, J. R. Pelton, W. H. Lee, and R. A. Page. 43 p. (NC, Da, M.)
- OF 83-0320. Fourier cosine and sine transforms using lagged convolutions in double-precision (subprograms DLAGF0/DLAGF1), by W. L. Anderson. 38 p. (NC, Da, M.)
- OF 83-0321. NEVADA. Commercial geophysical well logs from the USW G-1 drill hole, Nevada Test Site, Nevada, by D. C. Muller, and J. E. Kibler. 11 p., 2 over-size sheets. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0322. Preliminary results of geophysical and geological studies of the Bering Sea shelf during 1982, by A. K. Cooper, and M. S. Marlow. 8 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0323. WYOMING. Assessment of uranium favorability for the crystalline rocks of the Wind River Range, Wyoming, by J. S. Stuckless, and G. VanTrump, Jr. 19 p. (NC, Da, M, Db, U; Wyoming Geol. Surv. Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 83-0324. Geochemistry and economic potential of massive sulfide deposits from the eastern Pacific Ocean, by J. L. Bischoff, R. J. Rosenbauer, P. J. Aruscavage, P. A. Baedecker, and J. G. Crock. 35 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)

- OF 83-0325. A description of dredge samples collected in 1982 from the Bering Sea continental margin west of Navarin Basin, by M. S. Marlow, T. L. Vallier, A. K. Cooper, J. A. Barron, and F. H. Wingate. 5 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0326. HAWAII. Drilling report and core logs for the 1981 drilling of Kilauea Iki lava lake (Kilauea Volcano, Hawaii), with comparative notes on earlier (1967-1979) drilling experiences, by R. T. Helz, and T. L. Wright. 68 p. (NC, Da, M, SF, LA; USGS, Hawaiian Volcano Observatory, Hawaii National Park, HI 96718.)
- OF 83-0329. IDAHO. Geologic map of part of the Sunbeam Mine area, Custer County, Idaho, by D. H. McIntyre, and K. M. Johnson. 1 over-size sheet, scale 1:1,200 (1 inch = 100 feet). (NC, Da, M, S, SF, LA; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0330. Biogeochemical sampling in the Mahd adh Dhab district, Kingdom of Saudi Arabia, by R. J. Ebens, H. T. Shacklette, and R. G. Worl. 18 p., 1 over-size sheet. (NC, Da, M.)
- OF 83-0331. Reconnaissance geology of the Ghazzalah Quadrangle, sheet 26/41 A, Kingdom of Saudi Arabia, by J. E. Quick. 48 p., 3 over-size sheets, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0332. Reconnaissance geologic map of the Harrat Tuffil Quadrangle, sheet 20/39 B, Kingdom of Saudi Arabia, by J. S. Pallister. 3 over-size sheets, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0333. Reconnaissance geology of the Jabal Dalfa Quadrangle, sheet 21/43 C, Kingdom of Saudi Arabia, by R. C. Greene. 68 p., 2 over-size sheets, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0335. ALABAMA. Analyses of geochemical samples and descriptions of rock samples, Adams Gap and Shinbone Creek Roadless Areas, Clay County, Alabama, by M. S. Erickson, J. T. Hanley, D. L. Kelley, and L. J. Sherlock. 23 p. (NC, Da, M; Geol. Survey of Alabama (P.O. Drawer O), University, AL 35486.)
- OF 83-0336. ALASKA. Reconnaissance geologic map of the Chugach Mountains in the Anchorage C-5 and C-6 quadrangles, Alaska, by S. H. Clark. 1 over-size sheet, scale 1:63,360 (1 inch = 1 mile). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0337. NEVADA. The mineralogy of the Snake Creek-Williams Canyon pluton, southern Snake Range, Nevada, by D. E. Lee, and E. H. Christiansen. 24 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0338. IDAHO. Oxygen and strontium isotopic studies of basaltic lavas from the Snake River plain, Idaho, by W. P. Leeman, and J. F. Whelan. 35 p. (NC, Da, M, S, U; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0339. ARIZONA. Analytical results for 178 stream-sediment, 98 heavy-mineral-concentrate, 27 rock, and 11 water samples from the Rattlesnake and Wet Beaver Roadless Areas, Coconino and Yavapai counties, Arizona, by W. J. Gerstel, G. W. Day, and S. K. McDaniel. 159 p., 2 over-size sheets. (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0340. NEW MEXICO. Audio-magnetotelluric data log and station-location map for the Latir Peak Wilderness and Columbine-Hondo Roadless Area, New Mexico, by C. L. Long, R. M. Senterfit, C. Tippens, and S. Hay. 51 p. (NC, Da, M, U, Db, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0342. WASHINGTON. Analytical results and statistical analyses of rocks, ores, and stream pebbles from the Eagle Rock and Glacier Peak Roadless Areas, Snohomish and King counties, Washington, by S. E. Church, E. L. Mosier, R. W. Tabor, W. R. Willison, and C. M. McDougal. 86 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0343. WASHINGTON. Contour maps, statistical summaries, and analytical data for stream-sediment samples collected from the Glacier Peak Study Area and analyzed using an aquaregia leach/inductively coupled plasma method, by S. E. Church, J. M. Motooka, R. S. Werschky, R. C. Bigelow, and George VanTrump, Jr. 119 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0345. MAGPOLY; a modification of a three-dimensional magnetic modeling program, by R. H. Godson. 64 p. (NC, Da, M.)
- OF 83-0346. GRAVPOLY; a modification of a three-dimensional gravity modelling program, by R. H. Godson. 55 p. (NC, Da, M.)
- OF 83-0351. Intra-lamina grain size distributions; 1, Heavy and light minerals from subaerial and subaqueous grain flow deposits, by A. H. Sallenger, Jr., H. A. Gibson, and J. H. List. 42 p. (NC, Da, M.)
- OF 83-0352. A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping, by Hel-muth Wedow, Jr. 84 p. (NC, Da, M.)
- OF 83-0353. Summary of environmental geologic studies in the Mid-Atlantic outer continental shelf area; results of 1978-1979 field seasons, by J. M. Robb. 40 p. (NC, Da, M.)
- OF 83-0354. ALASKA. Map showing coastal morphology of the northern Bering Sea coast of Alaska, by A. H. Sallenger, Jr., and R. E. Hunter. 5 p., 1 over-size sheet, scale 1:400,000 (1 inch = about 6.4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 83-0355. NEVADA, UTAH. Preliminary report on the occurrence of *Angustidontus* in Nevada and Utah, by J. M. Berdan. 9 p. (NC, Da, M, Db, U; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0356. Geologic assessment of the fossil energy and geothermal potential of the Sudan, by L. W. Setlow. 60 p. (NC, Da, M.)
- OF 83-0357. WASHINGTON. Generalized geologic map of the Goat Rocks Wilderness and Roadless Areas (6036, Parts A, C, and D), Lewis and Yakima counties, Washington, by D. A. Swanson, and G. A. Clayton. 10 p., 1 over-size sheets, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0358. Seismic energy release and hazard estimation in the Basin and Range Province, by S. T. Algermissen, B. L. Askew, P. C. Thenhaus, D. M. Perkins, S. Hanson, and B. L. Bender. 17 p., 10 over-size sheets. (NC, Da, M, SF, LA, S, U, T, Db; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Idaho Bur. Mines and Geol., Moscow, ID 83843; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 83-0359. UTAH. Regional magnetic and gravity features of the Gibson Dome area and surrounding region, Paradox Basin, Utah; a preliminary report, by T. G. Hildenbrand, and R. P. Kucks. 35 p., 3 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0362. WYOMING, COLORADO. Section A-A', subsurface correlations of some Upper Cretaceous and Tertiary rocks from the Cherokee Ridge, Wyoming, to the southeast flank of the Sand Wash Basin, Colorado, by J. W. Bader. 2 over-size sheets. (NC, Da, M, U, Db, Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 83-0363. UTAH. Chemical analysis of coal from the Blackhawk Formation, Wasatch Plateau coalfield, Sevier County, Utah, by J. D. Sanchez. 16 p. (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0364. COLORADO. Analytical data from host rocks and ores, Schwartzwalder uranium deposit, Front Range, Colorado, by A. R. Wallace. 21 p. (NC, Da, M, U, Db.)
- OF 83-0365. WASHINGTON. Evidence of tectonic stability along the middle Columbia River, Washington, in Quaternary time, by W. H. Hays, and R. L. Schuster. 10 p., 1 over-size sheet, scale 1:100,000 (1 inch = 1.6 miles). (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0366. WASHINGTON. Contour maps of analytical results for stream sediments and panned concentrates from stream sediments, and plots of the mineralogy of the nonmagnetics, heavy-mineral concentrates from stream sediments from the Glacier Peak Wilderness Study Area, Washington, by S. E. Church, E. L. Mosier, and J. G. Frisken. 40 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0367. Ground-followup studies of the 1977 airborne electromagnetic survey in the Assifar and Mulhal areas, Wadi Bidah district, Kingdom of Saudi Arabia, by V. J. Flanigan, and Hamdy Sadek. 48 p., 3 over-size sheets. (NC, Da, M.)
- OF 83-0368. The mineral resource potential of the Wadi Al Jarir and Al Jurdhawiyah quadrangles, sheets 25/42 C and 25/42 D, Kingdom of Saudi Arabia, by M. D. Fenton. 25 p., 1 over-size sheet. (NC, Da, M.)
- OF 83-0369. Geochemical evaluation of felsic plutonic rocks in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia, by E. A. du Bray, J. E. Elliott, and D. B. Stoesser. 57 p., 3 over-size sheets. (NC, Da, M.)
- OF 83-0370. Mineral potential of selected felsic plutons in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia, by E. A. du Bray. 60 p. (NC, Da, M.)
- OF 83-0371. Geologic interpretation of geophysical data for the Wadi al Jarir and Al Jurdhawiyah quadrangles, sheets 25/42 C and D, Kingdom of Saudi Arabia, by M. D. Kleinkopf, and J. C. Cole. 32 p., 3 over-size sheets. (NC, Da, M.)
- OF 83-0372. The mineral resource potential of the Harrat Nawasif, sheet 21/42 C, Ranyah, sheet 21/42 D, and Jabal Dalfa, sheet 21/43 C quadrangles, Kingdom of Saudi Arabia, by M. D. Fenton. 24 p., 2 over-size sheets. (NC, Da, M.)
- OF 83-0373. OREGON, CALIFORNIA. Geologic map of the outcrop area of the Hornbrook Formation, Oregon and California, by T. H. Nilsen, G. M. Barats, M. A. Elliott, and D. L. Jones. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA, S; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201.)
- OF 83-0374. WASHINGTON, OREGON. Mineral resource potential of the Wenaha Tucannon Wilderness, Washington and Oregon, by D. A. Swanson, T. L. Wright, and S. R. Munts. 10 p. (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0375. OREGON. Mineral resource potential of the Deschutes Canyon Roadless Area, Jefferson and Deschutes counties, Oregon, by G. W. Walker, and R. A. Winters. 12 p. (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)

- OF 83-0376. Cruise results L7-80-BS, northern Bering Sea; geophysical investigations, by G. R. Hess, D. S. Klingman, and J. A. Blank. 4 p., 2 over-size sheets. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0377. NEVADA. Geologic and geophysical investigations of Climax Stock intrusive, Nevada. 92 p., 3 over-size sheets. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- A. NEVADA. Geologic investigations, by P. P. Orkild, D. R. Townsend, and M. J. Baldwin. p. 1-24
- B. NEVADA. Gravity investigations, by D. L. Healey. p. 25-38
- C. NEVADA. Magnetic investigations, by G. D. Bath, C. E. Jahren, J. G. Rosenbaum, and M. J. Baldwin. p. 40-75
- D. NEVADA. Summary of geologic and geophysical investigations, by P. P. Orkild. p. 79-82
- OF 83-0378. COLORADO. Chemical and mineral composition data on oil shale and retorted oil-shale wastes from Rulison, Colorado, by M. L. Tuttle, D. J. Ackerman, W. E. Dean, P. H. Briggs, and A. J. Bartel. 32 p. (NC, Da, M, U, Db.)
- OF 83-0382. A bibliography of stockwork molybdenite deposits and related topics (with an emphasis on the North American literature), by C. H. Steigerwald, F. E. Mutschler, and Steve Ludington. 112 p. (NC, Da, M.)
- OF 83-0383. A preliminary evaluation of stream sediment sampling for the detection of cobalt mineralization in the Bou Azzer District, Morocco, by M. P. Foose. 22 p. (NC, Da, M.)
- OF 83-0384. CALIFORNIA. Pollen counts for core CL-80-1, Clear Lake, Lake County, California, by L. E. Heusser, and J. D. Sims. 29 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0387. MISSOURI. Slides showing quantitative models for mineral-resource assessment of the Rolla 1° by 2° Quadrangle, Missouri, by Kim-Marie Walker, S. K. Jenson, J. R. Francica, D. A. Hastings, C. M. Trautwein, and W. P. Pratt. 3 p., 19 35-mm color slides. (NC, Da, M; Missouri Dept. Natural Resources, Div. Geol. and Land Survey (P.O. Box 250), Rolla, MO 65401.) Available only as paper copy with 19 35-mm color slides.
- OF 83-0388. The mineral resource potential of the Thaniyah and Al Ufayriyah quadrangles, sheets 20/42 C and 20/42 A, Kingdom of Saudi Arabia, by M. D. Fenton. 21 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0389. Peralkaline and peraluminous granites and related mineral deposits of the Arabian Shield, Kingdom of Saudi Arabia, by J. E. Elliott. 39 p. (NC, Da, M.)
- OF 83-0390. Saudi Arabian seismic deep-refraction profiles; final project report, by J. H. Healy, W. D. Mooney, H. R. Blank, M. E. Gettings, W. M. Kohler, R. J. Lamson, and L. E. Leone. 434 p., 9 over-size sheets. (NC, Da, M.)
- OF 83-0391. COLORADO. Geochemical analyses of rock, stream-sediment, and heavy-mineral concentrate samples collected from the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado, by K. E. Budding, and V. A. Lawrence. 26 p. (NC, Da, M, U, Db.)
- OF 83-0392. WASHINGTON. Map showing the status of mineral resource potential evaluation of wilderness and roadless areas, Washington, compiled by W. A. Lawson, and R. C. Evarts. 1 over-size sheet. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0393. NEVADA. Preliminary geologic map of the Kyle Hot Springs 7.5-minute quadrangle, Pershing County, Nevada, by D. H. Whitebread, and M. L. Sorensen. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0394. ALASKA. Measurements of debris-line elevations and beach profiles following a major storm; northern Bering Sea coast of Alaska, by A. H. Sallenger, Jr. 12 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0395. Preliminary geologic map of Furnas Volcano, Sao Miguel, Azores, by R. B. Moore. 1 over-size sheet, scale 1:15,000 (1 inch = about 1,275 feet). (NC, Da, M.)
- OF 83-0397. OREGON, IDAHO. Mineral resource potential of the Hells Canyon Wilderness and contiguous roadless areas, Wallowa County, Oregon, and Idaho, Nez Perce, and Adams counties, Idaho, by G. C. Simmons, and J. L. Gualtieri, U.S. Geological Survey, and T. J. Close, F. E. Federspiel, A. M. Leszykowski, and P. C. Hyndman, U.S. Bureau of Mines. 22 p. (NC, Da, M, S, SF, LA, U; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.)
- OF 83-0398. WASHINGTON. Northeast-trending subcrustal fault transects western Washington, by K. F. Fox, Jr. 14 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0399. NEVADA. Sourcebook of locations of geophysical surveys in tunnels and horizontal holes including results of seismic refraction surveys, Rainier Mesa, Aqueduct Mesa, and Area 16, Nevada Test Site, by R. D. Carroll, and J. E. Kibler. 84 p., 12 over-size sheets. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0400. The Volcano Hazards Program; objectives and long-range plans, by R. A. Bailey, P. R. Beauchemin, F. P. Kapinos, and D. W. Klick. 35 p. (NC, Da, M.)
- OF 83-0401. NEVADA. Preliminary assessment of in-situ geomechanical characteristics in drill hole USW G-1, Yucca Mountain, Nevada, by W. L. Ellis, and H. S. Swolfs. 20 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)

- OF 83-0402. Procedures for petroleum resource assessment used by the U.S. Geological Survey; statistical and probabilistic methodology, by R. A. Crovelli. 24 p. (NC, Da, M.)
- OF 83-0403. CALIFORNIA. Geochemical data for samples of rock, stream sediment, and nonmagnetic dense-mineral concentrate in the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California, by J. L. Donahoe, M. A. Chaffee, D. L. Fey, R. H. Hill, and S. J. Sutley. 152 p., 1 over-size sheet. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0404. ALASKA. Geotechnical framework study of the northern Bering Sea, Alaska, by M. A. Hampton, and W. J. Winters. 384 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0405. COLORADO. Major, minor, and trace elements in samples from the Wheeler Wilderness Study Area, Colorado, as determined by inductively coupled argon plasma-atomic emission spectrometry, by J. G. Crock, W. H. Raymond, and F. E. Lichte. 26 p. (NC, Da, M, U, Db.)
- OF 83-0406. NEVADA. Hydraulic-fracturing measurements in two boreholes near the Spent Fuel Test-Climax, Climax Stock, Nevada Test Site, by W. L. Ellis. 17 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0407. NEW MEXICO. Analytical and statistical results for samples collected from the Sandia Mountain Wilderness, Bernalillo and Sandoval counties, New Mexico, by D. E. Hendzel, B. M. Adrian, and A. L. Gruzensky. 100 p., 1 over-size sheet, scale 1:50,000 (1 inch = about 4,200 feet). (NC, Da, M, Db, U, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0408. CALIFORNIA. Mineral resource potential of the Thousand Lakes Wilderness, Shasta County, California, by A. B. Till, E. L. McHugh, and C. M. Ramsey. 14 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0409. OREGON. Mineral resource potential of the Homestead, Lake Fork, and Lick Creek Roadless Areas, Baker and Wallowa counties, Oregon, by J. G. Evans, USGS, and M. D. Conyac, P. C. Hyndman, and R. T. Mayerle, USBM. 8 p. (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201.)
- OF 83-0410. Computer-generated mineral commodity deposit maps, by P. G. Schruben, and J. T. Hanley. 22 p. (NC, Da, M.)
- OF 83-0411. WYOMING. Geophysical logs of water wells logged for coal occurrences in northern Campbell and eastern Sheridan counties, Wyoming, by J. D. Cathcart, R. N. Babcock, and R. G. Hobbs. 119 p. (NC, Da, M, Db, U; Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 83-0412. IDAHO. Schlumberger soundings on the Snake River plain near Nampa, Idaho, by R. J. Bisdorf. 57 p. (NC, Da, M, U, S; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0413. MAINE. Environmental classification of the peat deposits in the wetlands of Maine, by C. C. Cameron. 15 p. (NC, Da; Maine Geol. Survey, Dep. Conservation, State House, Station 22, Augusta, ME 04333.)
- OF 83-0414. MONTANA. Map showing geology and mineral deposits of the southeast part of the Alder Gulch Quadrangle, Granite County, Montana, by M. J. Blaskowski, J. S. Loen, and J. E. Elliott. 1 over-size sheet, scale 1:10,000 (1 inch = about 850 feet). (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 83-0415. CALIFORNIA. Chemical analysis of rock, minus-80-mesh stream-sediment, and magnetic and nonmagnetic fractions of heavy-mineral concentrate samples of the Turtle Mountain Wilderness Study Area, (CDCA-307), San Bernardino County, California, by D. E. Detra, A. L. Meier, and E. F. Cooley. 51 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, SF, LA, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0417. COLORADO. Alteration and vein mineralization, Schwartzwalder uranium deposit, Front Range, Colorado, by A. R. Wallace. 186 p. (NC, Da, M, Db, U.)
- OF 83-0418. WYOMING. Section C-C; surface and subsurface correlations of some Upper Cretaceous and Tertiary rocks from the northeast flank of Rock Springs Uplift to the Rawlins Uplift, Great Divide Basin, Wyoming, by Hildie Bucurel-White. 2 over-size sheets. (NC, Da, M, Db, U; Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 83-0420-A. ALASKA. A listing and statistical summary of analytical results for pebbles, stream sediments, and heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 281 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-B. ALASKA. Distribution and abundance of copper, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 83-0420-C. ALASKA. Distribution and abundance of copper, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-D. ALASKA. Distribution and abundance of lead, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-E. ALASKA. Distribution and abundance of lead, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-F. ALASKA. Distribution and abundance of zinc, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-G. ALASKA. Distribution and abundance of zinc, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-H. ALASKA. Distribution and abundance of barium, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-I. ALASKA. Distribution and abundance of barium, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-J. ALASKA. Distribution and abundance of determinable silver by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments and in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-K. ALASKA. Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-L. ALASKA. Distribution and abundance of tin determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-M. ALASKA. Distribution and abundance of cadmium determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDanal. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)

- OF 83-0420-N. ALASKA. Distribution and abundance of molybdenum, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-O. ALASKA. Distribution and abundance of molybdenum, determined by spectrographic analysis, in non-magnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-P. ALASKA. Distribution and abundance of nickel, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-Q. ALASKA. Distribution and abundance of nickel, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-R. ALASKA. Distribution and abundance of cobalt, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-S. ALASKA. Distribution and abundance of cobalt, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-T. ALASKA. Distribution and abundance of chromium, as determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-U. ALASKA. Distribution and abundance of chromium, determined by spectrographic analysis, in the non-magnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-V. ALASKA. Distribution and abundance of tungsten, determined from colorimetric and spectrographic analysis, in the minus-80-mesh fraction of stream sediment, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0420-W. ALASKA. Distribution and abundance of tungsten, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska, by J. B. Cathrall, G. W. Day, J. D. Hoffman, and S. K. McDaniel. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0421. ARIZONA, CALIFORNIA. Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California, by G. L. Raines. 8 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA, U; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)

- OF 83-0423. U.S. Geological Survey-Ingeominas mineral resource assessment of Colombia; ore deposit models, edited by D. P. Cox. 74 p. (NC, Da, M.)
- OF 83-0424. The MIRA (mineral resource analysis) system user's manual, by J. T. Haney, and P. G. Schruben. 51 p. (NC, Da, M.)
- OF 83-0425. FLORIDA. Shallow structure and stratigraphy of the carbonate West Florida continental slope and their implications to sedimentation and geohazards, by L. J. Doyle. 21 p. (NC, Da, M.)
- OF 83-0426. ALASKA. Alaska; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 118 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0427. ARIZONA. Arizona; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 206 p. (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0428-A. CALIFORNIA. California; basic data for thermal springs and wells as recorded in Geotherm; Part A, by J. D. Bliss. 109 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0428-B. CALIFORNIA. California; basic data for thermal springs and wells as recorded in Geotherm; Part B, by J. D. Bliss. 860 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.) Available only on microfiche.
- OF 83-0429. COLORADO. Colorado; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 176 p. (NC, Da, M, Db, U.)
- OF 83-0430. HAWAII. Hawaii; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 24 p. (NC, Da, M, SF, LA.)
- OF 83-0431-A. IDAHO. Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part A, by J. D. Bliss. 64 p. (NC, Da, M, U, SF, S; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.)
- OF 83-0431-B. IDAHO. Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part B, by J. D. Bliss. 509 p. (NC, Da, M, U, SF, S; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.) Available only on microfiche.
- OF 83-0432. MONTANA. Montana; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 166 p. (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 83-0433-A. NEVADA. Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part A, by J. D. Bliss. 102 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0433-B. NEVADA. Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part B, by J. D. Bliss. 712 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.) Available only microfiche.
- OF 83-0434. NEW MEXICO. New Mexico; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 175 p. (NC, Da, M, Db, U, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0435. OREGON. Oregon; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 247 p. (NC, Da, M, SF, LA, S; USGS, WRD, 830 NE. Holladay St., Portland, OR 97208; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201.)
- OF 83-0436. TEXAS. Texas; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 437 p. (NC, Da, M, T.)
- OF 83-0437. UTAH. Utah; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 385 p. (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0438. WASHINGTON. Washington State; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 50 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0439. WYOMING. Wyoming; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 216 p. (NC, Da, M, Db, U; Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station, Laramie, WY 82071.)
- OF 83-0440. Central and Eastern United States; basic data for thermal springs and wells as recorded in Geotherm, by J. D. Bliss. 87 p. (NC, Da, M, Db, T; Georgia Geol. Survey, Room 400, Dept. Natural Resources, 19 Martin Luther King Dr., SW., Atlanta, GA 30334; Library, South Dakota School Mines and Tech., Rapid City, SD 57701.)
- OF 83-0441. Preliminary report on audio-magnetotelluric survey on Sao Miguel Island, Azores, Portugal, by Donald Hoover, Roberto Amaral, and Michael Broker. 111 p., 8 over-size sheets, scale 1:50,000 (1 inch = about 4,200 feet) (NC, Da, M.)
- OF 83-0442. ARIZONA. Arsenic and gold mineralization in the McFarland Canyon-Story Mine area, Maricopa County, Arizona, by S. P. Marsh. 24 p., 1 over-size sheet, scale 1:6,000 (1 inch = 500 feet). (NC, Da, M, Db, SF, LA, U; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0443. COLORADO, NEW MEXICO, ARIZONA. Slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona, by D. P. Klein. 10 p., five 35-mm color slides. (NC, Da, M, U, SF, LA, Db, T; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.) Available only as paper copy with five 35-mm color slides.

- OF 83-0444. UTAH. Analytical results of a geochemical survey utilizing heavy-mineral fractions and the less-than-180 micrometer fraction of stream sediments, Tushar Mountains and adjoining areas, Marysvale volcanic field, Utah, by W. R. Miller, and J. M. Motooka. 108 p. (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0445. TENNESSEE. Mineral resource potential of the Unaka Mountain RARE II area, Unicoi County, Tennessee, by W. R. Griffiths, USGS, and M. L. Chatman, USBM. 7 p. (NC, Da, M.)
- OF 83-0446. VIRGINIA, WEST VIRGINIA. Geologic map of the Amonate Quadrangle, Virginia-West Virginia, by J. F. Windolph, Jr. 11 p., 2 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC.)
- OF 83-0447. Reconnaissance geology of the Jabal Saq Quadrangle, sheet 26/43 C, Kingdom of Saudi Arabia, by E. A. du Bray. 22 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0448. Reconnaissance geology of the Thaniyah Quadrangle, sheet 20/42 C, Kingdom of Saudi Arabia, by R. C. Greene. 25 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0449. Selected physical properties of rocks from the Baid al Jimalah West tungsten deposit, Kingdom of Saudi Arabia, and recommendations for geophysical surveys, by M. E. Gettings. 17 p. (NC, Da, M.)
- OF 83-0450. A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits, by D. O. Hayba. 26 p. (NC, Da, M.)
- OF 83-0451. Upper Cretaceous (Maestrichtian) Mollusca from the *Haustator bilira* assemblage zone in the East Gulf Coastal Plain, by N. F. Sohl, and C. F. Koch. 238 p. (NC, Da, M; Georgia Geol. Survey, Room 400, Dept. Natural Resources, 19 Martin Luther King Dr., SW., Atlanta, GA 30334.)
- OF 83-0453. Paleocene pycnodont fishes from Jabal Umm Himm, Harrat Hadan area, Kingdom of Saudi Arabia, by G. T. Madden. 28 p. (NC, Da, M.)
- OF 83-0454. WASHINGTON. Map of bedrock geologic data sites, Glacier Peak Wilderness Study, Chelan, Skagit, and Snohomish counties, Washington, by A. B. Ford. 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0455. UTAH. Temperature profiles from Salt Valley, Utah, thermal conductivity of 10 samples from drill hole DOE 3, and preliminary estimates of heat flow, by J. H. Sass, A. H. Lachenbruch, and E. P. Smith. 21 p. (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0456. WASHINGTON. Guidebook for 1983 Friends of the Pleistocene field trip to the Sanpoil River valley, northeastern Washington, by B. F. Atwater. 22 p. (NC, Da, M, U, SF, S; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0457. ALASKA. Engineering-geologic maps of northern Alaska, Wainwright Quadrangle, by J. R. Williams. 30 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0458. NEVADA. Zeolites in Tertiary tuffs along the Little Humboldt River, Humboldt and Elko counties, Nevada, by R. A. Sheppard, and A. J. Gude, III. 12 p. (NC, Da, M, Db, U, LA, SF; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0459. UTAH. Sedimentology of the lower part of the Upper Triassic Chinle Formation and its relationship to uranium deposits, White Canyon area, southeastern Utah, by R. F. Dubiel. 51 p. (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0460. MASSACHUSETTS, NEW HAMPSHIRE. Preliminary interpretation of marine sparker reflection profiles offshore from Cape Ann, Massachusetts, to Hampton, New Hampshire, by W. A. Bothner, R. W. Simpson, Diane Eskenasy, A. F. Shride, R. F. Oldale, and T. B. Gage. 29 p., 2 over-size sheets, scale 1:125,000 (1 inch = about 2 miles). (NC, Da, M.)
- OF 83-0462. CALIFORNIA. Station arrival data for a quarry blast on Santa Catalina Island, California, by D. D. Given, and C. L. Koesterer. 13 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0463. CALIFORNIA. Description and history of mercury-tube tiltmeters used in the San Francisco Bay area, California, by A. C. Jones. 16 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0464. Photogeology and evolution of the Juan de Fuca Ridge, by G. S. Lichtman, W. R. Normark, J. R. Delaney, J. L. Morton, H. P. Johnson, and J. L. Karsten. 15 p., 1 over-size sheet. (NC, Da, M.)
- OF 83-0465. CALIFORNIA. Hornblende-rich, high grade metamorphic terranes in the southernmost Sierra Nevada, California, and implications for crustal depths and batholith roots, by D. C. Ross. 56 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0467. WASHINGTON. Mineral resource potential of the Indian Heaven Roadless Area, Skamania County, Washington, by S. E. Church, P. E. Hammond, and D. J. Barnes. 11 p. (NC, Da, M, S, SF, LA; USGS, Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0471. WASHINGTON. Mineral resource potential of the Tatoosh Roadless Area, Lewis County, Washington, by R. C. Evarts, S. E. Church, and E. L. Mosier. 17 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0473. COLORADO. Mineral resource potential of the Greenhorn Mountain Wilderness Study Area, Huerfano and Pueblo counties, Colorado, by M. I. Toth, D. R. Birch, USGS, and G. D. Baskin, USBM. 12 p. (NC, Da, M, Db, U.)

- OF 83-0475. Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient; summary of results, by J. Byerlee, C. Morrow, and D. Moore. 26 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0476. UTAH. Thermal data from well GD-1, Gibson Dome, Paradox Valley, Utah, by J. H. Sass, A. H. Lachenbruch, and E. P. Smith. 15 p. (NC, Da, M, U, Db; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0477. IDAHO. Reconnaissance drilling during 1980 in the Goose Creek coal field, Cassia County, Idaho, by R. T. Hildebrand. 28 p. (NC, Da, M, S, SF, LA; Idaho Bur. Mines and Geol. Univ. Idaho Campus, Moscow, ID 83843.)
- OF 83-0478. NEVADA, NEW MEXICO. Bibliography of reports by U.S. Geological Survey personnel on studies of underground nuclear test sites and on waste management studies at the Nevada Test Site and the Waste Isolation Pilot Plant site, New Mexico, January 1 to December 31, 1981, by V. M. Glanzman. 13 p. (NC, Da, M, Db, U, T, USGS, Seventh Floor, 505 Marquette, NW. (P.O. Box 26659), Albuquerque, NM 87125; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0479. ALASKA. Geologic materials and hydrogeologic characteristics in the Fire Lakes-Eklutna area, Anchorage, Alaska, by H. R. Schmoll, and R. P. Emanuel. 1 over-size sheet, scale 1:25,000 (1 inch = about 2,100 feet). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0480. Evaluation of ash-flow tuffs as hosts for radioactive waste; criteria based on selective leaching of manganese oxides, by R. A. Zielinski. 24 p. (NC, Da, M.)
- OF 83-0485. Basic program "IPFLTR" for induced polarization data reduction and filtering, by H. S. Sadek. 35 p. (NC, Da, M.)
- OF 83-0486. Preliminary assessment of the geochemistry and mineral favorability of the postorogenic granites of the southeastern Arabian Shield, Kingdom of Saudi Arabia, by J. S. Stuckless, G. VanTrump, Jr., E. H. Christiansen, C. A. Bush, C. M. Bunker, and A. J. Bartel. 44 p. (NC, Da, M.)
- OF 83-0487. Summary of Tertiary investigations in western Saudi Arabia, current work by the U.S. Geological Survey and recommended future studies, by D. G. Hadley, D. L. Schmidt, and R. G. Coleman. 89 p. (NC, Da, M.)
- OF 83-0488. *Mastritherium* (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin, by G. T. Madden, D. L. Schmidt, and F. C. Whitmore, Jr. 26 p. (NC, Da, M.)
- OF 83-0490. The international phosphate resource data base; development and maintenance, by N. J. Bridges. 98 p. (NC, Da, M.)
- OF 83-0491. A microcomputer-based data acquisition and control system for the direct shear, ring shear, triaxial shear, and consolidation tests, by P. S. Powers. 88 p. (NC, Da, M.)
- OF 83-0492. Modifications of the IBM personal computer synchronous communications support programs for use with the Multics, by J. O. Kork. 26 p. (NC, Da, M.)
- OF 83-0493. ALASKA. A summary of U.S. Geological Survey marine geological data collected in the Beaufort Sea, Alaska, 1982, by E. W. Kempema, P. W. Barnes, Erk Reimnitz, J. L. Asbury, and D. M. Rearic. 10 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0494. NEW MEXICO, ARIZONA. Methodology, statistical summary, and listing of analyses of geochemical samples, Lower San Francisco River Wilderness Study Area and contiguous roadless area (RARE II), Catron and Grant counties, New Mexico, and Greenlee County, Arizona, by J. R. Hassemer, G. W. Day, J. C. Ratte, and K. C. Watts. 35 p. (NC, Da, M, Db, U, SF, LA, T; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0498. ARIZONA. Chemical and statistical analysis of stream sediments, heavy-mineral concentrates, and rocks of the Hells Gate Roadless Area, Gila County, Arizona, by J. E. Kilburn, and D. E. Detra. 188 p., 1 over-size sheet. (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0499. ALASKA. Geotechnical framework, Northeast Gulf of Alaska, by H. J. Lee, and W. C. Schwab. 420 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0500. MONTANA, CALIFORNIA. Survey of helium in natural water wells and springs in Southwest Montana and Imperial Valley, California; Part V, January 1- December 31, 1982, by W. P. Doering, and Irving Friedman. 32 p. (NC, Da, M, SF, LA, Db, S, U; California Div. Mines and Geol., Room 1341, Resources Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 83-0501. WASHINGTON. Mineral resource potential of the Glacier View Roadless Area, Pierce County, Washington, by R. C. Everts, E. L. Mosier, S. E. Church, USGS, and D. J. Barnes, USBM. 18 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0502. MONTANA. Preliminary geologic and structure maps of part of the Kalispell 1° by 2° Quadrangle, Montana, by J. E. Harrison, E. R. Cressman, and J. W. Whipple. 8 p., 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)

- OF 83-0505. ALASKA. Thermal maturation values (conodont color alteration indices) for Paleozoic and Triassic rocks, Chandler Lake, De Long Mountains, Howard Pass, Killik River, Misheguk Mountain, and Point Hope quadrangles, Northwest Alaska, and subsurface NPRA, by A. G. Harris, I. Ellersieck, C. F. Mayfield, and I. L. Tailleux. 16 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0508. CALIFORNIA. Mineral resource potential of the Lost Creek Roadless Area, Shasta County, California, by H. W. Campbell, USBM, and L. J. P. Muffler, USGS. 12 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0511. CALIFORNIA. The Coalinga, California earthquake sequence commencing May 2, 1983 (preliminary report on field investigations and data collected as of May 12, 1983), compiled by R. D. Borchardt. 81 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- CALIFORNIA. Tectonic setting, by R. D. Brown. p. 3-7
- CALIFORNIA. The May 2, 1983 earthquake at Coalinga, California; the search for surface faulting, by M. M. Clark, K. K. Harms, J. J. Lienkaemper, J. A. Perkins, M. J. Rymer, and R. V. Sharp. p. 8-11
- CALIFORNIA. Landslides and related ground failures, by D. K. Keefer, E. L. Harp, and R. C. Wilson. p. 12-19
- CALIFORNIA. Seismic setting, location, and focal mechanism of the May 2, 1983, Coalinga earthquake, by J. P. Eaton. p. 20-26
- CALIFORNIA. Preliminary views of the aftershock distribution of the May 2, 1983, Coalinga earthquake, by Paul Reasenber, Donna Eberhart-Phillips, and Paul Segall. p. 27-37
- CALIFORNIA. Analog strong motion data and processed main event records obtained by U.S. Geological Survey near Coalinga, California, compiled by R. D. Borchardt. p. 38-60
- CALIFORNIA. Digital strong-motion data recorded by U.S. Geological Survey near Coalinga, California, compiled by R. D. Borchardt. p. 61-76
- CALIFORNIA. Precise releveing of the Coalinga epicentral region and adjacent portions of the San Andreas Fault, by R. S. Stein, A. G. Lindh, W. R. Thatcher, and M. J. Rymer. p. 77-78
- OF 83-0512. NORTH CAROLINA, GEORGIA, FLORIDA. High-resolution seismic reflection profiles collected August 4 to 28, 1979, between Cape Hatteras and Cape Fear, North Carolina, and off Georgia and northern Florida (cruise GS-7903-6), by Peter Popenoe. 3 p. (NC, Da, M; Georgia Geol. Survey, Room 400, 19 Martin Luther King Dr., SW., Atlanta, GA 30334.)
- OF 83-0513. NORTH CAROLINA. Description of high-resolution seismic reflection data collected in Albemarle and Croatan sounds, North Carolina (cruise NE-82-1), by Peter Popenoe, and L. W. Ward. 3 p. (NC, Da, M.)
- OF 83-0514. VIRGINIA, SOUTH CAROLINA. Description of high-resolution seismic reflection profile collected between the Chesapeake Bay, Virginia, and Cape Romain, South Carolina, September 26, to October 2, 1981 (cruise R/V Gyre, 81-G-14), by Peter Popenoe. 3 p. (NC, Da, M.)
- OF 83-0515. NORTH CAROLINA, VIRGINIA, FLORIDA. Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9), by Peter Popenoe, and F. W. Meyer. 4 p. (NC, Da, M.)
- OF 83-0516. COLORADO, NEW MEXICO. GRANNY, a data bank of chemical analyses of Laramide and younger high-silica rhyolites and granites from Colorado and north-central New Mexico, by C. H. Steigerwald, F. E. Mutschler, and Steve Ludington. 562 p. (NC, Da, M.)
- OF 83-0517. CALIFORNIA. Mineralogical and sedimentological data collected on the shelf and upper slope adjacent to the Russian River, Northern California, by J. V. Gardner, and D. H. Klise. 35 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0519. Digital gravity and magnetic data collected in 1980 in the northern Bering Sea, by A. K. Cooper, M. S. Marlow, and Harold Magistrale. 4 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0520. ALASKA. Availability of petrographic thin-sections from measured sections and wells in Early to Late Cretaceous Nanushuk Group rocks, National Petroleum Reserve in Alaska, North Slope, Alaska, by Susan Bartsch-Winkler. 10 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0521. HP-85 computer programs for reading Sprengnether DR-100 seismograph cassettes with DP-100 playback system, by J. R. Evans, and Reese Cutler. 35 p. (NC, Da, M, S, SF, LA.)
- OF 83-0522. OREGON. Analytical results for stream sediments, panned concentrates from stream sediments, and rock samples from the Homestead, Lake Fork, and Lick Creek Roadless Areas, Baker and Wallowa counties, Oregon, by J. G. Evans. 25 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201.)

- OF 83-0523. IDAHO. Geologic map of the Challis 1° by 2° Quadrangle, Idaho, by F. S. Fisher, D. H. McIntyre, and K. M. Johnson. 41 p., 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, S, U; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0524. ARIZONA. Spectrographic analyses of panned concentrates from stream-sediment samples from the Mazatzal Wilderness and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona, by S. P. Marsh, M. S. Erickson, C. L. Forn, and C. M. McDougal. 39 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0525. Summaries of technical reports, Volume XVI, compiled by M. L. Jacobson, T. R. Rodriguez, and W. H. Seiders. 415 p. (NC, Da, M.)
- OF 83-0526. NORTH CAROLINA. Water-quality characteristics for selected sites on the Cape Fear River, North Carolina, 1955-80; variability, loads, and trends of selected constituents, by J. K. Crawford. 72 p. (NC, Da, Wb; USGS, WRD, Century Post Office Bldg., 300 Fayetteville St., Room 436, Raleigh, NC 27602.)
- OF 83-0528. KANSAS. Kansas ground-water observation-well network, 1983, by M. E. Pabst. 63 p. (NC, Da, M, Db, U, T, Wb; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66044; USGS, WRD, 206 Fulton Terrace, Garden City, KS 67846.)
- OF 83-0529. TEXAS. Approximate altitude of water levels in wells in the Chicot and Evangeline aquifers in the Houston area, Texas, spring 1983, by J. L. Strause. 2 over-size sheets. (NC, Da, M, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.)
- OF 83-0531. UTAH. Water-resources studies in Utah by the U.S. Geological Survey, July 1, 1982 to June 30, 1983, compiled by L. S. Hamblin. 53 p. (U, NC, Da, M, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- OF 83-0532. INDIANA. Water and streambed-material data, Eagle Creek watershed, Indiana, August 1980, October and December 1982, and April 1983; updating of U.S. Geological Survey Open-file report 83-215, by D. J. Wangsness. 57 p. (NC, Da, M, Wb; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.)
- OF 83-0536. FLORIDA. Subsurface storage of freshwater in South Florida; a digital analysis of recoverability, by M. L. Merritt. 79 p. (NC, Da, M; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, 7815 Coral Way, Suite 110, Miami, FL 33155.)
- OF 83-0538. Report of the River Master of the Delaware River for the period December 1, 1981, to November 30, 1982, by F. T. Schaefer, and R. E. Fish. 88 p. (NC, Wb; USGS, WRD, 405 Broad St., Milford, PA 18337.)
- OF 83-0546. Ground-water records in St. Croix, Virgin Islands, 1969-73, by H. M. Colon-Ramos. 32 p. (NC, Da, M, Wb; USGS, WRD, GPO Box 4424, San Juan, PR 00936.)
- OF 83-0547. FLORIDA. Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, May 1983, by G. L. Barr, and G. R. Schiner. 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD, Suite 3015, Hobbs Federal Bldg., 227 North Bronough St., Tallahassee, FL 32301.)
- OF 83-0549. Map showing coal deposits, oil and gas wells and seeps, and tar sandstone occurrences in the Basin and Range Provinces, by B. T. Brady. 100 p., 1 over-size sheet. (NC, Da, M, Wb.)
- OF 83-0550. Tests for trends in water quality data using the statistical analysis system, by C. G. Crawford, J. R. Slack, and R. M. Hirsch. 106 p. (NC, Da, M, Wb.)
- OF 83-0552. MICHIGAN. Land use and land cover and associated maps for Cheboygan, Michigan. Lat 45° to 46°, long 84° to 86°. This data set consists of one map keyed to USGS topographic map Cheboygan at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Cheboygan at 1:250,000. (†USGS, Mid-Continent Mapping Ctr. (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 83-0557. ALASKA. Geological and operational summary, Norton Sound COST No. 2 well, Norton Sound, Alaska, by R. F. Turner, editor, J. G. Bolm, C. M. McCarthy, D. A. Steffy, Paul Lowry, T. O. Flett, and D. Blunt. 159 p., 7 over-size sheets. (NC, Da, M, Db, LA, SF, T, A, S.)
- ALASKA. Operational summary, by C. M. McCarthy. 5-16 p.
- ALASKA. Shallow geologic setting, Norton Sound COST No. 2 well, by D. A. Steffy. p. 17-20
- ALASKA. Seismic reflection correlation and velocity analysis, by D. A. Steffy. p. 21-38
- ALASKA. Paleontology and biostratigraphy, by R. F. Turner. p. 39-57
- ALASKA. Lithology and geophysical log interpretation, by J. G. Bolm. p. 58-98
- ALASKA. Geochemistry; Norton Sound COST well No. 2, by T. O. Flett, and David Blunt. p. 99-120
- ALASKA. Environmental considerations, by Paul Lowry. p. 121-131
- OF 83-0559. CALIFORNIA. Estimated oil and gas reserves, Southern California outer continental shelf, by R. S. Ballantyne. 10 p. (NC, Da, M, Db, U, LA, SF, T.)
- OF 83-0561. TEXAS, LOUISIANA. Land use and land cover and associated maps for Palestine, Texas; Louisiana. Lat 31° to 32°, long 94° to 96°. This data set consists of two maps keyed to the USGS topographic map Palestine at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. These maps are (1) land use and land cover, (4) census county subdivision. Also included is one copy of the cultural base for Palestine at 1:250,000. (†USGS, Rocky Mountain Mapping Ctr. (NCIC-R), Box 25046, Federal Center, Denver, CO 80225.)
- OF 83-0563. CALIFORNIA. An oilspill risk analysis for the Southern California lease offering (February 1984), by R. P. LaBelle, K. J. Lanfear, A. D. Banks, and R. M. Karpas. 117 p. (Da, M, NC, A.)

- OF 83-0566. Time series analysis of Cenozoic era sea level and paleotemperature data, by G. H. Rosenfield, and T. E. Huffman. 45 p. (F, Da, M, NC, Wb.)
- OF 83-0567. An oilspill risk analysis for the North Atlantic (February 1984) lease offering, by D. E. Amstutz, and W. B. Samuels. 179 p. (Da, M, NC, A.)
- OF 83-0570. An oilspill risk analysis for the Diapir Field (June 1984) outer continental shelf lease offering, by W. B. Samuels, Doreen Banks, and Dorothy Hopkins. 140 p. (Da, M, NC, A.)
- OF 83-0576. CALIFORNIA. Assessment of a prototype earthquake prediction network for Southern California, by J. H. Dieterich. 28 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0580. GEORGIA. Geology and resources of the Andersonville, Georgia, kaolin and bauxite district, by H. E. Cofer, Jr., and J. P. Manker. 98 p., 3 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC; USGS, WRD, Suite B, 6481 Peachtree Industrial Blvd., Doraville, GA 30360; Georgia Geol. Survey, 19 Martin Luther King Dr., SW., Atlanta, GA 30334.)
- OF 83-0581. ARIZONA. Geochemical data for the Crossman Peak Wilderness Study Area, Mohave County, Arizona, by T. D. Light, Barbara Chazin, and D. E. Detra. 36 p. (NC, Da, M, Db, SF, LA, U; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0582. CALIFORNIA. Distribution and costs of landslides in the San Diego County, California, during the rainfall years of 1978-79 and 1979-80, by C. F. Shearer, F. A. Taylor, and R. W. Fleming. 17 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0583. UTAH. Geology of the Richfield Quadrangle, west-central Utah, by T. A. Steven, and H. T. Morris. 23 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0584. CALIFORNIA. Principal facts for 382 gravity stations in Lassen Volcanic National Park and vicinity, California, by R. C. Jachens, D. R. Spydell, and R. W. Saltus. 14 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0585. The effects of look direction on the interpretation of side-looking airborne radar imagery, by E. N. Penner. 5 p., 1 over-size sheet. (NC, Da, M.)
- OF 83-0586. NEVADA. Results of oil-shale investigations in northeastern Nevada, by S. W. Moore, H. B. Madrid, and G. T. Server, Jr. 111 p., 8 over-size sheets, scale 1:12,000 (1 inch = 1,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0587. CALIFORNIA. Petrographic (thin section) notes on selected samples from hornblende-rich metamorphic terranes in the southernmost Sierra Nevada, California, by D. C. Ross. 35 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0591. OREGON. Preliminary geologic map of the west half of the Vancouver (Washington-Oregon) 1° by 2° Quadrangle, Oregon, by R. E. Wells, A. R. Niem, N. S. MacLeod, P. D. Snavely, Jr., and W. A. Niem. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, Room 1069, State Office Bldg., 1400 SW. Fifth Ave., Portland, OR 97201.)
- OF 83-0592. ALASKA. Eastern Gulf of Alaska seismicity; final report to the National Oceanic and Atmospheric Administration for July 1, 1975, through September 30, 1981, by J. C. Lahr, and C. D. Stephens. 51 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0593. CALIFORNIA. Multichannel seismic-reflection profiles collected in 1979 in the eastern Pacific Ocean of the California coast, south of Pt. Conception, by D. M. Mann, and J. K. Crouch. 4 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.) Shipboard records can be inspected at USGS office, Room B-164, Deer Creek Facility, 3475 Deer Creek Rd., Palo Alto, California. †Copies of those records can be purchased only from the National Geophysical Data Center. Write to NOAA, Code E64, 325 Broadway, Boulder, CO 80303. Telephone (303) 497-6338.
- OF 83-0594. NEW MEXICO. Mineral resource potential of the southeast addition to the White Mountain Wilderness, Lincoln County, New Mexico, by Kenneth Segerstrom, F. R. Hladky, USGS, and J. P. Briggs, USBM. 11 p. (NC, Da, M, Db, U, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0595. WASHINGTON. Bouguer gravity anomaly map of the Glacier Peak Wilderness and vicinity, Chelan, Skagit, and Snohomish counties, Washington, by M. S. Sherrard, and V. J. Flanagan. 26 p., 1 over-size sheet. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0596. Mitigation of hazards from future lahars from Mount Merapi in the Krasak River channel near Yogyakarta, central Java, by J. R. Ege, and Sutikno. 8 p. (NC, Da, M.)
- OF 83-0597. Landslide investigations, southern Cianjur Regency, West Java Province, Indonesia; a progress report, by J. R. Ege. 27 p. (NC, Da, M.)

- OF 83-0598. Assessment of undiscovered conventionally recoverable petroleum resources of northwestern, central, and northeastern Africa (including Morocco, northern and western Algeria, northwestern Tunisia, Mauritania, Mali, Niger, eastern Nigeria, Chad, Central African Republic, Sudan, Ethiopia, Somalia, and southeastern Egypt), by J. A. Peterson. 28 p. (NC, Da, M.)
- OF 83-0599. IDAHO. Preliminary reconnaissance geologic map of the Copper Mountain Quadrangle, Lemhi County, Idaho, by G. F. Embree, R. D. Hoggan, and E. J. William. 10 p., 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, S, SF, LA; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.)
- OF 83-0600. WASHINGTON. Preliminary geologic map of the Abercrombie Mountain area, Pend Oreille County, Washington, by R. F. Burmester, and F. K. Miller. 11 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, S; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0601. WASHINGTON, IDAHO. Preliminary geologic map of the Gypsy Peak area, Pend Oreille County, Washington, and Bonner and Boundary counties, Idaho, by F. K. Miller. 15 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, S; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0602. IDAHO. Preliminary geologic map of the Smith Peak area, Bonner and Boundary counties, Idaho, by F. K. Miller. 11 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, S; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0603. ALABAMA. Aeromagnetic map of southwestern Alabama. 11 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M; Geol. Survey of Alabama (P.O. Drawer O), University, AL 35486.)
- OF 83-0604. Computer program modifications of Open-file report 82-1065; a comprehensive system for interpreting seismic-refraction and arrival-time data using interactive computer methods, by H. D. Ackermann, L. W. Pankratz, and D. A. Dansereau. 3 p. (NC, Da, M.)
- OF 83-0605. Novice's Guide to PACER-GARNET for use with the National Coal Resources Data System; a flow chart, by C. W. Connor. 4 p. (NC, Da, M.)
- OF 83-0606. ALASKA. Geology report for proposed Beaufort Sea OCS sand and gravel lease sale, by S. R. Briggs. 66 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbank, AK 99708.)
- OF 83-0608. NEVADA. Geology of faults exposed in trenches in Crater Flat, Nye County, Nevada, by W. C. Swadley, and D. L. Hoover. 18 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0609. ARKANSAS. Stratigraphic framework and distribution of lignite on Crowleys Ridge, Arkansas, by C. R. Meissner, Jr. 33 p., 9 over-size sheets. (NC, Da.)
- OF 83-0610. ALABAMA. Aeromagnetic map of southeastern Alabama. 6 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M; Geol. Survey of Alabama (P.O. Drawer O), University, AL 35486.)
- OF 83-0611. ALABAMA. Aeromagnetic map of south-central Alabama. 9 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M; Geol. Survey of Alabama (P.O. Drawer O), University, AL 35486.)
- OF 83-0612. Preliminary results of spectral induced polarization measurements, Wadi Bidah District, Kingdom of Saudi Arabia, by B. D. Smith, C. L. Tippens, V. J. Flanagan, and Hamdy Sadek. 26 p. (NC, Da, M.)
- OF 83-0613. Time-domain electromagnetic tests in the Wadi Bidah District, Kingdom of Saudi Arabia, by V. J. Flanagan, Hamdy Sadek, Bruce Smith, and C. L. Tippens. 27 p. (NC, Da, M.)
- OF 83-0614. CALIFORNIA. Geologic map of part of the northwestern Sacramento Mountains, southeastern California, by J. E. Spencer, and R. D. Turner. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0615. The Ford-Fleischer file of mineralogical references, 1981-1982 inclusive, by Michael Fleischer, and C. M. Schafer. 418 p. (NC, Da, M.)
- OF 83-0616. NEVADA. Aeromagnetic map of Yucca Mountain and surrounding regions, Southwest Nevada, by M. F. Kane, and R. E. Bracken. 23 p., 1 over-size sheet, scale 1:48,000 (1 inch = 4,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0617. GARNETAB; a computer program to create an absentee file for executing GARNET (graphic analysis of resources using numeric evaluation techniques), by W. A. Scott, and S. S. Crowley. 41 p. (NC, Da, M.)
- OF 83-0618. High-resolution seismic reflection profiles, trackline and sample location map, and digitized bathymetric data; Navarin Basin province, northern Bering Sea, by P. R. Carlson, H. A. Karl, and R. X. Crane. 4 p., 1 over-size sheet. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0619. NEVADA. Preliminary aeromagnetic map of the Tonopah 1° by 2° Quadrangle, Nevada, by Donald Plouff. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)

- OF 83-0620. VIRGINIA. Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 2, Analyses of coal cores from the southwestern Virginia coal field, by F. O. Simon, and K. J. Englund. 25 p. (NC.)
- OF 83-0621. User's guide to QPLOT, an interactive computer plotting program for earthquake and geophysical data, by F. W. Klein. 40 p. (NC, Da, M.)
- OF 83-0623. Mineral deposit grade-tonnage models, edited by D. A. Singer, and D. L. Mosier. 102 p. (NC, Da, M.)
- OF 83-0626. VIRGINIA. Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 4, Analyses of coal cores from the Valley coal fields, by F. O. Simon, and K. J. Englund. 16 p. (NC.)
- OF 83-0627. ALASKA. A geochemical profile of Tunalik No. 1 well, National Petroleum Reserve in Alaska (NPRA), by A. C. Banet, Jr. 20 p., 2 over-size sheets. (NC, Da, M, Db, LA, A.)
- OF 83-0628. VIRGINIA. by K. J. Englund, J. F. Windolph, Jr., J. C. Weber, and R. E. Thomas (USGS), and J. W. Dryden (U.S. Bur. Land Management), by K. J. Englund, J. F. Windolph, Jr., J. C. Weber, R. E. Thomas, and J. W. Dryden. 377 p. (NC.)
- OF 83-0629. NEVADA, UTAH. The chemistry of seven igneous biotites from eastern Nevada and western Utah, by D. E. Lee, E. L. Brandt, and R. E. Van Loenen. 8 p. (NC, Da, M, Db, U, LA, SF; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0630. ARIZONA. Use of grain-shape regularity measurements in determining source area in secondary pyroclastic rocks, McLendon Volcano, Yavapai County, Arizona, by W. E. Brooks, and C. T. Pierson. 18 p. (NC, Da, M, Db, SF, LA, U; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0632. COLORADO. Aeromagnetic map of part of the Pike National Forest and vicinity, Colorado. 4 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, U, Db.)
- OF 83-0633. COLORADO. Geologic map and coal sections of the Pine Ridge Quadrangle, Moffat County, Colorado, by G. L. Prost, and M. E. Brownfield. 2 over-size sheets. (NC, Da, M, U, Db.)
- OF 83-0634. ALASKA. Engineering geologic maps of northern Alaska; Teshekpuk Quadrangle, by L. D. Carter. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0635. UTAH. Potential for debris flow and debris flood along the Wasatch Front between Salt Lake City and Willard, Utah, and measures for their mitigation, by G. F. Wiczorek, Ellen Stephen, E. W. Lips, and S. H. Cannon. 79 p., 2 over-size sheets, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, Salt Lake City, UT 84108.)
- OF 83-0636. Principles for selecting earthquake motions in engineering design of large dams, by E. L. Krinitzsky, and W. F. Marcuson, III. 54 p. (NC, Da, M.)
- OF 83-0637. VIRGINIA. by K. J. Englund, J. C. Weber, R. E. Thomas, and J. F. Windolph, Jr., (USGS), and J. W. Dryden (U.S. Bur. Land Management), by K. J. Englund, J. C. Weber, R. E. Thomas, J. F. Windolph, Jr., and J. W. Dryden. 252 p. (NC.)
- OF 83-0638. Crustal structure of southwestern Saudi Arabia, by M. E. Gettings, H. R. Blank, W. D. Mooney, and J. H. Healy. 55 p. (NC, Da, M.)
- OF 83-0639. Reconnaissance geologic map of the Jabal Zain Quadrangle, sheet 20/44 A, Kingdom of Saudi Arabia, by M. R. Brock. 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0640. Spectral analysis of the 1976 aeromagnetic survey of Harrat Rahat, Kingdom of Saudi Arabia, by H. R. Blank, and H. S. Sadek. 32 p., 2 over-size sheets. (NC, Da, M.)
- OF 83-0641. Middle Tertiary continental rift and evolution of the Red Sea in southwestern Saudi Arabia, by D. L. Schmidt, D. G. Hadley, and G. F. Brown. 60 p., 1 over-size sheet. (NC, Da, M.)
- OF 83-0642. NEVADA. Explosion-induced stress changes estimated from vibrating-wire stressmeter measurements near the Mighty Epic event, Nevada Test Site, by W. L. Ellis, and J. D. Kibler. 28 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0643. CALIFORNIA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Cypress Roadless Area, Kern County, California, by S. J. Sutley, M. A. Chaffee, D. L. Fey, and R. H. Hill. 22 p., 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0644. CALIFORNIA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Pyramid Roadless Area, El Dorado County, California, by M. A. Chaffee, D. L. Fey, D. J. Grimes, and R. W. Leinz. 28 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0646. CALIFORNIA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Mount Raymond Roadless Area, Madera County, California, by S. J. Sutley, M. A. Chaffee, D. L. Fey, and R. H. Hill. 25 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)

- OF 83-0647. CALIFORNIA, NEVADA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Sweetwater Roadless Area, Mono County, California, and Lyon and Douglas counties, Nevada, by S. J. Sutley, M. A. Chaffee, G. F. Brem, D. L. Fey, and R. H. Hill. 47 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA, U; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0649. CALIFORNIA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Horse Meadow, Log Cabin-Saddlebag, and Tioga Lake Roadless Areas, and Hall Natural Area, Mono County, California, by S. J. Sutley, M. A. Chaffee, D. L. Fey, and R. H. Hill. 27 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0651. COLORADO. Geochemical and mineralogical data for altered rocks and soils collected in and near the Williams Fork and St. Louis Peak Roadless Areas, Clear Creek, Grand, and Summit counties, Colorado, by R. G. Eppinger, H. N. Barton, P. K. Theobald, and R. R. Carlson. 25 p., 3 over-size sheets, scale 1:50,000 (1 inch = about 4,200 feet). (NC, Da, M, U, Db.)
- OF 83-0652. CALIFORNIA. Residual magnetic intensity, Crescent City, California. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0653. CALIFORNIA, NEVADA. Aeromagnetic map of the Eureka and Saline valleys area, California and Nevada. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA, Db, U; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0654. CALIFORNIA, NEVADA. Aeromagnetic map of the northern part of the Inyo National Forest, California and Nevada. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA, Db, U; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0655. CALIFORNIA. Aeromagnetic map of the central part of the Inyo National Forest, California. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0656. CALIFORNIA, NEVADA. Aeromagnetic map of part of the White and Inyo Mountains, California and Nevada. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA, Db, U; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0663. CALIFORNIA. Aeromagnetic map of the Kingman-Trona area, California. 2 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0664. CALIFORNIA. Aeromagnetic map of the Salton Sea area, California. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0665. NEW MEXICO. Mineral resource areas of the Basin and Range Province of New Mexico, compiled by M. F. Hutchins. 16 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, U, Db, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0666. NEVADA. Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Lincoln Creek Roadless Area, Douglas County, Nevada, by M. A. Chaffee, D. L. Fey, D. J. Grimes, and R. W. Leinz. 24 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0667. Multics STATPAC user handbook; Part 1, A guide with examples for editing and correcting a STATPAC dataset, by W. S. Speckman. 66 p. (NC, Da, M.)
- OF 83-0668. COLORADO. Compilation of revised ages of volcanic units in the San Juan Mountains, Colorado; recalculated K-Ar age determinations using IUGS constants, by Ken Hon, and H. H. Mehnert. 16 p. (NC, Da, M, Db, U.)
- OF 83-0670. IDAHO. Geochemical characteristics of the metaliferous Salmon River sequence, central Idaho, by F. S. Fisher, and G. D. May. 30 p., 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, S, SF, LA; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.)
- OF 83-0671. Tens of successive, colossal Missoula floods at north and east margins of channeled scabland, by R. B. Waitt, Jr. 29 p. (NC, Da, M, S, SF, LA; Washington Div. Geol. and Earth Resources, Dept. Natural Resources, Olympia, WA 98504.)
- OF 83-0672. Geological and geochemical studies in the Wadi Bidah District, Kingdom of Saudi Arabia, by C. W. Smith, B. C. Waters, M. Naqvi, R. G. Worl, A. M. Helaby, V. J. Flanagan, H. S. Sadek, and R. M. Samater. 101 p., 6 over-size sheets. (NC, Da, M.)

- OF 83-0674. Reconnaissance geology of the Jabal Khatam Quadrangle, sheet 26/39 D, Kingdom of Saudi Arabia, by G. M. Fairer. 12 p., 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M.)
- OF 83-0676. FLORIDA. Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, May 1983, by L. A. Bradner. 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD, Suite 3015, Hobbs Federal Bldg., 227 North Bronough St., Tallahassee, FL 32301.)
- OF 83-0677. TEXAS. Hydrology of the Jasper (Miocene) Aquifer in the Southeast Texas coastal plain, by E. T. Baker, Jr. 60 p., 17 over-size sheets. (NC, T; USGS, WRD, 300 East Eighth St., Room 651, Austin, TX 78701.)
- OF 83-0679. Data from sediment studies of the Rio Orinoco, Venezuela, August 15-25, 1982, by C. F. Nordin, Jr., R. H. Meade, and C. C. Curtis. 29 p. (Da, Db, Wb; USGS, WRD, (Box 25046, Mail Stop 413), Denver Federal Ctr., Denver, CO 80225.)
- OF 83-0681. Guidelines for use of water-quality monitors, by A. B. Gordon, and M. S. Katzenbach. 103 p. (NC, Da, M, Wb.)
- OF 83-0685. MISSISSIPPI, LOUISIANA. Floods of April 1983 in southern Mississippi and southeastern Louisiana, by D. D. Carlson, and G. D. Firda. 37 p., 2 over-size sheets. (Da, NC, Wb; USGS, WRD, 6554 Florida Blvd. (P.O. Box 66492), Baton Rouge, LA 70896; USGS, WRD, Suite 710, Federal Bldg., 100 West Capital St., Jackson, MS 39269.)
- OF 83-0686. OKLAHOMA. Ground-water quality data for Oklahoma, 1981, by D. M. Ferree. 81 p. (Da, M, NC, T, Wb; USGS, WRD, 215 Dean A. McGee St., Room 621, Oklahoma City, OK 73102; Library Div.(SLL), U.S. Government Printing Office, Washington, DC 20401.)
- OF 83-0687. FLORIDA. Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, May 1983, by G. R. Schiner, and E. C. Hayes. 1 over-size sheet. (NC, Wb; USGS, WRD, 227 North Bronough St., Suite 3015, Hobbs Federal Bldg., Tallahassee, FL 32301.)
- OF 83-0688. UTAH. Ground-water hydrology and projected effects of ground-water withdrawals in the Sevier Desert, Utah, by W. F. Holmes. 54 p., 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.)
- OF 83-0692. Sediment data for mid-Arkansas and upper-Red River basins through 1980, by S. P. Blumer. 807 p., 1 over-size sheet. (NC, Da, M, Wb, T; USGS, WRD, 215 Dean A. McGee St., Room 621, Oklahoma City, OK 73102; Library Div.(SLL), U.S. Government Printing Office, Washington, DC 20401.)
- OF 83-0693. COLORADO. Streamflow statistical summaries for Colorado streams through September 30, 1975; Volume 3, Colorado River basin from Gunnison River to San Juan River, by H. E. Petsch, Jr. 439 p. (Db, Da, NC, Wb; USGS, WRD, Room H-2103, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.)
- OF 83-0697. CALIFORNIA. Data for ground-water test hole near Butte City, Central Valley aquifer project, California, by J. J. French, R. W. Page, and G. L. Bertoldi. 59 p., 1 over-size sheet. (NC, Da, Wb, M, LA, SF; USGS, WRD, Federal Bldg., Room W-2235, 2800 Cottage Way, Sacramento, CA 95825; USGS, WRD, Laguna Federal Bldg., Fifth Floor, 24000 Avila Rd., Laguna Niguel, CA 92677.)
- OF 83-0699. Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part II, Geologic and hydrologic characterization, by K. A. Sargent, and M. S. Bedinger. 92 p., 1 over-size sheet. (NC, Da, M, Wb.)
- OF 83-0702. Geophysical methods for locating abandoned wells, by F. C. Frischknecht, L. Muth, R. Grette, T. Buckley, and B. Kornegay. 211 p. (NC, Da, M.)
- OF 83-0703. COLORADO, NEW MEXICO, ARIZONA. Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona, by D. P. Klein. 18 p., 1 over-size sheet. (NC, Da, M, Db, SF, LA, U, T; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.) (Color slides are available in Open-file report 83-443.)
- OF 83-0704. COLORADO. Geologic map of the Gladiator Mine, Lake City, Colorado, by A. R. Kirk, Patty Billings, Dana Bove, and R. F. Sanford. 1 over-size sheet. (NC, Da, M, U, Db.)
- OF 83-0705. IDAHO. Analyses of samples from the Lava Creek mining district, Blaine and Butte counties, Idaho, by B. M. Hillier, D. J. Grimes, Robert Vaughn, Belinda Arbogast, and Christine McDougal. 12 p., 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, S, SF, U; Idaho Bur. Mines and Geol., Moscow, ID 83843.)
- OF 83-0706. ALASKA. Ice gouge data sets from the Alaskan Beaufort Sea; magnetic tape and documentation for computer assisted analyses and correlation, by D. M. Rearic, and A. G. McHendrie. 10 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0707. ALASKA. Supplement resource report for OCS lease sale No. 83, Navarin Basin, Alaska, by M. S. Marlow, A. K. Cooper, P. R. Carlson, H. A. Karl, and B. A. Edwards. 46 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, 3001 Porcupine Dr., Anchorage, AK 99501; and University Ave. (P.O. Box 80007), Fairbanks, AK 99708.)
- OF 83-0708. CALIFORNIA. Data report for the August 1982 seismic-refraction experiment in the Mono Craters-Long Valley region, California, by P. J. Meador, and D. P. Hill. 55 p., 12 over-size sheets, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)

- OF 83-0709. TEXAS. Mineral resource areas of the Basin and Range Province of Texas, compiled by C. D. Henry, J. G. Price, and M. F. Hutchins. 8 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, T.)
- OF 83-0710. Comparative anatomy of epithermal precious- and base-metal districts hosted by volcanic rocks, by P. Heald-Wetlaufer, D. O. Hayba, N. K. Foley, and J. A. Goss. 20 p. (NC, Da, M.)
- OF 83-0711. Geology of the Volga-Ural petroleum province and detailed description of the Ramashkino and Arlan oil fields, by J. A. Peterson, and J. W. Clarke. 175 p. (NC, Da, M.)
- OF 83-0712. Petroleum geology and resources of northeastern Mexico, by J. A. Peterson. 59 p. (NC, Da, M.)
- OF 83-0713. RDARL4, a Fortran interface for transferring chemical analytical data from an Applied Research Laboratories electron microprobe to a PDP-11 computing system, by J. S. Huebner. 40 p. (NC, Da, M.)
- OF 83-0715. World finding-rate studies; crude oil, by Jennifer Cook-Clark. 259 p. (NC.)
- OF 83-0716. Tectonostratigraphic terrane map of the Circum-Pacific region, by D. G. Howell, E. R. Schermer, D. L. Jones, Zvi Ben-Avraham, and Erwin Scheibner. 24 p., 1 over-size sheet, scale 1:20,000,000 (1 inch = 320 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0717. NORTH DAKOTA, MONTANA. Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin, by T. C. Hester, and J. W. Schmoker. 27 p. (NC, Da, M, Db, U, S; Montana Bur. Mines and Geol., Montana Coll. Mineral Sci. and Tech., Butte, MT 59701.)
- OF 83-0718. NEW YORK. Notes on the clay mineralogy of the Retsof salt bed, International Salt Company Mine, Retsof, New York, by M. W. Bodine, Jr. 13 p. (NC, Da, M.)
- OF 83-0719. CALIFORNIA. Preliminary map of the resource areas in the Basin and Range Province of California, by George Wong. 17 p., 2 over-size sheets, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0720. IDAHO. Preliminary map of the resource areas in the Basin and Range Province of Idaho, by George Wong. 8 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, S, SF, LA; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.) (Supersedes Open-file report 82-418.)
- OF 83-0721. NEVADA. Preliminary map of the resource areas in the Basin and Range Province of Nevada, by George Wong. 39 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.) (Supersedes Open-file report 82-1100.)
- OF 83-0722. UTAH. Preliminary map of the resource areas in the Basin and Range Province of Utah, by George Wong. 21 p., 1 over-size sheet, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.) (Supersedes Open-file report 81-1305.)
- OF 83-0723. NORTH DAKOTA. Porosity and thermal maturity of limestone bodies in Jurassic Swift Formation, Williston Basin, North Dakota, by J. W. Schmoker, and T. C. Hester. 14 p. (NC, Da, M, Db.)
- OF 83-0724. IDAHO. Guidebook, 1983 Friends of the Pleistocene field trip; Glacial sequence near McCall, Idaho, by S. M. Colman, and K. L. Pierce. 31 p. (NC, Da, M, S, SF, LA; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.)
- OF 83-0725. UTAH, NEVADA. Preliminary geologic map of Tecoma and Lucin quadrangles, Box Elder County, Utah, and Elko County, Nevada, by D. M. Miller, and J. D. Schneyer. 16 p., 2 over-size sheets, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0727. Assessment of gray whale feeding grounds and sea floor interaction in the northeastern Bering Sea, by C. H. Nelson, K. R. Johnson, and Heidi-Lynn Mitchell. 112 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail Address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99708.)
- OF 83-0728. Distribution and quantitative assessment of world crude oil reserves and resources, by C. D. Masters, D. H. Root, and W. D. Dietzman. 23 p. (NC, Da, M.)
- OF 83-0729. NEVADA. Aeromagnetic map of part of the Las Vegas 1° by 2° Quadrangle, Nevada. 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0731. ARIZONA. Preliminary geologic map of the Coconino Point and Grandview Point quadrangles, Coconino County, Arizona, by G. H. Billingsley, C. W. Barnes, and G. E. Ulrich. 11 p., 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, Db, U, SF, LA; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0734. ARIZONA. Statistical parameters for resource evaluation of geochemical data from the Ajo 1° by 2° Quadrangle, Arizona, by P. K. Theobald, and H. N. Barton. 44 p. (NC, Da, M, Db, SF, LA, U; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0736. Rock property measurements and analysis of selected igneous, sedimentary, and metamorphic rocks from worldwide localities, by G. R. Johnson. 37 p. (NC, Da, M.)
- OF 83-0737. Multics STATPAC user handbook; Part 2, A guide with examples to basic statistical programs and more advanced generation operation, by W. S. Speckman. 25 p. (NC, Da, M.)

- OF 83-0738. UTAH. Analytical results for 249 water samples from the Mount Belnap caldera and Deer Trail Mountain-Alunite Ridge areas and vicinity, southwestern Utah, by R. E. Tucker, J. B. McHugh, W. H. Ficklin, J. M. Motooka, D. J. Preston, and W. R. Miller. 25 p. (NC, Da, M, Db, U; Utah Geol. and Mineral Survey, 606 Black Hawk Way, Salt Lake City, UT 84108.)
- OF 83-0741. World coal exploration and development, by G. H. Wood, Jr. 27 p. (NC, Da, M.)
- OF 83-0743. Maps showing natural aggregates of the conterminous United States, by W. H. Langer, and D. A. Belval. 19 p., 2 over-size sheets, scale 1:5,000,000 (1 inch = about 80 miles). (NC, Da, M.)
- OF 83-0744. ALASKA. Review of earthquake activity and current status of seismic monitoring in the region of the Bradley Lake Hydroelectric Project, southern Kenai Peninsula, Alaska; December 1981-May 1983, by C. D. Stephens, J. C. Lahr, R. A. Page, and J. A. Rogers. 25 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 83-0745. Hoffa Reef; a shelf-edge calcareous prominence in the northern Gulf of Mexico, by L. J. Poppe, and R. C. Circe. 14 p. (NC, Da, M.)
- OF 83-0746. Sand-wave movement on Little Georges Bank, by D. C. Twitchell. 22 p. (NC, Da, M.)
- OF 83-0748. WYOMING. Bedrock geologic map of the Pine Mountain-Oil Mountain area, Natrona County, Wyoming, by E. G. Cserna, G. J. Kerns, and W. H. Laraway. 19 p., 4 over-size sheets, scale 1:31,680 (1 inch = one-half mile). (NC, Da, M, Db, U; Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 83-0749. The environmental history and present condition of Saudi-Arabia's northern sand seas, by J. W. Whitney, D. J. Faulkender, and Meyer Rubin. 42 p. (NC, Da, M.)
- OF 83-0750. In situ geomechanics of crystalline and sedimentary rocks; Part IV, Continued field testing of the modified U.S. Geological Survey 3-D borehole stress probe, by T. C. Nichols, Jr. 14 p. (NC, Da, M.)
- OF 83-0751. Selected geologic and hydrologic characteristics of the Basin and Range Province, Western United States; Pleistocene lakes and marshes, by T. R. Williams, and M. S. Bedinger. 21 p., 1 over-size sheet, scale 1:2,500,000 (1 inch = about 40 miles). (NC, Da, M, Wb, U, T, Db, LA.)
- OF 83-0752. ALABAMA. Preliminary stage-discharge relations for Tombigbee River at Aliceville lock and dam, near Pickensville, Alabama, by G. H. Nelson, Jr., and C. O. Ming. 12 p., 3 over-size sheets. (NC, Wb; USGS, WRD, 520 19th Ave., Tuscaloosa, AL 35401; USGS, 2721 Gunter Park Dr., West, Montgomery, AL 36109.)
- OF 83-0754. SOUTH DAKOTA. Water-resources investigations of the U.S. Geological Survey in South Dakota, project status summary, July 1, 1983, by E. F. LeRoux and E. M. Decker. 44 p. (NC, Da, Wb; USGS, WRD, Room 317, Federal Bldg., 200 Fourth St., SW., Huron, SD 57350.)
- OF 83-0756. Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part III, Geologic and hydrologic evaluation, by M. S. Bedinger, K. A. Sargent, and B. T. Brady. 89 p., 3 over-size sheets. (NC, Da, M, Wb.)
- OF 83-0759. Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part I, Introduction and guidelines, by M. S. Bedinger, K. A. Sargent, and J. E. Reed. 69 p. (NC, Da, M, Wb.)
- OF 83-0760. OKLAHOMA. Ground-water levels in observation wells in Oklahoma, 1980-82, by R. L. Goemaat, L. D. Mize, and D. E. Spiser. 612 p. (NC, Da, M, Wb, T; USGS, WRD, 215 Dean A. McGee, Room 621, Oklahoma City, OK 73102; Library Div.(SLL), U.S. Government Printing Office, Washington, DC 20401.)
- OF 83-0762. KANSAS. January 1983 water levels, and data related to water-level changes, western and south-central Kansas, by M. E. Pabst. 168 p. (NC, Da, M, Db, T, Wb; USGS, WRD, 1950 Constant Ave., Campus West, Univ. Kansas, Lawrence, KS 66044; USGS, WRD, 206 Fulton Terrace, Garden City, KS 67846.)
- OF 83-0767. OKLAHOMA. Oklahoma; summary of activities of the USGS, WRD, Oklahoma District, 1983, by R. L. Hanson, J. C. Scott, and J. K. Kurklin. 104 p., 2 over-size sheets. (NC, Da, M, Wb, T; USGS, WRD, 215 Dean A. McGee St., Room 621, Oklahoma City, OK 73102.)
- OF 83-0772. NEW MEXICO. Water-resources investigations of the U.S. Geological Survey in New Mexico; fiscal year 1981, compiled by R. R. White, and J. G. Wells. 43 p. (NC, Da, T, M, Wb; USGS, WRD, 815 Western Bank Bldg., 505 Marquette, NW., Albuquerque, NM 87125.)
- OF 83-0773. SOUTH DAKOTA. Streamflow and sediment data collected at seven stream-gaging stations in the James River basin downstream from Forestburg, South Dakota, from October 1, 1981, to September 30, 1983, by J. R. Little. 66 p. (NC, Da, M, Wb; USGS, WRD, 317 Federal Bldg., 200 Fourth St., SW., Huron, SD 57350.)
- OF 83-0777. NEW MEXICO. Analytical results for 26 water samples from southern New Mexico, by J. B. McHugh, W. R. Miller, and W. H. Ficklin. 9 p. (NC, Da, M, U, Db, T; New Mexico Bur. Mines and Mineral Resources, Campus Station, Socorro, NM 87801.)
- OF 83-0779. ALASKA. Stratigraphy, structure, and palinspastic synthesis of the western Brooks Range, northwestern Alaska, by C. F. Mayfield, I. L. Tailleux, and Inyo Ellersieck. 61 p., 5 over-size sheets. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 83-0782. ALASKA. Heavy mineral data from lower Cook Inlet, Alaska, by F. L. Wong. 4 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)

- OF 83-0783. **ALASKA.** Geochronology, geochemistry and tectonic environment of porphyry mineralization in the central Alaska Peninsula, by F. H. Wilson, and D. P. Cox. 25 p. (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 83-0790. Data on stretching of fluid inclusions in fluorite and sphalerite, by R. J. Bodnar, and P. M. Bethke. 21 p. (NC, Da, M.)
- OF 83-0791. **SOUTH DAKOTA.** Bald Mountain gold mining region, northern Black Hills, South Dakota, by J. J. Norton. 20 p., scale 1:100,000 (approx.) (1 inch = about 1.6 miles). (NC, Da, M, Db; Library, South Dakota School Mines and Tech., Rapid City, SD 57701.)
- OF 83-0792. **NEVADA.** Strata-bound, silver-bearing iron, lead, and zinc sulfide deposits in Silurian and Ordovician rocks of allochthonous terranes, Nevada and northern Mexico, by K. B. Ketner. 7 p. (NC, Da, M, Db, U, SF, LA; Nevada Bur. Mines and Geol., Univ. Nevada, Reno, NV 89557.)
- OF 83-0793. High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt, by R. G. Schmidt. 55 p. (NC, Da, M; North Carolina Dept. Natural Resources and Community Devel., Div. Land Resources (P.O. Box 27687), Raleigh, NC 27611; South Carolina Geol. Survey, Harbison Forest Rd., Columbia, SC 29210.)
- OF 83-0799. Paleomagnetism and suspect terranes of the North American Cordillera, by S. R. May, P. J. Coney, and M. E. Beck, Jr. 8 p., 1 over-size sheet, scale 1:5,000,000 (1 inch = about 80 miles). (NC, Da, M.)
- OF 83-0800. **MAINE.** Quartz-molybdenite veins in the Priestly Lake granodiorite, north-central Maine, by R. A. Ayuso, and S. G. Shank. 14 p. (NC.)
- OF 83-0801. Assessment of undiscovered conventionally recoverable petroleum resources of onshore China, by J. A. Petersen. 24 p. (NC, Da, M.)
- OF 83-0802. **WYOMING.** Preliminary geologic map of Wyoming, by J. D. Love, and A. C. Christiansen. 2 over-size sheets, scale 1:500,000 (1 inch = about 8 miles). (NC, Da, M, Db, U, SF, LA, T, S, Wa; Wyoming Geol. Surv., Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.)
- OF 83-0804. Operation manual for the muPROSPECTOR consultant system, by R. B. McCammon. 31 p. (NC, Da, M.)
- OF 83-0806. **CALIFORNIA, ARIZONA.** Principal facts for 904 gravity stations in and near the Chemehuevi Mountains and Crossman Peak Wilderness Study Areas, San Bernardino County, California, and Mohave County, Arizona, by T. B. Gage, and R. W. Simpson. 33 p. (NC, Da, M, SF, LA, Db, U; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.)
- OF 83-0808. **ARIZONA.** Density, porosity, and magnetic properties of rock specimens from southwestern Arizona, by D. P. Klein, and G. R. Johnson. 34 p., 1 over-size sheet, scale 1:250,000 (1 inch = about 4 miles). (NC, Da, M, Db, SF, LA, U; Arizona Bur. Geol. and Mineral Tech., 845 North Park Ave., Tucson, AZ 85719.) Microfiche \$4; paper copy \$8.25.
- OF 83-0817. **SANBA;** a rapid, combined data acquisition and correction program for the SEMQ electron microprobe, by J. J. McGee. 47 p. (NC, Da, M.)
- OF 83-0822. Gas hydrates on continental margins of the United States based on occurrence of bottom simulating reflectors on marine seismic records, compiled by K. A. Kvenvolden. 1 over-size sheet, scale 1:10,000,000 (1 inch = about 160 miles). (NC, Da, M, A, S, SF, LA; USGS, Room 207, O'Neill Bldg., Univ. Alaska (P.O. Box 80586), Fairbanks, AK 99708; Alaska Div. Geol. and Geophys. Surveys, Frontier Bldg., 3601 C St., Anchorage, AK 99503 (Mail address: Pouch 7-028, Anchorage, AK 99501); and 794 University Ave., Fairbanks, AK 99701.)
- OF 83-0825. **OREGON.** Schlumberger soundings near Newberry Caldera, Oregon, by R. J. Bisdorf. 52 p. (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201.)
- OF 83-0827. Basalt samples and water-column samples from the southern Juan de Fuca Ridge; preliminary results of cruise L13-82-WF, by J. L. Morton, J. S. Eaby, W. R. Normark, Jean-Philippe Eissen, Margaret Golan-Bac, J. B. Rapp, and J. M. Been. 12 p. (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201.)
- OF 83-0830. **CALIFORNIA.** Results and preliminary inversion of loop-loop frequency-domain electromagnetic soundings near Medicine Lake, California, by W. L. Anderson, F. C. Frischknecht, P. V. Raab, J. A. Bradley, and J. Turnross. 126 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0832. **OREGON.** Time-domain electromagnetic soundings of Newberry Volcano, Deschutes County, Oregon, by D. V. Fitterman. 64 p. (NC, Da, M, S, SF, LA; Oregon Dept. Geol. and Mineral Industries, 1005 State Office Bldg., Portland, OR 97201.)
- OF 83-0834. **CALIFORNIA.** Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California, by D. L. Lamar, J. L. Smith, J. W. La Violette, K. Custis, and P. J. Scrivner. 218 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
1. **CALIFORNIA.** Introduction and summary, by D. L. Lamar, J. L. Smith, J. W. La Violette, K. Custis, and P. J. Scrivner. 8 p.
 2. **CALIFORNIA.** Annotated bibliography of geologic reports prepared for nuclear power plant sites in Southern California, by D. L. Lamar, J. L. Smith, J. W. La Violette, K. Custis, and P. J. Scrivner. 93 p.
 3. **CALIFORNIA.** Annotated bibliography of engineering geology reports prepared to satisfy the Alquist-Priolo Special Studies Zones Act in Southern California, by D. L. Lamar, J. L. Smith, J. W. La Violette, K. Custis, and P. J. Scrivner. 105 p.

- OF 83-0836. IDAHO. Abstracts of the symposium on the geology and mineral deposits of the Challis 1° by 2° Quadrangle, Idaho, by F. S. Fisher and K. M. Johnson. 18 p. (NC, Da, M, U, SF, S; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.)
- IDAHO. The philosophy of mineral resource appraisal; Challis 1° × 2° CUSMAP, models, analogy, and metaphor, by F. S. Fisher. p. 2
- IDAHO. Cretaceous rocks of the Atlanta Lobe of the Idaho Batholith, by T. H. Kiilsgaard, and R. S. Lewis. p. 3-4
- IDAHO. The Challis volcanic field, by E. B. Ekren. 4 p.
- IDAHO. Pre-Tertiary sedimentary terranes of the Bayhorse area; Challis 1° × 2° Quadrangle, by S. W. Hobbs. p. 4-5
- IDAHO. Geophysical studies in the Challis 1° × 2° Quadrangle, Idaho, by D. R. Mabey.
- IDAHO. Tertiary plutons in central Idaho, by E. H. Bennett. p. 5-6
- IDAHO. Geochemical studies in the Challis 1° × 2° Quadrangle, by G. J. Neuerberg, and J. E. Callahan. p. 6
- IDAHO. The Twin Peaks Caldera and associated ore deposits, by R. F. Hardyman. p. 6-7
- IDAHO. Ore deposits related to the Thunder Mountain caldera complex, by B. F. Leonard. p. 7-8
- IDAHO. Epithermal gold-silver mineralization related to volcanic subsidence in the Custer Graben, Custer County, Idaho, by D. H. McIntyre, and K. M. Johnson. p. 8
- IDAHO. Controls and characteristics of mineralization in middle and upper Paleozoic rocks in central Idaho, by W. E. Hall. p. 8-9
- IDAHO. Structural and stratigraphic controls of ore deposits in the Bayhorse region, Custer County, Idaho, by S. W. Hobbs. p. 9
- IDAHO. A case for plants in exploration; gold in Douglas-fir at the Red Mountain stockwork, Yellow Pine District, Idaho, by J. A. Erdman, B. F. Leonard, and D. M. McKown. p. 10
- IDAHO. Mineral deposits in the southern parts of the Atlanta Lobe of the Idaho Batholith and their relationship to Tertiary intrusive rocks and faulting, by T. H. Kiilsgaard, and E. H. Bennett. p. 10-11
- IDAHO. Mineralization and rhyolite intrusions in the Challis volcanic field, by R. F. Hardyman, and F. S. Fisher. p. 11
- IDAHO. Lead isotope characteristics of ore systems in central Idaho, by B. R. Doe, and M. H. Delevaux. p. 11-12
- IDAHO. Light-stable isotope characteristics of ore systems in central Idaho, by S. S. Howe, and W. E. Hall. p. 12
- IDAHO. Depositional controls of tungsten in central Idaho, by T. M. Cookro. p. 13
- IDAHO. Cobalt in Precambrian rocks of central Idaho, by P. J. Modreski. p. 13-14
- IDAHO. Spatial and temporal distribution of selected mineral resources in the Challis Quadrangle, Idaho, by F. S. Fisher. p. 14
- OF 83-0837. IDAHO. Aeromagnetic map of the Gospel Hump area, Idaho. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M, U, SF, S; Idaho Bur. Mines and Geol., Univ. Idaho Campus, Moscow, ID 83843.)
- OF 83-0838. Hand-held ratioing radiometer data for 66 selected mineral samples, by Gene Whitney. 18 p. (NC, Da, M.)
- OF 83-0863. Chemical and X-ray analyses of 175 calcite and marble samples from the collection of the National Museum of Natural History, Smithsonian Institution, by Eurybiades Busenberg, and L. N. Plummer. 8 p. (NC, Da, M, Wb.)
- OF 83-0868. FLORIDA. Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, September 1983, by G. L. Barr, and G. R. Schiner. 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301; USGS, WRD, Suite B-5, 4710 Eisenhower Blvd., Tampa, FL 33614.)
- OF 83-0869. FLORIDA. Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, September 1983, by G. R. Schiner, and E. C. Hayes. 1 over-size sheet. (NC, Da, M, Wb; USGS, WRD, Suite 3015, 227 North Bronough St., Tallahassee, FL 32301.)
- OF 83-0882. ALASKA. An oilspill risk analysis for the Gulf of Alaska/Cook Inlet lease offering (October 1984), by R. P. LaBelle, Anastase Nakassis, and K. J. Lanfear. 74 p. (Da, M, NC, A.)
- OF 83-0901. U.S. Geological Survey-Ingeominas mineral resource assessment of Colombia; additional ore deposit models, edited by D. P. Cox. 32 p. (NC, Da, M.)
- OF 83-0902. Mineral deposit grade-tonnage models II, edited by D. A. Singer, and D. L. Mosier. 103 p. (NC, Da, M.)
- OF 83-0905. BASIC programs for calculation of cation site occupancies and plotting of mineral data with applications for evaluation of metamorphic mineral assemblages, by M. J. Flohr. 68 p. (NC, Da, M.)
- OF 83-0906. CALIFORNIA. Underwater gravity meter survey of San Francisco and San Pablo bays, California, 1982, by J. R. Childs, L. A. Beyer, D. S. McCulloch, G. A. McHendrie, and W. C. Steele. 28 p. (NC, Da, M, SF, LA; California Div. Mines and Geol., Room 1341, Resources Bldg., 1416 Ninth St., Sacramento, CA 95814; Ferry Bldg., San Francisco, CA 94111; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.)
- OF 83-0916. NORTH CAROLINA, SOUTH CAROLINA. Paleomagnetic results from seven middle Paleozoic plutons in the Appalachian Piedmont of North and South Carolina, by J. T. Hagstrum. 20 p. (NC, Da, M; North Carolina Div. Land Resources, Dept. Natural Resources and Community Devel. (P.O. Box 27687), Raleigh, NC 27611; South Carolina Geol. Survey, Harbison Forest Rd., Columbia, SC 29210.)

Reports Available Only Through the National Cartographic Information Centers

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

- OF 82-0001. IDAHO. Land use and land cover and associated maps for Twin Falls, Idaho. Lat 42° to 43°, long 114° to 116°. This data set consists of one map keyed to USGS topographic map Twin Falls at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Twin Falls. (†USGS, Western Mapping Ctr. (NCIC-W), 345 Middlefield Rd., Menlo Park, CA 94025.)

- OF 82-0002. IDAHO. Land use and land cover and associated maps for Pocatello, Idaho. Lat 42° to 43°, long 112° to 114°. This data set consists of one map keyed to USGS topographic map Pocatello at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Pocatello. (†USGS, Western Mapping Ctr., (NCIC-W), 345 Middlefield Rd., Menlo Park, CA 94025.)
- OF 82-0003. WASHINGTON. Land use and land cover and associated maps for Ritzville, Washington. Lat 47° to 48°, long 118° to 120°. This data set consists of one map keyed to USGS topographic map Ritzville at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Ritzville (†USGS Western Mapping Ctr., (NCIC-W), 345 Middlefield Rd., Menlo Park, CA 94025.)
- OF 82-0243. WISCONSIN, MICHIGAN. Land use and land cover and associated maps for Iron Mountain, Wisconsin, Michigan. Lat 45° to 46°, long 88° to 90°. This data set consists of one map keyed to USGS topographic map Iron Mountain at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Iron Mountain. (†Mid-Continent Mapping Ctr. (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 82-0244. OKLAHOMA, KANSAS. Land use and land cover and associated maps for Woodward, Oklahoma; Kansas. Lat 36° to 37°, long 98° to 100°. This data set consists of one map keyed to USGS topographic map Woodward at 1:250,000 (1 inch = about 4 miles). The map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Woodward at 1:250,000. (†USGS, Mid-Continent Mapping Ctr. (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 82-0245. WISCONSIN. Land use and land cover and associated maps for Rice Lake, Wisconsin. Lat 45° to 46°, long 90° to 92°. This data set consists of one map keyed to USGS topographic map Rice Lake at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Rice Lake. (†USGS, Mid-Continent Mapping Ctr., (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 82-0246. NEBRASKA, IOWA, SOUTH DAKOTA. Land use and land cover and associated maps for Sioux City, Nebraska, Iowa, South Dakota. Lat 42° to 43°, long 96° to 98°. This data set consists of one map keyed to USGS topographic map Sioux City at 1:250,000 (1 inch = about 4 miles). This map is (1) land use and land cover. Also included is one positive of the cultural base for Sioux City. (†USGS, Mid-Continent Mapping Ctr., (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 82-0247. MINNESOTA. Land use and land cover and associated maps for Hibbing, Minnesota. Lat 47° to 48°, long 92° to 94°. This data set consists of one map keyed to the USGS topographic map Hibbing at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Hibbing at 1:250,000. (†USGS, Mid-Continent Mapping Ctr. (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 82-0248. NEBRASKA, IOWA. Land use and land cover and associated maps for Fremont, Nebraska, Iowa. Lat 41° to 42°, long 96° to 98°. This data set consists of one map keyed to USGS topographic map Fremont at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Fremont. (†USGS, Mid-Continent Mapping Ctr., (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 82-0249. NEBRASKA, KANSAS. Land use and land cover and associated maps for Lincoln, Nebraska; Kansas. Lat 40° to 41°, long 96° to 98°. This data set consists of one map keyed to USGS topographic map Lincoln at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Lincoln. (†USGS, Mid-Continent Mapping Ctr., (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)
- OF 82-0801. ARIZONA, UTAH. Land use and land cover and associated maps for Cedar City, Arizona; Utah. Lat 37° to 38°, long 112° to 114°. This data set consists of one map keyed to USGS topographic map Cedar City at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Cedar City at 1:250,000. (†USGS, Rocky Mountain Mapping Ctr. (NCIC-R), Box 25046, Federal Center, Denver, CO 80225.)
- OF 82-0804. UTAH. Land use and land cover and associated maps for Richfield, Utah. Lat 38° to 39°, long 112° to 114°. This data set consists of 2 maps keyed to the USGS topographic map Richfield at 1:250,000 (1 inch = about 4 miles). These maps are coded for statistical data development. These maps are (1) land use and land cover and (3) hydrologic units. Also included is one copy of the cultural base for Richfield at 1:250,000. (†USGS, Rocky Mountain Mapping Ctr. (NCIC-R), Box 25046, Federal Center, Denver, CO 80225.)
- OF 82-0805. TEXAS. Land use and land cover and associated maps for Tyler, Texas. Lat 32° to 33°, long 94° to 96°. This data set consists of one map keyed to USGS topographic map Tyler at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Tyler at 1:250,000. (†USGS, Rocky Mountain Mapping Ctr. (NCIC-R), Box 25046, Federal Center, Denver, CO 80225.)
- OF 82-0806. TEXAS, ARKANSAS, OKLAHOMA. Land use and land cover and associated maps for Texas, Arkansas, Oklahoma. Lat 33° to 34°, long 94° to 96°. This data set consists of two maps keyed to the USGS topographic map Texarkana at 1:250,000 (1 inch = about 4 miles). These maps are coded for statistical data development. These maps are (1) land use and land cover. Also included is one copy of the cultural base for Texarkana at 1:250,000. (†USGS, Rocky Mountain Mapping Ctr. (NCIC-R), Box 25046, Federal Center, Denver, CO 80225.)
- OF 83-0106. ARIZONA. Land use and land cover and associated maps for Prescott, Arizona. Lat 34° to 35°, long 112° to 114°. This data set consists of one map keyed to USGS topographic map Prescott at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of

the cultural base for Prescott at 1:250,000. (†USGS, Western Mapping Ctr. (NCIC-W), 345 Middlefield Rd., Menlo Park, CA 94025.)

OF 83-0107. ARIZONA. Land use and land cover and associated maps for Williams, Arizona. Lat 35° to 36°, long 112° to 114°. This data set consists of one map keyed to USGS topographic map Williams at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Williams at 1:250,000. (†USGS, Western Mapping Ctr. (NCIC-W), 345 Middlefield Rd., Menlo Park, CA 94023.)

OF 83-0109. NEVADA. Land use and land cover and associated maps for Elko, Nevada. Lat 40° to 41°, long 114° to 116°. This data set consists of one map keyed to USGS topographic map Elko at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Elko at 1:250,000. (†USGS, Western Mapping Ctr., 345 Middlefield Rd., Menlo Park, CA 94023.)

OF 83-0111. NEVADA. Land use and land cover and associated maps for Lovelock, Nevada. Lat 40° to 41°, long 118° to 120°. This data set consists of one map keyed to USGS topographic map Lovelock at 1:250,000 (1 inch = about 4 miles). This map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Lovelock at 1:250,000. (†USGS, Western Mapping Ctr., (NCIC-W), 345 Middlefield Rd., Menlo Park, CA 94023.)

OF 83-0112. WYOMING, MONTANA. Land use and land cover and associated maps for Sheridan, Wyoming; Montana. Lat 44° to 45°, long 106° to 108°. This data set consists of 3 maps keyed to the USGS topographic map Sheridan at 1:250,000 (1 inch = about 4 miles.) These maps are coded for statistical data development. These maps are (1) land use and land cover, (2) political units, (3) hydrologic units. Also included is one copy of the cultural base for Sheridan at 1:250,000. (†USGS, Rocky Mountain Mapping Ctr. (NCIC-R), Box 25046, Federal Central, Denver, CO 80225.)

OF 83-0553. OKLAHOMA, KANSAS. Land use and land cover and associated maps for Enid, Oklahoma; Kansas. Lat 36° to 37°, long 96° to 98°. This data consists of four maps keyed to the USGS topographic map Enid at 1:250,000 (1 inch = about 4 miles). These maps are coded for statistical data development. These maps are (1) land use and land cover, (2) political units, (3) hydrologic units, (4) census county subdivision. Also included is one copy of the cultural base for Enid at 1:250,000. (†USGS, Mid-Continent Mapping Ctr. (NCIC-M), 1400 Independence Rd., Rolla, MO 65401.)

Reports Available Only Through Certain Geological Survey 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 79-1169. MAINE. Records of selected wells, springs, and test holes, in the Royal, upper Presumpscot, and upper Saco River basins in Maine, by G. C. Prescott, Jr. 52 p. (NC; USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.) †A limited number of copies of this report are available from USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.

OF 79-1287. MAINE. Ground-water availability and surficial geology of the Royal, upper Presumpscot, and upper Saco River basins, Maine, by G. C. Prescott, Jr. 2 over-size sheets, scale 1:62,500 (1 inch = about 1 mile). (NC; USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.) †A limited number of copies of this report are available from USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330. (Water-Resources Investigations.)

OF 79-1337. MAINE. Ground-water resources map, southwestern Maine, by G. C. Prescott, Jr. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.

OF 79-1636. ALABAMA. Hydraulic data for Coosa River in vicinity of Lay Dam, Alabama, by G. H. Nelson, Jr. 29 p. (NC; USGS, WRD, Room 202, Oil and Gas Board Bldg., Univ. Alabama, Tuscaloosa, AL 35486.) †A limited number of copies of this report are available from USGS, WRD, Room 202, Oil and Gas Board Bldg. (P.O. Box V), University, AL 35486.

OF 80-0067. MASSACHUSETTS. Digital models of ground-water flow in the Cape Cod aquifer system, Massachusetts, by J. H. Guswa, and D. R. LeBlanc. 73 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114. (Water-Resources Investigations.)

OF 80-0335. ARIZONA, CALIFORNIA. Temperature logs of wells and test wells in Yuma area, Arizona and California, by F. H. Olmsted. 26 p. (NC, M; USGS, WRD (P.O. Box 5774), Yuma, AZ 85364.) †A limited number of copies of this report are available from USGS, WRD, 345 Middlefield Rd., Mail Stop 67, Menlo Park, CA 94025.

OF 80-0412. MAINE. Records of selected wells, springs and test holes in the upper Androscoggin River valley, Maine, by G. C. Prescott, Jr. 87 p. (NC; USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.) †A limited number of copies of this report are available from USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.

OF 80-0422. ALABAMA. Model of the ground-water flow system of the Gordo and Eutaw aquifers in west-central Alabama, by R. A. Gardner. 56 p. (NC; USGS, WRD, Room 202, Oil and Gas Board Bldg., Univ. Alabama, Tuscaloosa, AL 35486.) †A limited number of copies of this report are available from Geol. Survey of Alabama (P.O. Drawer O), University, AL 35486.

OF 80-0431. MASSACHUSETTS. Distribution of aquifers, liquid-waste impoundments, and municipal water-supply sources, Massachusetts, by D. F. Delaney, and Anthony Mavsky. 1 over-size sheet. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114. (Water-Resources Investigations.)

- OF 80-0501-W. GEORGIA. Ground-water data for Georgia, 1979, by S. E. Matthews, W. G. Hester, and M. P. O'Byrne. 94 p. (NC; USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.) †A limited number of copies of this report are available from USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.
- OF 80-0557. NEW HAMPSHIRE. Trichloroethylene in the ground-water supply of Pease Air Force Base, Portsmouth, New Hampshire, by Edward Bradley. 51 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114; USGS, WRD, 55 Pleasant St., Concord, NH 03301.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114. (Water-Resources Investigations.)
- OF 80-0571. MASSACHUSETTS. Cape Cod Aquifer, Cape Cod, Massachusetts, by B. J. Ryan. 36 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114. (Water-Resources Investigations.)
- OF 80-0583. MASSACHUSETTS. Hydrologic data of the coastal drainage basins of southeastern Massachusetts, north-west shore of Buzzards Bay, by J. R. Williams, R. E. Willey, and G. D. Tasker. 33 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.
- OF 80-0585. GEORGIA. Potentiometric map of the principal artesian aquifer in Georgia, November 1979, by G. D. Mitchell. 1 over-size sheet. (NC; USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.) †A limited number of copies of this report are available from USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.
- OF 80-0589. ALABAMA. Hydraulic factors of Big Creek and Black Creek near Gadsden, Alabama, at proposed Interstate Highway 759 crossing, by L. R. Bohman. 19 p. (NC; USGS, WRD, Room 202, Oil and Gas Board Bldg., Univ. Alabama (P.O. Box V), University, AL 35486.) †A limited number of copies of this report are available from Alabama Highway Dept., State Office Bldg., Montgomery, AL 36130.
- OF 80-1008. MASSACHUSETTS. Probable high ground-water levels on Cape Cod, Massachusetts, by M. H. Frimpter. 31 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114. (Water-Resources Investigations.)
- OF 80-1016. MARYLAND. Technique for estimating magnitude and frequency of floods in Maryland, by D. H. Carpenter. 119 p. (NC; USGS, WRD, 208 Carroll Bldg., 8600 La Salle Rd., Towson, MD 21204.) †A limited number of copies of this report are available from USGS, WRD, 208 Carroll Bldg., 8600 La Salle Rd., Towson, MD 21204. (Water-Resources Investigations.)
- OF 80-1017. MASSACHUSETTS. Hydrologic data of the coastal drainage basins of northeastern Massachusetts, from Castle Neck River, Ipswich, to Mystic River, Boston, by D. F. Delaney, and F. B. Gay. 44 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114; Massachusetts Water Resources Commission, Leverett Saltonstall Bldg., Room 1901, 100 Cambridge St. Boston, MA 02202.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.
- OF 80-1183. ALABAMA. Flood of April 13, 1980, Mobile, Alabama, by C. H. Hannum, and G. H. Nelson, Jr. 6 over-size sheets. (NC, Wb; USGS, WRD, Room 202, Oil and Gas Board Bldg., Univ. Alabama (P.O. Box V), University, AL 35486.) †A limited number of copies of this report are available from USGS, WRD (P.O. Box V), University, AL 35486.
- OF 80-1296. GEORGIA. Geohydrology of the Albany area, Georgia, by D. W. Hicks, R. E. Krause, and J. S. Clarke. 62 p. (NC; USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.) †A limited number of copies of this report are available from USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.
- OF 81-0061. KENTUCKY. Drainage areas of streams at selected locations in Kentucky, by D. E. Bower, and W. H. Jackson. 120 p. (NC; USGS, WRD, Room 572, Federal Bldg., 600 Federal Place, Louisville, KY 40202.) †A limited number of copies of this report are available from USGS, WRD, Room 572, Federal Bldg., 600 Federal Place, Louisville, KY 40202.
- OF 81-0062. OKLAHOMA. Geohydrology of the Vamoosa-Ada Aquifer, east-central Oklahoma, by J. J. D'Lugosz and R. G. McClafflin, *with a section on* Chemical quality of water, by M. V. Marcher. 81 p. (NC, Da, T; USGS, WRD, Room 621, 215 NW. Third St., Oklahoma City, OK 73102; USGS, WRD, Univ. Oklahoma, 830 Van Vleet Oval, Norman, OK 83059.) †A limited number of copies of this report are available from Oklahoma Geol. Survey, Univ. Oklahoma, 830 Van Vleet Oval, Room 163, Norman, OK 73019.
- OF 81-0135. ALABAMA. Hydrology of area 22, Eastern Coal Province, Alabama, by J. R. Harkins and others. 115 p. (NC; USGS, WRD (P.O. Box V), University, AL 35486.) †A limited number of copies of this report are available from USGS, WRD (P.O. Box V), University, AL 35486. (Water-Resources Investigations.)
- OF 81-0137. KENTUCKY. Hydrology of area 14, Eastern Coal Province, Kentucky, by Ferdinand Quinones and others. 112 p. (NC; USGS, WRD, Room 572, Federal Bldg., 600 Federal Place, Louisville, KY 40202.) †A limited number of copies of this report are available from USGS, WRD, Room 572, Federal Bldg., 600 Federal Place, Louisville, KY 40202. (Water-Resources Investigations.)
- OF 81-0204. VIRGINIA, TENNESSEE. Hydrology of area 16, Eastern Coal Province, Virginia-Tennessee, by P. W. Hufschmidt and others. 74 p. (NC; USGS, WRD, 200 West Grace St., Room 304, Richmond, VA 23220.) †A limited number of copies of this report are available from USGS, WRD, 200 West Grace St., Room 304, Richmond, VA 23220. (Water-Resources Investigations.)

- OF 81-0208. ARKANSAS, OKLAHOMA. Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma, 1980 water year, by G. L. Ducret, Jr. 25 p. (NC, Da, T, Wb; USGS, WRD, Room 2301, Federal Office Bldg., Little Rock, AR 72201; Arkansas Div. Soil and Water Resources, 1818 West Capitol, Bldg. A, Little Rock, AR 72204.) †A limited number of copies of this report are available from USGS, WRD, Room 2301, Federal Office Bldg., 700 West Capitol Ave., Little Rock, AR 72201.
- OF 81-0218. NEW MEXICO. Miscellaneous surface-water data, Pecos River basin, New Mexico, by C. C. Cranston, G. E. Kues, and G. E. Welder. 545 p. (NC, Da, Db, T, Wb; USGS, WRD, Room 815, Western Bank Bldg., 505 Marquette, NW., Albuquerque, NM 87125.) †A limited number of copies of this report are available from USGS, WRD (P.O. Box 26659), Albuquerque, NM 87125.
- OF 81-0331. Flood of September 16, 1975, in the Yauco Valley, Puerto Rico, by K. G. Johnson. 13 p. (NC; USGS, WRD, GPO Box 4424, San Juan, PR 00936.) †A limited number of copies of this report are available from USGS, WRD, GPO Box 4424, San Juan, PR 00936. (Water-Resources Investigations.)
- OF 81-0333. KANSAS. Map of water table in Graham County, northwestern Kansas, March 1979, by J. M. Spinazola. 1 over-size sheet. (NC, Da; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66045.) †A limited number of copies of this report are available from USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66045. (Water-Resources Investigations.)
- OF 81-0334. KANSAS. Map of water table in Solomon River valley, Waconda Lake to Solomon, north-central Kansas, May 1980, by T. B. Reed. 1 over-size sheet. (NC, Da; USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66045.) †A limited number of copies of this report are available from USGS, WRD, 1950 Ave. A, Campus West, Univ. Kansas, Lawrence, KS 66045. (Water-Resources Investigations.)
- OF 81-0418. ARIZONA. Map showing ground-water conditions in the Sacramento Valley area, Mohave County, Arizona; 1979, by C. L. Pfaff, and D. M. Clay. 1 over-size sheet. (NC, M; USGS, WRD, Federal Bldg., 301 West Congress FB-44, Tucson, AZ 85701.) †A limited number of copies of this report are available from USGS, WRD, Federal Bldg., 31 West Congress, FB-44, Tucson, AZ 85701. (Water-Resources Investigations.)
- OF 81-0420. NEW YORK. Base flow of streams in Nassau County sewer districts 2 and 3, Long Island, New York, 1978-79, by H. F. Ku, and D. L. Simmons. 37 p. (NC; USGS, WRD, 5 Aerial Way, Syosset, NY 11791; USGS, WRD (P.O. Box 1350), 343 U.S. Post Office and Courthouse, Albany, NY 12201.) †A limited number of copies of this report are available from USGS, WRD, 5 Aerial Way, Syosset, NY 11791. (Water-Resources Investigations.)
- OF 81-0480. Flood of September 16, 1975, in the Guanica area, Puerto Rico, by K. G. Johnson, and Ralph Gonzalez. 14 p. (NC; USGS, WRD, GPO Box 4424, San Juan, PR 00936.) †A limited number of copies of this report are available from USGS, WRD, GPO Box 4424, San Juan, PR 00936. (Water-Resources Investigations.)
- OF 81-0483. OKLAHOMA, TEXAS. Geohydrology and numerical simulation of the alluvium and terrace aquifer along the Beaver-North Canadian River from the Panhandle to Canton Lake, northwestern Oklahoma, by R. E. Davies, and S. C. Christenson. 87 p. (NC, Da, T, Wb; Oklahoma Water Resources Board, 12th Floor, NE 10th and Stonewall, Oklahoma City, OK 73105; USGS, WRD, Room 621, Old Post Office Bldg., 215 Dean A. McGee St., Oklahoma City, OK 73102.) †A limited number of copies of this report are available from USGS, WRD, Room 621, Old Post Office Bldg., 215 Dean A. McGee St., Oklahoma City, OK 73102.
- OF 81-0491. TEXAS. Hydrologic data for urban studies in the Dallas, Texas, metropolitan area, 1979, by C. M. Wood, H. S. Butler, and J. D. Benton. 147 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St. Austin, TX 78701.) †A limited number of copies of this report are available from USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.
- OF 81-0492. TENNESSEE. Hydrology of area 18, Eastern Coal Province, Tennessee, by V. J. May and others. 190 p. (USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203.) †A limited number of copies of this report are available from USGS, WRD, A-413 Federal Bldg., U.S. Courthouse, Nashville, TN 37203.
- OF 81-0495. WISCONSIN. Low-flow characteristics of streams in the central Wisconsin River basin, Wisconsin, by W. A. Gebert. 99 p. (NC, Da, M, Wb; USGS, WRD, 1815 University Ave., Madison, WI 53706; Public Inquiries Office, Room 1028, General Services Admin. Bldg., 18th and F Sts., NW., Washington, DC 20244.) †A limited number of copies of this report are available from USGS, WRD, 1815 University Ave., Madison, WI 53706.
- OF 81-0496. CALIFORNIA. Geologic map of the Redwood Creek drainage basin, Humboldt County, California, by D. R. Harden, H. M. Kelsey, S. D. Morrison, and T. A. Stephens. 1 over-size sheet, scale 1:62,500 (1 inch = about 1 mile). (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, 345 Middlefield Rd., Mail Stop 39, Menlo Park, CA 94025.
- OF 81-0498. INDIANA. Hydrology of area 32, Eastern Region, Interior Coal Province, Indiana, by D. J. Wangness, R. L. Miller, Z. C. Bailey, and C. G. Crawford. 134 p. (NC; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.) †A limited number of copies of this report are available from USGS, WRD, 1819 North Meridian St., Indianapolis, IN 46202.
- OF 81-0531. NEBRASKA. Hydrogeologic reconnaissance of the Republic River basin, Nebraska, by M. J. Ellis. 3 sheets. (NC, Da, Wb; USGS, WRD, 406 Federal Bldg., 100 Centennial Mall, North, Lincoln, NE 68508.) †A limited number of copies of this report are available from USGS, WRD, 406 Federal Bldg., 100 Centennial Mall, North, Lincoln, NE 68508.
- OF 81-0536. FLORIDA. Hydrology of Lake Tohopekaliga, Osceola County, Florida, by G. G. Phelps. 1 over-size sheet. (Wb, NC, Da, M; USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; USGS, Suite 216, 80 North Hughey Ave., Orlando, FL 32801; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)

- OF 81-0537. PENNSYLVANIA. Hydrology of area 3, Eastern Coal Province, Pennsylvania, by W. J. Herb, L. C. Shaw, and D. E. Brown. 60 p. †A limited number of copies of this report are available from USGS, Fourth Floor, Federal Bldg. (P.O. Box 1107), Harrisburg, PA 17108.
- OF 81-0538. PENNSYLVANIA, MARYLAND, WEST VIRGINIA. Hydrology of area 5, Eastern Coal Province, Pennsylvania, Maryland, and West Virginia, by W. J. Herb, L. C. Shaw, and D. E. Brown. 179 p. †A limited number of copies of this report are available from USGS, Fourth Floor, Federal Bldg. (P.O. Box 1107), Harrisburg, PA 1708.
- OF 81-0539. UTAH. Hydrology of the coal-resource areas in the upper drainages of Huntington and Cottonwood creeks, central Utah, by T. W. Danielson, M. D. ReMillard, and R. H. Fuller. 85 p. (NC, Da, Wb, U; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.) †A limited number of copies of this report are available from USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.
- OF 81-0546. MISSISSIPPI, ALABAMA. Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama, by D. J. Tomaszewski. 142 p. (NC; USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39201; USGS, WRD, Room 202, Oil and Gas Board Bldg., Univ. Alabama, University, AL 35486; Mobile District (P.O. Box 2288), Corps of Engineers, Mobile, AL 36628.) †A limited number of copies of this report are available from USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39201.
- OF 81-0626. Ground-water levels and chloride concentrations in alluvial aquifers on the south coast of Puerto Rico, February 1980, by Hector Colon-Ramos, and Eloy Colon-Dieppa. 22 p. (NC; USGS, WRD, Bldg. 652, Ft. Buchanan (G.P.O. Box 4424), San Juan, PR 00936.) †A limited number of copies of this report are available from USGS, WRD (G.P.O. Box 4424), San Juan, PR 00936.
- OF 81-0636. ILLINOIS. Hydrology of area 25, Eastern Region, Interior Coal Province, Illinois, by E. E. Zuehls, G. L. Ryan, D. B. Peart, and K. K. Fitzgerald. 79 p. (NC, Da, M; Water Information Group, Special Reports Section, USGS, Room 5B410, National Ctr., 12201 Sunrise Valley Dr., Reston, VA 22092.) †A limited number of copies of this report are available from USGS, Champaign County Bank Plaza, Fourth Floor, 102 East Main St., Urbana, IL 61801.
- OF 81-0638. FLORIDA. Hydrogeologic sections through Lee County and adjacent areas of Hendry and Collier counties, Florida, by D. H. Boggess, T. M. Missimer, and T. H. O'Donnell. 1 over-size sheet. (Wb, NC, Da, M; USGS, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, 7815 Coral Way, Suite 110, Miami, FL 33155; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)
- OF 81-0640. MAINE. Time-of-travel studies for the Little Androscoggin River, Maine, by W. J. Nichols, B. M. Reed, and F. W. Greenlaw. 18 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114; USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.) †A limited number of copies of this report are available from USGS, WRD, 26 Ganneston Dr., Augusta, ME 04330.
- OF 81-0641. Ground-water levels in alluvium on the south coast of Puerto Rico, February 1979, by Eloy Colon-Dieppa, and J. R. Gonzalez. 21 p. (NC; USGS, WRD, Bldg. 652, Ft. Buchanan (G.P.O. Box 4424), San Juan, PR 00936.) †A limited number of copies of this report are available from USGS, WRD (G.P.O. Box 4424), San Juan, PR 00936.
- OF 81-0644. UTAH, COLORADO. Selected biological characteristics of streams in the southeastern Uinta Basin, Utah and Colorado, by R. W. Naten, and R. H. Fuller. 38 p. (NC, Da, Wb, U; USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.) †A limited number of copies of this report are available from USGS, WRD, Room 1016, Administration Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.
- OF 81-0681. FLORIDA. Computer simulation of the steady-state flow system of the Tertiary limestone (Floridan) aquifer system in east-central Florida, by C. H. Tibbals. 31 p. (Wb, NC, Da, M; USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; USGS, Suite 216, 80 North Hughey Ave., Orlando, FL 32801; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)
- OF 81-0684. COLORADO. Chemical and isotopic compositions of selected soda and hot spring waters, Colorado, by T. S. Presser, W. C. Evans, L. D. White, and Ivan Barnes. 9 p. (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, 345 Middlefield Rd., Mail Stop 34, Menlo Park, CA 94025.
- OF 81-0802. MASSACHUSETTS. Hydrologic data of the Shawsheen River basin, Massachusetts, by F. B. Gay, and D. F. Delaney. 22 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114; Massachusetts Water Resources Commission, Leverett Saltonstall Bldg., Room 1901, 100 Cambridge St., Boston, MA 02202.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.
- OF 81-0907. FLORIDA. Chloride and total hardness concentrations of water from the upper part of the Floridan Aquifer in St. Johns County, Florida, by P. S. Hampson, and E. C. Hayes. 1 over-size sheet. (Wb, NC, Da, M; USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; USGS, Suite 106, 4415 Beach Blvd., Jacksonville, FL 32207; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)
- OF 81-1016. 1982 Water Quality Laboratory services catalog, by W. A. Beetem, G. R. Perryman, E. R. Anthony, and L. C. Friedman. 180 p. (NC; Quality of Water Branch, National Ctr., Mail Stop 412, 12201 Sunrise Valley Dr., Reston, VA 22092.) †A limited number of copies of this report are available from Quality of Water Branch, National Ctr., Mail Stop 412, 12201 Sunrise Valley Dr., Reston, VA 22092. (Supersedes Open-file report 80-1279.)

- OF 81-1051. MISSISSIPPI. Potentiometric map of the Sparta aquifer system in Mississippi, fall, 1980, by B. E. Wasson. 4 p., 1 over-size sheet. (NC; USGS, WRD, Suite 710, 100 West Capitol St., Jackson, MS 39201.) †A limited number of copies of this report are available from USGS, WRD, Suite 710, 100 West Capitol St., Jackson, MS 39201. (Water-Resources Investigations.)
- OF 81-1053. MISSISSIPPI. Potentiometric map of the Cockfield Aquifer in Mississippi, fall, 1980, by B. E. Wasson. 4 p., 1 over-size sheet. (NC; USGS, WRD, Suite 710, 100 West Capitol St., Jackson, MS 39201.) †A limited number of copies of this report are available from USGS, WRD, Suite 710, 100 West Capitol St., Jackson, MS 39201. (Water-Resources Investigations.)
- OF 81-1068. GEORGIA. Ground-water data for Georgia, 1980, by S. E. Matthews, W. G. Hester, and M. P. O'Byrne. 94 p. (NC; USGS, WRD, 6481 Peachtree Industrial Bldg., Suite B, Doraville, GA 30360.) †A limited number of copies of this report are available from USGS, WRD, 6481 Peachtree Industrial Bldg., Suite B, Doraville, GA 30360.
- OF 81-1121. FLORIDA. Water resources of the Ochlockonee River area, Northwest Florida, by C. A. Pascale, and J. R. Wagner. 114 p. (Wb, NC, Da, M; USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; USGS, Suite L-103, 325 John Knox Rd., Tallahassee, FL 32303; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)
- OF 81-1124. Thickness of the Tertiary limestone aquifer system, Southeastern United States, by J. A. Miller. 1 over-size sheet. (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, SE Region, 75 Spring St., SW., Suite 772, Atlanta, GA 30303.
- OF 81-1176. Geology and configuration of the base of the Tertiary limestone aquifer system, Southeastern United States, by J. A. Miller. 1 over-size sheet. (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, SE Region, 75 Spring St., SW., Suite 772, Atlanta, GA 30303.
- OF 81-1177. Configuration of the base of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States, by J. A. Miller. 1 over-size sheet. (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, SE Region, 75 Spring St., SW., Suite 772, Atlanta, GA 30303.
- OF 81-1178. Geology and configuration of the top of the Tertiary limestone aquifer system, Southeastern United States, by J. A. Miller. 1 over-size sheet. (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, SE Region, 75 Spring St., SW., Suite 772, Atlanta, GA 30303.
- OF 81-1179. Thickness of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States, by J. A. Miller. 1 over-size sheet. (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, SE Region, 75 Spring St., SW., Suite 772, Atlanta, GA 30303.
- OF 81-1185. MASSACHUSETTS. Hydrologic data of the lower Merrimack River basin, Massachusetts, from Concord River, Lowell, to Plum Island, Newburyport, by D. F. Delaney, and F. B. Gay. 37 p., 1 over-size sheet. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114; Massachusetts Water Resources Commission, Leverett Saltonstall Bldg., Room 1901, 100 Cambridge St., Boston, MA 02202.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.
- OF 81-1192. WISCONSIN. An assessment of streamflow, water quality, and the effects of constructing an impoundment on Bridge Creek at Augusta, Wisconsin, by L. B. House. 25 p. (NC, Da, M, Wa, Wb; USGS, WRD, 1815 University Ave., Madison, WI 53706.) †A limited number of copies of this report are available from USGS, WRD, 1815 University Ave., Madison, WI 53706.
- OF 81-1193. WISCONSIN. Low-flow characteristics in the Lake Michigan basin, Wisconsin, by B. K. Holmstrom. 102 p. (NC, Da, M; Wisconsin District Office, Room 200, 1815 University Ave., Madison, WI 53706; Public Inquiries Office, 1028 General Services Admin. Bldg., 18th and F Sts., NW., Washington, DC 20244.) †A limited number of copies of this report are available from USGS, WRD, 1815 University Ave., Madison, WI 53706.
- OF 81-1199. MASSACHUSETTS. Drainage divides, Massachusetts-Hudson River basin, by S. W. Wandle, Jr. 6 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114; Massachusetts Water Resources Commission, Leverett Saltonstall Bldg., Room 1901, 100 Cambridge St., Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.
- OF 82-0076. GEORGIA. Velocity observations of the Chattahoochee River at Atlanta, Georgia, September 28, 1981, by T. W. Hale. 10 p. (NC; USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.) †A limited number of copies of this report are available from USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.
- OF 82-0106. NEW MEXICO. Modeling of a transient streambed in the Rio Grande, Cochiti Dam to near Albuquerque, New Mexico, by R. C. Mengis. 112 p. (NC, Da, Db.) †A limited number of copies of this report are available from USGS, WRD, Denver Federal Ctr. (Box 25046, Mail Stop 413), Denver, CO 80225.
- OF 82-0108. FLORIDA. Hydrology of the Floridan Aquifer in Northwest Volusia County, Florida, by A. T. Rutledge. 116 p., 1 over-size sheet. (WB, NC, Da, M; USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; USGS, WRD, Suite 216, 80 North Hughey Ave., Orlando, FL 32801; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303.
- OF 82-0116. ARIZONA. Map showing ground-water conditions in the Tonto Basin area, Gila County, Arizona; 1978-79, by E. E. Denis. 1 p. (NC; USGS, WRD, Federal Bldg., 301 West Congress St., Tucson, AZ 85701; USGS, WRD, Valley Ctr., Suite 1880, Phoenix, AZ 85073.) †A limited number of copies of this report are available from USGS, WRD, 301 West Congress St., Tucson, AZ 85701.

- OF 82-0119. **FLORIDA.** Chemical quality of water in the upper part of the Floridan Aquifer, Duval County, Florida, by T. H. Thompson. 1 over-size sheet. (Wb, NC, Da, M; USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; USGS, WRD, Suite 106, 4415 Beach Blvd., Jacksonville, FL 32207; Libraries of the State University Florida.) †A limited number of copies of this report are available from USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303.
- OF 82-0153. Observations from moored current meters in San Francisco Bay, 1978, by J. W. Gartner, and R. T. Cheng. 94 p. (NC, M.) †A limited number of copies of this report are available from USGS, WRD, 345 Middlefield Rd., Mail Stop 96, Menlo Park, CA 94025.
- OF 82-0173. **GEORGIA, FLORIDA, SOUTH CAROLINA.** Digital model evaluation of the predevelopment flow system of the Tertiary limestone aquifer system, Southeast Georgia, Northeast Florida, and South South Carolina, by R. E. Krause. 27 p. (NC, Da, M.) †A limited number of copies of this report are available from USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.
- OF 82-0255. **FLORIDA.** Principal aquifers in Florida, by B. J. Franks and others. 4 over-size sheets. (Wb, NC, Da, M; USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)
- OF 82-0269. **TEXAS.** Index of surface-water stations in Texas, January 1982, by E. R. Carrillo, and H. D. Buckner. 25 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.) †A limited number of copies of this report are available from USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.
- OF 82-0275. **OKLAHOMA.** Altitude and configuration of the predevelopment water table in the High Plains regional aquifer, northwestern Oklahoma, by J. S. Havens. 2 over-size sheets. (NC; USGS, WRD, Room 621, 215 Dean A. McGee St., Oklahoma City, OK 73102.) †A limited number of copies of this report are available from USGS, WRD, Room 621, 215 Dean A. McGee St., Oklahoma City, OK 73102. (Water-Resources Investigations.)
- OF 82-0331. **FLORIDA.** Geohydrology of the Floridan Aquifer in the Withlacoochee River basin of the Southwest Florida Water Management District, by Warren Anderson, and C. P. Laughlin. 44 p. (NC, Wb, M, Da; USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303; Libraries of the State University System of Florida.) †A limited number of copies of this report are available from USGS, WRD, Suite F-240, 325 John Knox Rd., Tallahassee, FL 32303. (Water-Resources Investigations.)
- OF 82-0332. Reconnaissance of ground-water quality throughout Puerto Rico, September-October 1981, by Fernando Gomez-Gomez, and Senen Guzman. 1 p. (NC; USGS, WRD, GPO Box 4424, San Juan, PR 00936.) †A limited number of copies of this report are available from USGS, WRD, GPO Box 4424, San Juan, PR 00936.
- OF 82-0342. **MASSACHUSETTS.** Hydrologic data of the Lake Cochituate drainage basin, Framingham-Natick, Massachusetts, by F. B. Gay. 70 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, Suite 1001, 150 Causeway St., Boston, MA 02114.
- OF 82-0351. **WEST VIRGINIA.** Drainage of the Kanawha River basin, West Virginia, by M. V. Mathes, D. D. Payne, and R. A. Shultz. 219 p. (NC; USGS, WRD, 500 Quarrier St., 3416 Federal Bldg., Charleston, WV 25301.) †A limited number of copies of this report are available from USGS, WRD, 500 Quarrier St., 3416 Federal Bldg., Charleston, WV 25301.
- OF 82-0368. **ARIZONA.** Annual summary of ground-water conditions in Arizona; spring 1980 to spring 1981. 2 p. (NC; USGS, WRD, 2255 North Gemini Dr., Flagstaff, AZ 86001; Arizona Dept. Water Resources, 99 East Virginia, Phoenix, AZ 85004; USGS, WRD, Room 5-A, Federal Bldg., 301 West Congress St., Tucson, AZ 85701; USGS, WRD, Suite 1880, Valley Ctr., Phoenix, AZ 85073; USGS, WRD, 1940 South Third Ave., Yuma, AZ 85364.) †A limited number of copies of this report are available from USGS, WRD, 301 West Congress St., Room 5-A, Federal Bldg., Tucson, AZ 85701. (Water-Resources Investigations.)
- OF 82-0369. **MISSISSIPPI.** Hydrologic monitoring in the area of the proposed Yazoo River navigation project, west-central Mississippi, 1978-80, by Daphne Darden. 74 p. (NC; USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39201; U.S. Army, Corps of Engineers (P.O. Box 60), Vicksburg, MS 39180.) †A limited number of copies of this report are available from USGS, WRD, Suite 710, Federal Bldg., 100 West Capitol St., Jackson, MS 39201.
- OF 82-0373. **MISSISSIPPI.** Quality of water in Luxapallia Creek at Columbus, Mississippi, by S. J. Kalkhoff. 55 p. (NC; USGS, WRD, Suite 710, 100 West Capitol St., Jackson, MS 39201.) †A limited number of copies of this report are available from USGS, WRD, Suite 710, 100 West Capitol St., Jackson, MS 39201.
- OF 82-0427. **MISSISSIPPI.** Quality of water and time of travel in Bakers Creek near Clinton, Mississippi, by S. J. Kalkhoff. 55 p. (NC; USGS, WRD, Suite 710, 100 West Capitol St., Federal Bldg. Jackson, MS 39201.) †A limited number of copies of this report are available from USGS, WRD, Suite 710, 100 West Capitol St., Federal Bldg., Jackson, MS 39201.
- OF 82-0438. **MASSACHUSETTS.** Potential hydrologic impacts of ground-water withdrawal from the Cape Cod National Seashore, Truro, Massachusetts, by D. R. LeBlanc. 62 p. (NC; USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1001, Boston, MA 02114.
- OF 82-0502. **NEBRASKA.** Geohydrology of the High Plains aquifer system in Nebraska, by R. A. Pettijohn, and Hsui-Hsuing Chen. 18 p. (NC, Da; USGS, WRD, Room 406, Federal Bldg., 100 Centennial Mall North, Lincoln, NE 68508.) †A limited number of copies of this report are available from USGS, WRD, Room 406, Federal Bldg., 100 Centennial Mall North, Lincoln, NE 68508.

- OF 82-0503. MISSISSIPPI, ALABAMA. Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama, fiscal year 1981, by D. J. Tomaszewski. 186 p. (NC; USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39269; USGS, WRD, Room 202, Oil and Gas Board Bldg., Univ. Alabama, University, AL 35486; USGS, Mobile District, Corps of Engineers (P.O. Box 2288), Mobile, AL 36602. †A limited number of copies of this report are available from USGS, WRD, Suite 710, Federal Bldg., 100 West Capitol St., Jackson, MS 39201.
- OF 82-0511. MICHIGAN. Water quality of coal deposits and abandoned mines, Saginaw County, Michigan, by A. H. Handy. 50 p. (NC; Wb; USGS, WRD, 6520 Mercantile Way, Suite 5, Lansing, MI 48910; Michigan Dept. Natural Resources, Geol. Survey Div., Fourth Floor, Mason Bldg., Lansing, MI 48909.) †A limited number of copies of this report are available from USGS, WRD, 6520 Mercantile Way, Suite 5, Lansing, MI 48910.
- OF 82-0516. FLORIDA. Hydrologic quadrangle, Oviedo, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, Suite 216, 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0517. FLORIDA. Hydrologic quadrangles, Casselberry, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0518. FLORIDA. Hydrologic quadrangles, Osceola, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0519. FLORIDA. Hydrologic quadrangles, Sanford, SW, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0520. FLORIDA. Hydrologic quadrangle, Sanford, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0521. FLORIDA. Hydrologic quadrangle, Oviedo, SW, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, Suite 216, 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0522. FLORIDA. Hydrologic quadrangles, Bithlo, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Suite F-240, Tallahassee, FL 32303; USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0523. FLORIDA. Hydrologic quadrangle, Osteen, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Tallahassee, FL 32303; USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0524. FLORIDA. Hydrologic quadrangle, Geneva, Florida, by C. H. Tibbals, W. D. Wood, and L. J. Snell. 3 over-size sheets. (NC; Wb; USGS, WRD, 325 John Knox Rd., Tallahassee, FL 32303; USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.) †A limited number of copies of this report are available from USGS, WRD, Suite 216, Federal Bldg., 80 North Hughey Ave., Orlando, FL 32801.
- OF 82-0553. NEW YORK. An atlas of 11 selected aquifers in New York, by R. M. Waller, and A. J. Finch. 247 p. (NC; USGS, WRD (P.O. Box 1350), 236 U.S. Post Office and Courthouse, Albany, NY 12201.) †A limited number of copies of this report are available from USGS, WRD (P.O. Box 1350), 236 U.S. Post Office and Courthouse, Albany, NY 12201.
- OF 82-0556. USGS WRD full-time equivalency tracking system, by Stephen Klesert. 69 p. (NC.) †A limited number of copies of this report are available from USGS, WRD, Mail Stop 405, National Ctr., Reston, VA 22092.
- OF 82-0558. Compendium of available surface-water data in the upper Tombigbee River basin, by B. E. Colson, and R. A. Gardner. 324 p. (NC; USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39269; USGS, WRD, 52 19th Ave., Tuscaloosa, AL 35401; Mobile District, Corps of Engineers (P.O. Box 2288), Mobile, AL 36628.) †A limited number of copies of this report are available from USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39269.
- OF 82-0560. GEORGIA. Monthly low-flow characteristics of Georgia streams, by R. F. Carter, and J. D. Lewis. 157 p. (NC; USGS, WRD, Suite B, 6481 Peachtree Industrial Blvd., Doraville, GA 30360.) †A limited number of copies of this report are available from USGS, WRD, Suite B, 6481 Peachtree Industrial Blvd., Doraville, GA 30360.

- OF 82-0569. **GEORGIA.** Ground water in the Greater Atlanta region, Georgia, by C. W. Cressler, C. J. Thurmond, and W. F. Hester. 151 p. (NC; USGS, WRD, Suite B, 6481 Peachtree Industrial Blvd., Doraville, GA 30360.) †A limited number of copies of this report are available from Georgia Geol. Survey, 19 Martin Luther King, Jr. Dr., SW., Room 400, Agricultural Bldg., Atlanta, GA 30334.
- OF 82-0574. **MISSISSIPPI.** Water-level maps of the alluvial aquifer, northwestern Mississippi, September 1981, by Daphne Darden. 1 p. (NC; USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39269.) †A limited number of copies of this report are available from USGS, WRD, 100 West Capitol St., Suite 710, Jackson, MS 39269.
- OF 82-0631. **MASSACHUSETTS.** Drainage divides, Massachusetts; Blackstone and Thames River basins, by B. E. Krejmas. 1 over-size sheet. (NC; USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.
- OF 82-0632. **MASSACHUSETTS.** Drainage divides, Massachusetts; Deerfield and Millers River basins, by B. E. Krejmas, and S. W. Wandle, Jr. 1 over-size sheet. (NC; USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.
- OF 82-0633. **MASSACHUSETTS.** Drainage divides, Massachusetts; Connecticut River lowlands and Chicopee River basin, by B. E. Krejmas, and S. W. Wandle, Jr. 1 over-size sheet. (NC; USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.
- OF 82-0634. **MASSACHUSETTS.** Drainage divides, Massachusetts; Housatonic River basin, by R. A. Gadoury, and S. W. Wandle, Jr. 1 over-size sheet. (NC; USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.
- OF 82-0635. **MASSACHUSETTS.** Drainage divides, Massachusetts; Westfield and Farmington River basins, by R. A. Gadoury, and S. W. Wandle, Jr. 1 over-size sheet. (NC; USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.) †A limited number of copies of this report are available from USGS, WRD, 150 Causeway St., Suite 1309, Boston, MA 02114.
- OF 82-0754. **MICHIGAN.** Ground-water data for Michigan, 1981, by G. C. Huffman. 57 p. (NC; USGS, WRD, 6520 Mercantile Way, Suite 5, Lansing, MI 48910; Michigan Dept. Natural Resources, Stevens T. Mason Bldg., Lansing, MI 48909.) †A limited number of copies of this report are available from USGS, WRD, 6520 Mercantile Way, Suite 5, Lansing, MI 48910.
- OF 82-0766. 1983 Water Quality Laboratory services catalog, by W. A. Beetem, G. R. Peryman, E. R. Anthony, and L. C. Friedman. 180 p. (NC; Quality of Water Branch, National Ctr., Mail Stop 412, 12201 Sunrise Valley Dr., Reston, VA 22092.) †A limited number of copies of this report are available from USGS, Quality of Water Branch, National Ctr., Mail Stop 412, 12201 Sunrise Valley Dr., Reston, VA 22091.) (Supersedes Open-file report 81-1016.)
- OF 82-0903. **GEORGIA.** Hydrogeology of the Providence Aquifer of Southwest Georgia, by J. S. Clarke, R. E. Faye, and R. Brooks. 49 p. (NC; USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.) †A limited number of copies of this report are available from Georgia Geol. Survey, 19 Martin Luther King, Jr. Dr., SW., Room 400, Agriculture Bldg., Atlanta, GA 30334.
- OF 82-0904. **GEORGIA.** Ground-water data for Georgia, 1981, by S. E. Matthews, W. C. Hester, and K. W. McFadden. 110 p. (NC; USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.) †A limited number of copies of this report are available from USGS, WRD, 6481 Peachtree Industrial Blvd., Suite B, Doraville, GA 30360.
- OF 82-1005. **INDIANA, ILLINOIS.** Hydrology of area 30, eastern region, Interior Coal Province, Indiana and Illinois, by D. J. Wangsness and others. 82 p. (NC, Da, M; USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254; USGS, WRD, Champaign County Bank Plaza, 102 East Main St., Fourth Floor, Urbana, IL 61801.) †A limited number of copies of this report are available from USGS, WRD, 6023 Guion Rd., Suite 201, Indianapolis, IN 46254.
- OF 82-1008. **MISSOURI.** Preliminary investigation of ground-water occurrences in the Weldon Spring area, St. Charles County, Missouri, by C. M. Roberts, with further notes by C. V. Theis. 36 p. (NC; USGS, WRD, Room 720, 505 Marquette, NW., Albuquerque, NM 87102.) †A limited number of copies of this report are available from USGS, WRD, Room 720, 505 Marquette, NW., Albuquerque, NM 87102.
- OF 82-1009. **ARIZONA.** Annual summary of ground-water conditions in Arizona, spring 1981 to spring 1982. 2 over-size sheets. (NC, M, Da; USGS, WRD, Room 5-A, Federal Bldg., 301 West Congress St., Tucson, AZ 85701; USGS, WRD, Suite 1880, Valley Ctr., Phoenix, AZ 85073; USGS, WRD, 2255 North Gemini Dr., Bldg. 3, Flagstaff, AZ 86001; USGS, WRD, 1940 South Third Ave., Yuma, AZ 85364.) †A limited number of copies of this report are available from USGS, WRD, Room 5-A, Federal Bldg., 301 West Congress St., Tucson, AZ 85701.
- OF 83-0033. **MARYLAND, WEST VIRGINIA, PENNSYLVANIA.** Hydrology of area 6, Eastern Coal Province, Maryland, West Virginia, and Pennsylvania, by W. W. Staubitz, and J. R. Sobashinski. 131 p. (NC, Da, M; USGS, WRD, 208 Carroll Bldg., 8600 La Salle Rd., Towson, MD 21204.) †A limited number of copies of this report are available from USGS, WRD, 208 Carroll Bldg., 8600 La Salle Rd., Towson, MD 21204. (Water-Resources Investigations.)
- OF 83-0038. **UTAH, COLORADO.** Hydrology of area 56, Northern Great Plains and Rocky Mountain coal provinces, Utah and Colorado, by G. C. Lines and others. 47 p. (NC, Da; USGS, WRD, Room 1016, Admin. Bldg., 1745 West 1700 South, Salt Lake City, UT 84104.) †A limited number of copies of this report are available from USGS, WRD, Room 1016, Admin. Bldg., 1745 West 1700 South, Salt Lake City, UT 84104. (Water-Resources Investigations.)

- OF 83-0121. Recent U.S. Geological Survey Landsat thematic and image maps, by A. P. Colvocoresses. 12 p., 3 over-size sheets, scale 1:100,000 (1 inch = about 1.6 miles) and scale 1:250,000 (1 inch = about 4 miles). (F, M, NC, Da.) †A limited number of copies of this report are available from USGS, National Ctr., Mail Stop 520, Reston, VA 22092.
- OF 83-0128. NEBRASKA. Appraisal of data for ground-water quality in Nebraska, by R. A. Engberg. 105 p., 26 over-size sheets. (NC, Da, M, Wb; USGS, WRD, Room 406, Federal Bldg., 100 Centennial Mall, North, Lincoln, NE 68508.) †A limited number of copies of this report are available from USGS, WRD, Room 406, Federal Bldg., 100 Centennial Mall, North, Lincoln, NE 68508.
- OF 83-0146. COLORADO, WYOMING. Hydrology of area 54, Northern Great Plains and Rocky Mountain coal provinces, Colorado and Wyoming, by Gerhard Kuhn, P. D. Daddow, G. S. Craig, and others. 186 p. (NC, Da, M, Db, Wb; USGS, WRD, Room H-2103, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225.) †A limited number of copies of this report are available from USGS, WRD, Room H-2103, Bldg. 53 (Box 25046, Mail Stop 415), Denver Federal Ctr., Denver, CO 80225. (Water-Resources Investigations.)
- OF 83-0157. MISSOURI. Proceedings of Conference XVIII—A workshop on "Continuing actions to reduce losses from earthquakes in the Mississippi Valley area," 24-26 May, 1982, St. Louis, Missouri, edited by P. L. Gori, and W. W. Hays. 165 p. (NC, Da, M.) †A limited number of copies of this report are available from USGS, National Ctr., Mail Stop 905, Reston, VA 22092.
- Summary report of the workshop on Continuing actions to reduce losses from earthquakes in the Mississippi Valley, by W. W. Hays. p. 1-10
- MISSOURI. Actions to improve the state of earthquake preparedness in Missouri, by Ken Craighead. p. 11-15
- TENNESSEE. Actions to improve the state of earthquake preparedness in Tennessee, by J. E. Beavers. p. 16-18
- KENTUCKY. Actions proposed for reducing losses from earthquakes in the Mississippi Valley region affecting the Commonwealth of Kentucky, by Jerome Mansfield. p. 19-22
- INDIANA, ILLINOIS. Actions to improve the state-of-earthquake-preparedness in Indiana and Illinois, by A. J. Schiff. p. 23-26
- ARKANSAS, MISSISSIPPI. Actions to improve the state-of-earthquake-preparedness in Arkansas and Mississippi, by E. E. Stallcup. p. 27-28
- Overview of earthquake hazards and risk in the Mississippi Valley, by O. W. Nuttli. p. 29-31
- TENNESSEE. Memphis area seismic preparedness experiences, by O. C. Mann. p. 46-51
- Planning efforts for earthquakes in the Mississippi Valley area, by P. J. Breheny. p. 52-54
- KENTUCKY. Earthquake preparedness along New Madrid fault; the Kentucky perspective, by Jerome Mansfield, and B. J. Smith. p. 55-57
- TENNESSEE. Role of the Tennessee Emergency Management Agency in FEMA's earthquake hazard vulnerability study, by Don Dallenbach. p. 58-62
- TENNESSEE. Federal Emergency Management Agency earthquake vulnerability study; Memphis-Shelby County, by J. R. Gurley. p. 63-65
- MISSOURI. Earthquake seminars and workshops; Missouri, by L. O. Miler. p. 66-67
- What can be realistically achieved with regard to earthquake-resistant design of new buildings and lifelines and the renovation of existing facilities?, by O. C. Mann. p. 68-75
- Earthquake-hazards reduction; perspective of a geological survey, by J. D. Kiefer. p. 76-78
- The role of the engineering profession in earthquake mitigation, by A. J. Schiff. p. 100-101
- Forms and functions of seismic safety organizations, by Claire Rubin, and P. L. Gori. p. 135-140
- OF 83-0202. TEXAS. Index of surface-water stations in Texas, January 1983, by E. R. Carrillo, and H. D. Buckner. 24 p. (NC, Da, T, Wb; USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 01.) †A limited number of copies of this report are available from USGS, WRD, 649 Federal Bldg., 300 East Eighth St., Austin, TX 78701.
- OF 83-0396. Seismic-reflection data collected in the Baltimore Canyon and Cape Hatteras areas during 1982, Gyre cruise 82-G-10B, by B. A. McGregor. 5 p. (NC, Da, M.) †Copies of those records can be purchased only from the National Geophysical Data Center. Write to NOAA, Code E64, 325 Broadway, Boulder, CO 80303. Telephone (303) 497-6338.
- OF 83-0422. NEW JERSEY. High-resolution seismic profile and sidescan-sonar data collected during June 1980 offshore New Jersey, Whitefoot cruise 80-1, by C. E. McClennen. 5 p. (NC, Da, M.) Shipboard records of Whitefoot Cruise 80-1 can be inspected at USGS, Quissett Campus, Woods Hole, MA 02543. †Copies of these records can be purchased only from the National Geophysical Data Center. Write to NOAA, Code E64, 325 Broadway, Boulder, CO 80303. Telephone (303) 497-6338.
- OF 83-0545. WYOMING, MONTANA. Hydrology of area 50, Northern Great Plains and Rocky Mountain coal provinces, Wyoming and Montana, by M. E. Lowry, and J. F. Wilson, Jr. 228 p. (NC, Da, M, Db, T, U, Wb; USGS, WRD (P.O. Box 1125), Cheyenne, WY 82003; Wyoming Geol. Survey, Univ. Wyoming (P.O. Box 3008, Univ. Station), Laramie, WY 82071.) †A limited number of copies of this report are available from USGS, WRD (P.O. Box 1125), Cheyenne, WY 82003. (Water-Resources Investigations.)
- OF 83-0558. New Landsat products, by A. P. Colvocoresses. 3 p., 3 over-size sheets, scale 1:100,000 (1 inch = about 1.6 miles) and scale 1:520,000 (1 inch = about 8.2 miles). (F, Da, M, NC.) †A limited number of copies of this report are available from USGS, EROS Cartography, National Ctr., Mail Stop 520, Reston, VA 22092.
- OF 83-0673. Single-channel seismic-reflection data from the mid-Atlantic upper continental rise collected by R/V Gyre (cruise 82-G-10A), by J. M. Robb. 3 p., description of data collected. (NC, Da, M.) †Copies of those records can be purchased only from the National Geophysical Data Center. Write to NOAA, Code E64, 325 Broadway, Boulder, CO 80303. Telephone (303) 497-6338.

MAPS

GEOLOGIC QUADRANGLE MAPS

Multicolor geologic maps on topographic bases in 7 1/2- or 15-minute quadrangle units; scales mainly 1:24,000 or 1:62,500; show bedrock, surficial, or engineering geology. Maps are accompanied by brief texts and some maps by structure and columnar sections also.

GQ-1073. COLORADO. Geologic map of the Indian Hills Quadrangle, Jefferson County, Colorado, by Bruce Bryant, R. D. Miller, and G. R. Scott. 1973. Lat 39°30' to 39°37'30", long 105°07'30" to 105°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 33 by 38 inches. (Accompanied by 7-page text.) (Reprint.)

GQ-1559. ARIZONA. Geologic map of the Teapot Mountain Quadrangle, Pinal County, Arizona, by S. C. Creasey, D. W. Peterson, and N. A. Gambell. 1983. Lat 33°07'30" to 33°15', long 111° to 111°07'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 34 by 50 inches. (Supersedes Open-file Report 75-314.)

GQ-1562. CONNECTICUT. Bedrock geologic map of the Putnam Quadrangle, Windham County, Connecticut, by H. R. Dixon. 1982. Lat 41°52'30" to 42°, long 71°52'30" to 72°. Scale 1:24,000 (1 inch = about 2,000 feet). Sheet 33 by 41 inches. (Supersedes Open-file report 76-271.)

GQ-1567. COLORADO. Geologic map of the Sable Quadrangle, Adams and Denver counties, Colorado, by R. M. Lindvall. 1983. Lat 39°45' to 39°52'30", long 104°45' to 104°52'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 29 by 30 inches.

GQ-1568. CALIFORNIA. Geologic map of the Canyon of Lodore North Quadrangle, Moffat County, Colorado, by W. R. Hansen, P. E. Carrara, and P. R. Rowley. 1982. Lat 40°37'30" to 40°45', long 108°52'30" to 109°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 32 by 41 inches.

GQ-1570. CALIFORNIA. Geologic map of the Tuolumne Meadows Quadrangle, Yosemite National Park, California, by P. C. Bateman, R. W. Kistler, D. L. Peck, and A. J. Busacca. 1983. Lat 37°45' to 38°, long 119°15' to 119°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 27 by 43 inches.

GQ-1571. CONNECTICUT, RHODE ISLAND. Bedrock geologic map of the East Killingly Quadrangle, Connecticut and Rhode Island, by G. E. Moore, Jr. 1983. Lat 41°45' to 41°52'30", long 71°45' to 71°52'30". Scale 1:24,000 (1 inch = about 2,000 feet). Sheet 33 by 41 inches.

GEOPHYSICAL INVESTIGATIONS MAPS

Maps on topographic or planimetric bases; various scales; show results of surveys using geophysical techniques, such as gravity, magnetic, seismic, or radioactivity, which reflect subsurface structures that are of economic or geologic significance. Many maps are correlated with the geology.

GP-0950. SOUTH CAROLINA. Aeromagnetic map of South Carolina, by Isidore Zietz, F. E. Riggle, and D. L. Daniels. 1982. Two sheets. Scale 1:250,000 (1 inch = about 4 miles). West half, lat about 32° to about 35°, long 81° to about 83°, sheet 37 by 61 inches; East half, lat about 32° to about 35°, long about 79° to 81°, sheet 39 by 61 inches. (Available unfolded only.)

GP-0952. NEVADA. Bouguer gravity map of the western arm of the Black Rock Desert, northwestern Nevada, by D. H. Schaefer, and D. K. Maurer. 1983. Lat 40°35'30" to 41°31'15", long 118°50' to 119°32'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 22 by 39 inches.

GP-0955. Digital magnetic-anomaly map of central United States; description of major features, by T. G. Hildenbrand, R. P. Kucks, and R. E. Sweeney. 1983. Lat about 35° to about 45°, long about 75° to about 95°. Scale 1:2,500,000 (1 inch = about 40 miles). Sheet 33 by 57 inches.

GP-0956. Structural elements of the U.S. Atlantic margin delineated by second vertical derivative of aeromagnetic data, by J. C. Behrendt, and M. S. Grim. 1983. Lat 25° to 43°, long 65° to 82°. Scale 1:2,500,000 (1 inch = about 40 miles). Sheet 38 by 58 inches.

MISCELLANEOUS INVESTIGATIONS SERIES MAPS

Maps on planimetric or topographic bases; regular and irregular areas; various scales; a wide variety of format and subject matter. The series also include 7 1/2-minute quadrangle photogeologic maps on planimetric bases which show geology as interpreted from aerial photographs. Series also include maps of Mars and the Moon.

I-0325. OREGON. Geologic map of Oregon west of the 121st meridian, Prepared under the direction of F. G. Wells and compiled by D. L. Peck. 1961. Two sheets. Lat about 42° to about 46°, long 121° to about 124°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 1, 32 by 48 inches; sheet 2, 39 by 48 inches.

I-0360. COLORADO, UTAH. Geology, structure, and uranium deposits of the Moab Quadrangle, Colorado and Utah, compiled by P. L. Williams. 1964. Two sheets. Lat 38° to 39°, long 108° to 110°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 1, 32 by 57 inches; sheet 2, 24 by 36 inches. (Reprint.)

I-0558. COLORADO. Geologic map of the Trinidad Quadrangle, south-central Colorado, by R. B. Johnson. 1969. Lat 37° to 38°, long 104° to 106°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 27 by 47 inches. (Reprint.)

I-0591-A. UTAH. Geology of the Salina Quadrangle, Utah, compiled by P. L. Williams, and R. J. Hackman. 1971. Lat 38° to 39°, long 110° to 112°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 31 by 55 inches. (Reprint.)

I-0591-B. UTAH. Structure and uranium deposits of the Salina Quadrangle, Utah, compiled by P. L. Williams, and R. J. Hackman. 1971. Lat 38° to 39°, long 110° to 112°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 25 by 34 inches. (Reprint.)

I-0764. COLORADO. Geologic map of the Durango Quadrangle, southwestern Colorado, compiled by T. A. Steven, P. W. Lipman, W. J. Hail, Jr., Fred Barker, and R. G. Luedke. 1974. Lat 37° to 38°, long 106° to 108°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 37 by 52 inches. (Reprint.)

I-0847-A. WYOMING, MONTANA. Energy resources map of the Powder River basin, Wyoming and Montana, compiled by W. R. Keefer, and P. W. Schmidt. 1973. Lat about 43° to about 46°, long about 105° to about 107°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 29 by 38 inches. (Reprint.)

- I-0856-J. COLORADO. Well yields and chemical quality of water from water-table aquifers in the Greater Denver area, Front Range urban corridor, Colorado, by D. E. Hillier, P. A. Schneider, Jr., and E. C. Hutchinson. 1983. Two sheets. Lat 39°22'30" to 40°, long 104°37'30" to 105°22'30". Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 1, 33 by 36 inches; sheet 2, 33 by 38 inches.
- I-0856-K. COLORADO. Depth to the water table (1976-1977) in the Greater Denver area, Front Range urban corridor, Colorado, by D. E. Hillier, P. A. Schneider, Jr., and E. C. Hutchinson. 1983. Lat 39°22'30" to 40°, long 104°37'30" to 105°22'30". Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 33 by 44 inches.
- I-0961. Topographic map of Mars. 1976. Scale 1:25,000,000 (1 inch = about 400 miles). Sheet 36 by 41 inches. (Reprint.)
- I-1033-I. UTAH. Bedrock geologic map of the Kaiparowits coal-basin area, Utah, by K. A. Sargent, and D. E. Hansen. 1982. Lat 37° to 38°, long 111° to 112°. Scale 1:125,000 (1 inch = about 2 miles). Sheet 41 by 47 inches.
- I-1033-J. UTAH. Geologic cross sections of the Kaiparowits coal-basin area, Utah, by D. J. Lidke, and K. A. Sargent. 1983. Two sheets. Scale 1:125,000 (1 inch = about 2 miles). Lat 37° to 38°, long 111° to 112°. Sheet 1, 41 by 42 inches; sheet 2, 28 by 34 inches.
- I-1091-E. IDAHO, MONTANA, SOUTH DAKOTA, WYOMING. Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming, by R. G. Luedke, and R. L. Smith. 1983. Two sheets. Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 1, lat 41° to 49°, long 104° to 117°, sheet 40 by 44 inches. Sheet 2, lat about 42°30' to about 45°15', long about 109°45' to about 114°, sheet 42 by 49 inches.
- I-1127. IDAHO, WYOMING. Geologic map of the Preston 1° by 2° Quadrangle, southeastern Idaho and western Wyoming, by S. S. Oriel, and L. B. Platt. 1980. Lat 42° to 43°, long 110° to 112°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 32 by 39 inches. (Reprint.)
- I-1182-C. ALASKA. Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf, by Arthur Grantz and D. A. Dinter, U.S. Geological Survey, and N. N. Biswas, Geophysical Institute, University of Alaska. 1983. Three sheets. Lat 69°05' to 73°, long 140° to 158°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 1, 42 by 58 inches; sheet 2, 38 by 53 inches; sheet 3, 34 by 51 inches. (Accompanied by 7-page text.)
- I-1198-B. WASHINGTON. Map showing potential sources of sand, gravel, and quarry rock, Port Townsend Quadrangle, Washington, by D. P. Dethier, and S. A. Safioles. 1983. Lat 48° to 48°30', long 122° to 123°. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 34 by 42 inches.
- I-1235-C. UTAH. Map showing general availability of ground water in the Alton-Kolob coal fields area, Utah, by Don Price. 1982. Lat 37° to 38°, long 112° to about 113°15'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 40 by 47 inches.
- I-1235-D. UTAH. Map showing selected surface-water data for the Alton-Kolob coal-fields area, Utah, by Don Price. 1982. Lat 37° to 38°, long 112° to about 113°15'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 41 by 51 inches.
- I-1257-A. CALIFORNIA. Geologic map of San Mateo County, California, compiled by E. E. Brabb, and E. H. Pampeyan. 1983. Lat 37°06' to 37°43', long 122°04'30" to 122°33'15". Scale 1:62,500 (1 inch = about 1 mile). Sheet 41 by 49 inches.
- I-1257-B. CALIFORNIA. Geologic, scenic, and historic points of interest in San Mateo County, California, by E. E. Brabb, F. A. Taylor, and G. P. Miller. 1982. Lat 37°06' to 37°43', long 122°04'30" to 122°33'15". Scale 1:62,500 (1 inch = about 1 mile). Sheet 42 by 57 inches.
- I-1257-C. CALIFORNIA. Map showing direction and amount of bedding dip of sedimentary rocks in San Mateo County, California, by E. E. Brabb. 1983. Lat 37°06' to 37°43', long 122°04'30" to 122°33'15". Scale 1:62,500 (1 inch = about 1 mile). Sheet 38 by 50 inches.
- I-1291. COLORADO. Geologic map of the Mount Richthofen Quadrangle and the western part of the Fall River Pass Quadrangle, Grand and Jackson counties, Colorado, by J. M. O'Neill. 1981. Lat 40°22'30" to 40°30', long 105°50' to 106°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 34 by 36 inches. (Reprint.)
- I-1300. MONTANA. Geologic structure map of the Choteau 1° by 2° Quadrangle, western Montana, by M. R. Mudge, R. L. Earhart, J. W. Whipple, and J. E. Harrison. 1982. Two sheets. Scale 1:250,000 (1 inch = about 4 miles). Lat 47° to 48°, long 122° to 114°. (Supersedes Open-file Report 80-24.)
- I-1310-B. NEW MEXICO, ARIZONA. Mineral deposit map of the Silver City 1° by 2° Quadrangle, New Mexico and Arizona, by D. H. Richter, and V. A. Lawrence. 1983. Lat 32° to 33°, long 108° to 110°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 28 by 37 inches. (Accompanied by 70-page text.)
- I-1311. WASHINGTON. Geologic map of the Wenatchee 1:100,000 Quadrangle, central Washington, by W. Tabor, R. B. Waitt, Jr., V. A. Frizzell, Jr., D. A. Swanson, G. R. Byerly, and R. D. Bentley. 1982. Lat 47° to 47°30', long 120° to 121°. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 41 by 51 inches. (Reprint.) (Accompanied by 26-page text.)
- I-1313-C. VIRGINIA, MARYLAND. Bedrock map and geotechnical properties of rocks of the Culpeper Basin and vicinity, Virginia and Maryland, by B. D. Leavy and A. J. Froelich, U.S. Geological Survey, and E. C. Abram, Youngstown University, Youngstown, Ohio. 1983. Lat about 38°15' to 39°15', long about 77°15' to about 78°15'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 34 by 49 inches.
- I-1313-D. VIRGINIA, MARYLAND. Chemical quality of ground water in the Culpeper Basin, Virginia and Maryland, by Alex Posner, and Chester Zenone. 1983. Lat about 38°15' to about 39°15', long about 77°15' to about 78°15'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 34 by 49 inches.
- I-1315. Maps of vertical crustal movements in the conterminous United States over the last ten million years, by D. J. Gable, and Tom Hatton. 1983. Two sheets. Lat about 25° to about 45°, long about 65° to about 125°. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 1, 40 by 54 inches; sheet 2, 40 by 53 inches. (Accompanied by 25-page text.)

- I-1319. IDAHO. Geologic map and sections of the central Pioneer Mountains, Blaine and Custer counties, central Idaho, by J. H. Dover. 1983. Two sheets. Lat 43°37'30" to 44°, long 114° to 114°22'30". Scale 1:48,000 (1 inch = 4,000 feet). Sheet 1, 41 by 49 inches; sheet 2, 33 by 39 inches.
- I-1329. CALIFORNIA. Map showing recently active breaks along the Elsinore and associated faults, California, between Lake Henshaw and Mexico, by M. M. Clark. 1982. Two sheets. Scale 1:24,000 (1 inch = 2,000 feet). Lat 33°07'30" to 33°15', long about 115°52'30" to about 116°45'. Sheet 1, 38 by 50 inches; sheet 2, 39 by 50 inches.
- I-1341. Controlled photomosaic of the Eridania Northwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 27 by 34 inches.
- I-1346. COLORADO. Surficial geologic map of the Craig 1/2° by 1° Quadrangle, Moffat and Routt counties, Colorado, by R. F. Madole. 1982. Lat 40°30' to 41°, long 107° to 108°. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 28 by 59 inches.
- I-1361. NEVADA. Map showing surficial geology of the Lathrop Wells Quadrangle, Nye County, Nevada, by W. C. Swadley. 1983. Lat 36°30' to 36°45', long 116°15' to 116°30'. Scale 1:48,000 (1 inch = about 4,000 feet). Sheet 29 by 31 inches.
- I-1369. CALIFORNIA. Geologic map of an area near York Mountain, San Luis Obispo County, California, by V. M. Seiders. 1982. Lat about 35°25' to 35°38'30" long 120°45' to 120°57'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 40 by 56 inches.
- I-1372. IDAHO, WYOMING. Surficial geologic map of the eastern Snake River Plain and adjacent areas, 111° to 115° west, Idaho and Wyoming, by W. E. Scott. 1982. Two sheets. Lat 42° to about 44°45', long 111° to 115°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 1, 35 by 55 inches; sheet 2, 35 by 37 inches.
- I-1375. MONTANA. Bedrock geologic map of part of the northern disturbed belt, Lewis and Clark, Teton, Pondera, Glacier, Flathead, Cascade, and Powell counties, Montana, by M. R. Mudge, and R. L. Earhart. 1983. Two sheets. Scale 1:125,000 (1 inch = about 2 miles). Sheet 1, lat about 48°15' to 49°, long 112° to 113°45', sheet 41 by 56 inches; sheet 2, lat 47° to 48°, long 112° to 113°45', sheet 40 by 54 inches.
- I-1380. MONTANA. Reconnaissance geologic map of the Big Fork-Avon Environmental Study Area, Flathead, Lake, Lewis and Clark, Missoula, and Powell counties, Montana, by I. J. Witkind, U.S. Geological Survey, and W. M. Weber, U.S. Forest Service. 1982 (1983). One sheet. Lat 46°30' to 48°, long 112°30' to 114°. Scale 1:125,000 (1 inch = about 2 miles). sheet 33 by 57 inches. (Supplements Open-file reports 77-196 to 77-203, 77-465, 77-466, 77-539, 77-540, 77-860, 77-861, 78-135, 78-136, 78-173, 78-174, 79-437 to 79-447.)
- I-1383. MONTANA. Geologic map of the banded upper zone of the Stillwater Complex and adjacent rocks, Stillwater, Sweet Grass, and Park counties, Montana, by Kenneth Segerstrom, and R. R. Charlson. 1982. Two sheets. Lat about 45°20' to about 45°30', long about 109°45' to about 110°17'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 1, 37 by 44 inches; sheet 2, 32 by 39 inches.
- I-1402. The properties and uses of selected map projections, by T. R. Alpha, and J. P. Snyder. 1982. Sheet 30 by 37 inches. (Reprint.)
- I-1408. Geologic map of the Shakespeare Quadrangle of Mercury, by J. E. Guest, and Ronald Greeley. 1983. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 34 by 52 inches.
- I-1409. Geologic map of the Victoria Quadrangle of Mercury, by G. E. McGill, and E. A. King. 1983. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 34 by 41 inches.
- I-1411. WASHINGTON. Topographic map of Mount St. Helens, Washington, showing changes between April 11 and May 16, 1980, by Raymond Jordan, and H. H. Kieffer. 1982. Scale 1:10,000 (1 inch = about 833 feet). Sheet 33 by 43 inches.
- I-1416. COLORADO. Geologic sections across Colorado, by Ogden Tweto. 1983. Lat about 37° to about 41°, long about 103° to about 109°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 34 by 53 inches. Available flat or folded. When ordering, please specify.
- I-1417. ALABAMA. Geologic map of the La Place and Tuskegee quadrangles, Macon, Tallapoosa, and Elmore counties, Alabama, by H. W. Markewich, and R. A. Christopher. 1982. Lat 32°22'30" to 32°30', long 85°37'30" to 85°52'30". Scale 1:48,000 (1 inch = 4,000 feet). Sheet 29 by 37 inches.
- I-1418. Marine geologic map of the Puerto Rico insular shelf, northwestern area; Rio Grande de Anasco to Rio Camuy, by K. A. Grove. 1982. Lat 18°28' to 18°35', long 66°52'30" to 67°19'. Scale 1:40,000 (1 inch = about 3,333 feet). Sheet 41 by 48 inches.
- I-1424. CALIFORNIA, NEVADA. Geologic map of the Freel Peak 15-minute Quadrangle, California and Nevada, by R. A. Armin and D. A. John, with Quaternary geology by J. C. Dohrenwend. 1983. Lat 38°45' to 39°, long 119°45' to 120°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 32 by 43 inches.
- I-1425. COLORADO. Geologic and structural maps and sections of the Marshall Pass mining district, Saguache, Gunnison, and Chaffee counties, Colorado, by J. C. Olson. 1983. Lat 38°20' to 38°30', long 106°15' to 106°22'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 37 by 46 inches. (Supersedes Open-file report 79-1473.)
- I-1426. Controlled photomosaic of the Amenthes Northeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1430-A. UTAH. Geologic map of the Tushar Mountains and adjoining areas, Marysvale volcanic field, Utah, by C. G. Cunningham, T. A. Steven, P. D. Rowley, L. B. Glassgold, and J. J. Anderson. 1983. Two sheets. Lat 38°15' to 38°42'30", long 112° to 112°37'30". Scale 1:50,000 (1 inch = 4,200 feet). Sheet 42 by 57 inches. (Accompanied by 1-page text sheet.)
- I-1432. Controlled photomosaic of the Casius Southeast Quadrangle of Mars. 1983. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1442. HAWAII. Potential hazards from future volcanic eruptions on the Island of Maui, Hawaii, by D. R. Crandell. 1983. Lat 20°32'30" to 21°03', long 155°57'30" to 156°43'. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 33 by 38 inches.

- I-1443. ALASKA. Vegetation and land cover, Arctic National Wildlife Refuge, coastal plain, Alaska, by William Acevedo, Donald Walker, Leonard Gaydos, and James Wray. 1982. Lat 69°30' to about 70°, long about 143° to about 146°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 14 by 28 inches.
- I-1444. UTAH. Geologic map of the southwest-quarter of the Beaver Quadrangle, Beaver County, Utah, by M. N. Machette. 1983. Lat 38°15' to 38°22'30", long 112°37'30" to 112°45'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 28 by 31 inches.
- I-1445. UTAH. Geologic map of the northwest quarter of the Beaver Quadrangle, Beaver County, Utah, by M. N. Machette, and T. A. Steven. 1983. Lat 38°22'30" to 38°30', long 112°37'30" to 112°45'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 28 by 33 inches.
- I-1448. Shaded relief map of the Chryse Planitia region of Mars. 1982. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 39 by 47 inches.
- I-1449. WYOMING. Engineering geologic map of the Sheridan Quadrangle, Sheridan County, Wyoming, by E. N. Hinrichs. 1983. Lat 44°45' to 44°52'30", long 106°52'30" to 107°. Scale 1:24,000 (1 inch EQ 2,000 feet). Sheet 29 by 40 inches.
- I-1450. IDAHO. Geologic map of the Cotterel Mountains and the northern Raft River valley, Cassia County, Idaho, by K. L. Pierce, H. R. Covington, P. L. Williams, and D. H. McIntyre. 1983. Lat 44°45' to 44°52'30", long 106°52'30" to 107°. Scale 1:24,000 (1 inch = about 4,000 feet). Sheet 39 by 44 inches.
- I-1451. Controlled photomosaic of the Hellas Northeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1452. Controlled photomosaic of the Hellas Northwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1453. Controlled photomosaic of the Hellas Southeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1454. Controlled photomosaic of the Hellas Southwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1464. Controlled photomosaic of the Arabia Northeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1465. Controlled photomosaic of the Arabia Southwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1466. Controlled photomosaic of the Arabia Southeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1467. Controlled photomosaic of the Arabia Northwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1468. Controlled photomosaic of the Mare Tyrrhenum Northwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1469. Controlled photomosaic of the Mare Tyrrhenum Northeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1470. Controlled photomosaic of the Mare Tyrrhenum Southeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1471. Controlled photomosaic of the Mare Tyrrhenum Southwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1473. VIRGINIA. Ground-water resources of Fairfax County and vicinity, Virginia, and some aspects of their development, by Chester Zenone, and J. D. Larson. 1983. Lat about 38°45' to about 39°, long about 77°07'30" to about 77°30'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 38 by 48 inches.
- I-1476. Shaded relief map of the Mare Acidaliu Quadrangle of Mars. 1982. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 32 by 34 inches.
- I-1477. Shaded relief map of the Arcadia Quadrangle of Mars. 1982. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 32 by 34 inches.
- I-1478. Shaded relief map of the Phoenicis Lacus Northwest Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 27 by 34 inches.
- I-1480. Geologic map of Liberia, by R. G. Tysdal, and C. H. Thorman. 1983. Lat 4° to 9°, long 7° to 12°. Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 27 by 42 inches.
- I-1486. Preliminary pictorial map of Iapetus. 1982. Scale 1:10,000,000 (1 inch = about 160 miles). Sheet 20 by 21 inches.
- I-1494. High resolution controlled photomosaics of Io. 1983. Sheet 35 by 50 inches.
- I-1495. Shaded relief map of the Ismenius Lacus Quadrangle of Mars. 1982. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 32 by 34 inches.
- I-1497. Controlled photomosaic of the Aeolis Northeast Quadrangle of Mars. 1982. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1500. WYOMING. Stratigraphy of Upper Cretaceous and lower Tertiary outcrops in the Rock Springs Uplift, Wyoming, by H. W. Roehler. 1983. Sheet 35 by 47 inches.
- I-1508-A. MONTANA. Shaded relief, oblique view map, vicinity of Going-to-the-Sun Road, Glacier National Park, Montana, by A. L. Isom, O. B. Raup, D. A. Brumley, and S. G. Binder. 1983. Sheet 18 by 27 inches.
- I-1521. Controlled photomosaic of the Cebrenia Northwest Quadrangle of Mars. 1983. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.
- I-1525. Controlled photomosaic of the Casius Southwest Quadrangle of Mars. 1983. Scale 1:2,000,000 (1 inch = about 32 miles). Sheet 26 by 34 inches.

COAL INVESTIGATIONS MAPS

Geologic maps on topographic or planimetric bases; various scales; show bedrock geology, stratigraphy, and structural relations in certain coal-resource areas.

C-0092-A. NEW MEXICO. Geologic map of the Chaco Canyon 30' by 60' Quadrangle, showing coal zones of Fruitland Formation, San Juan, Rio Arriba, and Sandoval counties, New Mexico, by J. W. Mytton. 1983. Lat 36° to 36°30', long 107° to 108°. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 28 by 45 inches.

C-0093-A. UTAH. Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Johns Peak and Old Woman Plateau areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier County, Utah, by J. D. Sanchez, L. F. Blanchard, and L. L. August. 1983. Two sheets. Lat 38°40' to 38°52'30", long 111°22'30" to 111°32'30". Scale 1:24,000 (1 inch = about 2,000 feet). Sheet 1, 42 by 57 inches; sheet 2, 40 by 55 inches.

C-0093-B. UTAH. Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Convulsion Canyon and Wash Rock Canyon areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier and Emery counties, Utah, by J. D. Sanchez, L. F. Blanchard, and L. L. August. 1983. Three sheets. Lat 38°52'30" to 39°, long 111°15' to about 111°30'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 1, 34 by 44 inches; sheet 2, 40 by 52 inches; sheet 3, 33 by 44 inches.

C-0094-A. UTAH. Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Muddy Creek and Nelson Mountain areas of the Wasatch Plateau coal field, Manti 30' by 60' Quadrangle, Emery, Sevier, and Sanpete counties, Utah, by J. D. Sanchez, and T. L. Brown. 1983. Two sheets. Lat 39° to 39°07'30", long 111°10' to 111°32'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 1, 35 by 56 inches; sheet 2, 32 by 41 inches.

OIL AND GAS INVESTIGATIONS CHARTS

Charts show stratigraphic information for certain oil and gas fields and other areas having hydrocarbon potential.

OC-0118. NEW MEXICO, COLORADO, UTAH, ARIZONA. Stratigraphic sections of subsurface Jurassic rocks in the San Juan Basin, New Mexico, Colorado, Utah, and Arizona, by Robert Lupe. 1983. Two sheets. Lat 35° to 38°, long 106° to 110°. Sheets 42 by 58 inches.

OC-0119. UTAH. Stratigraphic diagram of Middle Jurassic San Rafael Group and associated formations from the San Rafael Swell to Bluff in southeastern Utah, by R. B. O'Sullivan, and F. W. Pierce. 1983. Lat about 37° to about 39°, long about 110° to about 111°. Sheet 34 by 41 inches.

OC-0120. ALASKA. Foraminiferal biostratigraphy and correlations in the Gulf of Alaska Tertiary province, by W. W. Rau, George Plafker, and G. R. Winkler. 1983. Three sheets. Sheet 1, 41 by 57 inches; sheet 2, 39 by 58 inches; sheet 3, 38 by 58 inches. (Accompanied by 11-page text.) (Supersedes Open-file report 77-747.)

OC-0122. UTAH, COLORADO. Stratigraphic sections of Middle Jurassic Entrada Sandstone and related rocks from Dewey Bridge, Utah, to Bridgeport, Colorado, by R. B. O'Sullivan, and G. N. Pipiringos. 1983. Lat about 38°45' to about 39°15', long about 108°30' to about 109°15'. Sheet 31 by 42 inches.

OC-0123. VIRGINIA. Interpretive seismic profile along interstate I-64 from the Valley and Ridge to the coastal plain in central Virginia, by L. D. Harris, Wallace de Witt, Jr., and K. C. Bayer. 1982. Sheet 35 by 48 inches.

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; post-1971 maps are preliminary black and white maps on various subjects such as environmental studies or Wilderness mineral investigations.

Unless otherwise indicated these maps are printed in a very limited edition; therefore, no automatic distribution will be made.

MF-0556. COLORADO. Geologic map of the Mount Lincoln 15-minute Quadrangle, Eagle, Lake, Park, and Summit counties, Colorado, by Ogden Tweto. 1974. Lat 39°15'PR to 39°30', long 106° to 106°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 20 by 25 inches. (Reprint.)

MF-0637. UTAH. Preliminary geologic map of the Wah Wah Summit Quadrangle, Millard and Beaver counties, Utah, by L. F. Hintze. 1974. Two sheets. Lat 38°30' to 38°45', long 113°30' to 113°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 1, 22 by 37 inches; sheet 2, 26 by 34 inches. (Reprint.)

MF-0696. COLORADO, UTAH. Preliminary map of landslide deposits, Vernal 1° by 2° Quadrangle, Colorado and Utah, by P. E. Carrara, R. B. Colton, J. A. Holligan, and L. W. Anderson. 1975. Lat 40° to 41°, long 108° to 110°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 26 by 38 inches. (Reprint.)

MF-0709. CALIFORNIA. Maps showing maximum earthquake intensity predicted in the southern San Francisco Bay region, California, for large earthquakes on the San Andreas and Hayward faults, by R. D. Borchardt, J. F. Gibbs, and K. R. Lajoie. 1975. Three sheets. Lat about 37°15' to 37°52'30", long about 121°45' to 122°37'30". Scale 1:125,000 (1 inch = about 2 miles). Sheet 1, 25 by 33 inches; sheet 2, 38 by 39 inches; sheet 3, 37 by 38 inches. (Accompanied by 11-page text.) (Reprint.)

MF-0743. CALIFORNIA. Map showing recently active breaks along the Green Valley Fault, Napa and Solano counties, California, by V. A. Frizzell, Jr., and R. D. Brown, Jr. 1976. Lat about 38°05' to about 38°22'30", long about 122°07'30" to about 122°10'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 37 by 51 inches. (Reprint.)

MF-0836. COLORADO. Preliminary geologic map of the Indian Valley Quadrangle, Rio Blanco and Moffat counties, Colorado, by G. N. Pipiringos, and G. C. Rosenlund. 1977. Lat 40°07'30"DP to 40°15', long 108°07'30" to 108°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 26 by 36 inches. (Reprint.)

MF-0873. CALIFORNIA, NEVADA. Map showing mineral exploration potential in the Death Valley Quadrangle, California and Nevada, compiled by R. M. Smith. 1977. Lat 36° to 37°, long 116° to 118°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 37 inches (Reprint.)

MF-0900-C. NEW MEXICO. Map showing anomalous silver distribution in stream sediment concentrates, Hillsboro and San Lorenzo quadrangles, exclusive of the Black Range Primitive Area, Sierra and Grant counties, New Mexico, by H. V. Alminas, K. C. Watts, D. F. Siems, and V. E. Kraxberger. 1978. Lat 32°45' to 33°, long 107°30' to 108°. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 32 by 48 inches. (Reprint.)

- MF-1002-J. MISSOURI. Isopach and selected lithofacies map of the Cambrian Bonnetterre Formation, Rolla 1° by 2° Quadrangle, Missouri, by K. H. Anderson, Missouri Division of Geology and Land Survey. 1983. Lat 37° to 38°, long 90° to 92°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 23 by 39 inches.
- MF-1004-B. MISSOURI. Generalized geologic and geochemical maps of the Cambrian Bonnetterre Formation, Rolla 1° by 2° Quadrangle, Missouri, by R. L. Erickson, E. L. Mosier, J. G. Viets, and S. C. King. 1979. Lat 37° to 38°, long 90° to 92°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 37 by 40 inches. (Reprint.)
- MF-1044-A. Map of prospective hydrocarbon provinces of the world, by A. B. Coury, T. A. Hendricks, and T. F. Tyler. 1978. Scale 1:20,000,000 (1 inch = about 320 miles). Sheet 41 by 44 inches. (Reprint.)
- MF-1070. CALIFORNIA. Preliminary map showing recency of faulting in coastal north-central California. 1979. Three sheets. Scale 1:250,000 (1 inch = about 4 miles). Sheet 1, lat about 38° to 39°, long about 121°45' to 123°45', sheet 26 by 32 inches. Sheet 2, lat about 37° to about 37°45', long 121°15' to 122°45', sheet 24 by 39 inches. Sheet 3, lat about 37° to about 39°, long about 121° to about 124°, sheet 27 by 29 inches. (Accompanied by 13-page text.) (Reprint.)
- MF-1070. CALIFORNIA. Preliminary map showing recency of faulting in coastal north-central California, by E. H. Pampeyan. 1979. Three sheets. Lat about 37° to about 39°, long about 121° to about 123°45'. Scales 1:250,000 (1 inch = about 4 miles) and 1:500,000 (1 inch = about 8 miles). Sheet 1, 26 by 32 inches; sheet 2, 24 by 39 inches; sheet 3, 27 by 29 inches. (Reprint.) (Accompanied by 13-page text.)
- MF-1101-D. CALIFORNIA. Mineral resource potential map of the Hoover Wilderness and adjacent roadless areas, central Sierra Nevada, California, by E. W. Tooker, M. A. Chaffee, Donald Plouff, G. F. Brem, W. J. Keith, and J. F. Seitz, U.S. Geological Survey, and N. J. Zilka and A. M. Leszczykowski, U.S. Bureau of Mines. 1983. Lat about 38° to about 38°15', long about 119° to about 119°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 39 by 50 inches. (Accompanied by 11-page text.)
- MF-1114-A. ALASKA. Geologic map of the Lake Clark Quadrangle, Alaska, by W. H. Nelson, Christine Carlson, and J. E. Case. 1983. Lat 60° to 61°, long 153° to 156°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 37 by 52 inches.
- MF-1130-B. COLORADO. Cross section B-B' of Upper Cretaceous and lower Tertiary rocks, southern Piceance Creek basin, Colorado, by R. C. Johnson, M. P. Granica, and N. C. Dessenberger. 1979. Two sheets. Sheet 1, 36 by 44 inches; sheet 2, 21 by 24 inches. (Reprint.)
- MF-1130-C. COLORADO. Cross section C-C' of Upper Cretaceous and lower Tertiary rocks, southern Piceance Creek basin, Colorado, by R. C. Johnson, M. P. Granica, and N. C. Dessenberger. 1979. Two sheets. Sheet 1, 32 by 38 inches; sheet 2, 22 by 25 inches. (Reprint.)
- MF-1136. TEXAS. Faults in parts of north-central and western Houston metropolitan area, Texas, by E. R. Verbeek, K. W. Ratzlaff, and U. S. Clanton. 1979. Lat about 29°40' to about 29°47'30", long about 95°25' to about 95°45'. Scale 1:24,000 (1 inch = 2,000 feet). (Reprint.)
- MF-1144. KENTUCKY. Seismicity map of the State of Kentucky, by C. W. Stover, B. G. Reagor, and S. T. Algermissen. 1979. Lat about 37° to about 39°, long 82° to about 89°. Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 28 by 31 inches. (Reprint.)
- MF-1154. ARKANSAS. Seismicity map of the State of Arkansas, by C. W. Stover, B. G. Reagor, and S. T. Algermissen. 1979. Lat about 38° to about 36°, long about 90° to about 94°. Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 30 by 33 inches. (Reprint.)
- MF-1159-B. CALIFORNIA. Mineral resource potential map of the San Jacinto Wilderness, Riverside County, California, by B. F. Cox, J. C. Matti, H. W. Oliver, U.S. Geological Survey, and M. D. Conyac, U.S. Bureau of Mines. 1983. Lat 33°45' to about 33°50', long 116°35' to 116°45'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 22 by 22 inches. (Accompanied by 5-page text.)
- MF-1161-C. CALIFORNIA. Mineral resource potential map of the San Geronio Wilderness, San Bernardino County, California, by B. F. Cox, J. C. Matti and H. W. Oliver, U.S. Geological Survey, and N. T. Zilka, U.S. Bureau of Mines. 1983. Lat about 34°05' to about 34°10', long about 116°45' to about 116°55'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 21 by 36 inches. (Accompanied by 8-page text.)
- MF-1162-E. ARIZONA. Map showing distribution of minerals in the heavy-mineral concentrate of stream sediments in the Sierra Ancha Wilderness and Salome Study Area, Gila County, Arizona, by R. B. Tripp, H. N. Barton, J. C. Negri, and P. K. Theobald. 1980. Lat 33°45' to 34°, long 110°45' to 111°07'30". Scale 1:62,500 (1 inch = about 1 mile). Sheet 30 by 32 inches.
- MF-1162-H. ARIZONA. Map showing mineral resource potential of the Sierra Ancha Wilderness and Salome Study Area, Gila County, Arizona, by J. K. Otton, A. F. Shride, J. R. Bergquist, C. T. Wrucke, P. K. Theobald, J. S. Duval, and D. M. Wilson. 1981. Lat 33°42'30" to 34°, long 110°45' to 111°15'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 41 by 53 inches. (Accompanied by 6-page text.) (Reprint.)
- MF-1163. COLORADO, UTAH, WYOMING. Geologic map of the Vernal 1° by 2° Quadrangle, Colorado, Utah and Wyoming, compiled by P. D. Rowley, Ogden Tweto, W. R. Hansen, and P. E. Carrara. 1979. Lat 40° to 41°, long 108° to 110°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 33 by 47 inches. (Reprint.)
- MF-1177-C. CALIFORNIA. Mineral resource potential map of the North Fork of the American River Wilderness Study Area (RARE II No. 5-262), Placer County, California, by D. S. Harwood and Andrew Griscom, U.S. Geological Survey, and F. E. Federspiel, A. M. Leszczykowski and F. A. Spicker, U.S. Bureau of Mines. 1982. Lat about 39°05' to about 39°20', long about 120°20', to about 120°50'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 25 by 32 inches. (Accompanied by 7-page text.) (Reprint.)
- MF-1188. KENTUCKY. Correlation of coal beds, coal zones, and key stratigraphic units in the Pennsylvanian rocks of eastern Kentucky, by C. L. Rice, and J. H. Smith. 1980. Sheet 37 by 38 inches. (Reprint.)

- MF-1198. UTAH. Surficial geologic map along part of the Wasatch Front, Salt Lake valley, Utah, compiled by R. D. Miller. 1980. Two sheets. Sheet 1, lat about $41^{\circ}15'$ to $41^{\circ}45'$, long $111^{\circ}45'$ to about $112^{\circ}15'$. Sheet 2, lat $40^{\circ}30'$ to about 41° , long $111^{\circ}45'$ to about $112^{\circ}15'$. Scale 1:100,000 (1 inch = about 1.6 miles). Sheets 31 by 39 inches. (Accompanied by 13-page text.) (Reprint.)
- MF-1201-C. CALIFORNIA. Geochemical maps showing distributions of anomalous element concentrations and of anomalous drainage basins, Mokelumne Wilderness and contiguous roadless areas, central Sierra Nevada, California, by M. A. Chaffee, R. H. Hill, and S. J. Sutley. 1983. Two sheets. Lat about $38^{\circ}25'$ to 39° , long $119^{\circ}45'$ to $120^{\circ}15'$. Scale 1:62,500 (1 inch = about 1 mile). Sheet 1, 32 by 43 inches; sheet 2, 32 by 39 inches.
- MF-1225. SOUTH CAROLINA. Seismicity map of the State of South Carolina, by B. G. Reagor, C. W. Stover, and S. T. Algermissen. 1980. Lat about 32° to about 35° , long about 79° to about 83° . Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 31 by 39 inches. (Reprint.)
- MF-1231-B. CALIFORNIA. Geochemical map showing anomalous concentrations of selected elements in the nonmagnetic heavy-mineral concentrates from the Golden Trout Wilderness, California, by D. L. Leach, R. J. Goldfarb, and J. A. Domenico. 1983. Lat $36^{\circ}05'$ to $36^{\circ}30'$, long 118° to $118^{\circ}45'$. Scale 1:62,500 (1 inch = about 1 mile). Sheet 36 by 54 inches.
- MF-1231-C. CALIFORNIA. Geochemical map showing anomalous concentrations of selected elements in stream sediments from the Golden Trout Wilderness, California, by D. L. Leach, R. J. Goldfarb, and J. A. Domenico. 1983. Lat $36^{\circ}05'$ to $36^{\circ}30'$, long 118° to $118^{\circ}45'$. Scale 1:62,500 (1 inch = about 1 mile). Sheet 36 by 55 inches.
- MF-1231-D. CALIFORNIA. Map showing aeromagnetic interpretation of the Golden Trout Wilderness, Tulare and Inyo counties, California, by R. C. Jachens, and W. P. Elder. 1983. Lat $36^{\circ}05'$ to $36^{\circ}30'$, long 118° to $118^{\circ}45'$. Scale 1:62,500 (1 inch = about 1 mile). Sheet 40 by 56 inches.
- MF-1231-E. CALIFORNIA. Mineral resource potential map of the Golden Trout Wilderness, southern Sierra Nevada, California, by D. A. Dellinger, E. A. duBray, D. L. Leach, R. J. Goldfarb, and R. C. Jachens, U.S. Geological Survey, and N.T. Zilka, U.S. Bureau of Mines. 1983. Lat $36^{\circ}05'$ to $36^{\circ}30'$, long $118^{\circ}15'$ to $118^{\circ}45'$. Scale 1:62,500 (1 inch = about 1 mile). Sheet 41 by 56 inches. (Accompanied by 10-page text.)
- MF-1238. WASHINGTON. Map showing some potential effects of petroleum spills on shorelines of the Port Townsend Quadrangle, central Puget Sound region, Washington, by R. F. Keuler. 1982. Lat 48° to $48^{\circ}30'$, long 122° to 123° . Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 38 by 43 inches.
- MF-1240-D. OREGON. Maps showing aeromagnetic data and interpretation for the Kalmiopsis Wilderness, southwestern Oregon, by R. J. Blakely, N. J. Page, Floyd Gray, Lisa Senior, and H. F. Ryan. 1983. Two sheets. Lat 42° to $42^{\circ}30'$, long $123^{\circ}45'$ to $124^{\circ}15'$. Scale 1:62,500 (1 inch = about 1 mile). Sheet 1, 29 by 50 inches; sheet 2, 42 by 43 inches.
- MF-1269. Index of faults of Cretaceous and Cenozoic age in the Eastern United States, by D. C. Prowell. 1983. Two sheets. Lat about 24° to about 47° , long about 66° to about 93° . Scale 1:2,500,000 (1 inch = about 40 miles). Sheet 1, 33 by 47 inches; sheet 2, 38 by 45 inches.
- MF-1271-E. WEST VIRGINIA. Mineral resource potential maps of the Cheat Mountain Roadless Area, Randolph County, West Virginia, by K. J. Englund, W. R. Sigleo, P. L. Foosse, and N. K. Teaford, U.S. Geological Survey, and P. T. Behum and R. W. Hammack, U.S. Bureau of Mines. 1983. Two sheets. Lat $38^{\circ}42'30''$ to $38^{\circ}50'$, long $79^{\circ}42'30''$ to $79^{\circ}52'30''$. Scale 1:50,000 (1 inch = about 4,200 feet.) Sheet 1, 36 by 45 inches; sheet 2, 39 by 42 inches. (Accompanied by 14-page text.)
- MF-1273-C. CALIFORNIA. Mineral resource potential map of the Granite Chief Wilderness Study Area, Placer County, California, by D. S. Harwood, U.S. Geological Survey, and F. E. Federspiel, E. E. Cather, and D. F. Scott, U.S. Bureau of Mines. 1982. Scale 1:62,500 (1 inch = about 1 mile). Sheet 24 by 29 inches. (Accompanied by 4-page text.)
- MF-1280. PENNSYLVANIA. Seismicity map of the State of Pennsylvania, by C. W. Stover, B. G. Reagor, and S. T. Algermissen. 1981. Lat about 40° to about 42° , long about 75° to about 80° . Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 28 by 36 inches. (Reprint.)
- MF-1287-B. SOUTH CAROLINA, NORTH CAROLINA, GEORGIA. Geologic map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia, by Henry Bell, III, and R. W. Luce. 1983. Lat about $34^{\circ}55'$ to about $35^{\circ}02'30''$, long about $83^{\circ}02'30''$ to about $83^{\circ}10'$. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 31 by 41 inches.
- MF-1287-D. SOUTH CAROLINA, NORTH CAROLINA, GEORGIA. Mineral resource potential map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia, by R. W. Luce and Henry Bell, III, U.S. Geological Survey, and G. C. Gazdik, U.S. Bureau of Mines. 1983. Lat about $34^{\circ}55'$ to about $35^{\circ}02'30''$, long about $83^{\circ}02'30''$ to about $83^{\circ}10'$. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 34 by 46 inches. (Accompanied by 11-page text.)
- MF-1288-D. ALABAMA. Mineral resource potential map of the Sipsey Wilderness and additions, Lawrence and Winston counties, Alabama, by S. P. Schweinfurth, U.S. Geological Survey, and P. C. Mory, R. B. Ross, Jr., and P. T. Behum, U.S. Bureau of Mines. 1982. Lat $34^{\circ}16'$ to $34^{\circ}26'$, long $87^{\circ}15'$ to $87^{\circ}32'$. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 39 by 40 inches. (Accompanied by 6-page text.)
- MF-1317-C. CALIFORNIA. Mineral resource potential map of the Range Roadless Area, Mono County, California, by J. L. Donahue and E. H. McKee, U.S. Geological Survey, and R. L. Rains, D. J. Barnes, H. W. Campbell, D. K. Denton, Jr., S. R. Iverson, R. E. Jeske, S. A. Stebbins, U.S. Bureau of Mines. 1983. Lat $37^{\circ}35'$ to $37^{\circ}50'$, long $118^{\circ}25'$ to about $118^{\circ}40'$. Scale 1:62,500 (1 inch = about 1 mile). Sheet 26 by 34 inches. (Accompanied by 7-page text.)

- MF-1319-B. UTAH. Mineral resource potential map of the Box-Death Hollow Roadless Area, Garfield County, Utah, by G. W. Weir, U.S. Geological Survey, and M. E. Lane, U.S. Bureau of Mines. 1983. Lat about 37° to 38°, long 111°22'33" to 111°45'. Scale 1:48,000 (1 inch = 4,000 feet.) Sheet 27 by 33 inches. (Accompanied by 9-page text.)
- MF-1322-B. CALIFORNIA. Aeromagnetic and gravity maps of the Freel and Dardanelles Roadless Areas, Alpine and El Dorado counties, California, by Donald Plouff. 1983. Lat 38°40' to 38°55', long 119°50' to 120°10'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 25 by 42 inches.
- MF-1322-C. CALIFORNIA. Mineral resource potential map of the Freel and Dardanelles Roadless Areas, Alpine and El Dorado counties, California, by D. A. John, R. A. Armin, Donald Plouff, and M. A. Chaffee, U.S. Geological Survey, and T. J. Peters, D. F. Scott, F. E. Federspiel, E. E. Cather, and H. W. Campbell, U.S. Bureau of Mines. 1983. Lat 38°40' to 38°55', long 119°50' to 120°10'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 27 by 34 inches. (Accompanied by 6-page text.)
- MF-1323. MINNESOTA. Seismicity map of the State of Minnesota, by C. W. Stover, B. G. Reagor, and S. T. Algermissen. 1981. Lat about 44° to about 49°, long about 90° to about 97°. Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 28 by 38 inches. (Reprint.)
- MF-1339-B. MISSOURI. Mineral resource potential map of the Rock Pile Mountain Wilderness Study Area, Madison County, Missouri, by W. P. Pratt and R. L. Erickson, U.S. Geological Survey, and Clarence Ellis, U.S. Bureau of Mines. 1982. Lat about 37°25' to about 37°27'30", long about 90°25' to about 90°27'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 20 by 27 inches. (Accompanied by 5-page text.)
- MF-1340-C. CALIFORNIA. Mineral resource potential map of the Ishi, Mill Creek, Polk Springs, and Butt Mountain Roadless Areas, Tehama and Plumas counties, California, by J. A. Peterson, R. B. Fiebelkorn, and K. A. Johnson, U.S. Geological Survey, and E. E. Cather, H. W. Campbell, D. K. Denton, Jr., and P. N. Gabby, U.S. Bureau of Mines. 1983. Lat about 40° to about 40°15', long 121°15' to about 121°55'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 32 by 44 inches. (Accompanied by 5-page text.)
- MF-1343-B. NEVADA. Mineral resource potential of the Wheeler Peak and Highland Ridge further planning areas, White Pine County, Nevada, by D. H. Whitebread, R. R. Carlson, and C. K. Moss, U.S. Geological Survey, and S. E. Kluender, and S. D. Brown, U.S. Bureau of Mines. 1983. Lat about 38°45' to about 39°05', long 114°05' to 114°25'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 33 by 39 inches. (Accompanied by 7-page text.)
- MF-1344-D. ARIZONA, NEW MEXICO. Maps showing the distribution and relationships of selected metals in heavy-mineral concentrates of the Hells Hole Further Planning Area (RARE II), Greenlee County, Arizona, and Grant County, New Mexico, by J. R. Hassemer, K. C. Watts, C. L. Forn, and E. L. Mosier. 1983. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 32 by 45 inches.
- MF-1345-A. NORTH DAKOTA. Structural-stratigraphic framework and correlation of coal beds in the Tongue River and Sentinel Butte members of the Fort Union Formation, Daglum 15-minute Quadrangle, Billings, Stark, and Slope counties, North Dakota, by J. S. Hinds. 1983. Three sheets. Lat 46°30' to 46°45', long 103° to 103°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 1, 26 by 38 inches; sheet 2, 34 by 43 inches; sheet 3, 33 by 52 inches.
- MF-1346. VIRGINIA. Seismicity map of the State of Virginia, by B. G. Reagor, C. W. Stover, and S. T. Algermissen. 1983. Lat about 37° to about 39°, long about 76° to about 83°. Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 26 by 44 inches.
- MF-1348-D. KENTUCKY. Mineral resource potential maps of the Beaver Creek Wilderness, McCreary County, Kentucky, by K. J. Englund and P. L. Johnson, U.S. Geological Survey, and R. W. Hammack and R. B. Ross, Jr., U.S. Bureau of Mines. 1983. Two sheets, Sheet 1, lat 36°50' to 36°57', long 84°23'30" to 84°30'; sheet 35 by 38 inches. Sheet 2, lat about 36°40' to about 36°56', long 84°23' to about 84°40'; sheet 32 by 32 inches. (Accompanied by 10-page text.)
- MF-1353-C. UTAH. Mineral resource potential map of the Stansbury Roadless Area, Tooele County, Utah, by M. L. Sorensen, U.S. Geological Survey, and R. F. Kness, U.S. Bureau of Mines. 1983. Lat about 40°20' to about 40°35', long 112°30' to 112°45'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 28 by 30 inches. (Accompanied by 7-page text.)
- MF-1354-B. MONTANA, IDAHO. Map showing results of audio-magnetotelluric studies in the northwestern part of the Wallace 1° by 2° Quadrangle, Montana and Idaho, by G. L. Long. 1983. Lat about 47°15' to 48°, long 114°30' to 116°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 47 by 52 inches.
- MF-1358-D. VIRGINIA. Mineral resource potential map of the Dolly Ann Roadless Area, Alleghany County, Virginia, by F. G. Lesure, U.S. Geological Survey, and J. G. Jones, U.S. Bureau of Mines. 1983. Lat 37°45' to 37°52'30", long 79°52'30" to 80°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 34 by 38 inches. (Accompanied by 14-page text.)
- MF-1361-B. CALIFORNIA, NEVADA. Map and interpretation of geochemical anomalies in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Areas, White Mountains, California and Nevada, by M. F. Diggles. 1983. Lat about 37°15' to about 37°55', long about 118° to about 118°25'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 40 by 57 inches.
- MF-1361-C. CALIFORNIA. Mineral resource potential map of the Blanco Mountain and Black Canyon Roadless Areas, Inyo and Mono counties, California, by M. F. Diggles and R. J. Blakely, U.S. Geological Survey, and R. L. Rains and S. W. Schmauch, U.S. Bureau of Mines. 1983. Lat about 37°15' to about 37°30', long 118° to about 118°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 33 by 41 inches. (Accompanied by 12-page text.)
- MF-1365-B. CALIFORNIA. Aeromagnetic and gravity maps of the east part of the Raymond Peak Roadless Area, Alpine County, California, by Donald Plouff. 1983. Lat about 38°35' to about 38°45', long about 119°45' to about 119°55'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 25 by 42 inches.

- MF-1365-C. CALIFORNIA. Mineral resource potential map of the east part of the Raymond Peak Roadless Area, Alpine County, California, by D. A. John, R. A. Armin, Donald Plouff, and M. A. Chaffee, U.S. Geological Survey, and F. E. Federspiel, D. F. Scott, and E. E. Cather, U.S. Bureau of Mines. 1983. Lat about 38°35' to about 38°45', long about 119°45' to about 119°55'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 31 by 37 inches. (Accompanied by 11-page text.)
- MF-1377-C. MISSOURI. Mineral resource potential map of Hercules Glades Wilderness, Taney County, Missouri, by M. H. Miller and S. A. Chesson, U.S. Geological Survey, and G. S. Ryan, U.S. Bureau of Mines. 1982. Lat 36°37'30" to about 36°42'30", long about 92°52'30" to 93°. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 23 by 28 inches. (Accompanied by 7-page text.)
- MF-1378. ARIZONA. Reconnaissance geologic map of the Presumido Peak Quadrangle, Arizona, by Gordon Haxel, D. J. May, and R. M. Tosdal. 1982. Lat 31°30' to 31°45', long 111°30' to 111°45'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 27 by 39 inches. (Reprint.)
- MF-1380-B. WASHINGTON. Mineral resource potential map of the Eagle Rock Roadless Area, Snohomish and King counties, Washington, by S. E. Church and R. W. Tabor, U.S. Geological Survey, and F. L. Johnson, U.S. Bureau of Mines. 1983. Lat about 47°45' to about 47°52'05", long 121°15' to about 121°45'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 22 by 38 inches. (Accompanied by 15-page text.)
- MF-1381-B. OREGON. Geochemical map and rock and stream-sediment data from the Wild Rogue Wilderness, Coos and Curry counties, Oregon, by J. A. Peterson, and Floyd Gray. 1983. Lat about 42°35' to about 42°50', long about 123°50' to about 124°05'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 37 by 53 inches.
- MF-1381-C. OREGON. Map and interpretation of aeromagnetic data for the Wild Rogue Wilderness, Coos and Curry counties, Oregon, by R. J. Blakely, and Lisa Senior. 1983. Lat about 42°35' to about 42°50', long about 123°50' to about 124°05'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 36 by 37 inches.
- MF-1381-D. OREGON. Mineral resource potential map of the Wild Rogue Wilderness, Coos and Curry counties, Oregon, by Floyd Gray, J. A. Peterson, R. J. Blakely and Lisa Senior, U.S. Geological Survey, and M. S. Miller and R. S. Gaps, U.S. Bureau of Mines. 1983. Lat about 42°35' to about 42°50', long about 123°50', to about 124°05'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 36 by 37 inches. (Accompanied by 15-page text.)
- MF-1382-A. CALIFORNIA, NEVADA. Geologic map of the Walker Lake 1° by 2° Quadrangle, California and Nevada, by J. H. Stewart, J. E. Carlson, and D. C. Johannesen. 1982. Lat 38° to 39°, long 118° to 120°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 43 by 46 inches. (Reprint.)
- MF-1382-B. CALIFORNIA, NEVADA. Map showing distribution, ages, and petrographic characteristics of Mesozoic plutonic rocks in the Walker Lake 1° by 2° Quadrangle, California and Nevada, compiled by D. A. John. 1983. Lat 38° to 39°, long 118° to 120°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 41 by 48 inches.
- MF-1382-D. NEVADA, CALIFORNIA. Map showing late Cenozoic faults in the Walker Lake 1° by 2° Quadrangle, Nevada-California, by J. C. Dohrenwend. 1982. Lat 38° to 39°, long 118° to 120°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 27 by 42 inches. (Reprint.)
- MF-1383-C. OREGON, CALIFORNIA. Mineral resource assessment maps of the Medford 1° by 2° Quadrangle, Oregon-California, by D. A. Singer, N. J. Page, J. G. Smith, R. J. Blakely, and M. G. Johnson. 1983. Two sheets. Lat 42° to 43°, long 122° to 124°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 1, 31 by 52 inches; sheet 2, 29 by 49 inches.
- MF-1383-D. OREGON, CALIFORNIA. Map showing characteristics of lode gold in the Medford 1° by 2° Quadrangle, Oregon-California, by N. J. Page, M. G. Johnson, and J. A. Peterson. 1983. Two sheets. Lat 42° to 43°, long 122° to 124°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 1, 38 by 46 inches; sheet 2, 22 by 42 inches.
- MF-1383-E. OREGON, CALIFORNIA. Map showing geologic, geophysical, and geochemical characteristics of granitic plutons in the Medford 1° by 2° Quadrangle, Oregon-California, by N. J. Page, R. J. Blakely, and J. K. Cannon. 1983. Lat 42° to 43°, long 122° to 124°. Scale 1:250,000 (1 inch = about 4 miles.). Sheet 32 by 40 inches.
- MF-1384. CALIFORNIA. Pre-Monterey subcrop and structure contour maps, western San Luis Obispo and Santa Barbara counties, south-central California, by C. A. Hall, Jr. 1982. Scale 1:62,500 (1 inch = about 1 mile). Six sheets. Sheet 1, lat 35°30' to 35°45', long about 120°50' to 121°20'; sheet 36 by 55 inches. Sheet 2, lat about 35°15' to 35°30', long about 120°35' to 121°05'; sheet 33 by 45 inches. Sheet 3, lat about 35° to 35°15', long 120°15' to 121°; sheet 42 by 45 inches. Sheet 4, lat 34°45' to 35°, long 119°55' to 120°50'; sheet 43 by 56 inches. Sheet 5, lat about 34°30' to 34°45', long 119°52'30" to 120°45'; sheet 28 by 53 inches. Sheet 6, lat 34°30' to 34°45', long 119°52'30" to 120°45'; sheet 28 by 53 inches. (Reprint.) (Accompanied by 28-page text.)
- MF-1389-B. CALIFORNIA. Mineral resource potential map of the Dinkey Lakes Roadless Area, Fresno County, California, by F. C. W. Dodge and D. B. Smith, U.S. Geological Survey, and F. E. Federspiel, H. W. Campbell, D. F. Scott, and J. M. Spear, U.S. Bureau of Mines. 1983. Lat 37° to 37°25', long 118°50' to 119°10'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 35 by 36 inches. (Accompanied by 7-page text.)
- MF-1392. Map showing utility and industrial power sources in the conterminous United States, by C. M. Shifflet. 1982. Two sheets. Scale 1:2,500,000 (1 inch = about 40 miles). East half, lat about 23° to about 48°, long about 64° to 96°. West half, lat about 23° to about 48°, long 97° to 128°. Sheets 42 by 58 inches. (Accompanied by 22-page text.)
- MF-1394-A. ARIZONA. Geology and geochemical analyses of the Strawberry Crater area, Coconino County, Arizona, by E. W. Wolfe, and D. A. Hahn. 1982. Lat 35°22'30" to 35°30', long 111°22'30" to 111°30'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 28 by 45 inches.

- MF-1394-B. ARIZONA. Geophysical map of the Strawberry Crater Roadless Areas, Coconino County, Arizona, by E. W. Wolfe, and D. B. Hoover. 1982. Lat 35°22'30" to 35°30', long 111°22'30" to 111°30'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 35 by 52 inches.
- MF-1394-C. ARIZONA. Mineral resource potential map of the Strawberry Crater Roadless Areas, Coconino County, Arizona, by E. W. Wolfe, U.S. Geological Survey, and T. D. Light, U.S. Bureau of Mines. 1982. Lat 35°22'30" to 35°30', long 111°22'30" to 111°30'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 29 by 43 inches. (Accompanied by 6-page text.)
- MF-1395-A. CALIFORNIA. Geologic map of the Domeland Wilderness and contiguous roadless areas, Kern and Tulare counties, California, by J. R. Berquist and A. M. Nitkiewicz with geochronology by R. M. Tosdal. 1982. Lat 35°40' to 36°05', long 118°05' to 118°25'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 42 by 44 inches. (Reprint.)
- MF-1395-B. CALIFORNIA. Geophysical maps and interpretation of the Domeland Wilderness and contiguous roadless areas, Kern and Tulare counties, California, by R. C. Jachens. 1983. Lat 35°40' to 36°05', long 118°05' to 118°25'. Scale 1:48,000 (1 inch = about 4,000 feet). Sheet 38 by 51 inches.
- MF-1395-F. CALIFORNIA. Mineral resource potential map of the Domeland Wilderness and contiguous roadless areas, Kern and Tulare counties, California, by J. R. Bergquist, J. R. Jachens, and W. R. Miller, U.S. Geological Survey, and A. M. Leszykowski and J. M. Spear, U.S. Bureau of Mines. 1983. Lat 35°40' to 36°05', long 118°05' to 118°25'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 39 by 47 inches. (Accompanied by 8-page text.)
- MF-1396. CALIFORNIA. Map showing surface ruptures associated with the Mammoth Lakes, California, earthquakes of May 1980, by M. M. Clark, J. C. Yount, P. R. Vaughan, and R. L. Zepeda. 1982. Lat about 37°35' to about 37°40', long about 118°50' to about 118°55'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 37 by 39 inches. (Reprint.)
- MF-1400-B. NEVADA. Geochemical anomaly map of the Sugarloaf Roadless Area, Mineral and Esmeralda counties, Nevada, by J. L. Donahoe, and M. A. Chaffee. 1983. Lat 37°50' to 38°, long 118°05' to 118°25'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 24 by 32 inches.
- MF-1400-C. NEVADA. Mineral resource potential map of the Sugarloaf Roadless Area, Esmeralda and Mineral counties, Nevada, by E. H. McKee, J. L. Donahoe, and M. A. Chaffee, U.S. Geological Survey, and S. W. Schmauch, M. C. Horn, and R. A. Winters, U.S. Bureau of Mines. 1983. Lat 37°50' to 38°, long 118°05' to 118°25'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 22 by 32 inches. (Accompanied by 11-page text.)
- MF-1403. WASHINGTON, OREGON. Comparative physiographic diagrams of Mount St. Helens, Washington, and Crater Lake, Oregon, by T. R. Alpha, and J. M. Morley. 1983. Scale 1:62,500 (1 inch = about 1 mile). Sheet 30 by 36 inches.
- MF-1405-C. ILLINOIS. Mineral resource potential map of the Lusk Creek Roadless Area, Pope County, Illinois, by J. S. Klasner, U.S. Geological Survey and Western Illinois University, T. M. Kehn, U.S. Geological Survey, and R. M. Thompson, U.S. Bureau of Mines. 1983. Lat about 37°30' to about 37°35', long about 88°30' to 88°35'. Scale 1:32,000 (1 inch = one-half mile). Sheet 40 by 42 inches. (Accompanied by 19-page text.)
- MF-1406. CALIFORNIA. Map showing areas susceptible to different hazards from shallow landsliding, Marin County and adjacent parts of Sonoma County, California, by Ellen Stephen, D. M. Peterson, and G. O. Reid. 1982. Lat 37°45' to 38°15', long 122°15' to 123°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 40 by 43 inches. (Accompanied by 8-page text.)
- MF-1411-B. CALIFORNIA. Mineral resource potential map of the Wheeler Ridge Roadless Area, Inyo and Mono counties, California, by M. A. Cosca and M. A. Chaffee, U.S. Geological Survey, and D. O. Capstick, U.S. Bureau of Mines. 1983. Lat 37°20' to 37°35', long 118°35' to 118°50'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 24 by 28 inches. (Accompanied by 5-page text.)
- MF-1411-C. CALIFORNIA. Mineral resource potential map of the Laurel-McGee Roadless Area, Mono County, California, by M. A. Cosca, M. A. Chaffee, and E. H. McKee, U.S. Geological Survey, and F. L. Johnson, U.S. Bureau of Mines. 1983. Lat 37°30' to 37°40', long 118°40' to 119°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 26 by 33 inches. (Accompanied by 6-page text.)
- MF-1415-A. GEORGIA, TENNESSEE. Geologic maps of the Cohutta Wilderness and the Hemp Top Roadless Area, northern Georgia and southeastern Tennessee, by J. E. Gair, and J. F. Slack. 1982. Lat 34°50' to 35°01', long 84°27'30" to 84°40'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 36 by 44 inches.
- MF-1415-B. GEORGIA, TENNESSEE. Geochemical survey of the Cohutta Wilderness and the Hemp Top Roadless Area, northern Georgia and southeastern Tennessee, by J. E. Gair. 1982. Two sheets. Lat 34°50' to 35°01', long 84°27'30" to 84°40'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 1, 40 by 54 inches; sheet 2, 32 by 48 inches.
- MF-1416-B. CALIFORNIA. Mineral resource potential map of the Carson-Iceberg Roadless Areas, central Sierra Nevada, California, by W. J. Keith, M. A. Chaffee, and Donald Plouff, U.S. Geological Survey, and M. S. Miller, U.S. Bureau of Mines. 1983. Lat about 38°20' to 38°40', long about 119°30' to 120°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 39 by 55 inches. (Accompanied by 7-page text.)
- MF-1417-B. CALIFORNIA. Mineral resource potential map of the Mount Raymond Roadless Area, central Sierra Nevada, California, by N. K. Huber, M. A. Chaffee, and Andrew Griscom, U.S. Geological Survey, and D. O. Capstick and S. R. Iverson, U.S. Bureau of Mines. 1983. Scale 1:62,500 (1 inch = about 1 mile). Sheet 21 by 23 inches. (Accompanied by 7-page text.)
- MF-1417-C. CALIFORNIA. Geochemical maps of the Mount Raymond Roadless Area, central Sierra Nevada, California, by N. K. Huber, and M. A. Chaffee. 1983. Scale 1:62,500 (1 inch = about 1 mile). Sheet 31 by 34 inches.
- MF-1418-B. WASHINGTON. Mineral resource potential map of the Wonder Mountain Roadless Area, Mason County, Washington, by S. E. Church, J. G. Frisken and R. W. Tabor, U.S. Geological Survey, and S. R. Iverson, U.S. Bureau of Mines. 1983. Lat about 47°15' to about 47°30', long about 123°15' to about 123°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 21 by 31 inches. (Accompanied by 10-page text.)

- MF-1419-B. CALIFORNIA. Mineral resource potential map of the Chips Creek and Bucks Lake Roadless Areas, Butte and Plumas counties, California, by M. L. Sorensen and Andrew Griscom, U.S. Geological Survey, and J. M. Linne, S. A. Stebbins, and D. E. Graham, U.S. Bureau of Mines. 1983. Lat about 39°50' to about 40°05', long about 121°05' to about 121°25'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 30 by 37 inches. (Accompanied by 11-page text.)
- MF-1423-A. CALIFORNIA, OREGON. Geologic map of the North Fork Smith Roadless Area, Del Norte County, Northern California, and Curry County, Oregon, by Floyd Gray, N. J. Page, H. R. Cornwall, and D. F. Huber. 1983. Lat 41°50' to about 42°, long 123°45' to 124°05'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 23 by 37 inches.
- MF-1424. ALASKA. Structure maps and seismic stratigraphy of Yakataga segment of the continental margin, northern Gulf of Alaska, by T. R. Bruns, and W. C. Schwab. 1983. Four sheets. Lat 59° to about 60°, long 141° to 145°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 1, 33 by 44 inches; sheets 2 and 3, 34 by 39 inches; 4, 35 by 43 inches. (Accompanied by 20-page text.)
- MF-1425-B. NEW MEXICO, ARIZONA. Mineral resource potential map of Bunk Robinson Peak and Whitmire Canyon Roadless Areas, Hidalgo County, New Mexico, and Cochise County, Arizona, by P. T. Hayes, K. C. Watts, and J. R. Hassemer, U.S. Geological Survey, and S. D. Brown, U.S. Bureau of Mines. 1983. Lat 31°20' to about 31°35', long about 109° to about 109°05'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 24 by 29 inches. (Accompanied by 5-page text.)
- MF-1425-C. NEW MEXICO, ARIZONA. Geochemical maps of Bunk Robinson Peak and Whitmire Canyon Roadless areas, Hidalgo County, New Mexico, and Cochise County, Arizona, by K. C. Watts, J. R. Hassemer, and G. W. Day. 1983. Lat 31°20' to about 31°35', long about 109° to about 109°05'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 28 by 49 inches.
- MF-1430. CALIFORNIA. Map showing configuration of the basement surface, northern San Joaquin Valley, California, by J. A. Bartow. 1983. Lat about 37° to about 38°, long about 120° to about 121°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 36 by 39 inches.
- MF-1435. Maps showing distribution, thickness, and mass of late Pleistocene and Holocene tephra from major volcanoes in the Pacific Northwest of the United States; a preliminary assessment of hazards from volcanic ejecta to nuclear reactors in the Pacific Northwest, by Susan Shipley, and A. M. Sarna-Wojcicki. 1983. Lat about 39° to about 48°, long about 107° to about 128°. Scale 1:2,500,000 (1 inch = about 40 miles). Sheet 28 by 35 inches. (Accompanied by 27-page text.)
- MF-1436. CALIFORNIA. Preliminary geologic map of the Dardanelles Cone Quadrangle, central Sierra Nevada, California, compiled by N. K. Huber. 1983. Lat 38°15' to 38°30', long 119°45' to 120°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 24 by 30 inches.
- MF-1437. CALIFORNIA. Preliminary geologic map of the Pinecrest Quadrangle, central Sierra Nevada, California, by N. K. Huber. 1983. Lat 38° to 38°15', long 119°45' to 120°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 24 by 26 inches.
- MF-1442-B. PENNSYLVANIA. Mineral resource potential maps of the Allegheny Front and Hickory Creek Roadless Areas, Warren County, Pennsylvania, by S. P. Schweinfurth and Wallace deWitt, Jr., U.S. Geological Survey, and V. P. Girol, U.S. Bureau of Mines. 1983. Lat about 41°37'30" to about 41°50', long about 79°15' to about 79°22'30". Sheet 32 by 38 inches. (Accompanied by 14-page text.)
- MF-1447-A. IDAHO. Geologic map of the Selkirk Roadless Area, Boundary County, Idaho, by F. K. Miller. 1983. Lat about 48°37'30" to about 48°52'30", long about 116°30' to 116°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 36 by 47 inches.
- MF-1447-B. IDAHO. Geochemical map of the Selkirk Roadless Area, Boundary County, Idaho, by F. K. Miller. 1983. Lat about 48°37'30" to about 48°52'30", long about 116°30' to about 116°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 36 by 47 inches.
- MF-1447-C. IDAHO. Mineral resource potential map of the Selkirk Roadless Area, Boundary County, Idaho, F. K. Miller, U.S. Geological Survey, and J. R. Benham, U.S. Bureau of Mines. 1983. Lat about 48°37'30" to about 48°52'30", long about 116°30' to 116°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 33 by 47 inches. (Accompanied by 5-page text.)
- MF-1448-A. IDAHO. Geologic and geochemical map of the Upper Priest Roadless Area, Bonner County, Idaho, by F. K. Miller. 1983. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 20 by 38 inches.
- MF-1448-B. IDAHO. Mineral resource potential map of the Upper Priest Roadless Area, Bonner County, Idaho, by F. K. Miller, U.S. Geological Survey, and D. K. Denton, Jr., U.S. Bureau of Mines. 1983. Lat 48°42'30" to 48°52'30", long about 116°52'30" to 117°. Scale 1:48,000 (1 inch = about 4,000 feet). Sheet 19 by 25 inches. (Accompanied by 5-page text.)
- MF-1452-A. CALIFORNIA. Geologic map of the Marble Mountain Wilderness, Siskiyou County, California, by M. M. Donato and R. G. Coleman, U.S. Geological Survey, and C. G. Barnes and M. A. Kays, University of Oregon, and W. G. Ernst, University of California. 1982. Lat about 41°20' to 41°45', long 123° to 123°30'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 42 by 58 inches. (Reprint.)
- MF-1452-B. CALIFORNIA. Mineral resource potential map of the Marble Mountain Wilderness, Siskiyou County, California, by M. M. Donato, R. C. Jachens, and D. B. Smith, U.S. Geological Survey, and W. N. Hale, U.S. Bureau of Mines. 1983. Lat about 41°20' to 41°45', long 123° to about 123°25'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 42 by 46 inches. (Accompanied by 11-page text.)
- MF-1453-A. CALIFORNIA. Geologic map of the Tioga Lake, Hall Natural Area, Log Cabin-Saddlebag, and Horse Meadows Roadless Areas, Mono County, California, by J. F. Seitz. 1983. Lat about 37°50' to about 38°, long 119°05' to about 119°20'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 30 by 37 inches.
- MF-1456. ALASKA. Maps showing post-neoglacial sediment thickness and bathymetry in Tarr Inlet, Glacier Bay, Alaska, by P. R. Carlson, B. F. Molnia, and Austin Post, U.S. Geological Survey, M. C. Wheeler, University of California, Davis, and R. D. Powell, Northern Illinois University, DeKalb. 1983. Sheet 36 by 47 inches.

- MF-1457. ALASKA. Map showing the geological structure of the continental shelf southeast and southwest of Kodiak Island, Alaska, by M. A. Fisher, and Roland von Huene. 1982. Lat 55° to about 58°, long about 149° to about 156°. Scale 1:500,000 (1 inch = about 24 miles). Sheet 41 by 52 inches.
- MF-1462-A. IDAHO. Geologic and geophysical maps of the Great Rift Instant Study Area, Blaine, Butte, Minidoka, and Power counties, Idaho, by M. A. Kuntz, D. R. Mabey, D. E. Champion, W. D. Stanley, R. H. Lefebvre, E. C. Spiker, L. A. McBroome, and H. R. Covington. 1983. Two sheets. Scale 1:125,000 (1 inch = about 2 miles). Sheet 1, lat about 43° to 43°45', long about 113°15' to 114°, sheet 34 by 44 inches; sheet 2, lat 42°50' to 43°35', long 112°50' to 113°50', sheet 26 by 37 inches.
- MF-1462-B. IDAHO. Mineral resource potential map of the Great Rift Instant Study Area, Blaine, Butte, Minidoka, and Power counties, Idaho, by J. Ridenour and R. B. Stotelmeyer, U.S. Bureau of Mines, and D. R. Mabey, M. A. Kuntz, D. E. Champion, R. H. Lefebvre, and W. D. Stanley, U.S. Geological Survey. 1983. Lat about 43° to 43°45', long 113°15' to 114°. Scale 1:125,000 (1 inch = about 2 miles). Sheet 34 by 48 inches. (Accompanied by 5-page text.)
- MF-1463-B. ARIZONA, NEW MEXICO. Geologic map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico, by J. C. Ratte. 1982. Scale 1:62,500 (1 inch = about 1 mile). Sheet 25 by 36 inches.
- MF-1463-C. ARIZONA, NEW MEXICO. Mineral resource potential map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico, by J. C. Ratte, J. R. Hassemer, and R. A. Martin, U.S. Geological Survey, and M. E. Lane, U.S. Bureau of Mines. 1982. Scale 1:62,500 (1 inch = about 1 mile). Sheet 24 by 33 inches. (Accompanied by 6-page text.)
- MF-1465-A. NEW MEXICO. Map of Quaternary and Pliocene faults in the Socorro and western part of the Fort Sumner 1° by 2° Quadrangles, New Mexico, by M. N. Machette, and R. G. McGimsey. 1983. Lat 34° to 35°, long about 105°45' to 108°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 25 by 41 inches. (Accompanied by 12-page text.)
- MF-1467. NEVADA. Maps showing gold and silver potential of the Round Mountain and Manhattan quadrangles, Nye County, Nevada, by D. R. Shawe. 1982. Lat 38°30' to 38°45', long 117° to 117°07'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 39 by 54 inches.
- MF-1468. NEW MEXICO. Mineral resource potential and geologic map of the Little Dog and Pup Canyons Roadless Area, Otero County, New Mexico, by P. T. Hayes, U.S. Geological Survey, and P. R. Bigsby, U.S. Bureau of Mines. 1983. Lat about 32°15' to about 32°22'30", long 104°52'30" to about 105°. Scale 1:50,000 (1 inch = 4,200 feet). Sheet 26 by 28 inches. (Accompanied by 4-page text.)
- MF-1469-A. MONTANA. Geologic map of the Sapphire Wilderness and contiguous roadless area, Granite and Ravalli counties, Montana, by C. A. Wallace, D. J. Lidke, and J. D. Obradovich. 1982. Lat about 45°57'30" to 46°15', long 113°30' to 113°52'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 33 by 48 inches.
- MF-1470. FLORIDA. Mineral resource potential map of the Savannah Roadless Area, Liberty County, Florida, by S. H. Patterson, U.S. Geological Survey, Walter Schmidt, Florida Bureau of Geology, and T. M. Crandall, U.S. Bureau of Mines. 1982. Sheet 37 by 42 inches. (Accompanied by 8-page text.)
- MF-1471. OREGON. Geologic map of the Doolittle Creek Quadrangle, Malheur County, Oregon, by J. J. Rytuba, J. T. Bateson, D. L. Curtis, Jr., and G. A. Cox. 1983. Lat 42°07'30" to 42°15', long 118° to 118°07'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 30 by 34 inches.
- MF-1472. OREGON. Geologic map of the Little Whitehorse Creek Quadrangle, Harney and Malheur counties, Oregon, by J. J. Rytuba, J. T. Bateson, D. L. Curtis, Jr., and G. A. Cox. 1983. Lat 42°07'30" to 42°15', long 118°07'30" to 118°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 28 by 34 inches.
- MF-1473. OREGON. Geologic map of the Oregon Canyon 3 NW Quadrangle, Malheur County, Oregon, by J. J. Rytuba, and D. L. Curtis, Jr. 1983. Lat 42°07'30" to 42°15', long 117°52'30" to 118°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 30 by 36 inches.
- MF-1474-A. TENNESSEE. Geologic map of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee, by J. B. Epstein. 1983. Lat about 35°15' to about 35°17'30", long about 84°27'30" to about 84°32'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 30 by 34 inches.
- MF-1474-B. TENNESSEE. Reconnaissance geochemical maps of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee, by J. B. Epstein. 1983. Lat about 35°15' to 35°17'30" long about 84°27'30" to about 84°32'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 40 by 41 inches.
- MF-1474-C. TENNESSEE. Maps showing mines, quarries, and prospects, with analyses of samples, Gee Creek Wilderness, Polk and Monroe counties, Tennessee, by G. C. Gazdik and P. T. Behum, U.S. Bureau of Mines. 1983. Lat about 36°15' to about 35°17'30", long about 84°27'30" to about 84°32'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 36 by 36 inches.
- MF-1474-D. TENNESSEE. Mineral resource potential map of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee, by J. B. Epstein, U.S. Geological Survey, and G. C. Gazdik and P. T. Behum, U.S. Bureau of Mines. 1983. Lat about 35° to about 35°30', long about 84° to about 85°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 22 by 33 inches. (Accompanied by 6-page text.)
- MF-1475-A. ARIZONA, UTAH. Geologic map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona, and Kane County, Utah, by A. L. Bush. 1983. Lat about 36°45' to about 37°, long about 111°45' to 112°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 35 by 47 inches.
- MF-1475-B. ARIZONA, UTAH. Geochemical data and sample locality map of the Vermilion Cliffs-Paria Canyon Instant Study area and adjacent wilderness study areas, Coconino County, Arizona, and Kane County, Utah, by A. L. Bush, U.S. Geological Survey, and M. E. Lane, U.S. Bureau of Mines. 1982. Lat about 36°45' to about 37°, long about 111°45' to about 112°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 40 by 54 inches.

- MF-1475-C. ARIZONA, UTAH. Mine and prospect map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona and Kane County, Utah, by M. E. Lane, U.S. Bureau of Mines. 1983. Lat about 36°45' to about 37°, long about 111°45' to about 112°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 42 by 58 inches.
- MF-1476-A. ALASKA. Reconnaissance geologic map of the western Chichagof and Yakobi Islands Wilderness Study Area, southeastern Alaska, by B. R. Johnson, and S. M. Karl. 1982. Lat about 57°30' to about 58°, long 135°20' to 136°40'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 40 by 49 inches.
- MF-1476-B. ALASKA. Mineral resource potential map of the western Chichagof and Yakobi Islands Wilderness Study Area, southeastern Alaska, by B. R. Johnson, U.S. Geological Survey, and A. L. Kimball and J. C. Still, U.S. Bureau of Mines. 1982. Lat about 57°30' to about 58°, long 135°20' to 136°40'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 30 by 34 inches. (Accompanied by 10-page text.)
- MF-1479. FLORIDA. Mineral resource potential map of the Clear Lake Roadless Area, Leon County, Florida, by C. W. Hendry, Jr., Florida Bureau of Geology, S. H. Patterson, U.S. Geological Survey, and T. M. Crandall and J. W. Sweeney, U.S. Bureau of Mines. 1982. Lat about 30°20' to 30°22'30", long 84°22'30" to 84°30'. Sheet 40 by 48 inches. (Accompanied by 6-page text.)
- MF-1480. ALASKA. Structure and petroleum potential of the Yakutat segment of the northern Gulf of Alaska continental margin, by T. R. Bruns. 1983. Three sheets. Lat about 57°30' to about 60°30', long about 136° to about 143°. Scale 1:500,000 (1 inch = about 8 miles). Sheets 38 by 53 inches. (Accompanied by 22-page text.)
- MF-1482. OREGON. Sections showing biostratigraphy and correlation of Tertiary rocks penetrated in wells drilled on the southern Oregon continental margin, by P. D. Snavely, Jr., H. C. Wagner, and W. W. Rau. 1982. Sheet 35 by 40 inches.
- MF-1483-A. COLORADO. Mineral resource potential and geologic map of the Powderhorn Wilderness Study Area and Cannibal Plateau Wilderness Roadless Area, Gunnison and Hinsdale counties, Colorado, by W. N. Sharp and R. A. Martin, U.S. Geological Survey, and M. E. Lane, U.S. Bureau of Mines. 1983. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 33 by 37 inches. (Accompanied by 6-page text.)
- MF-1483-B. COLORADO. Aeromagnetic map of the Powderhorn Wilderness Study Area and Cannibal Plateau Roadless Area, Gunnison and Hinsdale counties, Colorado, by R. A. Martin, and W. N. Sharp. 1983. Lat about 38° to 38°15', long about 107°05' to 107°20'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 27 by 31 inches.
- MF-1483-C. COLORADO. Geochemical map of the Powderhorn Wilderness Study Area and Cannibal Plateau Roadless Area, Gunnison and Hinsdale counties, Colorado, by W. N. Sharp, U.S. Geological Survey, and M. E. Lane, U.S. Bureau of Mines. 1983. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 39 by 52 inches.
- MF-1484. CALIFORNIA. Maps showing thermal features and topography of Devils Kitchen and Bumpass Hell, Lassen Volcanic National Park, California, by L. J. Muffler, Raymond Jordan, and A. L. Cook. 1983. Scale 1:2,000 (1 inch = about 160 feet). Sheet 24 by 38 inches.
- MF-1488. CALIFORNIA. Map showing the San Andreas Fault trace and related features in the Montara Mountain and San Mateo 7.5 minute quadrangles, San Mateo County, California, by E. H. Pampeyan. 1983. Lat 37°30' to 37°37'30", long 122°15' to 122°30'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 34 by 42 inches.
- MF-1489. MONTANA. Complete Bouguer gravity and generalized geologic and structure map of the Choteau 1° by 2° Quadrangle, Montana, by D. M. Kulik. 1982. Lat 47° to 48°, long 112° to 114°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 26 by 46 inches.
- MF-1489. MONTANA. Complete Bouguer gravity and generalized geologic and structure map of the Choteau 1° by 2° Quadrangle, Montana, by D. M. Kulik. 1982. Lat 47° to 48°, long 112° to 114°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 27 by 48 inches. (Reprint.)
- MF-1492-A. CALIFORNIA. Geologic map of the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California, by V. A. Langenheim, J. L. Donahoe, and E. H. McKee. 1982. Lat 36°45' to 37°15', long about 117°55' to 118°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 39 by 51 inches.
- MF-1492-B. CALIFORNIA. Mineral resource potential map of the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California, by E. H. McKee, J. L. Donahoe, and R. J. Blakeley, U.S. Geological Survey, and S. W. Schmauch, D. A. Lipton, and P. N. Gabby, U.S. Bureau of Mines. 1983. Lat 36°45' to 37°15', long about 117°55' to 118°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 37 by 55 inches. (Accompanied by 25-page text.)
- MF-1494. MISSOURI. Geologic, geochemical, and mineral resource potential map of the Piney Creek Wilderness, Stone and Barry counties, Missouri, by W. P. Pratt and R. L. Erickson, U.S. Geological Survey, K. C. Thomson, Southwest Missouri State University, and Clarence Ellis, U.S. Bureau of Mines. 1982. Sheet 27 by 37 inches. (Accompanied by 6-page text.)
- MF-1495-A. IDAHO, MONTANA. Mineral resource potential map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana, by M. I. Toth and B. W. Cox, U.S. Geological Survey, and N. T. Zilka and M. M. Hamilton, U.S. Bureau of Mines. 1983. Lat 45°40' to 46°45', long 114° to 115°30". Scale 1:125,000 (1 inch = about 2 miles). Sheet 38 by 52 inches. (Accompanied by 6-page text.)
- MF-1495-B. IDAHO, MONTANA. Reconnaissance geologic map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana, by M. I. Toth. 1983. Lat 45°40' to 46°45', long 114° to 115°05'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 38 by 55 inches.

- MF-1495-C. IDAHO, MONTANA. Geochemical maps of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana, by B. W. Coxe, and M. I. Toth. 1983. Two sheets. Lat 45°40' to 46°45', long 114° to 115°30'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 1, 41 by 52 inches; sheet 2, 41 by 54 inches.
- MF-1496-A. NEW MEXICO. Isopach and contour structure maps of the Burro Canyon(?) Formation in the Mesa Golondrina and Mesa de Los Viejos areas, Chama Basin, New Mexico, by J. L. Ridgley. 1983. Two sheets. Lat 36°20' to 36°30', long 106°30' to 106°45'. Scale 1:24,000 (1 inch = about 2,000 feet). Sheet 1, 36 by 45 inches; sheet 2, 36 by 40 inches.
- MF-1496-B. NEW MEXICO. Isopach and structure contour maps of the Burro Canyon(?) Formation in the Canjilon-Ghost Ranch area, Chama Basin, New Mexico, by J. L. Ridgley. 1983. Lat 36°21'08" to 36°28'30", long 106°20' to 106°30'. Scale 1:24,000 (1 inch = about 2,000 feet). Sheet 28 by 52 inches.
- MF-1496-C. NEW MEXICO. Isopach and structure contour maps of the Burro Canyon(?) Formation in the Chama-El Vado area, Chama Basin, New Mexico, by J. L. Ridgley. 1983. Lat 36°40' to about 36°50' 1 mile, long 106°30' to 106°45'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 19 by 34 inches.
- MF-1497. NEW MEXICO. Geologic map of the Alamo Mesa East Quadrangle, San Juan County, New Mexico, by J. L. Brown. 1982. Lat 36°15' to 36°22'30", long 108° to 108°07'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 27 by 37 inches.
- MF-1498. NEW MEXICO. Geologic map of the Huerfano Trading Post SW Quadrangle, San Juan County, New Mexico, by J. L. Brown. 1982. Lat 36°15' to 36°22'30", long 107°52'30" to 108°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 27 by 37 inches.
- MF-1499. HAWAII. Reconnaissance map showing thicknesses of volcanic ash deposits in the Greater Hilo area, Hawaii, by J. M. Buchanan-Banks. 1983. Lat about 19°42'30" to about 19°47'30", long 155°05' to 155°10'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 29 by 29 inches.
- MF-1500-A. IDAHO. Geologic map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho, by T. H. Kiilsgaard. 1983. Lat 43°52'30" to about 44°07'30", long 115°07'30" to 115°30". Scale 1:62,500 (1 inch = about 1 mile). Sheet 33 by 36 inches.
- MF-1500-B. IDAHO. Geochemical map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho, by T. H. Kiilsgaard. 1983. Lat 43°52'30" to about 44°07'30", long 115°07'30" to 115°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 33 by 41 inches.
- MF-1500-C. IDAHO. Mineral resource potential map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho, by T. H. Kiilsgaard, U.S. Geological Survey, and J. R. Benham and D. W. Avery, U.S. Bureau of Mines. 1983. Lat 43°52'30" to about 44°07'30", long 115°07'30" to 115°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 26 by 40 inches. (Accompanied by 10-page text.)
- MF-1501-A. CALIFORNIA. Geologic and geochemical maps of the Rubicon Roadless Area, Placer and Eldorado counties, California, by D. S. Harwood. 1983. Lat about 38°55' to about 38°57'30", long about 120°30' to 120°37'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 26 by 35 inches.
- MF-1501-B. CALIFORNIA. Mineral resource potential map of the Rubicon Roadless Area, Placer and El Dorado counties, California, by D. S. Harwood, U.S. Geological Survey, and E. E. Cather and D. F. Scott, U.S. Bureau of Mines. 1983. Lat about 38°55' to about 38°57'30", long 120°30' to 120°37'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 23 by 30 inches. (Accompanied by 4-page text.)
- MF-1502-A. GEORGIA. Geologic map of the Chattahoochee Roadless Area, Towns, Union, and White counties, Georgia, by A. E. Nelson. 1983. Scale 1:30,000 (1 inch = 2,500 feet). Sheet 32 by 41 inches.
- MF-1504. WYOMING, COLORADO, UTAH. Subsurface temperature map showing depth to 180° Fahrenheit in the Greater Green River basin of Wyoming, Colorado, and Utah, by R. E. Law, and C. R. Smith. 1983. Lat about 41° to about 43°, long about 107° to about 110°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 27 by 32 inches.
- MF-1505-A. ALABAMA. Geologic maps of the Big Sandy, West Elliotts Creek, and Reed Brake Roadless Areas, Tuscaloosa, Hale, and Bibb counties, Alabama, by M. W. Szabo, Geological Survey of Alabama, and S. H. Patterson, U.S. Geological Survey. 1983. Lat about 32°45' to 33°45', long 87° to 88°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 32 by 44 inches.
- MF-1505-B. ALABAMA. Mineral resource potential map of the Big Sandy, West Elliotts Creek, and Reed Brake Roadless Areas, Tuscaloosa, Hale, and Bibb counties, Alabama, by S. H. Patterson, U.S. Geological Survey, and M. K. Armstrong and P. C. Mory, U.S. Bureau of Mines. 1983. Lat about 32°45' to about 33°45', long about 87° to about 88°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 37 by 50 inches. (Accompanied by 11-page text.)
- MF-1506. NEW MEXICO. Geologic map of the Rincon Hondo Quadrangle, Cibola County, New Mexico, by M. W. McLellan, L. R. Haschke, and L. N. Robinson. 1982. Lat 34°37'30" to 34°45', long 108°45' to 108°52'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 33 by 34 inches.
- MF-1507-A. OREGON. Geologic map of the Sky Lakes Roadless Area and Mountain Lakes Wilderness, Jackson and Klamath counties, Oregon, by J. G. Smith. 1983. Lat about 42°20' to about 42°45', long about 122°05' to about 122°20'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 36 by 52 inches.
- MF-1507-B. OREGON. Mineral resource potential map of the Sky Lakes Roadless Area and Mountain Lakes Wilderness, Jackson and Klamath counties, Oregon, by J. G. Smith, U.S. Geological Survey, and J. R. Benham and F. L. Johnson, U.S. Bureau of Mines. 1983. Lat about 42°20' to about 42°45', long about 122°05' to about 122°20'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 36 by 45 inches. (Accompanied by 6-page text.)
- MF-1508-A. NEW MEXICO. Geologic and isopach maps of the Bisti, De-Na-Zin, and Ah-Shi-Sle-Pah Wilderness Study Areas, San Juan County, New Mexico, by J. L. Brown. 1983. Two sheets. Lat 36°05'20" to 36°22'30", long 107°52'30" to 108°22'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 1, 29 by 51 inches; sheet 2, 29 by 37 inches.
- MF-1509. NEW MEXICO. Geologic map of the Moreno Hill Quadrangle, Cibola and Catron counties, New Mexico, by M. W. McLellan, L. R. Haschke, L. N. Robinson, and E. R.

- Landis. 1983. Lat 34°30' to 34°37'30", long 108°45' to 108°52'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 37 by 37 inches. (Reprint.)
- MF-1509. NEW MEXICO. Geologic map of the Moreno Hill Quadrangle, Cibola and Catron countries, New Mexico, by M. W. McLellan, L. R. Haschke, L. N. Robinson, and E. R. Landis. 1983. Lat 34°30' to 34°37'30", long 108°45' to 108°52'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 35 by 35 inches.
- MF-1510-C. PENNSYLVANIA. Mineral resource potential map of Cornplanter Roadless Area, Warren County, Pennsylvania, by F. G. Lesure and Wallace deWitt, Jr., U.S. Geological Survey, and R. A. Welsh, Jr., U.S. Bureau of Mines. 1983. Lat 41°55' to 42°, long about 78°55' to 79°. Sheet 33 by 36 inches. (Accompanied by 12-page text.)
- MF-1511-A. MISSOURI. Mineral resource potential map of the Irish Wilderness Roadless Area, Oregon County, Missouri, by A. V. Heyl, S. K. Odland, and C. K. Moss, U.S. Geological Survey and G. S. Ryan, U.S. Bureau of Mines. 1983. Lat 40° to about 47°30', long about 91°07'30" to 91°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 33 by 46 inches. (Accompanied by 8-page text.)
- MF-1512. WYOMING. Preliminary geologic map of the Story Quadrangle, Sheridan and Johnson counties, Wyoming, by E. N. Hinrichs. 1983. Lat 44°30' to 44°37'30", long 106°52'30" to 107°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 27 by 34 inches.
- MF-1513. MONTANA. Photogeologic and reconnaissance geologic map of the Locate Quadrangle, Custer County, Montana, by S. J. Luft and R. B. Colton, U.S. Geological Survey, and E. L. Heffern and G. P. Cormier, U. S. Bureau of Land Management. 1983. Lat 46°22'30" to 46°30', long 105°15' to 105°22'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 27 by 29 inches.
- MF-1515. CALIFORNIA. Mineral resource potential map of the Kaiser Wilderness, Fresno County, California, by E. A. du Bray and D. A. Dellinger, U.S. Geological Survey, and Andrew Leszykowski, Clayton Morlock, and Spence Willett, U.S. Bureau of Mines. 1983. Lat about 37°15' to 37°20', long 119°05' to about 119°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 22 by 25 inches. (Accompanied by 5-page text.)
- MF-1516. NEW MEXICO. Mineral resource potential and geologic map of the Caballo and Polvadera Roadless Areas, Los Alamos and Rio Arriba counties, New Mexico, by Kim Manley, U.S. Geological Survey, and M. E. Lane, U.S. Bureau of Mines. 1983. Lat 35°52'30" to about 36°07'30", long 106°15' to 106°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 27 by 36 inches. (Accompanied by 4-page text.)
- MF-1517. WYOMING, MONTANA. Geologic and structure maps of the Monarch Quadrangle, Sheridan County, Wyoming, and Big Horn County, Montana, by B. E. Barnum. 1983. Two sheets. Lat 44°52'30" to 45°, long 107° to 107°07'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 1, 30 by 36 inches; sheet 2, 19 by 29 inches.
- MF-1518. ALASKA. Occurrence and distribution chart of ostracodes from the northeastern Gulf of Alaska, by E. M. Brouwers. 1983. Two sheets. Sheet 1, 35 by 48 inches; sheet 2, 40 by 49 inches. (Accompanied by 13-page text.)
- MF-1521-A. ARIZONA. Geologic map of the Dragoon Mountains Roadless Area, Cochise County, Arizona, by Harald Drewes, and G. A. Meyer. 1983. Lat about 31°55' to about 32°, long about 109°55' to about 110°. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 30 by 44 inches.
- MF-1521-B. ARIZONA. Mineral resource potential map of the Dragoon Mountain Roadless Area, Cochise County, Arizona, by Harald Drewes, K. C. Watts, Jr., and D. P. Klein, U.S. Geological Survey, and T. J. Kreidler, U.S. Bureau of Mines. 1983. Lat about 31°55' to about 32°, long about 109°55' to about 110°. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 26 by 29 inches. (Accompanied by 8-page text.)
- MF-1521-C. ARIZONA. Geophysical maps of the Dragoon Mountains Roadless Area, Cochise County, Arizona, by D. P. Klein. 1983. Lat about 31°55' to about 32°, long about 109°55' to about 110°. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 35 by 49 inches.
- MF-1522. NEVADA. Geology and mineral resources of the Red Rocks Escarpment Instant Study Area, Clark County, Nevada, by R. G. Bohannon, U.S. Geological Survey, and R. W. Morris, U.S. Bureau of Mines. 1983. Lat about 36° to about 36°10', long about 115°25' to about 115°35'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 35 by 37 inches. (Accompanied by 3-page text.)
- MF-1523-A. NEW MEXICO. Mine and prospect map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico, by T. D. Light, U.S. Bureau of Mines. 1983. Lat about 36°10' to 36°35', long 106°30' to 106°55'. Scale 1:48,000 (1 inch = about 4,000 feet). Sheet 34 by 42 inches.
- MF-1523-B. NEW MEXICO. Mineral resource potential map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico, by J. L. Ridgley, U.S. Geological Survey, and T. D. Light, U.S. Bureau of Mines. 1983. Lat 36°10' to 36°35', long 106°30' to 106°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 35 by 41 inches. (Accompanied by 8-page text.)
- MF-1523-C. NEW MEXICO. Geologic map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico, by J. L. Ridgley. 1983. Lat 36°10' to 36°35', long 106°30' to 106°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 38 by 43 inches.
- MF-1525. ARKANSAS. Mineral resources potential map of the Richland Creek Roadless Area, Newton and Searcy counties, Arkansas, by M. H. Miller, U.S. Geological Survey, and R. H. Wood II, U.S. Bureau of Mines. 1983. Lat 35°45' to 35°52'30", long 92°55' to 93°02'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 29 by 36 inches. (Accompanied by 6-page text.)
- MF-1526-A. CALIFORNIA. Geologic map of the Orleans Mountain Roadless Area, Humboldt and Siskiyou counties, California, by M. M. Donato, U.S. Geological Survey, C. G. Barnes, Texas Tech University, and G. G. Gray, University of Texas. 1983. Lat about 41°10' to about 41°20', long about 123°20' to about 123°35'. Scale 1:48,000 (1 inch = about 4,000 feet). Sheet 33 by 33 inches.

- MF-1526-B. CALIFORNIA.** Mineral resource potential map of the Orleans Mountain Roadless Area, Humboldt and Siskiyou counties, California, by M. M. Donato, R. C. Jachens, and D. B. Smith, U.S. Geological Survey, and J. M. Linne, U.S. Bureau of Mines. 1983. Lat about 41°10' to about 41°20', long about 123°20' to about 123°35'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 33 by 35 inches. (Accompanied by 11-page text.)
- MF-1527-D. VIRGINIA.** Mineral resource potential map of the southern Massanutten Roadless Area, Page and Rockingham counties, Virginia, by F. G. Lesure, U.S. Geological Survey, and M. L. Chatman, P. T. Behum, and T. J. Wawro, U.S. Bureau of Mines. 1983. Lat 38°22'30" to 38°37'30", long 78°37'30" to 78°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 32 by 36 inches. (Accompanied by 10-page text.)
- MF-1528. OREGON, CALIFORNIA.** Reconnaissance surficial geologic map of the Medford 1° by 2° Quadrangle, Oregon-California, by Barry Moring. 1983. Two sheets. Scale 1:125,000 (1 inch = about 2 miles). Lat 42° to 43°, long 123° to 124°. Sheet 1, 37 by 43 inches; sheet 2, 40 by 51 inches.
- MF-1529-A. CALIFORNIA.** Geochemical map of the Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California, by J. A. Peterson, and M. E. Caress. 1983. Lat about 41°10' to about 41°20', long 122°20' to about 122°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 30 by 36 inches.
- MF-1529-B. CALIFORNIA.** Mineral resource potential map of the Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California, by J. A. Peterson and M. E. Caress, U.S. Geological Survey, and D. K. Denton, Jr., and J. M. Spear, U.S. Bureau of Mines. 1983. Lat about 41°10' to about 41°20', long about 122°25' to about 122°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 25 by 27 inches. (Accompanied by 4-page text.)
- MF-1529-C. CALIFORNIA.** Geologic map of the Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California, by J. A. Peterson, J. E. Quick, M. L. Throckmorton, and M. E. Caress. 1983. Lat about 41°10' to about 41°20', long about 122°25' to about 122°30'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 27 by 36 inches.
- MF-1530. TEXAS.** Maps showing time-sequence surface patterns of estuarine hydrography and suspended sediments in Corpus Christi Bay, Texas Gulf Coast, by G. L. Shideler, and C. E. Stelting. 1983. Two sheets. Lat about 27°45' to about 27°50', long about 97°05' to about 97°25'. Sheets, 35 by 48 inches. (Accompanied by 6-page text.) (Supersedes Open-file report 82-0472.)
- MF-1533. NEW MEXICO.** Geologic map of the Fence Lake Quadrangle, Cibola County, New Mexico, by M. W. McLellan, L. N. Robinson, and L. R. Haschke. 1983. Lat 34°37'30" to 34°45', long 108°37'30" to 108°45'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 34 by 35 inches.
- MF-1536. WASHINGTON, OREGON.** Geologic map of the Wenaha Tucannon Wilderness, Washington and Oregon, by D. A. Swanson, and T. L. Wright. 1983. Lat about 45°52'30" to 46°12'30", long 117°30' to about 117°55'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 38 by 50 inches.
- MF-1537. RHODE ISLAND.** Maps showing geology and shallow structure of western Rhode Island Sound, Rhode Island, by S. W. Needell, C. J. O'Hara, and H. J. Knebel. 1983. Four sheets. Lat about 41°15' to about 41°30', long about 71°15' to about 71°30'. Scale 1:125,000 (1 inch = about 2 miles). Sheet 1, 36 by 52 inches; sheet 2, 34 by 45 inches; sheet 3, 30 by 49 inches; sheet 4, 30 by 37 inches.
- MF-1539-A. ALASKA.** Generalized geologic map of the Ugashik, Bristol Bay, and part of Karluk quadrangles, Alaska, by R. L. Dettelman, J. E. Case, F. H. Wilson, M. E. Yount, and W. H. Allaway, Jr. 1983. Lat 57° to 58°, long about 155°30' to about 158°30'. Scale 1:250,000 (1 inch = about 4 miles). Sheet 35 by 41 inches.
- MF-1540-A. CALIFORNIA.** Geologic map of the Condrey Mountain Roadless Area, Siskiyou County, California, by R. G. Coleman, M. D. Helper, and M. M. Donato. 1983. Lat about 41°55' to about 42°, long 122°45' to 123°15'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 34 by 46 inches.
- MF-1540-B. CALIFORNIA.** Aeromagnetic map and interpretation of geophysical data from the Condrey Mountain Roadless Area, Siskiyou County, California, by R. C. Jachens, and W. P. Elder. 1983. Lat about 41°50' to about 42°, long 122°45' to 123°15'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 30 by 46 inches.
- MF-1542-A. COLORADO.** Reconnaissance geologic map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado, by K. E. Budding, and V. A. Lawrence. 1983. Lat about 37°20' to about 37°25', long 104°52'30" to 105°07'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 22 by 40 inches.
- MF-1542-B. COLORADO.** Geochemical map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado, by K. E. Budding, and V. A. Lawrence. 1983. Lat about 37°20' to about 37°25', long 104°52'30" to 105°07'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 27 by 40 inches.
- MF-1542-C. COLORADO.** Mineral resource potential map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado, by K. E. Budding, U.S. Geological Survey, and S. E. Kluender, U.S. Bureau of Mines. 1983. Lat about 37°20' to about 37°25', long 104°52'30" to 105°07'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 23 by 35 inches. (Accompanied by 5-page text.)
- MF-1543. WASHINGTON.** Geologic map of the Kirkland Quadrangle, Washington, by J. P. Minard. 1983. Lat 47°37'30" to 47°45', long 122°07'30" to 122°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 30 by 31 inches.
- MF-1544-A. CALIFORNIA.** Mineral resource potential maps of the Black Butte and Elk Creek Roadless Areas, Mendocino, Lake, and Glenn counties, California, by H. N. Ohlin, R. J. McLaughlin, R. L. Oscarson, D. M. Peterson, and R. B. Weed, U.S. Geological Survey, and J. M. Spear, U.S. Bureau of Mines. 1983. Lat about 39°30' to about 39°45', long about 122°50' to about 123°05'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 35 by 36 inches. (Accompanied by 9-page text.)

- MF-1545. NEVADA. Mineral resource potential map of the Lincoln Creek Roadless Area, Douglas County, Nevada, by D. A. John and M. A. Chaffee, U.S. Geological Survey, and S. A. Stebbins, U.S. Bureau of Mines. 1983. Scale 1:62,500 (1 inch = about 1 mile). Sheet 23 by 29 miles. (Accompanied by 7-page text.)
- MF-1546. NEVADA. Geology and oil shale deposits of the Elko Formation, Pinon Range, Elko County, Nevada, by G. T. Server, Jr., and B. J. Solomon. 1983. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 25 by 35 inches.
- MF-1547-A. CALIFORNIA. Mineral resource potential maps of the Sill Hill, Hauser, and Caliente Roadless Areas, San Diego County, California, by V. R. Todd and R. E. Learned, U.S. Geological Survey, and T. J. Peters and R. T. Mayerle, U.S. Bureau of Mines. 1983. Lat about 32°40' to about 33°20', long about 116°35' to 116°40'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 26 by 36 inches. (Accompanied by 12-page text.)
- MF-1548. WYOMING, COLORADO. Biostratigraphic correlation chart of some Upper Cretaceous rocks from the Lost Soldier area, Wyoming, to west of Craig, Colorado, by J. W. Bader, J. R. Gill, W. A. Cobban, and B. E. Law. 1983. Sheet 35 by 48 inches.
- MF-1549. TEXAS. Mineral resource potential map of the Four Notch Roadless Area, Sam Houston National Forest, Walker County, Texas, by B. B. Houser, U.S. Geological Survey and G. S. Ryan, U.S. Bureau of Mines. 1983. Lat 30°36' to 30°42' 30", long 95°20'30" to 95°27'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 22 by 30 inches. (Accompanied by 8-page text.)
- MF-1550. WASHINGTON. Mineral resource potential map of the Long Swamp Roadless Area, Okanogan County, Washington, by R. C. Evarts, J. G. Frisken, and K. R. Bishop, U.S. Geological Survey, and J. R. Benham, U.S. Bureau of Mines. 1983. Lat about 48°50' to about 48°55', long about 119°55' to about 120°05'. Scale 1:48,000 (1 inch = about 4,000 feet). Sheet 22 by 24 inches. (Accompanied by 4-page text.)
- MF-1554. MONTANA. Environmental-stratigraphic cross sections of the Cretaceous Fox Hills Sandstone and Hell Creek Formation and Paleocene Fort Union Formation, Richland and Roosevelt counties, Montana, by R. M. Flores, and C. L. Lepp. 1983. Sheet 40 by 48 inches.
- MF-1555-A. ARIZONA. Mineral resource potential map of the West Clear Creek Roadless Area, Yavapai and Coconino counties, Arizona, by G. E. Ulrich, U.S. Geological Survey, and A. M. Bielski, U.S. Bureau of Mines. 1983. Lat 34°30' to 34°37'30", long 111°22'30" to 111°45'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 35 by 52 inches. (Accompanied by 9-page text.)
- MF-1555-B. ARIZONA. Aeromagnetic map of the West Clear Creek Roadless Area, Coconino and Yavapai counties, Arizona, by W. E. Davis, and G. E. Ulrich. 1983. Lat 34°30' to 34°37'30", long about 111°20' to about 111°47'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 35 by 55 inches.
- MF-1556-B. SOUTH CAROLINA. Mineral resource potential map of the Hell Hole Bay, Wambaw Swamp, Little Wambaw Swamp, and Wambaw Creek Wilderness, Berkeley and Charleston counties, South Carolina, by C. C. Cameron and A. E. Grosz, U.S. Geological Survey, and C. M. Martin and G. C. Gazdik, U.S. Bureau of Mines. 1983. Lat 33° to 33°15', long 79°22'30" to 79°45'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 32 by 40 inches. (Accompanied by 9-page text.)
- MF-1557-A. MONTANA, IDAHO. Mineral resource potential maps of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area, by Karen Lund and W. M. Rehn, U.S. Geological Survey, and J. R. Benham, U.S. Bureau of Mines. 1983. Scale 1:1,000,000 (1 inch = about 1.6 miles). Sheet 24 by 44 inches. (Accompanied by 7-page text.)
- MF-1557-B. MONTANA, IDAHO. Geologic map of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area, Lemhi County, Idaho, by Karen Lund, W. M. Rehn, and C. D. Holloway. 1983. Lat 45°27'30" to 46°, long 114°15' to 114°30'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 38 by 53 inches.
- MF-1558-A. ARIZONA. Mineral resource potential and geologic map of the Wet Beaver Roadless Area, Coconino and Yavapai counties, Arizona, by G. E. Ulrich, U.S. Geological Survey, A. M. Bielski, U.S. Bureau of Mines, and J. S. Bywaters, U.S. Geological Survey. 1983. Lat about 34°39' to about 34°42', long 111°30' to about 111°40'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 25 by 36 inches. (Accompanied by 5-page text.)
- MF-1559-A. CALIFORNIA. Mineral resource potential map of part of the Ventana Wilderness and the Black Butte, Bear Mountain, and Bear Canyon Roadless Areas, Monterey County, California, by V. M. Seiders, U.S. Geological Survey, and L. E. Esparza, Charles Sabine, J. M. Spear, Scott Stebbins, and J. R. Benham, U.S. Bureau of Mines. 1983. Lat about 36° to about 36°20', long 121°15' to about 121°40'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 39 by 45 inches. (Accompanied by 8-page text.)
- MF-1559-B. CALIFORNIA. Geologic map of part of the Ventana Wilderness and the Black Butte, Bear Mountain, and Bear Canyon Roadless Areas, Monterey County, California, by V. M. Seiders, J. M. Joyce, K. A. Leverett, and Hugh McLean. 1983. Lat about 36° to about 36°20', long 121°15' to about 121°40'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 42 by 51 inches.
- MF-1560-A. NEW MEXICO. Mineral resource potential and geologic map of Guadalupe Escarpment Wilderness Study Area, Eddy County, New Mexico, by P. T. Hayes and T. D. Light, U.S. Geological Survey, and J. R. Thompson, U.S. Bureau of Mines. 1983. Lat 32° to about 32°07'30", long about 104°40' to 104°40'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 30 by 42 inches. (Accompanied by 6-page text.)
- MF-1561-C. ALABAMA. Mineral resource potential map of the Adams Gap and Shinbone Creek Roadless Areas, Clay County, Alabama, by G. R. Robinson, Jr., T. L. Klein, and F. G. Lesure, U.S. Geological Survey, and D. K. Harrison and M. K. Armstrong, U.S. Bureau of Mines. 1983. Lat about 33°22'30" to 33°30', long 85°45' to about 85°55'30". Scale 1:48,000 (1 inch = 4,000 feet). Sheet 30 by 32 inches. (Accompanied by 8-page text.)
- MF-1562. ARKANSAS. Map showing geology and mineral resource potential of the Little Blakely Roadless Area, Garland County, Arkansas, by M. H. Miller and E. K. Keefer, U.S. Geological Survey, and R. H. Wood II, U.S. Bureau of Mines. 1983. Lat about 34°37'30" to about 34°40', long about 93°10' to about 93°12'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 19 by 37 inches. (Accompanied by 5-page text.)

- MF-1563-A. CALIFORNIA. Mineral resource potential map of the Raywood Flat Roadless Areas, San Bernardino and Riverside counties, California, by J. C. Matti and B. F. Cox, U.S. Geological Survey, and S. R. Iverson, U.S. Bureau of Mines. 1983. Lat 33°55' to 34°10', long 116°35' to 117°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 35 by 38 inches. (Accompanied by 11-page text.)
- MF-1564-A. CALIFORNIA. Mineral resource potential map of the Kings River, Rancheria, Agnew, and Oat Mountain Roadless Areas, Fresno County, California, by W. J. Nokleberg, J. G. Moore, M. A. Chaffee, and Andrew Griscom, U.S. Geological Survey, and W. D. Longwill and J. M. Spears, U.S. Bureau of Mines. 1983. Lat 36°45' to 37°, long about 118°45' to about 119°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 33 by 42 inches. (Accompanied by 13-page text.)
- MF-1565-C. ILLINOIS. Mineral resource potential map of the Burden Falls Roadless Area, Pope County, Illinois, by J. S. Klasner, U.S. Geological Survey and Western Illinois University, T. M. Kehn, U.S. Geological Survey, and R. M. Thompson, U.S. Bureau of Mines. 1983. Sheet 30 by 39 inches. (Accompanied by 12-page text.)
- MF-1566-A. UTAH, IDAHO. Mineral resource potential map of the Mount Naomi Roadless Area, Cache County, Utah, and Franklin County, Idaho, by J. H. Dover, U.S. Geological Survey, and P. R. Bigsby, U.S. Bureau of Mines. 1983. Lat about 41°45' to about 42°, long 111°30' to about 111°45'. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 27 by 31 inches. (Accompanied by 7-page text.)
- MF-1569-A. MONTANA. Mineral resource potential map of the Gallatin Divide Roadless Area, Gallatin and Park counties, Montana, by F. S. Simons, R. E. Van Loenen, and S. L. Moore, U.S. Geological Survey, and T. J. Close, J. D. Causey, S. L. Willett, and C. M. Rumsey, U.S. Bureau of Mines. 1983. Lat about 45°10' to about 45°30', long about 110°50' to about 111°10'. Scale 1:126,720 (1 inch = about 2 miles). Sheet 24 by 29 inches. (Accompanied by 8-page text.)
- MF-1570-A. NEW MEXICO. Mineral resource potential map of the Columbine-Hondo Wilderness Study Area, Taos County, New Mexico, by Steve Ludington, U.S. Geological Survey, J. P. Briggs, U.S. Bureau of Mines, and J. M. Robertson, New Mexico Bureau of Mines and Mineral Resources. 1983. Lat about 36°32'30" to about 36°42'30", long about 105°22'30" to 105°37'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 24 by 36 inches. (Accompanied by 11-page text.)
- MF-1570-B. NEW MEXICO. Geologic map of the Latir Peak and Wheeler Peak Wilderness and Columbine-Hondo Wilderness Study Area, Taos County, New Mexico, by J. C. Reed, Jr., P. W. Lipman, and J. R. Robertson. 1983. Lat 36°30' to 36°52'30", long 105°15' to 105°37'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 40 by 54 inches.
- MF-1572-B. FLORIDA. Mineral resource potential map of the Natural Area Roadless Area, Baker County, Florida, by J. B. Cathcart and S. H. Patterson, U.S. Geological Survey, and T. M. Crandall, U.S. Bureau of Mines. 1983. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 30 by 48 inches. (Accompanied by 16-page text.)
- MF-1574. UTAH. Mineral resource potential map of the Birdseye, Nephi, and Santaquin Roadless Areas, Juab and Utah counties, Utah, by M. L. Sorensen, U.S. Geological Survey, and S. L. Korzeb and J. T. Neubert, U.S. Bureau of Mines. 1983. Lat about 39°45' to 40°, long about 111°35' to 111°50'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 29 by 36 inches. (Accompanied by 8-page text.)
- MF-1575. COLORADO. Preliminary thermal-maturity map of the Cameo and Fairfield or equivalent coal zone in the Piceance Creek basin, Colorado, by V. F. Nuccio, and R. C. Johnson. 1983. Two sheets. Lat about 38°45' to about 40°30', long about 107°15' to about 108°30'. Scale 1:253,440 (1 inch = about 4 miles). Sheet 1, 36 by 51 inches; sheet 2, 28 by 34 inches.
- MF-1576-A. IDAHO. Mineral resource potential map of the Special Mining Management Zone, Clear Creek, Lemhi County, Idaho, by Karen Lund and K. V. Evans, U.S. Geological Survey, and L. E. Esparza, U.S. Bureau of Mines. 1983. Lat 45°07'06" to 45°20', long 114°15' to 114°37'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 30 by 40 inches. (Accompanied by 9-page text.)
- MF-1577-A. ARIZONA. Mineral resource potential map of the Arnold Mesa Roadless Area, Yavapai County, Arizona, by E. W. Wolfe and A. R. Wallace, U.S. Geological Survey, and R. A. McColly and S. L. Korzeb, U.S. Bureau of Mines. 1983. Lat about 34°20' to 34°30', long about 111°45' to 112°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 39 by 55 inches. (Accompanied by 10-page text.)
- MF-1578. ARKANSAS. Mineral resource potential and geologic map of the Upper Buffalo Wilderness and the Buffalo Addition Roadless Areas, Newton County, Arkansas, by M. H. Miller, M. C. Smith, and E. E. Glick, U.S. Geological Survey, and M. K. Armstrong and M. L. Dunn, Jr., U.S. Bureau of Mines. 1983. Lat 35°47'30" to about 35°55', long about 93°25' to about 93°27'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 28 by 35 inches. (Accompanied by 7-page text.)
- MF-1579. ARKANSAS. Mineral resource potential and geologic map of the Bell Star East and West Roadless Areas, Sebastian and Scott counties, Arkansas, by M. H. Miller and M. C. Smith, U.S. Geological Survey, and L. E. Harris, U.S. Bureau of Mines. 1983. Lat about 34°57'30" to about 35°, long about 94°10' to about 94°22'30". Scale 1:48,000 (1 inch = 4,000 feet). Sheet 20 by 35 inches. (Accompanied by 5-page text.)
- MF-1581-A. OREGON. Mineral resource potential map of the North Fork John Day River Roadless Area, Grant County, Oregon, by J. G. Evans, U.S. Geological Survey, and M. D. Conyac, U.S. Bureau of Mines. 1983. Lat 44°50' to 45°, long about 118°25' to about 118°40'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 25 by 31 inches. (Accompanied by 5-page text.)
- MF-1582-A. COLORADO. Map showing geology and mineral resource potential of the Oh-Be-Joyful Wilderness Study Area, Gunnison County, Colorado, by Steve Ludington, U.S. Geological Survey, and C. E. Ellis, U.S. Bureau of Mines. 1983. Lat 38°52'30" to about 38°57'30", long about 107°02'30" to 107°07'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 34 by 34 inches. (Accompanied by 7-page text.)

- MF-1584-A. CALIFORNIA. Mineral resource potential map of the Chemehuevi Mountains Wilderness Study Area (CDCA-310), San Bernardino County, California, by D. M. Miller, B. E. John, J. C. Antweiler, R. W. Simpson, D. B. Hoover, and G. L. Raines, U.S. Geological Survey and T. J. Kreidler, U.S. Bureau of Mines. 1983. Lat about 34°27'30" to about 34°42'30", long about 114°27'30" to 114°37'30". Scale 1:48,000 (1 inch = 4,000 feet). Sheet 39 by 42 inches. (Accompanied by 11-page text.)
- MF-1585-A. MONTANA. Mineral resource potential map of the West Pioneer Wilderness Study Area, Beaverhead County, Montana, by B. R. Berger, L. W. Snee, and William Hanna, U.S. Geological Survey, and J. R. Benham, U.S. Bureau of Mines. 1983. Lat 45°25'30DP to 45°52'30", long 113° to 113°22'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 41 by 46 inches. (Accompanied by 21-page text.)
- MF-1587-C. NORTH CAROLINA. Mineral resource potential map of the Snowbird Roadless Area, Graham County, North Carolina, by F. G. Lesure, U.S. Geological Survey, M. L. Chatman, U.S. Bureau of Mines. 1983. Lat about 35°15' to 35°17'30", long about 83°55' to 84°02'30". Scale 1:48,000 (1 inch = 4,000 feet). Sheet 31 by 37 inches. (Accompanied by 10-page text.)
- MF-1590-A. MONTANA. Geologic map of the Middle Mountain-Tobacco Root Roadless Area, Madison County, Montana, by J. M. O'Neill. 1983. Lat 45°30' to 45°45', long about 111°55' to 112°15'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 30 by 50 inches.
- MF-1590-B. MONTANA. Geochemical map of the Middle Mountain-Tobacco Root Roadless Area, Madison County, Montana, by J. M. O'Neill. 1983. Lat 45°30' to 45°45', long about 111°55' to 112°15'. Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 34 by 50 inches.
- MF-1595-A. CALIFORNIA. Preliminary geologic map of the Yolla Bolly-Middle Eel Wilderness and adjacent roadless areas, Northern California, by M. C. Blake, Jr., and A. S. Jayko. 1983. Lat about 39°55' to 40°15', long about 122°50' to about 123°15'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 37 by 46 inches.
- MF-1595-B. CALIFORNIA. Mineral resource potential map of the Yolla Bolly-Middle Eel Wilderness and adjacent roadless areas, Northern California, by M. C. Blake Jr., and A. S. Jayko, U.S. Geological Survey, and A. M. Leszczykowski, W. D. Longwill, and Michael Gobla, U.S. Bureau of Mines. 1983. Lat 39°50' to 40°15', long 122°45' to 123°20'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 38 by 40 inches. (Accompanied by 5-page text.)
- MF-1599. ARKANSAS, OKLAHOMA. Mineral resource potential and geologic map of the Black Fork Mountain Roadless Area, Polk County, Arkansas, and Le Flore County, Oklahoma, by M. H. Miller, and M. C. Smith. 1983. Lat about 34°40' to 34°45', long 94°15' to 94°37'30". Scale 1:50,000 (1 inch = about 4,200 feet). Sheet 20 by 28 inches. (Accompanied by 4-page text.)
- MF-1602-A. ARIZONA. Mineral resource potential map of the Crossman Peak Wilderness Study Area (5-7B), Mohave County, Arizona, by T. D. Light, J. E. Pike, K. A. Howard, R. W. Simpson, G. L. Raines, H. G. Wilshire, and M. A. Pernokas, U.S. Geological Survey, J. R. McDonnell, Jr., U.S. Bureau of Mines, and R. D. Knox, U.S. Bureau of Land Management and U.S. Geological Survey. 1983. Lat about 34°27'30" to about 34°37'30", long about 114°05' to 114°20'. Scale 1:48,000 (1 inch = 4,000 feet). Sheet 27 by 37 inches. (Accompanied by 21-page text.)
- MF-1603-A. CALIFORNIA. Mineral resource potential map of the Coxcomb Mountains Wilderness Study Area (CDCA-328), San Bernardino and Riverside counties, California, by J. P. Calzia, J. E. Kilburn, R. W. Simpson, Jr., and C. M. Allen, U.S. Geological Survey, and A. M. Leszczykowski and J. D. Causey, U.S. Bureau of Mines. 1983. Lat 33°45' to about 34°05', long 115°15' to 115°45'. Scale 1:62,500 (1 inch = about 1 mile). Sheet 38 by 42 inches. (Accompanied by 7-page text.)
- MF-1604-A. MONTANA. Preliminary geologic map and cross sections of the northwest part of Glacier National Park, Montana, by R. L. Earhart, O. B. Raup, J. C. Connor, P. E. Carrara, D. H. McGimsey, K. N. Constenius, and R. E. Van Loenen. 1983. Lat about 48°45' to 49°, long about 114° to 114°30'. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 34 by 39 inches.
- MF-1608. WASHINGTON. Physiographic diagrams of Mount St. Helens, Washington, showing changes in its summit crater, 1982, by T. R. Alpha. 1983. Horizontal scale 1:24,000 (1 inch = 2,000 feet). Sheet 33 by 40 inches.
- MF-1643. IDAHO, UTAH. Geologic map of the North Hansel Mountains, Idaho and Utah, by R. W. Allmendinger. 1983. Lat 42° to about 42°10' long 112°30' to about 112°37'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 38 by 51 inches.
- MF-1649-A. CALIFORNIA. Mineral resource potential map of the Pleasant View Roadless Area, Los Angeles County, California, B. F. Cox, R. E. Powell, and M. E. Hinkle, U.S. Geological Survey, and D. A. Lipton, U.S. Bureau of Mines. 1983. Lat about 34°20' to 34°30', long 117°45' to 118°. Scale 1:62,500 (1 inch = about 1 mile). Sheet 27 by 36 inches. (Accompanied by 8-page text.)
- MF-1653-A. WASHINGTON. Mineral resource potential map of the Goat Rocks Wilderness and adjacent roadless areas, Lewis and Yakima counties, Washington, by S. E. Church, D. A. Swanson, D. L. Williams, G. A. Clayton, U.S. Geological Survey, and T. J. Close and T. J. Peters, U.S. Bureau of Mines. 1983. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 36 by 38 inches. (Accompanied by 13-page text.)
- MF-1655-D. CALIFORNIA. Petroleum potential map of Mesozoic and Cenozoic rocks in roadless areas and the Santa Lucia Wilderness in the Los Padres National Forest, southwestern California, by V. A. Frizzell, Jr., and G. E. Claypool. 1983. Lat 34°15' to 35°30', long 118°30' to 120°45'. Scale 1:250,000 (1 inch = about 4 miles). Sheet 26 by 35 inches. (Accompanied by 18-page text.)

MF-1659. CALIFORNIA. Physiographic diagrams of Long Valley, Mono and Inyo counties, California, by T. R. Alpha, R. A. Bailey, K. R. Lajoie, and M. M. Clark. 1983. Two sheets. Lat about 37°30' to about 38°, long about 118°30' to about 119°15'. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 1, 34 by 36 inches; sheet 2, 33 by 35 inches.

MF-1660. NEW MEXICO. Seismicity map of the State of New Mexico, by C. W. Stover, B. G. Reagor, and S. T. Algermissen. 1983. Lat about 31° to about 37°, long about 103° to about 109°. Scale 1:1,000,000 (1 inch = about 16 miles). Sheet 31 by 51 inches.

MF-1662. MONTANA. Photogeologic and reconnaissance geological map of the Horton Quadrangle, Custer and Rosebud counties, Montana, by R. B. Colton, J. L. Klockenbrink and M. A. Grout, U.S. Geological Survey, and E. L. Heffern, U.S. Bureau of Land Management. 1983. Lat 46°15' to 46°22'30", long 106° to 106°07'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 27 by 27 inches.

MF-1663. MONTANA. Photogeologic and reconnaissance geological map of the Hathaway Quadrangle, Custer and Rosebud counties, Montana, by R. B. Colton, J. L. Klockenbrink, and S. L. Durst, U.S. Geological Survey, and E. L. Heffern, U.S. Bureau of Land Management. 1983. Lat 46°15' to 46°22'30", long 106°07'30" to 106°15'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 22 by 27 inches.

MF-1664. MONTANA. Photogeologic and reconnaissance geological map of the Orinoco Quadrangle, Rosebud County, Montana, by R. B. Colton, J. L. Klockenbrink, and M. A. Grout, U.S. Geological Survey, and E. L. Heffern, U.S. Bureau of Land Management. 1983. Lat 46°15' to 46°22'30", long 106°30' to 106°37'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheet 22 by 27 inches.

MF-1665. NEW MEXICO. Geology and mineral deposits of the Priest Tank Quadrangle, Sierra County, New Mexico, by A. V. Heyl, C. H. Maxwell, and L. L. Davis. 1983. Lat 35°15' to 33°22'30", long 107°22'30" to 107°30'. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 27 by 35 inches.

MF-1666. NEW MEXICO. Geologic map of the Mule Creek Quadrangle, Grant County, New Mexico, by J. C. Ratté, and W. E. Brooks. 1983. Lat 33° to 33°07'30", long 108°52'30" to 109°. Scale 1:24,000 (1 inch = 2,000 feet). Sheet 27 by 36 inches.

MF-1667. COLORADO. Structure contour map of the top of the Rollins Sandstone Member of the Mesaverde Formation and Trout Creek Sandstone Member of the Iles Formation, Piceance Creek basin, Colorado, by R. C. Johnson. 1983. Lat about 38°45' to 40°30', long about 106°45' to about 109°. Scale 1:253,440 (1 inch = about 4 miles). Sheet 35 by 42 inches.

MINERAL INVESTIGATIONS RESOURCE MAPS

Mineral distribution and classification maps; scales from 1:250,000 to 1:5,000,000; show geographic distribution and grade of mineral-resource commodities. Brief accompanying text may include a general description of the geologic occurrences, a locality index, and a bibliography.

MR-0049. CALIFORNIA. Reported occurrences of selected minerals in the southern third of California, compiled by M.

B. Smith, V. L. Engler, D. I. Lee, K. J. Horn, and R. G. Wayland. 1974. Lat about 33° to about 36°, long about 114° to about 121°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 37 by 57 inches. (Reprint.) (Accompanied by 3-page text.) (Includes most metals and nonmetals; does not include petroleum and natural gas.)

MR-0071. IDAHO. Maps showing selected geology and phosphate resources of the Upper Valley Quadrangle, Caribou County, Idaho, by P. D. Derkey, Pamela Palmer, and N. J. Wotruba, Idaho Bureau of Mines and Geology. 1983. Three sheets. Lat 42°45' to 42°52'30", long 111°15' to 111°22'30". Scale 1:24,000 (1 inch = 2,000 feet). (Accompanied by 6-page text.)

SPECIAL GEOLOGIC MAPS

Geologic map of the United States (exclusive of Alaska and Hawaii), compiled by P. B. King and H. M. Beikman; geologic cartography by G. J. Edmonston. 1974. Three sheets. West half, lat about 23° to 48°, long about 97° to 128°. East half, lat about 23° to about 48°, long about 64° to 96°. Sheets 1 and 2, 41 by 52 inches; sheet 3 (legend), 32 by 52 inches. (Reprint.) (Available unfolded only.)

STATE GEOLOGIC MAPS

MASSACHUSETTS. Bedrock geologic map of Massachusetts, edited by E-an Zen, compiled by Richard Goldsmith, N. M. Ratcliffe, Peter Robinson, and R. S. Stanley, and assisted by N. L. Hatch, Jr., A. F. Shride, E. G. A. Weed, and D. R. Wones. 1983. Three sheets. Lat about 41°15' to about 43°, long about 70° to about 73°30'. Scale 1:250,000 (1 inch = about 4 miles). Sheets 1 and 2, 42 by 58 inches; sheet 3, 19 by 39 inches. (Available unfolded only.)

ARIZONA. Geologic map of Arizona, by E. D. Wilson, R. T. Moore, and J. R. Cooper. 1969. Lat about 32° to about 37°, long about 109° to about 115°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 48 by 71 inches. (Reprint.) (Available unfolded only.)

HYDROLOGIC INVESTIGATIONS ATLASES

Multicolored or black and white maps on topographic or planimetric bases presenting a wide range of geohydrologic data; both regular and irregular areas; principal scale 1:24,000, regional studies at 1:250,000 scale or smaller.

HA-0194. Generalized map showing annual runoff and productive aquifers in the conterminous United States, compiled by C. L. McGuinness. 1964. Scale 1:5,000,000 (1 inch = about 80 miles). Sheet 29 by 43 inches. (Reprint.)

HA-0471. WYOMING. Water resources of the Laramie, Shirley, and Hanna basins and adjacent areas, southeastern Wyoming, by M. E. Lowry, S. J. Rucker, IV, and K. L. Wahl. 1983. Four sheets. Lat 41° to about 42°45', long about 105°30' to about 107°. Sheet 1, scale 1:250,000 (1 inch = about 4 miles); sheet 2-4, scale 1:750,000 (1 inch = about 12 miles). Sheet 1, 37 by 39 inches; sheet 2, 30 by 35 inches; sheet 3, 34 by 35 inches; sheet 4, 27 by 37 inches. (Reprint.)

- HA-0651. CALIFORNIA. Ground-water quality in the Sacramento Valley, California; water types and potential nitrate and boron problem areas, by R. P. Fogelman. 1983. Lat about 38°30' to about 40°15', long about 121°15' to about 122°15'. Scale 1:250,000 (1 inch = about 4 miles.) Sheet 32 by 42 inches.)
- HA-0654. TEXAS. Structure, temperature, pressure, and salinity of Cenozoic aquifers of South Texas, by J. B. Wesselman. 1983. Sheet 39 by 50 inches.
- HA-0655. MISSISSIPPI. Flood of April 1979 on Pearl River in Jackson, Mississippi, and vicinity, by L. E. Carroon. 1982. Two sheets. Scale 1:24,000 (1 inch = 2,000 feet). Lat about 32°10' to about 32°25', long about 90°02'30" to about 90°15'. Sheets 42 by 56 inches.
- HA-0657. CALIFORNIA. Estimated average annual stream-flow into the Central Valley of California, by Paul Nady, and L. L. Larragueta. 1983. Lat about 35° to about 40°, long about 119° to about 122°. Scale 1:500,000 (1 inch = about 8 miles). Sheet 35 by 55 inches.
- HA-0659. COLORADO. Hydraulic characteristics of the principal bedrock aquifers in the Denver Basin, Colorado, by S. G. Robson. 1983. Three sheets. Lat about 39° to 40°, long 104° to 105°. Scale 1:500,000 (1 inch = about 8 miles). Sheets 34 by 36 inches.
- HA-0661. MONTANA. Channel changes of Powder River, 1938-78, Powder River County, Montana, by H. A. Martinson, and R. H. Meade. 1983. Three sheets. Sheet 1, lat about 45° to about 45°10', long about 105°47'30" to about 105°55'; sheet 2, lat about 45°17'30" to about 45°10', long about 105°22'30" to about 105°45'; sheet 3, lat about 45°27'30" to about 45°37'30", long about 105°15' to about 105°22'30". Scale 1:24,000 (1 inch = 2,000 feet). Sheets 39 by 44 inches.
- HA-0669. COLORADO. Geology, altitude, and depth of the bedrock surface beneath the Ogallala Formation in the northern High Plains of Colorado, by R. G. Borman, and T. S. Meredith. 1983. Scale 1:500,000 (1 inch = about 8 miles). Sheet 30 by 33 inches.
- HA-0670. COLORADO. Predevelopment and 1980 water table in the northern High Plains of Colorado; and water-level changes, predevelopment to 1980, and 1975 to 1980, by R. G. Borman. 1983. Scale 1:500,000 (1 inch = about 8 miles) and 1:1,000,000 (1 inch = about 16 miles). Sheet 28 by 31 inches.
- HA-0671. COLORADO. The Ogallala Aquifer in the northern High Plains of Colorado; saturated thickness in 1980; saturated-thickness changes, predevelopment to 1980; hydraulic conductivity; specific yield; and predevelopment and 1980 probable well yields, by R. G. Borman, J. B. Lindner, S. M. Bryn, and John Rutledge. 1983. Scale 1:500,000 (1 inch = about 8 miles) and 1:1,000,000 (1 inch = about 16 miles). Sheet 32 by 38 inches.

LAND USE AND LAND COVER MAPS

Compiled using USGS Level I and II classification system depicting land cover and man's activities. Associated maps include political units, hydrologic units, census county subdivisions, and Federal land ownership. Scale 1:250,000 or 1:100,000.

The U.S. Geological Survey is now publishing its land use and land cover maps in a new two-color series. L-series maps have land use and land cover information printed in black over planimetric base map information such as transportation features, streams and lakes, locational grids, and place names in another color.

These maps have been available previously through the Survey's open-file procedure. Along with their associated maps (political units, census county subdivision, hydrologic units, and Federal land ownership), reproducible copies of the land use and land cover maps will continue to be available in black-line format, on a variety of materials, from the open file.

L-0104. TENNESSEE, VIRGINIA, KENTUCKY, NORTH CAROLINA. Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina. 1983. Lat 36° to 37°, long 82° to 84°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 34 inches.

L-0105. VIRGINIA, NORTH CAROLINA. Land use and land cover, 1972, Norfolk, Virginia; North Carolina. 1983. Lat 36° to 37°, long 76° to 78°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 23 by 34 inches.

L-0135. ARKANSAS, TENNESSEE, ALABAMA, MISSOURI. Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri. 1983. Lat 35° to 36°, long 88° to 90°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 35 inches.

L-0168. MONTANA. Land use and land cover, 1975-1976, Great Falls South, Montana. 1983. Lat 47° to 47°30', long 111° to 112°. Scale 1:100,000 (1 inch = about 1.6 miles). Sheet 27 by 36 inches.

L-0173. GEORGIA, SOUTH CAROLINA. Land use and land cover, 1973, Augusta, Georgia; South Carolina. 1983. Lat 33° to 34°, long 80° to 82°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 35 inches.

L-0186. NEBRASKA, KANSAS. Land use and land cover, 1978, Grand Island, Nebraska; Kansas. 1983. Lat 40° to 41°, long 98° to 100°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 33 inches.

INDEX

This is an index of Geological Survey publications issued in 1983 and articles by Geological Survey personnel in non-Geological Survey publications that came to our attention in 1983 divided into a general index, including subjects and areas, and an author index.

ABBREVIATIONS USED

B	Bulletin	OF	Open-File Report
C	Circular	OP	Articles Published in Outside Journals/Books
C-	Coal Investigations Map	P	Professional Paper
GP-	Geophysical Investigations Map	p.	Page number of publications having no series designation
GQ-	Geologic Quadrangle Map	PB-, ADA	Report available only through the National Technical Information Service
HA-	Hydrologic Investigations Atlas	TWI	Techniques of Water-Resources Investigations
I-	Miscellaneous Investigations Series	W	Water-Supply Paper
L-	Land Use and Land Cover Map	WRI	Water-Resources Investigations
MF-	Miscellaneous Field Studies Map		
MR-	Mineral Investigations Resources Map		
OC-	Oil and Gas Investigations Chart		

GENERAL

A

absolute age *see also* geochronology; isotopes

absolute age—catalogs

volcanic rocks: Compilation of revised ages of volcanic units in the San Juan Mountains, Colorado; recalculated K-Ar age determinations using IUGS constants OF 83-0668

absolute age—dates

anorthosite: Origin and age of Adirondack anorthosites re-evaluated with Nd isotopes OP- 73

artifacts: Prehistoric Inupiat adaptation at Tuku-to Lake; a land use history and cultural sequence for the Arctic Foothills, interior northern Alaska OP- 419

basalts: $^{40}\text{Ar}/^{39}\text{Ar}$ ages of basalt from Clubhouse Crossroads test hole #2 near Charleston, South Carolina P 1313

bentonite: NDS 105; Campanian, K-Ar/minerals-bentonite, Interior N American Basin OP- 900

— NDS 111; Albian, K-Ar/minerals-bentonite, Interior N American Basin OP- 905

biotite: Early Tertiary age of pitchstone in the northern Black Hills, South Dakota OP- 1010

— NDS 102; Bajocian, K-Ar; Rb-Sr/biotite-bentonite, Middle West N American Basin OP- 897

— NDS 103; Palaeocene, K-Ar/biotite-pumice, Interior N American Basin OP- 898

— NDS 104; Maastrichtian, K-Ar/biotite-bentonite, Interior N American Basin OP- 899

— NDS 107; Santonian, K-Ar/biotite-bentonite, Interior N American Basin OP- 901

— NDS 108; Coniacian/Turonian, K-Ar/biotite-bentonite, Interior N American Basin OP- 902

— NDS 109; Turonian, K-Ar/biotite-bentonite, Interior N American Basin OP- 903

— NDS 110; Cenomanian, K-Ar/biotite-bentonite, Interior N American Basin OP- 904

— NDS 157; Albian, K-Ar/biotite-bentonite, Middle West N American Basin OP- 893

— NDS 161; Ordovician; Caradoc, K-Ar/biotite, Eastern Interior American Basin OP- 894

— Physical evidence for saline cycles of deposition in Eocene Lake Gosiute in Southwest Wyoming OP- 1051

— Timing of metamorphism in the Appalachian Orogen based on $^{40}\text{Ar}/^{39}\text{Ar}$ dates of hornblende and biotite OP- 1200

biotite granite: Tin granites of Seward Peninsula, Alaska OP- 558

calcite: Pliocene and Pleistocene calcitic veins as indicators of paleohydrologic, paleoclimatologic, and neotectonic events, southern Great Basin; an initial appraisal C 0822

conodonts: U-Th-Pb dating of conodonts OP- 651

cores: Holocene paleohydrologic changes in the southern Ridge and Valley Province of Alabama OP- 291

crystalline rocks: Geochronology of basement rocks along the northern Red Sea OP- 517

— Merced Peak Quadrangle, central Sierra Nevada, California; analytic data P 1170-D

— Plutonism and orogeny in north-central Washington; timing and regional context P 0989

diabase: Potassium-argon relations in diabase dikes of Georgia; the influence of excess ^{40}Ar on the geochronology of early Mesozoic igneous and tectonic events P 1313

galena: U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina OP- 679

glauconite: NDS 92; Palaeocene, K-Ar/glaucony, NE American Basin OP- 896

gneisses: Implications for continental evolution from U-Pb zircon and common lead isotope

data in and around the Archean craton of Wyoming OP- 1173

gold ores: K/Ar chronology of mineralization and igneous activity OF 82-1052

granites: Age relationships in Proterozoic Z rocks of the Blue Ridge Anticlinorium of northern Virginia OP- 715

— Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia OP- 321

— Redefinition of the Precambrian Tusas Mountain and Tres Piedras granites, north-central New Mexico OP- 1314

granodiorites: Geology of granodiorite in the Coxcomb Mountains, southeastern California OP- 184

ground water: Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer OP- 46

— Source and rate of recharge to an artesian aquifer based on geochemical evidence OP- 684

hornblende: Interpretation of Ar-40/Ar-39 ages from the Appalachian Grenville terrane OP- 1201

igneous rocks: A summary of critical relations in the central part of the Sierra Nevada Batholith, California, U.S.A. OP- 74

— Calc-alkaline plutonism along the Pacific rim of southern Alaska OP- 557

— Phanerozoic magmatism and mineralization in the Toole $1^\circ \times 2^\circ$ Quadrangle, Utah OP- 830

— U-Pb zircon ages of igneous rocks and a model for late Proterozoic crustal evolution in the most easterly region of the Arabian Shield, Kingdom of Saudi Arabia OP- 447

intrusive rocks: Genetic implication of minor-element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado OP- 36

- Intrusive rocks of the Holden and Lucerne quadrangles, Washington; the relation of depth zones, composition, textures, and emplacement of plutons P 1220
- lake sediments*: The environmental history and present condition of Saudi-Arabia's northern sand seas OF 83-0749
- marine sediments*: ^{210}Pb method for estimating the rate of carbonate sand sedimentation OP- 541
- metagraywacke*: "Central Gneiss Complex" of the Coast Range Batholith; the roots of a high-K, calc-alkaline arc? OP- 58
- metigneous rocks*: Geochronology of the southern Wyoming age province; a summary OP- 947
- metamorphic rocks*: Age of Meatiq Dome, central Eastern Desert, Egypt OP- 1197
- Chronology of metamorphic rocks associated with uranium occurrences, Hudson Highlands, New York - New Jersey OP- 10
- Geochronology of the Farmington Canyon Complex, Wasatch Mountains, Utah OP- 516
- Sedimentology and structure of Franciscan Assemblage, Yolla Bolly terrane, Northern California OP- 104
- meteorites*: Ar-40/Ar-39 and U-Th-Pb dating of separated clasts from the Abee E4 chondrite OP- 122
- mica group*: K-Ar ages of micas related to mineralization in selected mining districts, Lyon and Mineral counties, Nevada OP- 779
- molybdenum ores*: Geochronology and tectonics of the Buckingham porphyry molybdenum deposit, Lander County, Nevada OP- 1224
- opal*: Uraniferous opal, Virgin Valley, Nevada; conditions of formation and implications for uranium exploration OP- 1342
- ophiolite*: $^{40}\text{Ar}/^{39}\text{Ar}$ ages and tectonic setting of ophiolite from the Neyriz area, Southeast Zagros Range, Iran OP- 667
- organic materials*: Holocene sedimentation in the tidal Potomac River and estuary OP- 430
- Radiocarbon content, sedimentation rates, and a time scale for Clear Lake, California, core CL-73-4 OP- 1045
- peat*: Holocene sedimentation in Richardson Bay, California OF 83-0312
- Late Holocene ice wedges near Fairbanks, Alaska, U.S.A.; environmental setting and history of growth OP- 474
- plutonic rocks*: Evidence from U-Th-Pb zircon ages for Cambrian-Ordovician plutonism in east-central Idaho OP- 353
- Generalized geologic map of the southern Sierra Nevada, California, showing the location of samples for which K-Ar radiometric age data and Rb/Sr data have been determined OF 83-0231
- rhyolites*: Rhyolites in the Gillies Hill-Woodtick Hill area, Beaver County, Utah OP- 354
- sediments*: $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the Northeast Caribbean, late Holocene OP- 542
- Holocene history of the estuarine area surrounding Portage, Alaska as recorded in a 93 m core OP- 68
- Quaternary stratigraphic sections with radiocarbon dates, Survey Pass Quadrangle, Alaska OF 83-0072
- Radiocarbon dating of Recent sediments from Leg 64, Gulf of California OP- 1168
- Sedimentary facies and depositional environments of late Wisconsinian glacial-marine deposits in central Puget Lowland, Washington OP- 946
- shells*: Absolute and relative dating of Atlantic Coastal Plain Pleistocene formations; evaluation of amino-acid epimerization age estimates OP- 763
- Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah OF 83-0288
- soils*: Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits OP- 739
- terraces*: The Cape Fear River; a late Quaternary drainage OP- 740
- tonalite*: Cretaceous deformation in the western foothills of the Sierra Nevada, California OP- 75
- uranium ores*: Age of uranium mineralization at the Highland Mine, Powder River basin, Wyoming, as indicated by U-Pb isotope analyses OP- 1074
- volcanic rocks*: Cenozoic rocks in the Barstow Basin area of Southern California; stratigraphic relations, radiometric ages, and paleomagnetism B 1529-E
- Complex Tertiary stratigraphy and structure, Mohave Mountains, Arizona; a preliminary report OP- 961
- Compositional and chronologic variations in volcanic rocks across the Colorado Plateau margin in Arizona OP- 1246
- Distribution of differentiated tholeiitic basalts on the lower East Rift Zone of Kilauea Volcano, Hawaii; a possible guide to geothermal exploration OP- 829
- Geologic and geochronologic reconnaissance of the Turtle Mountains area, California; west border of the Whipple Mountains detachment terrane OP- 553
- Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily OP- 732
- Nevado Portuqueza volcanic center, central Peru; a Pliocene central volcano-collapse caldera complex with associated silver mineralization OP- 873
- Tertiary extensional tectonics and associated volcanism in west-central Arizona OP- 924
- Tertiary stratigraphy and geochronologic problems, west-central Arizona OP- 925
- wood*: Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 781
- Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 834
- zircon*: A garnet-two-mica granite, Coyote Mountains, southern Arizona; geologic setting, uranium-lead isotopic systematics of zircon, and nature of the granite source region OP- 1323
- Genesis of reversely zoned granites; Bottle Lake complex, Maine OP- 45
- Lead-isotopic compositions of diverse igneous rocks and ore deposits from southwestern New Mexico and their implications for early Proterozoic crustal evolution in the western United States OP- 1174
- Millerton Lake Quadrangle, west-central Sierra Nevada, California; analytic data P 1261
- Timing of plutonic events in Rhode Island OP- 524
- U-Pb zircon ages of igneous rocks and a model for late Proterozoic crustal evolution in the easternmost region of the Arabian Shield, Kingdom of Saudi Arabia OP- 448
- absolute age—interpretation**
- metamorphism*: Paleogene metamorphism of an accretionary flysch terrane, eastern Gulf of Alaska OP- 559
- mineralization*: Geochronology, geochemistry and tectonic environment of porphyry mineralization in the central Alaska Peninsula OF 83-0783
- U-Pb ages of uranium ores in the Churchrock uranium district, New Mexico OP- 713
- absolute age—methods**
- K/Ar*: Geochronology of Quaternary tephra deposits OP- 847
- Lu/Hf*: Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution OP- 936
- absolute age—techniques**
- sample preparation*: Evaluation of direct-precipitation and gas-evolution methods for radiocarbon dating of ground water OP- 1331
- acoustical methods** *see under* geophysical methods
- acoustical surveys** *see under* geophysical surveys *under* Atlantic Ocean; Pacific Ocean; South America
- aeromagnetic surveys** *see magnetic surveys under* geophysical surveys *under* Alabama; Alaska; Appalachians; Arabian Peninsula; Arizona; Atlantic Ocean; California; Colorado; Eastern U.S.; Hawaii; Idaho; Midwest; Missouri; Nevada; New Mexico; Ohio; Oregon; Pacific Coast; Saudi Arabia; South Carolina; United States; Virginia; Wyoming
- Afghanistan—stratigraphy**
- archaeology*: Catastrophic floods, wind erosion, and historical occupation on the Helmand River delta, Southwest Afghanistan OP- 1299
- Africa** *see also* Egypt; Liberia; Morocco; Nigeria; Sahara; South Africa; Sudan
- Africa—economic geology**
- petroleum*: Assessment of undiscovered conventionally recoverable petroleum resources of northwestern, central, and northeastern Africa (including Morocco, northern and western Algeria, northwestern Tunisia, Mauritania, Mali, Niger, eastern Nigeria, Chad, Central African Republic, Sudan, Ethiopia, Somalia, and southeastern Egypt) OF 83-0598
- Africa—oceanography**
- continental shelf*: Origin and geochemistry of redox cycles of Jurassic to Eocene age, Cape Verde Basin (DSDP Site 367), continental margin of North-West Africa OP- 285
- Alabama—areal geology**
- maps*: Geologic map of the La Place and Tuskegee quadrangles, Macon, Tallapoosa, and Elmore counties, Alabama I-1417
- Geologic maps of the Big Sandy, West Elliotts Creek, and Reed Brake Roadless Areas, Tuscaloosa, Hale, and Bibb counties, Alabama MF-1505-A
- Alabama—economic geology**
- maps*: Mineral resource potential map of the Adams Gap and Shinbone Creek Roadless Areas, Clay County, Alabama MF-1561-C
- Mineral resource potential map of the Big Sandy, West Elliotts Creek, and Reed Brake Roadless Areas, Tuscaloosa, Hale, and Bibb counties, Alabama MF-1505-B
- Mineral resource potential map of the Sipsey Wilderness and additions, Lawrence and Winston counties, Alabama MF-1288-D
- mineral resources*: Mineral resource potential map of the Adams Gap and Shinbone Creek Roadless Areas, Clay County, Alabama MF-1561-C
- Mineral resource potential map of the Big Sandy, West Elliotts Creek, and Reed Brake Roadless Areas, Tuscaloosa, Hale, and Bibb counties, Alabama MF-1505-B
- Mineral resource potential map of the Sipsey Wilderness and additions, Lawrence and Winston counties, Alabama MF-1288-D

- water resources*: Southeast Tertiary limestone aquifer flow-system OP- 174
- Alabama—engineering geology**
waterways: Hydraulic data for Coosa River in vicinity of Lay Dam, Alabama OF 79-1636
 — Hydraulic factors of Big Creek and Black Creek near Gadsden, Alabama, at proposed Interstate Highway 759 crossing OF 80-0589
 — Preliminary stage-discharge relations for Tombigbee River at Aliceville lock and dam, near Pickensville, Alabama OF 83-0752
- Alabama—environmental geology**
geologic hazards: Flood of April 13, 1980, Mobile, Alabama OF 80-1183
land use: Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
maps: Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
- Alabama—geochemistry**
surveys: Analyses of geochemical samples and descriptions of rock samples, Adams Gap and Shinbone Creek Roadless Areas, Clay County, Alabama OF 83-0335
- Alabama—geochronology**
Holocene: Holocene paleohydrologic changes in the southern Ridge and Valley Province of Alabama OP- 291
- Alabama—geophysical surveys**
magnetic surveys: Aeromagnetic map of south-central Alabama OF 83-0611
 — Aeromagnetic map of southeastern Alabama OF 83-0610
 — Aeromagnetic map of southwestern Alabama OF 83-0603
maps: Aeromagnetic map of south-central Alabama OF 83-0611
 — Aeromagnetic map of southeastern Alabama OF 83-0610
 — Aeromagnetic map of southwestern Alabama OF 83-0603
- Alabama—hydrogeology**
bibliography: A summary of selected publications, project activities, and data sources related to hydrology in the Warrior and Plateau coal fields of Alabama OF 82-0913
ground water: Model of the ground-water flow system of the Gordo and Eutaw aquifers in west-central Alabama OF 80-0422
 — Regional hydrogeologic framework of the Floridan Aquifer OP- 802
 — Results of a test well in the Nanafalia Formation near Melvin, Choctaw County, Alabama WRI 82-4108
hydrology: Assessment of hydrologic conditions in potential coal-lease tracts in the Warrior coal field, Alabama OF 81-0540
 — Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama OF 81-0546
 — Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama, fiscal year 1981 OF 82-0503
 — Hydrology of area 22, Eastern Coal Province, Alabama OF 81-0135
 — Methodology for hydrologic evaluation of a potential surface mine; Loblolly Branch basin, Tuscaloosa County, Alabama PB-83 152 223
maps: A method of estimating average stream-flow and headwater limits in U.S. Army Corps of Engineers Mobile District, Alabama and adjacent states OF 81-0059
- Alabama—paleontology**
Mollusca: A Devonian aptychus (Cephalopoda) from Alabama OP- 1335
- Alabama—stratigraphy**
Cretaceous: Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia OP- 1155
 — Preliminary report on Upper Cretaceous geological studies along the Tombigbee River, western Alabama and eastern Mississippi OP- 1147
 — Upper Cretaceous (Maestrichtian) Mollusca from the Haustator bilira assemblage zone in the East Gulf Coastal Plain OF 83-0451
Eocene: Calcareous nannofossil and foraminiferal biostratigraphy of the Tallahatta Formation (Eocene) in the eastern Gulf Coastal Plain OP- 178
 — Late Eocene to early Oligocene calcareous nannofossils in Alabama OP- 177
 — Paleocene-Eocene boundary in eastern Gulf Coast OP- 402
 — Paleocene to middle Eocene stratigraphy of Alabama OP- 426
 — Revision of the Hatchetigbee and Bashi formations (lower Eocene) in the eastern Gulf Coastal Plain B 1529-H
 — Stratigraphy of the Hatchetigbee Formation (lower Eocene) in eastern Alabama-western Georgia OP- 423
Jurassic: Structural control of Jurassic sedimentation in Alabama and Florida OP- 800
Oligocene: Late Eocene to early Oligocene calcareous nannofossils in Alabama and Mississippi OP- 176
Paleocene: New stratigraphic unit in the Wilcox Group (upper Paleocene-lower Eocene) in Alabama and Georgia B 1529-H
Pennsylvanian: Age of the Black Creek and Jefferson coal beds, Warrior coal field, Alabama OP- 721
- Alabama—structural geology**
tectonics: Deformational structures in the Inner Coastal Plain, western Georgia-eastern Alabama OP- 1016
- Alaska—areal geology**
Amlia Island: Reconnaissance geology of Amlia Island, Aleutian Islands, Alaska OP- 782
bibliography: Preliminary bibliography of geologic literature on the Killik River and Chandler Lake quadrangles, north-central Brooks Range, Alaska OF 83-0232
maps: Generalized geologic map of the Ugashik, Bristol Bay, and part of Karluk quadrangles, Alaska MF-1539-A
 — Geologic map of the Lake Clark Quadrangle, Alaska MF-1114-A
 — Geology of the Craig Quadrangle, Alaska OF 83-0091
 — Preliminary geologic map of the Circle Quadrangle, Alaska OF 83-0170-A
 — Reconnaissance geologic map of the Chugach Mountains in the Anchorage C-5 and C-6 quadrangles, Alaska OF 83-0336
 — Reconnaissance geologic map of the De Long Mountains A1, B1, and part of C1 quadrangles, Alaska OF 83-0185
 — Reconnaissance geologic map of the De Long Mountains A2, B2, and part of C2 quadrangles, Alaska OF 83-0184
 — Reconnaissance geologic map of the De Long Mountains A3, B3, and parts of A4, B4 quadrangles, Alaska OF 83-0183
 — Reconnaissance geologic map of the western Chichagof and Yakobi Islands Wilderness Study Area, southeastern Alaska MF-1476-A
- Regional bedrock geologic maps along the Dalton Highway, Yukon Crossing to Toolik, Alaska OF 82-1071
 — Tectono-stratigraphic map and interpretive bedrock geologic map of the Mount McKinley region, Alaska OF 83-0011
regional: The U. S. Geological Survey in Alaska; 1982 programs C 0867
- Alaska—economic geology**
base metals: Geochemical evidence for a Brooks Range mineral belt, Alaska OP- 744
bibliography: Occurrences of lead minerals in Alaska OF 83-0073
 — Summaries of data on and lists of references to metallic and selected nonmetallic mineral deposits, in the Chandalar Quadrangle, Alaska OF 83-0278
coal: Coal occurrence, quality, and resource assessment, National Petroleum Reserve in Alaska C 0911
 — Preliminary lithologic, geotechnical, and geophysical data from drill hole CW-81-2, Chuitna West coal field, Cook Inlet region, Alaska OF 83-0078
- copper ores*: Digital data base application to porphyry copper mineralization in Alaska; a case study OP- 921
 — Digital data base application to porphyry copper mineralization in Alaska; case study summary OF 82-0801
 — Geochronology, geochemistry and tectonic environment of porphyry mineralization in the central Alaska Peninsula OF 83-0783
fuel resources: A geochemical profile of Tunalik No. 1 well, National Petroleum Reserve in Alaska (NPRA) OF 83-0627
 — Depositional history and seismic stratigraphy of Lower Cretaceous rocks, National Petroleum Reserve, Alaska and adjacent areas OP- 810
 — Impact of the Wyoming-Utah-Idaho thrust belt, Beaufort Sea on U.S. oil, gas resource estimates OP- 260
 — Oil and gas resources of the North Slope, Alaska C 0911
 — Use of microcomputer in mapping depth of stratigraphic horizons in National Petroleum Reserve in Alaska OF 82-1054
geothermal energy: Alaska; basic data for thermal springs and wells as recorded in Geotherm OF 83-0426
- gold ores*: Possible origins of placer gold in Kouvukuk and Chandalar districts, Brooks Range, Alaska C 0911
gravel deposits: Geology report for proposed Beaufort Sea OCS sand and gravel lease sale OF 83-0606
- lead ores*: Occurrences of lead minerals in Alaska OF 83-0073
maps: Mineral resource assessment map of the Medfra Quadrangle, Alaska OF 80-0811-G
 — Mineral resource potential map of the western Chichagof and Yakobi Islands Wilderness Study Area, southeastern Alaska MF-1476-B
- Occurrences of lead minerals in Alaska OF 83-0073
 — Occurrences of zinc minerals in Alaska OF 83-0199
 — Surficial geology and peat resources map of the Houston area, Susitna Valley, Alaska OF 81-1301
 — Surficial geology and peat resources map of the Rogers Creek area, Susitna Valley, Alaska OF 81-1302
metal ores: Emerging recognition of the nonfuel mineral resources of Arctic Alaska C 0911

- Mineral resource assessment of the Circle Quadrangle, Alaska OF 83-0170-B
 - Ordovician-Silurian volcanogenic massive sulfide deposits on the southern Prince of Wales Island and the barrier islands, southeastern Alaska OF 83-0318
 - mineral resources*: Annual report on Alaska's mineral resources C 0908
 - History of U.S. Geological Survey geologic exploration and mineral-resource evaluation, Arctic Alaska C 0911
 - Mineral resource assessment map of the Medfra Quadrangle, Alaska OF 80-0811-G
 - Mineral resource assessment of the Circle Quadrangle, Alaska OF 83-0170-B
 - Mineral resource potential map of the western Chichagof and Yakobi Islands Wilderness Study Area, southeastern Alaska MF-1476-B
 - Summaries of data on and lists of references to metallic and selected nonmetallic mineral deposits, in the Chandalar Quadrangle, Alaska OF 83-0278
 - The Alaskan mineral resource assessment program; background information to accompany folio of geologic and mineral resource maps of the Ambler River Quadrangle, Alaska C 0793
 - monazite deposits*: Mineralogy and occurrence of europium-rich dark monazite P 1181
 - peat*: Surficial geology and peat resources map of the Houston area, Susitna Valley, Alaska OF 81-1301
 - Surficial geology and peat resources map of the Rogers Creek area, Susitna Valley, Alaska OF 81-1302
 - petroleum*: Geochemical detection of prospective petroleum areas in Arctic regions C 0911
 - History of U.S. Geological Survey geologic exploration and mineral-resource evaluation, Arctic Alaska C 0911
 - Petroleum geochemistry of the North Slope of Alaska; time and degree of thermal maturity OP- 729
 - Petroleum geology of Cook Inlet Basin, Alaska; an exploration model OP- 728
 - Petroleum potential of Shelikof Strait based on outcrops in Katmai National Monument, Alaska OP- 1149
 - Petroleum source rock richness, type and maturity for four rock units on the Alaskan North Slope; are they sources for the two oil types? C 0911
 - Structure and petroleum potential of the Yakutat segment of the northern Gulf of Alaska continental margin MF-1480
 - The Arctic platform in the National Petroleum Reserve in Alaska; deposition, deformation, and petroleum potential C 0911
 - Use of Apple II in mapping geology of coastal plain of NPR Alaska OP- 940
 - placers*: Placer deposits of Alaska B 1374
 - rare earth deposits*: Mineralogy and occurrence of europium-rich dark monazite P 1181
 - uranium ores*: Distribution of uranium and thorium in the lower Tertiary Orca Group and related rocks in part of the Cordova Quadrangle, southern Alaska OF 82-1032
 - zinc ores*: Occurrences of zinc minerals in Alaska OF 83-0199
- Alaska—engineering geology**
- earthquakes*: Eastern Gulf of Alaska seismicity; final report to the National Oceanic and Atmospheric Administration for July 1, 1975, through September 30, 1981 OF 83-0592
 - Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C
 - Review of earthquake activity and current status of seismic monitoring in the region of the Bradley Lake Hydroelectric Project, southern Kenai Peninsula, Alaska; December 1981-May 1983 OF 83-0744
 - geologic hazards*: Engineering geologic maps of northern Alaska; Teshekpuk Quadrangle OF 83-0634
 - Engineering-geologic maps of northern Alaska, Wainwright Quadrangle OF 83-0457
 - Geotechnical framework, Northeast Gulf of Alaska OF 83-0499
 - Geotechnical framework study of Shelikof Strait, Alaska OF 83-0200
 - Geotechnical framework study of the Kodiak Shelf, Alaska OF 83-0171
 - Geotechnical framework study of the northern Bering Sea, Alaska OF 83-0404
 - Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C
 - Preliminary lithologic, geotechnical, and geophysical data from drill hole CW-81-2, Chuitna West coal field, Cook Inlet region, Alaska OF 83-0078
 - Review of earthquake activity and current status of seismic monitoring in the region of the Bradley Lake Hydroelectric Project, southern Kenai Peninsula, Alaska; December 1981-May 1983 OF 83-0744
 - maps*: Engineering-geologic maps of northern Alaska, Lookout Ridge Quadrangle OF 83-0279
 - Engineering-geologic maps of northern Alaska, Meade River Quadrangle OF 83-0294
 - Engineering geologic maps of northern Alaska; Teshekpuk Quadrangle OF 83-0634
 - Engineering-geologic maps of northern Alaska, Wainwright Quadrangle OF 83-0457
 - Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C
 - marine installations*: Erosion and migration of an artificial sand and gravel island, Niakuk III, Beaufort Sea, Alaska OF 82-0608
 - permafrost*: Copper River basin OP- 365
 - Depth and temperature of permafrost on the Alaskan Arctic Slope; preliminary results OF 82-1039
 - Engineering geologic maps of northern Alaska; Teshekpuk Quadrangle OF 83-0634
 - Permafrost and related engineering problems on the North Slope and Beaufort Shelf, Alaska C 0911
 - Permafrost, heat flow, and the geothermal regime at Prudhoe Bay, Alaska OP- 662
 - Permafrost studies in Alaska C 0911
- Alaska—environmental geology**
- conservation*: Land cover and terrain mapping for the development of digital data bases for wildlife habitat assessment in the Yukon Flats National Wildlife Refuge, Alaska C 0911
 - ecology*: Land cover and terrain mapping for the development of digital data bases for wildlife habitat assessment in the Yukon Flats National Wildlife Refuge, Alaska C 0911
 - Vegetation and land cover, Arctic National Wildlife Refuge, coastal plain, Alaska I-1443
 - geologic hazards*: An oilspill risk analysis for the Diapir Field (June 1984) outer continental shelf lease offering OF 83-0570
 - Cruise results L7-80-BS, northern Bering Sea; geophysical investigations OF 83-0376
 - Supplement resource report for OCS lease sale No. 83, Navarin Basin, Alaska OF 83-0707
 - land use*: Hydrologic information for land-use planning, Badger Road area, Fairbanks, Alaska WRI 82-4097
 - maps*: Vegetation and land cover, Arctic National Wildlife Refuge, coastal plain, Alaska I-1443
 - pollution*: An oilspill risk analysis for the Gulf of Alaska/Cook Inlet lease offering (October 1984) OF 83-0882
 - An oilspill risk analysis for the Navarin Basin lease offering (March 1984), Alaska OF 83-0120
 - Vertical movement of ground water under the Merrill Field landfill, Anchorage, Alaska OF 82-1016
- Alaska—geochemistry**
- maps*: Distribution and abundance of antimony and mercury in minus-80-mesh stream-sediment and antimony in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples, Medfra Quadrangle, Alaska OF 80-0811-L
 - Distribution and abundance of arsenic and bismuth in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and arsenic in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-K
 - Distribution and abundance of barium, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-I
 - Distribution and abundance of barium, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-H
 - Distribution and abundance of cadmium determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-M
 - Distribution and abundance of chromium, as determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-T
 - Distribution and abundance of chromium, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-U
 - Distribution and abundance of cobalt, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-R
 - Distribution and abundance of cobalt, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-S
 - Distribution and abundance of copper, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-C
 - Distribution and abundance of copper, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-B
 - Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-

- bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-I
- Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-K
 - Distribution and abundance of determinable silver by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments and in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-J
 - Distribution and abundance of gold and silver in nonmagnetic and moderately magnetic heavy-mineral-concentrate and minus-80-mesh stream-sediment samples and silver in ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-H
 - Distribution and abundance of lead, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-E
 - Distribution and abundance of lead, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-D
 - Distribution and abundance of molybdenum, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-O
 - Distribution and abundance of molybdenum, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-N
 - Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-J
 - Distribution and abundance of nickel, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-Q
 - Distribution and abundance of nickel, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-P
 - Distribution and abundance of tin determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-L
 - Distribution and abundance of tungsten, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-W
 - Distribution and abundance of tungsten, determined from colorimetric and spectrographic analysis, in the minus-80-mesh fraction of stream sediment, Petersburg area, Southeast Alaska OF 83-0420-V
 - Distribution and abundance of zinc, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-G
 - Distribution and abundance of zinc, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-F
 - Multi-element maps showing the distribution and relative amounts of selected elements in four geochemical sampling media, Medfra Quadrangle, Alaska OF 80-0811-M
- surveys:* Chemical analyses of native soil and vegetation samples, Capps coal field, Alaska OF 83-0246
- Chemical composition and variability of soils from the Capps coal field, Alaska OF 83-0190
- trace elements:* A listing and statistical summary of analytical results for pebbles, stream sediments, and heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-A
- "Central Gneiss Complex" of the Coast Range Batholith; the roots of a high-K, calc-alkaline arc? OP- 58
 - Distribution and abundance of antimony and mercury in minus-80-mesh stream-sediment and antimony in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples, Medfra Quadrangle, Alaska OF 80-0811-L
 - Distribution and abundance of arsenic and bismuth in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and arsenic in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-K
 - Distribution and abundance of barium, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-I
 - Distribution and abundance of barium, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-H
 - Distribution and abundance of cadmium determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-M
 - Distribution and abundance of chromium, as determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-T
 - Distribution and abundance of chromium, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-U
 - Distribution and abundance of cobalt, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-R
 - Distribution and abundance of cobalt, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-S
 - Distribution and abundance of copper, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-C
 - Distribution and abundance of copper, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-B
 - Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-I
 - Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-K
 - Distribution and abundance of determinable silver by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments and in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-J
 - Distribution and abundance of gold and silver in nonmagnetic and moderately magnetic heavy-mineral-concentrate and minus-80-mesh stream-sediment samples and silver in ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-H
 - Distribution and abundance of lead, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-E
 - Distribution and abundance of lead, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-D
 - Distribution and abundance of molybdenum, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-O
 - Distribution and abundance of molybdenum, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-N
 - Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-J
 - Distribution and abundance of nickel, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-Q
 - Distribution and abundance of nickel, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-P
 - Distribution and abundance of tin determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-L
 - Distribution and abundance of tungsten, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-W
 - Distribution and abundance of tungsten, determined from colorimetric and spectrographic analysis, in the minus-80-mesh fraction of stream sediment, Petersburg area, Southeast Alaska OF 83-0420-V
 - Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska OP- 5
 - Multi-element maps showing the distribution and relative amounts of selected elements in four geochemical sampling media, Medfra Quadrangle, Alaska OF 80-0811-M
 - Trace metals in surface water and stream sediments of Healy and Lignite Creek basins, Alaska WRI 83-4173

Alaska—geochronology

Pleistocene: Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia C 0911

Pliocene: Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia C 0911

Quaternary: Quaternary stratigraphic sections with radiocarbon dates, Survey Pass Quadrangle, Alaska OF 83-0072

Alaska—geomorphology

glacial geology: Calving speed of Alaska tidewater glaciers, with application to Columbia Glacier P 1258-C

— Columbia Glacier photogrammetric altitude and velocity; data set (1975-1981) OF 82-0756

— Copper River basin OP- 365

— Finite-difference model predictions of the drastic retreat of Columbia Glacier, Alaska P 1258-D

— Glaciation in Arctic Alaska C 0911

— Late Holocene ice wedges near Fairbanks, Alaska, U.S.A.; environmental setting and history of growth OP- 474

maps: Geologic materials and hydrogeologic characteristics in the Fire Lakes-Eklutna area, Anchorage, Alaska OF 83-0479

— Map showing coastal morphology of the northern Bering Sea coast of Alaska OF 83-0354

shore features: Measurements of debris-line elevations and beach profiles following a major storm; northern Bering Sea coast of Alaska OF 83-0394

Alaska—geophysical surveys

heat flow: Depth and temperature of permafrost on the Alaskan Arctic Slope; preliminary results OF 82-1039

— Permafrost, heat flow, and the geothermal regime at Prudhoe Bay, Alaska OP- 662

magnetic surveys: Layered igneous and sedimentary rocks of Rampart Group, central Alaska; roots of oceanic volcanoes? OP- 181

— Magnetic expression of geologic terranes in southern Alaska OP- 449

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska OF 83-0300-C

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska OF 83-0300-D

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, August 1983 OF 83-0300-H

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, December 1982 OF 82-0300-L

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, February 1983 OF 83-0300-B

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, January 1983 OF 83-0300-A

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, July 1983 OF 83-0300-G

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, June 1983 OF 83-0300-F

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, May 1983 OF 83-0300-E

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, November 1982 OF 82-0300-K

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, October 1982 OF 82-0300-J

— Preparation of a gravity anomaly map of the conterminous United States and aeromagnetic maps of Alaska and Hawaii OP- 432

maps: Preparation of a gravity anomaly map of the conterminous United States and aeromagnetic maps of Alaska and Hawaii OP- 432

— Summary of radiometric anomalies in Alaska OF 83-0169

radioactivity surveys: Summary of radiometric anomalies in Alaska OF 83-0169

remote sensing: Digital data base application to porphyry copper mineralization in Alaska; a case study OP- 921

— The effects of look direction on the interpretation of side-looking airborne radar imagery OF 83-0585

seismic surveys: Description of magnetic tapes of digital sonobuoy-refraction data obtained over Norton Basin, Alaska OF 83-0178

— Origin of the Canada Basin as inferred from the seismic geology of offshore northern Alaska OP- 756

Alaska—hydrogeology

hydrology: Floods from small drainage basins in Alaska OF 83-0258

— Hydrologic data for Point MacKenzie area, south-central Alaska OF 83-0142

— Hydrologic reconnaissance of the Noatak River basin, Alaska, 1978 OF 81-1005

— Hydrology and the effects of industrial pumping in the Nikiski area, Alaska OF 81-0685

— Hydrology of the North Slope, Alaska C 0911

— Precipitation variations at Wolverine Glacier, Alaska OP- 157

— Surface-water quality in the Campbell Creek basin, Anchorage, Alaska WRI 83-4096

springs: Alaska; basic data for thermal springs and wells as recorded in Geotherm OF 83-0426

thermal waters: Alaska; basic data for thermal springs and wells as recorded in Geotherm OF 83-0426

Alaska—oceanography

continental shelf: A summary of U. S. Geological Survey marine geologic studies on the inner shelf of the Chukchi Sea, Alaska, 1975 and 1981 OF 83-0071

— An oilspill risk analysis for the Diapir Field (June 1984) outer continental shelf lease offering OF 83-0570

— Cruise results L7-80-BS, northern Bering Sea; geophysical investigations OF 83-0376

— Environmental considerations OF 83-0124

— Environmental considerations OF 83-0557

— Factors influencing sediment transport at shelf break OP- 598

— Geochemistry; Norton COST well 1 OF 83-0124

— Geochemistry; Norton Sound COST well No. 2 OF 83-0557

— Geological and operational summary, Norton Sound COST No. 1 well, Norton Sound, Alaska OF 83-0124

— Geological and operational summary, Norton Sound COST No. 2 well, Norton Sound, Alaska OF 83-0557

— Geology report for proposed Beaufort Sea OCS sand and gravel lease sale OF 83-0606

— Geotechnical framework study of the Kodiak Shelf, Alaska OF 83-0171

— High-resolution seismic reflection profiles, trackline and sample location map, and digitized bathymetric data; Navarin Basin province, northern Bering Sea OF 83-0618

— Ice gouge data sets from the Alaskan Beaufort Sea; magnetic tape and documentation for computer assisted analyses and correlation OF 83-0706

— Isopach map of Holocene sediment on the outer continental shelf between Yakutat Bay and Dry Bay, eastern Gulf of Alaska OF 83-0104

— Lithology and geophysical log interpretation OF 83-0124

— Lithology and geophysical log interpretation OF 83-0557

— Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C

— Map showing the geological structure of the continental shelf southeast and southwest of Kodiak Island, Alaska MF-1457

— Operational summary OF 83-0124

— Operational summary OF 83-0557

— Paleontology and biostratigraphy OF 83-0124

— Paleontology and biostratigraphy OF 83-0557

— Preliminary results of geophysical and geological studies of the Bering Sea shelf during 1982 OF 83-0322

— Quaternary sedimentation on the Alaskan Beaufort shelf; sediment sources, glacioeustatism, and regional tectonics C 0911

— Seabed changes resulting from combined sea ice and hydraulic processes on shelves of Arctic Basin; example from Harrison Bay, Alaska OP- 60

— Sedimentary facies on an ice dominated shelf, Beaufort Sea, Alaska C 0911

— Seismic reflection correlation and velocity analysis OF 83-0124

— Seismic reflection correlation and velocity analysis OF 83-0557

— Shallow geologic setting, Norton Sound COST No. 1 well OF 83-0124

— Shallow geologic setting, Norton Sound COST No. 2 well OF 83-0557

— Structural deformation in northern Gulf of Alaska; transition from transform to convergent plate motion OP- 162

— Structure and petroleum potential of the Yakutat segment of the northern Gulf of Alaska continental margin MF-1480

— Structure maps and seismic stratigraphy of Yakutat segment of the continental margin, northern Gulf of Alaska MF-1424

— Supplement resource report for OCS lease sale No. 83, Navarin Basin, Alaska OF 83-0707

continental slope: Structural deformation in northern Gulf of Alaska; transition from transform to convergent plate motion OP- 162

— Two newly discovered submarine canyons on the Alaskan continental margin of Bering Sea OF 83-0024

maps: Isopach map of Holocene sediment on the outer continental shelf between Yakutat Bay and Dry Bay, eastern Gulf of Alaska OF 83-0104

— Map showing the geological structure of the continental shelf southeast and southwest of Kodiak Island, Alaska MF-1457

— Preliminary bathymetry of upper Icy Bay, Alaska OF 83-0256

— Structure and petroleum potential of the Yakutat segment of the northern Gulf of Alaska continental margin MF-1480

— Structure maps and seismic stratigraphy of Yakutat segment of the continental margin, northern Gulf of Alaska MF-1424

- Two newly discovered submarine canyons on the Alaskan continental margin of Bering Sea OF 83-0024
- marine geology*: A summary of U. S. Geological Survey marine geological data collected in the Beaufort Sea, Alaska, 1982 OF 83-0493
- Preliminary bathymetry of upper Icy Bay, Alaska OF 83-0256
- sea ice*: Depositional complexities in sea-ice environment of Arctic shelves; example from Harrison Bay, Alaska OP- 1015
- sediments*: Heavy mineral data from lower Cook Inlet, Alaska OF 83-0782
- Maps showing post-neoglacial sediment thickness and bathymetry in Tarr Inlet, Glacier Bay, Alaska MF-1456
- Sediment content of nearshore fast ice; fall 1980, Beaufort Sea, Alaska OF 82-0716
- Use of heavy-mineral density ratios to determine the degree of sediment homogenization in offshore areas OP- 714
- Alaska—paleontology**
- maps*: Map and table describing fossil collections and related samples in the Ketchikan and Prince Rupert quadrangles, southeastern Alaska OF 82-1088
- Alaska—petrology**
- igneous rocks*: Calc-alkaline plutonism along the Pacific rim of southern Alaska OP- 557
- Chemical analyses and rock series classification of 102 tonalite samples for the Jurassic magmatic arc, Alaska-Aleutian Range batholith, Alaska OF 83-0094
- Plutonic rocks of Jurassic age in the Alaska-Aleutian Range Batholith; chemical variations and polarity OP- 1011
- Tin granites of Seward Peninsula, Alaska OP- 558
- intrusions*: "Central Gneiss Complex" of the Coast Range Batholith; the roots of a high-K, calc-alkaline arc? OP- 58
- Intrusive rocks and plutonic belts of southeastern Alaska, U.S.A. OP- 147
- Layered igneous and sedimentary rocks of Rampart Group, central Alaska; roots of oceanic volcanoes? OP- 181
- Plutonic belts of southeastern Alaska, U.S.A. OP- 148
- Structural evolution of the La Perouse layered gabbro Fairweather Range, southeastern Alaska OP- 701
- metamorphic rocks*: A sillimanite gneiss dome in the Yukon crystalline terrane, east-central Alaska; petrography and garnet-biotite geothermometry P 1170-E
- Alaska—sedimentary petrology**
- sedimentation*: Depositional environments and reservoir properties of sandstones of Lower Cretaceous Nanushuk and Upper Cretaceous Colville groups, Umiat Test Well 11, National Petroleum Reserve, Alaska OP- 397
- Evolution of sedimentary systems during Mesozoic and Cenozoic in southern Alaska; an overview OP- 730
- Gravel bedload transport processes OP- 635
- Alaska—seismology**
- earthquakes*: Catalog of earthquakes in southern Alaska, April-June 1980 OF 83-0014
- Catalog of earthquakes in southern Alaska, July-September 1980 OF 83-0015
- Recent microseismicity along the eastern Gulf of Alaska and its relation to the Yakutat seismic gap OP- 1181
- Recent seismicity around Spurr, Redoubt, and Iliamna volcanoes, southern Alaska OP- 929
- Seismic activity in the vicinity of Anchorage, Alaska, 1972-82 OP- 665
- Alaska—stratigraphy**
- archaeology*: Prehistoric Inupiat adaptation at Tukuto Lake; a land use history and cultural sequence for the Arctic Foothills, interior northern Alaska OP- 419
- bibliography*: Quaternary geology of Alaska P 0835
- biogeography*: Occurrence and distribution chart of ostracodes from the northeastern Gulf of Alaska MF-1518
- Carboniferous*: Carboniferous foraminifer Mediocris; first occurrence in northern Alaska OP- 99
- changes of level*: Quaternary microfossils on the Arctic shelf C 0911
- Quaternary sedimentation on the Alaskan Beaufort shelf; sediment sources, glacioeustatism, and regional tectonics C 0911
- Cretaceous*: Availability of petrographic thin-sections from measured sections and wells in Early to Late Cretaceous Nanushuk Group rocks, National Petroleum Reserve in Alaska, North Slope, Alaska OF 83-0520
- Cretaceous-lower Tertiary depositional relations, northeastern Alaska OP- 813
- Depositional history and seismic stratigraphy of Lower Cretaceous rocks, National Petroleum Reserve, Alaska and adjacent areas OP- 810
- Depositional relations of Cretaceous and lower Tertiary rocks, northeastern Alaska OP- 812
- Graywacke of Buchia Ridge and correlative Lower Cretaceous rocks in the Goodnews Bay and Bethel quadrangles, southwestern Alaska B 1529-C
- Summit Island Formation, a new Upper Cretaceous formation in southwestern Alaska B 1529-B
- Holocene*: Holocene history of the estuarine area surrounding Portage, Alaska as recorded in a 93 m core OP- 68
- Jurassic*: Middle Jurassic (Callovian) Radiolaria from southern Alaska OP- 112
- maps*: Foraminiferal biostratigraphy and correlations in the Gulf of Alaska Tertiary province OC-0120
- Mesozoic*: Mesozoic stratigraphy; the key to tectonic analysis of southern and central Alaska OP- 591
- Stratigraphy, structure, and palinspastic synthesis of the western Brooks Range, northwestern Alaska OF 83-0779
- Miocene*: Late Miocene mollusks of Tachilni Formation, Alaska Peninsula, Alaska OP- 737
- Paleogene*: Depositional relations of Cretaceous and lower Tertiary rocks, northeastern Alaska OP- 812
- Paleogeographic affinities and endemism of Cretaceous and Paleocene marine faunas in the Arctic C 0911
- Paleozoic*: Layered igneous and sedimentary rocks of Rampart Group, central Alaska; roots of oceanic volcanoes? OP- 181
- New Paleozoic formations in the northern Kuskokwim Mountains, west-central Alaska B 1529-H
- Paleomagnetic studies and hypothetical rotation of Arctic Alaska OP- 535
- Stratigraphy, structure, and palinspastic synthesis of the western Brooks Range, northwestern Alaska OF 83-0779
- Tectonic significance of Silurian and Ordovician graptolites, Lisburne Hills, Northwest Alaska OP- 442
- Thermal maturation values (conodont color alteration indices) for Paleozoic and Triassic rocks, Chandler Lake, De Long Mountains, Howard Pass, Killik River, Misheguk Mountain, and Point Hope quadrangles, Northwest Alaska, and subsurface NPRA OF 83-0505
- Phanerozoic*: Origin of the Canada Basin as inferred from the seismic geology of offshore northern Alaska OP- 756
- Pleistocene*: A Pleistocene sand desert in Arctic Alaska C 0911
- Aspects of the paleogeography of Beringia during the late Pleistocene OP- 544
- New evidence for the age of the Gubik Formation, Alaskan North Slope OP- 1017
- Quaternary*: Late Quaternary pollen record from Hidden Lake, Kenai Peninsula, Alaska OP- 7
- Old Crow tephra; a new late Pleistocene stratigraphic marker across North-central Alaska and western Yukon Territory OP- 1288
- Paleocology of Beringia; a synthesis OP- 1105
- Quaternary geology of Alaska P 0835
- Vegetational history of western Alaska during the Wisconsin glacial interval and the Holocene OP- 6
- Tertiary*: Cretaceous-lower Tertiary depositional relations, northeastern Alaska OP- 813
- Foraminiferal biostratigraphy and correlations in the Gulf of Alaska Tertiary province OC-0120
- Triassic*: Thermal maturation values (conodont color alteration indices) for Paleozoic and Triassic rocks, Chandler Lake, De Long Mountains, Howard Pass, Killik River, Misheguk Mountain, and Point Hope quadrangles, Northwest Alaska, and subsurface NPRA OF 83-0505
- Alaska—structural geology**
- neotectonics*: Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C
- tectonics*: Geology and tectonic evolution of Alaska OP- 972
- Intrusive rocks and plutonic belts of southeastern Alaska, U.S.A. OP- 147
- Mesozoic stratigraphy; the key to tectonic analysis of southern and central Alaska OP- 591
- Stratigraphy, structure, and palinspastic synthesis of the western Brooks Range, northwestern Alaska OF 83-0779
- Tectonic significance of Silurian and Ordovician graptolites, Lisburne Hills, Northwest Alaska OP- 442
- Alaska—tectonophysics**
- crust*: Magnetic expression of geologic terranes in southern Alaska OP- 449
- plate tectonics*: Controls of subduction geometry, location of magmatic arcs, and tectonics of arc and back-arc regions OP- 374
- Limits to northward drift of the Paleocene Cantwell Basin, central Alaska OP- 534
- Model for the origin of the Yakutat Block, an accreting terrane in the northern Gulf of Alaska OP- 161
- Paleogene metamorphism of an accretionary flysch terrane, eastern Gulf of Alaska OP- 559
- Paleomagnetic studies and hypothetical rotation of Arctic Alaska OP- 535
- Seismic activity in the vicinity of Anchorage, Alaska, 1972-82 OP- 665

- Tectonic and geologic implications of the Zo-diac Fan, Aleutian abyssal plain, Northeast Pacific OP- 1183
- Wandering terranes in southern Alaska; the Aleutia microplate and implications for the Bering Sea OP- 741
- Alberta—economic geology**
 - oil sands*: Hydraulic fracturing in Alberta tar sand formations; a unique material for in situ stress measurements OF 82-1075
- algae—diatoms**
 - Miocene*: Enhanced late Miocene upwelling in the middle- and low-latitude Pacific OP- 61
- algae—Phaeophyta**
 - biochemistry*: Controls on Cu concentrations in estuarine bivalves (*Scrobicularia plana*), polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341
 - Controls on the availability of Ag, Cd, Co, Fe and Mn to estuarine bivalves (*Scrobicularia plana*) and polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341
- algae—stromatolites**
 - Precambrian*: Evolutionary and geologic problems at the Precambrian-Cambrian boundary; historical perspectives OP- 1117
- algal flora—biostratigraphy**
 - Cenozoic*: Calcareous nannofossil and planktic foraminiferal biostratigraphy of Pliocene and Pleistocene Atlantic Coastal Plain deposits OP- 179
 - Paleontology and biostratigraphy OF 83-0124
 - Paleontology and biostratigraphy OF 83-0557
 - Eocene*: Stratigraphy of the Hatchetigbee Formation (lower Eocene) in eastern Alabama-western Georgia OP- 423
 - Miocene*: Microfossils from type Relizian and Luisian stages of California OP- 771
 - Paleocceanographic implications of Miocene deep-sea hiatuses OP- 604
 - Planktonic calibration of provincial Miocene stages of California OP- 988
 - Recognition of Miocene deep-sea hiatuses OP- 63
 - Neogene*: Microfossil assemblages from the Castaic Formation, Ridge Basin, Southern California OP- 770
 - Phanerozoic*: Biostratigraphy and paleoecology of lower Paleozoic, Upper Cretaceous, and lower Tertiary rocks in U. S. Geological Survey New Madrid test wells, southeastern Missouri OP- 401
 - Quaternary*: Quantitative microfossil, sedimentologic, and geochemical data on cores V1-80-P3, V1-80-G1, and V1-80-P8 from continental slope off Northern California OF 83-0083
 - Tertiary*: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
 - Tertiary marine and nonmarine climatic trends OP- 1317
- algal flora—coccoliths**
 - Paleogene*: Reconnaissance geology of Amlia Island, Aleutian Islands, Alaska OP- 782
 - Tertiary*: Eocene to Miocene calcareous plankton from the Santa Cruz Mountains and northern Santa Lucia Range P 1213
- algal flora—diatom flora**
 - Cenozoic*: A description of dredge samples collected in 1982 from the Bering Sea continental margin west of Navarin Basin OF 83-0325
 - Holocene*: Holocene history of the estuarine area surrounding Portage, Alaska as recorded in a 93 m core OP- 68
- Miocene*: Integration of diatom and planktonic foraminiferal data for biostratigraphic and paleoclimatic interpretation of middle and upper Miocene Monterey Shale OP- 62
- Paleotemperature oscillations in the middle and late Miocene of the northeastern Pacific OP- 64
- Neogene*: Neogene lacustrine diatom biostratigraphy of western Snake River basin, Idaho and Oregon OP- 652
- Pleistocene*: Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park OP- 1035
- Late Pleistocene Eucampia antarctica abundance stratigraphy in the Atlantic sector of the Southern Ocean OP- 170
- Quaternary*: Diatom biostratigraphy of Clear Lake, California OP- 139
- Micropaleontologic analysis of Navarin Basin, Bering Sea, Alaska OP- 998
- algal flora—nannofossils**
 - Eocene*: Calcareous nannofossil and foraminiferal biostratigraphy of the Tallahatta Formation (Eocene) in the eastern Gulf Coastal Plain OP- 178
 - Late Eocene to early Oligocene calcareous nannofossils in Alabama and Mississippi OP- 176
 - Paleogene*: Calcareous nannofossil biostratigraphy of the Paleogene of the Santa Cruz Mountains, California P 1213
 - Late Eocene to early Oligocene calcareous nannofossils in Alabama OP- 177
 - Lower Tertiary nannoplankton biostratigraphy in the central Coast Ranges of California P 1213
 - Paleocene to middle Eocene stratigraphy of Alabama OP- 426
 - Tertiary*: Studies in Tertiary stratigraphy of the California Coast Ranges P 1213
- algal flora—paleoecology**
 - Quaternary*: Nivation and cryoplanation in the west-central Basin and Range OP- 308
- alluvium** *see under* clastic sediments *undersediments*
- Alps** *see also* the individual countries
- aluminum—analysis**
 - colorimetry*: Determination of dissolved aluminum in water samples WRI 82-4018
- aluminum—geochemistry**
 - metal ores*: High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt OF 83-0793
- americium—geochemistry**
 - ground water*: Neptunium and americium speciation in selected basalt, granite, shale, and tuff ground waters OP- 234
- amino acids** *see under* organic materials
- ammonites** *see* Mollusca
- ammonoids** *see under* mollusks
- ancient ice ages** *see under* glacial geology
- Andes** *see also* the individual countries
- Andes—economic geology**
 - silver ores*: Nevado Portuqueza volcanic center, central Peru; a Pliocene central volcano-collapse caldera complex with associated silver mineralization OP- 873
- Antarctic Ocean—oceanography**
 - marine geology*: Planned marine geophysical geological surveys of the Wilkes Land and Ross Sea margins C 0911
 - sedimentation*: Glacial-marine sedimentation; a model OP- 814
- Antarctic Ocean—stratigraphy**
 - Pleistocene*: Late Pleistocene Eucampia antarctica abundance stratigraphy in the Atlantic sector of the Southern Ocean OP- 170
- Antarctica—areal geology**
 - maps*: Antarctic mapping and international coordination C 0911
 - Program for mapping Antarctica C 0911
 - Neptune Range*: Geology of the Neptune Range, Antarctica C 0911
 - regional*: U. S. Geological Survey Polar research symposium; abstracts with program C 0911
- Antarctica—economic geology**
 - bibliography*: Mineral occurrences of Antarctica C 0909
 - metal ores*: The Dufek Intrusion of Antarctica and a survey of its minor metals and possible resources C 0909
 - mineral resources*: Mineral occurrences of Antarctica C 0909
 - Petroleum and mineral resources of Antarctica C 0909
 - petroleum*: Are there petroleum resources in Antarctica? C 0909
 - Petroleum and mineral resources of Antarctica C 0909
 - Speculations on the petroleum resources of Antarctica C 0911
- Antarctica—geochemistry**
 - isotopes*: An isotopic and chemical study of Lake Vanda and Don Juan Pond, Antarctica C 0911
- Antarctica—geomorphology**
 - glacial geology*: Modeling the movement at the polar ice cap at the South Pole C 0911
 - landform description*: Mars-analog studies in Wright and Victoria valleys, Antarctica C 0911
- Antarctica—geophysical surveys**
 - remote sensing*: Glaciological and geological studies of Antarctica with satellite remote sensing technology C 0911
 - Landsat images and mosaics of Antarctica for mapping and glaciological studies OP- 1306
 - The use of satellite technology in the search for meteorites in Antarctica C 0911
 - USGS program at the South Pole C 0911
 - surveys*: Geophysical investigations of the Dufek Intrusion and the surrounding region C 0911
 - Planned marine geophysical geological surveys of the Wilkes Land and Ross Sea margins C 0911
 - Surveying in Antarctica during the International Geophysical Year C 0911
- Antarctica—petrology**
 - intrusions*: Crystallization of the Dufek Intrusion, Antarctica C 0911
- Antarctica—sedimentary petrology**
 - sedimentation*: Sedimentology of the Horlick Formation (Lower Devonian), Ohio Range, Transantarctic Mountains C 0911
- Antarctica—stratigraphy**
 - Holocene*: Climatic significance of lacustrine deposits around Lake Vanda and Don Juan Pond, Antarctica C 0911
 - Mesozoic*: Configuration of eastern Gondwanaland C 0911
- Antarctica—structural geology**
 - tectonics*: Proterozoic to Mesozoic mobile-belt geology, Pensacola Mountains, Antarctica C 0911
- Antarctica—tectonophysics**
 - crust*: Paleomagnetic studies in Antarctica C 0911
 - Small-scale magnetic features of the Polar regions C 0911

antimony—geochemistry

coal: Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska OP- 5

stream sediments: Distribution and abundance of antimony and mercury in minus-80-mesh stream-sediment and antimony in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples, Medfra Quadrangle, Alaska OF 80-0811-L

— Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-K

Appalachians *see also* the individual states and provinces

Appalachians—economic geology

coal: Paleoclimatic controls on the occurrence and quality of coal C 8822

fuel resources: Possible hydrocarbon resources beneath Blue Ridge-Piedmont thrust sheet OP- 487

— Upper Devonian black shales across Appalachian Basin OP- 282

maps: A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping OF 83-0352

metal ores: A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping OF 83-0352

— High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt OF 83-0793

mineral resources: Mineral resources of the Mill Creek, Mountain Lake, and Peters Mountain Wilderness Study Areas, Craig and Giles counties, Virginia, and Monroe County, West Virginia B 1510

natural gas: The Eastern Gas Shales Project (EGSP) Data System; a case study in data base design, development, and application OP- 327

Appalachians—engineering geology

maps: Landslide overview map of the conterminous United States P 1183

slope stability: Landslide overview map of the conterminous United States P 1183

Appalachians—environmental geology

land use: Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104

maps: Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104

Appalachians—geochronology

Paleozoic: Timing of metamorphism in the Appalachian Orogen based on $^{40}\text{Ar}/^{39}\text{Ar}$ dates of hornblende and biotite OP- 1200

Precambrian: Interpretation of Ar-40/Ar-39 ages from the Appalachian Grenville terrane OP- 1201

Proterozoic: Age relationships in Proterozoic Z rocks of the Blue Ridge Anticlinorium of northern Virginia OP- 715

Appalachians—geophysical surveys

gravity surveys: Gravity evidence of crustal domains in the United States; the Appalachian System OP- 595

magnetic surveys: The Clingman Lineament; aeromagnetic evidence for a major discontinuity in the North American basement OP- 854

seismic surveys: Seismic-reflection data in the Central Appalachians OP- 488

Appalachians—hydrogeology

hydrology: Hydrology of area 6, Eastern Coal Province, Maryland, West Virginia, and Pennsylvania OF 83-0033

Appalachians—petrology

igneous rocks: The core of the Blue Ridge Anticlinorium in northern Virginia OP- 231

intrusions: A geophysical study of plutons in the northern Charlotte Belt, North Carolina and South Carolina OP- 1307

metasomatism: High-alumina hydrothermal systems in volcanic rocks of the Carolina slate belt OP- 1088

Appalachians—stratigraphy

Devonian: Huntersville Chert (Devonian) extending from southwestern Virginia into southwestern New York, and its Bobs Ridge Sandstone Member B 1529-H

Ordovician: Conodonts revise the Lower-Middle Ordovician boundary and timing of miogeoclinal events in the East-Central Appalachian Basin OP- 486

— Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N

— Nealmont Limestone (Middle Ordovician) extending from southwestern Virginia into southwestern New York in the Central Appalachians B 1529-H

Paleozoic: Paleomagnetic results from seven middle Paleozoic plutons in the Appalachian Piedmont of North and South Carolina OF 83-0916

Silurian: Late Silurian conodonts update the metamorphosed Fitch Formation, Littleton area, New Hampshire OP- 485

Appalachians—structural geology

tectonics: Disturbed zones; indicators of deep-seated subsurface faults in the Valley and Ridge and Appalachian structural front of Pennsylvania OF 82-0967

— Middle and Late Devonian sedimentation and tectonism at the Petersburg Lineament, northeastern West Virginia OP- 1291

Appalachians—tectonophysics

crust: Crustal structure beneath the Southern Appalachians; nonuniqueness of gravity modeling OP- 562

— Gravity evidence of crustal domains in the United States; the Appalachian System OP- 595

— The Clingman Lineament; aeromagnetic evidence for a major discontinuity in the North American basement OP- 854

aquifers *see under* ground water

Arabian Gulf *see* Persian Gulf

Arabian Peninsula *see also* Oman; Saudi Arabia

Arabian Peninsula—economic geology

petroleum: Assessment of undiscovered conventionally recoverable petroleum resources of the Arabian-Iranian Basin C 0881

Arabian Peninsula—geochronology

Proterozoic: U-Pb zircon ages of igneous rocks and a model for late Proterozoic crustal evolution in the most easterly region of the Arabian Shield, Kingdom of Saudi Arabia OP- 447

Arabian Peninsula—geophysical surveys

gravity surveys: A gravity model for the southern Arabian Shield OP- 420

magnetic surveys: A synoptic interpretation of the aeromagnetic map of the Arabian Shield OP- 111

Arabian Peninsula—seismology

crust: Saudi Arabian seismic deep-refraction profiles; final project report OF 83-0390

Arabian Peninsula—tectonophysics

plate tectonics: Middle Tertiary continental rift and evolution of the Red Sea in southwestern Saudi Arabia OF 83-0641

archaeology *see also under* stratigraphy *under* Afghanistan; Alaska; Israel

Archean *see also under* stratigraphy *under* Maine

archeology *see* archaeology *under* stratigraphy *under* Afghanistan; Alaska; Israel

Arctic Ocean—economic geology

oil and gas fields: An oilspill risk analysis for the Diapir Field (June 1984) outer continental shelf lease offering OF 83-0570

sands: Geology report for proposed Beaufort Sea OCS sand and gravel lease sale OF 83-0606

Arctic Ocean—engineering geology

geologic hazards: Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C

maps: Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C

Arctic Ocean—geophysical surveys

seismic surveys: Origin of the Canada Basin as inferred from the seismic geology of offshore northern Alaska OP- 756

— Tectonic evolution of the Arctic continental margin in the Beaufort and Chukchi seas; evidence from seismic reflections C 0911

Arctic Ocean—oceanography

continental shelf: Ice gouge data sets from the Alaskan Beaufort Sea; magnetic tape and documentation for computer assisted analyses and correlation OF 83-0706

marine geology: A summary of U. S. Geological Survey marine geologic studies on the inner shelf of the Chukchi Sea, Alaska, 1975 and 1981 OF 83-0071

— A summary of U. S. Geological Survey marine geological data collected in the Beaufort Sea, Alaska, 1982 OF 83-0493

ocean basins: Origin of the Canada Basin as inferred from the seismic geology of offshore northern Alaska OP- 756

sedimentation: Seabed changes resulting from combined sea ice and hydraulic processes on shelves of Arctic Basin; example from Harrison Bay, Alaska OP- 60

— Sediment content of nearshore fast ice; fall 1980, Beaufort Sea, Alaska OF 82-0716

— Sedimentary facies on an ice dominated shelf, Beaufort Sea, Alaska C 0911

Arctic Ocean—stratigraphy

Cretaceous: Paleogeographic affinities and endemism of Cretaceous and Paleocene marine faunas in the Arctic C 0911

Quaternary: Quaternary microfossils on the Arctic shelf C 0911

— Quaternary sedimentation on the Alaskan Beaufort shelf; sediment sources, glacioeustatism, and regional tectonics C 0911

Arctic Ocean—tectonophysics

crust: Influence of the Greenland-Scotland Ridge on the geological history of the North Atlantic and Norwegian-Greenland sea areas OP- 867

Arctic region *see also* the individual countries; Greenland

Arctic region—areal geology

regional: U. S. Geological Survey Polar research symposium; abstracts with program C 0911

Arctic region—stratigraphy

- Cenozoic*: Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia C 0911
- changes of level*: Aspects of the paleogeography of Beringia during the late Pleistocene OP- 544
- Paleocene*: Paleogeographic affinities and endemism of Cretaceous and Paleocene marine faunas in the Arctic C 0911
- Quaternary*: Paleocology of Beringia; a synthesis OP- 1105
- Vegetational history of western Alaska during the Wisconsin glacial interval and the Holocene OP- 6

Arctic region—tectonophysics

- crust*: Small-scale magnetic features of the Polar regions C 0911
- plate tectonics*: Tectonic evolution of the Arctic continental margin in the Beaufort and Chukchi seas; evidence from seismic reflections C 0911

argon—isotopes

- Ar-40*: Potassium-argon relations in diabase dikes of Georgia; the influence of excess ⁴⁰Ar on the geochronology of early Mesozoic igneous and tectonic events P 1313

Arizona—areal geology

- bibliography*: Geologic references index for the Navajo Indian Reservation, Arizona, New Mexico, and Utah OF 83-0002
- maps*: Geologic map of Arizona p.149
- Geologic map of the Dragoon Mountains Roadless Area, Cochise County, Arizona MF-1521-A
- Geologic map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico MF-1463-B
- Geologic map of the Teapot Mountain Quadrangle, Pinal County, Arizona GQ-1559
- Geologic map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona, and Kane County, Utah MF-1475-A
- Geology and geochemical analyses of the Strawberry Crater area, Coconino County, Arizona MF-1394-A
- Preliminary geologic map of the Coconino Point and Grandview Point quadrangles, Coconino County, Arizona OF 83-0731
- Reconnaissance geologic map of the Presummit Peak Quadrangle, Arizona MF-1378

Arizona—economic geology

- arsenic ores*: Arsenic and gold mineralization in the McFarland Canyon-Story Mine area, Maricopa County, Arizona OF 83-0442
- copper ores*: Comparison of hot hydroxylamine hydrochloride and oxalic acid leaching of stream sediment and coated rock samples as anomaly enhancement techniques OP- 369
- geothermal energy*: Arizona; basic data for thermal springs and wells as recorded in Geotherm OF 83-0427
- gold ores*: Arsenic and gold mineralization in the McFarland Canyon-Story Mine area, Maricopa County, Arizona OF 83-0442
- Implications of the compositions of lode and placer gold OF 82-1052
- K/Ar chronology of mineralization and igneous activity OF 82-1052
- Preliminary report on the geology and gold mineralization of the Gold Basin-Lost Basin mining districts, Mohave County, Arizona OF 82-1052

- maps*: Flagstaff Quadrangle, Arizona OP- 1285
- Gallup Quadrangle, Arizona and New Mexico OP- 445
- Map showing distribution of minerals in the heavy-mineral concentrate of stream sediments in the Sierra Ancha Wilderness and Salome Study Area, Gila County, Arizona MF-1162-E
- Map showing mineral resource potential of the Sierra Ancha Wilderness and Salome Study Area, Gila County, Arizona MF-1162-H
- Mine and prospect map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona and Kane County, Utah MF-1475-C
- Mineral deposit map of the Silver City 1° by 2° Quadrangle, New Mexico and Arizona I-1310-B
- Mineral resource potential and geologic map of the Wet Beaver Roadless Area, Coconino and Yavapai counties, Arizona MF-1558-A
- Mineral resource potential map of Bunk Robinson Peak and Whitmire Canyon Roadless Areas, Hidalgo County, New Mexico, and Cochise County, Arizona MF-1425-B
- Mineral resource potential map of the Arnold Mesa Roadless Area, Yavapai County, Arizona MF-1577-A
- Mineral resource potential map of the Crossman Peak Wilderness Study Area (5-7B), Mohave County, Arizona MF-1602-A
- Mineral resource potential map of the Dragoon Mountain Roadless Area, Cochise County, Arizona MF-1521-B
- Mineral resource potential map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico MF-1463-C
- Mineral resource potential map of the Strawberry Crater Roadless Areas, Coconino County, Arizona MF-1394-C
- Mineral resource potential map of the West Clear Creek Roadless Area, Yavapai and Coconino counties, Arizona MF-1555-A
- Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California OF 83-0421
- Shiprock Quadrangle, Arizona, New Mexico, Colorado, Utah OP- 443
- metal ores*: Precious metal contents of Proterozoic massive sulfide deposits in Arizona OP- 298
- Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California OF 83-0421
- Relation of Proterozoic massive sulfide deposits to contemporaneous volcanic activity, Bagdad, Arizona OP- 245
- Statistical parameters for resource evaluation of geochemical data from the Ajo 1° by 2° Quadrangle, Arizona OF 83-0734
- Volcanogenic mineralization at Copper Camp Creek and the potential for massive sulfide deposits in the Proterozoic Alder Formation, Arizona OP- 248
- mineral resources*: Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0703
- Map showing distribution of minerals in the heavy-mineral concentrate of stream sediments in the Sierra Ancha Wilderness and Salome Study Area, Gila County, Arizona MF-1162-E

- Map showing mineral resource potential of the Sierra Ancha Wilderness and Salome Study Area, Gila County, Arizona MF-1162-H
- Mine and prospect map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona and Kane County, Utah MF-1475-C
- Mineral deposit map of the Silver City 1° by 2° Quadrangle, New Mexico and Arizona I-1310-B
- Mineral resource potential and geologic map of the Wet Beaver Roadless Area, Coconino and Yavapai counties, Arizona MF-1558-A
- Mineral resource potential map of Bunk Robinson Peak and Whitmire Canyon Roadless Areas, Hidalgo County, New Mexico, and Cochise County, Arizona MF-1425-B
- Mineral resource potential map of the Arnold Mesa Roadless Area, Yavapai County, Arizona MF-1577-A
- Mineral resource potential map of the Crossman Peak Wilderness Study Area (5-7B), Mohave County, Arizona MF-1602-A
- Mineral resource potential map of the Dragoon Mountain Roadless Area, Cochise County, Arizona MF-1521-B
- Mineral resource potential map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico MF-1463-C
- Mineral resource potential map of the Strawberry Crater Roadless Areas, Coconino County, Arizona MF-1394-C
- Mineral resource potential map of the West Clear Creek Roadless Area, Yavapai and Coconino counties, Arizona MF-1555-A
- Slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0443
- Spectrographic analyses of stream-sediment samples from the Mazatzal Wilderness Area and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona OF 83-0197
- petroleum*: Petroleum potential of wilderness lands in Arizona C 0902-A-P
- uranium ores*: Flagstaff Quadrangle, Arizona OP- 1285
- Gallup Quadrangle, Arizona and New Mexico OP- 445
- Shiprock Quadrangle, Arizona, New Mexico, Colorado, Utah OP- 443
- Arizona—engineering geology**
- rock mechanics*: Density, porosity, and magnetic properties of rock specimens from southwestern Arizona OF 83-0808
- Arizona—environmental geology**
- ecology*: Arizona Vegetation Resource Inventory (AVRI) accuracy assessment OF 82-0814
- land use*: Land use and land cover and associated maps for Cedar City, Arizona; Utah OF 82-0801
- Land use and land cover and associated maps for Prescott, Arizona OF 83-0106
- Land use and land cover and associated maps for Williams, Arizona OF 83-0107
- Landsat monitoring of albedo changes in northwestern Arizona, 1977-1980 OF 82-0014
- maps*: Land use and land cover and associated maps for Cedar City, Arizona; Utah OF 82-0801
- Land use and land cover and associated maps for Prescott, Arizona OF 83-0106

- Land use and land cover and associated maps for Williams, Arizona OF 83-0107
- reclamation*: Reclamation of mined lands in the western coal region C 0872
- Arizona—geochemistry**
- isotopes*: Stable isotope analyses P 1173
- maps*: Geochemical data and sample locality map of the Vermilion Cliffs-Paria Canyon Instant Study area and adjacent wilderness study areas, Coconino County, Arizona, and Kane County, Utah MF-1475-B
- Geochemical maps of Bunk Robinson Peak and Whitmire Canyon Roadless areas, Hidalgo County, New Mexico, and Cochise County, Arizona MF-1425-C
- Maps showing the distribution and relationships of selected metals in heavy-mineral concentrates of the Hells Hole Further Planning Area (RARE II), Greenlee County, Arizona, and Grant County, New Mexico MF-1344-D
- surveys*: Analytical results for stream-sediment concentrate, sieved stream-sediment, rock, and water samples from the Silver City 1° × 2° Quadrangle, New Mexico and Arizona PB-83 220 863
- Geochemical data for the West Clear Creek Roadless Area, Yavapai and Coconino counties, Arizona OF 83-0165
- trace elements*: Analytical and statistical results for stream sediment, panned concentrate, water, and rock samples collected from the Whetstone Roadless Area, Pima and Cochise counties, Arizona OF 83-0242
- Analytical results for 178 stream-sediment, 98 heavy-mineral-concentrate, 27 rock, and 11 water samples from the Rattlesnake and Wet Beaver Roadless Areas, Coconino and Yavapai counties, Arizona OF 83-0339
- Chemical and statistical analysis of stream sediments, heavy-mineral concentrates, and rocks of the Hells Gate Roadless Area, Gila County, Arizona OF 83-0498
- Geochemical data for the Crossman Peak Wilderness Study Area, Mohave County, Arizona OF 83-0581
- Methodology, statistical summary, and listing of analyses of geochemical samples, Lower San Francisco River Wilderness Study Area and contiguous roadless area (RARE II), Catron and Grant counties, New Mexico, and Greenlee County, Arizona OF 83-0494
- Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California OF 83-0421
- Spectrographic analyses of panned concentrates from stream-sediment samples from the Mazatzal Wilderness and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona OF 83-0524
- Arizona—geochronology**
- Paleogene*: A garnet-two-mica granite, Coyote Mountains, southern Arizona; geologic setting, uranium-lead isotopic systematics of zircon, and nature of the granite source region OP- 1323
- Tertiary*: Tertiary stratigraphy and geochronologic problems, west-central Arizona OP- 925
- Arizona—geomorphology**
- mass movements*: Landslides of Vermilion Cliffs, Arizona; application to Mars OP- 1212
- Arizona—geophysical surveys**
- gravity surveys*: Principal facts for gravity stations in and near the Whipple Mountains Wilderness Study Area (CDCA-312), San Bernardino County, California, and Mohave County, Arizona OF 82-1089
- Principal facts for 904 gravity stations in and near the Chemehuevi Mountains and Crossman Peak Wilderness Study Areas, San Bernardino County, California, and Mohave County, Arizona OF 83-0806
- Volcanic stratigraphy of part of McLendon Volcano, Yavapai County, Arizona OP- 154
- magnetic surveys*: Aeromagnetic map of the West Clear Creek Roadless Area, Coconino and Yavapai counties, Arizona MF-1555-B
- Residual aeromagnetic map of the Hat Mountain Quadrangle, Arizona OF 83-0292
- maps*: Aeromagnetic map of the West Clear Creek Roadless Area, Coconino and Yavapai counties, Arizona MF-1555-B
- Geophysical map of the Strawberry Crater Roadless Areas, Coconino County, Arizona MF-1394-B
- Geophysical maps of the Dragoon Mountains Roadless Area, Cochise County, Arizona MF-1521-C
- Residual aeromagnetic map of the Hat Mountain Quadrangle, Arizona OF 83-0292
- remote sensing*: Arizona Vegetation Resource Inventory (AVRI) accuracy assessment OF 82-0814
- Landsat monitoring of albedo changes in northwestern Arizona, 1977-1980 OF 82-0014
- surveys*: Audio-magnetotelluric and telluric profile data near the Mohawk Mountains and the Table Top Mountains, southwestern Arizona OF 83-0238
- Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0703
- Geophysical map of the Strawberry Crater Roadless Areas, Coconino County, Arizona MF-1394-B
- Geophysical maps of the Dragoon Mountains Roadless Area, Cochise County, Arizona MF-1521-C
- Regional gravity and magnetic evidence for a tectonic weakness across southwestern Arizona OP- 633
- Slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0443
- well-logging*: Temperature logs of wells and test wells in Yuma area, Arizona and California OF 80-0335
- Arizona—hydrogeology**
- ground water*: Annual summary of ground-water conditions in Arizona; spring 1980 to spring 1981 OF 82-0368
- Annual summary of ground-water conditions in Arizona, spring 1981 to spring 1982 OF 82-1009
- Density of basin-fill deposits calculated from borehole gravity data in four basins in central and southern Arizona OP- 1241
- Geohydrology and effects of water use in the Black Mesa area, Navajo and Hopi Indian reservations, Arizona W 2201
- Use of a three-dimensional model for the analysis of the ground-water flow system in Parker Valley, Arizona and California OF 82-1006
- hydrology*: Floods of November 1978 to March 1979 in Arizona and west-central New Mexico OF 83-0201
- Streamflow losses and changes in ground-water levels along the Salt and Gila rivers near Phoenix, Arizona; February 1978 to June 1980 WRI 83-4043
- maps*: Map showing ground-water conditions in the Sacramento Valley area, Mohave County, Arizona; 1979 OF 81-0418
- Map showing ground-water conditions in the Tonto Basin area, Gila County, Arizona; 1978-79 OF 82-0116
- springs*: Analytical results for 328 water samples from the Silver City 1° by 2° Quadrangle, Arizona and New Mexico OF 83-0084
- Arizona; basic data for thermal springs and wells as recorded in Geotherm OF 83-0427
- thermal waters*: Arizona; basic data for thermal springs and wells as recorded in Geotherm OF 83-0427
- Arizona—petrology**
- igneous rocks*: Composition of Tertiary volcanic rocks, Mohave Mountains, Arizona OP- 960
- Compositional and chronologic variations in volcanic rocks across the Colorado Plateau margin in Arizona OP- 1246
- Origin of bimodal volcanism, southern Basin and Range Province, west-central Arizona OP- 1199
- volcanology*: Geology of the central and eastern parts of the Springerville-Show Low volcanic field, Arizona OP- 44
- Use of grain-shape regularity measurements in determining source area in secondary pyroclastic rocks, McLendon Volcano, Yavapai County, Arizona OF 83-0630
- Volcanic history of southwestern Mogollon-Datil volcanic field as recorded along the Morenci Lineament, New Mexico and Arizona OP- 1004
- Arizona—sedimentary petrology**
- clay mineralogy*: Clay mineralogy P 1173
- sedimentary rocks*: Aphanitic silica rock P 1173
- Conglomerates P 1173
- Evaporite deposits and magnesian carbonate rocks P 1173
- Insoluble residue patterns P 1173
- Petrography of the Supai Group and Pakoon Limestone P 1173
- Sandstones P 1173
- sedimentary structures*: Minor sedimentary features, contorted structures, and homogeneous sedimentary rocks P 1173
- sedimentation*: Environment of deposition of sandstone bodies P 1173
- Transgression and regression P 1173
- Arizona—seismology**
- earthquakes*: A discrimination analysis of short-period regional seismic data recorded at Tonto Forest Observatory OP- 845
- Arizona—stratigraphy**
- Carboniferous*: Carboniferous-Permian boundary in Southwestern United States OP- 313
- Cretaceous*: Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas OP- 811
- Tectonic models for Early Cretaceous rifting in southeastern Arizona OP- 318
- Jurassic*: Paleogeography of Middle Jurassic continental, shoreline and shallow marine sedimentation, southern Utah OP- 110
- Stratigraphic sections of subsurface Jurassic rocks in the San Juan Basin, New Mexico, Colorado, Utah, and Arizona OC-0118
- Miocene*: Volcanic stratigraphy of part of McLendon Volcano, Yavapai County, Arizona OP- 154
- Mississippian*: Pre-Supai buried valleys P 1173
- Paleozoic*: Distribution and age of fauna and flora P 1173
- Erosion surfaces P 1173
- Introduction P 1173
- Introductory summary P 1173
- Paleogeography P 1173

- Stratigraphy and lithology P 1173
- The Supai Group of Grand Canyon P 1173
- Pennsylvanian*: Biostratigraphy of the Watahomigi Formation P 1173
- Permian*: Carboniferous-Permian boundary in Southwestern United States OP- 313
- Precambrian*: Signal Granite (Precambrian), west-central Arizona B 1529-H
- Proterozoic*: Characteristics, depositional environment, and tectonic interpretations of the Proterozoic Cardenas Lavas, eastern Grand Canyon, Arizona OP- 712
- Triassic*: Aspects of the palynology of the Chinle Formation (Upper Triassic), Colorado Plateau, Arizona, Utah, and New Mexico OF 82-0937
- Arizona—structural geology**
 - fractures*: Strain history and failure conditions for earth fissures near Apache Junction, Arizona OP- 295
 - tectonics*: Characteristics, depositional environment, and tectonic interpretations of the Proterozoic Cardenas Lavas, eastern Grand Canyon, Arizona OP- 712
 - Complex Tertiary stratigraphy and structure, Mohave Mountains, Arizona; a preliminary report OP- 961
 - Detached crystalline rocks of the Mohave, Buck, and Bill Williams Mountains, western Arizona OP- 551
 - Late Jurassic tectonism on west side of Colorado Plateau, Utah and Arizona OP- 952
 - Mid-Tertiary stratigraphic record produced during regional detachment faulting and development of extensional arches and basins, southwest of the Colorado Plateau margin OP- 407
 - Origin of folds of Tertiary low-angle fault surfaces, southeastern California and western Arizona OP- 1165
 - Preliminary report on diking events in the Mohave Mountains, Arizona OP- 849
 - Regional gravity and magnetic evidence for a tectonic weakness across southwestern Arizona OP- 633
 - Tertiary extensional tectonics and associated volcanism in west-central Arizona OP- 924
 - The Mule Mountains Thrust in the Mule Mountains, California, and its probable extension in the southern Dome Rock Mountains, Arizona; a preliminary report OP- 1236
- Arizona—tectonophysics**
 - plate tectonics*: Tectonic models for Early Cretaceous rifting in southeastern Arizona OP- 318
- Arkansas—economic geology**
 - energy sources*: Geology and energy resources of the Arkoma Basin, Oklahoma and Arkansas OP- 466
 - lignite*: Preliminary report on near-surface lignite occurrences, Cleveland County, Arkansas OF 83-0053
 - Stratigraphic framework and distribution of lignite on Crowleys Ridge, Arkansas OF 83-0609
 - maps*: Map showing geology and mineral resource potential of the Little Blakely Roadless Area, Garland County, Arkansas MF-1562
 - Mineral resource potential and geologic map of the Bell Star East and West Roadless Areas, Sebastian and Scott counties, Arkansas MF-1579
 - Mineral resource potential and geologic map of the Black Fork Mountain Roadless Area, Polk County, Arkansas, and Le Flore County, Oklahoma MF-1599
- Mineral resource potential and geologic map of the Upper Buffalo Wilderness and the Buffalo Addition Roadless Areas, Newton County, Arkansas MF-1578
- Mineral resources potential map of the Richland Creek Roadless Area, Newton and Searcy counties, Arkansas MF-1525
- mineral resources*: Map showing geology and mineral resource potential of the Little Blakely Roadless Area, Garland County, Arkansas MF-1562
- Mineral resource potential and geologic map of the Bell Star East and West Roadless Areas, Sebastian and Scott counties, Arkansas MF-1579
- Mineral resource potential and geologic map of the Black Fork Mountain Roadless Area, Polk County, Arkansas, and Le Flore County, Oklahoma MF-1599
- Mineral resource potential and geologic map of the Upper Buffalo Wilderness and the Buffalo Addition Roadless Areas, Newton County, Arkansas MF-1578
- Mineral resources of the Caney Creek Wilderness, Polk County, Arkansas B 1551
- Mineral resources potential map of the Richland Creek Roadless Area, Newton and Searcy counties, Arkansas MF-1525
- water resources*: Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma OF 83-0046
- Use of water in Arkansas, 1980 OP- 540
- Arkansas—engineering geology**
 - earthquakes*: Actions to improve the state-of-earthquake-preparedness in Arkansas and Mississippi OF 83-0157
 - geologic hazards*: Actions to improve the state-of-earthquake-preparedness in Arkansas and Mississippi OF 83-0157
- Arkansas—environmental geology**
 - land use*: Land use and land cover and associated maps for Texas, Arkansas, Oklahoma OF 82-0806
 - Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
 - maps*: Land use and land cover and associated maps for Texas, Arkansas, Oklahoma OF 82-0806
 - Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
- Arkansas—geophysical surveys**
 - heat flow*: Heat flow in the upper Mississippi Embayment P 1236
- Arkansas—hydrogeology**
 - ground water*: Ground-water levels in Arkansas, spring 1982 OF 82-0852
 - Ground-water levels in Arkansas, spring 1983 OF 83-0268
 - hydrology*: Discharge data at water-quality monitoring stations in Arkansas, 1981 water year OF 83-0214
 - Reconnaissance of stormwater-runoff water quality of the Big Piney Creek segment of the Cedar-Piney Creeks watershed, Yell County, Arkansas OF 82-0761
 - Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma, 1980 water year OF 81-0208
 - Time of travel of selected Arkansas streams WRI 82-4048
 - Water-quality assessment of White River between Lake Sequoyah and Beaver Reservoir, Washington County, Arkansas WRI 82-4063
- Arkansas—mineralogy**
 - phosphates*: Vashegyite from Nevada and "palfevite" from Nevada (= richmondite) and Arkansas (= kingtonite) OP- 807
- Arkansas—sedimentary petrology**
 - sedimentary rocks*: Summary of the stratigraphy and sedimentology of the Paleozoic rocks, Ouachita Mountains, Arkansas OP- 1192
 - sedimentation*: Deep-water deposition of Ordovician strata in the Ouachita Mountains, Arkansas and Oklahoma OP- 1191
- Arkansas—seismology**
 - earthquakes*: The earthquakes of January 5, 1843, and October 31, 1895, in the central Mississippi Valley OP- 545
 - maps*: Seismicity map of the State of Arkansas MF-1154
- Arkansas—stratigraphy**
 - Cretaceous*: Magnetostratigraphy of Upper Cretaceous deposits in the northwestern Mississippi Embayment OP- 689
 - Stratigraphy and structure of Post-Paleozoic sediments above the Newport Pluton of northeastern Arkansas P 1236
 - Paleogene*: Stratigraphic framework and distribution of lignite on Crowleys Ridge, Arkansas OF 83-0609
 - Paleozoic*: Summary of the stratigraphy and sedimentology of the Paleozoic rocks, Ouachita Mountains, Arkansas OP- 1192
 - Tertiary*: Stratigraphy and structure of Post-Paleozoic sediments above the Newport Pluton of northeastern Arkansas P 1236
- Arkansas—structural geology**
 - tectonics*: Structural framework of the Ouachita Mountains, Arkansas OP- 467
 - Structural framework of the Ouachita Mountains, Arkansas OP- 468
- arsenic—geochemistry**
 - coal*: Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska OP- 5
 - stream sediments*: Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-K
 - trace elements*: Distribution and abundance of arsenic and bismuth in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and arsenic in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-K
- arsenic ores** *see also under economic geology under Arizona*
- Arthropoda—miscellaneous**
 - Paleozoic*: Preliminary report on the occurrence of Angustidontus in Nevada and Utah OF 83-0355
- artifacts** *see archaeology under stratigraphy under Afghanistan; Alaska; Israel*
- Asia** *see also Afghanistan; Arabian Peninsula; Bangladesh; China; Far East; Indonesia; Iran; Japan; Pakistan; Thailand*
- Asia—seismology**
 - earthquakes*: Intensity patterns in eastern Asia OP- 356
- Asia—tectonophysics**
 - plate tectonics*: The last 200 million years in eastern Asia; Yanshanian subduction and post-Yanshanian extension OP- 1219
- associations** *see also survey organizations*

associations—environmental geology

- Illinois Department of Conservation:* Illinois Department of Conservation OF 82-1001
Illinois Environmental Protection Agency: Illinois Environmental Protection Agency OF 82-1001

associations—hydrogeology

- Illinois Division of Water Resources:* Illinois Division of Water Resources OF 82-1001

associations—mineralogy

- Mineralogical Society of America:* Report of the Treasurer for 1979-1981 OP- 576

associations—stratigraphy

- Friends of the Pleistocene:* Guidebook for 1983 Friends of the Pleistocene field trip to the San-poil River valley, northeastern Washington OF 83-0456

Atlantic Coastal Plain—economic geology

- phosphate deposits:* Structural and sedimentary setting of phosphorite deposits in North Carolina and in northern Florida OP- 801

Atlantic Coastal Plain—engineering geology

- geologic hazards:* Studies related to the Charleston, South Carolina, earthquake of 1886; tectonics and seismicity P 1313

Atlantic Coastal Plain—environmental geology

- geologic hazards:* An oilspill risk analysis for the North Atlantic (February 1984) lease offering OF 83-0567
 — U. S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978 C 0870

Atlantic Coastal Plain—geochronology

- Pleistocene:* Absolute and relative dating of Atlantic Coastal Plain Pleistocene formations; evaluation of amino-acid epimerization age estimates OP- 763

Atlantic Coastal Plain—geomorphology

- fluvial features:* Geomorphic differences east and west of the Stafford fault system, northeastern Virginia OP- 757

Atlantic Coastal Plain—geophysical surveys

- seismic surveys:* Subsurface structure near Charleston, South Carolina; results of CO-CORP reflection profiling in the Atlantic Coastal Plain P 1313
surveys: Distribution of subsurface lower Mesozoic rocks in the Southeastern United States, as interpreted from regional aeromagnetic and gravity maps P 1313
well-logging: Coastal Plain faults affect groundwater flow OP- 362

Atlantic Coastal Plain—hydrogeology

- ground water:* Aqueous geochemistry and the exchangeable cation composition of glauconite in the Aquia Aquifer, Maryland OP- 221
 — Coastal Plain faults affect ground-water flow OP- 362
 — Digital model evaluation of the predevelopment flow system of the Tertiary limestone aquifer system, Southeast Georgia, Northeast Florida, and South South Carolina OF 82-0173
 — Field reports; Installation of shallow sand-packed piezometers in loose saturated sediment OP- 413
hydrology: Physical and chemical properties of the Potomac River and environs, April-May 1978 OF 80-0745
 — Physical and chemical properties of the Potomac River and environs, August-September 1977 OF 79-1635
 — Physical and chemical properties of the Potomac River and environs, August 1978 OF 80-0746

- Physical and chemical properties of the Potomac River and environs, January 1978 OF 80-0742
 — Submersed aquatic plants of the tidal Potomac River B 1543

Atlantic Coastal Plain—oceanography

- continental shelf:* An oilspill risk analysis for the North Atlantic (February 1984) lease offering OF 83-0567
 — The saltwater-freshwater interface in the Tertiary limestone aquifer, Southeast Atlantic outer-continental shelf of the U.S.A. OP- 587
continental slope: Geotechnical properties and slope stability analysis of surficial sediments on the Atlantic continental slope in two regions; Georges Bank and Baltimore Canyon OP- 130
ocean floors: Role of mass movement in the formation of submarine-canyon systems on the United States east coast continental slope OP- 129

Atlantic Coastal Plain—paleobotany

- palmomorphs:* Holcopollenites pollen "lineage" from the Upper Cretaceous series of the Atlantic and eastern Gulf Coastal Plain Province OP- 229
Plantae: Differences between middle Eocene plant communities of Southern California and those of the Atlantic and Gulf coastal plains OP- 399

Atlantic Coastal Plain—sedimentary petrology

- reefs:* Late Mesozoic carbonate banks and reefs along U. S. Atlantic margin OP- 454
sedimentary rocks: Mineral phases produced by weathering on surfaces of different ages from New Jersey to South Carolina; a comparison of rate and duration of weathering OP- 926
sedimentary structures: Evidence for massive slumping along the Potomac River, Virginia Coastal Plain OP- 991
sediments: Depositional framework and paleoenvironments of Miocene strata from North Carolina and Maryland OP- 424
weathering: Postdepositional alteration of surface and near-surface minerals in selected coastal plain formations of the Middle Atlantic States P 1067-F

Atlantic Coastal Plain—seismology

- earthquakes:* Could a Charleston-type earthquake occur elsewhere along the East Coast of North America? OP- 86

Atlantic Coastal Plain—soils

- surveys:* Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits OP- 739

Atlantic Coastal Plain—stratigraphy

- Cenozoic:* Biostratigraphic utility of the ostracode genus *Malzella* OP- 508
Cretaceous: Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maastrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province OP- 507
 — Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maastrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province OP- 506
Eocene: Biostratigraphically important species of *Pentadimium* Gerlich 1961 and a likely ancestor, *Hafniasphaera goodmanii* sp. nov., from the Eocene of the Atlantic and Gulf Coastal plains OP- 334
 — The Fishburne Formation (lower Eocene), a newly defined subsurface unit in the South Carolina coastal plain B 1537-C
Mesozoic: Distribution of subsurface lower Mesozoic rocks in the Southeastern United States, as

- interpreted from regional aeromagnetic and gravity maps P 1313

- Late Mesozoic carbonate banks and reefs along U. S. Atlantic margin OP- 454
Miocene: Structural and sedimentary setting of phosphorite deposits in North Carolina and in northern Florida OP- 801
Paleocene: Stratigraphy of Paleocene and Eocene units of the Eastern United States and its relationship to global sea-level curves OP- 425
Paleogene: Early Tertiary dinoflagellates in the Putneys Mill core, Virginia Coastal Plain, U.S.A. OP- 335
Pleistocene: Permafrost in the northeastern United States coastal plain OP- 907
 — The Cape Fear River; a late Quaternary drainage OP- 740
Pliocene: Calcareous nannofossil and planktic foraminiferal biostratigraphy of Pliocene and Pleistocene Atlantic Coastal Plain deposits OP- 179

Atlantic Coastal Plain—structural geology

- neotectonics:* Regenerated faults of small Cenozoic offset; probable earthquake sources in the Southeastern United States P 1313
tectonics: Mesozoic tectonics of the Southeastern United States coastal plain and continental margin P 1313

Atlantic Coastal Plain—tectonophysics

- crust:* The nature of the geophysical basement beneath the coastal plain of South Carolina and northeastern Georgia P 1028
plate tectonics: Mesozoic tectonics of the Southeastern United States coastal plain and continental margin P 1313

Atlantic Ocean *see also* Caribbean Sea; Gulf of Mexico**Atlantic Ocean—economic geology**

- fuel resources:* Seismic investigation of gas hydrate reflectors, Blake Outer Ridge area off Southeastern United States OP- 20
petroleum: An oilspill risk analysis for the North Atlantic (February 1984) lease offering OF 83-0567

Atlantic Ocean—engineering geology

- geologic hazards:* Geotechnical profiles for 31 sites on the mid-Atlantic upper continental slope OF 82-0841
 — Geotechnical studies in the Baltimore Canyon trough area OP- 1072
 — Potential geologic hazards and constraints for blocks in proposed North Atlantic OCS oil and gas lease sale 52 OF 82-0036
shorelines: Geological and ecological variations as factors in human use and development of coastal barriers OP- 431
slope stability: Geotechnical properties and slope stability analysis of surficial sediments on the Atlantic continental slope in two regions; Georges Bank and Baltimore Canyon OP- 130

Atlantic Ocean—environmental geology

- geologic hazards:* Summary of environmental geologic studies in the Mid-Atlantic outer continental shelf area; results of 1978-1979 field seasons OF 83-0353

Atlantic Ocean—geochemistry

- organic materials:* Origin of natural-gas hydrates in oceanic sediment OP- 660
sedimentary rocks: Origin and geochemistry of redox cycles of Jurassic to Eocene age, Cape Verde Basin (DSDP Site 367), continental margin of North-West Africa OP- 285
trace elements: Inorganic geochemistry of deep-sea black shales C 0822

Atlantic Ocean—geophysical surveys

acoustical surveys: Acoustic interpretation of Quaternary sedimentation and erosion on the channelled upper Laurentian Fan, Atlantic margin of Canada OP- 966

— Sand-wave movement on Little Georges Bank OF 83-0746

— Sidescan sonar depiction of slump features associated with diapirism on continental slope off southeastern United States OP- 213

magnetic surveys: Digital filtering of high sensitivity aeromagnetic data over the U.S. Atlantic continental margin and its application to regional tectonics OP- 85

— Structural elements of the U.S. Atlantic margin delineated by second vertical derivative of aeromagnetic data GP-0956

maps: Structural elements of the U.S. Atlantic margin delineated by second vertical derivative of aeromagnetic data GP-0956

seismic surveys: Basement structure indicated by seismic-refraction measurements offshore from South Carolina and adjacent areas P 1313

— Description of high-resolution seismic reflection data collected in Albemarle and Croatan sounds, North Carolina (cruise NE-82-1) OF 83-0513

— Description of high-resolution seismic reflection profile collected between the Chesapeake Bay, Virginia, and Cape Romain, South Carolina, September 26, to October 2, 1981 (cruise R/V Gyre, 81-G-14) OF 83-0514

— Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515

— Equipment OF 83-0023

— Geomorphic features of shelf-slope revealed by sidescan sonar images OP- 908

— High-resolution seismic reflection profiles collected August 4 to 28, 1979, between Cape Hatteras and Cape Fear, North Carolina, and off Georgia and northern Florida (cruise GS-7903-6) OF 83-0512

— Late Cretaceous depositional patterns of the Blake Plateau OP- 965

— Marine multichannel seismic-reflection evidence for Cenozoic faulting and deep crustal structure near Charleston, South Carolina P 1313

— Multichannel seismic measurements on the northern edge of the Bahaman-Cuban collision zone OF 83-0023

— Multichannel seismic measurements on the northern edge of the Bahaman-Cuban collision zone; discussion OF 83-0023

— Multichannel seismic measurements on the northern edge of the Bahaman-Cuban collision zone; introduction OF 83-0023

— Offscraping and underthrusting of sediment at the deformation front of the Barbados Ridge; Deep Sea Drilling Project Leg 78A OP- 828

— Preliminary interpretation of marine sparker reflection profiles offshore from Cape Ann, Massachusetts, to Hampton, New Hampshire OF 83-0460

— Quaternary geology of the Rhode Island inner shelf OP- 853

— Reflection seismic measurements OF 83-0023

— Seismic data processing OF 83-0023

— Seismic investigation of gas hydrate reflectors, Blake Outer Ridge area off Southeastern United States OP- 20

— Seismic-reflection data collected in the Baltimore Canyon and Cape Hatteras areas during 1982, Gyre cruise 82-G-10B OF 83-0396

— Seismic stratigraphy of the western Straits of Florida OP- 404

— Slumps and debris flows on the Laurentian Fan; fact and fiction OP- 967

— Stratigraphic reference section for Georges Bank Basin; depositional model for New England passive margin OP- 976

— The middle Tertiary origin of Albemarle Sound, North Carolina OP- 989

— The structure of Baltimore Canyon Trough OP- 455

surveys: Atlantic continental margin of the United States OP- 456

— Erosional channels on the shoreface of Nauset Beach, Cape Cod, Massachusetts OP- 852

— Gravity and magnetic measurements OF 83-0023

— High-resolution seismic profile and sidescan-sonar data collected during June 1980 offshore New Jersey, Whitefoot cruise 80-1 OF 83-0422

— Single-channel seismic-reflection data from the mid-Atlantic upper continental rise collected by R/V Gyre (cruise 82-G-10A) OF 83-0673

Atlantic Ocean—oceanography

continental shelf: Potential geologic hazards and constraints for blocks in proposed North Atlantic OCS oil and gas lease sale 52 OF 82-0036

— Sand-wave movement on Little Georges Bank OF 83-0746

— Summary of environmental geologic studies in the Mid-Atlantic outer continental shelf area; results of 1978-1979 field seasons OF 83-0353

continental slope: Acoustic interpretation of Quaternary sedimentation and erosion on the channelled upper Laurentian Fan, Atlantic margin of Canada OP- 966

— Basement structure indicated by seismic-refraction measurements offshore from South Carolina and adjacent areas P 1313

— Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515

— Geotechnical profiles for 31 sites on the mid-Atlantic upper continental slope OF 82-0841

— Mesozoic development and structure of the continental margin off South Carolina P 1313

— Single-channel seismic-reflection data from the mid-Atlantic upper continental rise collected by R/V Gyre (cruise 82-G-10A) OF 83-0673

— Slumps and debris flows on the Laurentian Fan; fact and fiction OP- 967

— Structural elements of the U.S. Atlantic margin delineated by second vertical derivative of aeromagnetic data GP-0956

— U. S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978 C 0870

maps: Gas hydrates on continental margins of the United States based on occurrence of bottom simulating reflectors on marine seismic records OF 83-0822

marine geology: Atlantic continental margin of the United States OP- 456

ocean circulation: Factors influencing sediment transport at shelf break OP- 598

— Radionuclide tracers for sediment in the upper Chesapeake Bay OP- 310

ocean floors: Structure and history of the Carolina Platform (Cape Fear Arch) OP- 990

— The structure of Baltimore Canyon Trough OP- 455

sedimentary rocks: Birdseyes, fenestrae, shrinkage pores, and oolites; a reevaluation OP- 1125

Atlantic Ocean—paleontology

Ostracoda: Bathyal ostracodes from the Florida-Hatteras Slope, the Straits of Florida, and Blake Plateau and their application to paleoceanography of continental margins OP- 270

Atlantic Ocean—sedimentary petrology

sedimentary rocks: Cretaceous black-shale deposition within an oxidized red clay, turbidite environment, southern Angola Basin, South Atlantic Ocean OP- 284

Atlantic Ocean—seismology

crust: Basement structure indicated by seismic-refraction measurements offshore from South Carolina and adjacent areas P 1313

Atlantic Ocean—stratigraphy

Cenozoic: The U.S. Atlantic continental margin; eustasy, paleoceanography and mineral deposits C 0822

Cretaceous: Late Cretaceous depositional patterns of the Blake Plateau OP- 965

Mesozoic: Foraminiferal, ostracod and calpionellid correlation across the Jurassic-Cretaceous boundary in the Northwest Atlantic (Georges Bank; East Newfoundland Basin) OP- 42

— Mesozoic development and structure of the continental margin off South Carolina P 1313

— Stratigraphic reference section for Georges Bank Basin; depositional model for New England passive margin OP- 976

— The U.S. Atlantic continental margin; eustasy, paleoceanography and mineral deposits C 0822

Miocene: Miocene paleo-oceanography and paleo-productivity OP- 603

Pleistocene: Late Pleistocene Eucampia antarctica abundance stratigraphy in the Atlantic sector of the Southern Ocean OP- 170

Quaternary: Atlantic continental margin Quaternary paleoenvironments OP- 96

Tertiary: Tertiary marine and nonmarine climatic trends OP- 1317

Atlantic Ocean—structural geology

tectonics: The structure and development of the Greenland-Scotland Ridge OP- 872

Atlantic Ocean—tectonophysics

crust: Deep crustal structure of Georges Bank Basin OP- 1207

— Digital filtering of high sensitivity aeromagnetic data over the U.S. Atlantic continental margin and its application to regional tectonics OP- 85

— Influence of the Greenland-Scotland Ridge on the geological history of the North Atlantic and Norwegian-Greenland sea areas OP- 867

plate tectonics: Multichannel seismic measurements on the northern edge of the Bahaman-Cuban collision zone OF 83-0023

— Multichannel seismic measurements on the northern edge of the Bahaman-Cuban collision zone; discussion OF 83-0023

— Multichannel seismic measurements on the northern edge of the Bahaman-Cuban collision zone; introduction OF 83-0023

— Offscraping and underthrusting of sediment at the deformation front of the Barbados Ridge; Deep Sea Drilling Project Leg 78A OP- 828

Atlantic Ocean Islands *see also* Azores; Faeroe Islands; Iceland

Atlantic Ocean Islands—engineering geology
soil mechanics: Bulk density and shear strength of several deep-sea calcareous sediments
 OP- 675

Atlantic region *see also* the individual countries

atmosphere—composition
changes: Volcanic cloud may alter Earth's climate
 OP- 1229

atmosphere—geochemistry
carbon dioxide: Carbon dioxide, geochemical modeling, and paleoenvironmental reconstructions
 C 0822

atmosphere—observations
gases: Gas emissions and the eruptions of Mount St. Helens through 1982
 OP- 211

atolls *see* reefs *under* dolomitization *under* diagenesis; *see* reefs *under* environment *under* sedimentation; *see* reefs *under* oceanography *under* Belize; Gulf of Mexico; *see* reefs *under* sedimentary petrology *under* Atlantic Coastal Plain; Southern U.S.

Australasia *see also* Papua New Guinea

Australia *see also* Northern Territory

Australia—engineering geology
rock mechanics: Experience with hydraulic fracturing as a means of estimating in-situ stress in Australian coal basin sediments
 OF 82-1075

automatic data processing—economic geology
coal: Application of computer graphics to coal geology and coal-resource-assessment studies, Canyon coal bed, Birney 1° sheet, Montana
 OP- 787
 — Coal resources of the Cache Bed, Recluse geologic model area, Campbell County, Wyoming
 OP- 1093
 — GARNETAB; a computer program to create an absentee file for executing GARNET (graphic analysis of resources using numeric evaluation techniques)
 OF 83-0617
 — Geostatistical analysis of a 113-billion-ton coal deposit, central part of the Powder River basin, northwestern Wyoming
 OP- 959
 — Novice's Guide to PACER-GARNET for use with the National Coal Resources Data System; a flow chart
 OF 83-0605

copper ores: Digital data base application to porphyry copper mineralization in Alaska; a case study
 OP- 921

fuel resources: Atlas of discovery rate profiles showing oil and gas discovery rates by geological province in the United States
 OF 83-0075

geothermal energy: Hawaii; basic data for thermal springs and wells as recorded in GEOTHERM
 OF 83-0430
 — Montana; basic data for thermal springs and wells as recorded in GEOTHERM
 OF 83-0432
 — New Mexico; basic data for thermal springs and wells as recorded in GEOTHERM
 OF 83-0434
 — Washington State; basic data for thermal springs and wells as recorded in GEOTHERM
 OF 83-0438
 — Wyoming; basic data for thermal springs and wells as recorded in GEOTHERM
 OF 83-0439

mineral exploration: Estimation of the geochemical threshold and its statistical significance
 OP- 794
 — Operation manual for the muPROSPECTOR consultant system
 OF 83-0804
 — Statistical tables, sample locality maps, and an explanation of data sets for samples from the Selway-Bitterroot Wilderness, Idaho County,

Idaho, and Missoula and Ravalli counties, Montana
 OF 83-0054

mineral resources: The MIRA (mineral resource analysis) system users manual; a microcomputer-based geochemical data analysis system
 OF 83-0424

natural gas: Eastern Gas Shales Project (EGSP) data system; useful exploration and research tool
 OP- 314
 — The Eastern Gas Shales Project (EGSP) Data System; a case study in data base design, development, and application
 OP- 327

phosphate deposits: The international phosphate resource data base; development and maintenance
 OF 83-0490

water resources: A national water-use information program
 OF 82-0862
 — Data for water resource management in Minnesota
 OP- 548
 — Management of the Lawrence Swamp Aquifer, Amherst, Massachusetts
 OP- 949
 — WATSTORE user's guide; Volume 7, Water-use file; Chapter II, National aggregated data base
 OF 80-1220-B
 — WATSTORE user's guide; Volume 7, Water-use file; Chapter V, Codes used in water-use file
 OF 80-1220-E

automatic data processing—engineering geology
earthquakes: AGRAM; a series of computer programs for processing digitized strong-motion accelerograms (version 1.0)
 OF 83-0276
 — Data-processing procedures for main-shock motions recorded by the California Division of Mines and Geology strong-motion network
 P 1254
 — Digitization and processing of main-shock ground-motion data from the U. S. Geological Survey accelerograph network
 P 1254
 — Fifty years of the United States strong-motion program
 OP- 733
 — On the status of in-situ strong ground motion and structural response investigations
 OP- 1053
 — Processed accelerograms from Coyote Dam, California, March 25, 1978
 OF 83-0166
 — Synthetic accelerograms for testing processing procedures
 OP- 140

photogrammetry: Computer-supported photogrammetry applied to measurements of shore erosion in the tidal Potomac River and estuary, Maryland and Virginia
 OP- 796

soil mechanics: A microcomputer-based data acquisition and control system for the direct shear, ring shear, triaxial shear, and consolidation tests
 OF 83-0491

waste disposal: Computerized information-retrieval systems
 OP- 1309

automatic data processing—environmental geology
conservation: Land cover and terrain mapping for the development of digital data bases for wildlife habitat assessment in the Yukon Flats National Wildlife Refuge, Alaska
 C 0911

automatic data processing—general
catalogs: Identification codes for organizations listed in computerized data systems of the U. S. Geological Survey
 OF 82-0921

computer programs: SANBA; a rapid, combined data acquisition and correction program for the SEMQ electron microprobe
 OF 83-0817
 — Modifications of the IBM personal computer synchronous communications support programs for use with the Multics
 OF 83-0492

data handling: A U. S. Geological Survey data standard; specifications for representation of geographic point locations for information interchange
 C 0878-B

Fourier analysis: Fourier cosine and sine transforms using lagged convolutions in double-precision (subprograms DLAGF0/DLAGF1)
 OF 83-0320

international cooperation: World geoscience literature and translation
 OP- 246

manuals: Multics STATPAC user handbook; Part 1, A guide with examples for editing and correcting a STATPAC dataset
 OF 83-0667
 — Multics STATPAC user handbook; Part 2, A guide with examples to basic statistical programs and more advanced generation operation
 OF 83-0737

mathematical geology: Introduction to the special issue on geostatistics, geomathematics, and computer applications
 OP- 760

automatic data processing—geochemistry
igneous rocks: GRANNY, a data bank of chemical analyses of Laramide and younger high-silica rhyolites and granites from Colorado and north-central New Mexico
 OF 83-0516

ion exchange: Three Fortran programs for finite-difference solutions to binary diffusion in one and two phases with composition- and time-dependent diffusion coefficients
 OP- 1071

automatic data processing—geochronology
paleomagnetism: A statistical comparator of two independent records of a sequence of geological events
 OP- 108

automatic data processing—geomorphology
impact features: Two methods for determining volumes for explosion and impact craters
 OP- 1252

automatic data processing—geophysical methods
electrical methods: Basic program "IPFLTR" for induced polarization data reduction and filtering
 OF 83-0485
 — Hewlett Packard 9845A computer program to invert complex resistivity data
 OF 83-0198

electromagnetic methods: Desktop computer processing of coincident and central loop time domain electromagnetic data
 OF 83-0240
 — SIROTEM II IEEE 488-1978 interface and controlling software
 OF 83-0249

gravity methods: BASIC programs to calculate gravity and magnetic anomalies for 2 1/2-dimensional prismatic bodies
 OF 83-0154
 — GRAVPOLY; a modification of a three-dimensional gravity modelling program
 OF 83-0346

magnetic methods: MAGPOLY; a modification of a three-dimensional magnetic modeling program
 OF 83-0345
 — Signal processing and data analysis for SQUID-based geophysical measurement systems
 OP- 1178

methods: FFTFIL; a filtering program based on two-dimensional Fourier analysis of geophysical data
 OF 83-0237
 — Hypermag; an interactive, two-dimensional gravity and magnetic modeling program
 OF 83-0241

remote sensing: Regional thermal-inertia mapping from an experimental satellite
 OP- 1276

seismic methods: A comprehensive system for interpreting seismic-refraction arrival-time data using interactive computer methods
 OF 82-1065
 — Computer processing of vertical seismic profile data
 OP- 677
 — Computer program modifications of Open-file report 82-1065; a comprehensive system for interpreting seismic-refraction and arrival-time data using interactive computer methods
 OF 83-0604
 — Equipment
 OF 83-0023

- well-logging*: Automatic interpretation of Schlumberger sounding curves, using modified Dar Zarrouk functions B 1313-E
- automatic data processing—geophysical surveys**
- electromagnetic surveys*: Inversion results of time-domain electromagnetic soundings near Medicine Lake, California, geothermal area OF 83-0233
- gravity surveys*: Underwater gravity meter survey of San Francisco and San Pablo bays, California, 1982 OF 83-0906
- remote sensing*: A strategy for mineral and energy resource independence; the North American Plate Mosaic Project OP- 207
- Computer enhancement as an aid to interpretation of geologic features on Viking imagery; a preliminary progress report OP- 71
- Digital data base application to porphyry copper mineralization in Alaska; case study summary OF 82-0801
- Integration of geologic, geochemical, and geophysical data of the Cement oil field, Oklahoma, using spatial array processing OP- 341
- Rapid estimate of Martian topography from Viking Orbiter image photometry OP- 281
- Special purpose Mars mapping OP- 77
- Vegetation and land cover, Arctic National Wildlife Refuge, coastal plain, Alaska I-1443
- seismic surveys*: Description of magnetic tapes of digital sonobuoy-refraction data obtained over Norton Basin, Alaska OF 83-0178
- Seismic data processing OF 83-0023
- surveys*: Analog records from an airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan OF 82-0060-B
- automatic data processing—hydrogeology**
- ground water*: A digital-computer model of the Big Sioux Aquifer in Minnehaha County, South Dakota WRI 82-4064
- A three-dimensional ground-water-flow model modified to reduce computer-memory requirements and better simulate confining-bed and aquifer pinchouts WRI 82-4023
- Computer simulation model of the Pleistocene valley-fill aquifer in southwestern Essex and southeastern Morris counties, New Jersey WRI 83-4028
- Computer simulation of the steady-state flow system of the Tertiary limestone (Floridan) aquifer system in east-central Florida OF 81-0681
- Digital model evaluation of the predevelopment flow system of the Tertiary limestone aquifer system, Southeast Georgia, Northeast Florida, and South South Carolina OF 82-0173
- Digital model of the Bates Creek alluvial aquifer near Casper, Wyoming WRI 82-4068
- Digital models of ground-water flow in the Cape Cod aquifer system, Massachusetts OF 80-0067
- Evaluation of the response of the Big Sioux Aquifer to extreme drought conditions in Minnehaha County, South Dakota WRI 83-4234
- Evaluation of water-quality characteristics of part of the Spokane Aquifer, Washington and Idaho, using a solute-transport digital model OF 82-0769
- Fortran computer programs to plot and process aquifer pressure and temperature data WRI 83-4051
- Front-tracking model for convective transport in flowing ground water WRI 83-4034
- Ground-water monitoring in three small surface-mined watersheds of eastern Ohio OP- 1007
- Ground-water pumpage in Nassau County, Long Island, New York, 1920-77; Introduction and user's guide to the data compilation OF 81-0499
- Hydrology of the Ferron Sandstone aquifer and effects of proposed surface-coal mining in Castle Valley, Utah W 2195
- Hydrology of the Jasper Aquifer in the Southeast Texas coastal plain OF 83-0677
- Instructions for using the U. S. Geological Survey data base of wells on Long Island, New York OF 82-0568
- Machine-readable data files from the Madison Limestone and Northern Great Plains regional aquifer system analysis projects, Montana, Nebraska, North Dakota, South Dakota, and Wyoming WRI 82-4107
- Source and rate of recharge to an artesian aquifer based on geochemical evidence OP- 684
- Subsurface storage of freshwater in South Florida; a digital analysis of recoverability OF 83-0536
- hydrology*: Computation of continuous records of streamflow TWI 03-A13
- Definitions of components of the Water Data Sources Directory maintained by the National Water Data Exchange OF 82-0923
- Digital simulation models and the role of the Water Resources Division in documenting, verifying, and distributing them OF 83-0126
- Directory of assistance centers of the National Water Data Exchange (NAWDEX) OF 82-0925
- Directory of assistance centers of the National Water Data Exchange (NAWDEX) OF 83-0262
- Directory of member organizations of the National Water Data Exchange OF 82-0902
- Distributed processing; promises and possible pitfalls OF 83-0126
- Geohydrology and model analysis of the stream-aquifer system along the Arkansas River in Kearny and Finney counties, southwestern Kansas OF 83-0222
- Instructions for the submission of data to the Master Water Data Index OF 83-0049
- Microcomputer computation of water quality discharges OF 82-0901
- Nonparametric tests for trends in water quality data using the statistical analysis system OF 83-0550
- Quadratic spline subroutine package PB-83 155 614
- Revised description of index of Florida water data collection active stations and a user's guide for station or site information retrieval computer program FINDEX H578 OF 83-0037
- Role of computers in WRD programs in the 1980's OF 83-0126
- The use of minicomputers in a distributed information processing system; feasibility study OF 80-0326
- Urban stormwater data management system OP- 316
- thermal waters*: Alaska; basic data for thermal springs and wells as recorded in Geotherm OF 83-0426
- Arizona; basic data for thermal springs and wells as recorded in Geotherm OF 83-0427
- California; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0428-A
- California; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0428-B
- Central and Eastern United States; basic data for thermal springs and wells as recorded in Geotherm OF 83-0440
- Colorado; basic data for thermal springs and wells as recorded in Geotherm OF 83-0429
- Geotherm data tape giving geochemistry of geothermal springs, wells in the United States p. 63
- Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0431-A
- Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0431-B
- Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0433-A
- Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0433-B
- Oregon; basic data for thermal springs and wells as recorded in Geotherm OF 83-0435
- Texas; basic data for thermal springs and wells as recorded in Geotherm OF 83-0436
- Utah; basic data for thermal springs and wells as recorded in Geotherm OF 83-0437
- automatic data processing—maps**
- automatic cartography*: A hybrid structure for the storage and manipulation of very large spatial data sets OF 82-0816
- A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping OF 83-0352
- Computer-generated mineral commodity deposit maps OF 83-0410
- Digital cartography C 0902-A-P
- Digital line graphs from 1:2,000,000-scale maps C 0895-D
- Geographic Names Information System C 0895-F
- Land use and land cover digital data C 0895-E
- NCIC; a service to the geologic community OP- 609
- Overview and USGS activities C 0895-A
- Transformation of mapped data to grid systems with applications to earthquake data OF 83-0248
- Use of Apple II in mapping geology of coastal plain of NPR Alaska OP- 940
- Use of microcomputer in mapping depth of stratigraphic horizons in National Petroleum Reserve in Alaska OF 82-1054
- User's manual for RASSMP OF 82-0623
- User's manual for STATMAP OF 82-0622
- User's manual for ZMP OF 82-0621
- WELLMAP, a Fortran computer program for the generation of maps of specified geographic areas with a variety of well symbols available to depict the current status of given oil and gas drilling OF 83-0155
- automatic data processing—methods**
- digital simulation*: An overview of the geological applications of digital data bases OP- 81
- Application and management of digital data collection in the geosciences OP- 1272
- automatic data processing—mineralogy**
- crystal chemistry*: RDARL4, a Fortran interface for transferring chemical analytical data from an Applied Research Laboratories electron microprobe to a PDP-11 computing system OF 83-0713

automatic data processing—oceanography

continental shelf: Ice gouge data sets from the Alaskan Beaufort Sea; magnetic tape and documentation for computer assisted analyses and correlation OF 83-0706

instruments: Working notes on current-meter deployment, recovery, maintenance, and data processing for San Francisco Bay OF 80-1297

nodules: Analysis of the world distribution of metal-rich subsea manganese nodules C 0886

automatic data processing—petrology

metamorphic rocks: BASIC programs for calculation of cation site occupancies and plotting of mineral data with applications for evaluation of metamorphic mineral assemblages OF 83-0905

automatic data processing—sedimentary petrology

sedimentary rocks: Automated lithologic interpretation from geophysical well logs in a coal depositional environment, Carbon County, Wyoming OP- 279

automatic data processing—seismology

crust: A crustal structure study of the Mississippi Embayment P 1236

earthquakes: A computer program from projecting and plotting stereograms OF 82-0726

— A microprocessor based low-power data acquisition system OP- 18

— Analog strong motion data and processed main event records obtained by U. S. Geological Survey near Coalinga, California OF 83-0511 83-0511

— Applications of digital processing technology to the study of local earthquakes in California OP- 342

— CUSP; automated processing and management for large, regional seismic networks OP- 580

— Determination of seismic source parameters from the inversion of waveform data OP- 1142

— Digital strong-motion data recorded by U. S. Geological Survey near Coalinga, California OF 83-0511 83-0511

— Global digital networks; current status and future directions OP- 346

— Long Valley Caldera earthquake swarm; January 7, 1983 OP- 971

— Operator's manual for a four-film computer-based, sonic digitizing table to locate earthquakes OF 83-0319

— Realtime monitoring of the Mammoth Lakes, California earthquake swarm with automatic processing equipment OP- 14

— User's guide to QPLOT, an interactive computer plotting program for earthquake and geophysical data OF 83-0621

— 1981 Annual index of current earthquake literature OF 82-0316

instruments: HP-85 computer programs for reading Sprengnether DR-100 seismograph cassettes with DP-100 playback system OF 83-0521

methods: Automatic phase pickers; their present use and future prospects OP- 15

microearthquakes: Source parameters of microearthquakes near San Juan Bautista, California OP- 780

observatories: Test and calibration of the digital world-wide standardized seismograph OF 82-1087

seismicity: A teleseism-specific, digital detect algorithm for isolated, triggered seismographs OP- 351

— Yet another method for the calculation of complete theoretical seismograms in a vertically varying medium OP- 41

automatic data processing—stratigraphy

biostratigraphy: Numerical and semi-objective biostratigraphy, review and prediction OP- 333

Azores—economic geology

geothermal energy: Preliminary report on audio-magnetotelluric survey on Sao Miguel Island, Azores, Portugal OF 83-0441

Azores—geophysical surveys

magnetotelluric surveys: Preliminary report on audio-magnetotelluric survey on Sao Miguel Island, Azores, Portugal OF 83-0441

Azores—petrology

maps: Preliminary geologic map of Furnas Volcano, Sao Miguel, Azores OF 83-0395

B**bacteria—ecology**

estuarine environment: The impact of waste-water discharge on biological communities in San Francisco Bay OP- 717

Bahamas—sedimentary petrology

sedimentary rocks: Birdseyes, fenestrae, shrinkage pores, and loferites; a reevaluation OP- 1125

Baltic region *see also* the individual countries

Bangladesh—economic geology

energy sources: Geologic assessment of the fossil energy potential of Bangladesh OF 83-0280

barite deposits *see also* under economic geology under Eastern U.S.; Mexico

barium—geochemistry

stream sediments: Distribution and abundance of barium, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-I

— Distribution and abundance of barium, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-H

basalts *see* under igneous rocks

base metals *see also* under economic geology under Alaska

base metals—genesis

classification: Comparative anatomy of epithermal precious- and base-metal districts hosted by volcanic rocks OF 83-0710

base metals—geochemistry

fluid inclusions: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450

base metals—inventory

global: Geologic and grade-tonnage information on volcanic-hosted copper-zinc-lead massive sulfide deposits OF 83-0089

Basin and Range Province—economic geology

bibliography: Map showing coal deposits, oil and gas wells and seeps, and tar sandstone occurrences in the Basin and Range Provinces OF 83-0549

energy sources: Map showing coal deposits, oil and gas wells and seeps, and tar sandstone occurrences in the Basin and Range Provinces OF 83-0549

maps: Map showing coal deposits, oil and gas wells and seeps, and tar sandstone occurrences in the Basin and Range Provinces OF 83-0549

— Preliminary map of the mineralized areas in the Basin and Range area of Nevada OF 82-1100

— Preliminary map of the mineralized areas in the Basin and Range area of Nevada OF 82-1100

— Preliminary map of the mining districts in the Basin and Range area of California OF 83-0095

— Preliminary map of the resource areas in the Basin and Range Province of California OF 83-0719

— Preliminary map of the resource areas in the Basin and Range Province of Idaho OF 83-0720

— Preliminary map of the resource areas in the Basin and Range Province of Nevada OF 83-0721

— Preliminary map of the resource areas in the Basin and Range Province of Utah OF 83-0722

mineral resources: Mineral resource areas of the Basin and Range Province of New Mexico OF 83-0665

— Mineral resource areas of the Basin and Range Province of Texas OF 83-0709

— Preliminary map of the mining districts in the Basin and Range area of California OF 83-0095

— Preliminary map of the resource areas in the Basin and Range Province of California OF 83-0719

— Preliminary map of the resource areas in the Basin and Range Province of Idaho OF 83-0720

— Preliminary map of the resource areas in the Basin and Range Province of Nevada OF 83-0721

— Preliminary map of the resource areas in the Basin and Range Province of Utah OF 83-0722

Basin and Range Province—engineering geology

earthquakes: Seismic energy release and hazard estimation in the Basin and Range Province OF 83-0358

geologic hazards: Seismic energy release and hazard estimation in the Basin and Range Province OF 83-0358

maps: Seismic energy release and hazard estimation in the Basin and Range Province OF 83-0358

waste disposal: Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part II, Geologic and hydrologic characterization OF 83-0699

— Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part III, Geologic and hydrologic evaluation OF 83-0756

— Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part I, Introduction and guidelines OF 83-0759

Basin and Range Province—geophysical surveys

seismic surveys: Subsurface geometry of normal faults in the northern Basin and Range Province inferred from seismic reflection data OP- 21

Basin and Range Province—petrology

igneous rocks: Origin of bimodal volcanism, southern Basin and Range Province, west-central Arizona OP- 1199

Basin and Range Province—sedimentary petrology

sedimentation: Depositional provinces of Paleozoic and uppermost Precambrian rocks in Great Basin, Western United States OP- 1186

- Late Triassic cyclic deposition on the Colorado Plateau and its regional implications
OP- 718
- Basin and Range Province—seismology**
earthquakes: An earthquake catalog for the Basin and Range Province, 1803-1977
OF 83-0086
maps: An earthquake catalog for the Basin and Range Province, 1803-1977
OF 83-0086
- Basin and Range Province—stratigraphy**
Pleistocene: Selected geologic and hydrologic characteristics of the Basin and Range Province, Western United States; Pleistocene lakes and marshes
OF 83-0751
- Basin and Range Province—structural geology**
faults: Subsurface geometry of normal faults in the northern Basin and Range Province inferred from seismic reflection data
OP- 21
neotectonics: Lake Bonneville; selected features of relevance to neotectonic analysis
OF 82-1070
- batoliths** *see under* intrusions
- bauxite** *see also under* economic geology *under* Georgia
- bauxite—mineral exploration**
methods: Exploration methods for laterite-type bauxite and nickel laterite
OP- 939
- beaches** *see under* shorelines; *see under* shore features *under* geomorphology
- Belize—oceanography**
reefs: Foundations of Quaternary reefs in south-central Belize Lagoon, Central America
OP- 223
- Bering Sea—economic geology**
fuel resources: Geological and operational summary, Norton Sound COST No. 1 well, Norton Sound, Alaska
OF 83-0124
— Geological and operational summary, Norton Sound COST No. 2 well, Norton Sound, Alaska
OF 83-0557
— Supplement resource report for OCS lease sale No. 83, Navarin Basin, Alaska
OF 83-0707
natural gas: Geophysical survey of Anadyr and Navarin basins, northern Bering Sea
OP- 742
petroleum: Geochemical prospecting for hydrocarbons in Navarin Basin province
OP- 1253
— Geophysical survey of Anadyr and Navarin basins, northern Bering Sea
OP- 742
- Bering Sea—engineering geology**
geologic hazards: Map of potential geologic hazards on the north Aleutian Shelf (lease sale 92), Bering Sea
OF 83-0247
maps: Map of potential geologic hazards on the north Aleutian Shelf (lease sale 92), Bering Sea
OF 83-0247
- Bering Sea—environmental geology**
geologic hazards: Environmental considerations
OF 83-0124
— Environmental considerations
OF 83-0557
pollution: An oilspill risk analysis for the Navarin Basin lease offering (March 1984), Alaska
OF 83-0120
- Bering Sea—geochemistry**
organic materials: Geochemistry; Norton COST well 1
OF 83-0124
— Geochemistry; Norton Sound COST well No. 2
OF 83-0557
- Bering Sea—geophysical surveys**
maps: High-resolution seismic reflection profiles, trackline and sample location map, and digitized bathymetric data; Navarin Basin province, northern Bering Sea
OF 83-0618
— Two newly discovered submarine canyons on the Alaskan continental margin of Bering Sea
OF 83-0024
- seismic surveys:* Description of magnetic tapes of digital sonobuoy-refraction data obtained over Norton Basin, Alaska
OF 83-0178
— High-resolution seismic reflection profiles, trackline and sample location map, and digitized bathymetric data; Navarin Basin province, northern Bering Sea
OF 83-0618
— Morphology, sedimentology, and genesis of three large submarine canyons adjacent to Navarin Basin, Bering Sea
OP- 197
— Multichannel seismic-reflection profiles collected in 1980 in the northern Bering Sea
OF 82-1090
— Preliminary results of geophysical and geological studies of the Bering Sea shelf during 1982
OF 83-0322
— Seismic reflection correlation and velocity analysis
OF 83-0124
— Seismic reflection correlation and velocity analysis
OF 83-0557
— Tectonic evolution of Gulf of Anadyr and formation of Anadyr and Navarin basins
OP- 743
— Two newly discovered submarine canyons on the Alaskan continental margin of Bering Sea
OF 83-0024
- surveys:* Cruise results L7-80-BS, northern Bering Sea; geophysical investigations
OF 83-0376
— Digital gravity and magnetic data collected in 1980 in the northern Bering Sea
OF 83-0519
- well-logging:* Lithology and geophysical log interpretation
OF 83-0124
— Lithology and geophysical log interpretation
OF 83-0557
— Operational summary
OF 83-0124
— Operational summary
OF 83-0557
— Shallow geologic setting, Norton Sound COST No. 1 well
OF 83-0124
— Shallow geologic setting, Norton Sound COST No. 2 well
OF 83-0557
- Bering Sea—oceanography**
continental shelf: Map of potential geologic hazards on the north Aleutian Shelf (lease sale 92), Bering Sea
OF 83-0247
maps: Map of potential geologic hazards on the north Aleutian Shelf (lease sale 92), Bering Sea
OF 83-0247
marine geology: Geology of Norton Basin, northern Bering Sea
OP- 373
ocean floors: Morphology, sedimentology, and genesis of three large submarine canyons adjacent to Navarin Basin, Bering Sea
OP- 197
— Sedimentologic processes in world's largest submarine canyons, Bering Sea, Alaska
OP- 198
ocean waves: Measurements of debris-line elevations and beach profiles following a major storm; northern Bering Sea coast of Alaska
OF 83-0394
sedimentation: Assessment of gray whale feeding grounds and sea floor interaction in the northeastern Bering Sea
OF 83-0727
- Bering Sea—sedimentary petrology**
sedimentary rocks: A description of dredge samples collected in 1982 from the Bering Sea continental margin west of Navarin Basin
OF 83-0325
- Bering Sea—seismology**
crust: Preliminary results of geophysical and geological studies of the Bering Sea shelf during 1982
OF 83-0322
- Bering Sea—stratigraphy**
Cenozoic: Paleontology and biostratigraphy
OF 83-0124
— Paleontology and biostratigraphy
OF 83-0557
- changes of level:* Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia
C 0911
- Quaternary:* Micropaleontologic analysis of Navarin Basin, Bering Sea, Alaska
OP- 998
- Bering Sea—structural geology**
tectonics: Geology of Norton Basin, northern Bering Sea
OP- 373
- Bering Sea—tectonophysics**
plate tectonics: Tectonic evolution of Gulf of Anadyr and formation of Anadyr and Navarin basins
OP- 743
— Wandering terranes in southern Alaska; the Aleutia microplate and implications for the Bering Sea
OP- 741
- beryllium—geochemistry**
coal: Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska
OP- 5
- bibliography** *see also under* areal geology *under* Alaska; Arizona; Colorado Plateau; New Mexico; Utah; Washington; *see also under* economic geology *under* Alaska; Antarctica; Basin and Range Province; Montana; North America; Utah; *see also under* engineering geology *under* California; Nevada; New Mexico; United States; *see also under* environmental geology *under* Florida; *see also under* hydrogeology *under* Alabama; Utah; *see also under* soils *under* North America; *see also under* stratigraphy *under* Alaska; Saudi Arabia
- bibliography—economic geology**
metal ores: Metallogenesis
OP- 66
mineral resources: Bibliography on the world's subsea mineral resources and related geological and geophysical studies (1960-1972)
OF 83-0153
molybdenum ores: A bibliography of stockwork molybdenite deposits and related topics (with an emphasis on the North American literature)
OF 83-0382
- bibliography—engineering geology**
geologic hazards: Strong-motion seismology
OP- 126
- bibliography—extraterrestrial geology**
planetology: The geology of the terrestrial planets
OP- 201
- bibliography—general**
Hendricks, Sterling Brown: Memorial to Sterling Brown Hendricks, 1902-1981
OP- 377
Huddle, John Warfield: Memorial to John Warfield Huddle, 1907-1975
OP- 1297
Russell, Israel Cook: I. C. Russell; frontiersman of science
OP- 1000
Schwartz, George Melvin: Memorial to George Melvin Schwartz, 1892-1980
OP- 1140
- bibliography—geophysical methods**
remote sensing: Objectives, accomplishments, and future plans of IGCP Project 143, Remote sensing and mineral exploration
OP- 209
- bibliography—hydrogeology**
thermal waters: Thermal springs of the United States and other countries of the world; a summary
P 0492
- bibliography—mineralogy**
miscellaneous minerals: The Ford-Fleischer file of mineralogical references, 1981-1982 inclusive
OF 83-0615
- bibliography—petrology**
volcanology: Volcanology
OP- 1204
- bibliography—seismology**
earthquakes: 1981 Annual index of current earthquake literature
OF 82-0316
- bibliography—soils**
laterites: Selected bibliography on laterites of N. America
OP- 938

- bibliography—tectonophysics**
crust: Rheology of the lithosphere OP- 625
- biogeography** *see also under stratigraphy under Alaska; Pacific Ocean*
- biogeography—Coelenterata**
Ordovician: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N
- biogeography—Conodonts**
Ordovician: Rossodus manitouensis (Conodonts), a new Early Ordovician index fossil OP- 1020
- biogeography—mammals**
Miocene: Mastritherium (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin OF 83-0488
- biogeography—Miocene**
global: Paleocceanographic implications of Miocene deep-sea hiatuses OP- 604
- biogeography—Mollusca**
Jurassic: Preliminary interpretations of the Jurassic paleobiogeography of North America OP- 563
Pleistocene: Historical evolution and application of the Pleistocene province concept along the eastern Pacific margin of North America OP- 610
- biogeography—ostracods**
Cenozoic: The ostracode tribe Campylocytherini in Cenozoic marine deposits of North America OP- 272
- biogeography—palynomorphs**
Eocene: Botanical, paleoecologic, paleobiogeographic, and paleoclimatic significance of the Eocene pollen species "Diporites" iszkaszentgyorgyi Kedves 1965 OP- 403
Tertiary: Stratigraphic, paleoclimatic, and paleobiogeographic significance of Tertiary sporomorphs from Massachusetts OP- 398
- biogeography—Phanerozoic**
Arctic Ocean: Paleogeographic affinities and endemism of Cretaceous and Paleocene marine faunas in the Arctic C 0911
- biogeography—Quaternary**
Alaska: Quaternary geology of Alaska P 0835
- biogeography—radiolarians**
Cenozoic: Cenozoic radiolarian paleogeography of eastern Pacific OP- 114
- biography—general**
Hendricks, Sterling Brown: Memorial to Sterling Brown Hendricks, 1902-1981 OP- 377
Huddle, John Warfield: Memorial to John Warfield Huddle, 1907-1975 OP- 1297
King, Clarence: The role of Clarence King in the advancement of geology in the public service, 1867-1881 OP- 857
Langbein, Walter B.: Walter B. Langbein; 1907-1982 OP- 747
Russell, Israel Cook: I. C. Russell; frontiersman of science OP- 1000
Schwartz, George Melvin: Memorial to George Melvin Schwartz, 1892-1980 OP- 1140
- biologic evolution** *see under paleontology*
- bismuth—geochemistry**
stream sediments: Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-K
- trace elements: Distribution and abundance of arsenic and bismuth in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and arsenic in minus-80-mesh stream-sediment and ash of aquatic-bryophyte sam-**

ples, Medfra Quadrangle, Alaska
OF 80-0811-K

- Black Sea—geochemistry**
carbon: An interpretation of carbon and sulfur relationships in Black Sea sediments as indicators of environments of deposition OP- 686
organic materials: Origin of natural-gas hydrates in oceanic sediment OP- 660
- boreholes** *see under acoustical logging under well-logging*
- boron—geochemistry**
ground water: Hydrology of the hydrothermal system in southern Grass Valley, Pershing County, Nevada OP- 1282
- brachiopods—biostratigraphy**
Devonian: Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. OP- 1068
Paleozoic: Bedded barite deposits of middle and late Paleozoic age in central Sonora, Mexico OP- 985
Paleozoic rocks in the Black Pine Mountains, Cassia County, Idaho B 1536
Pennsylvanian: Biostratigraphy of the Watahomigi Formation P 1173
Silurian: Late Silurian conodonts update the metamorphosed Fitch Formation, Littleton area, New Hampshire OP- 485
- Brazil—hydrogeology**
hydrology: Distribution of sediments in the Amazon River bed; no appreciable change along the river OP- 880
- breccia** *see under effects under faults; see under folds under structural analysis; see under materials, properties under rock mechanics*
- brines** *see also bromine*
- British Columbia—seismology**
earthquakes: A comparison of the rate of seismic activity and several estimates of deformation in the Puget Sound area OF 83-0019
Some comments on the seismicity of the northern Puget Sound-southern Vancouver Island region OF 83-0019
- British Columbia—structural geology**
neotectonics: Geologic constraints on the movement history of the Straight Creek Fault OF 83-0019
- bromine—geochemistry**
salt: Progress report on the potash deposits of the Khorat Plateau, Thailand OF 82-1096
- Bryozoa—Cryptostomata**
Ordovician: Ptilodictyoid Cryptostomata Bryozoa from the Middle and Upper Ordovician rocks of central Kentucky OP- 597
- bryozoans—biostratigraphy**
Ordovician: Bryozoan fauna of the Upper Clays Ferry, Kope, and Lower Fairview formations (Edenian, Upper Ordovician) at Moffett Road, northern Kentucky OF 83-0021
Ptilodictyoid Cryptostomata Bryozoa from the Middle and Upper Ordovician rocks of central Kentucky OP- 597

C

- cadmium—analysis**
chemical analysis: Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types OF 80-0341
- cadmium—geochemistry**
stream sediments: Distribution and abundance of cadmium determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-M

- cadmium—isotopes**
Cd-109: Uptake by the clam Macoma balthica of sediment-bound Cd from well-defined types of sediment OF 80-0341
- calcite** *see also under carbonates under minerals*
- calcium—geochemistry**
carbonate rocks: Evaporite deposits and magnesium carbonate rocks P 1173
sea water: Total individual ion activity coefficients of calcium and carbonate in seawater at 25°C and 35‰ salinity, and implications to the agreement between apparent and thermodynamic constants of calcite and aragonite OP- 975
surface water: Geochemical evolution of Great Salt Lake, Utah OP- 1167
- California—areal geology**
Diablo Range: Early Cenozoic stratigraphy, tectonics and sedimentation of the central Diablo Range between Hollister and New Idria OP- 866
Geology of the central and northern Diablo Range; introduction OP- 870
Los Angeles Basin: Geology of the Los Angeles Basin, California; an introduction P 0420-A
maps: Geologic and geochemical maps of the Rubicon Roadless Area, Placer and El Dorado counties, California MF-1501-A
Geologic map of an area near York Mountain, San Luis Obispo County, California I-1369
Geologic map of part of the northwestern Sacramento Mountains, southeastern California OF 83-0614
Geologic map of part of the Ventana Wilderness and the Black Butte, Bear Mountain, and Bear Canyon Roadless Areas, Monterey County, California MF-1559-B
Geologic map of San Mateo County, California I-1257-A
Geologic map of the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California MF-1492-A
Geologic map of the Condry Mountain Roadless Area, Siskiyou County, California MF-1540-A
Geologic map of the Domeland Wilderness and contiguous roadless areas, Kern and Tulare counties, California MF-1395-A
Geologic map of the Freel Peak 15-minute Quadrangle, California and Nevada I-1424
Geologic map of the Lion Canyon, Matilija, Ojai, Wheeler Springs, and White Ledge Peak quadrangles, California OF 82-0818-A
Geologic map of the Marble Mountain Wilderness, Siskiyou County, California MF-1452-A
Geologic map of the Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California MF-1529-C
Geologic map of the North Fork Smith Roadless Area, Del Norte County, Northern California, and Curry County, Oregon MF-1423-A
Geologic map of the Orleans Mountain Roadless Area, Humboldt and Siskiyou counties, California MF-1526-A
Geologic map of the Redwood Creek drainage basin, Humboldt County, California OF 81-0496
Geologic map of the Tioga Lake, Hall Natural Area, Log Cabin-Saddlebag, and Horse Meadows Roadless Areas, Mono County, California MF-1453-A
Geologic map of the Tuolumne Meadows Quadrangle, Yosemite National Park, California GQ-1570

- Geologic map of the Walker Lake 1° by 2° Quadrangle, California and Nevada MF-1382-A
- Geologic, scenic, and historic points of interest in San Mateo County, California I-1257-B
- Preliminary geologic map of the Dardanelles Cone Quadrangle, central Sierra Nevada, California MF-1436
- Preliminary geologic map of the Pinecrest Quadrangle, central Sierra Nevada, California MF-1437
- Preliminary geologic map of the Yolla Bolly-Middle Eel Wilderness and adjacent roadless areas, Northern California MF-1595-A
- Marble Canyon Quadrangle: The geology of Marble Canyon Quadrangle, Death Valley, California* OP- 581
- road log: Description of field trip stops and road-log, central Diablo Range between Hollister and New Idria* OP- 871
- California—economic geology**
- chromite ores: Strategic minerals geophysical research; the chromite example* OP- 1328
- fuel resources: Estimated oil and gas reserves, Southern California outer continental shelf* OF 83-0559
- geothermal energy: A time-term study of the Imperial Valley, California* OP- 639
- Airborne electromagnetic surveys of the Cascade Range, western United States OF 83-0092
- An isotopic study of the Coso, California, geothermal area OP- 396
- California; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0428-A
- California; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0428-B
- Compressional-wave velocity structure of the Medicine Lake Volcano and vicinity from teleseismic relative traveltimes residuals OP- 350
- Downhole measurements and fluid chemistry of a Castle Rock steam well, The Geysers, Lake County, California OP- 1240
- Induced seismicity at The Geysers, California OP- 917
- Inversion results of time-domain electromagnetic soundings near Medicine Lake, California, geothermal area OF 83-0233
- Precision gravity network for monitoring the Lassen geothermal system, Northern California OF 83-0193
- Results and preliminary inversion of loop-loop frequency-domain electromagnetic soundings near Medicine Lake, California OF 83-0830
- The hydrothermal system of Long Valley caldera, California P 1044-A
- gold ores: Gold-bearing gravel of the ancestral Yuba River, Sierra Nevada, California* P 0722
- maps: Map showing mineral exploration potential in the Death Valley Quadrangle, California and Nevada* MF-0873
- Mineral resource potential map of part of the Ventana Wilderness and the Black Butte, Bear Mountain, and Bear Canyon Roadless Areas, Monterey County, California MF-1559-A
- Mineral resource potential map of the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California MF-1492-B
- Mineral resource potential map of the Blanco Mountain and Black Canyon Roadless Areas, Inyo and Mono counties, California MF-1361-C
- Mineral resource potential map of the Carson-Iceberg Roadless Areas, central Sierra Nevada, California MF-1416-B
- Mineral resource potential map of the Chemehuevi Mountains Wilderness Study Area (CDCA-310), San Bernardino County, California MF-1584-A
- Mineral resource potential map of the Chips Creek and Bucks Lake Roadless Areas, Butte and Plumas counties, California MF-1419-B
- Mineral resource potential map of the Coxcomb Mountains Wilderness Study Area (CDCA-328), San Bernardino and Riverside counties, California MF-1603-A
- Mineral resource potential map of the Dinkey Lakes Roadless Area, Fresno County, California MF-1389-B
- Mineral resource potential map of the Domesland Wilderness and contiguous roadless areas, Kern and Tulare counties, California MF-1395-F
- Mineral resource potential map of the east part of the Raymond Peak Roadless Area, Alpine County, California MF-1365-C
- Mineral resource potential map of the Freeland and Dardanelles Roadless Areas, Alpine and El Dorado counties, California MF-1322-C
- Mineral resource potential map of the Golden Trout Wilderness, southern Sierra Nevada, California MF-1231-E
- Mineral resource potential map of the Granite Chief Wilderness Study Area, Placer County, California MF-1273-C
- Mineral resource potential map of the Hoover Wilderness and adjacent roadless areas, central Sierra Nevada, California MF-1101-D
- Mineral resource potential map of the Ishi, Mill Creek, Polk Springs, and Butt Mountain Roadless Areas, Tehama and Plumas counties, California MF-1340-C
- Mineral resource potential map of the Kaiser Wilderness, Fresno County, California MF-1515
- Mineral resource potential map of the Kings River, Rancheria, Agnew, and Oat Mountain Roadless Areas, Fresno County, California MF-1564-A
- Mineral resource potential map of the Laurel-McGee Roadless Area, Mono County, California MF-1411-C
- Mineral resource potential map of the Marble Mountain Wilderness, Siskiyou County, California MF-1452-B
- Mineral resource potential map of the Mount Eddy and Castle Crag Roadless Areas, Shasta, Siskiyou, and Trinity counties, California MF-1529-B
- Mineral resource potential map of the Mount Raymond Roadless Area, central Sierra Nevada, California MF-1417-B
- Mineral resource potential map of the North Fork of the American River Wilderness Study Area (RARE II No. 5-262), Placer County, California MF-1177-C
- Mineral resource potential map of the Orleans Mountain Roadless Area, Humboldt and Siskiyou counties, California MF-1526-B
- Mineral resource potential map of the Pleasant View Roadless Area, Los Angeles County, California MF-1649-A
- Mineral resource potential map of the Range Roadless Area, Mono County, California MF-1317-C
- Mineral resource potential map of the Raymond Flat Roadless Areas, San Bernardino and Riverside counties, California MF-1563-A
- Mineral resource potential map of the Rubicon Roadless Area, Placer and El Dorado counties, California MF-1501-B
- Mineral resource potential map of the San Geronimo Wilderness, San Bernardino County, California MF-1161-C
- Mineral resource potential map of the San Jacinto Wilderness, Riverside County, California MF-1159-B
- Mineral resource potential map of the Wheeler Ridge Roadless Area, Inyo and Mono counties, California MF-1411-B
- Mineral resource potential map of the Yolla Bolly-Middle Eel Wilderness and adjacent roadless areas, Northern California MF-1595-B
- Mineral resource potential maps of the Black Butte and Elk Creek Roadless Areas, Mendocino, Lake, and Glenn counties, California MF-1544-A
- Mineral resource potential maps of the Sill Hill, Hauser, and Caliente Roadless Areas, San Diego County, California MF-1547-A
- Petroleum potential map of Mesozoic and Cenozoic rocks in roadless areas and the Santa Lucia Wilderness in the Los Padres National Forest, southwestern California MF-1655-D
- Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California OF 83-0421
- Preliminary map of the mining districts in the Basin and Range area of California OF 83-0095
- Preliminary map of the resource areas in the Basin and Range Province of California OF 83-0719
- Reported occurrences of selected minerals in the southern third of California MR-0049
- Walker Lake Quadrangle, California and Nevada OP- 326
- metal ores: Chemical analyses of samples of rock and stream-sediment, and nonmagnetic heavy-mineral concentrate, Coyote-SE and Table Mountain Roadless Areas, Inyo County, California* OF 82-0996
- Geochemical analyses of panned heavy-mineral concentrates, stream sediments and rock samples from the East Yuba and West Yuba Roadless Areas, Plumas and Sierra counties, California OF 82-0825
- Geochemical analyses of rock and stream-sediment samples from Mount Eddy and Castle Crag Roadless Areas, Shasta, Siskiyou, and Trinity counties, California OF 83-0013
- Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California OF 83-0421
- Some preliminary findings of a reconnaissance geochemistry study, West Shasta District, California OF 83-0057
- mineral resources: Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Carson-Iceberg and Leavitt Lake Roadless Areas, Alpine, Mono, and Tuolumne counties, California* OF 82-0954
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Freeland and Dardanelles Roadless Areas, Alpine and El Dorado counties, California OF 83-0077
- Chemical data for samples of rocks, stream-sediment, and nonmagnetic dense-mineral con-

- centrate in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Area, White Mountains, California and Nevada OF 82-0984
- Geochemical analyses of rock, stream-sediment, and nonmagnetic heavy-mineral concentrate samples, Laurel-McGee and Wheeler Ridge Roadless Areas, Inyo and Mono counties, California OF 83-0003
- Map showing mineral exploration potential in the Death Valley Quadrangle, California and Nevada MF-0873
- Mineral deposits associated with alkaline intrusive complexes; examples from Wyoming, Colorado, Montana, and California OP- 34
- Mineral resource potential map of part of the Ventana Wilderness and the Black Butte, Bear Mountain, and Bear Canyon Roadless Areas, Monterey County, California MF-1559-A
- Mineral resource potential map of the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California MF-1492-B
- Mineral resource potential map of the Blanco Mountain and Black Canyon Roadless Areas, Inyo and Mono counties, California MF-1361-C
- Mineral resource potential map of the Carson-Iceberg Roadless Areas, central Sierra Nevada, California MF-1416-B
- Mineral resource potential map of the Chemehuevi Mountains Wilderness Study Area (CDCA-310), San Bernardino County, California MF-1584-A
- Mineral resource potential map of the Chips Creek and Bucks Lake Roadless Areas, Butte and Plumas counties, California MF-1419-B
- Mineral resource potential map of the Coxcomb Mountains Wilderness Study Area (CDCA-328), San Bernardino and Riverside counties, California MF-1603-A
- Mineral resource potential map of the Dinkey Lakes Roadless Area, Fresno County, California MF-1389-B
- Mineral resource potential map of the Domesland Wilderness and contiguous roadless areas, Kern and Tulare counties, California MF-1395-F
- Mineral resource potential map of the east part of the Raymond Peak Roadless Area, Alpine County, California MF-1365-C
- Mineral resource potential map of the Freel and Dardanelles Roadless Areas, Alpine and El Dorado counties, California MF-1322-C
- Mineral resource potential map of the Golden Trout Wilderness, southern Sierra Nevada, California MF-1231-E
- Mineral resource potential map of the Granite Chief Wilderness Study Area, Placer County, California MF-1273-C
- Mineral resource potential map of the Hoover Wilderness and adjacent roadless areas, central Sierra Nevada, California MF-1101-D
- Mineral resource potential map of the Ishi, Mill Creek, Polk Springs, and Butt Mountain Roadless Areas, Tehama and Plumas counties, California MF-1340-C
- Mineral resource potential map of the Kaiser Wilderness, Fresno County, California MF-1515
- Mineral resource potential map of the Kings River, Rancheria, Agnew, and Oat Mountain Roadless Areas, Fresno County, California MF-1564-A
- Mineral resource potential map of the Laurel-McGee Roadless Area, Mono County, California MF-1411-C
- Mineral resource potential map of the Marble Mountain Wilderness, Siskiyou County, California MF-1452-B
- Mineral resource potential map of the Mount Eddy and Castle Crag Roadless Areas, Shasta, Siskiyou, and Trinity counties, California MF-1529-B
- Mineral resource potential map of the Mount Raymond Roadless Area, central Sierra Nevada, California MF-1417-B
- Mineral resource potential map of the North Fork of the American River Wilderness Study Area (RARE II No. 5-262), Placer County, California MF-1177-C
- Mineral resource potential map of the Orleans Mountain Roadless Area, Humboldt and Siskiyou counties, California MF-1526-B
- Mineral resource potential map of the Pleasant View Roadless Area, Los Angeles County, California MF-1649-A
- Mineral resource potential map of the Range Roadless Area, Mono County, California MF-1317-C
- Mineral resource potential map of the Raymond Flat Roadless Areas, San Bernardino and Riverside counties, California MF-1563-A
- Mineral resource potential map of the Rubicon Roadless Area, Placer and El Dorado counties, California MF-1501-B
- Mineral resource potential map of the San Geronio Wilderness, San Bernardino County, California MF-1161-C
- Mineral resource potential map of the San Jacinto Wilderness, Riverside County, California MF-1159-B
- Mineral resource potential map of the Wheeler Ridge Roadless Area, Inyo and Mono counties, California MF-1411-B
- Mineral resource potential map of the Yolla Bolly-Middle Eel Wilderness and adjacent roadless areas, Northern California MF-1595-B
- Mineral resource potential maps of the Black Butte and Elk Creek Roadless Areas, Mendocino, Lake, and Glenn counties, California MF-1544-A
- Mineral resource potential maps of the Sill Hill, Hauser, and Caliente Roadless Areas, San Diego County, California MF-1547-A
- Mineral resource potential of the Lost Creek Roadless Area, Shasta County, California OF 83-0508
- Mineral resource potential of the Thousand Lakes Wilderness, Shasta County, California OF 83-0408
- Preliminary map of the mining districts in the Basin and Range area of California OF 83-0095
- Preliminary map of the resource areas in the Basin and Range Province of California OF 83-0719
- Reported occurrences of selected minerals in the southern third of California MR-0049
- oil and gas fields:* Chemical geothermometers applied to formation waters, Gulf of Mexico and California basins OP- 617
- oil sands:* Depositional and structural controls on heavy-petroleum tar sands in Santa Cruz Mountains OP- 958
- peat:* Physical and biological constraints on Man's use of the shore zone of the San Francisco Bay estuary OP- 592
- petroleum:* Petroleum potential map of Mesozoic and Cenozoic rocks in roadless areas and the Santa Lucia Wilderness in the Los Padres National Forest, southwestern California MF-1655-D
- Petroleum potential of wilderness lands in California C 0902-A-P
- uranium ores:* Walker Lake Quadrangle, California and Nevada OP- 326
- water resources:* Water resources of Borrego Valley and vicinity, California; Phase 1, Definition of geologic and hydrologic characteristics of the basin OF 82-0855
- California—engineering geology**
- bibliography:* Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California; Part II, Annotated bibliography of geologic reports prepared for nuclear power plants in Southern California OF 83-0834
- Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California; Part III, Annotated bibliography of engineering geology reports prepared to satisfy the Alquist-Priolo Special Studies Zone Act in Southern California OF 83-0834
- dams:* Processed accelerograms from Coyote Dam, California, March 25, 1978 OF 83-0166
- earthquakes:* A study of seismic response at stations 6 and 7, El Centro strong motion array, Imperial Valley, California PB-84 119 924
- Aftershock accelerograms recorded on a temporary array P 1254
- Alinement-array measurements of fault slip in the eastern San Francisco Bay area, California OP- 492
- An analysis of strong-motion data from a severely damaged structure; the Imperial County Services Building, El Centro, California P 1254
- Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California OF 83-0834
- Application of private site-specific data to regional evaluation of earthquake and faulting potential in South California; Part I, Introduction and summary OF 83-0834
- Array analysis of the ground velocities and accelerations from the 1971 San Fernando earthquake OP- 515
- Assessment of a prototype earthquake prediction network for Southern California OF 83-0576
- Comparison of 1979 surface faulting with earlier displacements in the Imperial Valley P 1254
- Damage to engineered structures in California P 1254
- Data-processing procedures for main-shock motions recorded by the California Division of Mines and Geology strong-motion network P 1254
- Data recorded on U. S. national strong-motion network near Coalinga, California OP- 133
- Deformation along the Hayward and Calaveras faults; steady aseismic slip or strain accumulation OP- 994
- Description and history of mercury-tube tiltmeters used in the San Francisco Bay area, California OF 83-0463
- Detailed study of site amplification at El Centro strong-motion array station No. 6 OP- 841
- Digitization and processing of main-shock ground-motion data from the U. S. Geological Survey accelerograph network P 1254
- Displacement on the Superstition Hills Fault triggered by the earthquake P 1254

- Distribution of afterslip along the Imperial Fault P 1254
 - Earthquake-generated sandblows formed during the main shock P 1254
 - Effects of shaking on residues near the Imperial Fault rupture P 1254
 - El Centro differential ground motion array P 1254
 - Examples of the use of geologic and seismologic information for earthquake-hazard reduction in Southern California OF 83-0082
 - Geodetic measurements of horizontal deformation on the Imperial Fault P 1254
 - Geodetic observations of postseismic deformation around the north end of surface rupture P 1254
 - Geographic variation in ground shaking as a function of changes in near-surface properties and geologic structure near Los Angeles, California OP- 1052
 - History of creep-slippage rates on the Hayward Fault OP- 850
 - In-situ measurements of seismic velocity at 22 locations in the Los Angeles, California region OF 82-0833
 - Liquefaction and secondary failure P 1254
 - Liquefaction hazards in the eastern San Francisco Bay area OP- 1339
 - Main-shock strong-motion records from the Meloland Road-Interstate Highway 8 overcrossing P 1254
 - Map showing surface ruptures associated with the Mammoth Lakes, California, earthquakes of May 1980 MF-1396
 - M_L and M_0 determination from strong-motion accelerograms, and expected-intensity distribution P 1254
 - Peak horizontal ground motions from the main shock; comparison with data from previous earthquakes P 1254
 - Preearthquake and postearthquake creep on the Imperial Fault and the Brawley fault zone P 1254
 - Preearthquake and postearthquake near-field leveling across the Imperial Fault and the Brawley fault zone P 1254
 - Preliminary assessment of long-term probabilities for large earthquakes along selected fault segments of the San Andreas fault system, California OF 83-0063
 - Preliminary evaluation of the distribution of seismic intensities P 1254
 - Processed accelerograms from Coyote Dam, California, March 25, 1978 OF 83-0166
 - Seismic-intensity studies in the Imperial Valley P 1254
 - Seismicity and active faults in the eastern San Francisco Bay region OP- 343
 - Seismicity and tectonics of the Ortigalita Fault and Southeast Diablo Range, California OP- 664
 - Short-term tilt events preceding some local earthquakes on the central Calaveras Fault; additional evidence OP- 838
 - Slip along the San Andreas Fault associated with the earthquake P 1254
 - Strong-motion data recorded in Mexico during the main shock P 1254
 - Strong-motion data recorded in the United States P 1254
 - Surface faulting in the central Imperial Valley P 1254
 - The Imperial Valley, California, earthquake of October 15, 1979; introduction P 1254
 - Variability in ground motions; a factor in microzonation OP- 762
 - 1906 earthquake effects east of San Francisco Bay OP- 851
 - explosions:* Station arrival data for a quarry blast on Santa Catalina Island, California OF 83-0462
 - foundations:* Slip on the Hayward and Calaveras faults determined from offset powerlines OP- 171
 - geologic hazards:* A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County OP- 930
 - A summary of geologic hazards for proposed OCS oil and gas lease sale 68, Southern California OF 82-0033
 - An analysis of strong-motion data from a severely damaged structure; the Imperial County Services Building, El Centro, California P 1254
 - Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California OF 83-0834
 - Application of private site-specific data to regional evaluation of earthquake and faulting potential in South California; Part I, Introduction and summary OF 83-0834
 - Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California; Part II, Annotated bibliography of geologic reports prepared for nuclear power plants in Southern California OF 83-0834
 - Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California; Part III, Annotated bibliography of engineering geology reports prepared to satisfy the Alquist-Priolo Special Studies Zone Act in Southern California OF 83-0834
 - Assessment of a prototype earthquake prediction network for Southern California OF 83-0576
 - Damage to engineered structures in California P 1254
 - Effects of shaking on residues near the Imperial Fault rupture P 1254
 - Examples of the use of geologic and seismologic information for earthquake-hazard reduction in Southern California OF 83-0082
 - In-situ measurements of seismic velocity at 22 locations in the Los Angeles, California region OF 82-0833
 - Liquefaction and secondary failure P 1254
 - Main-shock strong-motion records from the Meloland Road-Interstate Highway 8 overcrossing P 1254
 - Physical and biological constraints on Man's use of the shore zone of the San Francisco Bay estuary OP- 592
 - Preliminary assessment of long-term probabilities for large earthquakes along selected fault segments of the San Andreas fault system, California OF 83-0063
 - Preliminary map showing recency of faulting in coastal north-central California MF-1070
 - Significance of storm intensity-duration for triggering debris flows near La Honda, California OP- 1300
 - The Imperial Valley, California, earthquake of October 15, 1979 P 1254
 - Tilt measurements at Long Valley caldera, California, May-August 1982 OF 82-0893
 - maps:* Landslide overview map of the conterminous United States P 1183
 - Map showing surface ruptures associated with the Mammoth Lakes, California, earthquakes of May 1980 MF-1396
 - Preliminary map showing recency of faulting in coastal north-central California MF-1070
 - nuclear facilities:* Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California OF 83-0834
 - Application of private site-specific data to regional evaluation of earthquake and faulting potential in South California; Part I, Introduction and summary OF 83-0834
 - Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California; Part II, Annotated bibliography of geologic reports prepared for nuclear power plants in Southern California OF 83-0834
 - Application of private site-specific data to regional evaluation of earthquake and faulting potential in Southern California; Part III, Annotated bibliography of engineering geology reports prepared to satisfy the Alquist-Priolo Special Studies Zone Act in Southern California OF 83-0834
 - rock mechanics:* Recent in-situ stress measurements at depth in the western Mojave Desert OP- 528
 - shorelines:* Physical and biological constraints on Man's use of the shore zone of the San Francisco Bay estuary OP- 592
 - slope stability:* Distribution and costs of landslides in the San Diego County, California, during the rainfall years of 1978-79 and 1979-80 OF 83-0582
 - Dynamic analysis of a slope failure from the 6 August 1979 Coyote Lake, California, earthquake OP- 1308
 - Landslide overview map of the conterminous United States P 1183
 - Landslides and related ground failures OF 83-0511
 - Map showing areas susceptible to different hazards from shallow landsliding, Marin County and adjacent parts of Sonoma County, California MF-1406
 - Physical properties of bedrock as an aid in estimating slope stability; San Francisco Bay region, California OP- 1286
 - Significance of storm intensity-duration for triggering debris flows near La Honda, California OP- 1300
 - waste disposal:* Land application of wastewater and its effect on ground-water quality in the Livermore-Amador Valley, Alameda County, California WRI 82-4100
 - The impact of waste-water discharge on biological communities in San Francisco Bay OP- 717
 - waterways:* Sediment and stream-velocity data for the Sacramento River near Hood, California, May 1978 to September 1981 OF 83-0135
- California—environmental geology**
- conservation:* Physical and biological constraints on Man's use of the shore zone of the San Francisco Bay estuary OP- 592
 - Protecting Suisun Marsh - 85,000 acres of aquatic and wildlife habitat OP- 638
 - ecology:* Holocene sedimentation in Richardson Bay, California OF 83-0312
 - Plankton studies in San Francisco Bay; V, Zooplankton species composition and abundance in the South Bay, 1980-1981 OF 82-1002
 - Plankton studies in San Francisco Bay; VI, Zooplankton species composition and abundance in the North Bay, 1979-1980 OF 82-1003

- geologic hazards:* An oilspill risk analysis for the central California outer continental shelf lease offering (October 1983) OF 83-0117
- An oilspill risk analysis for the Southern California lease offering (February 1984) OF 83-0563
- Description of U. S. Geological Survey studies of potential hazards from future eruptions in California OP- 797
- Distribution and costs of landslides in the San Diego County, California, during the rainfall years of 1978-79 and 1979-80 OF 83-0582
- Map showing areas susceptible to different hazards from shallow landsliding, Marin County and adjacent parts of Sonoma County, California MF-1406
- Other potential eruption centers in California; Long Valley-Mono Lake, Coso, and Clear Lake volcano fields OP- 52
- Volcanic hazard potential in the California Cascades OP- 228
- impact statements:* Geologic hazards and constraints, Federal oil and gas lease sale 53 area, offshore central and Northern California OP- 1036
- Modeling the cumulative onshore effects of offshore oil and gas development OF 81-0317
- maps:* Map showing areas susceptible to different hazards from shallow landsliding, Marin County and adjacent parts of Sonoma County, California MF-1406
- pollution:* An oilspill risk analysis for the Southern California (proposed sale 68) outer continental shelf lease area OF 81-0605
- Concentrations of metals in sediments and shellfish in San Francisco Bay OF 80-0341
- Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge OF 80-0341
- reclamation:* Evaluation of the San Dieguito, San Elijo, and San Pasqual hydrologic subareas for reclaimed water use, San Diego County, California WRI 83-4044
- Physical and biological constraints on Man's use of the shore zone of the San Francisco Bay estuary OP- 592
- California—geochemistry**
- crystalline rocks:* Merced Peak Quadrangle, central Sierra Nevada, California; analytic data P 1170-D
- isotopes:* Isotopic composition of uranium and thorium in crystalline rocks OP- 1054
- maps:* Geochemical element maps of the Hoover Wilderness and adjacent study area, Mono and Tuolumne counties, California OF 82-0283
- Geochemical map of the Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California MF-1529-A
- Geochemical map showing anomalous concentrations of selected elements in stream sediments from the Golden Trout Wilderness, California MF-1231-C
- Geochemical map showing anomalous concentrations of selected elements in the non-magnetic heavy-mineral concentrates from the Golden Trout Wilderness, California MF-1231-B
- Geochemical maps of the Mount Raymond Roadless Area, central Sierra Nevada, California MF-1417-C
- Geochemical maps showing distributions of anomalous element concentrations and of anomalous drainage basins, Mokelumne Wilderness and contiguous roadless areas, central Sierra Nevada, California MF-1201-C
- Map and interpretation of geochemical anomalies in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Areas, White Mountains, California and Nevada MF-1361-B
- organic materials:* Amino-acid diagenesis in late Pleistocene sediments of core CL-80-1, Clear Lake, California OP- 115
- surveys:* Chemical analyses and statistical summaries for samples of rock, minus 60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Raymond Peak Roadless Area, Toiyabe National Forest, Alpine County, California OF 82-1050
- Chemical and statistical analysis of stream sediments, panned heavy-mineral concentrates, and rocks of the Coxcomb Mountains Wilderness Study Area (CDCA-328), Riverside and San Bernardino counties, California OF 83-0012
- Geochemical analyses of rock and stream-sediment samples from the North Fork Smith River Roadless Area, Del Norte County, California, and Curry County, Oregon OF 82-0976
- trace elements:* Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Pyramid Roadless Area, El Dorado County, California OF 83-0644
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Cypress Roadless Area, Kern County, California OF 83-0643
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Mount Raymond Roadless Area, Madera County, California OF 83-0646
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Sweetwater Roadless Area, Mono County, California, and Lyon and Douglas counties, Nevada OF 83-0647
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Horse Meadow, Log Cabin-Saddlebag, and Tioga Lake Roadless Areas, and Hall Natural Area, Mono County, California OF 83-0649
- Chemical analysis of rock, minus-80-mesh stream-sediment, and magnetic and nonmagnetic fractions of heavy-mineral concentrate samples of the Turtle Mountain Wilderness Study Area, (CDCA-307), San Bernardino County, California OF 83-0415
- Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge OF 80-0341
- Geochemical analyses for gold and zinc of 137 stream-sediment samples from the John Muir Wilderness, California OF 81-0254
- Geochemical data for samples of rock, stream sediment, and nonmagnetic dense-mineral concentrate in the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California OF 83-0403
- Geochemical element maps of the Hoover Wilderness and adjacent study area, Mono and Tuolumne counties, California OF 82-0283
- Large partition coefficients for trace elements in high-silica rhyolites OP- 731
- Mineral resource potential of the Lost Creek Roadless Area, Shasta County, California OF 83-0508
- Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California OF 83-0421
- weathering:* Sources of mineral constituents in water from granitic rocks, Sierra Nevada, California and Nevada W 1535-I
- California—geochronology**
- Cenozoic:* Thermal history by fission-track dating, Tejon oil field area, California OP- 150
- Cretaceous:* Cretaceous deformation in the western foothills of the Sierra Nevada, California OP- 75
- maps:* Generalized geologic map of the southern Sierra Nevada, California, showing the location of samples for which K-Ar radiometric age data and Rb/Sr data have been determined OF 83-0231
- Mesozoic:* Generalized geologic map of the southern Sierra Nevada, California, showing the location of samples for which K-Ar radiometric age data and Rb/Sr data have been determined OF 83-0231
- Miocene:* Geochronology bearing on age of Monterey Formation, California OP- 895
- Neogene:* Cenozoic rocks in the Barstow Basin area of Southern California; stratigraphic relations, radiometric ages, and paleomagnetism B 1529-E
- Pleistocene:* Paleomagnetic data from the Coso Range, California and current status of the Cobb Mountain normal geomagnetic polarity event OP- 736
- Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 781
- Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 834
- Quaternary:* Radiocarbon content, sedimentation rates, and a time scale for Clear Lake, California, core CL-73-4 OP- 1045
- California—geomorphology**
- maps:* Maps showing thermal features and topography of Devils Kitchen and Bumpass Hell, Lassen Volcanic National Park, California MF-1484
- Oblique map of Mono-Inyo Craters, California OF 83-0230
- Physiographic diagrams of Long Valley, Mono and Inyo counties, California MF-1659
- Reconnaissance surficial geologic map of the Medford 1° by 2° Quadrangle, Oregon-California MF-1528
- processes:* Sediment discharge from two earthflows in Franciscan terrane, northwestern California OP- 874
- California—geophysical surveys**
- electromagnetic surveys:* Inversion results of time-domain electromagnetic soundings near Medicine Lake, California, geothermal area OF 83-0233
- Results and preliminary inversion of loop-loop frequency-domain electromagnetic soundings near Medicine Lake, California OF 83-0830
- gravity surveys:* Correlation of changes in gravity, elevation, and strain in Southern California OP- 573
- Precision gravity network for monitoring the Lassen geothermal system, Northern California OF 83-0193

- Precision gravity networks at Lassen Peak and Mount Shasta, California OF 83-0192
 - Preliminary Bouguer gravity map of California; San Bernardino sheet OF 83-0096
 - Principal facts, accuracies, sources, and base station descriptions for 701 gravity stations and 1,922 gridded values on the Long Beach 1° × 2° Quadrangle, California PB-83 237 370
 - Principal facts for gravity stations in and near the Whipple Mountains Wilderness Study Area (CDCA-312), San Bernardino County, California, and Mohave County, Arizona OF 82-1089
 - Principal facts for seventy-four gravity stations in the Northern California Cascade Mountains OF 82-1080
 - Principal facts for 382 gravity stations in Lassen Volcanic National Park and vicinity, California OF 83-0584
 - Principal facts for 904 gravity stations in and near the Chemehuevi Mountains and Crossman Peak Wilderness Study Areas, San Bernardino County, California, and Mohave County, Arizona OF 83-0806
 - Tectonic zonation in Northern California; evidence from gravity anomalies OP- 784
 - Underwater gravity meter survey of San Francisco and San Pablo bays, California, 1982 OF 83-0906
 - heat flow:* Measurement of heat flow by a down-hole probe technique in the San Joaquin Valley, California OF 82-0819
 - magnetic surveys:* Aeromagnetic map and interpretation of geophysical data from the Condrey Mountain Roadless Area, Siskiyou County, California MF-1540-B
 - Aeromagnetic map of part of the White and Inyo Mountains, California and Nevada OF 83-0656
 - Aeromagnetic map of the central part of the Inyo National Forest, California OF 83-0655
 - Aeromagnetic map of the Eureka and Saline valleys area, California and Nevada OF 83-0653
 - Aeromagnetic map of the Kingman-Trona area, California OF 83-0663
 - Aeromagnetic map of the northern part of the Inyo National Forest, California and Nevada OF 83-0654
 - Aeromagnetic map of the Salton Sea area, California OF 83-0664
 - Aeromagnetic maps of the southern and central Sierra Nevada foothills and adjacent San Joaquin Valley, California OF 83-0055
 - Geophysical maps and interpretation of the Domeland Wilderness and contiguous roadless areas, Kern and Tulare counties, California MF-1395-B
 - Map showing aeromagnetic interpretation of the Golden Trout Wilderness, Tulare and Inyo counties, California MF-1231-D
 - Multichannel seismic-reflection profiles collected in 1979 in the eastern Pacific Ocean of the California coast, south of Pt. Conception OF 83-0593
 - Preliminary Bouguer gravity map of California; San Bernardino sheet OF 83-0096
 - Residual magnetic intensity, Crescent City, California OF 83-0652
 - remote sensing:* Aerial views in color of the San Andreas Fault, California OF 83-0098
 - Monitoring hot springs and shallow groundwater in the Long Valley Caldera, California OP- 1161
 - seismic surveys:* Crustal structure of the Imperial Valley region P 1254
 - Data report for the August 1982 seismic-refraction experiment in the Mono Craters-Long Valley region, California OF 83-0708
 - Multichannel seismic-reflection profiles collected in 1979 in the eastern Pacific Ocean of the California coast, south of Pt. Conception OF 83-0593
 - Precise measurement of seismic traveltimes; investigation of variation from tidal stress in shallow crust OP- 699
 - Seismic reflection profiles, south-central Monterey (California) OF 82-0824
 - Synthetic seismogram modeling for the laterally varying structure in the central Imperial Valley P 1254
 - The mechanism of anisotropic wave velocity in crystalline rocks of the Mojave Desert OP- 640
 - surveys:* Aeromagnetic and gravity maps of the east part of the Raymond Peak Roadless Area, Alpine County, California MF-1365-B
 - Aeromagnetic and gravity maps of the Freel and Dardanelles Roadless Areas, Alpine and El Dorado counties, California MF-1322-B
 - Geophysical maps and interpretation of the Domeland Wilderness and contiguous roadless areas, Kern and Tulare counties, California MF-1395-B
 - well-logging:* In situ studies of velocity in fractured crystalline rocks OP- 832
 - Temperature logs of wells and test wells in Yuma area, Arizona and California OF 80-0335
- California—hydrogeology**
- ground water:* Application of Gauss algorithm and Monte Carlo simulation to the identification of aquifer parameters OF 81-0688
 - Artificial recharge in the northern part of Chino ground-water basin, upper Santa Ana Valley, California WRI 82-4122
 - Data for ground-water test hole near Butte City, Central Valley aquifer project, California OF 83-0697
 - Data for ground-water test hole near Nicolaus, Central Valley aquifer project, California OF 83-0273
 - Ground water in the northeast part of Twentynine Palms Marine Corps Base, Bagdad area, California WRI 83-4053
 - Ground water in the Redding Basin, Shasta and Tehama counties, California WRI 83-4052
 - Ground water in the Seaside area, Monterey County, California PB-83 149 229
 - Ground water in the Twenty-Nine Palms Indian Reservation and vicinity, San Bernardino County, California WRI 82-4060
 - Injection of treated wastewater for ground-water recharge in the Palo Alto Baylands, California, hydraulic and chemical interactions; preliminary report WRI 82-4121
 - Two-dimensional, steady-state model of ground-water flow, Nevada Test Site and vicinity, Nevada-California WRI 82-4085
 - Use of a three-dimensional model for the analysis of the ground-water flow system in Parker Valley, Arizona and California OF 82-1006
 - hydrology:* Assessment of stream channel response to altered streamflow and sediment load OP- 27
 - Graphical method for estimating occurrence and duration of a critical low flow in the Sacramento River at Freepoint, California WRI 82-4001
 - Limnological study of Shasta Lake, Shasta County, California, with emphasis on the effect of the 1977 drought WRI 82-4081
 - Simulation of solute transport in a mountain pool-and-riffle stream with a kinetic mass transfer model for sorption OP- 88
 - The role of hillslope/stream channel interaction in controlling sediment yield in steep terrane OP- 875
 - Water-quality assessment of Cache Creek, Yolo, Lake, and Colusa counties, California OF 81-0677
 - Water-quality assessment of the American River, California OF 82-0763
 - Water-quality assessment of the Merced River, California OF 82-0450
 - maps:* Contour map showing minimum depth to ground water, upper Santa Ana River valley, California, 1973-1979 OF 82-1128
 - Estimated average annual streamflow into the Central Valley of California HA-0657
 - Ground-water quality in the Sacramento Valley, California; water types and potential nitrate and boron problem areas HA-0651
 - Map of the Antelope Valley-East Kern Water Agency area, California, showing ground-water subunits and areas, and well hydrographs (1962-1982) OF 82-0917
 - Rainfall associated with the January 1982 rainstorm in the San Francisco Bay region, California OF 83-0016
 - springs:* California; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0428-A
 - California; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0428-B
 - Chemical analyses of thermal and nonthermal springs in Lassen Volcanic National Park and vicinity, California OF 83-0311
 - The hydrothermal system of Long Valley caldera, California P 1044-A
 - thermal waters:* An isotopic study of the Coso, California, geothermal area OP- 396
 - California; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0428-A

- California; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0428-B
- Chemical analyses of thermal and nonthermal springs in Lassen Volcanic National Park and vicinity, California OF 83-0311
- Chemical geothermometers applied to formation waters, Gulf of Mexico and California basins OP- 617
- Downhole measurements and fluid chemistry of a Castle Rock steam well, The Geysers, Lake County, California OP- 1240
- Preliminary chemical studies of thermal waters in Lassen Volcanic National Park and vicinity OP- 1225
- The hydrothermal system of Long Valley caldera, California P 1044-A
- California—mineralogy**
 - sulfides*: Orickite and coyoteite, two new sulfide minerals from Coyote Peak, Humboldt County, California OP- 348
- California—oceanography**
 - continental shelf*: A summary of geologic hazards for proposed OCS oil and gas lease sale 68, Southern California OF 82-0033
 - Central Santa Rosa-Cortes Ridge OF 83-0062
 - Estimated oil and gas reserves, Southern California outer continental shelf OF 83-0559
 - Estimated oil and gas reserves, Southern California outer continental shelf, December 31, 1981 OF 82-0037
 - Factors influencing sediment transport at shelf break OP- 598
 - Gulf of Santa Catalina and adjacent shelf OF 83-0062
 - Large submarine slump off Eureka, California OP- 368
 - Marine geological profiles in the southern California continental borderland collected in 1974 on the R/V S.P. Lee OF 82-0975
 - Mineralogical and sedimentological data collected on the shelf and upper slope adjacent to the Russian River, Northern California OF 83-0517
 - Reconnaissance geology and geologic hazards of selected areas of the Southern California continental borderland OF 83-0062
 - Response of the suspended sediment transport system to continental shelf dynamics OP- 599
 - Western Santa Barbara Channel-Point Conception OF 83-0062
 - continental slope*: A quantitative index of mixing to determine the relative amount of downslope contamination in subsurface sediments of a submarine fan OP- 160
 - estuaries*: Physical and chemical properties of San Francisco Bay waters, 1977 OF 80-1191
 - Working notes on current-meter deployment, recovery, maintenance, and data processing for San Francisco Bay OF 80-1297
 - ocean circulation*: Observations from moored current meters in San Francisco Bay, 1978 OF 82-0153
 - sediments*: Quantitative microfossil, sedimentologic, and geochemical data on cores V1-80-P3, V1-80-G1, and V1-80-P8 from continental slope off Northern California OF 83-0083
 - Use of heavy-mineral density ratios to determine the degree of sediment homogenization in offshore areas OP- 714
- California—paleobotany**
 - Plantae*: Differences between middle Eocene plant communities of Southern California and those of the Atlantic and Gulf coastal plains OP- 399
- California—paleontology**
 - Ostracoda*: Paleoenvironmental implications of some estuarine and non-marine ostracodes from Ridge Basin, Southern California OP- 387
- California—petrology**
 - igneous rocks*: Geology of granodiorite in the Coxcomb Mountains, southeastern California OP- 184
 - Millerton Lake Quadrangle, west-central Sierra Nevada, California; analytic data P 1261
 - The Salinian Block; a structurally displaced granitic block in the California Coast Ranges OP- 1055
 - intrusions*: A summary of critical relations in the central part of the Sierra Nevada Batholith, California, U.S.A. OP- 74
 - Structural evidence for dikes beneath silicic domes, Medicine Lake Highland Volcano, California OP- 370
 - magmas*: Chemical differentiation of the Bishop Tuff and other high-silica magmas through crystallization processes OP- 532
 - maps*: Map showing distribution, ages, and petrographic characteristics of Mesozoic plutonic rocks in the Walker Lake 1° by 2° Quadrangle, California and Nevada MF-1382-B
 - metamorphic rocks*: Hornblende-rich, high grade metamorphic terranes in the southernmost Sierra Nevada, California, and implications for crustal depths and batholith roots OF 83-0465
 - Petrographic (thin section) notes on selected samples from hornblende-rich metamorphic terranes in the southernmost Sierra Nevada, California OF 83-0587
 - Regional character of mylonitic gneiss in the Cadiz Valley area, southeastern California OP- 552
 - Wallrocks of the central Sierra Nevada Batholith, California; a collage of accreted tectonostratigraphic terranes P 1255
 - metamorphism*: Submarine hydrothermal metamorphism of the Del Puerto ophiolite, California OP- 355
 - volcanology*: Possible relations between magmatism, rates of extension, and the state of stress in the crust OP- 47
- California—sedimentary petrology**
 - diagenesis*: Diagenesis in laterally equivalent sections of the Miocene Monterey Formation, Santa Barbara area, California OP- 566
 - Outline of diagenesis in the Monterey Formation examined laterally along the Santa Barbara coast, California OP- 568
 - Porosity reduction during diagenesis of Monterey Formation, Santa Barbara, California OP- 571
 - sedimentary rocks*: Field characterization of rocks in the Monterey Formation along the coast near Santa Barbara, California OP- 569
 - Sedimentology and structure of Franciscan Assemblage, Yolla Bolly terrane, Northern California OP- 104
 - Sedimentology of the Upper Cretaceous Hornbrook Fm., southwestern Oregon and north-central California OP- 868
 - sedimentary structures*: Field study of subaqueous avalanching OP- 302
 - sedimentation*: Sedimentation of a middle Tertiary paludal deposit, northern San Joaquin Valley, California OP- 67
- California—seismology**
 - crust*: Compressional-wave velocity structure of the Medicine Lake Volcano and vicinity from teleseismic relative traveltime residuals OP- 350
 - Crustal and upper mantle structure of the northern and central Sierra Nevada OP- 751
 - Crustal structure of the Imperial Valley region P 1254
 - Crustal structure of the northern Sierras from an aftershock-traveltime analysis OP- 441
 - Data report for the August 1982 seismic-refraction experiment in the Mono Craters-Long Valley region, California OF 83-0708
 - Precise measurement of seismic traveltimes; investigation of variation from tidal stress in shallow crust OP- 699
 - Station arrival data for a quarry blast on Santa Catalina Island, California OF 83-0462
 - Synthetic seismogram modeling for the laterally varying structure in the central Imperial Valley P 1254
 - Three-dimensional modeling of the Nevada Test Site and vicinity from teleseismic P-wave residuals OF 82-0409
 - earthquakes*: A well-recorded 55-km-deep earthquake in western north-central California OP- 240
 - Aftershocks and preearthquake seismicity P 1254
 - An in depth look at the 1979 Imperial Valley earthquake OP- 33
 - An unusual sequence of swarms in Indian Wells Valley, Southern California OP- 429
 - Analog strong motion data and processed main event records obtained by U. S. Geological Survey near Coalinga, California OF 83-0511
 - Analysis of near-source static and dynamic measurements from the 1979 Imperial Valley earthquake OP- 32
 - Analysis of the ground accelerations radiated by the 1980 Livermore Valley earthquakes for directivity and dynamic source characteristics OP- 119
 - Applications of digital processing technology to the study of local earthquakes in California OP- 342
 - Comparison between the seismicity of the San Juan Bautista and Parkfield regions, California OP- 839
 - Data from the Global Digital Seismograph Network P 1254
 - Deformation across the Long Valley (California) Caldera from 1980 (postearthquake) to January 1983 OP- 1079
 - Deformation across the San Andreas Fault near San Francisco, California, 1978-1982 OP- 623
 - Digital strong-motion data recorded by U. S. Geological Survey near Coalinga, California OF 83-0511
 - Dynamic analysis of a slope failure from the 6 August 1979 Coyote Lake, California, earthquake OP- 1308
 - Event J of the 1975 Oroville aftershock sequence; an example of the breaking of a single asperity? OP- 280
 - 'max OP- 479
 - Focal mechanisms of Central California earthquakes OP- 750
 - Geologic and petrologic data bearing on potential volcanic hazards in Long Valley Caldera, eastern California OP- 53
 - Ground tilt since May 1982 at Long Valley Caldera, California OP- 328
 - High resolution recording of aftershocks of the January 1983 Mammoth Lakes, California earthquakes OP- 682
 - Historical activity at calderas of the world as a framework for interpreting recent activity at Long Valley Caldera, California OP- 860

- Induced seismicity in The Geysers geothermal area, California OP- 331
- Landslides and related ground failures OF 83-0511
- Long-period surface waves P 1254
- Long Valley Caldera earthquake swarm; January 7, 1983 OP- 971
- Magmatic resurgence in Long Valley Caldera, California; possible cause of the 1980 Mammoth Lakes earthquakes OP- 1078
- Magnetic measurements across the Long Valley Caldera, 1972-1983; a comparison with observations and mechanisms during the Matsu-shiro earthquake swarm OP- 586
- Main-shock location and magnitude determination using combined U.S. and Mexican data P 1254
- Maps showing maximum earthquake intensity predicted in the southern San Francisco Bay region, California, for large earthquakes on the San Andreas and Hayward faults MF-0709
- Mechanisms of the May 1980 earthquakes near Long Valley Caldera, California; evidence for dike injection OP- 594
- Monitoring hot springs and shallow groundwater in the Long Valley Caldera, California OP- 1161
- Nonlinear strain buildup and the earthquake cycle on the San Andreas Fault OP- 1222
- Precise leveling of the Coalinga epicentral region and adjacent portions of the San Andreas Fault OF 83-0511
- Preliminary study of selected aftershocks from digital acceleration and velocity recordings P 1254
- Preliminary views of the aftershock distribution of the May 2, 1983, Coalinga earthquake OF 83-0511
- Realtime monitoring of the Mammoth Lakes, California earthquake swarm with automatic processing equipment OP- 14
- Seismic setting, location, and focal mechanism of the May 2, 1983, Coalinga earthquake OF 83-0511
- Seismic structure of the Lassen volcanic area OP- 815
- Seismicity of the Imperial Valley P 1254
- Seismicity of the Mount Shasta and Lassen Peak areas, California OP- 1271
- Seismicity patterns near Parkfield, California OP- 693
- Separation of source and propagation spectra OP- 23
- Simulation of ground accelerations for the May 1980 Mammoth Lakes, California, earthquakes OP- 493
- Soil-gas helium variations related to seismic activity OP- 1014
- Surface deformation in the Long Valley, California caldera since 1975 OP- 1037
- Survey of helium in natural water wells and springs in Southwest Montana and Imperial Valley, California; Part V, January 1- December 31, 1982 OF 83-0500
- Tectonic setting OF 83-0511
- Tectonic setting of the Imperial Valley region P 1254
- Teleseismic traveltime anomaly at Mono and Inyo craters, California; a dike-form low-velocity body? OP- 572
- The Coalinga, California earthquake sequence commencing May 2, 1983 (preliminary report on field investigations and data collected as of May 12, 1983) OF 83-0511
- The focal mechanism from the Global Digital Seismograph Network P 1254
- The May 2, 1983 earthquake at Coalinga, California; the search for surface faulting OF 83-0511
- The Santa Barbara, California earthquake of 13 August 1978 OP- 255
- The 1971 San Fernando earthquake; a double event? OP- 513
- The 1979 Homestead Valley earthquake sequence, California; control of aftershocks and postseismic deformation OP- 1180
- Triggered reverse fault and earthquake due to crustal unloading, Northwest Transverse Ranges, California OP- 1332
- Variability in ground motions; root mean square acceleration and peak acceleration for the 1971 San Fernando, California, earthquake OP- 761
- What caused the large vertical arrivals observed in the 1979 Imperial Valley, California, earthquake? OP- 264
- mantle:* Crustal and upper mantle structure of the northern and central Sierra Nevada OP- 751
- maps:* Maps showing maximum earthquake intensity predicted in the southern San Francisco Bay region, California, for large earthquakes on the San Andreas and Hayward faults MF-0709
- microearthquakes:* Source parameters of micro-earthquakes near San Juan Bautista, California OP- 780
- seismicity:* Circumstances surrounding the preparation and suppression of a report on the 1868 California earthquake OP- 993
- Geothermal induced seismicity; bane or blessing? OP- 164
- Induced seismicity at The Geysers, California OP- 917
- Precise measurement of seismic travel time; variations from tidal stress? OP- 700
- Reservoir conditions related to induced seismicity at The Geysers steam reservoir, Northern California OP- 294
- Seismicity in the Clear Lake area, California OP- 330
- California—soils**
- geochemistry:* Extraction techniques for selective dissolution of amorphous iron oxides from soils and sediments OP- 218
- Paleosols:* Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
- California—stratigraphy**
- Cenozoic:* Cenozoic rocks in the Barstow Basin area of Southern California; stratigraphic relations, radiometric ages, and paleomagnetism B 1529-E
- Core KM-3, a surface-to-bedrock record of late Cenozoic sedimentation in Searles Valley, California P 1256
- Late Cenozoic stratigraphic setting of the Clear Lake area, Lake County, California OP- 1066
- changes of level:* Holocene sedimentation in Richardson Bay, California OF 83-0312
- Cretaceous:* Geologic map of the outcrop area of the Hornbrook Formation, Oregon and California OF 83-0373
- Eocene:* Comparison of middle Eocene sporomorph assemblages from Southern California and Gulf Coast OP- 400
- Large foraminifers of Eocene age from the Coast Ranges of California P 1213
- Jurassic:* Geology of a subduction complex in the Franciscan assemblage of northern California OP- 105
- maps:* Geologic map of the outcrop area of the Hornbrook Formation, Oregon and California OF 83-0373
- Pre-Monterey subcrop and structure contour maps, western San Luis Obispo and Santa Barbara counties, south-central California MF-1384
- Mesozoic:* Correlation and provenance of upper Mesozoic chert-rich conglomerate of California OP- 1116
- Tectonic, significance of late Paleozoic to Jurassic radiolarians from the North Fork Terrane, Klamath Mountains, California OP- 113
- Miocene:* Field trip guide for the Monterey Formation, Santa Barbara coast, California OP- 570
- Integration of diatom and planktonic foraminiferal data for biostratigraphic and paleoclimatic interpretation of middle and upper Miocene Monterey Shale OP- 62
- Lithostratigraphy and diagenesis of Monterey Formation near Ojai, California OP- 606
- Lithostratigraphy of the Monterey Formation, Goleta to Point Conception, Santa Barbara coast, California OP- 567
- Microfossils from type Relizian and Luisian stages of California OP- 771
- Paleotemperature oscillations in the middle and late Miocene of the northeastern Pacific OP- 64
- Planktonic calibration of provincial Miocene stages of California OP- 988
- Neogene:* Microfossil assemblages from the Castaic Formation, Ridge Basin, Southern California OP- 770
- The Kern River Formation, southeastern San Joaquin Valley, California B 1529-D
- Paleogene:* Calcareous nannofossil biostratigraphy of the Paleogene of the Santa Cruz Mountains, California P 1213
- Definition of the Lodo Formation P 1213
- Lower Tertiary nannoplankton biostratigraphy in the central Coast Ranges of California P 1213
- Paleogene benthic foraminiferal biostratigraphy and paleobathymetry of the central Coast Ranges of California P 1213
- Paleozoic:* Correlation of metamorphosed Paleozoic strata of the southeastern Mojave Desert region, California and Arizona OP- 1194
- Stratigraphy of upper Paleozoic volcanic rocks and regional unconformities in part of the northern Sierra terrane, California OP- 494
- Tectonic, significance of late Paleozoic to Jurassic radiolarians from the North Fork Terrane, Klamath Mountains, California OP- 113
- Pleistocene:* A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County OP- 930
- Historical evolution and application of the Pleistocene province concept along the eastern Pacific margin of North America OP- 610
- Paleoclimatic significance of nivation in the western and central Great Basin, Nevada and California OP- 309
- Temperature and precipitation estimates through the last glacial cycle from Clear Lake, California, pollen data OP- 3
- The Half Moon Bay terrace, San Mateo County, California, and the age of its Pleistocene invertebrate faunas OP- 612
- Pliocene:* Geology of the Tulare Formation and other continental deposits, Kettleman City area, San Joaquin Valley, California, with a section on ground-water management considerations and use of texture maps WRI 83-4000
- Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526

- Quaternary:** Correlations of the Clear Lake, Calif., Core CL-73-4 pollen sequence with other long climatic records OP- 2
- Diatom biostratigraphy of Clear Lake, California OP- 139
- Geology of the Tulare Formation and other continental deposits, Kettleman City area, San Joaquin Valley, California, with a section on ground-water management considerations and use of texture maps WRI 83-4000
- Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
- Late Quaternary stratigraphy and paleoclimatology, Clear Lake, California OP- 1138
- Long-cycle paleohydrologic regimes in Southeast California; a possible cause OP- 1148
- Nivation and cryoplanation in the west-central Basin and Range OP- 308
- Ostracode paleoenvironmental implications in Clear Lake, California OP- 384
- Pollen counts for core CL-80-1, Clear Lake, Lake County, California OF 83-0384
- Pollen zonation and informal climatic units for Clear Lake, California, cores CL-73-4 and CL-73-7 OP- 1
- Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
- Temperature and precipitation calibration of pollen records from Clear Lake, California, through the last full glacial cycle OP- 4
- Tertiary:** Eocene to Miocene calcareous plankton from the Santa Cruz Mountains and northern Santa Lucia Range P 1213
- Mid-Tertiary stratigraphic record produced during regional detachment faulting and development of extensional arches and basins, southwest of the Colorado Plateau margin OP- 407
- Pre-Monterey subcrop and structure contour maps, western San Luis Obispo and Santa Barbara counties, south-central California MF-1384
- Studies in Tertiary stratigraphy of the California Coast Ranges P 1213
- Upper Eocene to lower Miocene benthic foraminifers from the Santa Cruz Mountains area, California P 1213
- California—structural geology**
- faults:** History of creep-slip rates on the Hayward Fault OP- 850
- Middle Tertiary laumontite isograd offset 37 km by left-lateral strike-slip on Santa Ynez Fault, California OP- 768
- Nucleation and growth of strike slip faults in granite OP- 1114
- fractures:** Joint formation in granitic rock of the Sierra Nevada OP- 1115
- maps:** Map showing configuration of the basement surface, northern San Joaquin Valley, California MF-1430
- Map showing direction and amount of bedding dip of sedimentary rocks in San Mateo County, California I-1257-C
- Map showing late Cenozoic faults in the Walker Lake 1° by 2° Quadrangle, Nevada-California MF-1382-D
- Map showing recently active breaks along the Elsinore and associated faults, California, between Lake Henshaw and Mexico I-1329
- Map showing recently active breaks along the Green Valley Fault, Napa and Solano counties, California MF-0743
- Map showing the San Andreas Fault trace and related features in the Montara Mountain and San Mateo 7.5 minute quadrangles, San Mateo County, California MF-1488
- Preliminary map showing recency of faulting in coastal north-central California MF-1070
- Preliminary map showing recency of faulting in coastal north-central California MF-1070
- neotectonics:** Extensional tectonics in the Death Valley area, California; transport of the Panamint Range structural block 80 km north-westward OP- 1184
- Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
- Map showing late Cenozoic faults in the Walker Lake 1° by 2° Quadrangle, Nevada-California MF-1382-D
- Map showing recently active breaks along the Elsinore and associated faults, California, between Lake Henshaw and Mexico I-1329
- Map showing recently active breaks along the Green Valley Fault, Napa and Solano counties, California MF-0743
- Map showing the San Andreas Fault trace and related features in the Montara Mountain and San Mateo 7.5 minute quadrangles, San Mateo County, California MF-1488
- Multiwavelength EDM measurements in Southern California OP- 1146
- Origins of abnormally-high fluid-pressure systems in California OP- 97
- Preliminary map showing recency of faulting in coastal north-central California MF-1070
- Preliminary map showing recency of faulting in coastal north-central California MF-1070
- Strain accumulation along the San Andreas Fault system east of San Francisco Bay, California OP- 995
- Tectonic preservation of the divide between the Salton Basin and the Gulf of California OP- 427
- Tectonic setting OF 83-0511
- Tectonic setting of late Miocene, Pliocene, and Pleistocene rocks in part of the Coast Ranges north of San Francisco, California P 1239
- Tectonic setting of the Imperial Valley region P 1254
- Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 781
- Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 834
- tectonics:** Analysis of deep in situ stress measurements in the Mojave Desert; implications for the state of stress along the San Andreas Fault OP- 777
- Dike swarms and low-angle faults, Homer Mountain and the northwestern Sacramento Mountains, southeastern California OP- 1166
- Friction, faulting, and in-situ stress OP- 1347
- Geodetic measurements of horizontal deformation in the northern San Francisco Bay region, California OP- 1340
- Geologic and geochronologic reconnaissance of the Turtle Mountains area, California; west border of the Whipple Mountains detachment terrane OP- 553
- Geologic framework of the Chemehuevi Mountains, southeastern California OP- 579
- Origin of folds of Tertiary low-angle fault surfaces, southeastern California and western Arizona OP- 1165
- Possible relations between magmatism, rates of extension, and the state of stress in the crust OP- 47
- Spatial variation, style, and age of Cenozoic extensional tectonics in the Great Basin OP- 1185
- Structural evolution of the Big Maria Mountains, northeastern Riverside County, southeastern California OP- 476
- Structural geology of the Montgomery Mountains and the northern half of the Nopah and Resting Spring ranges, Nevada and California OP- 169
- Tectonic framework of Clear Lake Basin, California OP- 510
- Tectonic zonation in Northern California; evidence from gravity anomalies OP- 784
- The Mule Mountains Thrust in the Mule Mountains, California, and its probable extension in the southern Dome Rock Mountains, Arizona; a preliminary report OP- 1236
- The Salinian Block; a structurally displaced granitic block in the California Coast Ranges OP- 1055
- California—tectonophysics**
- crust:** A dipping Moho and crustal low-velocity zone from Pn arrivals at The Geysers-Clear Lake, California OP- 1119
- Correlation of changes in gravity, elevation, and strain in Southern California OP- 573
- Crustal structure of the Diablo and Gabilan ranges, central California; a reinterpretation of existing data OP- 1270
- Implications of an elastic analysis of in situ stress measurements near the San Andreas Fault OP- 776
- Strain-rate profile across the Elsinore, San Jacinto and San Andreas faults near Palm Springs, California, 1973-81 OP- 624
- Strain relief stress measurements along the San Andreas Fault OF 82-1075
- Mohorovicic discontinuity:** A dipping Moho and crustal low-velocity zone from Pn arrivals at The Geysers-Clear Lake, California OP- 1119
- plate tectonics:** Cenozoic convergence along the California coast; a qualitative test of the hot-spot approximation OP- 869
- Geology of a subduction complex in the Franciscan assemblage of northern California OP- 105
- Tectonic setting of late Miocene, Pliocene, and Pleistocene rocks in part of the Coast Ranges north of San Francisco, California P 1239
- The late Mesozoic Coast Range orogeny and subsequent collision events in Northern California and southwestern Oregon OP- 106
- California gulf** see Gulf of California
- Cambrian** see also under stratigraphy under Great Basin; Idaho; Missouri; Nevada; New York; Rocky Mountains; Utah
- Cambrian—stratigraphy**
- boundary:** Evolutionary and geologic problems at the Precambrian-Cambrian boundary; historical perspectives OP- 1117
- Canada** see also Alberta; Appalachians; Atlantic Coastal Plain; British Columbia; Canadian Shield; Great Lakes; Great Lakes region; Great Plains; Manitoba; New Brunswick; Ontario; Rocky Mountains; Yukon Territory
- Canada—oceanography**
- continental slope:** Acoustic interpretation of Quaternary sedimentation and erosion on the channelled upper Laurentian Fan, Atlantic margin of Canada OP- 966
- Canadian Shield—geomorphology**
- meteor craters:** A large-scale positive-gravity anomaly in northeastern North America; possible evidence for large-scale meteorite impact OP- 631

- Concentrically zoned pattern in the Bouguer gravity anomaly map of northeastern North America OP- 151
- Canadian Shield—geophysical surveys**
 - surveys*: Geology of buried Precambrian rocks in the northern Midcontinent inferred from geophysical data OP- 195
- Canadian Shield—structural geology**
 - tectonics*: Geology of buried Precambrian rocks in the northern Midcontinent inferred from geophysical data OP- 195
- carbon—abundance**
 - water*: Discharge of organic carbon from rivers; estimates and sources of errors OP- 879
- carbon—geochemistry**
 - black shale*: Short-range vertical variation in organic carbon, carbonate carbon, total sulfur contents and Munsell color values in a core from the Upper Pennsylvanian Stark Shale Member of the Dennis Limestone, Wabaunsee County, Kansas OF 83-0315
 - marine sediments*: An interpretation of carbon and sulfur relationships in Black Sea sediments as indicators of environments of deposition OP- 686
 - sedimentary rocks*: Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa OP- 498
 - Origin and geochemistry of redox cycles of Jurassic to Eocene age, Cape Verde Basin (DSDP Site 367), continental margin of North-West Africa OP- 285
 - surface water*: Nutrient and detritus transport in the Apalachicola River, Florida OF 83-0130
- carbon— isotopes**
 - C-13/C-12*: Big Soda Lake, Nevada; Part II, Carbon isotopes OP- 1046
 - Burial cement in Sunniland reservoirs, Lower Cretaceous of southern Florida OP- 469
 - Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa OP- 497
 - Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah OP- 970
 - $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the Northeast Caribbean, late Holocene OP- 542
 - Epigenetic zoning in surface and near-surface rocks resulting from seepage-induced redox gradients, Velma oil field, Oklahoma OP- 311
 - Evaluation of direct-precipitation and gas-evolution methods for radiocarbon dating of ground water OP- 1331
 - Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40
 - Hydrocarbons in sediments from Great Salt Lake, Utah OP- 50
 - Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884
 - Methane and other hydrocarbon gases in marine sediments OP- 233
 - Natural gas analyses from offshore Gulf of Mexico OF 83-0152
 - Origin of magnesium clays from the Amargosa Desert, Nevada OP- 618
 - Petroleum geology of Cook Inlet Basin, Alaska; an exploration model OP- 728
 - Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer OP- 46
 - Relation of natural gas composition to thermal maturity and source rock type in San Juan Basin, northwestern New Mexico and southwestern Colorado OP- 1029
 - Significance of shallow gas in ancient marine sequences OP- 1030
 - Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru OP- 882
 - Stable isotope analyses P 1173
 - Stable isotope compositions of glasses from the Juan de Fuca Ridge OP- 661
 - The origin of epigenetic graphite; evidence from isotopes OP- 1280
 - Thermal decarboxylation of acetic acid; implications for origin of natural gas OP- 615
 - carbon dioxide*: Distribution of gaseous $^{12}\text{CO}_2$, $^{13}\text{CO}_2$, and $^{14}\text{CO}_2$ in the sub-soil unsaturated zone of the western US Great Plains OP- 1228
 - soil gas*: $^{13}\text{CO}_2$ and $^{14}\text{CO}_2$ measurements on soil atmosphere sampled in the western Great Plains of the US OP- 462
- carbonate rocks** *see under* sedimentary rocks
- carbonates** *see under* minerals
- Carboniferous** *see also under* stratigraphy *under* Alaska; Arizona; Idaho; Kansas; Kentucky; Nevada; North America; Oregon; Southwestern U.S.; Texas; Utah; West Virginia
- Carboniferous—paleontology**
 - Coelenterata*: Revision of Lithostrotrionella (Coelenterata, Rugosa) from the Carboniferous and Permian P 1247
- Caribbean region** *see also the individual countries*
- Caribbean region—areal geology**
 - regional*: The Caribbean region OP- 212
- Caribbean Sea—engineering geology**
 - soil mechanics*: Geotechnical properties of two calcareous oozes OP- 1248
- Caribbean Sea—geophysical surveys**
 - seismic surveys*: Foundations of Quaternary reefs in south-central Belize Lagoon, Central America OP- 223
 - surveys*: Underway geophysics collected on Deep Sea Drilling Project Leg 68 OP- 409
- Caribbean Sea—oceanography**
 - continental shelf*: Sedimentology of Southwestern Roads region, U.S. Virgin Islands; origin and rate of sediment accumulation OP- 621
 - marine geology*: The Caribbean region OP- 212
 - ocean floors*: Underway geophysics collected on Deep Sea Drilling Project Leg 68 OP- 409
 - sedimentation*: ^{210}Pb method for estimating the rate of carbonate sand sedimentation OP- 541
 - sediments*: Amino acids in sediments from Leg 68, Site 502 OP- 659
 - $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the Northeast Caribbean, late Holocene OP- 542
- Caribbean Sea—stratigraphy**
 - Cenozoic*: High-resolution carbonate and organic-carbon stratigraphies for the late Neogene and Quaternary from the western Caribbean and eastern Equatorial Pacific OP- 410
- Carpathians** *see also the individual countries*
- cartography** *see under* maps
- catalogs—areal geology**
 - nomenclature*: The National Gazetteer of the United States of America; New Jersey 1983 P 1200-NJ
- catalogs—economic geology**
 - geothermal energy*: Selected data for low-temperature (less than 90°C) geothermal systems in the United States; reference data for U. S. Geological Survey Circular 892 OF 83-0250
 - lead ores*: Occurrences of lead minerals in Alaska OF 83-0073
 - maps*: Index to slides of geological map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-A
 - mineral resources*: Summaries of data on and lists of references to metallic and selected nonmetallic mineral deposits, in the Chandalar Quadrangle, Alaska OF 83-0278
 - polymetallic ores*: Geologic and grade-tonnage information on volcanic-hosted copper-zinc-lead massive sulfide deposits OF 83-0089
- catalogs—general**
 - associations*: Identification codes for organizations listed in computerized data systems of the U. S. Geological Survey OF 82-0921
 - Worldwide directory of national earth-science agencies and related international organizations C 0834
 - publications*: Publications of the Geological Survey, 1982 p. 63
- catalogs—geochronology**
 - absolute age*: Compilation of revised ages of volcanic units in the San Juan Mountains, Colorado; recalculated K-Ar age determinations using IUGS constants OF 83-0668
- catalogs—geophysical surveys**
 - remote sensing*: A catalog of selected Viking orbiter images OP- 1244
 - surveys*: Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0703
 - well-logging*: An index of geophysical well logging in Virginia by the U. S. Geological Survey OF 82-0432
- catalogs—hydrogeology**
 - hydrology*: Definitions of components of the Water Data Sources Directory maintained by the National Water Data Exchange OF 82-0923
 - Directory of assistance centers of the National Water Data Exchange (NAWDEx) OF 82-0925
 - Directory of member organizations of the National Water Data Exchange OF 82-0902
 - Index of surface-water stations in Texas, January 1982 OF 82-0269
 - Index of surface-water stations in Texas, January 1983 OF 83-0202
 - 1982 Water Quality Laboratory services catalog OF 81-1016
 - 1983 Water Quality Laboratory services catalog OF 82-0766
 - thermal waters*: Alaska; basic data for thermal springs and wells as recorded in Geotherm OF 83-0426
 - Thermal springs of the United States and other countries of the world; a summary P 0492
- catalogs—mineralogy**
 - miscellaneous minerals*: The Ford-Fleischer file of mineralogical references, 1981-1982 inclusive OF 83-0615
- catalogs—paleontology**
 - fossil localities*: Map and table describing fossil collections and related samples in the Ketchikan and Prince Rupert quadrangles, southeastern Alaska OF 82-1088

- Insecta:** A generic guide to the larvae of the Nearctic Tanytarsini OF 82-0768
- A guide to the larvae of the Nearctic Diamesinae (Diptera; Chironomidae); the genera *Boreoheptagyia*, *Protanypus*, *Diamesa*, and *Pseudokiefferiella* WRI 83-4006
- catalogs—sedimentary petrology**
- sedimentary rocks:* Availability of petrographic thin-sections from measured sections and wells in Early to Late Cretaceous Nanushuk Group rocks, National Petroleum Reserve in Alaska, North Slope, Alaska OF 83-0520
- catalogs—seismology**
- earthquakes:* Catalog of earthquakes in southern Alaska, April-June 1980 OF 83-0014
- Catalog of earthquakes in southern Alaska, July-September 1980 OF 83-0015
- Earthquake Information Bulletin, v. 14, no. 6, November-December 1982 p. 11
- Earthquake Information Bulletin, v. 15, no. 1, January-February 1983 p. 11
- Earthquake Information Bulletin, v. 15, no. 2, March-April 1983 p. 11
- Earthquake Information Bulletin, v. 15, no. 3, May-June 1983 p. 11
- Earthquake Information Bulletin, v. 15, no. 4, July-August 1983 p. 11
- Earthquake Information Bulletin, v. 15, no. 5, September-October 1983 p. 11
- Earthquakes in the United States, January-March 1982 C 0896-A
- Earthquakes in the United States, October-December 1981 C 0871-D
- Preliminary determination of epicenters. Monthly listing for April 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for August 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for December 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for February 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for January 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for July 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for June 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for March 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for May 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for November 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for October 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for September 1982 p. 11
- Seismicity near Charleston, South Carolina, March 1973 to December 1979 P 1313
- cement materials** *see* construction materials *under* economic geology *under* United States; Washington; *see* construction materials *under* effects *under* pollution
- Cenozoic** *see also* *under* geochronology *under* California; Colorado Plateau; Great Basin; *see also* *under* stratigraphy *under* Arctic region; Atlantic Coastal Plain; Atlantic Ocean; Bering Sea; California; Caribbean Sea; Florida; Gulf of Mexico; Pacific Ocean; South Carolina; Virginia; Washington
- Cenozoic—stratigraphy**
- paleo-oceanography:* Cenozoic paleoceanography C 0822
- paleoclimatology:* Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation OP- 748
- Time series analysis of Cenozoic era sea level and paleotemperature data OF 83-0566
- Central America** *see also* Belize; Costa Rica; Guatemala
- Central America—tectonophysics**
- plate tectonics:* A summary of results from the IPOD transects across the Japan, Mariana, and Middle-America convergent margins OP- 1259
- Cephalopoda** *see under* Mollusca
- cesium—abundance**
- uranium minerals:* Margaritasite; a new mineral of hydrothermal origin from the Pena Blanca uranium district, Mexico OP- 1284
- cesium—geochemistry**
- analclime:* Selective concentration of cesium in analclime during hydrothermal alteration, Yellowstone National Park, Wyoming OP- 602
- cesium—isotopes**
- Cs-134:* Radionuclide tracers for sediment in the upper Chesapeake Bay OP- 310
- changes of level** *see also* *under* geomorphology *under* Maryland; Utah; *see also* *under* stratigraphy *under* Alaska; Arctic region; Bering Sea; California; continental shelf; New England; Quaternary; USSR; Utah; Washington; Yukon Territory
- changes of level—interpretation**
- diagenesis:* Effect of sea-level fluctuations on porosity and mineralogic changes in coastal aquifers C 0822
- changes of level—patterns**
- statistical analysis:* Time series analysis of Cenozoic era sea level and paleotemperature data OF 83-0566
- changes of level—processes**
- eustacy:* Supply of sediment to oceans; climate and eustatic sea level changes and interregional unconformities OP- 38
- chemical analysis** *see also* electron microscopy; spectroscopy; thermal analysis; X-ray analysis
- chemical analysis—methods**
- chromatography:* Determination of pentachlorophenol in water and aquifer sediments by high-performance liquid chromatography OF 82-0124
- The separation of tungstate and molybdate by ion chromatography and its application to natural waters OP- 366
- colorimetry:* Determination of dissolved aluminum in water samples WRI 82-4018
- spectroscopy:* Major, minor, and trace elements in samples from the Wheeler Wilderness Study Area, Colorado, as determined by inductively coupled argon plasma-atomic emission spectrometry OF 83-0405
- wet methods:* Determination of fluoride in silicate rocks without separation of aluminum using a specific ion electrode OP- 565
- chemical analysis—techniques**
- applications:* Study and interpretation of the chemical characteristics of natural water W 1473
- The classical chemical analysis of silicate rocks; the old and the new B 1547
- automatic data processing:* RDARL4, a Fortran interface for transferring chemical analytical data from an Applied Research Laboratories electron microprobe to a PDP-11 computing system OF 83-0713
- leaching:* Comparison of hot hydroxylamine hydrochloride and oxalic acid leaching of stream sediment and coated rock samples as anomaly enhancement techniques OP- 369
- manuals:* Methods for the determination of organic substances in water and fluvial sediments, U. S. Geological Survey Techniques of Water-Resources Investigations; Book 5, Laboratory analysis, Chapter A3 OF 82-1004
- sample preparation:** A review of classical silicate-rock analysis and recommended modifications of classical methods of analysis C 0864
- Coal quality loss from acquisition to analysis; a preliminary time study OF 83-0167
- Contour maps, statistical summaries, and analytical data for stream-sediment samples collected from the Glacier Peak Study Area and analyzed using an aquaregia leach/inductively coupled plasma method OF 83-0343
- Determining the form of metals in oxidized sediments; assessing the action of chemical extractants OF 83-0341
- Development of methodology for incorporating sediment chemistry into predictions of metal bioavailability in sediments; case study, Zn OF 80-0341
- Effect of sample storage on metal extractability from oxidized estuarine sediments OF 80-0341
- Laser fluorometric analysis of plants for uranium exploration OP- 484
- China—economic geology**
- petroleum:* Applications of Landsat imagery to problems of petroleum exploration in Qaidam Basin, China OP- 51
- Assessment of undiscovered conventionally recoverable petroleum resources of onshore China OF 83-0801
- tungsten ores:* Landsat analysis of the Yanchiatan tungsten district, Hunan Province, People's Republic of China OP- 206
- China—geophysical surveys**
- remote sensing:* Applications of Landsat imagery to problems of petroleum exploration in Qaidam Basin, China OP- 51
- Landsat analysis of the Yanchiatan tungsten district, Hunan Province, People's Republic of China OP- 206
- China—paleontology**
- Mollusca:* Middle Triassic Gastropoda from Qingyan, Guizhou Province, China; 1, Pleurotomariacea and Murchisoniacea OP- 1333
- Middle Triassic Gastropoda from Qingyan, Guizhou Province, China; 2, Trochacea and Neritacea OP- 1334
- China—tectonophysics**
- crust:* Experiments in the in-situ stress measurements using the stress relieving and hydraulic fracturing techniques OF 82-1075
- chlorine—geochemistry**
- ground water:* Modeling chloride movement in the alluvial aquifer at the Rocky Mountain Arsenal, Colorado W 2044
- surface water:* Geochemical evolution of Great Salt Lake, Utah OP- 1167
- chromatography** *see under* methods *under* chemical analysis
- chromite ores** *see also* *under* economic geology *under* California; New Caledonia
- chromite ores—resources**
- models:* Mineral deposit grade-tonnage models OF 83-0623
- chromium—geochemistry**
- stream sediments:* Distribution and abundance of chromium, as determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-T
- Distribution and abundance of chromium, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-U
- clastic rocks** *see under* sedimentary rocks

clastic sediments *see under* sediments**clay mineralogy—areal studies***Arizona*: Clay mineralogy P 1173*Atlantic Coastal Plain*: Mineral phases produced by weathering on surfaces of different ages from New Jersey to South Carolina; a comparison of rate and duration of weathering

OP- 926

— Postdepositional alteration of surface and near-surface minerals in selected coastal plain formations of the Middle Atlantic States

P 1067-F

— Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits

OP- 739

California: Holocene sedimentation in Richardson Bay, California

OF 83-0312

Colorado: The mobility of uranium and other elements during alteration of rhyolite ash to montmorillonite; a case study in the Troublesome Formation, Colorado, U.S.A.

OP- 1343

Illinois: Origin of an underclay as revealed by vertical variations in mineralogy and chemistry

OP- 1038

Kentucky: Chemical characteristics and origin of Ordovician K-bentonites along the Cincinnati Arch; a discussion

OP- 1099

— Volcanic origin of the flint clay parting in the Hazard No. 4 (Fire Clay) coal bed of the Breathitt Formation in eastern Kentucky

OP- 124

New York: Notes on the clay mineralogy of the Retsof salt bed, International Salt Company Mine, Retsof, New York

OF 83-0718

North Carolina: Hydrocarbon potential of the Dan River-Danville Triassic basin, North Carolina and Virginia

OP- 1223

North Dakota: Clays, cations, and geophysical log response of gas-producing and nonproducing zones in the Gammon Shale (Cretaceous), southwestern North Dakota

OP- 418

Oregon: Clay minerals of Lake Abert, an alkaline, saline lake

OP- 588

Pacific Ocean: Distribution, mineralogy, and texture of manganese nodules and their relation to sedimentation at DOME Site A in the equatorial North Pacific

OP- 968

Utah: Characteristics of some oil shale, east-central Uinta Basin, Utah

OP- 601

— Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah

OP- 970

Washington: Origin, distribution, and rapid removal of hydrothermally formed clay at Mount Baker, Washington

P 1022-E

clay mineralogy—experimental studies*crystal growth*: Mineral paragenesis in a talc-water experimental hydrothermal system

OP- 1298

clay mineralogy—mineral data*gibbsite*: The effect of sulfate on aluminum concentrations in natural waters; some stability relations in the system Al_2O_3 - SO_3 - H_2O at 298 K

OP- 881

glauconite: Aqueous geochemistry and the exchangeable cation composition of glauconite in the Aquia Aquifer, Maryland

OP- 221

kerolite: Mixed-layer kerolite/stevensite from the Amargosa Desert, Nevada

OP- 332

mixed-layer minerals: Origin of magnesium clays from the Amargosa Desert, Nevada

OP- 618

clays *see also under* economic geology *under* Nevada**climate, ancient** *see* paleoclimatology**coal** *see also under* economic geology *under* Alaska; Appalachians; automatic data processing; Colorado; Idaho; Iowa; Kansas; Kentucky; Missouri;Montana; New Mexico; North Dakota; Oklahoma; Pennsylvania; United States; Utah; Virginia; Western U.S.; Wyoming; *see also under* organic residues *under* sedimentary rocks**coal—exploration***geophysical methods*: Use of shear-wave seismics in evaluation of strippable coal resources

OP- 495

global: World coal exploration and development

OF 83-0741

coal—genesis*lacustrine environment*: Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes

OP- 1041

coal—geochemistry*sulfur*: Sulfur diagenesis in Everglades peat and origin of pyrite in coal

OP- 17

trace elements: Modes of occurrence of trace elements and minerals in coal; an analytical approach

OP- 371

coal—properties*chemical properties*: Coal quality loss from acquisition to analysis; a preliminary time study

OF 83-0167

physical properties: Recommended procedures and methodology of coal description

C 0894

coal—resources*automatic data processing*: GARNETAB; a computer program to create an absentee file for executing GARNET (graphic analysis of resources using numeric evaluation techniques)

OF 83-0617

— Novice's Guide to PACER-GARNET for use with the National Coal Resources Data System; a flow chart

OF 83-0605

classification: Coal resource classification system of the U. S. Geological Survey

C 0891

— Coal resource classification system of the United States Geological Survey, 1982

OP- 1319

cobalt—analysis*chemical analysis*: Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types

OF 80-0341

cobalt—geochemistry*stream sediments*: Distribution and abundance of cobalt, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska

OF 83-0420-R

— Distribution and abundance of cobalt, determined by spectrographic analysis, in the non-magnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska

OF 83-0420-S

cobalt— isotopes*Co-60*: Movement of radionuclides in consolidated coastal sediments at the low-level radwaste burial site near Barnwell, South Carolina

OP- 182

— Uptake of ^{60}Co , ^{110m}Ag , and ^{65}Zn from well-defined sediments by *Macoma balthica*

OF 80-0341

cobalt ores *see also under* economic geology *under* Idaho; Morocco**Coelenterata** *see also* corals**Coelenterata—morphology***colonial taxa*: Arborescent corals

OP- 911

Coelenterata—Rugosa*Carboniferous*: Revision of *Lithostrotrionella* (Coelenterata, Rugosa) from the Carboniferous and Permian

P 1247

Ordovician: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region

P 1066-N

Coelenterata—taxonomy*Ordovician*: An Early Ordovician patelliform gastropod, Palaeolophacmaea, reinterpreted as a coelenterate

OP- 1338

Colombia—economic geology*metal ores*: U. S. Geological Survey-Ingeominas mineral resource assessment of Colombia; ore deposit models

OF 83-0423

— U. S. Geological Survey-Ingeominas mineral resource assessment of Colombia; additional ore deposit models

OF 83-0901

mineral resources: U. S. Geological Survey-Ingeominas mineral resource assessment of Colombia; additional ore deposit models

OF 83-0901

Colorado—areal geology*maps*: Geologic and structural maps and sections of the Marshall Pass mining district, Saguache, Gunnison, and Chaffee counties, Colorado

I-1425

— Geologic map of the Canyon of Lodore North Quadrangle, Moffat County, Colorado

GQ-1568

— Geologic map of the Durango Quadrangle, southwestern Colorado

I-0764

— Geologic map of the Gladiator Mine, Lake City, Colorado

OF 83-0704

— Geologic map of the Indian Hills Quadrangle, Jefferson County, Colorado

GQ-1073

— Geologic map of the Mount Lincoln 15-minute Quadrangle, Eagle, Lake, Park, and Summit counties, Colorado

MF-0556

— Geologic map of the Mount Richthofen Quadrangle and the western part of the Fall River Pass Quadrangle, Grand and Jackson counties, Colorado

I-1291

— Geologic map of the Sable Quadrangle, Adams and Denver counties, Colorado

GQ-1567

— Geologic map of the Trinidad Quadrangle, south-central Colorado

I-0558

— Geologic map of the Vernal 1° by 2° Quadrangle, Colorado, Utah and Wyoming

MF-1163

— Preliminary geologic map of the Indian Valley Quadrangle, Rio Blanco and Moffat counties, Colorado

MF-0836

— Reconnaissance geologic map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado

MF-1542-A

regional: Geologic sections across Colorado

I-1416

Uinta Mountains: The geologic story of the Uinta Mountains

B 1291

Colorado—economic geology*coal*: Geologic map and coal sections of the Pine Ridge Quadrangle, Moffat County, Colorado

OF 83-0633

— Geophysical logs of nine holes drilled in 1978 in the Yampa coal field, Hamilton and Pagoda quadrangles, Moffat County, Colorado

OF 82-0475

— Preliminary thermal-maturity map of the Cameo and Fairfield or equivalent coal zone in the Piceance Creek basin, Colorado

MF-1575

fuel resources: Geology of Willow Creek foreland thrust play, Moffat County, Colorado

OP- 992

geothermal energy: Audio-magnetotelluric and telluric profiling studies in the Shaw Warm Springs region, Colorado

OF 81-0958

— Colorado; basic data for thermal springs and wells as recorded in Geotherm

OF 83-0429

gold ores: Alteration and geologic setting of the Golden Wonder Mine, western San Juan Mountains, Colorado

OP- 98

helium gas: Helium and ground temperature surveys at Steamboat Springs, Colorado

OP- 764

maps: Cortez Quadrangle, Colorado and Utah

OP- 188

— Craig Quadrangle, Colorado

OP- 263

— Denver Quadrangle, Colorado

OP- 536

— Geologic map and coal sections of the Pine Ridge Quadrangle, Moffat County, Colorado

OF 83-0633

— Geology, structure, and uranium deposits of the Moab Quadrangle, Colorado and Utah

I-0360

— Greeley Quadrangle, Colorado

OP- 537

— Map showing geology and mineral resource potential of the Oh-Be-Joyful Wilderness Study Area, Gunnison County, Colorado

MF-1582-A

— Mineral resource potential and geologic map of the Powderhorn Wilderness Study Area and Cannibal Plateau Wilderness Roadless Area, Gunnison and Hinsdale counties, Colorado

MF-1483-A

— Mineral resource potential map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado

MF-1542-C

— Moab Quadrangle, Colorado and Utah

OP- 189

— Preliminary thermal-maturity map of the Cameo and Fairfield or equivalent coal zone in the Piceance Creek basin, Colorado

MF-1575

— Pueblo Quadrangle, Colorado

OP- 300

— Vernal Quadrangle, Colorado and Utah

OP- 262

mineral resources: Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona

OF 83-0703

— Map showing geology and mineral resource potential of the Oh-Be-Joyful Wilderness Study Area, Gunnison County, Colorado

MF-1582-A

— Mineral deposits associated with alkaline intrusive complexes; examples from Wyoming, Colorado, Montana, and California

OP- 34

— Mineral resource potential and geologic map of the Powderhorn Wilderness Study Area and Cannibal Plateau Wilderness Roadless Area, Gunnison and Hinsdale counties, Colorado

MF-1483-A

— Mineral resource potential map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado

MF-1542-C

— Mineral resource potential of the Greenhorn Mountain Wilderness Study Area, Huerfano and Pueblo counties, Colorado

OF 83-0473

— Slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona

OF 83-0443

molybdenum ores: GRANNY, a data bank of chemical analyses of Laramide and younger high-silica rhyolites and granites from Colorado and north-central New Mexico

OF 83-0516

natural gas: Relation of natural gas composition to thermal maturity and source rock type in San Juan Basin, northwestern New Mexico and southwestern Colorado

OP- 1029

— The San Juan Basin contains large reserves of nonassociated gas

OP- 1033

oil shale: Development of publicly owned oil shale lands of United States; prospect for 1980s

OP- 861

— Ground-water potential for oil shale development in northwestern Colorado

OP- 1283

— Hydrologic-information needs for oil-shale development, northwestern Colorado

WRI 82-4076

— Regional stratigraphic and depositional analysis of rock units in the upper Garden Gulch and Parachute Creek members of the Green River Formation, Piceance Creek basin, Colorado

OP- 969

— Water for oil-shale development

WRI 82-4076

petroleum: Petroleum of wilderness lands in Colorado

C 0902-A-P

thorium ores: Geologic occurrence and resource potential of thorium in the Wet Mountains area, Custer and Fremont counties, Colorado; an update

OP- 35

uranium ores: Alteration and vein mineralization, Schwartzwalder uranium deposit, Front Range, Colorado

OF 83-0417

— Analytical data from host rocks and ores, Schwartzwalder uranium deposit, Front Range, Colorado

OF 83-0364

— Cortez Quadrangle, Colorado and Utah

OP- 188

— Craig Quadrangle, Colorado

OP- 263

— Denver Quadrangle, Colorado

OP- 536

— Geology, structure, and uranium deposits of the Moab Quadrangle, Colorado and Utah

I-0360

— Greeley Quadrangle, Colorado

OP- 537

— Moab Quadrangle, Colorado and Utah

OP- 189

— Pueblo Quadrangle, Colorado

OP- 300

— Structural and mineralogical characteristics and distribution of carbonate-dominated fault breccias associated with uranium deposits, Front Range, Colorado

OP- 1265

— Vernal Quadrangle, Colorado and Utah

OP- 262

water resources: Ground water for oil-shale development, Piceance Basin, Colorado

OP- 16

— Water for oil-shale development

WRI 82-4076

— Water-resources investigations of the U. S. Geological Survey in Colorado; fiscal year 1983

OF 83-0138

Colorado—engineering geology

geologic hazards: Self-potential surveys near several Denver Water Department dams

OF 83-0302

maps: Preliminary map of landslide deposits, Vernal 1° by 2° Quadrangle, Colorado and Utah

MF-0696

reservoirs: Self-potential surveys near several Denver Water Department dams

OF 83-0302

rock mechanics: Aspects of the size-strength relationship of unjointed rocks

OP- 1208

— In situ geomechanics of crystalline and sedimentary rocks; Part IV, Continued field testing of the modified U.S. Geological Survey 3-D borehole stress probe

OF 83-0750

slope stability: Preliminary map of landslide deposits, Vernal 1° by 2° Quadrangle, Colorado and Utah

MF-0696

waste disposal: Chemical and mineral composition data on oil shale and retorted oil-shale wastes from Rulison, Colorado

OF 83-0378

— Oil-shale processing wastes

WRI 82-4076

— Spoil-pile geochemistry and hydrology

WRI 82-4076

waterways: Sediment and channel-geometry investigations for the Kansas River bank stabilization study, Kansas, Nebraska, and Colorado

OF 81-0128

Colorado—environmental geology

geologic hazards: Hydrology and subsidence potential of proposed coal-lease tracts in Delta County, Colorado

WRI 83-4069

impact statements: Water resources and potential hydrologic effects of oil-shale development in the southeastern Uinta Basin, Utah and Colorado

OF 83-0216

land use: An assessment of the hydrologic information required for the U.S. Bureau of Land Management-U.S. Geological Survey coal-hydrology program in the West

OF 82-1012

— Association of Earth Science Editors 1981 field trip; environmental geology of the greater Denver area, Colorado

OP- 483

pollution: Emissions to the atmosphere

WRI 82-4076

— Groundwater contamination and aquifer reclamation at the Rocky Mountain Arsenal, Colo.

OP- 642

— Modeling chloride movement in the alluvial aquifer at the Rocky Mountain Arsenal, Colorado

W 2044

— Oil-shale processing wastes

WRI 82-4076

— Spoil-pile geochemistry and hydrology

WRI 82-4076

reclamation: Groundwater contamination and aquifer reclamation at the Rocky Mountain Arsenal, Colo.

OP- 642

— Reclamation of mined lands in the western coal region

C 0872

Colorado—geochemistry

isotopes: Isotopic composition of uranium and thorium in crystalline rocks

OP- 1054

maps: Geochemical map of the Powderhorn Wilderness Study Area and Cannibal Plateau Roadless Area, Gunnison and Hinsdale counties, Colorado

MF-1483-C

— Geochemical map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado

MF-1542-B

surveys: Geochemical analyses of rock, stream-sediment, and heavy-mineral concentrate samples collected from the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado

OF 83-0391

— Stream-sediment geochemical survey of the Bureau of Land Management's Arkansas Canyon Planning Unit in south-central (Canon City area) Colorado

OF 81-0673

trace elements: Analytical data from host rocks and ores, Schwartzwalder uranium deposit, Front Range, Colorado

OF 83-0364

— Genetic implication of minor-element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado

OP- 36

— Geochemical and mineralogical data for altered rocks and soils collected in and near the Williams Fork and St. Louis Peak Roadless Areas, Clear Creek, Grand, and Summit counties, Colorado

OF 83-0651

— Major, minor, and trace elements in samples from the Wheeler Wilderness Study Area, Colorado, as determined by inductively coupled argon plasma-atomic emission spectrometry

OF 83-0405

— The mobility of uranium and other elements during alteration of rhyolite ash to montmorillonite; a case study in the Troublesome Formation, Colorado, U.S.A.

OP- 1343

weathering: Chemical and mineral composition data on oil shale and retorted oil-shale wastes from Rulison, Colorado

OF 83-0378

Colorado—geochronology

Paleocene: NDS 103; Palaeocene, K-Ar/biotite-pumice, Interior N American Basin OP- 898

Tertiary: Compilation of revised ages of volcanic units in the San Juan Mountains, Colorado; recalculated K-Ar age determinations using IUGS constants OF 83-0668

Colorado—geomorphology

maps: Surficial geologic map of the Craig 1/2° by 1° Quadrangle, Moffat and Routt counties, Colorado I-1346

Colorado—geophysical surveys

electrical surveys: Self-potential surveys near several Denver Water Department dams OF 83-0302

heat flow: Subsurface temperature map showing depth to 180° Fahrenheit in the Greater Green River basin of Wyoming, Colorado, and Utah MF-1504

magnetic surveys: Aeromagnetic map of part of the Pike National Forest and vicinity, Colorado OF 83-0632

— Aeromagnetic map of the Powderhorn Wilderness Study Area and Cannibal Plateau Roadless Area, Gunnison and Hinsdale counties, Colorado MF-1483-B

— Aeromagnetic map of the Sangre de Cristo Mountains, Colorado OF 83-0060

maps: Aeromagnetic map of part of the Pike National Forest and vicinity, Colorado OF 83-0632

— Aeromagnetic map of the Powderhorn Wilderness Study Area and Cannibal Plateau Roadless Area, Gunnison and Hinsdale counties, Colorado MF-1483-B

— Aeromagnetic map of the Sangre de Cristo Mountains, Colorado OF 83-0060

— Subsurface temperature map showing depth to 180° Fahrenheit in the Greater Green River basin of Wyoming, Colorado, and Utah MF-1504

surveys: Audio-magnetotelluric and telluric profiling studies in the Shaw Warm Springs region, Colorado OF 81-0958

— Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0703

— Slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0443

Colorado—hydrogeology

ground water: Aquifer testing WRI 82-4076

— Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123

— Ground water in the southeastern Uinta Basin, Utah and Colorado OF 83-0271

— Ground-water quality WRI 82-4076

— Mathematical modeling of the ground-water flow system WRI 82-4076

— Role of solute-transport models in the analysis of groundwater salinity problems in agricultural areas OP- 641

— Test-well drilling and logging WRI 82-4076

— Water-level records for the northern High Plains of Colorado, 1979-83 OF 83-0253

hydrology: Evaluation of sediment yield and sediment data-collection network in the Piceance basin, northwestern Colorado WRI 82-4046

— Hydrologic data for urban storm runoff in the Denver metropolitan area, Colorado OF 82-0872

— Hydrologic data from Naval Oil Shale Reserves, Parachute Creek basin, northwestern Colorado, 1975-79 OF 82-0696

— Hydrologic data from the Tamarack Wildlife Area and vicinity, Logan County, Colorado OF 83-0139

— Hydrology of area 54, Northern Great Plains and Rocky Mountain coal provinces, Colorado and Wyoming OF 83-0146

— Hydrology of area 56, Northern Great Plains and Rocky Mountain coal provinces, Utah and Colorado OF 83-0038

— Plan for hydrologic study of an area to be surface mined for coal in northwestern Colorado OF 82-0874

— Probable impact of proposed reservoirs on several reaches of the Yampa River in Colorado; summary of discussions OP- 878

— Rainfall-runoff data from small watersheds in Colorado, October 1977 through September 1980 OF 82-0873

— Selected biological characteristics of streams in the southeastern Uinta Basin, Utah and Colorado OF 81-0644

— Sensitivity to acidification of lakes in the Flat Tops Wilderness Area, Colorado OP- 1242

— Simulated effects of anticipated coal mining on dissolved solids in selected tributaries of the Yampa River, northwestern Colorado WRI 83-4084

— Streamflow analysis WRI 82-4076

— Streamflow statistical summaries for Colorado streams through September 30, 1975; Volume 3, Colorado River basin from Gunnison River to San Juan River OF 83-0693

— Surface-water quality WRI 82-4076

— Water-quality data for streams in the southern Yampa River basin, northwestern Colorado OF 82-1017

— White River basin quality assessment WRI 82-4076

maps: Depth to the water table (1976-1977) in the Greater Denver area, Front Range urban corridor, Colorado I-0856-K

— Geology, altitude, and depth of the bedrock surface beneath the Ogallala Formation in the northern High Plains of Colorado HA-0669

— Hydraulic characteristics of the principal bedrock aquifers in the Denver Basin, Colorado HA-0659

— Predevelopment and 1980 water table in the northern High Plains of Colorado; and water-level changes, predevelopment to 1980, and 1975 to 1980 HA-0670

— The Ogallala Aquifer in the northern High Plains of Colorado; saturated thickness in 1980; saturated-thickness changes, predevelopment to 1980; hydraulic conductivity; specific yield; and predevelopment and 1980 probable well yields HA-0671

— Well yields and chemical quality of water from water-table aquifers in the Greater Denver area, Front Range urban corridor, Colorado I-0856-J

springs: Chemical and isotopic compositions of selected soda and hot spring waters, Colorado OF 81-0684

— Colorado; basic data for thermal springs and wells as recorded in Geotherm OF 83-0429

— Springs WRI 82-4076

thermal waters: Colorado; basic data for thermal springs and wells as recorded in Geotherm OF 83-0429

Colorado—paleontology

Conodonts: *Rossodus manitouensis* (Conodonts), a new Early Ordovician index fossil OP- 1020

Pisces: Walcott's discovery of Middle Ordovician vertebrates OP- 1336

Colorado—petrology

igneous rocks: The chemical and isotopic record of rock-water interaction in the Sherman Granite, Wyoming and Colorado OP- 1344

Colorado—sedimentary petrology

sedimentary rocks: Evaporite mineral cycles, Paradox Basin, Utah and Colorado OP- 1006

— Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40

Colorado—stratigraphy

Cretaceous: Biostratigraphic correlation chart of some Upper Cretaceous rocks from the Lost Soldier area, Wyoming, to west of Craig, Colorado MF-1548

— Cross section B-B' of Upper Cretaceous and lower Tertiary rocks, southern Piceance Creek basin, Colorado MF-1130-B

— Cross section C-C' of Upper Cretaceous and lower Tertiary rocks, southern Piceance Creek basin, Colorado MF-1130-C

— Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas OP- 811

— Section A-A', subsurface correlations of some Upper Cretaceous and Tertiary rocks from the Cherokee Ridge, Wyoming, to the southeast flank of the Sand Wash Basin, Colorado OF 83-0362

— Structure contour map of the top of the Rollins Sandstone Member of the Mesaverde Formation and Trout Creek Sandstone Member of the Iles Formation, Piceance Creek basin, Colorado MF-1667

Eocene: Descriptions of four stratigraphic sections of parts of the Green River and Uinta formations in the eastern Uinta Basin, Uintah County, Utah, and Rio Blanco County, Colorado OF 83-0017

Jurassic: Stratigraphic sections of Middle Jurassic Entrada Sandstone and related rocks from Dewey Bridge, Utah, to Bridgeport, Colorado OC-0122

— Stratigraphic sections of subsurface Jurassic rocks in the San Juan Basin, New Mexico, Colorado, Utah, and Arizona OC-0118

maps: Structure contour map of the top of the Rollins Sandstone Member of the Mesaverde Formation and Trout Creek Sandstone Member of the Iles Formation, Piceance Creek basin, Colorado MF-1667

Pennsylvanian: Minturn and Sangre de Cristo formations of southern Colorado; a prograding fan-delta to alluvial-fan sequence shed from ancestral Rocky Mountains OP- 694

Pleistocene: Probable nonglacial origin of "till" in the mountains of north-central Colorado OP- 727

Proterozoic: Las Animas Formation (upper Precambrian) in the subsurface of southeastern Colorado B 1529-G

Tertiary: Cross section B-B' of Upper Cretaceous and lower Tertiary rocks, southern Piceance Creek basin, Colorado MF-1130-B

— Cross section C-C' of Upper Cretaceous and lower Tertiary rocks, southern Piceance Creek basin, Colorado MF-1130-C

Colorado—structural geology

neotectonics: Extension in the Rio Grande Rift OP- 258

tectonics: An overview of the tectonic history of Colorado, with emphasis on the Cenozoic OP- 628

- Friction, faulting, and in-situ stress OP- 1347
- Morphology of fault scarps in the Rio Grande Rift, Colorado, as an indicator of age of faulting OP- 242
- Colorado—tectonophysics**
- crust*: Extension in the Rio Grande Rift OP- 258
- Colorado Plateau** *see also* the individual states
- Colorado Plateau—areal geology**
- bibliography*: Geologic references index for the Navajo Indian Reservation, Arizona, New Mexico, and Utah OF 83-0002
- Colorado Plateau—economic geology**
- metal ores*: Mineralization and other geologic factors related to the Morrison Formation in particular the northern two-thirds of the Colorado Plateau region; basic data and factor-analysis results OF 82-1130
- uranium ores*: Lithologic, petrographic and resource data to accompany report on estimation of uranium endowment in the Westwater Canyon Member, Morrison Formation, San Juan Basin, Colorado Plateau PB-83 255 042
- Colorado Plateau—engineering geology**
- maps*: Landslide overview map of the conterminous United States P 1183
- slope stability*: Landslide overview map of the conterminous United States P 1183
- Colorado Plateau—geochronology**
- Cenozoic*: Compositional and chronologic variations in volcanic rocks across the Colorado Plateau margin in Arizona OP- 1246
- Colorado Plateau—sedimentary petrology**
- sedimentary structures*: Dune size in paleodeserts of Colorado Plateau OP- 1057
- sedimentation*: Late Triassic cyclic deposition on the Colorado Plateau and its regional implications OP- 718
- Colorado Plateau—stratigraphy**
- Cretaceous*: Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas OP- 811
- Triassic*: Aspects of the palynology of the Chinle Formation (Upper Triassic), Colorado Plateau, Arizona, Utah, and New Mexico OF 82-0937
- Colorado Plateau—structural geology**
- tectonics*: Late Jurassic tectonism on west side of Colorado Plateau, Utah and Arizona OP- 952
- Colorado Plateau—tectonophysics**
- plate tectonics*: The relation to plate motions of United States Cordilleran foreland deformation OP- 475
- colorimetry* *see under* methods *under* chemical analysis
- Columbia Plateau** *see also* the individual states
- Columbia Plateau—stratigraphy**
- Tertiary*: Correlation of major Pliocene and Miocene ash-flow sheets, eastern Snake River plain, Idaho OP- 759
- Columbia Plateau—structural geology**
- neotectonics*: Evidence of tectonic stability along the middle Columbia River, Washington, in Quaternary time OF 83-0365
- Tectonic rotations recorded by flows in the Columbia River Basalt Group, Washington and Oregon OP- 1137
- tectonics*: A synopsis of the structure and stratigraphy of south-central Idaho; contributions by the U. S. Geological Survey since 1975 OP- 1143
- Columbia Plateau—tectonophysics**
- plate tectonics*: Tectonic rotations recorded by flows in the Columbia River Basalt Group, Washington and Oregon OP- 1137
- concretions* *see under* secondary structures *under* sedimentary structures
- conglomerate* *see also* under clastic rocks *under* sedimentary rocks
- congresses* *see* symposia
- Connecticut—environmental geology**
- land use*: Streamflow information for Connecticut with applications to land-use planning OP- 215
- Connecticut—geomorphology**
- glacial geology*: Recessional moraines and ice retreat in southeastern Connecticut OP- 436
- The surficial geologic maps of Connecticut illustrated by a field trip in central Connecticut OP- 1193
- Connecticut—geophysical surveys**
- seismic surveys*: High resolution seismic reflection methods and their application to hydrologic studies in Connecticut and Florida OP- 463
- Connecticut—hydrogeology**
- ground water*: Ground-water availability and water quality, Farmington, Connecticut OF 80-0751
- Hydrogeologic evaluation of selected stratified-drift deposits in Connecticut WRI 83-4010
- Connecticut—petrology**
- igneous rocks*: Multi-stage deformation of the Preston Gabbro, eastern Connecticut OP- 303
- maps*: Bedrock geologic map of the East Killingly Quadrangle, Connecticut and Rhode Island GQ-1571
- Bedrock geologic map of the Putnam Quadrangle, Windham County, Connecticut GQ-1562
- Connecticut—stratigraphy**
- Devonian*: Correlation of Eastford Gneiss with Canterbury Gneiss, eastern Connecticut B 1529-H
- Paleozoic*: Stratigraphic names in eastern Massachusetts and adjacent states B 1529-H
- Pleistocene*: Permafrost in the northeastern United States coastal plain OP- 907
- Silurian*: Correlation of Eastford Gneiss with Canterbury Gneiss, eastern Connecticut B 1529-H
- Conodonts—biochemistry**
- color*: The southern part of the Southwest Montana thrust belt; a preliminary re-evaluation of structure, thermal maturation and petroleum potential OP- 942
- Conodonts—taxonomy**
- Ordovician*: *Rossodus manitouensis* (Conodonts), a new Early Ordovician index fossil OP- 1020
- conodonts—biostratigraphy**
- Devonian*: Allochthonous Devonian eugeosynclinal rocks in southern Fish Creek Range of central Nevada OP- 986
- Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. OP- 1068
- Phylogeny and ranges of Late Devonian taxa of the conodont family Icriodontidae OP- 1070
- The Devonian-Carboniferous boundary in North America OP- 1069
- Mississippian*: Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. OP- 1068
- Mississippian continental margins of conterminous United States OP- 461
- Ordovician*: Conodonts from the Stones River Group (Middle Ordovician) of the central basin of Tennessee OP- 1260
- Conodonts revise the Lower-Middle Ordovician boundary and timing of miogeoclinal events in the East-Central Appalachian Basin OP- 486
- Magnitude of the post-Knox unconformity (Lower/Middle Ordovician) in the Central Basin of Tennessee, as measured by conodonts OP- 1019
- Paleozoic*: Paleozoic rocks in the Black Pine Mountains, Cassia County, Idaho B 1536
- Thermal maturation values (conodont color alteration indices) for Paleozoic and Triassic rocks, Chandler Lake, De Long Mountains, Howard Pass, Killik River, Misheguk Mountain, and Point Hope quadrangles, Northwest Alaska, and subsurface NPRA OF 83-0505
- Pennsylvanian*: U-Th-Pb dating of conodonts OP- 651
- Silurian*: Late Silurian conodonts update the metamorphosed Fitch Formation, Littleton area, New Hampshire OP- 485
- Triassic*: Smithian (Lower Triassic) conodont biofacies in Idaho, Utah and Nevada OP- 1273
- Thermal maturation values (conodont color alteration indices) for Paleozoic and Triassic rocks, Chandler Lake, De Long Mountains, Howard Pass, Killik River, Misheguk Mountain, and Point Hope quadrangles, Northwest Alaska, and subsurface NPRA OF 83-0505
- Unraveling *Neogondolella carinata* Clark, an Early Triassic conodont OP- 1274
- conodonts—occurrence**
- fossil localities*: Map and table describing fossil collections and related samples in the Ketchikan and Prince Rupert quadrangles, southeastern Alaska OF 82-1088
- conservation* *see also under* environmental geology *under* Alaska; automatic data processing; California; Illinois
- conservation—natural resources**
- remote sensing*: Land resources map making from remote sensing products OP- 19
- water resources*: Assessment of potential impacts to the hydrologic system related to surface mining OF 79-1598
- Before the well runs dry; a workshop on how to design a local water conservation plan OF 82-0235
- construction materials** *see also under* economic geology *under* United States; Washington
- construction materials—geochemistry**
- weathering*: The weathering of brick; causes, assessment and measurement OF 83-0272
- continental drift** *see also under* tectonophysics *under* Pacific region
- continental drift—Gondwana**
- Antarctica*: Configuration of eastern Gondwanaland C 0911
- continental shelf** *see also under* oceanography *under* Africa; Alaska; Arctic Ocean; Atlantic Coastal Plain; Atlantic Ocean; automatic data processing; Bering Sea; California; Caribbean Sea; Eastern U.S.; Florida; Gulf Coastal Plain; Louisiana; Massachusetts; New Hampshire; New Jersey; North America; North Carolina; Pacific Coast; Pacific Ocean; Rhode Island; South Carolina; Texas; United States; Virginia
- continental shelf—oceanography**
- sediments*: Continental shelf OP- 137

continental shelf—stratigraphy

changes of level: Rapid sea level and climatic change; evidence from the continental margin OP- 271

continental slope *see also under oceanography under* Alaska; Atlantic Coastal Plain; Atlantic Ocean; California; Canada; Eastern U.S.; Florida; Guatemala; Gulf of Mexico; Louisiana; Massachusetts; New Jersey; North Carolina; Pacific Ocean; Texas; United States

continental slope—oceanography

sediments: Continental slopes OP- 250

copper—abundance

shells: The impact of waste-water discharge on biological communities in San Francisco Bay OP- 717

copper—geochemistry

gold ores: Implications of the compositions of lode and placer gold OF 82-1052

living taxa: Bioaccumulation and toxicity to Cu in *Macoma balthica*; inter-population heterogeneity and the role of Ag

OF 80-0341

— Controls on Cu concentrations in estuarine bivalves (*Scrobicularia plana*), polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341

— Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge OF 80-0341

stream sediments: Distribution and abundance of copper, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-C

— Distribution and abundance of copper, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-B

— Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-I

copper ores *see also under economic geology under* Alaska; Arizona; automatic data processing; Georgia; Iran; Maine; Michigan; Nevada; Puerto Rico; Saudi Arabia; Vermont

copper ores—genesis

ore-forming fluids: Origin of fluids and metals in porphyry and epithermal mineral deposits OP- 669

copper ores—inventory

global: Geologic and grade-tonnage information on volcanic-hosted copper-zinc-lead massive sulfide deposits OF 83-0089

copper ores—resources

models: Mineral deposit grade-tonnage models OF 83-0623

corals *see also* Coelenterata

corals—biostratigraphy

Mississippian: Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. OP- 1068

— Mississippian continental margins of conterminous United States OP- 461

Ordovician: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N

core—genesis

effects: Could the Earth's core and Moon have formed at the same time? OP- 22

core—properties

magnetic properties: Core and crustal geomagnetic fields OP- 12

Costa Rica—seismology

earthquakes: Shallow-focus seismicity, composite focal mechanism, and tectonics of the Valle Central of Costa Rica OP- 816

Cretaceous *see also under geochronology under* California; Iran; Montana; Nevada; South Dakota; Utah; Western U.S.; Wyoming; *see also under stratigraphy under* Alabama; Alaska; Arctic Ocean; Arizona; Arkansas; Atlantic Coastal Plain; Atlantic Ocean; California; Colorado; Colorado Plateau; Georgia; Gulf Coastal Plain; Minnesota; Mississippi; Montana; New Mexico; North America; North Carolina; North Dakota; Oregon; Rocky Mountains; South Carolina; South Dakota; Texas; United States; Utah; Western Interior; Wyoming

Cretaceous—sedimentary petrology

sedimentary rocks: Changing patterns of phosphogenesis in Mesozoic and Cenozoic OP- 1123

Cretaceous—stratigraphy

biostratigraphy: Building a biostratigraphic framework around an anoxic-kenoxic event C 0822

paleoclimatology: Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation OP- 748

crust *see also under seismology under* Arabian Peninsula; Atlantic Ocean; automatic data processing; Bering Sea; California; Mississippi Valley; Nevada; Pacific Coast; Pacific Ocean; Saudi Arabia; South Carolina; United States; Virginia; Washington; Wyoming; *see also under tectonophysics under* Alaska; Antarctica; Appalachians; Arctic Ocean; Arctic region; Atlantic Coastal Plain; Atlantic Ocean; bibliography; California; China; Colorado; Eastern U.S.; Georgia; Great Lakes region; Japan; Michigan; Mississippi Valley; New Mexico; North America; Oman; Pacific Ocean; Pacific region; South Carolina; Texas; United States; Western U.S.; Wisconsin

crust—composition

continental crust: Evolution of continental crust and mantle heterogeneity; evidence from Hf isotopes OP- 937

interpretation: Magnetism OP- 257

crust—evolution

interpretation: Paleoelevation (by paleobotanical data) OP- 256

oceanic crust: Evidence for and consequences of thermal rejuvenation OP- 788

crust—interpretation

remote sensing: Electromagnetic remote sensing OP- 636

crust—observations

oceanic crust: COSOD; a critique OP- 1254

stress: Acoustic emissions detected by hydrophone during hydraulic fracturing stress measurement OF 82-1075

— The correlation between the orientation of induced fractures and in situ stress of rock anisotropy OF 82-1075

— The use of borehole breakouts in the study of crustal stress OF 82-1075

crust—processes

rheology: Rheology of the lithosphere OP- 625

crust—properties

density: Density estimates of crystalline rocks OP- 1318

elastic properties: State of stress in the lithosphere OP- 1346

magnetic properties: Core and crustal geomagnetic fields OP- 12

— Crustal magnetic anomalies measured by satellite; problems and possibilities OP- 957

— Statistical averaging of marine magnetic anomalies and the aging of oceanic crust OP- 109

— The ocean crustal tape recorder; distinguishing the signal from the noise OP- 107

physical properties: Tectonomagnetism OP- 585

seismicity: In-situ crustal deformation, and intraplate seismicity OP- 1351

crust—theoretical studies

stress: Analysis of states of stress between provinces of constant stress OP- 773

crystal chemistry *see also crystal growth; crystal structure; minerals*

crystal chemistry—carbonates

calcite: Chemical and X-ray analyses of 175 calcite and marble samples from the collection of the National Museum of Natural History, Smithsonian Institution OF 83-0863

crystal chemistry—chain silicates, amphibole group *phase equilibria:* Chapter 2, Experimental studies of amphibole stability; Phase relations and compositions of amphiboles produced in studies of the melting behavior of rocks OP- 521

crystal chemistry—chain silicates, pyroxene group

Ca-Fe-Mn compounds: Geothermometry of (Ca,Fe,Mn)SiO₃ minerals; the experimental approach OP- 158

crystal growth *see also crystal chemistry; crystal structure; minerals*

crystal growth—framework silicates, silica minerals *opal:* Uraniferous opal, Virgin Valley, Nevada; conditions of formation and implications for uranium exploration OP- 1342

crystal growth—native elements

gold: Possible origins of placer gold in Kovukuk and Chandalar districts, Brooks Range, Alaska C 0911

crystal growth—oxides

manganese oxides: Some factors affecting the form of manganese oxides precipitated from aqueous solutions OP- 522

crystal growth—sheet silicates

experimental studies: Mineral paragenesis in a talc-water experimental hydrothermal system OP- 1298

crystal growth—vanadates

margaritasite: Margaritasite; a new mineral of hydrothermal origin from the Pena Blanca uranium district, Mexico OP- 1284

crystal structure *see also crystal chemistry; crystal growth; minerals*

crystal structure—cell dimensions

space groups: Minerals of tin, titanium, niobium and tantalum in granitic pegmatites OP- 381

crystal structure—oxides

manganese oxides: Some factors affecting the form of manganese oxides precipitated from aqueous solutions OP- 522

crystal structure—sheet silicates, clay minerals

kerolite: Mixed-layer kerolite/stevensite from the Amargosa Desert, Nevada OP- 332

crystal structure—vanadates

margaritasite: Margaritasite; a new mineral of hydrothermal origin from the Pena Blanca uranium district, Mexico OP- 1284

crystallography *see also mineralogy*

Cyprus—geochemistry

isotopes: The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria, and the Sultanate of Oman OP- 1227

D

dacites *see* under igneous rocks

dams *see also* under engineering geology under California; Georgia

dams—design

seismic response: Principles for selecting earthquake motions in engineering design of large dams OF 83-0636

deformation *see also* geophysics; structural analysis
deformation—experimental studies

friction: Friction, faulting, and in-situ stress OP- 1347

rheology: Mechanisms of mechanical weakening of the lithosphere OP- 626

strain: Faulting of rocks in three-dimensional strain fields; 1, Failure of rocks in polyaxial, servo-control experiments OP- 1009

— Investigation of internal friction in fused quartz, steel, Plexiglass and Westerly Granite from 0.01 to 1.00 Hertz at 10^{-8} to 10^{-7} strain amplitude OP- 698

stress: Hydraulic-fracturing measurements in two boreholes near the Spent Fuel Test-Climax, Climax Stock, Nevada Test Site

OF 83-0406

— Measurement of instantaneous shut-in pressure in crystalline rock OF 82-1075

— Note on effects of infiltration on the criterion for breakdown pressure in hydraulic fracturing stress measurements OF 82-1075

— The correlation between the orientation of induced fractures and in situ stress of rock anisotropy OF 82-1075

deformation—field studies

compression: Sequence of compressional deformation in a segment of the Sapphire thrust plate, southwestern Montana OP- 690

creep: Preearthquake and postearthquake creep on the Imperial Fault and the Brawley fault zone P 1254

elastic properties: In-situ measurements of seismic velocity at 22 locations in the Los Angeles, California region OF 82-0833

fractures: Nucleation and growth of strike slip faults in granite OP- 1114

mylonitization: Regional character of mylonitic gneiss in the Cadiz Valley area, southeastern California OP- 552

plastic flow: Structural evolution of the La Perouse layered gabbro Fairweather Range, southeastern Alaska OP- 701

shear stress: Implications of an elastic analysis of in situ stress measurements near the San Andreas Fault OP- 776

strain: Correlation of changes in gravity, elevation, and strain in Southern California OP- 573

— Deformation across the San Andreas Fault near San Francisco, California, 1978-1982 OP- 623

— Differential strain curve analysis; does it work? OF 82-1075

— Geodetic observations of postseismic deformation around the north end of surface rupture P 1254

— Joint formation in granitic rock of the Sierra Nevada OP- 1115

— Multiwavelength EDM measurements in Southern California OP- 1146

— Nonlinear strain buildup and the earthquake cycle on the San Andreas Fault OP- 1222

— Strain accumulation along the San Andreas Fault system east of San Francisco Bay, California OP- 995

— Strain-rate profile across the Elsinore, San Jacinto and San Andreas faults near Palm Springs, California, 1973-81 OP- 624

— Surface deformation in the Long Valley, California caldera since 1975 OP- 1037

stress: A comparative study of deep hydrofracturing and overcoring stress measurements at six locations with particular interest to the Nevada Test Site OF 82-1075

— Analysis of injection tests for in-situ stress determination OF 82-1075

— Cretaceous deformation in the western foothills of the Sierra Nevada, California OP- 75

— Determination of the state of stress at the Stripa Mine, Sweden OF 82-1075

— Experience with hydraulic fracturing as a means of estimating in-situ stress in Australian coal basin sediments OF 82-1075

— Experiments in the in-situ stress measurements using the stress relieving and hydraulic fracturing techniques OF 82-1075

— Explosion-induced stress changes estimated from vibrating-wire stressmeter measurements near the Mighty Epic event, Nevada Test Site OF 83-0642

— Hydraulic fracturing in Alberta tar sand formations; a unique material for in situ stress measurements OF 82-1075

— Hydraulic fracturing stress measurements along the eastern boundary of the SW-German block OF 82-1075

— Hydraulic fracturing to estimate minimum stress and rockmass stability at a pumped hydro project OF 82-1075

— In situ geomechanics of crystalline and sedimentary rocks; Part IV, Continued field testing of the modified U.S. Geological Survey 3-D borehole stress probe OF 83-0750

— In-situ stress determination in deep wells as an aid to stimulation design OF 82-1075

— In-situ stress measurements by means of the hydraulic fracturing technique in the Kanto-Tokai area, Japan OF 82-1075

— Small-scale deformation structures and physical properties related to convergence in Japan Trench slope sediments OP- 204

— Some examples and implications of observed elastic deformations associated with the growth of hydraulic fractures in the Earth OF 82-1075

— State of stress in the lithosphere OP- 1346

— State of the art and future plans about hydraulic fracturing stress measurements in Sweden OF 82-1075

— Strain relief stress measurements along the San Andreas Fault OF 82-1075

— Stress measurements in salt in a deep borehole, southeastern Utah OF 82-1075

— The interpretation of hydraulic fracturing pressure-time data for in-situ stress determination OF 82-1075

— The relation between in situ ultrasonic properties of rock and in situ stress OF 82-1075

— The use of borehole breakouts in the study of crustal stress OF 82-1075

yield strength: Constraints on yield strength in the oceanic lithosphere derived from observations of flexure OP- 785

deformation—theoretical studies

cracks: Formation and interpretation of dilatant echelon cracks OP- 983

creep: Fault interaction near Hollister, California OP- 752

rupture: Seismic hazard estimation using a finite fault rupture model OP- 91

stress: Do instantaneous shut-in pressures accurately represent the minimum principal stress? OF 82-1075

— Hydraulic fracture in arbitrarily oriented boreholes; an analytic approach OF 82-1075

— Hydraulic fracture initiation related to the stress field at failure OF 82-1075

— In-situ crustal deformation, and intraplate seismicity OP- 1351

— Studies of earth stress and rock properties and the hydraulic fracturing process OF 82-1075

tensile strength: A statistical fracture mechanics determination of the apparent tensile strength in hydraulic fracture OF 82-1075

Delaware—engineering geology

waste disposal: Hydrogeochemical studies of a landfill in Delaware OP- 48

Delaware—hydrogeology

ground water: Ground-water temperature of the Wyoming Quadrangle in central Delaware, with application to ground-water-source heat pumps PB-84 109 149

— Hydrologic data for the Potomac Formation in New Castle County, Delaware OF 81-0916

hydrology: Chemical-quality reconnaissance of the water and surficial bed material in the Delaware River estuary and adjacent New Jersey tributaries, 1980-81 PB-83 151 852

— Report of the River Master of the Delaware River for the period December 1, 1981, to November 30, 1982 OF 83-0538

— Report of the River Master of the Delaware River for the period of December 1, 1980 to November 30, 1981 OF 82-0341

Delaware—stratigraphy

Pleistocene: Permafrost in the northeastern United States coastal plain OP- 907

deposition *see* under sedimentation

deposition of ores *see* mineral deposits, genesis

deuterium *see also* hydrogen; tritium

deuterium—geochemistry

glasses: Stable isotope compositions of glasses from the Juan de Fuca Ridge OP- 661

ground water: Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136

— Isotopic research, climate, and the genesis of mineral deposits C 0822

deuterium— isotopes

D/H: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450

— Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884

— Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru OP- 882

Devonian *see also* under stratigraphy under Appalachians; Connecticut; Europe; Kentucky; Nevada; New Hampshire; New York; North America; North Carolina; North Dakota; South Carolina; Utah; Wyoming

diagenesis *see also* sedimentation

diagenesis—cementation

aquifers: Groundwater geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland OP- 220

calcite: Ground-water geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland OP- 219

diagenesis—controls

paleogeographic controls: Lithostratigraphy and diagenesis of Monterey Formation near Ojai, California OP- 606

diagenesis—dolomitization

dedolomitization: Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer OP- 46

- effects*: High-porosity Cenozoic carbonate rocks of South Florida; progressive loss of porosity with depth OP- 471
- Regional hydrogeologic framework of the Floridan Aquifer OP- 802
- Relations of dolomite associated with faults to the stratigraphy and structure of central Kentucky OP- 102
- grainstone*: Facies in upper part of Madison Group, Sawtooth Range, northwestern Montana OP- 864
- reefs*: Hoffa Reef; a shelf-edge calcareous prominence in the northern Gulf of Mexico OF 83-0745

diagenesis—effects

- fabric*: Petrography of the Supai Group and Pukoon Limestone P 1173
- porosity*: Carbonate porosity versus depth; a predictable relation for South Florida OP- 1092
- Carbonate porosity versus depth; "compaction" curve for South Florida OP- 470
- Character of ancient petroliferous lake basins of the world OP- 389
- Porosity reduction during diagenesis of Monterey Formation, Santa Barbara, California OP- 571

diagenesis—environment

- coastal environment*: Effect of sea-level fluctuations on porosity and mineralogic changes in coastal aquifers C 0822

diagenesis—geochemistry

- organic materials*: Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67 OP- 491
- sediments*: Methanogenesis and sulfate-reduction; a mechanism for simultaneity OP- 982
- shallow-water environment*: Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40
- sulfur*: Sulfur diagenesis in Everglades peat and origin of pyrite in coal OP- 17

diagenesis—indicators

- concretions*: Siderite concretions; indicators of early diagenesis in the Gammon Shale (Cretaceous) OP- 414
- heat flow*: Time as factor in organic metamorphism and use of vitrinite reflectance as an absolute paleogeothermometer OP- 996

diagenesis—materials

- amino acids*: Amino-acid diagenesis in late Pleistocene sediments of core CL-80-1, Clear Lake, California OP- 115
- limestone*: Influence of deposition and early diagenesis on porosity and chemical compaction in two Paleozoic buildups; Mississippian and Permian age rocks in the Sacramento Mountains, New Mexico OP- 1128
- organic materials*: Diagenesis and methane generation in Upper Cretaceous Gammon Shale, northern Great Plains, United States OP- 415
- pyroclastics*: Pelletal and oolitic fluorite in a lacustrine zeolitic tuff near Buckhorn, Grant County, New Mexico OP- 1124
- sandstone*: Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah OP- 970
- Post-depositional alteration of titanomagnetite in a Miocene sandstone, South Texas (U.S.A.) OP- 1024
- sedimentary rocks*: Diagenesis in laterally equivalent sections of the Miocene Monterey Formation, Santa Barbara area, California OP- 566

- shale*: Outline of diagenesis in the Monterey Formation examined laterally along the Santa Barbara coast, California OP- 568
- till*: Calcium carbonate cementation of tills rich in ultramafic rocks, northern Puget Sound region, Washington OP- 954

diagenesis—processes

- authigenesis*: Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides OP- 512
- Clay mineralogy P 1173
- Notes on the clay mineralogy of the Retsof salt bed, International Salt Company Mine, Retsof, New York OF 83-0718
- compaction*: Burial cement in Sunniland reservoirs, Lower Cretaceous of southern Florida OP- 469
- leaching*: Origin of an underclay as revealed by vertical variations in mineralogy and chemistry OP- 1038
- lithification*: Mechanical and chemical compaction in fine-grained shallow-water limestones OP- 1127
- racemization*: Amino acids in sediments from Leg 68, Site 502 OP- 659

diamonds see also gems

diapirs see under style under folds

diastrophism see orogeny

diatom flora see under algal flora

diatoms see under algae

dictionaries see glossaries

differential thermal analysis see under thermal analysis

differentiation see under magmas

dikes see under intrusions

dinoflagellates see under palynomorphs

diorites see under igneous rocks

District of Columbia—hydrogeology

- hydrology*: Downstream effects of reservoir releases to the Potomac River from Luke, Maryland, to Washington, DC WRI 82-4062
- Water quality of the Potomac River at Chain Bridge at Washington, DC; hydrologic-data report, 1978 water year OF 83-0147

District of Columbia—sedimentary petrology

- sediments*: Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides OP- 512

dolomitization see under diagenesis

dolostone see also under carbonate rocks undersedimentary rocks

drainage patterns see under fluvial features under geomorphology

drilling see under techniques under well-logging

dunes see under eolian features under geomorphology

E**Earth—evolution**

- differentiation*: Could the Earth's core and Moon have formed at the same time? OP- 22
- processes*: Perspectives from Earth OP- 711

Earth—magnetic field

- age*: Can the Earth be dated from decay of its magnetic field? OP- 276
- diurnal variations*: Quiet year variations of SQ current OP- 190
- magnetic anomalies*: Crustal magnetic anomalies measured by satellite; problems and possibilities OP- 957
- Tectonomagnetism OP- 585
- magnetic intensity*: International geomagnetic reference field 1980; charts and grid values (IAGA Bulletin No. 47) C 0873
- observations*: Magnetic observatory hourly average digital data for Magsat correlation (Sept. 1979-June 1980) OF 83-0061

— Main field and Recent secular variation OP- 13

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska OF 83-0300-C

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska OF 83-0300-D

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, August 1983 OF 83-0300-H

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, December 1982 OF 82-0300-L

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, February 1983 OF 83-0300-B

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, January 1983 OF 83-0300-A

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, July 1983 OF 83-0300-G

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, June 1983 OF 83-0300-F

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, May 1983 OF 83-0300-E

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, November 1982 OF 82-0300-K

— Preliminary geomagnetic data, College Observatory, Fairbanks, Alaska, October 1982 OF 82-0300-J

secular variations: Historic secular variation OP- 11

— The use of Magsat data to determine secular variation OP- 183

spherical harmonic analysis: Application of dipole modeling to magnetic anomalies OP- 1091

— Core and crustal geomagnetic fields OP- 12

— Geomagnetic spherical harmonic analyses; I, Techniques OP- 1089

— Geomagnetic spherical harmonic analyses; I, Techniques OP- 1090

— Small-scale magnetic features of the Polar regions C 0911

Earth—motions

- orbital eccentricity*: Long-cycle paleohydrologic regimes in Southeast California; a possible cause OP- 1148

Earth—processes

Earth tides: Tidal triggering of earthquakes OP- 514

Earth-current surveys see under geophysical surveys under Nevada

Earth tides see under processes under Earth

earthquakes see under geologic hazards; seismology; see also engineering geology under Alaska; Arkansas; automatic data processing; Basin and Range Province; California; Eastern U.S.; Great Basin; Illinois; Indiana; Kentucky; Mississippi; Mississippi Valley; Missouri; Nevada; South Carolina; symposia; Tennessee; United States; Utah; Virginia; Washington; Western U.S.; see also under seismology under Alaska; Arizona; Arkansas; Asia; Atlantic Coastal Plain; automatic data processing; Basin and Range Province; bibliography; British Columbia; California; catalogs; Costa Rica; Eastern U.S.; Hawaii; Idaho; Japan; Mississippi Valley; Missouri; Montana; New Brunswick; New Mexico; North America; Oregon; Rocky Mountains; South Carolina; Tennessee; United States; Utah; Washington; Wyoming

earthquakes—causes

- methane*: Methane in association with seismic activity OP- 919

earthquakes—detection

- automatic data processing*: A microprocessor based low-power data acquisition system OP- 18
- networks*: CUSP; automated processing and management for large, regional seismic networks OP- 580

earthquakes—effects

- geologic hazards*: What can be realistically achieved with regard to earthquake-resistant design of new buildings and lifelines and the renovation of existing facilities? OF 83-0157
- ground motion*: Comments on seismological input to microzonation maps OP- 358
- Principles for selecting earthquake motions in engineering design of large dams OF 83-0636
- Sensitivity analysis for seismic risk using a fault rupture model OF 82-0294
- Stochastic simulation of high frequency ground motions based on seismological models of the radiated spectra OP- 127
- Upper bounds on near-source peak ground motion based on a model of inhomogeneous faulting OP- 774
- seismic zoning*: Problems in the construction of a map to zone the earthquake ground shaking hazard OP- 503
- strong motion*: AGRAM; a series of computer programs for processing digitized strong-motion accelerograms (version 1.0) OF 83-0276
- Comparison of decrease of response peaks and the degradation of "ductile" detailing strength during earthquake induced excitation OP- 941
- Strong-motion seismology OP- 126
- Synthetic accelerograms for testing processing procedures OP- 140

earthquakes—epicenters

- automatic data processing*: Operator's manual for a four-film computer-based, sonic digitizing table to locate earthquakes OF 83-0319
- data*: Preliminary determination of epicenters. Monthly listing for April 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for August 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for December 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for February 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for January 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for July 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for June 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for March 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for May 1983 p. 11
- Preliminary determination of epicenters. Monthly listing for November 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for October 1982 p. 11
- Preliminary determination of epicenters. Monthly listing for September 1982 p. 11

earthquakes—focal mechanism

- Earth tides*: Tidal triggering of earthquakes OP- 514
- elasticity*: A viscoelastic model for periodically recurring earthquakes in subduction zones OP- 1221

- intraplate tectonics*: In-situ crustal deformation, and intraplate seismicity OP- 1351
- seismic sources*: Reply to "Comments on 'The corner frequency shift, earthquake source models, and Q'" OP- 478

earthquakes—genesis

- seismotectonics*: Physical processes responsible for successive earthquakes OP- 1287
- subduction zones*: A dislocation model of strain accumulation and release at a subduction zone OP- 1077

earthquakes—magnitude

- magnitude-frequency ratio*: Maximum likelihood estimation of b values for magnitude grouped data OP- 92
- seismic moment*: Determination of seismic source parameters from the inversion of waveform data OP- 1142
- Peak velocity and seismic moment OP- 775

earthquakes—prediction

- experimental studies*: Drilling holes for earthquake prediction OP- 509
- ground motion*: The empirical prediction of ground motion OP- 128
- research*: Earthquake prediction; what we have learned and what we should do now OP- 357
- seismotectonics*: Seismic hazard estimation using a finite fault rupture model OP- 91
- Sensitivity of probabilistic estimates of near-fault ground motion to parameters of the frequency-magnitude relationship OP- 593
- stress*: Seismic triggering and earthquake prediction OP- 1220

earthquakes—seismic intensity

- automatic cartography*: Transformation of mapped data to grid systems with applications to earthquake data OF 83-0248

Eastern Hemisphere see also Africa; Antarctic Ocean; Antarctica; Arctic Ocean; Asia; Atlantic Ocean; Europe; Indian Ocean; USSR

Eastern U.S. see also Connecticut; Delaware; District of Columbia; Florida; Georgia; Maine; Maryland; Massachusetts; New England; New Hampshire; New Jersey; New York; North Carolina; Pennsylvania; Rhode Island; South Carolina; Vermont; Virginia; West Virginia

Eastern U.S.—economic geology

- barite deposits*: Zinc, lead, and barite deposits and occurrences in Paleozoic rocks, east-central United States OF 83-0187
- fuel resources*: Economic potential of ancient lakebeds in the Newark rift system (eastern North America) OP- 1040
- geothermal energy*: Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0440
- Low-temperature geothermal resources in the Central and Eastern United States C 0892
- maps*: A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping OF 83-0352
- Zinc, lead, and barite deposits and occurrences in Paleozoic rocks, east-central United States OF 83-0187
- metal ores*: A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping OF 83-0352
- natural gas*: Eastern Gas Shales Project (EGSP) data system; useful exploration and research tool OP- 314
- petroleum*: Petroleum potential of continental margin off southeastern United States OP- 301

- uranium ores*: Geochemistry and geology of strategic metals and uranium in Devonian shales of the Eastern interior United States OP- 687

- water resources*: Southeast Tertiary limestone aquifer flow-system OP- 174

Eastern U.S.—engineering geology

- earthquakes*: Earthquake hazard zoning in the central and eastern United States; improvements based on new geologic foundations OP- 1292

Eastern U.S.—geophysical surveys

- magnetic surveys*: Digital magnetic-anomaly map of central United States; description of major features GP-0955
- The Clingman Lineament; aeromagnetic evidence for a major discontinuity in the North American basement OP- 854
- The Eastern overthrust hypothesis; analysis of aeromagnetic and gravity data OP- 956
- The Eastern overthrust hypothesis; analysis of aeromagnetic and gravity data OP- 956
- maps*: Digital magnetic-anomaly map of central United States; description of major features GP-0955
- seismic surveys*: Could a charleston-type earthquake occur elsewhere along the East Coast of North America? OP- 86
- Deep structure and evolution of the continental margin off the eastern United States OP- 457

Eastern U.S.—hydrogeology

- hydrology*: Chemical composition of atmospheric precipitation in the Northeastern United States W 1535-P
- Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach W 2216
- maps*: Configuration of the base of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States OF 81-1177
- Geology and configuration of the base of the Tertiary limestone aquifer system, Southeastern United States OF 81-1176
- Geology and configuration of the top of the Tertiary limestone aquifer system, Southeastern United States OF 81-1178
- Thickness of the Tertiary limestone aquifer system, Southeastern United States OF 81-1124
- Thickness of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States OF 81-1179
- springs*: Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0440
- thermal waters*: Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0440

Eastern U.S.—oceanography

- continental shelf*: Chronostratigraphic sequences beneath Northeastern United States continental margin OP- 979
- Deep structure and evolution of the continental margin off the eastern United States OP- 457
- Factors influencing sediment transport at shelf break OP- 598
- Geomorphic features of shelf-slope revealed by sidescan sonar images OP- 908
- Structural elements of the U.S. Atlantic margin delineated by second vertical derivative of aeromagnetic data GP-0956
- continental slope*: Chronostratigraphic sequences beneath Northeastern United States continental margin OP- 979

- Geomorphic features of shelf-slope revealed by sidescan sonar images OP- 908
- Role of mass movement in the formation of submarine-canyon systems on the United States east coast continental slope OP- 129
- Eastern U.S.—seismology**
 - earthquakes*: Correlation of major eastern earthquake centers with mafic/ultramafic masses P 1028
- Eastern U.S.—stratigraphy**
 - Mesozoic*: Chronostratigraphic sequences beneath Northeastern United States continental margin OP- 979
 - Miocene*: Depositional framework and paleoenvironments of Miocene strata from North Carolina and Maryland OP- 424
 - Ordovician*: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N
 - Precambrian*: Correlation chart for Precambrian rocks of the Eastern United States P 1241-E
 - Tertiary*: Chronostratigraphic sequences beneath Northeastern United States continental margin OP- 979
- Eastern U.S.—structural geology**
 - maps*: Index of faults of Cretaceous and Cenozoic age in the Eastern United States MF-1269
 - tectonics*: Index of faults of Cretaceous and Cenozoic age in the Eastern United States MF-1269
 - Palinspastic analysis of west-central New England OP- 1175
- Eastern U.S.—tectonophysics**
 - crust*: Digital filtering of high sensitivity aeromagnetic data over the U.S. Atlantic continental margin and its application to regional tectonics OP- 85
 - The Clingman Lineament; aeromagnetic evidence for a major discontinuity in the North American basement OP- 854
- Echinodermata** *see also* echinoderms
- echinoderms—paleoecology**
 - Paleozoic*: Bedded barite deposits of middle and late Paleozoic age in central Sonora, Mexico OP- 985
- ecology** *see also* under environmental geology under Alaska; Arizona; California; Florida; Gulf Coastal Plain; Idaho; Louisiana; Maine; Montana; Tennessee; Wisconsin
- ecology—analysis**
 - human ecology*: Geochemical environment related to human cancer and diseases of the heart and lung OP- 546
- ecology—foraminifera**
 - benthonic taxa*: Generic predominance facies among deep-water benthic foraminifera of Gulf of Mexico OP- 977
 - Modern benthic foraminifera from the Gyre intraslope basin, Gulf of Mexico OP- 1023
 - marine environment*: Modern benthic foraminifera from Gyre intraslope basin, northern Gulf of Mexico OP- 1022
- ecology—Insecta**
 - aquatic environment*: A generic guide to the larvae of the Nearctic Tanytarsini OF 82-0768
- ecology—mammals**
 - marine environment*: Assessment of gray whale feeding grounds and sea floor interaction in the northeastern Bering Sea OF 83-0727
- ecology—Mollusca**
 - estuarine environment*: Bioaccumulation and toxicity to Cu in *Macoma balthica*; inter-population heterogeneity and the role of Ag OF 80-0341
 - Correlation of Pb concentrations and chemistry of sediments with Pb in the bivalve *Scrobicularia plana* OF 80-0341
- Uptake by the clam *Macoma balthica* of sediment-bound Cd from well-defined types of sediment OF 80-0341
- Uptake of ^{60}Co , ^{110m}Ag , and ^{65}Zn from well-defined sediments by *Macoma balthica* OF 80-0341
- ecology—observations**
 - estuarine environment*: Controls on Cu concentrations in estuarine bivalves (*Scrobicularia plana*), polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341
 - Controls on the availability of Ag, Cd, Co, Fe and Mn to estuarine bivalves (*Scrobicularia plana*) and polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341
 - Detection of trace contaminant effects; theory OF 80-0341
 - Determining the availability of sediment-bound trace metals to aquatic deposit-feeding animals OF 80-0341
 - Determining the form of metals in oxidized estuarine sediments; statistical assessments OF 80-0341
 - Effect of sample storage on metal extractability from oxidized estuarine sediments OF 80-0341
 - fluvial environment*: Data supplement to Quality of coal mine drainage to Washington, 1975-77 OF 83-0205
 - paludal environment*: Methane production and simultaneous sulphate reduction in anoxic, salt marsh sediments OP- 920
- ecology—Ostracoda**
 - fresh-water environment*: The importance of temperature, salinity, and solute composition on the distribution of limnic ostracodes OP- 383
 - lacustrine environment*: Relationship of two lacustrine ostracode species to solute composition and salinity; implications for paleohydrochemistry OP- 386
- ecology—Plantae**
 - estuarine environment*: Submersed aquatic plants of the tidal Potomac River B 1543
 - terrestrial environment*: Effects of nuclear and conventional chemical explosions on vegetation OF 81-1300
- ecology—Spermatophyta**
 - fluvial environment*: Wetland hydrology and tree distribution of the Apalachicola River flood plain, Florida W 2196-A
- economic geology—automatic data processing**
 - automatic cartography*: Computer-generated mineral commodity deposit maps OF 83-0410
 - computer programs*: GARNETAB; a computer program to create an absentee file for executing GARNET (graphic analysis of resources using numeric evaluation techniques) OF 83-0617
 - data bases*: The international phosphate resource data base; development and maintenance OF 83-0490
 - manuals*: Novice's Guide to PACER-GARNET for use with the National Coal Resources Data System; a flow chart OF 83-0605
 - Operation manual for the muPROSPECTOR consultant system OF 83-0804
- economic geology—bibliography**
 - metallurgy*: Metallogenesis OP- 66
 - mineral resources*: Bibliography on the world's subsea mineral resources and related geological and geophysical studies (1960-1972) OF 83-0153
- economic geology—classification**
 - coal*: Coal resource classification system of the U. S. Geological Survey C 0891
- metal ores*: Mineral deposit grade-tonnage models OF 83-0623
- economic geology—nomenclature**
 - definition*: Definition of mineral resource potential OP- 1218
- economic geology—philosophy**
 - mineral resources*: The philosophy of mineral resource appraisal; Challis $1^\circ \times 2^\circ$ CUSMAP, models, analogy, and metaphor OF 83-0836
- economic geology—practice**
 - international cooperation*: International minerals resource assessment project OF 83-0313
- economic geology—symposia**
 - metal ores*: Origin of fluids and metals in porphyry and epithermal mineral deposits OP- 669
 - mineral resources*: Paleoclimate and mineral deposits C 0822
 - water resources*: Fourth national conference, Water Resources Division, U. S. Geological Survey OF 83-0126
- education—general**
 - methods*: Circuit riders, workshops, and county agents; experiments in information delivery OP- 1182
- education—hydrogeology**
 - objectives*: Ground water OF 83-0126
- Egypt—areal geology**
 - Gifl Kebir Plateau*: Geology of the southern Gifl Kebir Plateau and vicinity, Western Desert, Egypt OP- 451
- Egypt—geochronology**
 - Proterozoic*: Age of Meatiq Dome, central Eastern Desert, Egypt OP- 1197
- Egypt—geomorphology**
 - landform evolution*: Relict drainages, conical hills, and the eolian veneer in Southwest Egypt; applications to Mars OP- 144
 - The interplay of fluvial, mass-wasting and eolian processes in the eastern Gifl Kebir region OP- 765
- Egypt—geophysical surveys**
 - remote sensing*: The interplay of fluvial, mass-wasting and eolian processes in the eastern Gifl Kebir region OP- 765
- Egypt—hydrogeology**
 - ground water*: Chemical properties of ground water and their corrosion and encrustation effects on wells P 0498-D
- elastic waves* *see* under seismology
- elasticity* *see* under rock mechanics
- electrical logging* *see* under well-logging
- electrical methods* *see* under geophysical methods
- electrical surveys* *see* under geophysical surveys under Colorado; Great Plains; Hawaii; Idaho; mineral exploration; Nevada; Oregon; Rhode Island; Saudi Arabia
- electromagnetic methods* *see* under geophysical methods
- electromagnetic surveys* *see* under geophysical surveys under automatic data processing; California; Hawaii; mineral exploration; Oregon; Pacific Coast; Saudi Arabia
- electron microscopy* *see also* chemical analysis; spectroscopy; thermal analysis; X-ray analysis
- electron microscopy—applications**
 - hydrology*: Characterization of mineral precipitates by electron microscope photographs and electron diffraction patterns W 2204
- electron microscopy—techniques**
 - automatic data processing*: SANBA; a rapid, combined data acquisition and correction program for the SEMQ electron microprobe OF 83-0817
 - RDARL4, a Fortran interface for transferring chemical analytical data from an Applied Research Laboratories electron microprobe to a PDP-11 computing system OF 83-0713

emission spectroscopy *see* *under* *methods* *underspec-*
trospectroscopy

energy sources *see also* *under* *economic geology un-*
der *Arkansas*; *Bangladesh*; *Basin and Range Prov-*
ince; *Montana*; *Oklahoma*; *Pacific region*; *Sudan*;
Wyoming

energy sources—exploration

international cooperation: Role of U. S. Geological
Survey in assessment of conventional energy
resources in countries other than USA

OP- 95

remote sensing: Significant results from using
earth observation satellites for mineral and en-
ergy resource exploration

OP- 208

engineering geology *see also* *deformation*; *environ-*
mental geology; *geodesy*; *ground water*; *land sub-*
sidence; *mining geology*; *rock mechanics*; *soil me-*
chanics; *underground installations*

engineering geology—bibliography

geologic hazards: Strong-motion seismology

OP- 126

engineering geology—petroleum engineering

hydraulic fracturing: Factors influencing the
initiation orientation of hydraulically induced
fractures

OF 82-1075

— Hydraulic fracture initiation related to the

stress field at failure

OF 82-1075

— In-situ stress determination in deep wells as an

aid to stimulation design

OF 82-1075

— Instantaneous shut in pressure and its rela-

tionship to the minimum in situ stress

OF 82-1075

— Studies of earth stress and rock properties and

the hydraulic fracturing process

OF 82-1075

reservoir rocks: Geologic aspects of tight gas reser-

voirs in the Rocky Mountain region

OP- 1163

engineering geology—practice

current research: Engineering geology

OP- 1103

geologic hazards: The role of the engineering

profession in earthquake mitigation

OF 83-0157

engineering geology—symposia

rock mechanics: Proceedings Workshop XVII;

Workshop on hydraulic fracturing stress

measurements

OF 82-1075

environmental geology *see also* *engineering geology*

environmental geology—concepts

medical geology: Geochemical environment relat-

ed to human cancer and diseases of the heart

and lung

OP- 546

environmental geology—maps

cartography: Land use and land cover digital

data

C 0895-E

— Specifications for updating USGS land use

and land cover maps

OF 83-0116

land use maps: Land use and natural resource

mapping; glossary of terms

OF 83-0102

Eocene *see also* *under* *geochronology under* *Wyom-*

ing; *see also* *under* *stratigraphy under* *Alabama*;

Atlantic Coastal Plain; *California*; *Colorado*;

Florida; *Georgia*; *Gulf Coastal Plain*; *Mississippi*;

Mississippi Valley; *Nevada*; *Oregon*; *South*

Carolina; *Utah*; *Virginia*

Eocene—paleobotany

palynomorphs: Botanical, paleoecologic, paleobi-

ogeographic, and paleoclimatic significance of

the Eocene pollen species "Diporites" iszkas-

zentgyorgyi Kedves 1965

OP- 403

Eocene—sedimentary petrology

sedimentary rocks: Changing patterns of phospho-

genesis in Mesozoic and Cenozoic

OP- 1123

Eocene—stratigraphy

paleoecology: Multiple microtektite horizons in
upper Eocene marine sediments; no evidence
for mass extinctions

OP- 605

eoian features *see under* *geomorphology*

epeirogeny *see also* *orogeny*

epicenters *see under* *earthquakes*

erosion *see under* *processes under* *geomorphology*

eruptive rocks *see* *igneous rocks*

estuaries *see under* *fluvial features under* *geomor-*

phology

Eurasia *see also* *Black Sea*

Europe *see also* *Faeroe Islands*; *Germany*; *Iceland*;

Norway; *Scotland*; *Sweden*; *West Germany*

Europe—stratigraphy

Devonian: Phylogeny and ranges of Late Devon-

ian taxa of the conodont family Icriodontidae

OP- 1070

Quaternary: Correlations of the Clear Lake,

Calif., Core CL-73-4 pollen sequence with oth-

er long climatic records

OP- 2

europium—geochemistry

monazite: Mineralogy and occurrence of europi-

um-rich dark monazite

P 1181

evaporites *see also* *under* *chemically precipitated*

rocks under *sedimentary rocks*

excursions *see* *road log under* *areal geology under*

California

experimental studies *see under* *clay mineralogy*;

deformation; *geochemistry*; *geophysics*; *paleo-*

magnetism; *phase equilibria*; *rock mechanics*; *see*

under *mechanics under* *faults*; *see under* *melting*

under *igneous rocks*; *see under* *P-T conditions un-*

der *metamorphism*; *see under* *prediction under*

earthquakes; *see under* *radioactive waste under*

waste disposal; *see under* *sheet silicates under*

crystal growth

explosions *see also* *under* *engineering geology under*

California; *Nevada*; *see also* *under* *seismology un-*

der *Nevada*

explosions—effects

ecology: Effects of nuclear and conventional

chemical explosions on vegetation

OF 81-1300

extraterrestrial geology—concepts

exploration: Planetary geology

OP- 708

F

Faeroe Islands—tectonophysics

sea-floor spreading: Influence of the Greenland-

Scotland Ridge on the geological history of the

North Atlantic and Norwegian-Greenland sea

areas

OP- 867

Far East *see also* *the individual countries*

Far East—tectonophysics

plate tectonics: The last 200 million years in east-

ern Asia; Yanshanian subduction and post-

Yanshanian extension

OP- 1219

faulting *see* *faults*

faults *see also* *folds*

faults—displacements

active faults: An in depth look at the 1979 Imperi-

al Valley earthquake

OP- 33

— Application of private site-specific data to re-

gional evaluation of earthquake and faulting

potential in Southern California

OF 83-0834

— Application of private site-specific data to re-

gional evaluation of earthquake and faulting

potential in South California; Part I, Introduc-

tion and summary

OF 83-0834

— Comparison of 1979 surface faulting with ear-

lier displacements in the Imperial Valley

P 1254

— Fault interaction near Hollister, California

OP- 752

— Geology of faults exposed in trenches in Crat-

ter Flat, Nye County, Nevada

OF 83-0608

— Implications of an elastic analysis of in situ

stress measurements near the San Andreas

Fault

OP- 776

— Map showing recently active breaks along the

Green Valley Fault, Napa and Solano counties,

California

MF-0743

low-angle faults: Geochronology and tectonics of

the Buckingham porphyry molybdenum depos-

it, Lander County, Nevada

OP- 1224

— Late Miocene displacement of pre-Tertiary

and Tertiary rocks in the Matlin Mountains,

northwestern Utah

OP- 1231

— Origin of folds of Tertiary low-angle fault sur-

faces, southeastern California and western

Arizona

OP- 1165

normal faults: Cenozoic magmatism associated

with extensional tectonics in the Rocky

Mountains

OP- 696

— Detached crystalline rocks of the Mohave,

Buck, and Bill Williams Mountains, western

Arizona

OP- 551

— Dike swarms and low-angle faults, Homer

Mountain and the northwestern Sacramento

Mountains, southeastern California

OP- 1166

— Geologic and geochronologic reconnaissance

of the Turtle Mountains area, California; west

border of the Whipple Mountains detachment

terrane

OP- 553

— Geologic framework of the Chemehuevi

Mountains, southeastern California

OP- 579

— Mid-Tertiary stratigraphic record produced

during regional detachment faulting and devel-

opment of extensional arches and basins,

southwest of the Colorado Plateau margin

OP- 407

— Structural evolution of the Raft River basin,

Idaho

OP- 261

— Subsurface geometry of normal faults in the

northern Basin and Range Province inferred

from seismic reflection data

OP- 21

overthrust faults: Overlapping overthrust belts of

late Paleozoic and Mesozoic ages, northern

Elko County, Nevada

OP- 238

— Overthrusts and salt diapirs, central Utah

OP- 1312

— Shallow structure of the Sevier Desctr De-

tachment

OP- 1353

— The Eastern overthrust hypothesis; analysis of

aeromagnetic and gravity data

OP- 956

reverse faults: Coastal Plain faults affect ground-

water flow

OP- 362

— Could a charleston-type earthquake occur el-

sewhere along the East Coast of North

America?

OP- 86

— Geomorphic differences east and west of the

Stafford fault system, northeastern Virginia

OP- 757

— High Point and Steven Gap faults, Lookout

Mountain, Georgia

OP- 265

— Regenerated faults of small Cenozoic offset;

probable earthquake sources in the Southeast-

ern United States

P 1313

strike-slip faults: Cenozoic convergence along the

California coast; a qualitative test of the hot-

spot approximation

OP- 869

— Configuration of the pre-Middle Jurassic con-

tinental margin in the Western United States

OP- 629

— Correlation and provenance of upper Meso-

zoic chert-rich conglomerate of California

OP- 1116

— Deformation across the San Andreas Fault

near San Francisco, California, 1978-1982

OP- 623

- Depositional and structural controls on heavy-petroleum tar sands in Santa Cruz Mountains OP- 958
- Displacement on the Superstition Hills Fault triggered by the earthquake P 1254
- Distribution of afterslip along the Imperial Fault P 1254
- Geodetic measurements of horizontal deformation on the Imperial Fault P 1254
- Microearthquakes and faulting in the area of New Madrid, Missouri-Reelfoot Lake, Tennessee P 1236
- Middle Tertiary laumontite isograd offset 37 km by left-lateral strike-slip on Santa Ynez Fault, California OP- 768
- Nonlinear strain buildup and the earthquake cycle on the San Andreas Fault OP- 1222
- Present-day seismicity and identification of active faults in the New Madrid seismic zone P 1236
- Seismicity in the Clear Lake area, California OP- 330
- Seismicity patterns near Parkfield, California OP- 693
- Slip along the San Andreas Fault associated with the earthquake P 1254
- Strain accumulation along the San Andreas Fault system east of San Francisco Bay, California OP- 995
- Strain-rate profile across the Elsinore, San Jacinto and San Andreas faults near Palm Springs, California, 1973-81 OP- 624
- Surface faulting in the central Imperial Valley P 1254
- Tectonic setting of the Imperial Valley region P 1254
- Tertiary dismemberment of western North America OP- 822
- The Belair Fault; a Cenozoic reactivation structure in the eastern Piedmont OP- 141
- thrust faults:* Extensional tectonics in the Death Valley area, California; transport of the Panamint Range structural block 80 km north-westward OP- 1184
- Geology of Willow Creek foreland thrust play, Moffat County, Colorado OP- 992
- Geometry and structural history of the Mesozoic thrust belt in the Goodsprings District, southern Spring Mountains, Nevada OP- 199
- Hydrotectionics; principles and relevance OP- 643
- Medicine Lodge thrust system, east-central Idaho and Southwest Montana P 1031
- Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada OP- 582
- Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada OP- 319
- Possible hydrocarbon resources beneath Blue Ridge-Piedmont thrust sheet OP- 487
- Preliminary interpretation of the thrust belt in Southwest and west-central Montana and east central Idaho OP- 1059
- Sequence of compressional deformation in a segment of the Sapphire thrust plate, southwestern Montana OP- 690
- Stratigraphy, structure, and palinspastic synthesis of the western Brooks Range, northwestern Alaska OF 83-0779
- Structural framework of the Ouachita Mountains, Arkansas OP- 468
- Structural geology of the Montgomery Mountains and the northern half of the Nopah and Resting Spring ranges, Nevada and California OP- 169
- Structure, burial history, and petroleum potential of frontal thrust belt and adjacent foreland, Southwest Montana OP- 943
- Talladega "Series," Great Smoky Fault, and Emerson Fault; relationships in the Cartersville area, Georgia OP- 267
- The Mule Mountains Thrust in the Mule Mountains, California, and its probable extension in the southern Dome Rock Mountains, Arizona; a preliminary report OP- 1236
- The southern part of the Southwest Montana thrust belt; a preliminary re-evaluation of structure, thermal maturation and petroleum potential OP- 942
- The Talladega "Series" - Great Smoky Fault - Emerson Fault; relationships in the Cartersville area, Georgia OP- 266
- Variations in structural style and correlation of thrust plates in the Sevier foreland thrust belt, Great Salt Lake area, Utah OP- 1232
- transcurrent faults:* Geologic constraints on the movement history of the Straight Creek Fault OF 83-0019
- Interrelations of thrust and transcurrent faults in the central Sevier orogenic belt near Leamington, Utah OP- 836
- faults—distribution**
- active faults:* Map showing recently active breaks along the Elsinore and associated faults, California, between Lake Henshaw and Mexico I-1329
- Map showing the San Andreas fault trace and related features in the Montara Mountain and San Mateo 7.5 minute quadrangles, San Mateo County, California MF-1488
- Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah OF 83-0288
- Seismicity and active faults in the eastern San Francisco Bay region OP- 343
- Style and significance of surface deformation in the vicinity of New Madrid, Missouri P 1236
- Tectonic setting OF 83-0511
- batholiths:* Wallrocks of the central Sierra Nevada Batholith, California; a collage of accreted tectono-stratigraphic terranes P 1255
- China:* Applications of Landsat imagery to problems of petroleum exploration in Qaidam Basin, China OP- 51
- creep:* History of creep-slippage rates on the Hayward Fault OP- 850
- deep-seated structures:* Disturbed zones; indicators of deep-seated subsurface faults in the Valley and Ridge and Appalachian structural front of Pennsylvania OF 82-0967
- Northeast-trending subcrustal fault transects western Washington OF 83-0398
- Eastern U.S.:* Index of faults of Cretaceous and Cenozoic age in the Eastern United States MF-1269
- fault scarps:* Morphology of fault scarps in the Rio Grande Rift, Colorado, as an indicator of age of faulting OP- 242
- Quaternary and Pliocene faults in the La Jencia and southern part of the Albuquerque-Belen basins, New Mexico; evidence of fault history from fault-scarp morphology and Quaternary geology OP- 723
- fault zones:* Tectonic features of the New Madrid seismic zone from seismic-reflection profiles P 1236
- interpretation:* Mesozoic and Cenozoic tectonic development of the Muddy, North Muddy, and northern Black Mountains, Clark County, Nevada OP- 123
- Spatial variation, style, and age of Cenozoic extensional tectonics in the Great Basin OP- 1185
- Volcanic stratigraphy of part of McLendon Volcano, Yavapai County, Arizona OP- 154
- maps:* Map of Quaternary and Pliocene faults in the Socorro and western part of the Fort Sumner 1° by 2° Quadrangles, New Mexico MF-1465-A
- Preliminary map showing recency of faulting in coastal north-central California MF-1070
- Nevada:* Map showing late Cenozoic faults in the Walker Lake 1° by 2° Quadrangle, Nevada-California MF-1382-D
- New Mexico:* Influence of geologic structure on sedimentation of the Upper Jurassic Morrison Formation, Southern Juan Basin, New Mexico OP- 244
- remote sensing:* Aerial views in color of the San Andreas Fault, California OF 83-0098
- seismotectonics:* Offshore Quaternary geology of the northern Puget Sound-eastern Strait of Juan de Fuca region, Washington OF 83-0019
- Texas:* Faults in parts of north-central and western Houston metropolitan area, Texas MF-1136
- Washington:* Relationships between late Quaternary faults and earthquakes in the Puget Sound, Washington area OF 83-0019
- faults—effects**
- basins:* Tectonic framework of Clear Lake Basin, California OP- 510
- breccia:* Structural and mineralogical characteristics and distribution of carbonate-dominated fault breccias associated with uranium deposits, Front Range, Colorado OP- 1265
- Tungsten deposits in the Challis Quadrangle, Idaho OP- 251
- gouge:* Catastrophic large-scale late Cenozoic detachment faulting, Absaroka Range, Northwest Wyoming OP- 138
- Continuous formation of gouge and breccia during fault displacement OP- 1042
- Strengths of clay and non-clay fault gouges at elevated temperatures and pressures OP- 820
- mylonites:* Cameron's Line in the vicinity of New York City OP- 790
- faults—mechanics**
- experimental studies:* Friction, faulting, and in-situ stress OP- 1347
- fracturing:* Nucleation and growth of strike slip faults in granite OP- 1114
- rupture:* Seismic hazard estimation using a finite fault rupture model OP- 91
- stick-slip:* A dislocation model of strain accumulation and release at a subduction zone OP- 1077
- Sensitivity of probabilistic estimates of near-fault ground motion to parameters of the frequency-magnitude relationship OP- 593
- strain:* Faulting of rocks in three-dimensional strain fields; I, Failure of rocks in polyaxial, servo-control experiments OP- 1009
- Geodetic measurements of horizontal deformation in the northern San Francisco Bay region, California OP- 1340
- faults—systems**
- block structures:* Fission-track ages of apatite in the Wasatch Mountains, Utah; an uplift study OP- 848
- Foreland deformation in the northern part of the Ruby Range of southwestern Montana OP- 1245
- Gravity and magnetic anomaly studies of Lake Superior OP- 539

- Lineaments and their tectonic implications in Rocky Mountains and adjacent plains region OP- 749
- Model for the origin of the Yakutat Block, an accreting terrane in the northern Gulf of Alaska OP- 161
- Structure and Cenozoic tectonism along the Wasatch fault zone, Utah OP- 1354
- Tectonic setting of late Miocene, Pliocene, and Pleistocene rocks in part of the Coast Ranges north of San Francisco, California P 1239
- Tectonostratigraphic terrane map of the Circum-Pacific region OF 83-0716
- grabens*: An overview of the tectonic history of Colorado, with emphasis on the Cenozoic OP- 628
- Lexington Lineament; marginal graben fault not a metamorphic front OP- 103
- Magnetic and gravity features of western Kentucky; their geologic significance OF 83-0164
- Magnetic basement in the upper Mississippi Embayment region; a preliminary report P 1236
- Possible relations between magmatism, rates of extension, and the state of stress in the crust OP- 47
- Rifts, passive margins, and seismicity in southeastern North America OP- 1293
- Federal Republic of Germany** see West Germany
- ferns—biostratigraphy**
- Paleozoic*: Plant megafossils at Carboniferous-Permian boundary OP- 955
- Pennsylvanian*: Age of the Black Creek and Jefferson coal beds, Warrior coal field, Alabama OP- 721
- fish** see also Pisces
- fission-track dating** see under geochronology
- Florida—economic geology**
- maps*: Mineral resource potential map of the Clear Lake Roadless Area, Leon County, Florida MF-1479
- Mineral resource potential map of the Natural Area Roadless Area, Baker County, Florida MF-1572-B
- Mineral resource potential map of the Savannah Roadless Area, Liberty County, Florida MF-1470
- mineral resources*: Mineral resource potential map of the Clear Lake Roadless Area, Leon County, Florida MF-1479
- Mineral resource potential map of the Natural Area Roadless Area, Baker County, Florida MF-1572-B
- Mineral resource potential map of the Savannah Roadless Area, Liberty County, Florida MF-1470
- petroleum*: Burial cement in Sunniland reservoirs, Lower Cretaceous of southern Florida OP- 469
- phosphate deposits*: Structural and sedimentary setting of phosphorite deposits in North Carolina and in northern Florida OP- 801
- water resources*: Estimated water use in Southwest Florida, 1981, and summary of annual water use, 1970, 1975, and 1977-81 OF 83-0045
- Estimating water use, Southwest Florida OP- 323
- Freshwater for deep-well injection, South Florida OP- 1160
- Source, use, and disposition of water in Florida, 1980 WRI 82-4090
- Subsurface storage and recovery of freshwater, South Florida OP- 791
- Water resources and data-network assessment of the Manasota Basin, Manatee and Sarasota counties, Florida PB-83 156 653
- Water resources of Manatee County, Florida PB-83 218 396
- Water resources of the Ochlockonee River area, Northwest Florida OF 81-1121
- Water resources of the Santa Fe River basin, Florida WRI 83-4075
- Florida—engineering geology**
- geologic hazards*: Sediment and nutrient loads associated with a tropical storm, Loxahatchee River estuary, southeastern Florida OP- 786
- Shallow structure and stratigraphy of the carbonate West Florida continental slope and their implications to sedimentation and geohazards OF 83-0425
- Sinkhole formation from abnormal saturation of overburden in a karst area OP- 361
- shorelines*: Sediment and nutrient loads associated with a tropical storm, Loxahatchee River estuary, southeastern Florida OP- 786
- waste disposal*: Effects of a landfill operation on a coastal area, near-surface water table, Pinellas County, Florida OP- 364
- Subsurface injection of industrial liquid waste in Florida OP- 527
- Florida—environmental geology**
- bibliography*: Literature assessment of the Charlotte Harbor estuarine system and surrounding area, Southwest Florida OF 83-0127
- ecology*: Production and decomposition of forest litter fall on the Apalachicola River flood plain, Florida W 2196-B
- geologic hazards*: Magnitude and frequency of flooding on small urban watersheds in the Tampa Bay area, west-central Florida PB-83 171 884
- land use*: Effects of land use on ground-water quality in the East Everglades, Dade County, Florida WRI 82-4093
- Literature assessment of the Charlotte Harbor estuarine system and surrounding area, Southwest Florida OF 83-0127
- pollution*: Ground-water degradation incidents, west-central Florida OP- 1187
- Florida—geochemistry**
- sulfur*: Sulfur diagenesis in Everglades peat and origin of pyrite in coal OP- 17
- Florida—geomorphology**
- solution features*: Sinkhole development resulting from ground-water withdrawal in the Tampa area, Florida OP- 1141
- Florida—geophysical surveys**
- gravity surveys*: High-porosity Cenozoic carbonate rocks of South Florida; progressive loss of porosity with depth OP- 471
- seismic surveys*: Continuous seismic-reflection survey defining shallow sedimentary layers in the Charlotte Harbor and Venice areas, Southwest Florida PB-83 215 731
- Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515
- High resolution seismic reflection methods and their application to hydrologic studies in Connecticut and Florida OP- 463
- High-resolution seismic reflection profiles collected August 4 to 28, 1979, between Cape Hatteras and Cape Fear, North Carolina, and off Georgia and northern Florida (cruise GS-7903-6) OF 83-0512
- Florida—hydrogeology**
- ground water*: Chemical quality of water in the upper part of the Floridan Aquifer, Duval County, Florida OF 82-0119
- Chloride and total hardness concentrations of water from the upper part of the Floridan Aquifer in St. Johns County, Florida OF 81-0907
- Computer simulation of the steady-state flow system of the Tertiary limestone (Floridan) aquifer system in east-central Florida OF 81-0681
- Connector well experiment to recharge the Floridan Aquifer, East Orange County, Florida W 2210
- Development of reaction models for ground-water systems OP- 974
- Digital model evaluation of the predevelopment flow system of the Tertiary limestone aquifer system, Southeast Georgia, Northeast Florida, and South South Carolina OF 82-0173
- Distribution and use of drainage wells in Florida OP- 620
- Effects of recharge from drainage wells on quality of water in the Floridan Aquifer in the Orlando area, central Florida WRI 82-4094
- Geochemistry of water from two wells in the Tertiary limestone aquifer system, Georgia and Florida OP- 1169
- Geohydrologic reconnaissance of drainage wells in Florida; an interim report OF 82-0860
- Geohydrology of the Floridan Aquifer in the Withlacoochee River basin of the Southwest Florida Water Management District OF 82-0331
- Ground-water levels in selected well fields and in west-central Florida, May 1982 OF 82-0867
- Hydrogeologic sections through Lee County and adjacent areas of Hendry and Collier counties, Florida OF 81-0638
- Hydrogeology of a landfill, Pinellas County, Florida PB-83 205 070
- Hydrogeology of the Sarasota-Port Charlotte area, Florida WRI 82-4089
- Hydrologic data from monitoring of saline-water intrusion in the Cape Coral area, Lee County, Florida OF 82-0772
- Hydrology of the Floridan Aquifer in Northwest Volusia County, Florida OF 82-0108
- Hydrology of the sand-and-gravel aquifer, southern Okaloosa and Walton counties, Northwest Florida WRI 82-4110
- Occurrence and use of ground water in the Venice-Englewood area, Sarasota and Charlotte counties, Florida OF 82-0700
- Origins and distribution of saline ground waters in the Floridan Aquifer in coastal Southwest Florida WRI 82-4052
- Principal aquifers in Florida OF 82-0255
- Records of selected wells and lithologic logs of test holes, Hendry County and adjacent areas, Florida OF 83-0134
- Regional hydrogeologic framework of the Floridan Aquifer OP- 802
- Relation of concealed faults to water quality and the formation of solution features in the Floridan Aquifer, northeastern Florida, U.S.A. OP- 683
- Sinkhole formation from abnormal saturation of overburden in a karst area OP- 361
- Source and rate of recharge to an artesian aquifer based on geochemical evidence OP- 684
- Subsurface storage of freshwater in South Florida; a digital analysis of recoverability OF 83-0536
- The origin and isotopic composition of dissolved sulfide in groundwater from carbonate aquifers in Florida and Texas OP- 1063

- The saltwater-freshwater interface in the Tertiary limestone aquifer, Southeast Atlantic outer-continental shelf of the U.S.A. OP- 587
- hydrology*: Appraisal of the interconnection between the St. Johns River and the surficial aquifer, east-central Duval County, Florida WRI 82-4109
- Chemical and hydrologic assessment of the Caloosahatchee River basin, Lake Okeechobee to Franklin Lock, Florida WRI 83-4126
- Hydrologic description of Lake Jackson, Sebring, Florida OF 81-0494
- Hydrologic quadrangle, Geneva, Florida OF 82-0524
- Hydrologic quadrangle, Osteen, Florida OF 82-0523
- Hydrologic quadrangle, Oviedo, Florida OF 82-0516
- Hydrologic quadrangle, Oviedo, SW, Florida OF 82-0521
- Hydrologic quadrangle, Sanford, Florida OF 82-0520
- Hydrologic quadrangles, Bithlo, Florida OF 82-0522
- Hydrologic quadrangles, Casselberry, Florida OF 82-0517
- Hydrologic quadrangles, Osceola, Florida OF 82-0518
- Hydrologic quadrangles, Sanford, SW, Florida OF 82-0519
- Hydrology of Lake Tohopekaliga, Osceola County, Florida OF 81-0536
- Index of hydrologic data for selected sites in Broward County, Florida, 1939-80 OF 82-0920
- Nutrient and detritus transport in the Apalachicola River, Florida OF 83-0130
- Revised description of index of Florida water data collection active stations and a user's guide for station or site information retrieval computer program FINDEX H578 OF 83-0037
- Selected flow characteristics of Florida streams and canals WRI 83-4107
- Technique for estimating magnitude and frequency of floods on natural-flow streams in Florida WRI 82-4012
- Water-quality assessment of stormwater runoff from a heavily used urban highway bridge in Miami, Florida WRI 83-4153
- Water quality at and adjacent to the South Dade County Solid-Waste Disposal Facility, Florida WRI 83-4003
- Wetland hydrology and tree distribution of the Apalachicola River flood plain, Florida W 2196-A
- maps*: Altitude of water table, Biscayne Aquifer, Dade County, Florida, April 1978 OF 81-0225
- Altitude of water table, Biscayne Aquifer, Dade County, Florida, October 1978 OF 81-0327
- Drainage areas in Duval County, Florida WRI 82-4069
- Ground-water levels in selected well fields and in west-central Florida OF 83-0031
- Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, May 1982 OF 83-0041
- Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, May 1983 OF 83-0676
- Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, September 1982 OF 83-0042
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, May 1982 OF 82-0915
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, September 1982 OF 83-0030
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, May 1983 OF 83-0687
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, September 1983 OF 83-0869
- Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, May 1983 OF 83-0547
- Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, September 1982 OF 82-1011
- Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, September 1983 OF 83-0868
- Trends and fluctuations in the potentiometric surface of the Floridan Aquifer, west-central Florida, 1961-80 WRI 82-4086
- Florida—oceanography**
 - continental shelf*: Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515
 - continental slope*: Shallow structure and stratigraphy of the carbonate West Florida continental slope and their implications to sedimentation and geohazards OF 83-0425
 - sediments*: Bedform climbing in theory and nature OP- 1056
- Florida—sedimentary petrology**
 - diagenesis*: Carbonate porosity versus depth; a predictable relation for South Florida OP- 1092
 - Carbonate porosity versus depth; "compaction" curve for South Florida OP- 470
 - sediments*: Mechanical and chemical compaction in fine-grained shallow-water limestones OP- 1127
- Florida—stratigraphy**
 - Cenozoic*: Seismic stratigraphy of the western Straits of Florida OP- 404
 - Eocene*: Stratigraphy of the Hatchetigbee Formation (lower Eocene) in eastern Alabama-western Georgia OP- 423
 - Jurassic*: Structural control of Jurassic sedimentation in Alabama and Florida OP- 800
 - Pleistocene*: Late Pleistocene deposits of Florida Keys OP- 489
 - Quaternary*: Non-oolitic, high-energy carbonate sand accumulation; the Quicksands, Southwest Florida Keys OP- 1126
- fluid inclusions** *see also* inclusions
- fluid inclusions—genesis**
 - gems*: Fluid inclusions in gemstones; valuable defects OP- 1048
 - interpretation*: Origin of fluid inclusions and changes that occur after trapping OP- 1047
- fluid inclusions—geochemistry**
 - fluid phase*: Problems in the use of fluid inclusions to investigate fluid-rock interactions in igneous and metamorphic processes OP- 1050
 - metal ores*: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450
- fluid inclusions—geologic thermometry**
 - thermal effects*: Data on stretching of fluid inclusions in fluorite and sphalerite OF 83-0790
- fluid inclusions—interpretation**
 - ore-forming fluids*: Preliminary mineralogical, fluid inclusion, and stable isotope study of the Mahd adh Dhahab gold mine, Kingdom of Saudi Arabia OF 83-0291
 - Preliminary report on the geology and gold mineralization of the Gold Basin-Lost Basin mining districts, Mohave County, Arizona OF 82-1052
 - Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru OP- 882
- fluid inclusions—paleosalinity**
 - interpretation*: $^{18}\text{O}/^{16}\text{O}$ and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada OP- 1159
- fluid inclusions—theoretical studies**
 - volume*: A method of calculating fluid inclusion volumes based on vapor bubble diameters and P-V-T-X properties of inclusion fluids OP- 121
- fluorine—geochemistry**
 - ground water*: Fluoride concentrations in water from four principal coastal plain aquifer systems, South Carolina OF 81-0140
 - Hydrology of the hydrothermal system in southern Grass Valley, Pershing County, Nevada OP- 1282
- fluvial features** *see under* geomorphology
- folding** *see* folds
- folds** *see also* faults; foliation
- folds—distribution**
 - fold belts*: Structural framework of the Ouachita Mountains, Arkansas OP- 467
 - interpretation*: Foreland deformation in the northern part of the Ruby Range of southwestern Montana OP- 1245
 - Sequence of compressional deformation in a segment of the Sapphire thrust plate, southwestern Montana OP- 690
- folds—mechanics**
 - decoulement*: Shallow structure of the Sevier Desert Detachment OP- 1353
 - flexure*: Origin of folds of Tertiary low-angle fault surfaces, southeastern California and western Arizona OP- 1165
- folds—style**
 - diapirs*: Deformational structures in the Inner Coastal Plain, western Georgia-eastern Alabama OP- 1016
 - Overthrusts and salt diapirs, central Utah OP- 1312
 - monoclines*: High-resolution seismic-reflection surveying on Reelfoot scarp, northwestern Tennessee P 1236
- foliation** *see also* folds; structural analysis
- foliation—style**
 - slip cleavage*: Pseudo plant fossils in the Boston Basin, Massachusetts OP- 720
- foraminifera** *see also* foraminifers
- foraminifera—ecology**
 - benthonic taxa*: Modern benthic foraminifera from the Gyre intraslope basin, Gulf of Mexico OP- 1023
 - species diversity*: Generic predominance facies among deep-water benthic foraminifera of Gulf of Mexico OP- 977
- foraminifera—faunal studies**
 - Eocene*: Large foraminifers of Eocene age from the Coast Ranges of California P 1213
 - Holocene*: Modern benthic foraminifera from Gyre intraslope basin, northern Gulf of Mexico OP- 1022

foraminifers *see also* foraminifera

foraminifers—biostratigraphy

Carboniferous: Carboniferous foraminifer Mediocris; first occurrence in northern Alaska

OP- 99

— Carboniferous-Permian boundary in Southwestern United States

OP- 313

Cenozoic: Calcareous nannofossil and planktic foraminiferal biostratigraphy of Pliocene and Pleistocene Atlantic Coastal Plain deposits

OP- 179

— Paleontology and biostratigraphy

OF 83-0124

— Paleontology and biostratigraphy

OF 83-0557

Cretaceous: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina

P 1028

Eocene: Calcareous nannofossil and foraminiferal biostratigraphy of the Tallahatta Formation (Eocene) in the eastern Gulf Coastal Plain

OP- 178

— Large foraminifers of Eocene age from the Coast Ranges of California

P 1213

— Stratigraphy of the Hatchetigbee Formation (lower Eocene) in eastern Alabama-western Georgia

OP- 423

Mesozoic: Foraminiferal, ostracod and calponellid correlation across the Jurassic-Cretaceous boundary in the Northwest Atlantic (Georges Bank; East Newfoundland Basin)

OP- 42

— Stratigraphic reference section for Georges Bank Basin; depositional model for New England passive margin

OP- 976

Miocene: Depositional framework and paleoenvironments of Miocene strata from North Carolina and Maryland

OP- 424

— Geochronology bearing on age of Monterey Formation, California

OP- 895

— Integration of diatom and planktonic foraminiferal data for biostratigraphic and paleoclimatic interpretation of middle and upper Miocene Monterey Shale

OP- 62

— Microfossils from type Relizian and Luisian stages of California

OP- 771

— Paleocceanographic implications of Miocene deep-sea hiatuses

OP- 604

— Planktonic calibration of provincial Miocene stages of California

OP- 988

— Recognition of Miocene deep-sea hiatuses

OP- 63

— Stratigraphy, structure and phosphate deposits of the Pungo River Formation of North Carolina

OP- 799

Mississippian: Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S.

OP- 1068

— Mississippian continental margins of conterminous United States

OP- 461

Neogene: Microfossil assemblages from the Castaic Formation, Ridge Basin, Southern California

OP- 770

Paleogene: Paleocene to middle Eocene stratigraphy of Alabama

OP- 426

— Paleogene benthic foraminiferal biostratigraphy and paleobathymetry of the central Coast Ranges of California

P 1213

Paleozoic: Carboniferous-Permian boundary sequence of northern Oquirrh Basin, Idaho-Utah

OP- 1330

— Distribution and age of fauna and flora

P 1173

— Paleogeography

P 1173

— Paleozoic rocks in the Black Pine Mountains, Cassia County, Idaho

B 1536

— Stratigraphic summary of Pennsylvanian and Lower Permian rocks, Manzano Mountains, New Mexico

OP- 846

Pennsylvanian: Fusulinids of the Atoka Formation, south-central Oklahoma

OP- 312

— Minturn and Sangre de Cristo formations of southern Colorado; a prograding fan-delta to alluvial-fan sequence shed from ancestral Rocky Mountains

OP- 694

Quaternary: Micropaleontologic analysis of Navarin Basin, Bering Sea, Alaska

OP- 998

— Quantitative microfossil, sedimentologic, and geochemical data on cores V1-80-P3, V1-80-G1, and V1-80-P8 from continental slope off Northern California

OF 83-0083

Tertiary: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina

P 1028

— Eocene to Miocene calcareous plankton from the Santa Cruz Mountains and northern Santa Lucia Range

P 1213

— Foraminiferal biostratigraphy and correlations in the Gulf of Alaska Tertiary province

OC-0120

— Studies in Tertiary stratigraphy of the California Coast Ranges

P 1213

— Tertiary marine and nonmarine climatic trends

OP- 1317

— Upper Eocene to lower Miocene benthic foraminifers from the Santa Cruz Mountains area, California

P 1213

foraminifers—paleoecology

Cenozoic: Bolivinids as paleoenvironmental monitors on continental slopes

OP- 978

— Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation

OP- 748

Quaternary: Quaternary microfossils on the Arctic shelf

C 0911

fossils *see* appropriate fossil group

fossils, problematic *see* problematic fossils

foundations *see also* rock mechanics; soil mechanics; *see also* under engineering geology under California; Massachusetts; New York

foundations—highways

design: Stream channel stability assessment

OP- 149

fractures—distribution

active faults: Slip along the San Andreas Fault associated with the earthquake

P 1254

crystalline rocks: In situ studies of velocity in fractured crystalline rocks

OP- 832

fissures: Strain history and failure conditions for earth fissures near Apache Junction, Arizona

OP- 295

fractures—genesis

shear: Hydraulic fracture initiation related to the stress field at failure

OF 82-1075

tension: A statistical fracture mechanics determination of the apparent tensile strength in hydraulic fracture

OF 82-1075

— Note on effects of infiltration on the criterion for breakdown pressure in hydraulic fracturing stress measurements

OF 82-1075

fractures—patterns

en echelon fractures: Formation and interpretation of dilatant echelon cracks

OP- 983

fractures—style

joints: Joint control of valley form and process in unconsolidated coastal plain sediments, Westmoreland County, Virginia

OP- 575

— Joint formation in granitic rock of the Sierra Nevada

OP- 1115

— Nucleation and growth of strike slip faults in granite

OP- 1114

frost action *see* under geomorphology

fuel resources *see also* under economic geology under Alaska; Appalachians; Atlantic Ocean; automatic data processing; Bering Sea; California; Colorado; Eastern U.S.; Gulf Coastal Plain; Gulf of Mexico; Idaho; maps; Middle East; Montana; New Mexico; North Carolina; Pacific Ocean; Rocky Mountains; United States; USSR; Utah; Virginia; Wyoming

fuel resources—exploration

prediction: A procedure to estimate the parent population of the size of oil and gas fields as revealed by a study of economic truncation

OP- 1098

well-logging: WELLMAP, a Fortran computer program for the generation of maps of specified geographic areas with a variety of well symbols available to depict the current status of given oil and gas drilling

OF 83-0155

fuel resources—genesis

lacustrine environment: Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes

OP- 1041

fuel resources—possibilities

global: Map of prospective hydrocarbon provinces of the world

MF-1044-A

G

gabbros *see* under igneous rocks

gamma-ray methods *see* under radioactivity under well-logging

gas inclusions *see* fluid inclusions

gems—properties

inclusions: Fluid inclusions in gemstones; valuable defects

OP- 1048

genesis of ore deposits *see* mineral deposits, genesis

geochemistry—automatic data processing

crystal chemistry: RDARL4, a Fortran interface for transferring chemical analytical data from an Applied Research Laboratories electron microprobe to a PDP-11 computing system

OF 83-0713

manuals: The MIRA (mineral resource analysis) system users manual; a microcomputer-based geochemical data analysis system

OF 83-0424

geochemistry—concepts

medical geology: Geochemical environment related to human cancer and diseases of the heart and lung

OP- 546

microorganisms: Geochemical prospecting for oil and gas; microbiologist's viewpoint

OP- 918

geochemistry—experimental studies

trace elements: Determining the availability of sediment-bound trace metals to aquatic deposit-feeding animals

OF 80-0341

geochemistry—geochemical cycle

calcium carbonate: High-resolution carbonate and organic-carbon stratigraphies for the late Neogene and Quaternary from the western Caribbean and eastern Equatorial Pacific

OP- 410

carbon: Carbon dioxide, geochemical modeling, and paleoenvironmental reconstructions

C 0822

— Discharge of organic carbon from rivers; estimates and sources of errors

OP- 879

manganese: Manganese cycles and the origin of manganese nodules, Oneida Lake, New York, U.S.A.

OP- 286

geochemistry—practice

hydrochemistry: Study and interpretation of the chemical characteristics of natural water

W 1473

geochemistry—processes

chemical fractionation: Strangways Crater, Northern Territory, Australia; siderophile element enrichment and lithophile element fractionation

OP- 833

- diffusion:** Distribution of gaseous $^{12}\text{CO}_2$, $^{13}\text{CO}_2$, and $^{14}\text{CO}_2$ in the sub-soil unsaturated zone of the western US Great Plains OP- 1228
- leaching:** Geochemistry and geology of strategic metals and uranium in Devonian shales of the Eastern interior United States OP- 687
- Origin of an underclay as revealed by vertical variations in mineralogy and chemistry OP- 1038
- oxidation:** Experimental study of metastable sulfur oxyanion formation during pyrite oxidation at pH 6-9 and 30°C OP- 433
- partitioning:** Determining the form of metals in oxidized estuarine sediments; statistical assessments OF 80-0341
- precipitation:** Some factors affecting the form of manganese oxides precipitated from aqueous solutions OP- 522
- pyrolysis:** Limitations of Rock-Eval pyrolysis assay to characterize kerogen OP- 685
- racemization:** Amino acids in sediments from Leg 68, Site 502 OP- 659
- reduction:** Controls and consequences of sulfate reduction in Recent marine sediments OP- 434
- Methane production and simultaneous sulphate reduction in anoxic, salt marsh sediments OP- 920
- Methanogenesis and sulfate-reduction; a mechanism for simultaneity OP- 982
- solution:** Aqueous geochemistry and the exchangeable cation composition of glauconite in the Aquia Aquifer, Maryland OP- 221
- Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer OP- 46
- sorption:** Kinetic analysis of strontium and potassium sorption onto sands and gravels in a natural channel OP- 90
- Simulation of solute transport in a mountain pool-and-riffle stream with a kinetic mass transfer model for sorption OP- 88
- geochemistry—properties**
- alkalinity:** Sensitivity to acidification of lakes in the Flat Tops Wilderness Area, Colorado OP- 1242
- solubility:** A method of calculating quartz solubilities in aqueous sodium chloride solutions OP- 391
- An equation correlating the solubility of quartz in water from 25° to 900°C at pressures up to 10,000 bars OP- 394
- Calculation of amorphous silica solubilities at 25° to 300°C and apparent cation hydration numbers in aqueous salt solutions using the concept of effective density of water OP- 392
- The solubilities of calcite, aragonite and vaterite in $\text{CO}_2\text{-H}_2\text{O}$ solutions between 0 and 90°C, and an evaluation of the aqueous model for the system $\text{CaCO}_3\text{-CO}_2\text{-H}_2\text{O}$ OP- 973
- The solubility of quartz in aqueous sodium chloride solution at 350°C and 180 to 500 bars OP- 395
- thermochemical properties:** Preliminary chemical studies of thermal waters in Lassen Volcanic National Park and vicinity OP- 1225
- thermodynamic properties:** Heat capacity, relative enthalpy, and calorimetric entropy of silicate minerals; an empirical method of prediction OP- 1044
- Thermodynamic and thermophysical properties of selected phases in the $\text{MgO-SiO}_2\text{-H}_2\text{O-CO}_2$, $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2\text{-H}_2\text{O-CO}_2$, and $\text{FeO-Fe}_2\text{O}_3\text{-SiO}_2$ chemical systems, with special emphasis on the properties of basalts and their mineral components OF 83-0079
- Thermodynamics and lattice vibrations of minerals; 5, Applications to phase equilibria, isotopic fractionation, and high-pressure thermodynamic properties OP- 619
- Total individual ion activity coefficients of calcium and carbonate in seawater at 25°C and 35‰ salinity, and implications to the agreement between apparent and thermodynamic constants of calcite and aragonite OP- 975
- geochemistry—surveys**
- Alabama:** Analyses of geochemical samples and descriptions of rock samples, Adams Gap and Shinbone Creek Roadless Areas, Clay County, Alabama OF 83-0335
- Alaska:** A listing and statistical summary of analytical results for pebbles, stream sediments, and heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-A
- Chemical analyses of native soil and vegetation samples, Capps coal field, Alaska OF 83-0246
- Chemical composition and variability of soils from the Capps coal field, Alaska OF 83-0190
- Distribution and abundance of antimony and mercury in minus-80-mesh stream-sediment and antimony in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples, Medfra Quadrangle, Alaska OF 80-0811-L
- Distribution and abundance of arsenic and bismuth in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and arsenic in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-K
- Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-I
- Distribution and abundance of gold and silver in nonmagnetic and moderately magnetic heavy-mineral-concentrate and minus-80-mesh stream-sediment samples and silver in ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-H
- Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-J
- Geochemical detection of prospective petroleum areas in Arctic regions C 0911
- Multi-element maps showing the distribution and relative amounts of selected elements in four geochemical sampling media, Medfra Quadrangle, Alaska OF 80-0811-M
- Arizona:** Analytical and statistical results for stream sediment, panned concentrate, water, and rock samples collected from the Whetstone Roadless Area, Pima and Cochise counties, Arizona OF 83-0242
- Analytical results for 178 stream-sediment, 98 heavy-mineral-concentrate, 27 rock, and 11 water samples from the Rattlesnake and Wet Beaver Roadless Areas, Coconino and Yavapai counties, Arizona OF 83-0339
- Analytical results for 328 water samples from the Silver City 1° by 2° Quadrangle, Arizona and New Mexico OF 83-0084
- Chemical and statistical analysis of stream sediments, heavy-mineral concentrates, and rocks of the Hells Gate Roadless Area, Gila County, Arizona OF 83-0498
- Flagstaff Quadrangle, Arizona OP- 1285
- Gallup Quadrangle, Arizona and New Mexico OP- 445
- Geochemical data and sample locality map of the Vermilion Cliffs-Paria Canyon Instant Study area and adjacent wilderness study areas, Coconino County, Arizona, and Kane County, Utah MF-1475-B
- Geochemical data for the Crossman Peak Wilderness Study Area, Mohave County, Arizona OF 83-0581
- Geochemical data for the West Clear Creek Roadless Area, Yavapai and Coconino counties, Arizona OF 83-0165
- Geology and geochemical analyses of the Strawberry Crater area, Coconino County, Arizona MF-1394-A
- Maps showing the distribution and relationships of selected metals in heavy-mineral concentrates of the Hells Hole Further Planning Area (RARE II), Greenlee County, Arizona, and Grant County, New Mexico MF-1344-D
- Shiprock Quadrangle, Arizona, New Mexico, Colorado, Utah OP- 443
- Spectrographic analyses of stream-sediment samples from the Mazatzal Wilderness Area and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona OF 83-0197
- Statistical parameters for resource evaluation of geochemical data from the Ajo 1° by 2° Quadrangle, Arizona OF 83-0734
- California:** Chemical analyses and statistical summaries for samples of rock, minus 60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Raymond Peak Roadless Area, Toiyabe National Forest, Alpine County, California OF 82-1050
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Pyramid Roadless Area, El Dorado County, California OF 83-0644
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Cypress Roadless Area, Kern County, California OF 83-0643
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Mount Raymond Roadless Area, Madera County, California OF 83-0646
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Sweetwater Roadless Area, Mono County, California, and Lyon and Douglas counties, Nevada OF 83-0647
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Horse Meadow, Log Cabin-Saddlebag, and Tioga Lake Roadless Areas, and Hall Natural Area, Mono County, California OF 83-0649
- Chemical analyses of samples of rock and stream-sediment, and nonmagnetic heavy-mineral concentrate, Coyote-SE and Table Mountain Roadless Areas, Inyo County, California OF 82-0996
- Chemical analysis of rock, minus-80-mesh stream-sediment, and magnetic and nonmagnetic fractions of heavy-mineral concentrate samples of the Turtle Mountain Wilderness

- Study Area, (CDCA-307), San Bernardino County, California OF 83-0415
- Chemical and statistical analysis of stream sediments, panned heavy-mineral concentrates, and rocks of the Coxcomb Mountains Wilderness Study Area (CDCA-328), Riverside and San Bernardino counties, California OF 83-0012
 - Chemical data for samples of rocks, stream-sediment, and nonmagnetic dense-mineral concentrate in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Area, White Mountains, California and Nevada OF 82-0984
 - Geochemical analyses of panned heavy-mineral concentrates, stream sediments and rock samples from the East Yuba and West Yuba Roadless Areas, Plumas and Sierra counties, California OF 82-0825
 - Geochemical analyses of rock and stream-sediment samples from Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California OF 83-0013
 - Geochemical analyses of rock and stream-sediment samples from the North Fork Smith River Roadless Area, Del Norte County, California, and Curry County, Oregon OF 82-0976
 - Geochemical analyses of rock, stream-sediment, and nonmagnetic heavy-mineral concentrate samples, Laurel-McGee and Wheeler Ridge Roadless Areas, Inyo and Mono counties, California OF 83-0003
 - Geochemical data for samples of rock, stream sediment, and nonmagnetic dense-mineral concentrate in the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California OF 83-0403
 - Geochemical element maps of the Hoover Wilderness and adjacent study area, Mono and Tuolumne counties, California OF 82-0283
 - Geochemical map of the Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California MF-1529-A
 - Geochemical map showing anomalous concentrations of selected elements in stream sediments from the Golden Trout Wilderness, California MF-1231-C
 - Geochemical map showing anomalous concentrations of selected elements in the non-magnetic heavy-mineral concentrates from the Golden Trout Wilderness, California MF-1231-B
 - Geochemical maps of the Mount Raymond Roadless Area, central Sierra Nevada, California MF-1417-C
 - Geochemical maps showing distributions of anomalous element concentrations and of anomalous drainage basins, Mokelumne Wilderness and contiguous roadless areas, central Sierra Nevada, California MF-1201-C
 - Map and interpretation of geochemical anomalies in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Areas, White Mountains, California and Nevada MF-1361-B
 - Merced Peak Quadrangle, central Sierra Nevada, California; analytic data P 1170-D
 - Some preliminary findings of a reconnaissance geochemistry study, West Shasta District, California OF 83-0057
 - Walker Lake Quadrangle, California and Nevada OP- 326
- Colorado:** Cortez Quadrangle, Colorado and Utah OP- 188
- Craig Quadrangle, Colorado OP- 263
 - Denver Quadrangle, Colorado OP- 536
 - Geochemical analyses of rock, stream-sediment, and heavy-mineral concentrate samples collected from the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado OF 83-0391
 - Geochemical and mineralogical data for altered rocks and soils collected in and near the Williams Fork and St. Louis Peak Roadless Areas, Clear Creek, Grand, and Summit counties, Colorado OF 83-0651
 - Geochemical map of the Powderhorn Wilderness Study Area and Cannibal Plateau Roadless Area, Gunnison and Hinsdale counties, Colorado MF-1483-C
 - Geochemical map of the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado MF-1542-B
 - Greeley Quadrangle, Colorado OP- 537
 - Moab Quadrangle, Colorado and Utah OP- 189
 - Pueblo Quadrangle, Colorado OP- 300
 - Stream-sediment geochemical survey of the Bureau of Land Management's Arkansas Canyon Planning Unit in south-central (Canon City area) Colorado OF 81-0673
 - Vernal Quadrangle, Colorado and Utah OP- 262
- Georgia:** Geochemical survey of the Cohutta Wilderness and the Hemp Top Roadless Area, northern Georgia and southeastern Tennessee MF-1415-B
- Idaho:** Analyses of samples from the Lava Creek mining district, Blaine and Butte counties, Idaho OF 83-0705
- Analytical determinations from samples taken in the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho OF 82-1099
 - Geochemical map of the Selkirk Roadless Area, Boundary County, Idaho MF-1447-B
 - Geochemical map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho MF-1500-B
 - Geochemical maps of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-C
 - Geochemical sample locality map for the White Cloud-Boulder Roadless Area, Custer County, Idaho OF 83-0236
 - Geologic and geochemical map of the Upper Priest Roadless Area, Bonner County, Idaho MF-1448-A
 - Statistical tables, sample locality maps, and an explanation of data sets for samples from the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana OF 83-0054
- Indiana:** Reconnaissance for determining effects of land use and surficial geology on concentrations of selected elements on streambed materials from the coal-mining region, southwestern Indiana, October 1979 to March 1980 WRI 82-4013
- Michigan:** Iron River Quadrangle, Michigan and Wisconsin OP- 406
- Missouri:** Generalized geologic and geochemical maps of the Cambrian Bonnetterre Formation, Rolla 1° by 2° Quadrangle, Missouri MF-1004-B
- Montana:** Analytical data, geographic coordinates, and sample locality map of geochemical samples from the Mount Henry Roadless Area, Lincoln County, Montana OF 83-0088
- Geochemical map of the Middle Mountain-Tobacco Root Roadless Area, Madison County, Montana MF-1590-B
- Nevada:** Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Lincoln Creek Roadless Area, Douglas County, Nevada OF 83-0666
- Geochemical anomaly map of the Sugarloaf Roadless Area, Mineral and Esmeralda counties, Nevada MF-1400-B
 - Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient OP- 837
- New Mexico:** Albuquerque Quadrangle, New Mexico OP- 446
- Analytical and statistical results for samples collected from the Sandia Mountain Wilderness, Bernalillo and Sandoval counties, New Mexico OF 83-0407
 - Analytical results for stream-sediment concentrate, sieved stream-sediment, rock, and water samples from the Silver City 1° × 2° Quadrangle, New Mexico and Arizona PB-83 220 863
 - Analytical results for 26 water samples from southern New Mexico OF 83-0777
 - Aztec Quadrangle, New Mexico and Colorado OP- 444
 - Geochemical data for the Guadalupe Escarpment Wilderness Study Area, Eddy County, New Mexico OF 83-0007
 - Geochemical maps of Bunk Robinson Peak and Whitmire Canyon Roadless areas, Hidalgo County, New Mexico, and Cochise County, Arizona MF-1425-C
 - Map showing anomalous silver distribution in stream sediment concentrates, Hillsboro and San Lorenzo quadrangles, exclusive of the Black Range Primitive Area, Sierra and Grant counties, New Mexico MF-0900-C
 - Methodology, statistical summary, and listing of analyses of geochemical samples, Lower San Francisco River Wilderness Study Area and contiguous roadless area (RARE II), Catron and Grant counties, New Mexico, and Greenlee County, Arizona OF 83-0494
- North Carolina:** Analyses and descriptions of geochemical samples, Snowbird Roadless Area, Graham County, North Carolina OF 83-0173
- Oregon:** Analytical results for stream sediments, panned concentrates from stream sediments, and rock samples from the Homestead, Lake Fork, and Lick Creek Roadless Areas, Baker and Wallowa counties, Oregon OF 83-0522
- Geochemical map and rock and stream-sediment data from the Wild Rogue Wilderness, Coos and Curry counties, Oregon MF-1381-B
 - Spectrographic, chemical, and radio-activity analyses of rock, stream sediment, and soil samples from the Hell's Canyon study area, Wallowa County, Oregon, and Idaho and Adams counties, Idaho PB-83 255 059
- Pacific Ocean:** Geochemistry and economic potential of massive sulfide deposits from the eastern Pacific Ocean OF 83-0324
- Pennsylvania:** A reconnaissance geochemical survey of the Allegheny Front and Hickory Creek Roadless Areas, Allegheny National Forest, Warren County, Pennsylvania OF 83-0005
- A reconnaissance geochemical survey of the Clarion River Roadless Area, Allegheny National Forest, Elk County, Pennsylvania OF 83-0022
- Saudi Arabia:** Geochemical evaluation of felsic plutonic rocks in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0369

- Geological and geochemical studies in the Wadi Bidah District, Kingdom of Saudi Arabia OF 83-0672
- Reconnaissance geochemical survey of Al Jurdhawiyah and Wadi al Jarir quadrangles, sheets 25/42 D and 25/42 C, Kingdom of Saudi Arabia OF 83-0299
- Tennessee*: Reconnaissance geochemical maps of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee MF-1474-B
- United States*: Spectrographic analyses of panned concentrates from stream-sediment samples from the Mazatzal Wilderness and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona OF 83-0524
- Utah*: Analyses of the less than 0.180-mm fraction of drainage sediments, Richfield 1° by 2° Quadrangle, Utah OF 83-0074
- Analytical results for 249 water samples from the Mount Belknap caldera and Deer Trail Mountain-Alunite Ridge areas and vicinity, southwestern Utah OF 83-0738
- Analytical results of a geochemical survey utilizing heavy-mineral fractions and the less-than-180 micrometer fraction of stream sediments, Tushar Mountains and adjoining areas, Marysville volcanic field, Utah OF 83-0444
- Delta Quadrangle, Utah OP- 180
- Escalante Quadrangle, Utah OP- 953
- Geochemical analyses of rock and stream-sediment samples from Birdseye, Nephi, and Santaquin Roadless areas, Juab and Utah counties, Utah OF 83-0175
- Price Quadrangle, Utah OP- 186
- Richfield Quadrangle, Utah OP- 153
- Salina Quadrangle, Utah OP- 187
- Washington*: Analytical results and statistical analyses of rocks, ores, and stream pebbles from the Eagle Rock and Glacier Peak Roadless Areas, Snohomish and King counties, Washington OF 83-0342
- Analytical results for stream sediments, panned concentrates from stream sediments, and rocks collected from the Wonder Mountain Roadless Area (6086), Washington OF 82-1066
- Contour maps of analytical results for stream sediments and panned concentrates from stream sediments, and plots of the mineralogy of the nonmagnetites, heavy-mineral concentrates from stream sediments from the Glacier Peak Wilderness Study Area, Washington OF 83-0366
- Contour maps, statistical summaries, and analytical data for stream-sediment samples collected from the Glacier Peak Study Area and analyzed using an aquaregia leach/inductively coupled plasma method OF 83-0343
- Geochemical analyses of rock and stream-sediment samples from the Long Swamp Roadless Area, Okanogan County, Washington OF 83-0227
- Geochemical and statistical analysis of analytical results for stream sediments, panned concentrates from stream sediments, rocks, ores, and waters collected from the Indian Heaven Roadless Area, Skamania County, Washington OF 83-0234
- Wyoming*: Gillette Quadrangle, Wyoming, South Dakota, and Montana OP- 305
- Newcastle Quadrangle, Wyoming and South Dakota OP- 1073
- Torrington Quadrangle, Wyoming and Nebraska OP- 1112
- geochemistry—symposia**
- isotopes*: Report on the Second SEPM research conference; Stable isotopes in sedimentary geology OP- 39
- geochronology** *see also* absolute age
- geochronology—fission-track dating**
- apatite*: Fission-track ages of apatite in the Wasatch Mountains, Utah; an uplift study OP- 848
- clinker*: Distribution and age of clinker in northern Powder River basin, Montana OP- 518
- dates*: Geochronology of Quaternary tephra deposits OP- 847
- sandstone*: Thermal history by fission-track dating, Tejon oil field area, California OP- 150
- techniques*: Fission track dating of kimberlitic zircons OP- 464
- zircon*: Early Tertiary age of pitchstone in the northern Black Hills, South Dakota OP- 1010
- Geochronology bearing on age of Monterey Formation, California OP- 895
- geochronology—paleomagnetism**
- magnetic anomalies*: Paleomagnetic data from the Coso Range, California and current status of the Cobb Mountain normal geomagnetic polarity event OP- 736
- magnetic field*: Can the Earth be dated from decay of its magnetic field? OP- 276
- magnetostratigraphy*: A statistical comparator of two independent records of a sequence of geological events OP- 108
- secular variations*: Secular variation of field directions and intensity from young volcanic rocks OP- 217
- geochronology—racemization**
- amino acids*: Absolute and relative dating of Atlantic Coastal Plain Pleistocene formations; evaluation of amino-acid epimerization age estimates OP- 763
- Aminostratigraphy and faunal correlations of late Quaternary marine terraces, Pacific Coast, USA OP- 611
- dates*: Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah OF 83-0288
- mollusks*: Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia C 0911
- shells*: The Half Moon Bay terrace, San Mateo County, California, and the age of its Pleistocene invertebrate faunas OP- 612
- geochronology—tephrochronology**
- accuracy*: Geochronology of Quaternary tephra deposits OP- 847
- applications*: Use of stratigraphy in studying erosion of Recent tephra, Shultz Creek, Mt. St. Helens, Washington OP- 912
- geochronology—time scales**
- Cenozoic*: Cenozoic paleoceanography C 0822
- Quaternary*: Radiocarbon content, sedimentation rates, and a time scale for Clear Lake, California, core CL-73-4 OP- 1045
- geochronology—varves**
- oil shale*: Physical evidence for saline cycles of deposition in Eocene Lake Gosiute in Southwest Wyoming OP- 1051
- geodesy—methods**
- applications*: Additional geophysical techniques for monitoring volcanoes; geodetic, gravity, thermal, electrical, magnetic and radioactivity OP- 287
- geodesy—surveys**
- California*: An unusual sequence of swarms in Indian Wells Valley, Southern California OP- 429
- Correlation of changes in gravity, elevation, and strain in Southern California OP- 573
- Distribution of afterslip along the Imperial Fault P 1254
- Geodetic measurements of horizontal deformation in the northern San Francisco Bay region, California OP- 1340
- Geodetic measurements of horizontal deformation on the Imperial Fault P 1254
- Geodetic observations of postseismic deformation around the north end of surface rupture P 1254
- Ground tilt since May 1982 at Long Valley Caldera, California OP- 328
- Magmatic resurgence in Long Valley Caldera, California; possible cause of the 1980 Mammoth Lakes earthquakes OP- 1078
- Multiwavelength EDM measurements in Southern California OP- 1146
- Precise releveling of the Coalinga epicentral region and adjacent portions of the San Andreas Fault OF 83-0511
- Preearthquake and postearthquake near-field leveling across the Imperial Fault and the Brawley fault zone P 1254
- Strain accumulation along the San Andreas Fault system east of San Francisco Bay, California OP- 995
- Strain-rate profile across the Elsinore, San Jacinto and San Andreas faults near Palm Springs, California, 1973-81 OP- 624
- Surface deformation in the Long Valley, California caldera since 1975 OP- 1037
- Tectonic preservation of the divide between the Salton Basin and the Gulf of California OP- 427
- Tilt measurements at Long Valley caldera, California, May-August 1982 OF 82-0893
- Hawaii*: Seismicity and surface deformation of Mauna Loa Volcano, Hawaii OP- 288
- Utah*: Vertical movement on the Wasatch fault zone, northern Utah OP- 1320
- Washington*: Deformation monitoring at Mount St. Helens in 1981 and 1982 OP- 216
- Eruption prediction aided by electronic tiltmeter data at Mount St. Helens OP- 329
- Forecasting eruptions at Mount St. Helens by monitoring ground deformation OP- 1206
- Western U.S.*: Strain accumulation in Western United States OP- 1076
- geologic hazards** *see also* land subsidence; *see also* under engineering geology *under* Alaska; Arctic Ocean; Arkansas; Atlantic Coastal Plain; Atlantic Ocean; Basin and Range Province; Bering Sea; bibliography; California; Colorado; Florida; Illinois; Indiana; Indonesia; Kentucky; Midwest; Mississippi; Mississippi Valley; Missouri; Nevada; Pacific Coast; Pacific Ocean; symposia; Tennessee; Texas; Washington; West Virginia; Wyoming; *see also* under environmental geology *under* Alabama; Alaska; Atlantic Coastal Plain; Atlantic Ocean; Bering Sea; California; Colorado; Florida; Gulf Coastal Plain; Hawaii; Iceland; Indonesia; Mexico; Mississippi; Missouri; Oklahoma; Oregon; Pacific Ocean; Puerto Rico; South Carolina; symposia; Tennessee; Texas; United States; Utah; Virginia; Washington; West Virginia; Western U.S.
- geologic hazards—earthquakes**
- associations*: Forms and functions of seismic safety organizations OF 83-0157
- automatic cartography*: Transformation of mapped data to grid systems with applications to earthquake data OF 83-0248
- controls*: The role of the engineering profession in earthquake mitigation OF 83-0157

- current research*: Summaries of technical reports, Volume XV OF 83-0090
 — Summaries of technical reports, Volume XVI OF 83-0525
- ground motion*: Stochastic simulation of high frequency ground motions based on seismological models of the radiated spectra OP- 127
 — The empirical prediction of ground motion OP- 128
magnitude: Peak velocity and seismic moment OP- 775
- prediction*: Do radon anomalies predict earthquakes? OP- 622
 — Earthquake prediction; what we have learned and what we should do now OP- 357
- seismic risk*: Evaluation of seismic risk to energy facilities and lifeline systems OP- 502
 — Sensitivity analysis for seismic risk using a fault rupture model OF 82-0294
 — What can be realistically achieved with regard to earthquake-resistant design of new buildings and lifelines and the renovation of existing facilities? OF 83-0157
- strong motion*: Comparison of decrease of response peaks and the degradation of "ductile" detailing strength during earthquake induced excitation OP- 941
 — Strong-motion seismology OP- 126
 — Synthetic accelerograms for testing processing procedures OP- 140
- geologic hazards—land subsidence**
underground mining: Subsidence from underground mining; environmental analysis and planning considerations C 0876
- geologic hazards—landslides**
zoning: The principles and practice of landslide hazard zonation OP- 1251
- geologic hazards—volcanoes**
current research: Volcanology OP- 1204
eruptions: Additional geophysical techniques for monitoring volcanoes; geodetic, gravity, thermal, electrical, magnetic and radioactivity OP- 287
prediction: Forecasts and predictions OP- 1203
- geologic thermometry** *see* *under* fluid inclusions; *see* *under* geothermal gradient *under* heat flow; *see* *under* temperature *under* metamorphism; *see* *under* xenoliths *under* inclusions
- geologic time** *see* absolute age; geochronology
- geology—general**
information: Circuit riders, workshops, and county agents; experiments in information delivery OP- 1182
- geology—methods**
automatic data processing: An overview of the geological applications of digital data bases OP- 81
 — World geoscience literature and translation OP- 246
- geology—philosophy**
Earth: Perspectives from Earth OP- 711
- geology—practice**
associations: Worldwide directory of national earth-science agencies and related international organizations C 0834
automatic data processing: Application and management of digital data collection in the geosciences OP- 1272
evaluation: Evaluation of the Geological Survey's experiments with alternative work schedules OF 82-0813
publications: Science publishing OP- 1162
- geomorphology** *see also* glacial geology
- geomorphology—eolian features**
dunes: Dune size in paleodeserts of Colorado Plateau OP- 1057
 — Oblique dunes of Oregon coast OP- 1034
sand seas: The environmental history and present condition of Saudi-Arabia's northern sand seas OF 83-0749
- geomorphology—fluvial features**
channel geometry: An analytical treatment of channel-morphology relations P 1288
 — Bank stability and channel width adjustment, East Fork River, Wyoming OP- 24
 — Changes in channel cross-section area and streamflow in the Platte River, Nebraska OP- 627
 — Dynamics of alluvial channels; a process model OP- 922
 — Mean annual runoff and peak flow estimates based on channel geometry of streams in northeastern and western Montana WRI 83-4046
 — Sediment and channel-geometry investigations for the Kansas River bank stabilization study, Kansas, Nebraska, and Colorado OF 81-0128
 — Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens C 0850-K
 — Streamflow characteristics related to channel geometry of streams in Western United States W 2193
- channels*: Channel changes of Powder River, 1938-78, Powder River County, Montana HA-0661
 — Man-induced channel adjustment in Tennessee streams WRI 82-4098
- drainage basins*: Drainage divides, Massachusetts; Blackstone and Thames River basins OF 82-0631
 — Drainage divides, Massachusetts; Connecticut River lowlands and Chicopee River basin OF 82-0633
 — Drainage divides, Massachusetts; Deerfield and Millers River basins OF 82-0632
 — Drainage divides, Massachusetts; Housatonic River basin OF 82-0634
 — Drainage divides, Massachusetts; Westfield and Farmington River basins OF 82-0635
 — Ground-water availability and surficial geology of the Royal, upper Presumpscot, and upper Saco River basins, Maine OF 79-1287
 — Initial and subsequent drainage basin and channel responses to the 1980 eruption of Mount St. Helens OP- 792
 — Preservation of surficial materials in the Appalachian Valley and Ridge Province OP- 550
- drainage patterns*: Influence of the Onion Creek salt diapir on the late Cenozoic history of Fisher Valley, southeastern Utah OP- 241
 — SIR-A images reveal major subsurface drainages in the eastern Sahara; applications to Mars OP- 766
- estuaries*: Holocene sedimentation in the tidal Potomac River and estuary OP- 430
- landform evolution*: Character and history of the upper Ohio River valley B 1141-I
 — Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
- rivers*: Man-induced channel adjustment in Tennessee streams OF 83-0043
- stream capture*: Stream piracy near Ivyton in eastern Kentucky OP- 1028
- streams*: Geomorphic differences east and west of the Stafford fault system, northeastern Virginia OP- 757
- terraces*: Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits OP- 739
- The Cape Fear River; a late Quaternary drainage OP- 740
- geomorphology—frost action**
permafrost: Hydrology of the North Slope, Alaska C 0911
 — Permafrost and the geothermal regime C 0911
- geomorphology—impact features**
craters: A schematic model of crater modification by gravity OP- 964
 — Two methods for determining volumes for explosion and impact craters OP- 1252
meteor craters: A large-scale positive-gravity anomaly in northeastern North America; possible evidence for large-scale meteorite impact OP- 631
 — Concentrically zoned pattern in the Bouguer gravity anomaly map of northeastern North America OP- 151
 — Strangways Crater, Northern Territory, Australia; siderophile element enrichment and lithophile element fractionation OP- 833
- geomorphology—lacustrine features**
extinct lakes: Lake Bonneville; selected features of relevance to neotectonic analysis OF 82-1070
- playas*: Theories of playa lake development in the High Plains OP- 1021
- geomorphology—landform description**
fault scarps: Morphology of fault scarps in the Rio Grande Rift, Colorado, as an indicator of age of faulting OP- 242
landscapes: Mars-analog studies in Wright and Victoria valleys, Antarctica C 0911
surficial geology: The Massachusetts state surficial geologic map OP- 1189
- geomorphology—landform evolution**
arid environment: The interplay of fluvial, mass-wasting and eolian processes in the eastern Gilf Kebir region OP- 765
controls: An hypothesis for bedrock control on surface morphology of Wind River basin OP- 738
- interplanetary comparison*: Relict drainages, conical hills, and the eolian veneer in Southwest Egypt; applications to Mars OP- 144
- scarps*: Ages estimated from a diffusion equation model for scarp degradation OP- 243
 — Quaternary and Pliocene faults in the La Jencia and southern part of the Albuquerque-Belen basins, New Mexico; evidence of fault history from fault-scarp morphology and Quaternary geology OP- 723
- tectonic controls*: Aerial views in color of the San Andreas Fault, California OF 83-0098
 — Style and significance of surface deformation in the vicinity of New Madrid, Missouri P 1236
 — Tectonic preservation of the divide between the Salton Basin and the Gulf of California OP- 427
 — Tectonic setting of late Miocene, Pliocene, and Pleistocene rocks in part of the Coast Ranges north of San Francisco, California P 1239
- valleys*: Joint control of valley form and process in unconsolidated coastal plain sediments, Westmoreland County, Virginia OP- 575
- geomorphology—maps**
physiographic maps: Oblique map of Mono-Inyo Craters, California OF 83-0230
 — Oblique map of Rabaul, Papua New Guinea OF 83-0229
 — Physiographic diagrams of Long Valley, Mono and Inyo counties, California MF-1659

- Shaded relief, oblique view map, vicinity of Going-to-the-Sun Road, Glacier National Park, Montana I-1508-A
- surficial geology maps:* Geologic materials and hydrogeologic characteristics in the Fire Lakes-Eklutna area, Anchorage, Alaska OF 83-0479
- Map showing surficial geology of the Lathrop Wells Quadrangle, Nye County, Nevada I-1361
- Preliminary surficial geologic map of the Fisher Valley-Professor Valley area, southeastern Utah OF 83-0058
- Reconnaissance surficial geologic map of the Medford 1° by 2° Quadrangle, Oregon-California MF-1528
- Surficial geologic map along part of the Wasatch Front, Salt Lake valley, Utah MF-1198
- Surficial geologic map of the Craig 1/2° by 1° Quadrangle, Moffat and Routt counties, Colorado I-1346
- Surficial geology and peat resources map of the Houston area, Susitna Valley, Alaska OF 81-1301
- Surficial geology and peat resources map of the Rogers Creek area, Susitna Valley, Alaska OF 81-1302
- Surficial geology map of the Great Heath, Washington County, Maine OF 83-0004
- volcanic features:* Maps showing thermal features and topography of Devils Kitchen and Bumpass Hell, Lassen Volcanic National Park, California MF-1484
- geomorphology—mass movements**
 - debris flows:* Relict debris flows in northwestern Pennsylvania OP- 984
 - The role of hillslope/stream channel interaction in controlling sediment yield in steep terrane OP- 875
 - earthflows:* Sediment discharge from two earthflows in Franciscan terrane, northwestern California OP- 874
 - landslides:* Landslides of Vermillion Cliffs, Arizona; application to Mars OP- 1212
 - slope stability:* Mass movement features and geomorphology of the continental slope off New Jersey OP- 477
- geomorphology—methods**
 - instruments:* A system for measuring bottom profile, waves and currents in the high-energy nearshore environment OP- 1067
- geomorphology—processes**
 - degradation:* Stripping of Keanakakoi tephra on Kilauea Volcano, Hawaii OP- 734
 - erosion:* Erosional unloading and fluid pressures in hydraulically "tight" rocks OP- 859
 - Use of stratigraphy in studying erosion of Recent tephra, Shultz Creek, Mt. St. Helens, Washington OP- 912
 - nivation:* Paleoclimatic significance of nivation in the western and central Great Basin, Nevada and California OP- 309
 - sedimentation:* Entrainment of gravel and cobbles from a non-uniform streambed OP- 25
 - Heavy-mineral variability in beach and dune sands in the vicinity of the mouth of the Columbia River OF 82-1091
- geomorphology—shore features**
 - beaches:* Measurements of debris-line elevations and beach profiles following a major storm; northern Bering Sea coast of Alaska OF 83-0394
 - coastal dunes:* Storm-controlled oblique dunes of the Oregon coast OP- 560
 - estuaries:* Computer-supported photogrammetry applied to measurements of shore erosion in the tidal Potomac River and estuary, Maryland and Virginia OP- 796
 - maps:* Map showing coastal morphology of the northern Bering Sea coast of Alaska OF 83-0354
 - wave-cut platforms:* Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 781
 - Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 834
- geomorphology—solution features**
 - buried features:* Relation of concealed faults to water quality and the formation of solution features in the Floridan Aquifer, northeastern Florida, U.S.A. OP- 683
 - sinkholes:* Holocene paleohydrologic changes in the southern Ridge and Valley Province of Alabama OP- 291
 - Sinkhole development resulting from groundwater withdrawal in the Tampa area, Florida OP- 1141
 - Sinkhole formation from abnormal saturation of overburden in a karst area OP- 361
- geomorphology—volcanic features**
 - calderas:* Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily OP- 732
 - The Twin Peaks Caldera and associated ore deposits OF 83-0836
 - craters:* Physiographic diagrams of Mount St. Helens, Washington, showing changes in its summit crater, 1982 MF-1608
 - landform description:* El Malpais OP- 755
 - lava fields:* The Challis volcanic field OF 83-0836
 - maps:* Comparative physiographic diagrams of Mount St. Helens, Washington, and Crater Lake, Oregon MF-1403
 - vents:* Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming I-1091-E
 - volcanoes:* Gravity studies in volcanic terranes OP- 1302
 - Topographic map of Mount St. Helens, Washington, showing changes between April 11 and May 16, 1980 I-1411
- geophysical methods** *see under* automatic data processing; bibliography; mineral exploration
- geophysical methods—acoustical methods**
 - applications:* Acoustic systems for the measurement of streamflow W 2213
- geophysical methods—electrical methods**
 - induced polarization:* Basic program "IPFLTR" for induced polarization data reduction and filtering OF 83-0485
 - Preliminary results of spectral induced polarization measurements, Wadi Bidah District, Kingdom of Saudi Arabia OF 83-0612
 - Warburg impedances at single water-mineral interfaces OP- 909
 - interpretation:* Automatic interpretation of Schlumberger sounding curves, using modified Dar Zarrouk functions B 1313-E
 - Modeling of self-potential anomalies near vertical dikes OP- 375
 - resistivity:* Hewlett Packard 9845A computer program to invert complex resistivity data OF 83-0198
 - Numerical modeling of three-dimensional surface topography for buried electrode resistivity surveys OP- 1290
 - Resistivity exploration for groundwater OP- 1355
- geophysical methods—electromagnetic methods**
 - applications:* Airborne electromagnetic surveys of the Cascade Range, western United States OF 83-0092
 - Electromagnetic conductivity techniques in delineating ground-water-pollution plumes OP- 325
 - interpretation:* Inversion results of time-domain electromagnetic soundings near Medicine Lake, California, geothermal area OF 83-0233
 - Results and preliminary inversion of loop-loop frequency-domain electromagnetic soundings near Medicine Lake, California OF 83-0830
 - techniques:* Desktop computer processing of coincident and central loop time domain electromagnetic data OF 83-0240
 - SIROTEM II IEEE 488-1978 interface and controlling software OF 83-0249
 - Time-domain electromagnetic tests in the Wadi Bidah District, Kingdom of Saudi Arabia OF 83-0613
- geophysical methods—gravity methods**
 - applications:* Gravity studies in volcanic terranes OP- 1302
 - instruments:* Borehole gravity surveys; theory, mechanics, and nature of measurements OF 83-0076
 - Elevation changes related to seismic hazard evaluation with the use of gravity meters OF 83-0019
 - interpretation:* Underwater gravity meter survey of San Francisco and San Pablo bays, California, 1982 OF 83-0906
 - techniques:* GRAVPOLY; a modification of a three-dimensional gravity modelling program OF 83-0346
- geophysical methods—magnetic methods**
 - applications:* Geophysical methods for locating abandoned wells OF 83-0702
 - instruments:* Signal processing and data analysis for SQUID-based geophysical measurement systems OP- 1178
 - interpretation:* Aeromagnetic map and interpretation of geophysical data from the Condrey Mountain Roadless Area, Siskiyou County, California MF-1540-B
 - An aeromagnetic interpretation of eleven map sheets, scale 1:250,000, in the southern Najd and part of the southern Tuwayq quadrangles, Kingdom of Saudi Arabia OF 82-1048
 - Application of dipole modeling to magnetic anomalies OP- 1091
 - Magnetism OP- 257
 - Statistical averaging of marine magnetic anomalies and the aging of oceanic crust OP- 109
 - techniques:* MAGPOLY; a modification of a three-dimensional magnetic modeling program OF 83-0345
- geophysical methods—magnetotelluric methods**
 - instruments:* A practical, low-noise coil system for magnetotellurics OF 83-0085
- geophysical methods—methods**
 - applications:* Additional geophysical techniques for monitoring volcanoes; geodetic, gravity, thermal, electrical, magnetic and radioactivity OP- 287
 - Selected physical properties of rocks from the Baid al Jimalah West tungsten deposit, Kingdom of Saudi Arabia, and recommendations for geophysical surveys OF 83-0449
 - Surface geophysics in hydrologic investigations OF 83-0126
 - interpretation:* BASIC programs to calculate gravity and magnetic anomalies for 2 1/2-dimensional prismatic bodies OF 83-0154

- FFTFIL: a filtering program based on two-dimensional Fourier analysis of geophysical data OF 83-0237
- Hypermag: an interactive, two-dimensional gravity and magnetic modeling program OF 83-0241
- techniques*: The solution of the layover problem of side-looking radar images OP- 1324
- geophysical methods—radioactivity methods**
- instruments*: Hand-held ratioing radiometer data for 66 selected mineral samples OF 83-0838
- geophysical methods—seismic methods**
- applications*: Use of shear-wave seismics in evaluation of strippable coal resources OP- 495
- instruments*: Equipment OF 83-0023
- interpretation*: A comprehensive system for interpreting seismic-refraction arrival-time data using interactive computer methods OF 82-1065
- Computer processing of vertical seismic profile data OP- 677
- Computer program modifications of Open-file report 82-1065; a comprehensive system for interpreting seismic-refraction and arrival-time data using interactive computer methods OF 83-0604
- Continental slopes OP- 250
- Report of reprocessing of reflection seismic profile X-5 Waste Isolation Pilot Plant site, Eddy County, New Mexico OF 83-0316
- techniques*: Mississippi River seismic survey OP- 1120
- Sign bit data in tau-p analysis of sonobuoy profiles OP- 134
- geophysical surveys** *see under* Alabama; Alaska; Antarctica; Appalachians; Arabian Peninsula; Arctic Ocean; Arizona; Arkansas; Atlantic Coastal Plain; Atlantic Ocean; automatic data processing; Azores; Basin and Range Province; Bering Sea; California; Canadian Shield; Caribbean Sea; catalogs; China; Colorado; Connecticut; Eastern U.S.; Egypt; Florida; Georgia; Great Basin; Great Lakes; Great Plains region; Great Plains; Gulf of Mexico; Hawaii; Iceland; Idaho; Jupiter; Kansas; Manitoba; Mars; Michigan; Midwest; mineral exploration; Mississippi Valley; Missouri; Montana; Nevada; New Jersey; New Mexico; North America; North Carolina; Ohio; Oklahoma; Ontario; Oregon; Pacific Coast; Pacific Ocean; Rhode Island; Rocky Mountains; Sahara; Saturn; Saudi Arabia; South America; South Carolina; South Dakota; Southwestern U.S.; Tennessee; Texas; United States; Utah; Venus; Virginia; Washington; Western U.S.; Wisconsin; Wyoming; *see* acoustical surveys *under* geophysical surveys *under* Nevada; *see* electrical surveys *under* geophysical surveys *under* Colorado; Great Plains; Hawaii; Idaho; mineral exploration; Nevada; Oregon; Rhode Island; Saudi Arabia; *see* electromagnetic surveys *under* geophysical surveys *under* automatic data processing; California; Hawaii; mineral exploration; Oregon; Pacific Coast; Saudi Arabia; *see* gravity surveys *under* geophysical surveys *under* Appalachians; Arabian Peninsula; Arizona; automatic data processing; California; Florida; Great Basin; Idaho; mineral exploration; Montana; Nevada; Pacific Ocean; South Carolina; Southwestern U.S.; United States; Virginia; Washington; *see* magnetic surveys *under* geophysical surveys *under* Alabama; Alaska; Appalachians; Arabian Peninsula; Arizona; Atlantic Ocean; California; Colorado; Eastern U.S.; Hawaii; Idaho; Midwest; Missouri; Nevada; New Mexico; Ohio; Oregon; Pacific Coast; Saudi Arabia; South Carolina; United States; Virginia; Wyoming; *see* magnetotelluric surveys *under* geophysical surveys *under* Azores; Idaho; Montana; New Mexico; *see* radioactivity surveys *under* geophysical surveys *under* Alaska; mineral exploration; Virginia; *see* seismic surveys *under* geophysical surveys *under* Alaska; Appalachians; Arctic Ocean; Atlantic Coastal Plain; Atlantic Ocean; automatic data processing; Basin and Range Province; Bering Sea; California; Caribbean Sea; Connecticut; Eastern U.S.; Florida; Georgia; Great Lakes; Gulf of Mexico; Mississippi Valley; Missouri; Montana; Nevada; New Mexico; North America; North Carolina; Pacific Ocean; Saudi Arabia; South Carolina; Tennessee; Utah; Virginia; Wyoming; *see* surveys *under* geophysical surveys *under* Antarctica; Arizona; Atlantic Coastal Plain; Atlantic Ocean; automatic data processing; Bering Sea; California; Canadian Shield; Caribbean Sea; catalogs; Colorado; Great Lakes region; Idaho; Michigan; Midwest; mineral exploration; Nevada; New Jersey; New Mexico; North Carolina; Ontario; Oregon; Pacific Coast; Pacific Ocean; Saudi Arabia; South Carolina; South Dakota; Utah; Washington; Wisconsin
- geophysics** *see also* deformation; engineering geology
- geophysics—experimental studies**
- plasticity*: Plasticity of clin amphibole single crystals OP- 172
- pressure*: Experimental deformation of topaz; possible embrittlement by intracrystalline "water" OP- 678
- geophysics—theoretical studies**
- thermodynamic properties*: Thermodynamics and lattice vibrations of minerals; 5, Applications to phase equilibria, isotopic fractionation, and high-pressure thermodynamic properties OP- 619
- Georgia—areal geology**
- maps*: Geologic map of the Chattahoochee Roadless Area, Towns, Union, and White counties, Georgia MF-1502-A
- Geologic map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-B
- Geologic maps of the Cohutta Wilderness and the Hemp Top Roadless Area, northern Georgia and southeastern Tennessee MF-1415-A
- Georgia—economic geology**
- bauxite*: Geology and resources of the Andersonville, Georgia, kaolin and bauxite district OF 83-0580
- copper ores*: Comparison of hot hydroxylamine hydrochloride and oxalic acid leaching of stream sediment and coated rock samples as anomaly enhancement techniques OP- 369
- kaolin deposits*: Geology and resources of the Andersonville, Georgia, kaolin and bauxite district OF 83-0580
- maps*: Mineral resource potential map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-D
- mineral resources*: Mineral resource potential map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-D
- Georgia—engineering geology**
- dams*: Unsteady seepage analysis of Wallace Dam OP- 31
- rock mechanics*: Hydraulic fracturing to estimate minimum stress and rockmass stability at a pumped hydro project OF 82-1075
- Georgia—environmental geology**
- land use*: Land use and land cover, 1973, Augusta, Georgia; South Carolina L-0173
- maps*: Land use and land cover, 1973, Augusta, Georgia; South Carolina L-0173
- Georgia—geochemistry**
- maps*: Geochemical survey of the Cohutta Wilderness and the Hemp Top Roadless Area, northern Georgia and southeastern Tennessee MF-1415-B
- Georgia—geochronology**
- Mesozoic*: Potassium-argon relations in diabase dikes of Georgia; the influence of excess ⁴⁰Ar on the geochronology of early Mesozoic igneous and tectonic events P 1313
- Georgia—geophysical surveys**
- seismic surveys*: High-resolution seismic reflection profiles collected August 4 to 28, 1979, between Cape Hatteras and Cape Fear, North Carolina, and off Georgia and northern Florida (cruise GS-7903-6) OF 83-0512
- Georgia—hydrogeology**
- ground water*: Coastal Plain faults affect ground-water flow OP- 362
- Digital model evaluation of the predevelopment flow system of the Tertiary limestone aquifer system, Southeast Georgia, Northeast Florida, and South South Carolina OF 82-0173
- Geochemistry of water from two wells in the Tertiary limestone aquifer system, Georgia and Florida OP- 1169
- Geohydrology of the Albany area, Georgia OF 80-1296
- Ground-water data for Georgia, 1979 OF 80-0501-W
- Ground-water data for Georgia, 1980 OF 81-1068
- Ground-water data for Georgia, 1981 OF 82-0904
- Ground water in the Greater Atlanta region, Georgia OF 82-0569
- Hydrogeology of the Providence Aquifer of Southwest Georgia OF 82-0903
- Regional hydrogeologic framework of the Floridan Aquifer OP- 802
- The saltwater-freshwater interface in the Tertiary limestone aquifer, Southeast Atlantic outer-continental shelf of the U.S.A. OF- 587
- hydrology*: Monthly low-flow characteristics of Georgia streams OF 82-0560
- Velocity observations of the Chattahoochee River at Atlanta, Georgia, September 28, 1981 OF 82-0076
- maps*: Potentiometric map of the principal artesian aquifer in Georgia, November 1979 OF 80-0585
- Georgia—petrology**
- maps*: Geology of the Piedmont between the Brevard and Towaliga fault zones in the Atlanta and Griffin, Ga., 1°×30', 1:100,000-scale quadrangles OP- 529
- metamorphic rocks*: Geology of the Piedmont between the Brevard and Towaliga fault zones in the Atlanta and Griffin, Ga., 1°×30', 1:100,000-scale quadrangles OP- 529
- Pre-Cretaceous rocks beneath the Georgia Coastal Plain; regional implications P 1313
- Georgia—stratigraphy**
- Cretaceous*: Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia OP- 1155
- Upper Cretaceous (Maestrichtian) Mollusca from the Haustator bilira assemblage zone in the East Gulf Coastal Plain OF 83-0451
- Eocene*: Calcareous nannofossil and foraminiferal biostratigraphy of the Tallahatta Formation

- (Eocene) in the eastern Gulf Coastal Plain
OP- 178
- Revision of the Hatchetigbee and Bashi formations (lower Eocene) in the eastern Gulf Coastal Plain B 1529-H
 - Stratigraphy of the Hatchetigbee Formation (lower Eocene) in eastern Alabama-western Georgia OP- 423
 - Paleocene:** New stratigraphic unit in the Wilcox Group (upper Paleocene-lower Eocene) in Alabama and Georgia B 1529-H
 - Paleozoic:** Talladega "Series," Great Smoky Fault, and Emerson Fault; relationships in the Cartersville area, Georgia OP- 267
 - Precambrian:** Talladega "Series," Great Smoky Fault, and Emerson Fault; relationships in the Cartersville area, Georgia OP- 267
 - The Talladega "Series" - Great Smoky Fault - Emerson Fault; relationships in the Cartersville area, Georgia OP- 266
- Georgia—structural geology**
- faults:** High Point and Steven Gap faults, Look-out Mountain, Georgia OP- 265
 - The Belair Fault; a Cenozoic reactivation structure in the eastern Piedmont OP- 141
 - The Talladega "Series" - Great Smoky Fault - Emerson Fault; relationships in the Cartersville area, Georgia OP- 266
 - tectonics:** Deformational structures in the Inner Coastal Plain, western Georgia-eastern Alabama OP- 1016
 - Talladega "Series," Great Smoky Fault, and Emerson Fault; relationships in the Cartersville area, Georgia OP- 267
- Georgia—tectonophysics**
- crust:** The nature of the geophysical basement beneath the coastal plain of South Carolina and northeastern Georgia P 1028
- geosynclines** *see also* orogeny
- geotechnics** *see* engineering geology
- geothermal energy** *see also* under economic geology
- under Alaska:** Arizona; automatic data processing; Azores; California; catalogs; Colorado; Eastern U.S.; Great Plains; Hawaii; Idaho; Louisiana; Midwest; Montana; Nevada; New Mexico; Oregon; Pacific region; South Dakota; Texas; United States; Utah; Washington; Western U.S.; Wyoming
- geothermal energy—exploration**
- gravity methods:** Gravity studies in volcanic terranes OP- 1302
 - instruments:** A revised and expanded silica (quartz) geothermometer OP- 393
- geothermal energy—resources**
- statistical analysis:** Methods for assessing low-temperature geothermal resources C 0892
- geothermal gradient** *see* under heat flow
- Germany** *see also* West Germany
- Germany—structural geology**
- deformation:** Hydraulic fracturing stress measurements along the eastern boundary of the SW-German block OF 82-1075
- glacial geology** *see also* geomorphology
- glacial geology—ancient ice ages**
- Proterozoic:** Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho OP- 268
- glacial geology—glacial features**
- distribution:** Pleistocene stratigraphy of Nantucket, Martha's Vineyard, the Elizabeth Islands, and Cape Cod, Massachusetts OP- 906
 - glacial lakes:** Tens of successive, colossal Missoula floods at north and east margins of channelled scabland OF 83-0671
 - interplanetary comparison:** Ice sculpture in the Martian outflow channels OP- 703
- moraines:** Guidebook, 1983 Friends of the Pleistocene field trip; Glacial sequence near McCall, Idaho OF 83-0724
- Recessional moraines and ice retreat in southeastern Connecticut OP- 436
 - scarps:** Mars and Earth; comparison of cold-climate features OP- 707
 - till:** Calcium carbonate cementation of tills rich in ultramafic rocks, northern Puget Sound region, Washington OP- 954
 - The surficial geologic maps of Connecticut illustrated by a field trip in central Connecticut OP- 1193
- glacial geology—glaciation**
- chronology:** Quaternary stratigraphic sections with radiocarbon dates, Survey Pass Quadrangle, Alaska OF 83-0072
 - conglafraction:** Tectonic versus frost-wedging origin of faulted glacially polished surfaces in the lower Hudson River valley area OP- 1003
 - cyclic processes:** Aspects of the paleogeography of Beringia during the late Pleistocene OP- 544
 - deglaciation:** Deglacial history of Glacial Lake Nashua, east-central Massachusetts OP- 650
 - Isostatic effects of the last glaciation in the Puget Lowland, Washington OF 83-0019
 - Late Wisconsin deglaciation of high-relief alpine terrain in northern Washington compared to New England OP- 1263
 - Sedimentary facies and depositional environments of late Wisconsinian glacial-marine deposits in central Puget Lowland, Washington OP- 946
 - Topographic control of the deglaciation of eastern Massachusetts; ice lobation and the marine incursion OP- 1190
 - deposition:** Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park OP- 1035
 - Guidebook for 1983 Friends of the Pleistocene field trip to the Sanpoil River valley, northeastern Washington OF 83-0456
 - glacial extent:** Glaciation in Arctic Alaska C 0911
 - Stratigraphy of Woodfordian till and lake beds in Iroquois and neighboring counties, Illinois OP- 821
 - ice movement:** Pleistocene of northern Greenland C 0911
 - meltwater:** Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136
 - Quaternary:** Copper River basin OP- 365
- glacial geology—glaciers**
- hydrology:** Precipitation variations at Wolverine Glacier, Alaska OP- 157
 - ice movement:** Calving speed of Alaska tidewater glaciers, with application to Columbia Glacier P 1258-C
 - Columbia Glacier photogrammetric altitude and velocity; data set (1975-1981) OF 82-0756
 - Effects of volcanism on the glaciers of Mount St. Helens C 0850-D
 - Finite-difference model predictions of the drastic retreat of Columbia Glacier, Alaska P 1258-D
 - Modeling the movement at the polar ice cap at the South Pole C 0911
 - remote sensing:** Glaciological and geological studies of Antarctica with satellite remote sensing technology C 0911
 - Remote sensing studies of dynamic environmental phenomena in Iceland C 0911
- Satellite glaciology (glaciers) OP- 1305
 - Satellite image atlas of glaciers; the polar areas C 0911
- glacial geology—periglacial features**
- debris flows:** Relict debris flows in northwestern Pennsylvania OP- 984
 - ice wedges:** Late Holocene ice wedges near Fairbanks, Alaska, U.S.A.; environmental setting and history of growth OP- 474
 - Permafrost studies in Alaska C 0911
 - permafrost:** Permafrost in the northeastern United States coastal plain OP- 907
- glacial lakes** *see* under glacial features *under* glacial geology
- glaciation** *see* under glacial geology
- glaciers** *see* under glacial geology
- glasses** *see* under igneous rocks
- glossaries—environmental geology**
- land use:** Land use and natural resource mapping; glossary of terms OF 83-0102
- gold—analysis**
- atomic absorption:** Manganese dioxide causes spurious gold values in flame atomic-absorption readings from HBr-Br₂ digestions OP- 191
- gold—geochemistry**
- stream sediments:** Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-K
 - Distribution and abundance of gold and silver in nonmagnetic and moderately magnetic heavy-mineral-concentrate and minus-80-mesh stream-sediment samples and silver in ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-H
 - Geochemical analyses for gold and zinc of 137 stream-sediment samples from the John Muir Wilderness, California OF 81-0254
 - Gold in exploration geochemistry OP- 30
 - water:** Analytical results for 26 water samples from southern New Mexico OF 83-0777
- gold ores** *see also* under economic geology *under* Alaska; Arizona; California; Colorado; Idaho; Michigan; Nevada; Oregon; Saudi Arabia; South Dakota
- gold ores—mineral exploration**
- geochemical methods:** Manganese dioxide causes spurious gold values in flame atomic-absorption readings from HBr-Br₂ digestions OP- 191
- gold ores—resources**
- models:** Mineral deposit grade-tonnage models OF 83-0623
- Gondwana** *see* under continental drift
- grabens** *see* under systems *under* faults
- graded bedding** *see* under planar bedding structures *under* sedimentary structures
- granites** *see* under igneous rocks
- granodiorites** *see* under igneous rocks
- graptolites—biostratigraphy**
- Paleozoic:** Tectonic significance of Silurian and Ordovician graptolites, Lisburne Hills, Northwest Alaska OP- 442
- Graptolithina** *see also* graptolites
- gravel** *see also* under clastic sediments *under* sediments
- gravel deposits** *see also* under economic geology *under* Alaska; Washington
- gravity methods** *see* under geophysical methods
- gravity surveys** *see* under geophysical surveys *under* Appalachians; Arabian Peninsula; Arizona; automatic data processing; California; Florida; Great Basin; Idaho; mineral exploration; Montana; Nevada; Pacific Ocean; South Carolina; Southwestern U.S.; United States; Virginia; Washington

Great Basin *see also* the individual states

Great Basin—economic geology

mineral resources: Phanerozoic magmatism and mineralization in the Toole 1° × 2° Quadrangle, Utah OP- 830

Great Basin—engineering geology

earthquakes: Some geologic data used in seismic hazard evaluation in the Great Basin OP- 163

Great Basin—geochronology

Cenozoic: Pliocene and Pleistocene calcitic veins as indicators of paleohydrologic, paleoclimatologic, and neotectonic events, southern Great Basin; an initial appraisal C 0822

Great Basin—geomorphology

processes: Paleoclimatic significance of nivation in the western and central Great Basin, Nevada and California OP- 309

Great Basin—geophysical surveys

gravity surveys: Structure and Cenozoic tectonism along the Wasatch fault zone, Utah OP- 1354

Great Basin—hydrogeology

ground water: Aquifer systems in the Great Basin region of Nevada, Utah, and adjacent states; a study plan OF 82-0445

Great Basin—stratigraphy

Cambrian: Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada OP- 798

Proterozoic: Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada OP- 798

Great Basin—structural geology

faults: Variations in structural style and correlation of thrust plates in the Sevier foreland thrust belt, Great Salt Lake area, Utah OP- 1232

neotectonics: Pliocene and Pleistocene calcitic veins as indicators of paleohydrologic, paleoclimatologic, and neotectonic events, southern Great Basin; an initial appraisal C 0822

tectonics: Interrelations of thrust and transcurent faults in the central Sevier orogenic belt near Leamington, Utah OP- 836

— Late Miocene displacement of pre-Tertiary and Tertiary rocks in the Matlin Mountains, northwestern Utah OP- 1231

— Mesozoic and Cenozoic tectonic development of the Muddy, North Muddy, and northern Black Mountains, Clark County, Nevada OP- 123

— Overlapping overthrust belts of late Paleozoic and Mesozoic ages, northern Elko County, Nevada OP- 238

— Spatial variation, style, and age of Cenozoic extensional tectonics in the Great Basin OP- 1185

— Structural evolution of the Raft River basin, Idaho OP- 261

Great Britain *see also* Scotland

Great Lakes—geophysical surveys

seismic surveys: Topography and surficial structure of Lake Superior bedrock as based on seismic reflection profiles OP- 1316

Great Lakes region *see also* the individual states and provinces

Great Lakes region—areal geology

Lake Superior region: Geology and tectonics of the Lake Superior Basin OP- 1315

— Lake Superior geology and tectonics; overview and major unsolved problems OP- 538

Great Lakes region—economic geology

mineral resources: Mineral resource assessment of the Iron River 1° by 2° Quadrangle, Michigan and Wisconsin C 0887

Great Lakes region—geochemistry

trace elements: Geochemistry of the volcanic rocks of northeastern Wisconsin OP- 1101

— Geochemistry of the volcanic rocks of northeastern Wisconsin OP- 1101

Great Lakes region—geophysical surveys

surveys: Gravity and magnetic anomaly studies of Lake Superior OP- 539

Great Lakes region—mineralogy

sheet silicates: Pink prehnite from Michigan, a mineral much confused OP- 555

Great Lakes region—stratigraphy

Proterozoic: Evolution of early Proterozoic basins of the Great Lakes region OP- 1139

Great Lakes region—tectonophysics

crust: Magnetic terrane in the central U.S. from interpretation of digital magnetic data OP- 530

Great Plains *see also* the individual states and provinces

Great Plains—economic geology

geothermal energy: Low-temperature geothermal resources in the Central and Eastern United States C 0892

natural gas: Diagenesis and methane generation in Upper Cretaceous Gammon Shale, northern Great Plains, United States OP- 415

— Pierre Shale as a natural gas reservoir OP- 416

water resources: A data management system for areal interpretive data for the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 82-4072

— Potentially favorable areas for large-yield wells in the Red River Formation and Madison Limestone in parts of Montana, North Dakota, South Dakota, and Wyoming P 1273-E

— Water-resources investigations of the U. S. Geological Survey in the Souris-Red rivers basin in Minnesota, North Dakota, and South Dakota OF 83-0218

Great Plains—environmental geology

land use: Estimating irrigation water use and withdrawal of ground water on the Great Plains, U.S.A. OP- 1322

Great Plains—geochemistry

isotopes: Distribution of gaseous ¹²CO₂, ¹³CO₂, and ¹⁴CO₂ in the sub-soil unsaturated zone of the western US Great Plains OP- 1228

— ¹³CO₂ and ¹⁴CO₂ measurements on soil atmosphere sampled in the western Great Plains of the US OP- 462

Great Plains—geophysical surveys

electrical surveys: Paleotectonism reflected in the Niobrara Formation of the northern Great Plains OP- 1132

remote sensing: Estimating irrigation water use and withdrawal of ground water on the Great Plains, U.S.A. OP- 1322

— Landsat linear features in Montana plains OP- 1131

Great Plains—hydrogeology

ground water: Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123

— Evaluating vertical variability of transmissivity and specific yield for the High Plains regional aquifer system OP- 460

— Generalized altitude and configuration of the base of the High Plains regional aquifer, northwestern Oklahoma OP- 501

— Geohydrology of the Madison and associated aquifers in parts of Montana, North Dakota, South Dakota, and Wyoming OF 82-0914

— Machine-readable data files from the Madison Limestone and Northern Great Plains regional aquifer system analysis projects, Montana, Nebraska, North Dakota, South Dakota, and Wyoming WRI 82-4107

— Pumpage data from irrigation wells in eastern Laramie County, Wyoming, and Kimball County, Nebraska OF 83-0029

— Water-level records for the northern High Plains of Colorado, 1979-83 OF 83-0253

hydrology: Hydrology of area 54, Northern Great Plains and Rocky Mountain coal provinces, Colorado and Wyoming OF 83-0146

— Hydrology of area 56, Northern Great Plains and Rocky Mountain coal provinces, Utah and Colorado OF 83-0038

maps: Geology, altitude, and depth of the bedrock surface beneath the Ogallala Formation in the northern High Plains of Colorado HA-0669

— Predevelopment and 1980 water table in the northern High Plains of Colorado; and water-level changes, predevelopment to 1980, and 1975 to 1980 HA-0670

— The Ogallala Aquifer in the northern High Plains of Colorado; saturated thickness in 1980; saturated-thickness changes, predevelopment to 1980; hydraulic conductivity; specific yield; and predevelopment and 1980 probable well yields HA-0671

Great Plains—sedimentary petrology

sedimentary rocks: Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska OF 82-0906

— Mineralogical and chemical composition of the Pierre Shale and equivalent rocks, northern Great Plains, U.S.A. OP- 1100

sedimentary structures: Siderite concretions; indicators of early diagenesis in the Gammon Shale (Cretaceous) OP- 414

Greenland—stratigraphy

Pleistocene: Pleistocene of northern Greenland C 0911

Greenland—tectonophysics

sea-floor spreading: Influence of the Greenland-Scotland Ridge on the geological history of the North Atlantic and Norwegian-Greenland sea areas OP- 867

ground water *see also* hydrogeology; hydrology

ground water—age

absolute age: Evaluation of direct-precipitation and gas-evolution methods for radiocarbon dating of ground water OP- 1331

ground water—aquifers

coastal environment: Effect of sea-level fluctuations on porosity and mineralogic changes in coastal aquifers C 0822

exploration: Borehole geophysics and ground water; state of the art OP- 614

— Resistivity exploration for groundwater OP- 1355

heat storage: Fortran computer programs to plot and process aquifer pressure and temperature data WRI 83-4051

hydrodynamics: Correction of drawdowns caused by a pumped well tapping less than the full thickness of an aquifer W 1536-1

— Cyclic water-level fluctuations as a basis for determining aquifer transmissibility W 1536-1

— Determination of the coefficient of transmissibility from measurements of residual drawdown in a bailed well W 1536-1

- Determining the permeability of water-aquifers W 1536-I
- Drawdowns resulting from cyclic intervals of discharge W 1536-I
- Drawdowns resulting from cyclic rates of discharge W 1536-I
- Estimating the transmissibility of aquifers from the specific capacity of wells W 1536-I
- Methods of determining permeability, transmissibility and drawdown W 1536-I
- The recovery method for determining the coefficient of transmissibility W 1536-I
- The slug-injection test for estimating the coefficient of transmissibility of an aquifer W 1536-I
- models:* Application of Gauss algorithm and Monte Carlo simulation to the identification of aquifer parameters OF 81-0688
- nomenclature:* Definitions of selected ground-water terms; revisions and conceptual refinements W 1988
- sampling:* Guidelines and techniques to obtain valid ground-water quality samples OF 82-1024
- testing:* Aquifer-test design, observation, and data analysis; applications of hydraulics TWI 03-B1
- well-logging:* Geophysical logging in carbonate aquifers OP- 722
- ground water—classification**
- nomenclature:* Outline of ground-water hydrology, with definitions W 0494
- ground water—geochemistry**
- effects:* Chemical properties of ground water and their corrosion and encrustation effects on wells P 0498-D
- hydrochemistry:* Study and interpretation of the chemical characteristics of natural water W 1473
- isotopes:* Isotopes in ground-water investigations OP- 1234
- neptunium:* Neptunium and americium speciation in selected basalt, granite, shale, and tuff ground waters OP- 234
- water quality:* Quality-assurance data for routine water analysis in the laboratories of the U. S. Geological Survey; 1981 annual report WRI 83-4090
- ground water—hydrodynamics**
- heat transfer:* Rapid intrusion of magma into wet rock; groundwater flow due to pore pressure increases OP- 290
- hydraulics:* Hydrotectonics; principles and relevance OP- 643
- models:* A numerical procedure for the solution of the steady state variable density groundwater flow equation OP- 655
- A three-dimensional ground-water-flow model modified to reduce computer-memory requirements and better simulate confining-bed and aquifer pinchouts WRI 82-4023
- Analysis of an incongruity in the standard Galerkin finite element method OP- 253
- Front-tracking model for convective transport in flowing ground water WRI 83-4034
- Incorporation of prior information on parameters into nonlinear regression groundwater flow models; 1, Theory OP- 252
- Modifications and corrections to the finite-difference model for simulation of three-dimensional ground-water flow WRI 82-4025
- water balance:* Groundwater; the water-budget myth OP- 143
- ground water—movement**
- concepts:* Basic ground-water hydrology W 2220
- theoretical studies:* Erosional unloading and fluid pressures in hydraulically "tight" rocks OP- 859
- ground water—pollution**
- controls:* A model for managing sources of groundwater pollution OP- 439
- Contaminated ground water OF 83-0126
- detection:* Determination of pentachlorophenol in water and aquifer sediments by high-performance liquid chromatography OF 82-0124
- mining:* Mining, reclamation, and water quality OF 79-1597
- models:* Solute-transport modeling OF 83-0126
- movement:* Modeling the movement of contaminants in saturated ground-water systems OP- 453
- permeability:* Geochemical controls on organic and inorganic contamination in ground water and their hydrologic consequences OP- 49
- radioactive waste:* Disposal of high-level nuclear waste above the water table in arid regions C 0903
- Lessons learned in the geohydrology of low-level radioactive waste disposal OP- 1043
- review:* Ground water; a review OP- 142
- waste disposal:* Computerized information-retrieval systems OP- 1309
- water quality:* Ground-water monitoring around coal mines for non-regulatory purposes OP- 55
- ground water—resources**
- current research:* Ground water OF 83-0126
- water management:* A review of distributed parameter groundwater management modeling methods OP- 440
- well-logging:* Application of borehole geophysics to water-resources investigations TWI 02-E1
- ground water—surveys**
- Alabama:* Assessment of hydrologic conditions in potential coal-lease tracts in the Warrior coal field, Alabama OF 81-0540
- Holocene paleohydrologic changes in the southern Ridge and Valley Province of Alabama OP- 291
- Results of a test well in the Nanafalia Formation near Melvin, Choctaw County, Alabama WRI 82-4108
- Alaska:* Geologic materials and hydrogeologic characteristics in the Fire Lakes-Eklutna area, Anchorage, Alaska OF 83-0479
- Hydrologic data for Point MacKenzie area, south-central Alaska OF 83-0142
- Hydrology and the effects of industrial pumping in the Nikiski area, Alaska OF 81-0685
- Hydrology of the North Slope, Alaska C 0911
- Vertical movement of ground water under the Merrill Field landfill, Anchorage, Alaska OF 82-1016
- Aquia Aquifer:* Aqueous geochemistry and the exchangeable cation composition of glauconite in the Aquia Aquifer, Maryland OP- 221
- Ground-water geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland OP- 219
- Groundwater geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland OP- 220
- Arizona:* Analytical results for 328 water samples from the Silver City 1° by 2° Quadrangle, Arizona and New Mexico OF 83-0084
- Annual summary of ground-water conditions in Arizona; spring 1980 to spring 1981 OF 82-0368
- Annual summary of ground-water conditions in Arizona, spring 1981 to spring 1982 OF 82-1009
- Density of basin-fill deposits calculated from borehole gravity data in four basins in central and southern Arizona OP- 1241
- Geohydrology and effects of water use in the Black Mesa area, Navajo and Hopi Indian reservations, Arizona W 2201
- Map showing ground-water conditions in the Sacramento Valley area, Mohave County, Arizona; 1979 OF 81-0418
- Map showing ground-water conditions in the Tonto Basin area, Gila County, Arizona; 1978-79 OF 82-0116
- Streamflow losses and changes in ground-water levels along the Salt and Gila rivers near Phoenix, Arizona; February 1978 to June 1980 WRI 83-4043
- Temperature logs of wells and test wells in Yuma area, Arizona and California OF 80-0335
- Use of a three-dimensional model for the analysis of the ground-water flow system in Parker Valley, Arizona and California OF 82-1006
- Arkansas:* Ground-water levels in Arkansas, spring 1982 OF 82-0852
- Ground-water levels in Arkansas, spring 1983 OF 83-0268
- Atlantic Coastal Plain:* Digital model evaluation of the predevelopment flow system of the Tertiary limestone aquifer system, Southeast Georgia, Northeast Florida, and South South Carolina OF 82-0173
- Field reports; Installation of shallow sand-packed piezometers in loose saturated sediment OP- 413
- The saltwater-freshwater interface in the Tertiary limestone aquifer, Southeast Atlantic outer-continental shelf of the U.S.A. OP- 587
- Basin and Range Province:* Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part II, Geologic and hydrologic characterization OF 83-0699
- Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part III, Geologic and hydrologic evaluation OF 83-0756
- Big Sioux Aquifer:* A digital-computer model of the Big Sioux Aquifer in Minnehaha County, South Dakota WRI 82-4064
- Evaluation of the response of the Big Sioux Aquifer to extreme drought conditions in Minnehaha County, South Dakota WRI 83-4234
- Records of water levels in the Big Sioux Aquifer, Minnehaha County, South Dakota, 1981 OF 82-1020
- Water-level records for the Big Sioux Aquifer, Minnehaha County, South Dakota OF 81-0222
- Biscayne Aquifer:* Altitude of water table, Biscayne Aquifer, Dade County, Florida, April 1978 OF 81-0225
- Altitude of water table, Biscayne Aquifer, Dade County, Florida, October 1978 OF 81-0327
- California:* A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County OP- 930
- Artificial recharge in the northern part of Chino ground-water basin, upper Santa Ana Valley, California WRI 82-4122
- Contour map showing minimum depth to ground water, upper Santa Ana River valley, California, 1973-1979 OF 82-1128
- Data for ground-water test hole near Butte City, Central Valley aquifer project, California OF 83-0697

- Data for ground-water test hole near Nicolaus, Central Valley aquifer project, California OF 83-0273
- Evaluation of the San Dieguito, San Elijo, and San Pasqual hydrologic subareas for reclaimed water use, San Diego County, California WRI 83-4044
- Geology of the Tulare Formation and other continental deposits, Kettleman City area, San Joaquin Valley, California, with a section on ground-water management considerations and use of texture maps WRI 83-4000
- Ground water in the northeast part of Twentynine Palms Marine Corps Base, Bagdad area, California WRI 83-4053
- Ground water in the Redding Basin, Shasta and Tehama counties, California WRI 83-4052
- Ground water in the Seaside area, Monterey County, California PB-83 149 229
- Ground water in the Twenty-Nine Palms Indian Reservation and vicinity, San Bernardino County, California WRI 82-4060
- Ground-water quality in the Sacramento Valley, California; water types and potential nitrate and boron problem areas HA-0651
- Injection of treated wastewater for ground-water recharge in the Palo Alto Baylands, California, hydraulic and chemical inter-actions; preliminary report WRI 82-4121
- Land application of wastewater and its effect on ground-water quality in the Livermore-Amador Valley, Alameda County, California WRI 82-4100
- Map of the Antelope Valley-East Kern Water Agency area, California, showing ground-water subunits and areas, and well hydrographs (1962-1982) OF 82-0917
- Monitoring hot springs and shallow ground-water in the Long Valley Caldera, California OP- 1161
- Origins of abnormally-high fluid-pressure systems in California OP- 97
- Sources of mineral constituents in water from granitic rocks, Sierra Nevada, California and Nevada W 1535-1
- Water resources of Borrego Valley and vicinity, California; Phase 1, Definition of geologic and hydrologic characteristics of the basin OF 82-0855
- Cape Cod Aquifer:* Cape Cod Aquifer, Cape Cod, Massachusetts OF 80-0571
- Digital models of ground-water flow in the Cape Cod aquifer system, Massachusetts OF 80-0067
- Chicot Aquifer:* Approximate altitude of water levels in wells in the Chicot and Evangeline aquifers in the Houston area, Texas, spring 1983 OF 83-0529
- Approximate water-level changes in wells in the Chicot and Evangeline aquifers, 1977-83 and 1983-83 and measured compaction, 1973-83 in Harris and Galveston counties, Texas OF 83-0150
- Cockfield Aquifer:* Potentiometric map of the Cockfield Aquifer in Mississippi, fall, 1980 OF 81-1053
- Colorado:* Aquifer testing WRI 82-4076
- Depth to the water table (1976-1977) in the Greater Denver area, Front Range urban corridor, Colorado I-0856-K
- Ground water for oil-shale development, Piceance Basin, Colorado OP- 16
- Ground-water potential for oil shale development in northwestern Colorado OP- 1283
- Ground-water quality WRI 82-4076
- Groundwater contamination and aquifer reclamation at the Rocky Mountain Arsenal, Colo. OP- 642
- Hydraulic characteristics of the principal bedrock aquifers in the Denver Basin, Colorado HA-0659
- Hydrologic data from Naval Oil Shale Reserves, Parachute Creek basin, northwestern Colorado, 1975-79 OF 82-0696
- Hydrologic-information needs for oil-shale development, northwestern Colorado WRI 82-4076
- Mathematical modeling of the ground-water flow system WRI 82-4076
- Modeling chloride movement in the alluvial aquifer at the Rocky Mountain Arsenal, Colorado W 2044
- Plan for hydrologic study of an area to be surface mined for coal in northwestern Colorado OF 82-0874
- Predevelopment and 1980 water table in the northern High Plains of Colorado; and water-level changes, predevelopment to 1980, and 1975 to 1980 HA-0670
- Role of solute-transport models in the analysis of groundwater salinity problems in agricultural areas OP- 641
- Spoil-pile geochemistry and hydrology WRI 82-4076
- Springs WRI 82-4076
- Test-well drilling and logging WRI 82-4076
- Water for oil-shale development WRI 82-4076
- Water-resources investigations of the U. S. Geological Survey in Colorado; fiscal year 1983 OF 83-0138
- Well yields and chemical quality of water from water-table aquifers in the Greater Denver area, Front Range urban corridor, Colorado I-0856-J
- Connecticut:* Ground-water availability and water quality, Farmington, Connecticut OF 80-0751
- High resolution seismic reflection methods and their application to hydrologic studies in Connecticut and Florida OP- 463
- Hydrogeologic evaluation of selected stratified-drift deposits in Connecticut WRI 83-4010
- Dakota Aquifer:* Regional flow in the Dakota Aquifer; a study of the role of confining layers W 2237
- Delaware:* Ground-water temperature of the Wyoming Quadrangle in central Delaware, with application to ground-water-source heat pumps PB-84 109 149
- Hydrogeochemical studies of a landfill in Delaware OP- 48
- Hydrologic data for the Potomac Formation in New Castle County, Delaware OF 81-0916
- Dolet Hills Aquifer:* Premining hydrology of the lignite area in southeastern De Soto Parish, Louisiana OP- 1150
- Eastern U.S.:* Coastal Plain faults affect ground-water flow OP- 362
- Configuration of the base of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States OF 81-1177
- Geology and configuration of the base of the Tertiary limestone aquifer system, Southeastern United States OF 81-1176
- Geology and configuration of the top of the Tertiary limestone aquifer system, Southeastern United States OF 81-1178
- Thickness of the Tertiary limestone aquifer system, Southeastern United States OF 81-1124
- Thickness of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States OF 81-1179
- Edwards Aquifer:* Hydrogeologic investigation of the Edwards Aquifer OP- 724
- Records of ground-water recharge, discharge, water levels, and chemical quality of water for the Edwards Aquifer in the San Antonio area, Texas, 1934-80 OP- 1013
- Evangeline Aquifer:* Water levels and salinities of water within the Evangeline Aquifer in an area southwest of Corpus Christi, Texas OF 82-0174
- Florida:* Appraisal of the interconnection between the St. Johns River and the surficial aquifer, east-central Duval County, Florida WRI 82-4109
- Continuous seismic-reflection survey defining shallow sedimentary layers in the Charlotte Harbor and Venice areas, Southwest Florida PB-83 215 731
- Distribution and use of drainage wells in Florida OP- 620
- Effects of a landfill operation on a coastal area, near-surface water table, Pinellas County, Florida OP- 364
- Effects of land use on ground-water quality in the East Everglades, Dade County, Florida WRI 82-4093
- Estimated water use in Southwest Florida, 1981, and summary of annual water use, 1970, 1975, and 1977-81 OF 83-0045
- Geochemistry of water from two wells in the Tertiary limestone aquifer system, Georgia and Florida OP- 1169
- Ground-water degradation incidents, west-central Florida OP- 1187
- Ground-water levels in selected well fields and in west-central Florida OF 83-0031
- Ground-water levels in selected well fields and in west-central Florida, May 1982 OF 82-0867
- Hydrogeologic sections through Lee County and adjacent areas of Hendry and Collier counties, Florida OF 81-0638
- Hydrogeology of a landfill, Pinellas County, Florida PB-83 205 070
- Hydrogeology of the Sarasota-Port Charlotte area, Florida WRI 82-4089
- Hydrologic data from monitoring of saline-water intrusion in the Cape Coral area, Lee County, Florida OF 82-0772
- Hydrology of the sand-and-gravel aquifer, southern Okaloosa and Walton counties, Northwest Florida WRI 82-4110
- Index of hydrologic data for selected sites in Broward County, Florida, 1939-80 OF 82-0920
- Occurrence and use of ground water in the Venice-Englewood area, Sarasota and Charlotte counties, Florida OF 82-0700
- Principal aquifers in Florida OF 82-0255
- Records of selected wells and lithologic logs of test holes, Hendry County and adjacent areas, Florida OF 83-0134
- Sinkhole development resulting from ground-water withdrawal in the Tampa area, Florida OP- 1141
- Sinkhole formation from abnormal saturation of overburden in a karst area OP- 361
- Source and rate of recharge to an artesian aquifer based on geochemical evidence OP- 684

- Source, use, and disposition of water in Florida, 1980 WRI 82-4090
- Subsurface storage and recovery of freshwater, South Florida OP- 791
- Subsurface storage of freshwater in South Florida; a digital analysis of recoverability OF 83-0536
- The origin and isotopic composition of dissolved sulfide in groundwater from carbonate aquifers in Florida and Texas OP- 1063
- Water quality at and adjacent to the South Dade County Solid-Waste Disposal Facility, Florida WRI 83-4003
- Floridan Aquifer: Chemical quality of water in the upper part of the Floridan Aquifer, Duval County, Florida* OF 82-0119
- Chloride and total hardness concentrations of water from the upper part of the Floridan Aquifer in St. Johns County, Florida OF 81-0907
- Computer simulation of the steady-state flow system of the Tertiary limestone (Floridan) aquifer system in east-central Florida OF 81-0681
- Connector well experiment to recharge the Floridan Aquifer, East Orange County, Florida W 2210
- Development of reaction models for groundwater systems OP- 974
- Effects of recharge from drainage wells on quality of water in the Floridan Aquifer in the Orlando area, central Florida WRI 82-4094
- Geohydrologic reconnaissance of drainage wells in Florida; an interim report OF 82-0860
- Geohydrology of the Floridan Aquifer in the Withlacoochee River basin of the Southwest Florida Water Management District OF 82-0331
- Hydrology of the Floridan Aquifer in Northwest Volusia County, Florida OF 82-0108
- Origins and distribution of saline ground waters in the Floridan Aquifer in coastal Southwest Florida WRI 82-4052
- Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, May 1982 OF 83-0041
- Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, May 1983 OF 83-0676
- Potentiometric surface of the Floridan Aquifer in central Sumter County, Florida, September 1982 OF 83-0042
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, May 1982 OF 82-0915
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, September 1982 OF 83-0030
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, May 1983 OF 83-0687
- Potentiometric surface of the Floridan Aquifer in the St. Johns River Water Management District and vicinity, Florida, September 1983 OF 83-0869
- Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, May 1983 OF 83-0547
- Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, September 1982 OF 82-1011
- Potentiometric surface of the Floridan Aquifer, Southwest Florida Water Management District, September 1983 OF 83-0868
- Regional hydrogeologic framework of the Floridan Aquifer OP- 802
- Relation of concealed faults to water quality and the formation of solution features in the Floridan Aquifer, northeastern Florida, U.S.A. OP- 683
- Trends and fluctuations in the potentiometric surface of the Floridan Aquifer, west-central Florida, 1961-80 WRI 82-4086
- Water resources of the Santa Fe River basin, Florida WRI 83-4075
- Fox Hills-Lower Hell Creek Aquifer: Map showing altitude of the top of the Fox Hills-Lower Hell Creek Aquifer, Montana* WRI 82-4041
- Map showing cumulative thickness of sandstone in the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4043
- Map showing total thickness of the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4042
- Georgia: Geochemistry of water from two wells in the Tertiary limestone aquifer system, Georgia and Florida* OP- 1169
- Geohydrology of the Albany area, Georgia OF 80-1296
- Ground-water data for Georgia, 1979 OF 80-0501-W
- Ground-water data for Georgia, 1980 OF 81-1068
- Ground-water data for Georgia, 1981 OF 82-0904
- Ground water in the Greater Atlanta region, Georgia OF 82-0569
- Potentiometric map of the principal artesian aquifer in Georgia, November 1979 OF 80-0585
- Gonzales-New Orleans Aquifer: Ground-water data for the Mississippi River parishes in the greater New Orleans area, Louisiana* OP- 299
- Gordo Aquifer: Model of the ground-water flow system of the Gordo and Eutaw aquifers in west-central Alabama* OF 80-0422
- Great Basin: Aquifer systems in the Great Basin region of Nevada, Utah, and adjacent states; a study plan* OF 82-0445
- Great Plains: Estimating irrigation water use and withdrawal of ground water on the Great Plains, U.S.A.* OP- 1322
- Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123
- Evaluating vertical variability of transmissivity and specific yield for the High Plains regional aquifer system OP- 460
- Machine-readable data files from the Madison Limestone and Northern Great Plains regional aquifer system analysis projects, Montana, Nebraska, North Dakota, South Dakota, and Wyoming WRI 82-4107
- Gulf Coastal Plain: Chemical geothermometers applied to formation waters, Gulf of Mexico and California basins* OP- 617
- Hawaii: Estimation of fresh water abundances by electrical-resistivity sounding on the Kalaupapa Peninsula, Island of Molokai, Hawaii* OF 83-0065
- Ground-water exploration in the South Kohala District, Hawaii County, Hawaii, using vertical electrical sounding OF 83-0067
- Summary appraisals of the Nation's ground-water resources; Hawaii region P 0813-M
- Water resources of southeastern Oahu, Hawaii OF 82-0628
- High Plains Aquifer: Altitude and configuration of the predevelopment water table in the High Plains regional aquifer, northwestern Oklahoma* OF 82-0275
- Geohydrology of the High Plains aquifer system in Nebraska OF 82-0502
- Percentage change in saturated thickness of the High Plains Aquifer, west-central Kansas, 1950 to average 1980-82 OF 82-1010
- Idaho: Compilation of ground-water quality data for selected wells in Elmore, Owyhee, Ada, and Canyon counties, Idaho, 1945 through 1982* OF 83-0039
- Configuration of the water table, March, 1980, in the Snake River plain regional aquifer system, Idaho and eastern Oregon OF 82-1022
- Hydrographs of water levels in observation wells in Idaho, 1971-82 OF 83-0225
- Reconnaissance of ground-water quality, eastern Snake River basin, Idaho WRI 82-4004
- Schlumberger soundings on the Snake River plain near Nampa, Idaho OF 83-0412
- Water resources of Rockland Basin, southeastern Idaho OF 82-0755
- Illinois: Illinois State Water Survey* OF 82-1001
- Indiana: Ground-water resources of the glacial outwash along the White River, Johnson and Morgan counties, Indiana* WRI 82-4016
- Ground-water resources of the White River basin, Delaware County, Indiana PB-83 196 147
- Ground-water resources of the White River basin, Hamilton and Tipton counties, Indiana PB-83 184 309
- Hydrologic data collected in and around a surface coal mine, Clay and Vigo counties, Indiana, 1977-80 OF 82-0639
- Lineaments and fracture traces, Decatur County, Indiana OF 82-0918
- Saline formation waters in the Cambrian-Ordovician aquifer in Northwest Indiana OP- 1121
- Jasper Aquifer: Hydrology of the Jasper Aquifer in the Southeast Texas coastal plain* OF 83-0677
- Kansas: A numerical model to evaluate proposed ground-water allocations in Southwest Kansas* WRI 82-4095
- Analysis and computer simulation of stream-aquifer hydrology, Arkansas River Valley, southwestern Kansas W 2200
- Geohydrologic data from sandstone aquifers in southwestern Kansas OF 82-0868
- Geohydrology and model analysis of the stream-aquifer system along the Arkansas River in Kearny and Finney counties, southwestern Kansas OF 83-0222
- January 1981 water levels, and data related to water-level changes, western and south-central Kansas OF 81-1001
- January 1983 water levels, and data related to water-level changes, western and south-central Kansas OF 83-0762
- Kansas ground-water observation-well network, 1983 OF 83-0528
- Map of water table in Graham County, northwestern Kansas, March 1979 OF 81-0333
- Map of water table in Solomon River valley, Waconda Lake to Solomon, north-central Kansas, May 1980 OF 81-0334
- Saline ground-water discharge to the Smoky Hill River between Salina and Abilene, central Kansas PB-82 237 637
- Statistical summaries of selected chemical constituents in Kansas ground-water supplies OF 83-0263

- Kentucky:** Chloroform contamination in part of the alluvial aquifer, southwest Louisville, Kentucky W 2202
- Kootenay Aquifer:** Hydrogeology and simulation of water flow in the Kootenai Aquifer of the Judith Basin, central Montana WRI 83-4146
- Lesser Antilles:** Ground-water records in St. Croix, Virgin Islands, 1969-73 OF 83-0546
- Lloyd Aquifer:** Potentiometric surface of the Lloyd Aquifer, Long Island, New York, in January 1979 OF 82-0162
- Louisiana:** Ground-water conditions along route from New Orleans to Grand Cheniere, via Baton Rouge, Lafayette, and Abbeville OP- 196
- Ground-water resources of the Arcadia-Minden area, Louisiana OP- 1061
- Madison Aquifer:** Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer OP- 46
- Magothy Aquifer:** Potentiometric surface of the Magothy Aquifer, Long Island, New York, March 1979 OF 82-0160
- Maine:** Ground-water availability and surficial geology of the Royal, upper Presumpscot, and upper Saco River basins, Maine OF 79-1287
- Ground water availability in Acadia National Park and vicinity, Hancock and Knox counties, Maine OF 80-1050
 - Ground-water resources map, southwestern Maine OF 79-1337
 - Records of selected wells, springs, and test holes, in the Royal, upper Presumpscot, and upper Saco River basins in Maine OF 79-1169
 - Records of selected wells, springs and test holes in the upper Androscoggin River valley, Maine OF 80-0412
- Martinsburg Aquifer:** Groundwater resources in the Cumberland and contiguous valleys of Franklin County, Pennsylvania OP- 84
- Maryland:** Test well DO-CE 88 at Cambridge, Dorchester County, Maryland OF 82-1015
- Massachusetts:** Distribution of aquifers, liquid-waste impoundments, and municipal water-supply sources, Massachusetts OF 80-0431
- Distribution of dissolved substances in ground water resulting from infiltration of treated sewage through sand filter beds OP- 673
 - Estimating high groundwater levels from observed water levels in Massachusetts OP- 405
 - Management of the Lawrence Swamp Aquifer, Amherst, Massachusetts OP- 949
 - Potential hydrologic impacts of ground-water withdrawal from the Cape Cod National Seashore, Truro, Massachusetts OF 82-0438
 - Probable high ground-water levels on Cape Cod, Massachusetts OF 80-1008
 - Sewage plume in a sand and gravel aquifer, Cape Cod, Massachusetts OP- 672
- Michigan:** Ground water and geology of Marquette County, Michigan OF 82-0501
- Ground-water contamination at Wurtsmith Air Force Base, Michigan WRI 83-4002
 - Ground-water data for Michigan, 1981 OF 82-0754
 - Ground water for public water supply at Windigo, Isle Royale National Park, Michigan OF 82-0567
 - Water quality of coal deposits and abandoned mines, Saginaw County, Michigan OF 82-0511
- Midwest:** Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136
- The chemical evolution of water quality in the Cambrian-Ordovician aquifer, north-central United States OP- 1135
- Minnesota:** Availability and chemical quality of water from surficial aquifers in Southwest Minnesota WRI 83-4030
- Baseline water-quality data for sand-plain aquifers in Hubbard, Morrison, Otter Tail, and Wadena counties, Minnesota OF 82-0909
 - Data for water resource management in Minnesota OP- 548
 - Degradation of phenolic contaminants in ground water by anaerobic bacteria; St. Louis Park, Minnesota OP- 338
 - Evaluating ground-water data by a flow model of the Twin Cities metropolitan area, Minnesota OP- 1096
 - Geochemistry of Williams Lake, Hubbard County, Minnesota OP- 452
 - Ground-water-use trends in the Twin Cities metropolitan area, Minnesota, 1880-1980 WRI 83-4033
 - Potentiometric surface of regional aquifers in the Hollandale Embayment, southeastern Minnesota OP- 1321
- Mississippi:** Estimated water use in Mississippi, 1980 OF 83-0224
- Preliminary report of the geohydrology near Cypress Creek and Richton salt domes, Perry County, Mississippi WRI 83-4169
 - Water-level maps of the alluvial aquifer, northwestern Mississippi, April 1982 WRI 82-4061
 - Water-level maps of the alluvial aquifer, northwestern Mississippi, September 1981 OF 82-0574
 - Water-level maps of the alluvial aquifer, northwestern Mississippi, September 1982 WRI 83-4133
- Missouri:** Preliminary investigation of ground-water occurrences in the Weldon Spring area, St. Charles County, Missouri OF 82-1008
- Water resources investigations of U. S. Geological Survey in Missouri, fiscal year 1983 OF 83-0251
- Montana:** Appraisal of water in bedrock aquifers, northern Cascade County, Montana OF 82-1025
- Geohydrology of the Madison and associated aquifers in parts of Montana, North Dakota, South Dakota, and Wyoming OF 82-0914
 - Map showing altitude of the top of the "Dakota Sandstone," Montana WRI 82-4036
 - Map showing altitude of the top of the Eagle Sandstone, Montana WRI 82-4034
 - Map showing altitude of the top of the Judith River Formation, Montana WRI 82-4027
 - Map showing altitude of the top of the Lakota Formation and equivalent rocks, Montana WRI 82-4039
 - Map showing altitude of the top of the Swift Formation, Montana WRI 82-4029
 - Map showing cumulative thickness of sandstone in the "Dakota Sandstone," Montana WRI 82-4035
 - Map showing cumulative thickness of sandstone in the Eagle Sandstone and Telegraph Creek Formation, Montana WRI 82-4032
 - Map showing cumulative thickness of sandstone in the Eagle Sandstone and Telegraph Creek Formation, Montana WRI 82-4032
 - Map showing cumulative thickness of sandstone in the Judith River Formation, Montana WRI 82-4038
 - Map showing cumulative thickness of sandstone in the Lakota Formation and equivalent rocks, Montana WRI 82-4040
- Map showing cumulative thickness of sandstone in the Swift Formation, Montana WRI 82-4030
 - Map showing total thickness of the "Dakota Sandstone," Montana WRI 82-4037
 - Map showing total thickness of the Eagle Sandstone and Telegraph Creek Formation, Montana WRI 82-4033
 - Map showing total thickness of the Judith River Formation, Montana WRI 82-4028
 - Map showing total thickness of the Lakota Formation and equivalent rocks, Montana WRI 82-4026
 - Map showing total thickness of the Swift Formation, Montana WRI 82-4031
 - Potentially favorable areas for large-yield wells in the Red River Formation and Madison Limestone in parts of Montana, North Dakota, South Dakota, and Wyoming P 1273-E
 - Potentiometric surface and quality of the water of Madison Group, Montana OP- 363
 - Potentiometric-surface map of water in the Eagle Sandstone and equivalent units in the Northern Great Plains area of Montana OF 82-0565
 - Potentiometric-surface map of water in the Fox Hills-Lower Hell Creek aquifer in the Northern Great Plains area of Montana OF 82-0564
 - Potentiometric-surface map of water in the Judith River Formation in the Northern Great Plains area of Montana OF 82-0562
 - Potentiometric-surface map of water in the Lakota Formation and equivalent units in the Northern Great Plains area of Montana OF 82-0563
 - Relationship of porosity and permeability to petrology of the Madison Limestone in rock cores from three test wells in Montana and Wyoming P 1273-C
 - Selective annotated bibliography of ground-water resources, records of wells and springs, and availability of streamflow data on Indian reservations in Montana OF 83-0129
 - Survey of helium in natural water wells and springs in Southwest Montana and Imperial Valley, California; Part V, January 1- December 31, 1982 OF 83-0500
 - Water-resources investigations of the U. S. Geological Survey in Montana, October 1982 through September 1983 OF 83-0260
- Mount Simon-Hinckley Aquifer:** Seasonal versus long-term variations in potentiometric levels in the Mount Simon-Hinckley and Prairie du Chien-Jordan aquifers, Twin Cities metropolitan area, Minnesota OP- 1095
- Nebraska:** Appraisal of data for ground-water quality in Nebraska OF 83-0128
- Groundwater levels in Nebraska 1982 OP- 583
 - Hydrogeologic reconnaissance of the Republic River basin Nebraska OF 81-0531
- Nevada:** A hydrogeochemical survey in east-central Nevada OF 83-0286
- Geohydrologic and drill-hole data for test well USW-H1, adjacent to Nevada Test Site, Nye County, Nevada OF 83-0141
 - Geophysical reconnaissance of Lemmon Valley, Nevada OP- 1083
 - Hydrology of the hydrothermal system in southern Grass Valley, Pershing County, Nevada OP- 1282
 - Incorporation of prior information on parameters into nonlinear regression ground-water flow models; 2, Applications OP- 254
 - Mathematical model analysis of the Eagle Valley ground-water basin, west-central Nevada OF 80-1224

- Two-dimensional, steady-state model of ground-water flow, Nevada Test Site and vicinity, Nevada-California WRI 82-4085
- New England:* Electromagnetic conductivity techniques in delineating ground-water-pollution plumes OP- 325
- New Hampshire:* Trichloroethylene in the ground-water supply of Pease Air Force Base, Portsmouth, New Hampshire OF 80-0557
- New Jersey:* Computer simulation model of the Pleistocene valley-fill aquifer in southwestern Essex and southeastern Morris counties, New Jersey WRI 83-4028
- Geology and ground-water resources of Camden County, New Jersey WRI 83-4029
- New Mexico:* Analytical results for 26 water samples from southern New Mexico OF 83-0777
- Annual water-resources review, White Sands Missile Range, New Mexico OF 82-0757
- Geologic and well-construction data for the H-10 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico WRI 83-4124
- Hydrogeology and water resources of San Juan Basin, New Mexico OP- 1195
- Instrumentation used for hydraulic testing of potential water-bearing formations at the Waste Isolation Pilot Plant site in southeastern New Mexico OF 83-0144
- Review of selected ground-water resource studies in the Albuquerque Basin, New Mexico OP- 654
- Supplement to the New Mexico three-dimensional model OF 82-0857
- Water-resources investigations of the U.S. Geological Survey in New Mexico; fiscal year 1981 OF 83-0772
- Water resources of the Zuni Tribal Lands, McKinley and Cibola counties, New Mexico OF 82-1013
- New York:* An atlas of 11 selected aquifers in New York OF 82-0553
- Analysis of three tests of the unconfined aquifer in southern Nassau County, Long Island, New York WRI 82-4021
- Effects of sanitary sewers on ground-water levels and streams in Nassau and Suffolk counties, New York; Part I, Geohydrology, modeling strategy, and regional evaluation WRI 82-4045
- Geologic reconnaissance of an extensive clay unit in north-central Suffolk County, Long Island, New York WRI 82-4075
- Geology and ground-water resources of Oswego County, New York PB-83 124 651
- Geology of the "20-foot" clay and Gardiners Clay in southern Nassau and southwestern Suffolk counties, Long Island, New York WRI 82-4056
- Ground-water appraisal of the Pine Bush area, Albany County, New York WRI 82-4000
- Ground-water pumpage in Nassau County, Long Island, New York, 1920-77; Introduction and user's guide to the data compilation OF 81-0499
- Instructions for using the U. S. Geological Survey data base of wells on Long Island, New York OF 82-0568
- The U. S. Geological Survey's water resources program in New York OF 83-0270
- Water levels in Nassau County sewer districts 2 and 3, Long Island, New York WRI 82-4017
- Water table on Long Island, New York, March 1979 OF 82-0163
- North Carolina:* The effects of channel excavation on water-quality characteristics of the Black River and ground-water levels near Dunn, North Carolina WRI 82-4083
- North Dakota:* Evaluation of the physical hydrology and hydrochemistry of active and proposed surface-mine sites and spoils in western North Dakota OP- 450
- Ground-water data for Bottineau and Rolette counties, North Dakota OP- 656
- Ground-water data for selected coal areas in western North Dakota OF 83-0219
- Ground-water data for Towner County, North Dakota OP- 657
- Ground-water resources of Logan County, North Dakota OP- 632
- Ground-water resources of Ransom and Sargent counties, North Dakota OP- 37
- Guide to North Dakota's ground-water resources W 2236
- Water-resources investigations in North Dakota; fiscal year 1983 OF 83-0220
- $^{13}\text{CO}_2$ and $^{14}\text{CO}_2$ measurements on soil atmosphere sampled in the western Great Plains of the US OP- 462
- Ogallala Aquifer:* Generalized altitude and configuration of the base of the High Plains regional aquifer, northwestern Oklahoma OP- 501
- Geology, altitude, and depth of the bedrock surface beneath the Ogallala Formation in the northern High Plains of Colorado HA-0669
- The Ogallala Aquifer in the northern High Plains of Colorado; saturated thickness in 1980; saturated-thickness changes, predevelopment to 1980; hydraulic conductivity; specific yield; and predevelopment and 1980 probable well yields HA-0671
- Water-level records for the northern High Plains of Colorado, 1979-83 OF 83-0253
- Ohio:* Ground-water hydrology before, during, and after coal strip mining of a small watershed in Coshocton County, Ohio WRI 83-4155
- Ground-water monitoring in three small surface-mined watersheds of eastern Ohio OP- 1007
- Model modifications for simulation of flow through stratified rocks in eastern Ohio WRI 82-4019
- Simulations of non-steady flow in a glacial outwash aquifer, southern Franklin County, Ohio WRI 83-4022
- Oklahoma:* Geohydrology and numerical simulation of the alluvium and terrace aquifer along the Beaver-North Canadian River from the Panhandle to Canton Lake, northwestern Oklahoma OF 81-0483
- Ground-water levels in observation wells in Oklahoma, 1980-82 OF 83-0760
- Ground-water quality data for Oklahoma, 1981 OF 83-0686
- Ground-water records for the area surrounding the Chickasaw National Recreational Area, Murray County, Oklahoma OF 83-0027
- Numerical simulation of the alluvium and terrace aquifer along the North Canadian River from Canton Lake to Lake Overholser, central Oklahoma OP- 227
- Oklahoma; summary of activities of the U.S. Geological Survey Water Resources Division for 1983 OF 83-0767
- Preliminary appraisal of the hydrology of the Blocker area, Pittsburg County OF 81-1187
- Preliminary appraisal of the hydrology of the Stigler area, Haskell County, Oklahoma WRI 82-4099
- Preliminary projections of the effects of chloride-control structures on the Quaternary aquifer at Great Salt Plains, Oklahoma PB-83 151 431
- Oregon:* Hydrology of the Newberry Volcano caldera, Oregon WRI 83-4091
- Potential hydrologic effects of developing coal and other geo-energy resources of Oregon; a review OF 81-1014
- Pennsylvania:* Probable hydrologic effects of subsurface mining OP- 1196
- Water resources of the Clarion River and Redbank Creek basins, northwestern Pennsylvania OF 81-0070
- Providence Aquifer:* Hydrogeology of the Providence Aquifer of Southwest Georgia OF 82-0903
- Puerto Rico:* Carbon tetrachloride spill in the shallow limestone aquifer, Barceloneta, Puerto Rico OP- 1235
- Ground-water levels and chloride concentrations in alluvial aquifers on the south coast of Puerto Rico, February 1980 OF 81-0626
- Ground-water levels in alluvium on the south coast of Puerto Rico, February 1979 OF 81-0641
- Reconnaissance of ground-water quality throughout Puerto Rico, September-October 1981 OF 82-0332
- Rhode Island:* Ground-water contamination plume from low-level radioactive wastes, Wood River Junction, Rhode Island OP- 1062
- Roubidoux Aquifer:* Potential contamination of the Roubidoux Aquifer by water from abandoned zinc mines, northeastern Oklahoma OP- 359
- South Carolina:* Fluoride concentrations in water from four principal coastal plain aquifer systems, South Carolina OF 81-0140
- Hydrology of the low-level radioactive solid waste burial site and vicinity near Barnwell, South Carolina OF 82-0863
- Movement of radionuclides in unconsolidated coastal sediments at the low-level radwaste burial site near Barnwell, South Carolina OP- 182
- South Dakota:* Major aquifers in Hanson and Davison counties, South Dakota OP- 482
- Major aquifers in Yankton County, South Dakota OP- 166
- The hydrology of the Pierre Shale of South Dakota; some observations OP- 858
- Water-resources investigations of the U. S. Geological Survey in South Dakota OF 82-0912
- Water-resources investigations of the U. S. Geological Survey in South Dakota, project status summary, July 1, 1983 OF 83-0754
- Sparta Aquifer:* Potentiometric map of the Sparta aquifer system in Mississippi, fall, 1980 OF 81-1051
- Spokane Aquifer:* Evaluation of water-quality characteristics of part of the Spokane Aquifer, Washington and Idaho, using a solute-transport digital model OF 82-0769
- Tennessee:* Base flow and ground water in upper Sweetwater Valley, Tennessee WRI 83-4068
- Effects of urban development on the aquifers in the Memphis area, Tennessee WRI 82-4024
- Texas:* Ground-water resources of Colorado, Lavaca, and Wharton counties, Texas OP- 702
- Ground-water withdrawals and changes in water levels in the Houston District, Texas OF 82-0431
- Ground-water withdrawals and land-surface subsidence in the Houston-Galveston region, Texas OF 82-0571

- Hydrologic data for urban studies in the Austin, Texas, metropolitan area, 1981
OF 83-0044
- Hydrostratigraphic subdivisions and fault barriers of the Edwards Aquifer, south-central Texas, U.S.A. OP- 725
- Land-surface subsidence in the Texas coastal region OP- 1005
- Projected effects of proposed salinity-control projects on shallow ground water; preliminary results for the upper Brazos River basin, Texas OF 82-0908
- Structure, temperature, pressure, and salinity of Cenozoic aquifers of South Texas HA-0654
- United States:* Generalized map showing annual runoff and productive aquifers in the conterminous United States HA-0194
- Hydrologic and geologic aspects of waste management and disposal; a bibliography of publications by U.S. Geological Survey authors, 1950-81 C 0907
- Southeast Tertiary limestone aquifer flow-system OP- 174
- Subsidence in United States due to ground-water withdrawal OP- 981
- Summary of water withdrawals in the United States, 1950-1980 OF 83-0207
- Utah:* Bedrock aquifers in the northern San Rafael Swell area, Utah, with special emphasis on the Navajo Sandstone OF 82-0866
- Ground-water hydrology and projected effects of ground-water withdrawals in the Sevier Desert, Utah OF 83-0688
- Ground water in the southeastern Uinta Basin, Utah and Colorado OF 83-0271
- Hydrology of the Ferron Sandstone aquifer and effects of proposed surface-coal mining in Castle Valley, Utah W 2195
- Hydrology of the Price River basin, Utah, with emphasis on selected coal-field areas OF 83-0208
- Map showing general availability of ground water in the Alton-Kolob coal fields area, Utah I-1235-C
- Water resources and potential hydrologic effects of oil-shale development in the southeastern Uinta Basin, Utah and Colorado OF 83-0216
- Water-resources studies in Utah by the U. S. Geological Survey, July 1, 1982 to June 30, 1983 OF 83-0531
- Vamoosa-Ada Aquifer:* Geohydrology of the Vamoosa-Ada Aquifer, east-central Oklahoma OF 81-0062
- Virginia:* Chemical quality of ground water in the Culpeper Basin, Virginia and Maryland I-1313-D
- Ground-water resources of Fairfax County and vicinity, Virginia, and some aspects of their development I-1473
- Summary of hydrologic data collected at Wytheville National Fish Hatchery No. 2, Max Meadows, Virginia, 1976 to 1979 OF 82-0686
- Washington:* Groundwater-surfacewater relationships in the Bonaparte Creek basin, Okanogan County, Washington, 1979-80 OF 82-0172
- Impact of changes in land use on the ground-water system in the Sequim-Dungeness Peninsula, Clallam County, Washington WRI 83-4094
- Lake phosphorus loading from septic systems by seasonally perched ground water, Puget Sound region, Washington OF 82-0907
- Water resources of the Gig Harbor Peninsula and adjacent areas, Washington OF 81-1021
- Western U.S.:* An assessment of the hydrologic information required for the U.S. Bureau of Land Management-U.S. Geological Survey coal-hydrology program in the West OF 82-1012
- Availability and quality of water related to Western energy OP- 556
- Wisconsin:* Trends in ground-water levels in Wisconsin through 1981 OP- 349
- Wyoming:* A plan for hydrologic investigations of in situ oil-shale retorting near Rock Springs, Wyoming OF 82-0758
- Computer program and data listing for two-dimensional ground-water model for Laramie County, Wyoming WRI 83-4137
- Digital model of the Bates Creek alluvial aquifer near Casper, Wyoming WRI 82-4068
- Ground-water data from selected wells in alluvial aquifers, Powder River basin, northeastern Wyoming OF 82-0856
- Ground-water levels in Wyoming, 1971 through part of 1980 OF 82-0859
- Hydrogeologic features of the alluvial deposits in the Owl Creek valley, Bighorn Basin, Wyoming WRI 82-4007
- Hydrologic evaluation of proposed ground-water withdrawals in Muleshoe Flat near Wheatland, southwestern Wyoming WRI 83-4150
- Pumpage data from irrigation wells in eastern Laramie County, Wyoming, and Kimball County, Nebraska OF 83-0029
- Use of vertical and surface seismic profiles to investigate distribution of aquifers in Madison Group and Red River Formation, Powder River Basin, Wyoming-Montana OP- 54
- Water-resources investigations of the U. S. Geological Survey in Wyoming, fiscal years 1981 and 1982 OF 83-0254
- Guatemala—oceanography**
- continental slope:* Cenozoic silicoflagellates from offshore Guatemala, Deep Sea Drilling Project Site 495 OP- 168
- Gas hydrates in sediments of holes 497 and 498A, Deep Sea Drilling Project Leg 67 OP- 490
- Geophysical observations of slope deposits, Middle America Trench off Guatemala OP- 1258
- Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67 OP- 491
- Summary; Leg 67, Middle America Trench transect off Guatemala OP- 1256
- geophysical surveys:* Interpretation of seismic-reflection data of the Middle America Trench offshore Guatemala OP- 663
- Guatemala—structural geology**
- tectonics:* Interpretation of seismic-reflection data of the Middle America Trench offshore Guatemala OP- 663
- guidebook* see under geomorphology under Idaho; Washington
- Gulf Coastal Plain** see also the individual states and countries
- Gulf Coastal Plain—economic geology**
- fuel resources:* Estimated oil and gas reserves, Gulf of Mexico outer continental shelf and continental slope, December 31, 1982 OF 83-0122
- The oil and gas industry of coastal Louisiana and its effects on land use and other socioeconomic patterns OF 83-0118
- water resources:* Estimating water use, Southwest Florida OP- 323
- Gulf Coastal Plain—engineering geology**
- rock mechanics:* Final report on the permeability of geopressed Gulf Coastal shale cores OF 83-0180
- Gulf Coastal Plain—environmental geology**
- ecology:* The oil and gas industry of coastal Louisiana and its effects on land use and other socioeconomic patterns OF 83-0118
- geologic hazards:* U. S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978 C 0870
- pollution:* An oilspill risk analysis for the central Gulf (April 1984) and western Gulf of Mexico (July 1984) lease offerings OF 83-0119
- Gulf Coastal Plain—hydrogeology**
- ground water:* Ground-water resources of the Arcadia-Minden area, Louisiana OP- 1061
- Hydrology of the Jasper Aquifer in the Southeast Texas coastal plain OF 83-0677
- hydrology:* Floods of April 1983 in southern Mississippi and southeastern Louisiana OF 83-0685
- maps:* A method of estimating average stream-flow and headwater limits in U.S. Army Corps of Engineers Mobile District, Alabama and adjacent states OF 81-0059
- Gulf Coastal Plain—oceanography**
- continental shelf:* Estimated oil and gas reserves, Gulf of Mexico outer continental shelf and continental slope, December 31, 1981 OF 82-0034
- Gulf Coastal Plain—paleobotany**
- paleomorphs:* Holcopollenites pollen "lineage" from the Upper Cretaceous series of the Atlantic and eastern Gulf Coastal Plain Province OP- 229
- Plantae:* Differences between middle Eocene plant communities of Southern California and those of the Atlantic and Gulf coastal plains OP- 399
- Gulf Coastal Plain—paleontology**
- Mollusca:* Preservational effects in paleoecological studies; Cretaceous mollusc examples OP- 637
- Substrate preference among some Late Cretaceous shallow-water benthic mollusks OP- 1154
- Gulf Coastal Plain—sedimentary petrology**
- sedimentary rocks:* Chemical composition of Gulf Coast lignites; data as of 1981 OP- 913
- Gulf Coastal Plain—stratigraphy**
- Cretaceous:* Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia OP- 1155
- Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maestrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province OP- 507
- Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maestrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province OP- 506
- Preliminary report on Upper Cretaceous geological studies along the Tombigbee River, western Alabama and eastern Mississippi OP- 1147
- Upper Cretaceous (Maestrichtian) Mollusca from the Haustator bilira assemblage zone in the East Gulf Coastal Plain OF 83-0451
- Eocene:* Biostratigraphically important species of Pentadinium Gerlich 1961 and a likely ancestor, Hafniasphaera goodmanii sp. nov., from the Eocene of the Atlantic and Gulf Coastal plains OP- 334

- Comparison of middle Eocene sporomorph assemblages from Southern California and Gulf Coast OP- 400
- Revision of the Hatchetigbee and Bashi formations (lower Eocene) in the eastern Gulf Coastal Plain B 1529-H
- Stratigraphy of Paleocene and Eocene units of the Eastern United States and its relationship to global sea-level curves OP- 425
- Jurassic*: Structural control of Jurassic sedimentation in Alabama and Florida OP- 800
- Upper Jurassic ammonites from Louisiana, Texas, and Mississippi OP- 564
- Oligocene*: Late Eocene to early Oligocene calcareous nannofossils in Alabama OP- 177
- Paleocene*: New stratigraphic unit in the Wilcox Group (upper Paleocene-lower Eocene) in Alabama and Georgia B 1529-H
- Paleocene-Eocene boundary in eastern Gulf Coast OP- 402
- Paleocene to middle Eocene stratigraphy of Alabama OP- 426
- Preliminary chart of stratigraphic nomenclature of Paleocene and Eocene lignite-bearing and associated strata of the Gulf Coast Plain-Mississippi Embayment OF 83-0310
- Paleogene*: Late Eocene to early Oligocene calcareous nannofossils in Alabama and Mississippi OP- 176
- Gulf Coastal Plain—structural geology**
 - tectonics*: Deformational structures in the Inner Coastal Plain, western Georgia-eastern Alabama OP- 1016
- Gulf of California—geochronology**
 - Holocene*: Radiocarbon dating of Recent sediments from Leg 64, Gulf of California OP- 1168
- Gulf of Mexico—economic geology**
 - fuel resources*: Economics and the appraisal of conventional oil and gas resources in the western Gulf of Mexico OP- 43
 - Estimated oil and gas reserves, Gulf of Mexico outer continental shelf and continental slope, December 31, 1981 OF 82-0034
 - Estimated oil and gas reserves, Gulf of Mexico outer continental shelf and continental slope, December 31, 1982 OF 83-0122
 - Future supply of oil and gas from the Gulf of Mexico P 1294
 - Oil and gas potential of the Maritime Boundary region in the central Gulf of Mexico OP- 382
 - natural gas*: Natural gas analyses from offshore Gulf of Mexico OF 83-0152
- Gulf of Mexico—engineering geology**
 - shorelines*: Geological and ecological variations as factors in human use and development of coastal barriers OP- 431
 - soil mechanics*: Active diapirism and slope steepening, northern Gulf of Mexico continental slope OP- 745
- Gulf of Mexico—environmental geology**
 - pollution*: An oilspill risk analysis for the central Gulf (April 1984) and western Gulf of Mexico (July 1984) lease offerings OF 83-0119
- Gulf of Mexico—geophysical surveys**
 - seismic surveys*: Gulf of Mexico types of intraslope basins as determined by seismic reflection patterns OP- 136
 - Oil and gas potential of the Maritime Boundary region in the central Gulf of Mexico OP- 382
 - Shallow structure and stratigraphy of the carbonate West Florida continental slope and their implications to sedimentation and geohazards OF 83-0425

Gulf of Mexico—oceanography

- continental slope*: Estimated oil and gas reserves, Gulf of Mexico outer continental shelf and continental slope, December 31, 1981 OF 82-0034
- U. S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978 C 0870
- maps*: Maps showing time-sequence surface patterns of estuarine hydrography and suspended sediments in Corpus Christi Bay, Texas Gulf Coast MF-1530
- ocean basins*: Gulf of Mexico types of intraslope basins as determined by seismic reflection patterns OP- 136
- reefs*: Hoffa Reef; a shelf-edge calcareous prominence in the northern Gulf of Mexico OF 83-0745

Gulf of Mexico—paleontology

- foraminifera*: Generic predominance facies among deep-water benthic foraminifera of Gulf of Mexico OP- 977
- Modern benthic foraminifera from Gyre intraslope basin, northern Gulf of Mexico OP- 1022
- Modern benthic foraminifera from the Gyre intraslope basin, Gulf of Mexico OP- 1023

Gulf of Mexico—sedimentary petrology

- sedimentary structures*: Facies characteristics of modern size-graded shelf deposits, northwestern Gulf of Mexico OP- 533

Gulf of Mexico—stratigraphy

- Cenozoic*: Bolivinitids as paleoenvironmental monitors on continental slopes OP- 978

Gulf of Mexico—structural geology

- tectonics*: Evolution of the Gulf of Mexico basin OP- 165

H

hafnium—isotopes

- crystalline rocks*: Evolution of continental crust and mantle heterogeneity; evidence from Hf isotopes OP- 937
- Lu-176/Hf-176*: Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution OP- 936

Hawaii—areal geology

- regional*: The eastern Pacific and Hawaii OP- 561

Hawaii—economic geology

- geothermal energy*: Distribution of differentiated tholeiitic basalts on the lower East Rift Zone of Kilauea Volcano, Hawaii; a possible guide to geothermal exploration OP- 829
- Hawaii; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0430
- water resources*: Summary appraisals of the Nation's ground-water resources; Hawaii region P 0813-M
- Water resources of southeastern Oahu, Hawaii OF 82-0628

Hawaii—environmental geology

- geologic hazards*: Potential hazards from future volcanic eruptions on the Island of Maui, Hawaii I-1442
- maps*: Potential hazards from future volcanic eruptions on the Island of Maui, Hawaii I-1442

Hawaii—geomorphology

- processes*: Stripping of Keanakakoi tephra on Kilauea Volcano, Hawaii OP- 734

Hawaii—geophysical surveys

- electrical surveys*: Estimation of fresh water abundances by electrical-resistivity sounding on the Kalaupapa Peninsula, Island of Molokai, Hawaii OF 83-0065
- Ground-water exploration in the South Kohala District, Hawaii County, Hawaii, using vertical electrical sounding OF 83-0067
- electromagnetic surveys*: Complete data listings for CSEM soundings on Kilauea Volcano, Hawaii OF 83-0066
- magnetic surveys*: Preparation of a gravity anomaly map of the conterminous United States and aeromagnetic maps of Alaska and Hawaii OP- 432
- maps*: Preparation of a gravity anomaly map of the conterminous United States and aeromagnetic maps of Alaska and Hawaii OP- 432

Hawaii—hydrogeology

- springs*: Hawaii; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0430
- thermal waters*: Hawaii; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0430

Hawaii—seismology

- earthquakes*: Earthquakes at Loihi submarine volcano and the Hawaiian hot spot OP- 634
- Focal mechanisms and locations of earthquakes in the vicinity of the 1975 Kalapana earthquake aftershock zone 1970-1979; implications for tectonics of the south flank of Kilauea Volcano, Island of Hawaii OP- 273
- Seismicity and surface deformation of Mauna Loa Volcano, Hawaii OP- 288

Hawaii—structural geology

- neotectonics*: The Seco inclinometer; a monitor of the deformation tied to volcanic activity in Hawaii OP- 1329

Hawaii—volcanology

- Kilauea*: Drilling report and core logs for the 1981 drilling of Kilauea Iki lava lake (Kilauea Volcano, Hawaii), with comparative notes on earlier (1967-1979) drilling experiences OF 83-0326
- The August and October 1968 east rift eruptions of Kilauea Volcano, Hawaii P 0890
- The Seco inclinometer; a monitor of the deformation tied to volcanic activity in Hawaii OP- 1329
- maps*: Reconnaissance map showing thicknesses of volcanic ash deposits in the Greater Hilo area, Hawaii MF-1499
- heat flow* *see also* under geophysical surveys under Alaska; Arkansas; California; Colorado; Missouri; Nevada; Oregon; South Carolina; South Dakota; Tennessee; Utah; Wyoming; *see also* under tectonophysics under Pacific Ocean; United States; Western U.S.

heat flow—changes

- crust*: Evidence for and consequences of thermal rejuvenation OP- 788

heat flow—geothermal gradient

- anomalies*: Additional geophysical techniques for monitoring volcanoes; geodetic, gravity, thermal, electrical, magnetic and radioactivity OP- 287
- geologic thermometry*: Time as factor in organic metamorphism and use of vitrinite reflectance as an absolute paleogeothermometer OP- 996

heat flow—theoretical studies

- thermal effects*: Rapid intrusion of magma into wet rock; groundwater flow due to pore pressure increases OP- 290

- heavy minerals** *see* under clastic rocks *under* sedimentary rocks; *see also* composition *under* sediments; *see also* under geochemical methods *under* mineral exploration; *see also* placers

helium—geochemistry

- ground water*: Soil-gas helium variations related to seismic activity OP- 1014
 — Survey of helium in natural water wells and springs in Southwest Montana and Imperial Valley, California; Part V, January 1- December 31, 1982 OF 83-0500
soils: Torrington Quadrangle, Wyoming and Nebraska OP- 1112

helium gas *see also* under economic geology under Colorado

Himalayas *see also* the individual countries

Holocene *see also* under geochronology under Alabama; Gulf of California; Maryland; *see also* under stratigraphy under Alaska; Antarctica

Holocene—geochronology

- paleomagnetism*: Secular variation of field directions and intensity from young volcanic rocks OP- 217

hot springs *see* thermal waters under hydrogeology under Alaska; Arizona; automatic data processing; bibliography; California; catalogs; Colorado; Eastern U.S.; Hawaii; Idaho; Mexico; Midwest; Montana; Nevada; New Mexico; Oregon; Pacific Coast; Texas; United States; Utah; Washington; Wyoming

human ecology *see* under analysis under ecology

hydrocarbons *see* under organic materials

hydrogen *see also* deuterium; tritium

hydrogen—geochemistry

- metal ores*: Isotopic research, climate, and the genesis of mineral deposits C 0822
sedimentary rocks: Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa OP- 498

hydrogen— isotopes

- D/H*: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450
 — An isotopic study of the Coso, California, geothermal area OP- 396
 — Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136
 — Isotopes in ground-water investigations OP- 1234
 — Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884
 — Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru OP- 882
 — Stable isotope compositions of glasses from the Juan de Fuca Ridge OP- 661
 — $^{18}\text{O}/^{16}\text{O}$ and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada OP- 1159

hydrogeology *see also* ground water; hydrology

hydrogeology—automatic data processing

- applications*: Role of computers in WRD programs in the 1980's OF 83-0126
catalogs: Definitions of components of the Water Data Sources Directory maintained by the National Water Data Exchange OF 82-0923
 — Directory of member organizations of the National Water Data Exchange OF 82-0902
computer programs: Quadratic spline subroutine package PB-83 155 614
data handling: Distributed processing; promises and possible pitfalls OF 83-0126
 — Instructions for the submission of data to the Master Water Data Index OF 83-0049

digital simulation: Digital simulation models and the role of the Water Resources Division in documenting, verifying, and distributing them OF 83-0126

ground water: A three-dimensional ground-water-flow model modified to reduce computer-memory requirements and better simulate confining-bed and aquifer pinchouts WRI 82-0023
 — Fortran computer programs to plot and process aquifer pressure and temperature data WRI 83-0051

hydrology: Directory of assistance centers of the National Water Data Exchange (NAWDEX) OF 83-0262

— Microcomputer computation of water quality discharges OF 82-0901

information systems: A national water-use information program OF 82-0862

manuals: WATSTORE user's guide; Volume 7, Water-use file; Chapter II, National aggregated data base OF 80-1220-B

— WATSTORE user's guide; Volume 7, Water-use file; Chapter V, Codes used in water-use file OF 80-1220-E

minicomputers: The use of minicomputers in a distributed information processing system; feasibility study OF 80-0326

hydrogeology—catalogs

hydrology: 1983 Water Quality Laboratory services catalog OF 82-0766

water quality: 1982 Water Quality Laboratory services catalog OF 81-1016

hydrogeology—concepts

ground water: Outline of ground-water hydrology, with definitions W 0494

hydrogeology—instruments

lysimeters: Hydraulic considerations in sampling the unsaturated zone with inclined gravity lysimeters WRI 83-4005

manometers: Installation and service manual for U.S. Geological Survey manometers TWI 08-A2

monitors: Guidelines for use of water-quality monitors OF 83-0681

sensors: Instrumentation used for hydraulic testing of potential water-bearing formations at the Waste Isolation Pilot Plant site in southeastern New Mexico OF 83-0144

hydrogeology—methods

electrical methods: Resistivity exploration for groundwater OP- 1355

magnetic methods: Geophysical methods for locating abandoned wells OF 83-0702

manuals: Measurement and computation of streamflow; Volume 1, Measurement of stage and discharge; Volume 2, Computation of discharge W 2175

sampling: Guidelines and techniques to obtain valid ground-water quality samples OF 82-1024

seismic methods: High resolution seismic reflection methods and their application to hydrologic studies in Connecticut and Florida OP- 463

water wells: Field reports; Installation of shallow sand-packed piezometers in loose saturated sediment OP- 413

well-logging: Application of borehole geophysics to water-resources investigations TWI 02-E1

— Borehole geophysics and ground water; state of the art OP- 614

— Geophysical logging in carbonate aquifers OP- 722

hydrogeology—nomenclature

ground water: Definitions of selected ground-water terms; revisions and conceptual refinements W 1988

hydrogeology—practice

- objectives*: Ground water OF 83-0126
 — Quality of water OF 83-0126
 — Surface water OF 83-0126

hydrogeology—textbooks

manuals: Quality assurance practices for the chemical and biological analyses of water and fluvial sediments TWI 05-A6

hydrology *see also* ground water; hydrogeology

hydrology—atmospheric precipitation

acid rainfall: Acid rain OF 83-0126

hydrology—hydrologic cycle

concepts: Basic ground-water hydrology W 2220

— Outline of ground-water hydrology, with definitions W 0494

evaporation: Estimating study-state evaporation rates from bare soils under conditions of high water table W 2019-A

models: Distributed parameter precipitation-run-off modeling OF 83-0126

water balance: Procedures for assessment of cumulative impacts of coal mining on the hydrologic balance OF 82-0334

hydrology—instruments

current research: Improvements in instrumentation OF 83-0126

flumes: Use of flumes in metering discharge at gaging stations OF 82-0871

lysimeters: Hydraulic considerations in sampling the unsaturated zone with inclined gravity lysimeters WRI 83-4005

manometers: Installation and service manual for U.S. Geological Survey manometers TWI 08-A2

minicomputers: The use of minicomputers in a distributed information processing system; feasibility study OF 80-0326

monitors: Guidelines for use of water-quality monitors OF 83-0681

organization: Organization of instrumentation within the U. S. Geological Survey, Water Resources Division OP- 1261

samplers: Helley-Smith bedload sampler OP- 344

hydrology—limnology

hydrochemistry: Relationship of two lacustrine ostracode species to solute composition and salinity; implications for paleohydrochemistry OP- 386

sedimentation: Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes OP- 1041

water quality: Quality-assurance data for routine water analysis in the laboratories of the U. S. Geological Survey; 1981 annual report WRI 83-4090

hydrology—methods

automatic data processing: Digital simulation models and the role of the Water Resources Division in documenting, verifying, and distributing them OF 83-0126

— Microcomputer computation of water quality discharges OF 82-0901

— Nonparametric tests for trends in water quality data using the statistical analysis system OF 83-0550

— Quadratic spline subroutine package PB-83 155 614

— Role of computers in WRD programs in the 1980's OF 83-0126

— WATSTORE user's guide; Volume 7, Water-use file; Chapter II, National aggregated data base OF 80-1220-B

— WATSTORE user's guide; Volume 7, Water-use file; Chapter V, Codes used in water-use file OF 80-1220-E

- electron microscopy:** Characterization of mineral precipitates by electron microscope photographs and electron diffraction patterns W 2204
- geophysical methods:** Surface geophysics in hydrologic investigations OF 83-0126
- mathematical methods:** Comparison of estimators of standard deviation for hydrologic time series OP- 1216
- remote sensing:** Test of airborne radar for mapping two types of land cover; forested wetland and perennial snow and ice OF 82-0815
- technical cooperation:** Quality of water OF 83-0126
- Surface water OF 83-0126
- hydrology—rivers and streams**
- automatic data processing:** Computation of continuous records of streamflow TWI 03-A13
- gauging:** Acoustic systems for the measurement of streamflow W 2213
- hydraulic geometry:** An analytical treatment of channel-morphology relations P 1288
- models:** Effective record length for the T-year event OP- 1214
- The evaluation of selected one-dimensional stream water quality models with field data OF 82-0851
- pollution:** Determination of ultimate carbonaceous BOD and the specific rate constant (K_1) OF 82-0645
- Kinetic analysis of strontium and potassium sorption onto sands and gravels in a natural channel OP- 90
- Mining, reclamation, and water quality OF 79-1597
- Simulation of solute transport in a mountain pool-and-riffle stream with a kinetic mass transfer model for sorption OP- 88
- Simulation of the transport of an adsorbing solute in a small pool-and-riffle stream OP- 89
- runoff:** Method for relating suspended-chemical concentrations to suspended-sediment particle-size classes in storm-water runoff PB-83 188 235
- sedimentation:** Entrainment of gravel from naturally sorted riverbed material OP- 28
- stream transport:** Gravel bedload transport processes OP- 635
- World-wide delivery of river sediment to the oceans OP- 804
- water quality:** A generic guide to the larvae of the Nearctic Tanytarsini OF 82-0768
- Comparison of one-dimensional stream water-quality models OP- 769
- water supply:** Storage analyses for water supply; hydrologic analysis and interpretation TWI 04-B2
- hydrology—surveys**
- Alabama:** A method of estimating average streamflow and headwater limits in U.S. Army Corps of Engineers Mobile District, Alabama and adjacent states OF 81-0059
- A summary of selected publications, project activities, and data sources related to hydrology in the Warrior and Plateau coal fields of Alabama OF 82-0913
- Assessment of hydrologic conditions in potential coal-lease tracts in the Warrior coal field, Alabama OF 81-0540
- Hydraulic factors of Big Creek and Black Creek near Gadsden, Alabama, at proposed Interstate Highway 759 crossing OF 80-0589
- Hydrology of area 22, Eastern Coal Province, Alabama OF 81-0135
- Methodology for hydrologic evaluation of a potential surface mine; Lobolly Branch basin, Tuscaloosa County, Alabama PB-83 152 223
- Alaska:** Floods from small drainage basins in Alaska OF 83-0258
- Hydrologic data for Point MacKenzie area, south-central Alaska OF 83-0142
- Hydrologic information for land-use planning, Badger Road area, Fairbanks, Alaska WRI 82-4097
- Hydrologic reconnaissance of the Noatak River basin, Alaska, 1978 OF 81-1005
- Hydrology and the effects of industrial pumping in the Nikiski area, Alaska OF 81-0685
- Hydrology of the North Slope, Alaska C 0911
- Precipitation variations at Wolverine Glacier, Alaska OP- 157
- Surface-water quality in the Campbell Creek basin, Anchorage, Alaska WRI 83-4096
- Trace metals in surface water and stream sediments of Healy and Lignite Creek basins, Alaska WRI 83-4173
- Amazon River:** Distribution of sediments in the Amazon River bed; no appreciable change along the river OP- 880
- Sand waves on the Amazon River OP- 376
- American River:** Water-quality assessment of the American River, California OF 82-0763
- Apalachicola River:** Nutrient and detritus transport in the Apalachicola River, Florida OF 83-0130
- Wetland hydrology and tree distribution of the Apalachicola River flood plain, Florida W 2196-A
- Arizona:** Floods of November 1978 to March 1979 in Arizona and west-central New Mexico OF 83-0201
- Streamflow losses and changes in ground-water levels along the Salt and Gila rivers near Phoenix, Arizona; February 1978 to June 1980 WRI 83-4043
- Arkansas:** Discharge data at water-quality monitoring stations in Arkansas, 1981 water year OF 83-0214
- Reconnaissance of stormwater-runoff water quality of the Big Piney Creek segment of the Cedar-Piney Creeks watershed, Yell County, Arkansas OF 82-0761
- Time of travel of selected Arkansas streams WRI 82-4048
- Water-quality assessment of White River between Lake Sequoyah and Beaver Reservoir, Washington County, Arkansas WRI 82-4063
- Arkansas River:** Analysis and computer simulation of stream-aquifer hydrology, Arkansas River Valley, southwestern Kansas W 2200
- Geohydrology and model analysis of the stream-aquifer system along the Arkansas River in Kearny and Finney counties, southwestern Kansas OF 83-0222
- Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma, 1980 water year OF 81-0208
- Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma OF 83-0046
- Sediment data for mid-Arkansas and upper Red River basins through 1980 OF 83-0692
- Basin and Range Province:** Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part II, Geologic and hydrologic characterization OF 83-0699
- Geologic and hydrologic characterization and evaluation of the Basin and Range Province relative to the disposal of high-level radioactive waste; Part III, Geologic and hydrologic evaluation OF 83-0756
- Selected geologic and hydrologic characteristics of the Basin and Range Province, Western United States; Pleistocene lakes and marshes OF 83-0751
- Big Soda Lake:** Big Soda Lake, Nevada; Part II, Carbon isotopes OP- 1046
- Soda Lake, Nevada; I, Hydrogeochemistry of an alkaline meromictic desert lake OP- 616
- Blanchard River basin:** Flood of June 13-15, 1981, in the Blanchard River basin, northwestern Ohio WRI 82-4044
- Brazos River basin:** Projected effects of proposed salinity-control projects on shallow ground water; preliminary results for the upper Brazos River basin, Texas OF 82-0908
- California:** Assessment of stream channel response to altered streamflow and sediment load OP- 27
- Estimated average annual streamflow into the Central Valley of California HA-0657
- Evaluation of the San Dieguito, San Elijo, and San Pasqual hydrologic subareas for reclaimed water use, San Diego County, California WRI 83-4044
- Rainfall associated with the January 1982 rainstorm in the San Francisco Bay region, California OF 83-0016
- The role of hillslope/stream channel interaction in controlling sediment yield in steep terrane OP- 875
- Water-quality assessment of Cache Creek, Yolo, Lake, and Colusa counties, California OF 81-0677
- Caloosahatchee River:** Chemical and hydrologic assessment of the Caloosahatchee River basin, Lake Okeechobee to Franklin Lock, Florida WRI 83-4126
- Cape Fear River:** Water-quality characteristics for selected sites on the Cape Fear River, North Carolina, 1955-80; variability, loads, and trends of selected constituents OF 83-0526
- Chattahoochee River:** Velocity observations of the Chattahoochee River at Atlanta, Georgia, September 28, 1981 OF 82-0076
- Colorado:** Hydrologic data for urban storm runoff in the Denver metropolitan area, Colorado OF 82-0872
- Hydrologic data from Naval Oil Shale Reserves, Parachute Creek basin, northwestern Colorado, 1975-79 OF 82-0696
- Hydrologic data from the Tamarack Wildlife Area and vicinity, Logan County, Colorado OF 83-0139
- Hydrology and subsidence potential of proposed coal-lease tracts in Delta County, Colorado WRI 83-4069
- Plan for hydrologic study of an area to be surface mined for coal in northwestern Colorado OF 82-0874
- Probable impact of proposed reservoirs on several reaches of the Yampa River in Colorado; summary of discussions OP- 878
- Rainfall-runoff data from small watersheds in Colorado, October 1977 through September 1980 OF 82-0873
- Role of solute-transport models in the analysis of groundwater salinity problems in agricultural areas OP- 641
- Sensitivity to acidification of lakes in the Flat Tops Wilderness Area, Colorado OP- 1242
- Water-resources investigations of the U. S. Geological Survey in Colorado; fiscal year 1983 OF 83-0138

- Colorado River basin*: Streamflow statistical summaries for Colorado streams through September 30, 1975; Volume 3, Colorado River basin from Gunnison River to San Juan River
OF 83-0693
- Columbia River*: Characteristics of Columbia River sediment following the eruption of Mount St. Helens on May 18, 1980
C 0850-J
- Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens
C 0850-K
- Columbia River basin*: An engineering economic analysis of artificial recharge in a conjunctive irrigation plan in the Columbia Basin Project
PB-83 196 022
- Connecticut*: Streamflow information for Connecticut with applications to land-use planning
OP- 215
- Coosa River*: Hydraulic data for Coosa River in vicinity of Lay Dam, Alabama
OF 79-1636
- Crater Lake*: On the terrestrial heat flow and physical limnology of Crater Lake, Oregon
OP- 1303
- Delaware River*: Report of the River Master of the Delaware River for the period December 1, 1981, to November 30, 1982
OF 83-0538
- Report of the River Master of the Delaware River for the period of December 1, 1980 to November 30, 1981
OF 82-0341
- Delaware River basin*: Chemical-quality reconnaissance of the water and surficial bed material in the Delaware River estuary and adjacent New Jersey tributaries, 1980-81
PB-83 151 852
- Drainage areas in New Jersey; Delaware River basin and streams tributary to Delaware Bay
OF 82-0572
- East Fork River*: Bedload trap, East Fork River
OP- 681
- Variability of bedload and some hydraulic characteristics along a reach of East Fork River
OP- 345
- Eastern U.S.*: Chemical composition of atmospheric precipitation in the Northeastern United States
W 1535-P
- Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach
W 2216
- Flint River*: Time of travel of the Flint River, Utah Dam to Highway M-13, Michigan, August 4-8, 1981
OF 82-0853
- Florida*: Drainage areas in Duval County, Florida
WRI 82-4069
- Estimated water use in Southwest Florida, 1981, and summary of annual water use, 1970, 1975, and 1977-81
OF 83-0045
- Freshwater for deep-well injection, South Florida
OP- 1160
- Hydrologic quadrangle, Geneva, Florida
OF 82-0524
- Hydrologic quadrangle, Osteen, Florida
OF 82-0523
- Hydrologic quadrangle, Oviedo, Florida
OF 82-0516
- Hydrologic quadrangle, Oviedo, SW, Florida
OF 82-0521
- Hydrologic quadrangle, Sanford, Florida
OF 82-0520
- Hydrologic quadrangles, Bithlo, Florida
OF 82-0522
- Hydrologic quadrangles, Casselberry, Florida
OF 82-0517
- Hydrologic quadrangles, Osceola, Florida
OF 82-0518
- Hydrologic quadrangles, Sanford, SW, Florida
OF 82-0519
- Hydrology of the Floridan Aquifer in Northwest Volusia County, Florida
OF 82-0108
- Hydrology of the sand-and-gravel aquifer, southern Okaloosa and Walton counties, Northwest Florida
WRI 82-4110
- Index of hydrologic data for selected sites in Broward County, Florida, 1939-80
OF 82-0920
- Literature assessment of the Charlotte Harbor estuarine system and surrounding area, Southwest Florida
OF 83-0127
- Magnitude and frequency of flooding on small urban watersheds in the Tampa Bay area, west-central Florida
PB-83 171 884
- Revised description of index of Florida water data collection active stations and a user's guide for station or site information retrieval computer program FINDEX H578
OF 83-0037
- Selected flow characteristics of Florida streams and canals
WRI 83-4107
- Source, use, and disposition of water in Florida, 1980
WRI 82-4090
- Technique for estimating magnitude and frequency of floods on natural-flow streams in Florida
WRI 82-4012
- Water-quality assessment of stormwater runoff from a heavily used urban highway bridge in Miami, Florida
WRI 83-4153
- Water quality at and adjacent to the South Dade County Solid-Waste Disposal Facility, Florida
WRI 83-4003
- Water resources and data-network assessment of the Manasota Basin, Manatee and Sarasota counties, Florida
PB-83 156 653
- Water resources of the Santa Fe River basin, Florida
WRI 83-4075
- Georgia*: Monthly low-flow characteristics of Georgia streams
OF 82-0560
- Great Plains*: A data management system for areal interpretive data for the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming
WRI 82-4072
- Hydrology of area 54, Northern Great Plains and Rocky Mountain coal provinces, Colorado and Wyoming
OF 83-0146
- Hydrology of area 56, Northern Great Plains and Rocky Mountain coal provinces, Utah and Colorado
OF 83-0038
- Hawaii*: Water resources of southeastern Oahu, Hawaii
OF 82-0628
- Idaho*: Activities in Idaho; status of projects, fiscal years 1982-83
OF 83-0040
- Effects of volcanic ash on the benthic environment of a mountain stream, northern Idaho
WRI 82-4106
- Water resources of Rockland Basin, southeastern Idaho
OF 82-0755
- Illinois*: Hydrologic effects of storing liquified sewage sludge on strip-mined land, Fulton County, Illinois
WRI 82-4047
- Hydrology of area 25, Eastern Region, Interior Coal Province, Illinois
OF 81-0636
- Illinois State Water Survey
OF 82-1001
- Measurement of bedload discharge in nine Illinois streams with the Helley-Smith sampler
WRI 83-4136
- Indiana*: Evaluation of rainfall-runoff models for the hydrologic characterization of surface-mined lands
OP- 275
- Hydrologic data collected in and around a surface coal mine, Clay and Vigo counties, Indiana, 1977-80
OF 82-0639
- Hydrology of area 30, eastern region, Interior Coal Province, Indiana and Illinois
OF 82-1005
- Hydrology of area 32, Eastern Region, Interior Coal Province, Indiana
OF 81-0498
- Low-flow characteristics of Indiana streams
OF 82-1007
- Reconnaissance for determining effects of land use and surficial geology on concentrations of selected elements on streambed materials from the coal-mining region, southwestern Indiana, October 1979 to March 1980
WRI 82-4013
- Water and streambed-material data, Eagle Creek watershed, Indiana, August 1980-December 1982
OF 83-0215
- Water and streambed-material data, Eagle Creek watershed, Indiana, August 1980, October and December 1982, and April 1983; updating of U. S. Geological Survey Open-file report 83-215
OF 83-0532
- Iowa*: Water quality of Threemile Creek, Badger Creek, and Little River watersheds, Iowa
OF 79-1254
- Water-resources investigations of the U. S. Geological Survey in Iowa; fiscal year 1981
OF 81-0349
- Kanawha River basin*: Drainage of the Kanawha River basin, West Virginia
OF 82-0351
- Kansas*: Determination of irrigation pumpage for an area in southwestern Kansas
OP- 692
- Determination of irrigation pumpage in parts of Kearny and Finney counties, southwestern Kansas
WRI 82-4011
- Flood of June 15, 1981, in Great Bend and vicinity, central Kansas
WRI 82-4123
- Physical and hydrologic environments of the Mulberry coal reserves in eastern Kansas
WRI 82-4074
- Quality-of-water data and statistical summary for selected coal-mined strip pits in Crawford and Cherokee counties, southeastern Kansas
OF 82-1021
- Remote sensing investigations in the coal fields of southeastern Kansas
OP- 613
- Water-quality and fluvial-sediment characteristics of selected streams in Northeast Kansas
WRI 82-4005
- Kansas River*: Sediment and channel-geometry investigations for the Kansas River bank stabilization study, Kansas, Nebraska, and Colorado
OF 81-0128
- Kentucky*: Drainage areas of streams at selected locations in Kentucky
OF 81-0061
- Hydrology of area 14, Eastern Coal Province, Kentucky
OF 81-0137
- Lake Jackson*: Hydrologic description of Lake Jackson, Sebring, Florida
OF 81-0494
- Lake Michigan basin*: Low-flow characteristics in the Lake Michigan basin, Wisconsin
OF 81-1193
- Lake Tohopekaliga*: Hydrology of Lake Tohopekaliga, Osceola County, Florida
OF 81-0536
- Lake Vanda*: An isotopic and chemical study of Lake Vanda and Don Juan Pond, Antarctica
C 0911
- Climatic significance of lacustrine deposits around Lake Vanda and Don Juan Pond, Antarctica
C 0911
- Lehigh River*: Time-of-travel and dispersion studies, Lehigh River, Francis E. Walter Lake to Easton, Pennsylvania
OF 82-0861
- Water-quality assessment of Francis E. Walter Reservoir, Luzerne and Carbon counties, Pennsylvania
WRI 83-4032
- Louisiana*: Analyses of native water, bottom material, elutriate samples, and dredged material from selected southern Louisiana waterways and selected areas in the Gulf of Mexico, 1979-81
OF 82-0690

- Backwater and discharge at highway crossings with multiple bridges in Louisiana and Mississippi WRI 83-4065
- Geopressed-geothermal energy resource appraisal; hydrogeology and well testing determine producibility OP- 1266
- Hydrology, water quality, and biology of Baptiste Collette Bayou in relation to the Lower Mississippi River at Venice, Louisiana OP- 292
- Premining hydrology of the lignite area in southeastern De Soto Parish, Louisiana OP- 1150
- Water quality of the Barataria Unit; Jean Lafitte National Historical Park, Louisiana (April 1981-March 1982) OF 82-0691
- Maine:* Cost-effectiveness of the stream-gaging program in Maine OF 83-0261
- Drainage areas of surface water bodies of central Maine coastal river basins OF 78-0556-1
- Hydrologic data from the Johnson Brook phosphorus loading study, Kennebec County, Maine OF 83-0143
- Initial assessment of time of travel and mixing through Gulf Island Pond and the lower Androscoggin River, Maine WRI 83-4020
- Reconnaissance of the effect of landfill leachate on the water quality of Marshall Brook, Southwest Harbor, Hancock County, Maine OF 80-1120
- Time-of-travel studies for the Little Androscoggin River, Maine OF 81-0640
- Maryland:* Hydrology of area 6, Eastern Coal Province, Maryland, West Virginia, and Pennsylvania OF 83-0033
- Technique for estimating magnitude and frequency of floods in Maryland OF 80-1016
- Massachusetts:* Drainage divides, Massachusetts; Blackstone and Thames River basins OF 82-0631
- Drainage divides, Massachusetts; Connecticut River lowlands and Chicopee River basin OF 82-0633
- Drainage divides, Massachusetts; Deerfield and Millers River basins OF 82-0632
- Drainage divides, Massachusetts; Housatonic River basin OF 82-0634
- Drainage divides, Massachusetts-Hudson River basin OF 81-1199
- Drainage divides, Massachusetts; Westfield and Farmington River basins OF 82-0635
- Estimating peak discharges of small, rural streams in Massachusetts W 2214
- Hydrologic data of the coastal drainage basins of northeastern Massachusetts, from Castle Neck River, Ipswich, to Mystic River, Boston OF 80-1017
- Hydrologic data of the coastal drainage basins of southeastern Massachusetts, northwest shore of Buzzards Bay OF 80-0583
- Hydrologic data of the Lake Cochituate drainage basin, Framingham-Natick, Massachusetts OF 82-0342
- Merced River:* Water-quality assessment of the Merced River, California OF 82-0450
- Merrimack River basin:* Hydrologic data of the lower Merrimack River basin, Massachusetts, from Concord River, Lowell, to Plum Island, Newburyport OF 81-1185
- Michigan:* Water quality of coal deposits and abandoned mines, Saginaw County, Michigan OF 82-0511
- Minnesota:* Geochemistry of Williams Lake, Hubbard County, Minnesota OP- 452
- Quality of surface water before implementation of a flood-control project in Chaska, Minnesota ADA-114 818
- Simplified testing of hydrologic regression regions OP- 1213
- Small-stream flood investigations in Minnesota, October 1958 to September 1980 OF 82-0433
- Streamflow and suspended-sediment transport in Garvin Brook, Winona County, southeastern Minnesota; hydrologic data for 1982 OF 83-0212
- Mississippi:* Background hydrologic information in potential lignite mining areas in Mississippi, July 1982 OF 83-0257
- Estimated water use in Mississippi, 1980 OF 83-0224
- Floods of April 1983 in southern Mississippi and southeastern Louisiana OF 83-0685
- Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama OF 81-0546
- Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama, fiscal year 1981 OF 82-0503
- Quality of water and time of travel in Bakers Creek near Clinton, Mississippi OF 82-0427
- Quality of water in Luxapallia Creek at Columbus, Mississippi OF 82-0373
- Mississippi River basin:* Floods of December 1982 and January 1983 in central and southern Mississippi River basin OF 83-0213
- Missouri:* Floods in Kansas City, Missouri, and vicinity, August 12-13, 1982 WRI 83-4141
- Water resources investigations of U. S. Geological Survey in Missouri, fiscal year 1983 OF 83-0251
- Montana:* Data from the surface-water hydrologic investigations of the Hay Creek Study Area, Montana, and the West Branch Antelope Creek Study Area, North Dakota, October 1976 through April 1982 OF 83-0136
- Flood estimates for ungaged streams in Glacier and Yellowstone national parks, Montana WRI 83-4147
- Mean annual runoff and peak flow estimates based on channel geometry of streams in northeastern and western Montana WRI 83-4046
- Mean annual runoff and peak flow estimates based on channel geometry of streams in southeastern Montana WRI 82-4092
- Potential effects of surface coal mining on the hydrology of the Greenleaf-Miller area, Ashland coal field, southeastern Montana WRI 82-4101
- Potential effects of surface coal mining on the hydrology of the Snider Creek area, Rosebud and Ashland coal fields, southeastern Montana WRI 82-4051
- Selective annotated bibliography of ground-water resources, records of wells and springs, and availability of streamflow data on Indian reservations in Montana OF 83-0129
- Significance of water quality to fish propagation, waterfowl habitat, livestock watering, and recreation use for 24 lakes and reservoirs in Valley and Phillips counties, Montana WRI 83-4008
- Suspended sediment in selected streams of southeastern Montana WRI 82-4087
- Water-resources investigations of the U. S. Geological Survey in Montana, October 1982 through September 1983 OF 83-0260
- Nebraska:* A statistical analysis of the quality of surface water in Nebraska W 2179
- New Mexico:* Analytical results for 26 water samples from southern New Mexico OF 83-0777
- Estimated natural streamflow in the Rio San Jose upstream from the pueblos of Acoma and Laguna, New Mexico WRI 82-4096
- Estimation of natural streamflow in the Jemez River at the boundaries of Indian lands, central New Mexico WRI 82-4113
- Hydrogeology and water resources of San Juan Basin, New Mexico OP- 1195
- Water-resources investigations of the U. S. Geological Survey in New Mexico; fiscal year 1981 OF 83-0772
- Water resources of the Zuni Tribal Lands, McKinley and Cibola counties, New Mexico OF 82-1013
- New River:* Traveltimes of flood waves on the New River between Hinton and Hawks Nest, West Virginia W 2225
- New York:* Base flow of streams in Nassau County sewer districts 2 and 3, Long Island, New York, 1978-79 OF 81-0420
- Changes in the chemistry of bulk precipitation in New York State, 1965-1978 OP- 59
- Effects of sanitary sewers on ground-water levels and streams in Nassau and Suffolk counties, New York; Part I, Geohydrology, modeling strategy, and regional evaluation WRI 82-4045
- The U. S. Geological Survey's water resources program in New York OF 83-0270
- North America:* An evaluation of trends in the acidity of precipitation and the related acidification of surface water in North America W 2249
- North Carolina:* Drainage areas of selected sites on streams in North Carolina OF 83-0211
- The Cape Fear River; a late Quaternary drainage OP- 740
- The effects of channel excavation on water-quality characteristics of the Black River and ground-water levels near Dunn, North Carolina WRI 82-4083
- Water quality of North Carolina streams W 2185-E
- North Dakota:* Water-resources investigations in North Dakota; fiscal year 1983 OF 83-0220
- Ochlockonee River:* Water resources of the Ochlockonee River area, Northwest Florida OF 81-1121
- Ohio:* Flood of June 18, 1978, on Honey Creek tributary at Thornville, Ohio OF 80-0016
- Ground-water hydrology before, during, and after coal strip mining of a small watershed in Coshocton County, Ohio WRI 83-4155
- Surface water quality in coal regions of Ohio OP- 520
- Oklahoma:* Oklahoma; summary of activities of the U. S. Geological Survey Water Resources Division for 1983 OF 83-0767
- Preliminary appraisal of the hydrology of the Blocker area, Pittsburg County OF 81-1187
- Preliminary appraisal of the hydrology of the Stigler area, Haskell County, Oklahoma WRI 82-4099
- Urban flood analysis in Oklahoma City, Oklahoma OF 83-0026
- Oneida Lake:* Manganese cycles and the origin of manganese nodules, Oneida Lake, New York, U.S.A. OP- 286
- Oregon:* Analyses of elutriates, native water, and bottom material in selected rivers and estuaries in western Oregon and Washington OF 82-0922
- Debris flow hazard assessment for the Oregon Caves National Monument WRI 83-4100
- Hydrology of the Newberry Volcano caldera, Oregon WRI 83-4091

- Magnitude and frequency of floods in eastern Oregon WRI 82-4078
- Potential hydrologic effects of developing coal and other geo-energy resources of Oregon; a review OF 81-1014
- Water-quality data for Smith and Bybee lakes, Portland, Oregon, June to November, 1982 OF 83-0204
- Orinoco River*: Data from sediment studies of the Rio Orinoco, Venezuela, August 15-25, 1982 OF 83-0679
- Oswego River basin*: Computation of inflows and outflows of eight regulated lakes in the Oswego River basin, New York, 1930-79 WRI 82-4112
- Pearl River*: A two-dimensional finite-element model study of backwater and flow distribution at the I-10 crossing of the Pearl River near Slidell, Louisiana WRI 82-4119
- Flood of April 1979 on Pearl River in Jackson, Mississippi, and vicinity HA-0655
- Pecos River*: Miscellaneous surface-water data, Pecos River basin, New Mexico OF 81-0218
- Pennsylvania*: Evaluation of rainfall-runoff models for the hydrologic characterization of surface-mined lands OP- 275
- Evaluation of the streamflow-data program in Pennsylvania PB-83 202 002
- Hydrology of area 3, Eastern Coal Province, Pennsylvania OF 81-0537
- Hydrology of area 5, Eastern Coal Province, Pennsylvania, Maryland, and West Virginia OF 81-0538
- Water resources of the Clarion River and Red-bank Creek basins, northwestern Pennsylvania OF 81-0070
- Piceance Creek basin*: Evaluation of sediment yield and sediment data-collection network in the Piceance basin, northwestern Colorado WRI 82-4046
- Hydrologic-information needs for oil-shale development, northwestern Colorado WRI 82-4076
- Spoil-pile geochemistry and hydrology WRI 82-4076
- Streamflow analysis WRI 82-4076
- Surface-water quality WRI 82-4076
- Water for oil-shale development WRI 82-4076
- Platte River*: Changes in channel cross-section area and streamflow in the Platte River, Nebraska OP- 627
- Potomac River*: Downstream effects of reservoir releases to the Potomac River from Luke, Maryland, to Washington, DC WRI 82-4062
- Holocene sedimentation in the tidal Potomac River and estuary OP- 430
- Submersed aquatic plants of the tidal Potomac River B 1543
- Water quality of the Potomac River at Chain Bridge at Washington, DC; hydrologic-data report, 1978 water year OF 83-0147
- Potomac River basin*: Physical and chemical properties of the Potomac River and environs, April-May 1978 OF 80-0745
- Physical and chemical properties of the Potomac River and environs, August-September 1977 OF 79-1635
- Physical and chemical properties of the Potomac River and environs, August 1978 OF 80-0746
- Physical and chemical properties of the Potomac River and environs, January 1978 OF 80-0742
- Powder River*: Channel changes of Powder River, 1938-78, Powder River County, Montana HA-0661
- Price River basin*: Hydrology of the Price River basin, Utah, with emphasis on selected coal-field areas OF 83-0208
- Selected hydrologic data, Price River basin, Utah, water 1979 and 1980 OF 82-0916
- Puerto Rico*: Flood of September 16, 1975, in the Guanica area, Puerto Rico OF 81-0480
- Flood of September 16, 1975, in the Yauco Valley, Puerto Rico OF 81-0331
- Red River of the North*: Changes in flood response of the Red River of the North Basin, North Dakota-Minnesota OF 82-0774
- Republican River basin*: Hydrogeologic reconnaissance of the Republic River basin, Nebraska OF 81-0531
- Rio Grande*: Modeling of a transient streambed in the Rio Grande, Cochiti Dam to near Albuquerque, New Mexico OF 82-0106
- Sabine River basin*: Gain-loss study along two streams in the upper Sabine River basin, Texas; August-September 1981 OF 83-0036
- Sacramento River*: Graphical method for estimating occurrence and duration of a critical low flow in the Sacramento River at Freeport, California WRI 82-4001
- Sediment and stream-velocity data for the Sacramento River near Hood, California, May 1978 to September 1981 OF 83-0135
- Saint Johns River basin*: Appraisal of the interconnection between the St. Johns River and the surficial aquifer, east-central Duval County, Florida WRI 82-4109
- Salt River basin*: Suspended-sediment data in the Salt River basin, Missouri OF 83-0275
- San Juan River*: Characteristics of suspended sediment in the San Juan River near Bluff, Utah WRI 82-4104
- Sangamon River basin*: Work plan for the Sangamon River basin, Illinois OF 82-0693
- Santa Ana River*: Response of the suspended sediment transport system to continental shelf dynamics OP- 599
- Shasta Lake*: Limnological study of Shasta Lake, Shasta County, California, with emphasis on the effect of the 1977 drought WRI 82-4081
- Shawsheen River basin*: Hydrologic data of the Shawsheen River basin, Massachusetts OF 81-0802
- Smoky Hill River*: Saline ground-water discharge to the Smoky Hill River between Salina and Abilene, central Kansas PB-82 237 637
- Souris River basin*: Water-resources investigations of the U. S. Geological Survey in the Souris-Red rivers basin in Minnesota, North Dakota, and South Dakota OF 83-0218
- South Carolina*: Hydrology of the low-level radioactive solid waste burial site and vicinity near Barnwell, South Carolina OF 82-0863
- Impact of discharges from point and nonpoint sources on water quality of the upper Reedy River near Greenville, South Carolina WRI 83-4054
- South Dakota*: Streamflow and sediment data collected at seven stream-gaging stations in the James River basin downstream from Forestburg, South Dakota, from October 1, 1981, to September 30, 1983 OF 83-0773
- Water-resources investigations of the U. S. Geological Survey in South Dakota OF 82-0912
- Water-resources investigations of the U. S. Geological Survey in South Dakota, project status summary, July 1, 1983 OF 83-0754
- Spirit Lake*: Filling of Spirit Lake, Washington, May 18, 1980 to July 31, 1982 OF 82-0771
- Tennessee*: A survey of benthic macroinvertebrates of streams of coal surface mining areas of the Cumberland Plateau in Tennessee OF 82-0773
- Base flow and ground water in upper Sweet-water Valley, Tennessee WRI 83-4068
- Cane Creek flood-flow characteristics at State Route 30 near Spencer, Tennessee OF 83-0267
- Effects of urbanization on the magnitude and frequency of floods on small streams in Tennessee; basic data report no. 2 OF 82-0911
- Evaluation of rainfall-runoff models for the hydrologic characterization of surface-mined lands OP- 275
- Hydrology of area 18, Eastern Coal Province, Tennessee OF 81-0492
- Man-induced channel adjustment in Tennessee streams WRI 82-4098
- Results of pesticide sampling in Tennessee OF 83-0148
- Technique for estimating depth of floods in Tennessee WRI 83-4050
- Use of digital land-cover data from the Landsat satellite in estimating the streamflow characteristics in the Cumberland Plateau of Tennessee WRI 82-4059
- Texas*: Chemical and physical characteristics of water in estuaries of Texas; October 1975-September 1976 OP- 691
- Hydrologic data for urban studies in the Austin, Texas, metropolitan area, 1981 OF 83-0044
- Hydrologic data for urban studies in the Dallas, Texas, metropolitan area, 1979 OF 81-0491
- Hydrologic data for urban studies in the Houston, Texas, metropolitan area, 1979 OF 82-0164
- Hydrologic data for urban studies in the Houston, Texas, metropolitan area, 1980 OF 83-0264
- Hydrologic data for urban studies in the San Antonio, Texas, metropolitan area, 1981 OF 83-0035
- Index of surface-water stations in Texas, January 1982 OF 82-0269
- Index of surface-water stations in Texas, January 1983 OF 83-0202
- The effect of input errors in using precipitation-runoff models for runoff prediction OP- 1239
- Water quality of Belton Lake, central Texas OF 82-0650
- Water quality of Lake Granbury, north-central Texas OF 82-0676
- Water quality of Somerville Lake, south-central Texas WRI 82-4124
- Tombigbee River*: Preliminary stage-discharge relations for Tombigbee River at Aliceville lock and dam, near Pickensville, Alabama OF 83-0752
- Tombigbee River basin*: Compendium of available surface-water data in the upper Tombigbee River basin OF 82-0558
- Toutle River*: Mudflow hazards along the Toutle and Cowlitz rivers from a hypothetical failure of Spirit Lake blockage WRI 82-4125
- Uinta Basin*: Selected biological characteristics of streams in the southeastern Uinta Basin, Utah and Colorado OF 81-0644
- United States*: A study of trends in dissolved oxygen and fecal coliform bacteria at NASQAN stations OF 82-1019

- Estimated use of water in the United States in 1980 C 1001
 - Evidence for acid-precipitation-induced trends in stream chemistry at hydrologic bench-mark stations C 0910
 - Flood characteristics of urban watersheds in the United States W 2207
 - Generalized map showing annual runoff and productive aquifers in the conterminous United States HA-0194
 - Hydrologic and geologic aspects of waste management and disposal; a bibliography of publications by U.S. Geological Survey authors, 1950-81 C 0907
 - Rapid climatic cycles recorded in closed-basin lakes OP- 666
 - Support by the U. S. Geological Survey for adjudications, compacts, and treaties OF 82-0680
 - Urban stormwater data management system OP- 316
 - Utah:** Analytical results for 249 water samples from the Mount Belknap caldera and Deer Trail Mountain-Alunite Ridge areas and vicinity, southwestern Utah OF 83-0738
 - Chemical and physical characteristics of water and sediment in Scofield Reservoir, Carbon County, Utah OF 83-0252
 - Hydrologic studies of the U. S. Geological Survey in major coal-resource areas of Utah through 1980 OF 81-0216
 - Hydrology of coal-resource areas in the southern Wasatch Plateau, central Utah WRI 82-4009
 - Hydrology of the coal-resource areas in the upper drainages of Huntington and Cottonwood creeks, central Utah OF 81-0539
 - Map showing selected surface-water data for the Alton-Kolob coal-fields area, Utah I-1235-D
 - Preliminary hydrologic evaluation of the North Horn Mountain coal-resource area, Utah OF 81-0141
 - Water resources and potential hydrologic effects of oil-shale development in the southeastern Uinta Basin, Utah and Colorado OF 83-0216
 - Water-resources studies in Utah by the U. S. Geological Survey, July 1, 1982 to June 30, 1983 OF 83-0531
 - Vermilion River:** Water quality of the upper Vermilion River, Louisiana, April-August 1980 OP- 293
 - Virginia:** Geomorphic differences east and west of the Stafford fault system, northeastern Virginia OP- 757
 - Hydrology of area 16, Eastern Coal Province, Virginia-Tennessee OF 81-0204
 - Summary of hydrologic data collected at Wytheville National Fish Hatchery No. 2, Max Meadows, Virginia, 1976 to 1979 OF 82-0686
 - Washington:** Data supplement to Quality of coal mine drainage to Washington, 1975-77 OF 83-0205
 - Effects of volcanism on the glaciers of Mount St. Helens C 0850-D
 - Estimation of nonpoint sources of phosphorus for lakes in the Puget Sound region, Washington OF 82-0161
 - Flood elevations for the Soleduck River at Sol Duc Hot Springs, Clallam County, Washington WRI 83-4083
 - Groundwater-surfacewater relationships in the Bonaparte Creek basin, Okanogan County, Washington, 1979-80 OF 82-0172
 - Initial and subsequent drainage basin and channel responses to the 1980 eruption of Mount St. Helens OP- 792
 - Lake phosphorus loading from septic systems by seasonally perched ground water, Puget Sound region, Washington OF 82-0907
 - Relationships between water quality and phosphorus concentrations for lakes of the Puget Sound region, Washington OF 83-0255
 - Water resources of the Gig Harbor Peninsula and adjacent areas, Washington OF 81-1021
 - West Virginia:** Trends in flooding in the Tug Fork basin OP- 1106
 - Western U.S.:** An assessment of the hydrologic information required for the U.S. Bureau of Land Management-U.S. Geological Survey coal-hydrology program in the West OF 82-1012
 - Streamflow characteristics related to channel geometry of streams in Western United States W 2193
 - White River basin:** White River basin quality assessment WRI 82-4076
 - Wisconsin:** An assessment of streamflow, water quality, and the effects of constructing an impoundment on Bridge Creek at Augusta, Wisconsin OF 81-1192
 - Aquatic biology in Nederlo Creek, southwestern Wisconsin PB-83 165 175
 - Hydrology of Wisconsin wetlands OP- 889
 - Wisconsin River basin:** Low-flow characteristics of streams in the central Wisconsin River basin, Wisconsin OF 81-0495
 - Wyoming:** A plan for hydrologic investigations of in situ oil-shale retorting near Rock Springs, Wyoming OF 82-0758
 - Adjustment of the East Fork River to bedload sediment contributed by Muddy Creek OP- 26
 - Hydrology of area 50, Northern Great Plains and Rocky Mountain coal provinces, Wyoming and Montana OF 83-0545
 - Water-resources investigations of the U. S. Geological Survey in Wyoming, fiscal years 1981 and 1982 OF 83-0254
 - Water resources of the Laramie, Shirley, and Hanna basins and adjacent areas, southeastern Wyoming HA-0471
 - Yampa River basin:** Simulated effects of anticipated coal mining on dissolved solids in selected tributaries of the Yampa River, northwestern Colorado WRI 83-4084
 - Water-quality data for streams in the southern Yampa River basin, northwestern Colorado OF 82-1017
 - Yazoo River:** Hydrologic monitoring in the area of the proposed Yazoo River navigation project, west-central Mississippi, 1978-80 OF 82-0369
- hydrology—techniques**
- chemical analysis:** Study and interpretation of the chemical characteristics of natural water W 1473
 - dilution:** Automatic dilution gaging of rapidly varying flow WRI 83-4088
 - gauging:** Measurement and computation of streamflow; Volume 1, Measurement of stage and discharge; Volume 2, Computation of discharge W 2175
 - Surface-water network evaluation OF 83-0126
 - Use of flumes in measuring discharge TWI 03-A14
- manuals:** General introduction and hydrologic definitions; Manual of hydrology; Part 1, General surface-water techniques W 1541-A
- Quality assurance practices for the chemical and biological analyses of water and fluvial sediments TWI 05-A6
 - observations:** USGS WRD full-time equivalency tracking system OF 82-0556
 - sampling:** Approximate sampling distribution of the serial correlation coefficient for small samples OP- 1215
- hydrothermal alteration** *see under* processes *under* metasomatism
- hydrothermal processes** *see under* barite deposits *under* mineral deposits, genesis; *see under* gold ores *under* mineral deposits, genesis; *see under* metal ores *under* mineral deposits, genesis; *see under* polymetallic ores *under* mineral deposits, genesis
- I
- ice ages** *see* glacial geology
- ice-rafting** *see under* transport *under* sedimentation
- Iceland—environmental geology**
- geologic hazards:** Remote sensing studies of dynamic environmental phenomena in Iceland C 0911
- Iceland—geophysical surveys**
- remote sensing:** Remote sensing studies of dynamic environmental phenomena in Iceland C 0911
- Iceland—tectonophysics**
- sea-floor spreading:** Influence of the Greenland-Scotland Ridge on the geological history of the North Atlantic and Norwegian-Greenland sea areas OP- 867
- Idaho—areal geology**
- maps:** Geologic and geochemical map of the Upper Priest Roadless Area, Bonner County, Idaho MF-1448-A
 - Geologic and geophysical maps of the Great Rift Instant Study Area, Blaine, Butte, Minidoka, and Power counties, Idaho MF-1462-A
 - Geologic map and sections of the central Pioneer Mountains, Blaine and Custer counties, central Idaho I-1319
 - Geologic map of part of the Sunbeam Mine area, Custer County, Idaho OF 83-0329
 - Geologic map of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area, Lemhi County, Idaho MF-1557-B
 - Geologic map of the Challis 1° by 2° Quadrangle, Idaho OF 83-0523
 - Geologic map of the Cotterel Mountains and the northern Raft River valley, Cassia County, Idaho I-1450
 - Geologic map of the North Hansel Mountains, Idaho and Utah MF-1643
 - Geologic map of the Preston 1° by 2° Quadrangle, southeastern Idaho and western Wyoming I-1127
 - Geologic map of the Selkirk Roadless Area, Boundary County, Idaho MF-1447-A
 - Geologic map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho MF-1500-A
 - Preliminary geologic map of the Continental area, Idaho OF 82-1062
 - Preliminary geologic map of the Coolin area, Idaho OF 82-1061
 - Preliminary geologic map of the Gypsy Peak area, Pend Oreille County, Washington, and Bonner and Boundary counties, Idaho OF 83-0601
 - Preliminary geologic map of the Priest Lake area, Idaho OF 82-1063
 - Preliminary geologic map of the Smith Peak area, Bonner and Boundary counties, Idaho OF 83-0602

- Preliminary reconnaissance geologic map of the Copper Mountain Quadrangle, Lemhi County, Idaho OF 83-0599
- Reconnaissance geologic map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-B
- regional*: 100 years of geology by the United States Geological Survey in the Pacific Northwest OP- 1281
- Idaho—economic geology**
- coal*: Reconnaissance drilling during 1980 in the Goose Creek coal field, Cassia County, Idaho OF 83-0477
- cobalt ores*: Cobalt in Precambrian rocks of central Idaho OF 83-0836
- fuel resources*: Impact of the Wyoming-Utah-Idaho thrust belt, Beaufort Sea on U.S. oil, gas resource estimates OP- 260
- geothermal energy*: Geothermal resources of southern Idaho C 0866
- Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0431-A
- Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0431-B
- gold ores*: A case for plants in exploration; gold in Douglas-fir at the Red Mountain stockwork, Yellow Pine District, Idaho OF 83-0836
- Epithermal gold-silver mineralization related to volcanic subsidence in the Custer Graben, Custer County, Idaho OF 83-0836
- Mineralization and rhyolite intrusions in the Challis volcanic field OF 83-0836
- maps*: Maps showing selected geology and phosphate resources of the Upper Valley Quadrangle, Caribou County, Idaho MR-0071
- Mineral resource potential map of the Great Rift Instant Study Area, Blaine, Butte, Minidoka, and Power counties, Idaho MF-1462-B
- Mineral resource potential map of the Mount Naomi Roadless Area, Cache County, Utah, and Franklin County, Idaho MF-1566-A
- Mineral resource potential map of the Selkirk Roadless Area, Boundary County, Idaho MF-1447-C
- Mineral resource potential map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-A
- Mineral resource potential map of the Special Mining Management Zone, Clear Creek, Lemhi County, Idaho MF-1576-A
- Mineral resource potential map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho MF-1500-C
- Mineral resource potential map of the Upper Priest Roadless Area, Bonner County, Idaho MF-1448-B
- Mineral resource potential map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-A
- Mineral resource potential map of the Special Mining Management Zone, Clear Creek, Lemhi County, Idaho MF-1576-A
- Mineral resource potential map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho MF-1500-C
- Mineral resource potential map of the Upper Priest Roadless Area, Bonner County, Idaho MF-1448-B
- Mineral resource potential maps of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area MF-1557-A
- Preliminary map of the resource areas in the Basin and Range Province of Idaho OF 83-0720
- metal ores*: Analytical determinations from samples taken in the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho OF 83-1099
- Controls and characteristics of mineralization in middle and upper Paleozoic rocks in central Idaho OF 83-0836
- Geochemical characteristics of the metalliferous Salmon River sequence, central Idaho OF 83-0670
- Lead isotope characteristics of ore systems in central Idaho OF 83-0836
- Light-stable isotope characteristics of ore systems in central Idaho OF 83-0836
- Mineral deposits in the southern parts of the Atlanta Lobe of the Idaho Batholith and their relationship to Tertiary intrusive rocks and faulting OF 83-0836
- Preliminary report on geology, geochemical exploration, and biogeochemical exploration of the Red Mountain stockwork, Yellow Pine District, Valley County, Idaho OF 83-0151
- Structural and stratigraphic controls of ore deposits in the Bayhorse region, Custer County, Idaho OF 83-0836
- mineral resources*: Abstracts of the symposium on the geology and mineral deposits of the Challis 1° by 2° Quadrangle, Idaho OF 83-0836
- Mineral resource potential map of the Great Rift Instant Study Area, Blaine, Butte, Minidoka, and Power counties, Idaho MF-1462-B
- Mineral resource potential map of the Mount Naomi Roadless Area, Cache County, Utah, and Franklin County, Idaho MF-1566-A
- Mineral resource potential map of the Selkirk Roadless Area, Boundary County, Idaho MF-1447-C
- Mineral resource potential map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-A
- Mineral resource potential map of the Special Mining Management Zone, Clear Creek, Lemhi County, Idaho MF-1576-A
- Mineral resource potential map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho MF-1500-C
- Mineral resource potential map of the Upper Priest Roadless Area, Bonner County, Idaho MF-1448-B
- Mineral resource potential maps of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area MF-1557-A
- Mineral resource potential of the Hells Canyon Wilderness and contiguous roadless areas, Wallowa County, Oregon, and Idaho, Nez Perce, and Adams counties, Idaho OF 83-0397
- Preliminary map of the resource areas in the Basin and Range Province of Idaho OF 83-0720
- Spatial and temporal distribution of selected mineral resources in the Challis Quadrangle, Idaho OF 83-0836
- Statistical tables, sample locality maps, and an explanation of data sets for samples from the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana OF 83-0054
- The philosophy of mineral resource appraisal; Challis 1° × 2° CUSMAP, models, analogy, and metaphor OF 83-0836
- oil and gas fields*: Petroleum potential of wilderness lands in Wyoming-Utah-Idaho Thrust Belt C 0902-A-P
- petroleum*: Petroleum potential of wilderness lands in Idaho C 0902-A-P
- Petroleum potential of wilderness lands in Wyoming-Utah-Idaho Thrust Belt C 0902-A-P
- phosphate deposits*: Analytical data on the Meade Peak Phosphatic Shale Member of the Phosphoria Formation in the central Wooley Range, southeastern Idaho OF 83-0245
- Maps showing selected geology and phosphate resources of the Upper Valley Quadrangle, Caribou County, Idaho MR-0071
- polymetallic ores*: Ore deposits related to the Thunder Mountain caldera complex OF 83-0836
- silver ores*: Epithermal gold-silver mineralization related to volcanic subsidence in the Custer Graben, Custer County, Idaho OF 83-0836
- Mineralization and rhyolite intrusions in the Challis volcanic field OF 83-0836
- tungsten ores*: Depositional controls of tungsten in central Idaho OF 83-0836
- Tungsten deposits in the Challis Quadrangle, Idaho OP- 251
- water resources*: Water resources of Rockland Basin, southeastern Idaho OF 82-0755
- Idaho—environmental geology**
- ecology*: Effects of volcanic ash on the benthic environment of a mountain stream, northern Idaho WRI 82-4106
- land use*: Land use and land cover and associated maps for Pocatello, Idaho OF 82-0002
- Land use and land cover and associated maps for Twin Falls, Idaho OF 82-0001
- maps*: Land use and land cover and associated maps for Pocatello, Idaho OF 82-0002
- Land use and land cover and associated maps for Twin Falls, Idaho OF 82-0001
- Idaho—geochemistry**
- isotopes*: Oxygen and strontium isotopic studies of basaltic lavas from the Snake River plain, Idaho OF 83-0338
- maps*: Geochemical map of the Selkirk Roadless Area, Boundary County, Idaho MF-1447-B
- Geochemical map of the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho MF-1500-B
- Geochemical maps of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-C
- Geochemical sample locality map for the White Cloud-Boulder Roadless Area, Custer County, Idaho OF 83-0236
- surveys*: Spectrographic, chemical, and radio-activity analyses of rock, stream sediment, and soil samples from the Hell's Canyon study area, Wallowa County, Oregon, and Idaho and Adams counties, Idaho PB-83 255 059
- trace elements*: Analyses of samples from the Lava Creek mining district, Blaine and Butte counties, Idaho OF 83-0705
- Geochemical studies in the Challis 1° × 2° Quadrangle OF 83-0836
- Idaho—geochronology**
- Paleozoic*: Evidence from U-Th-Pb zircon ages for Cambrian-Ordovician plutonism in east-central Idaho OP- 353
- Idaho—geomorphology**
- guidebook*: Guidebook, 1983 Friends of the Pleistocene field trip; Glacial sequence near McCall, Idaho OF 83-0724
- Tens of successive, colossal Missoula floods at north and east margins of channeled scabland OF 83-0671
- maps*: Surficial geologic map of the eastern Snake River Plain and adjacent areas, 111° to 115° west, Idaho and Wyoming I-1372
- weathering*: Guidebook, 1983 Friends of the Pleistocene field trip; Glacial sequence near McCall, Idaho OF 83-0724
- Idaho—geophysical surveys**
- electrical surveys*: Schlumberger soundings on the Snake River plain near Nampa, Idaho OF 83-0412
- gravity surveys*: Principal facts and complete Bouguer gravity anomaly map for the Dillon 1° by 2° Quadrangle, Montana and Idaho OF 83-0051

- magnetic surveys:* Aeromagnetic map of the Gospel Hump area, Idaho OF 83-0837
- Aeromagnetic map of the Palisades area, Idaho and Wyoming OF 81-1161
- magnetotelluric surveys:* Map showing results of audio-magnetotelluric studies in the northwestern part of the Wallace 1° by 2° Quadrangle, Montana and Idaho MF-1354-B
- maps:* Aeromagnetic map of the Gospel Hump area, Idaho OF 83-0837
- Aeromagnetic map of the Palisades area, Idaho and Wyoming OF 81-1161
- Map showing results of audio-magnetotelluric studies in the northwestern part of the Wallace 1° by 2° Quadrangle, Montana and Idaho MF-1354-B
- Principal facts and complete Bouguer gravity anomaly map for the Dillon 1° by 2° Quadrangle, Montana and Idaho OF 83-0051
- remote sensing:* Use of Landsat multispectral scanner data for the definition of limonite exposures in heavily vegetated areas OP- 1113
- surveys:* Geophysical studies in the Challis 1° × 2° Quadrangle, Idaho OF 83-0836
- Idaho—hydrogeology**
- ground water:* Compilation of ground-water quality data for selected wells in Elmore, Owyhee, Ada, and Canyon counties, Idaho, 1945 through 1982 OF 83-0039
- Evaluation of water-quality characteristics of part of the Spokane Aquifer, Washington and Idaho, using a solute-transport digital model OF 82-0769
- Hydrographs of water levels in observation wells in Idaho, 1971-82 OF 83-0225
- Reconnaissance of ground-water quality, eastern Snake River basin, Idaho WRI 82-4004
- hydrology:* Activities in Idaho; status of projects, fiscal years 1982-83 OF 83-0040
- maps:* Configuration of the water table, March, 1980, in the Snake River plain regional aquifer system, Idaho and eastern Oregon OF 82-1022
- springs:* Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0431-A
- Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0431-B
- Thermal springs in the Boise River basin, south-central Idaho WRI 82-4006
- thermal waters:* Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0431-A
- Idaho; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0431-B
- Thermal springs in the Boise River basin, south-central Idaho WRI 82-4006
- Idaho—petrology**
- igneous rocks:* Tertiary epizonal plutonic rocks of the Selway-Bitterroot Wilderness, Idaho OP- 840
- intrusions:* Cretaceous rocks of the Atlanta Lobe of the Idaho Batholith OF 83-0836
- Petrology and structure of the east-central Bitterroot Lobe of the Idaho Batholith OP- 1237
- Tertiary plutons in central Idaho OF 83-0836
- lava:* The Challis volcanic field OF 83-0836
- maps:* Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming I-1091-E
- metamorphism:* Mylonitization coincident with batholith emplacement; Bitterroot Lobe, Idaho Batholith OP- 412
- volcanology:* The Twin Peaks Caldera and associated ore deposits OF 83-0836
- Van Horn Peak; a welded tuff vent in central Idaho OP- 340
- Idaho—sedimentary petrology**
- sedimentary rocks:* Pre-Tertiary sedimentary terranes of the Bayhorse area; Challis 1° × 2° Quadrangle OF 83-0836
- sedimentation:* Gravel bedload transport processes OP- 635
- Lemhi Arch OP- 1058
- Idaho—seismology**
- earthquakes:* Compressional-wave-velocity structure of the Yellowstone-Snake River plain system to a depth of 300 km; fundamental constraints on system models OP- 352
- Instrumental seismicity of the Northern Rocky Mountains of the United States OP- 297
- Idaho—stratigraphy**
- Cambrian:* Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada OP- 798
- Carboniferous:* Carboniferous-Permian boundary sequence of northern Oquirrh Basin, Idaho-Utah OP- 1330
- Neogene:* Neogene lacustrine diatom biostratigraphy of western Snake River basin, Idaho and Oregon OP- 652
- Paleozoic:* Paleozoic rocks in the Black Pine Mountains, Cassia County, Idaho B 1536
- Permian:* Analytical data on the Meade Peak Phosphatic Shale Member of the Phosphoria Formation in the central Wooley Range, southeastern Idaho OF 83-0245
- Carboniferous-Permian boundary sequence of northern Oquirrh Basin, Idaho-Utah OP- 1330
- Phanerozoic:* A synopsis of the structure and stratigraphy of south-central Idaho; contributions by the U. S. Geological Survey since 1975 OP- 1143
- Consequences of interfingering lithologies in the Seven Devils island arc OP- 716
- Precambrian:* A synopsis of the structure and stratigraphy of south-central Idaho; contributions by the U. S. Geological Survey since 1975 OP- 1143
- Proterozoic:* Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada OP- 798
- Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho OP- 268
- Quaternary:* Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
- Tertiary:* Correlation of major Pliocene and Miocene ash-flow sheets, eastern Snake River plain, Idaho OP- 759
- Triassic:* Smithian (Lower Triassic) conodont biofacies in Idaho, Utah and Nevada OP- 1273
- Idaho—structural geology**
- faults:* Medicine Lodge thrust system, east-central Idaho and Southwest Montana P 1031
- tectonics:* Great Falls lineament, Idaho and Montana OP- 915
- Preliminary interpretation of the thrust belt in Southwest and west-central Montana and east central Idaho OP- 1059
- Structural evolution of the Raft River basin, Idaho OP- 261
- igneous rocks** *see also* fluid inclusions; inclusions; intrusions; lava; magmas; metamorphic rocks; metasomatism; phase equilibria
- igneous rocks—alkalic composition**
- intrusive rocks:* Genetic implication of minor-element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado OP- 36
- igneous rocks—basalts**
- geochemistry:* Geochemistry and tectonic significance of subsurface basalts near Charleston, South Carolina; Clubhouse Crossroads test holes #2 and #3 P 1313
- Geochemistry of subsurface basalt from the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina; magma type and tectonic implications P 1028
- properties:* Thermodynamic and thermophysical properties of selected phases in the MgO-SiO₂-H₂O-CO₂, CaO-Al₂O₃-SiO₂-H₂O-CO₂, and Fe-FeO-Fe₂O₃-SiO₂ chemical systems, with special emphasis on the properties of basalts and their mineral components OF 83-0079
- sampling:* Basalt samples and water-column samples from the southern Juan de Fuca Ridge; preliminary results of cruise L13-82-WF OF 83-0827
- tholeiitic basalt:* Distribution of differentiated tholeiitic basalts on the lower East Rift Zone of Kilauea Volcano, Hawaii; a possible guide to geothermal exploration OP- 829
- igneous rocks—composition**
- calc-alkalic composition:* Chemistry of volcanic and plutonic rocks of the Precambrian Shield, Kingdom of Saudi Arabia OP- 1086
- chemical composition:* Correspondence analysis in geochemistry OP- 795
- igneous rocks—dacites**
- petrology:* Petrologic monitoring of 1981 and 1982 eruptive products from Mount St. Helens OP- 214
- igneous rocks—diorites**
- tonalite:* Chemical analyses and rock series classification of 102 tonalite samples for the Jurassic magmatic arc, Alaska-Aleutian Range batholith, Alaska OF 83-0094
- trondhjemite:* Multi-stage deformation of the Preston Gabbro, eastern Connecticut OP- 303
- igneous rocks—distribution**
- basement:* Correlation of major eastern earthquake centers with mafic/ultramafic masses P 1028
- bedrock:* Bedrock geologic map of the East Killingly Quadrangle, Connecticut and Rhode Island GQ-1571
- complexes:* The Northern Complex OP- 193
- igneous rocks—gabbros**
- anorthosite:* Origin and age of Adirondack anorthosites re-evaluated with Nd isotopes OP- 73
- igneous rocks—geochemistry**
- data:* Merced Peak Quadrangle, central Sierra Nevada, California; analytical data P 1170-D
- iron:* Iron content of spodumene in different mineral assemblages of pegmatites, Black Hills, South Dakota OP- 886
- isotopes:* Isotopic composition of uranium and thorium in crystalline rocks OP- 1054
- Lead-isotopic compositions of diverse igneous rocks and ore deposits from southwestern New Mexico and their implications for early Proterozoic crustal evolution in the western United States OP- 1174

- The chemical and isotopic record of rock-water interaction in the Sherman Granite, Wyoming and Colorado OP- 1344
- lithium:** Origin of lithium-rich pegmatitic magmas, southern Black Hills, South Dakota OP- 887
- rare earths:** Disseminated thorium and rare-earth deposits in the southern Bear Lodge Mountains, Wyoming OP- 1172
- silicate rocks:** GRANNY, a data bank of chemical analyses of Laramide and younger high-silica rhyolites and granites from Colorado and north-central New Mexico OF 83-0516
- trace elements:** Geologic and petrologic data bearing on potential volcanic hazards in Long Valley Caldera, eastern California OP- 53
- Geologic evolution of Hess Rise, central North Pacific Ocean OP- 1249
- Petrology and structure of the east-central Bitterroot Lobe of the Idaho Batholith OP- 1237
- Redefinition of the Precambrian Tusas Mountain and Tres Piedras granites, north-central New Mexico OP- 1314
- Tertiary epizonal plutonic rocks of the Selway-Bitterroot Wilderness, Idaho OP- 840
- igneous rocks—glasses**
- geochemistry:** Stable isotope compositions of glasses from the Juan de Fuca Ridge OP- 661
- igneous rocks—granites**
- biotite granite:** Tin granites of Seward Peninsula, Alaska OP- 558
- charnockite:** The core of the Blue Ridge Anticlinorium in northern Virginia OP- 231
- distribution:** Archean granitic rocks in the Seminole Mountains, Wyoming OP- 304
- genesis:** A garnet-two-mica granite, Coyote Mountains, southern Arizona; geologic setting, uranium-lead isotopic systematics of zircon, and nature of the granite source region OP- 1323
- Genesis of reversely zoned granites; Bottle Lake complex, Maine OP- 45
- Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia OP- 321
- The oxygen isotope composition of granitoid and sedimentary rocks of the southern Snake Range, Nevada OP- 674
- geochemistry:** Preliminary assessment of the geochemistry and mineral favorability of the post-orogenic granites of the southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0486
- Trace-element geochemistry of postorogenic granites from the northeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0287
- pegmatite:** Minerals of tin, titanium, niobium and tantalum in granitic pegmatites OP- 381
- Sequence of mineral assemblages in differentiated granitic pegmatites OP- 885
- petrology:** Map showing geologic, geophysical, and geochemical characteristics of granitic plutons in the Medford 1° by 2° Quadrangle, Oregon-California MF-1383-E
- The Salinian Block; a structurally displaced granitic block in the California Coast Ranges OP- 1055
- properties:** Chemical reactions accompanying fluid flow through granite held in a temperature gradient OP- 819
- igneous rocks—granodiorites**
- absolute age:** Geology of granodiorite in the Coxcomb Mountains, southeastern California OP- 184
- petrography:** Quartz-molybdenite veins in the Priestly Lake granodiorite, north-central Maine OF 83-0800
- petrology:** Petrology of igneous rocks and wall rock alteration, Mayflower Mine, Wasatch County, Utah; Part I, Primary rock and mineral compositions OF 82-1086
- igneous rocks—melting**
- experimental studies:** Chapter 2, Experimental studies of amphibole stability; Phase relations and compositions of amphiboles produced in studies of the melting behavior of rocks OP- 521
- igneous rocks—peridotites**
- garnet peridotite:** Garnet peridotites from the Williams Kimberlites, north-central Montana OP- 511
- igneous rocks—petrology**
- phase equilibria:** Techniques for using iron crucibles in experimental igneous petrology OP- 1226
- igneous rocks—plutonic rocks**
- absolute age:** Evidence from U-Th-Pb zircon ages for Cambrian-Ordovician plutonism in east-central Idaho OP- 353
- composition:** Fe-Ti oxides of the Stillwater Complex, Montana; mineralogy, chemistry, and implications OP- 758
- Millerton Lake Quadrangle, west-central Sierra Nevada, California; analytic data P 1261
- distribution:** Geophysical and geologic studies in southern Mecklenburg County and vicinity, North Carolina and South Carolina OF 83-0093
- Map showing distribution, ages, and petrographic characteristics of Mesozoic plutonic rocks in the Walker Lake 1° by 2° Quadrangle, California and Nevada MF-1382-B
- genesis:** Calc-alkaline plutonism along the Pacific rim of southern Alaska OP- 557
- Cooling history; can we tell a magma ocean from a magma puddle? evidence from microstructures OP- 876
- Intrusive rocks and plutonic belts of southeastern Alaska, U.S.A. OP- 147
- Plutonic rocks of Jurassic age in the Alaska-Aleutian Range Batholith; chemical variations and polarity OP- 1011
- geochemistry:** Geochemical evaluation of felsic plutonic rocks in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0369
- Mineral potential of selected felsic plutons in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0370
- The chemistry of seven igneous biotites from eastern Nevada and western Utah OF 83-0629
- mineral composition:** The mineralogy of the Snake Creek-Williams Canyon pluton, southern Snake Range, Nevada OF 83-0337
- petrology:** Cretaceous rocks of the Atlanta Lobe of the Idaho Batholith OF 83-0836
- Intrusive rocks of the Holden and Lucerne quadrangles, Washington; the relation of depth zones, composition, textures, and emplacement of plutons P 1220
- Tertiary plutons in central Idaho OF 83-0836
- igneous rocks—properties**
- physical properties:** Density, porosity, and magnetic properties of rock specimens from southwestern Arizona OF 83-080
- Rock property measurements and analysis of selected igneous, sedimentary, and metamorphic rocks from worldwide localities OF 83-0736
- igneous rocks—pyroclastics**
- ash-flow tuff:** Chemical differentiation of the Bishop Tuff and other high-silica magmas through crystallization processes OP- 532
- Evaluation of ash-flow tuffs as hosts for radioactive waste; criteria based on selective leaching of manganese oxides OF 83-0480
- distribution:** Maps showing distribution, thickness, and mass of late Pleistocene and Holocene tephra from major volcanoes in the Pacific Northwest of the United States; a preliminary assessment of hazards from volcanic ejecta to nuclear reactors in the Pacific Northwest MF-1435
- Stripping of Keanakakoi tephra on Kilauea Volcano, Hawaii OP- 734
- textures:** Use of grain-shape regularity measurements in determining source area in secondary pyroclastic rocks, McLendon Volcano, Yavapai County, Arizona OF 83-0630
- tuff:** Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient; summary of results OF 83-0475
- volcanic ash:** A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County OP- 930
- Reconnaissance map showing thicknesses of volcanic ash deposits in the Greater Hilo area, Hawaii MF-1499
- igneous rocks—rhyolites**
- geochemistry:** Large partition coefficients for trace elements in high-silica rhyolites OP- 731
- petrology:** Rhyolites in the Gillies Hill-Woodtick Hill area, Beaver County, Utah OP- 354
- igneous rocks—ultramafics**
- cartography:** Tectonic geology of the northern Vermont ultramafic belt OP- 1176
- kimberlite:** Garnet peridotites from Williams kimberlites, north-central Montana, U.S.A. OF 83-0172
- Lake Ellen kimberlite, Michigan, U.S.A. OF 83-0156
- ophiolite:** Composition of the Samail ocean crust OP- 933
- Influences of ocean anoxic events on manganese deposition and ophiolite-hosted sulfide preservation C 0822
- Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
- Plutonic processes in spreading ocean-ridge magma chambers, illustrated by the Samail Ophiolite, Oman OP- 547
- The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria, and the Sultanate of Oman OP- 1227
- igneous rocks—volcanic rocks**
- absolute age:** Geologic and geochronologic reconnaissance of the Turtle Mountains area, California; west border of the Whipple Mountains detachment terrane OP- 553
- Tertiary extensional tectonics and associated volcanism in west-central Arizona OP- 924
- Tertiary stratigraphy and geochronologic problems, west-central Arizona OP- 925
- alteration:** Reconnaissance geology of Amliia Island, Aleutian Islands, Alaska OP- 782
- The mobility of uranium and other elements during alteration of rhyolite ash to montmorillonite; a case study in the Troublesome Formation, Colorado, U.S.A. OP- 1343
- chemical composition:** Composition of Tertiary volcanic rocks, Mohave Mountains, Arizona OP- 960

- distribution*: Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming
I-1091-E
- genesis*: Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily OP- 732
— Origin of bimodal volcanism, southern Basin and Range Province, west-central Arizona OP- 1199
— Volcanic studies in the Pacific Northwest, 1879-1979 OP- 1202
- geochemistry*: Chemical analyses of selected Tertiary and Quaternary volcanic rocks, Cascade Range, Washington OF 83-0001
— Geochemistry of the volcanic rocks of northeastern Wisconsin OP- 1101
— Oxygen and strontium isotopic studies of basaltic lavas from the Snake River plain, Idaho OF 83-0338
— The isotopic and chemical evolution of Mount St. Helens OP- 472
- lithostratigraphy*: Complex Tertiary stratigraphy and structure, Mohave Mountains, Arizona; a preliminary report OP- 961
— Mesozoic stratigraphy; the key to tectonic analysis of southern and central Alaska OP- 591
- magnetic properties*: Paleomagnetic data from the Coso Range, California and current status of the Cobb Mountain normal geomagnetic polarity event OP- 736
- petrology*: Lithologic and gravity characteristics of the southern Peavine volcanic center, Toiyabe Range, Nevada OP- 145
- Illinois—economic geology**
lead-zinc deposits: Outlying mineral occurrences related to the Upper Mississippi Valley mineral district, Wisconsin, Iowa, Illinois, and Minnesota OP- 526
maps: Mineral resource potential map of the Burden Falls Roadless Area, Pope County, Illinois MF-1565-C
— Mineral resource potential map of the Lusk Creek Roadless Area, Pope County, Illinois MF-1405-C
mineral resources: Mineral resource potential map of the Burden Falls Roadless Area, Pope County, Illinois MF-1565-C
— Mineral resource potential map of the Lusk Creek Roadless Area, Pope County, Illinois MF-1405-C
water resources: Functions and activities of Office of Water Data Coordination OF 82-1001
— Illinois Department of Conservation OF 82-1001
— Illinois Division of Water Resources OF 82-1001
— Illinois Environmental Protection Agency OF 82-1001
— Illinois State Geological Survey OF 82-1001
— Illinois State Water Survey OF 82-1001
— Proceedings, Illinois water-data users meeting OF 82-1001
— U. S. Geological Survey OF 82-1001
- Illinois—engineering geology**
earthquakes: Actions to improve the state-of-earthquake-preparedness in Indiana and Illinois OF 83-0157
geologic hazards: Actions to improve the state-of-earthquake-preparedness in Indiana and Illinois OF 83-0157
waste disposal: Hydrologic effects of storing liquified sewage sludge on strip-mined land, Fulton County, Illinois WRI 82-4047
- Illinois—environmental geology**
conservation: Illinois Department of Conservation OF 82-1001
pollution: Illinois Environmental Protection Agency OF 82-1001
- Illinois—geochemistry**
isotopes: Isotopic composition of uranium and thorium in crystalline rocks OP- 1054
organic materials: Organic matter in a coal ball; peat or coal? OP- 500
- Illinois—hydrogeology**
ground water: Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136
hydrology: Hydrology of area 25, Eastern Region, Interior Coal Province, Illinois OF 81-0636
— Hydrology of area 30, eastern region, Interior Coal Province, Indiana and Illinois OF 82-1005
— Measurement of bedload discharge in nine Illinois streams with the Helley-Smith sampler WRI 83-4136
— Work plan for the Sangamon River basin, Illinois OF 82-0693
- Illinois—paleobotany**
palynomorphs: Illustrations and comments concerning the type specimens of Calamospora, Florinites, and Raistrickia OP- 645
- Illinois—sedimentary petrology**
sedimentary rocks: Origin of an underclay as revealed by vertical variations in mineralogy and chemistry OP- 1038
- Illinois—stratigraphy**
Pleistocene: Stratigraphy of Woodfordian till and lake beds in Iroquois and neighboring counties, Illinois OP- 821
- impact features* *see under* geomorphology
- impact statements* *see also under* environmental geology *under* California; Colorado; Louisiana; Montana; Oregon; Texas; Utah; Washington.
- impact statements—reclamation*
surface mining: Procedures for assessment of cumulative impacts of coal mining on the hydrologic balance OF 82-0334
- incertae sedis* *see* problematic fossils
- inclusions* *see also* fluid inclusions
- inclusions—mineral inclusions**
genesis: Fe-Ti oxides of the Stillwater Complex, Montana; mineralogy, chemistry, and implications OP- 758
olivine: Significance of Ca-Al-rich silicate melt inclusions in olivine crystals from the Murchison type II carbonaceous chondrite OP- 1049
- inclusions—xenoliths**
composition: Petrology and structure of the east-central Bitterroot Lobe of the Idaho Batholith OP- 1237
garnet peridotite: Garnet peridotites from Williams kimberlites, north-central Montana, U.S.A. OF 83-0172
geologic thermometry: Lake Ellen kimberlite, Michigan, U.S.A. OF 83-0156
- Indian Ocean** *see also* Persian Gulf; Red Sea
- Indian Ocean—stratigraphy**
Miocene: Miocene paleo-oceanography and paleo-productivity OP- 603
- Indiana—engineering geology**
earthquakes: Actions to improve the state-of-earthquake-preparedness in Indiana and Illinois OF 83-0157
geologic hazards: Actions to improve the state-of-earthquake-preparedness in Indiana and Illinois OF 83-0157
- Indiana—environmental geology**
land use: Reconnaissance for determining effects of land use and surficial geology on concentrations of selected elements on streambed materials from the coal-mining region, southwestern Indiana, October 1979 to March 1980 WRI 82-4013
- Indiana—hydrogeology**
ground water: Ground-water resources of the glacial outwash along the White River, Johnson and Morgan counties, Indiana WRI 82-4016
— Ground-water resources of the White River basin, Delaware County, Indiana PB-83 196 147
— Ground-water resources of the White River basin, Hamilton and Tipton counties, Indiana PB-83 184 309
— Saline formation waters in the Cambrian-Ordovician aquifer in Northwest Indiana OP- 1121
hydrology: Evaluation of rainfall-runoff models for the hydrologic characterization of surface-mined lands OP- 275
— Hydrologic data collected in and around a surface coal mine, Clay and Vigo counties, Indiana, 1977-80 OF 82-0639
— Hydrology of area 30, eastern region, Interior Coal Province, Indiana and Illinois OF 82-1005
— Hydrology of area 32, Eastern Region, Interior Coal Province, Indiana OF 81-0498
— Low-flow characteristics of Indiana streams OF 82-1007
— Water and streambed-material data, Eagle Creek watershed, Indiana, August 1980-December 1982 OF 83-0215
— Water and streambed-material data, Eagle Creek watershed, Indiana, August 1980, October and December 1982, and April 1983; updating of U. S. Geological Survey Open-file report 83-215 OF 83-0532
- Indiana—paleontology**
Coelenterata: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N
- Indiana—structural geology**
tectonics: Lineaments and fracture traces, Decatur County, Indiana OF 82-0918
— The northeastern extension of the New Madrid fault seismic zone P 1236
- Indonesia—economic geology**
petroleum: Assessment of undiscovered conventionally recoverable petroleum resources of Indonesia C 0899
- Indonesia—engineering geology**
geologic hazards: Landslide investigations, southern Cianjur Regency, West Java Province, Indonesia; a progress report OF 83-0597
— Mitigation of hazards from future lahars from Mount Merapi in the Krasak River channel near Yogyakarta, central Java OF 83-0596
slope stability: Landslide investigations, southern Cianjur Regency, West Java Province, Indonesia; a progress report OF 83-0597
— Mitigation of hazards from future lahars from Mount Merapi in the Krasak River channel near Yogyakarta, central Java OF 83-0596
- Indonesia—environmental geology**
geologic hazards: Eruptive history of the Dieng Mountains region, central Java, and potential hazards from future eruptions OF 83-0068
- induced polarization* *see under* electrical methods *under* geophysical methods
- industrial minerals* *see also under* economic geology *under* Midwest; Nevada

Insecta—faunal studies

Holocene: A guide to the larvae of the Nearctic Diamesinae (Diptera; Chironomidae); the genera *Boreoheptagya*, *Protanypus*, *Diamesa*, and *Pseudokiefferiella* WRI 83-0006

Insecta—taxonomy

identification: A generic guide to the larvae of the Nearctic Tanytarsini OF 82-0768

instruments *see under* exploration *under* geothermal energy; *see under* field studies *under* rock mechanics; *see under* gravity methods *under* geophysical methods; *see under* hydrogeology; hydrology; marine geology; oceanography; petrology; seismology; well-logging; *see under* magnetic methods *under* geophysical methods; *see under* magnetotelluric methods *under* geophysical methods; *see under* methods *under* geomorphology; *see under* oceanography *under* automatic data processing; *see under* radioactivity methods *under* geophysical methods; *see under* seismic methods *under* geophysical methods; *see under* seismology *under* automatic data processing

intrusions *see also* igneous rocks; metamorphism; metasomatism

intrusions—batholiths

composition: Petrology and structure of the east-central Bitterroot Lobe of the Idaho Batholith OP- 1237

emplacement: A summary of critical relations in the central part of the Sierra Nevada Batholith, California, U.S.A. OP- 74

— Mylonitization coincident with batholith emplacement; Bitterroot Lobe, Idaho Batholith OP- 412

genesis: Hornblende-rich, high grade metamorphic terranes in the southernmost Sierra Nevada, California, and implications for crustal depths and batholith roots OF 83-0465

geochemistry: Chemical analyses and rock series classification of 102 tonalite samples for the Jurassic magmatic arc, Alaska-Aleutian Range batholith, Alaska OF 83-0094

— Plutonic rocks of Jurassic age in the Alaska-Aleutian Range Batholith; chemical variations and polarity OP- 1011

petrology: "Central Gneiss Complex" of the Coast Range Batholith; the roots of a high-K, calc-alkaline arc? OP- 58

— Cretaceous rocks of the Atlanta Lobe of the Idaho Batholith OF 83-0836

— Wallrocks of the central Sierra Nevada Batholith, California; a collage of accreted tectono-stratigraphic terranes P 1255

intrusions—composition

alkalic composition: Mineral deposits associated with alkaline intrusive complexes; examples from Wyoming, Colorado, Montana, and California OP- 34

intrusions—dikes

age: Potassium-argon relations in diabase dikes of Georgia; the influence of excess ^{40}Ar on the geochronology of early Mesozoic igneous and tectonic events P 1313

emplacement: Dike swarms and low-angle faults, Homer Mountain and the northwestern Sacramento Mountains, southeastern California OP- 1166

— Mechanisms of the May 1980 earthquakes near Long Valley Caldera, California; evidence for dike injection OP- 594

— Possible relations between magmatism, rates of extension, and the state of stress in the crust OP- 47

— Preliminary report on diking events in the Mohave Mountains, Arizona OP- 849

— Structural evidence for dikes beneath silicic domes, Medicine Lake Highland Volcano, California OP- 370

magnetic properties: Paleomagnetic study of diabasic dikes and miscellaneous granitic gneisses in St. Lawrence and Jefferson counties, New York OF 83-0226

intrusions—emplacement

effects: Geochronology and tectonics of the Buckingham porphyry molybdenum deposit, Lander County, Nevada OP- 1224

granodiorites: Geology of granodiorite in the Coxcomb Mountains, southeastern California OP- 184

petrology: A summary of critical relations in the central part of the Sierra Nevada Batholith, California, U.S.A. OP- 74

thermal effects: Rapid intrusion of magma into wet rock; groundwater flow due to pore pressure increases OP- 290

intrusions—genesis

absolute age: Evidence from U-Th-Pb zircon ages for Cambrian-Ordovician plutonism in east-central Idaho OP- 353

complexes: Calc-alkaline plutonism along the Pacific rim of southern Alaska OP- 557

intrusions—geochemistry

trace elements: Tin granites of Seward Peninsula, Alaska OP- 558

intrusions—layered intrusions

composition: Fe-Ti oxides of the Stillwater Complex, Montana; mineralogy, chemistry, and implications OP- 758

crystallization: Crystallization of the Dufek Intrusion, Antarctica C 0911

distribution: Geophysical investigations of the Dufek Intrusion and the surrounding region C 0911

gabbros: Structural evolution of the La Perouse layered gabbro Fairweather Range, southeastern Alaska OP- 701

geochemistry: Comparison of platinum, palladium, and rhodium distributions in some layered intrusions with special reference to the late differentiates (upper zone) of the Bushveld Complex, South Africa OP- 928

— The Dufek Intrusion of Antarctica and a survey of its minor metals and possible resources C 0909

petrology: Geologic map of the banded upper zone of the Stillwater Complex and adjacent rocks, Stillwater, Sweet Grass, and Park counties, Montana I-1383

— Stillwater Complex, Montana; rock succession, metamorphism and structure of the complex and adjacent rocks P 0999

sills: Layered igneous and sedimentary rocks of Rampart Group, central Alaska; roots of oceanic volcanoes? OP- 181

intrusions—plutons

calc-alkalic composition: Phanerozoic magmatism and mineralization in the Toole $1^{\circ} \times 2^{\circ}$ Quadrangle, Utah OP- 830

emplacement: Geophysical and geologic studies in southern Mecklenburg County and vicinity, North Carolina and South Carolina OF 83-0093

— Paleogene metamorphism of an accretionary flysch terrane, eastern Gulf of Alaska OP- 559

— Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia OP- 321

— Plutonism and orogeny in north-central Washington; timing and regional context P 0989

— Timing of plutonic events in Rhode Island OP- 524

genesis: Genesis of reversely zoned granites; Bottle Lake complex, Maine OP- 45

— Plutonic processes in spreading ocean-ridge magma chambers, illustrated by the Samail Ophiolite, Oman OP- 547

geochemistry: Configuration of the pre-Middle Jurassic continental margin in the Western United States OP- 629

— Preliminary assessment of the geochemistry and mineral favorability of the postorogenic granites of the southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0486

geophysical surveys: A geophysical study of plutons in the northern Charlotte Belt, North Carolina and South Carolina OP- 1307

gneisses: Geology of the Roseland District, Virginia OP- 525

maps: Map showing geologic, geophysical, and geochemical characteristics of granitic plutons in the Medford 1° by 2° Quadrangle, Oregon-California MF-1383-E

mineral composition: The mineralogy of the Snake Creek-Williams Canyon pluton, southern Snake Range, Nevada OF 83-0337

petrology: Intrusive rocks of the Holden and Lucerne quadrangles, Washington; the relation of depth zones, composition, textures, and emplacement of plutons P 1220

— Tertiary plutons in central Idaho OF 83-0836

terrane: Plutonic belts of southeastern Alaska, U.S.A. OP- 148

intrusions—ring complexes

alkalic composition: Genetic implication of minor element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado OP- 36

intrusions—stocks

gravity anomalies: Gravity studies in volcanic terranes OP- 1302

observations: Geologic and geophysical investigations of Climax Stock intrusive, Nevada OF 83-0377

— Geologic investigations OF 83-0377

— Gravity investigations OF 83-0377

— Magnetic investigations OF 83-0377

— Summary of geologic and geophysical investigations OF 83-0377

petrology: Petrology of igneous rocks and wall rock alteration, Mayflower Mine, Wasatch County, Utah; Part I, Primary rock and mineral compositions OF 82-1086

Invertebrata *see also* Arthropoda; Bryozoa; Coelenterata; foraminifera; Insecta; Mollusca; Ostracoda; problematic fossils; Radiolaria; worms

invertebrates *see also* brachiopods; bryozoans; conodonts; corals; echinoderms; foraminifers; graptolites; mollusks; ostracods; radiolarians

invertebrates—biostratigraphy

Cretaceous: Graywacke of Buchia Ridge and correlative Lower Cretaceous rocks in the Goodnews Bay and Bethel quadrangles, southwestern Alaska B 1529-C

— The Black Creek-Peedee formational contact (Upper Cretaceous) in the Cape Fear River region of North Carolina P 1285

Mississippian: Pre-Supai buried valleys P 1173

Paleozoic: Distribution and age of fauna and flora P 1173

Pennsylvanian: Biostratigraphy of the Watahomigi Formation P 1173

Phanerozoic: Biostratigraphy and paleoecology of lower Paleozoic, Upper Cretaceous, and lower Tertiary rocks in U. S. Geological Survey New Madrid test wells, southeastern Missouri OP- 401

invertebrates—ecology

fluvial environment: A survey of benthic macroinvertebrates of streams of coal surface mining areas of the Cumberland Plateau in Tennessee
OF 82-0773

invertebrates—occurrence

fossil localities: Map and table describing fossil collections and related samples in the Ketchikan and Prince Rupert quadrangles, southeastern Alaska
OF 82-1088

Iowa—economic geology

coal: Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa
OP- 497

lead-zinc deposits: Outlying mineral occurrences related to the Upper Mississippi Valley mineral district, Wisconsin, Iowa, Illinois, and Minnesota
OP- 526

water resources: Water-resources investigations of the U. S. Geological Survey in Iowa; fiscal year 1981
OF 81-0349

Iowa—environmental geology

land use: Land use and land cover and associated maps for Fremont, Nebraska, Iowa
OF 82-0248

— Land use and land cover and associated maps for Sioux City, Nebraska, Iowa, South Dakota
OF 82-0246

maps: Land use and land cover and associated maps for Fremont, Nebraska, Iowa
OF 82-0248

— Land use and land cover and associated maps for Sioux City, Nebraska, Iowa, South Dakota
OF 82-0246

Iowa—geochemistry

organic materials: Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa
OP- 498

Iowa—hydrogeology

ground water: Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States
OP- 1136

hydrology: Water quality of Threemile Creek, Badger Creek, and Little River watersheds, Iowa
OF 79-1254

Iran—economic geology

copper ores: Prehistoric copper-smelting "scoriae" from Tal-e Malyan, Iran; methodology and implications of a pioneer study
OP- 806

petroleum: Assessment of undiscovered conventionally recoverable petroleum resources of the Arabian-Iranian Basin
C 0881

Iran—geochronology

Cretaceous: $^{40}\text{Ar}/^{39}\text{Ar}$ ages and tectonic setting of ophiolite from the Neyriz area, Southeast Zagros Range, Iran
OP- 667

iridium—abundance

chromitite: Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia
OP- 927

iron—geochemistry

coal: Deposition of sulfide and associated minerals in coal as a function of the ratios of A) iron to sulfur in the first deposited phase and B) swamp to sea water
OP- 56

pegmatite: Iron content of spodumene in different mineral assemblages of pegmatites, Black Hills, South Dakota
OP- 886

sediments: Amorphous and crystalline ferromanganese deposits from seamounts in the Gulf of Alaska
OP- 649

iron formations *see under* chemically precipitated rocks *under* sedimentary rocks

iron ores *see also under* economic geology *under* Michigan

iron ores—geochemistry

trace elements: Distribution of the lanthanides and yttrium in apatites from iron ores and its bearing on the genesis of ores of the Kiruna type
OP- 378

isostasy *see also under* tectonophysics *under* Southwestern U.S.; Washington

isotope dating *see* absolute age

isotopes *see also* absolute age; geochronology

isotopes—abundance

crystalline rocks: Isotopic composition of uranium and thorium in crystalline rocks
OP- 1054

isotopes—analysis

radioactive isotopes: Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient
OP- 837

stable isotopes: Report on the Second SEPM research conference; Stable isotopes in sedimentary geology
OP- 39

isotopes—argon

Ar-40: Potassium-argon relations in diabase dikes of Georgia; the influence of excess ^{40}Ar on the geochronology of early Mesozoic igneous and tectonic events
P 1313

isotopes—cadmium

Cd-109: Uptake by the clam *Macoma balthica* of sediment-bound Cd from well-defined types of sediment
OF 80-0341

isotopes—carbon

C-13/C-12: Big Soda Lake, Nevada; Part II, Carbon isotopes
OP- 1046

— Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa
OP- 497

— Epigenetic zoning in surface and near-surface rocks resulting from seepage-induced redox gradients, Velma oil field, Oklahoma
OP- 311

— Evaluation of direct-precipitation and gas-evolution methods for radiocarbon dating of ground water
OP- 1331

— Hydrocarbons in sediments from Great Salt Lake, Utah
OP- 50

— Methane and other hydrocarbon gases in marine sediments
OP- 233

— Natural gas analyses from offshore Gulf of Mexico
OF 83-0152

— Petroleum geology of Cook Inlet Basin, Alaska; an exploration model
OP- 728

— Relation of natural gas composition to thermal maturity and source rock type in San Juan Basin, northwestern New Mexico and southwestern Colorado
OP- 1029

— Significance of shallow gas in ancient marine sequences
OP- 1030

— The origin of epigenetic graphite; evidence from isotopes
OP- 1280

— Thermal decarboxylation of acetic acid; implications for origin of natural gas
OP- 615

carbon dioxide: Distribution of gaseous $^{12}\text{CO}_2$, $^{13}\text{CO}_2$, and $^{14}\text{CO}_2$ in the sub-soil unsaturated zone of the western US Great Plains
OP- 1228

soil gases: $^{13}\text{CO}_2$ and $^{14}\text{CO}_2$ measurements on soil atmosphere sampled in the western Great Plains of the US
OP- 462

isotopes—cesium

Cs-134: Radionuclide tracers for sediment in the upper Chesapeake Bay
OP- 310

isotopes—cobalt

Co-60: Movement of radionuclides in unconsolidated coastal sediments at the low-level radwaste burial site near Barnwell, South Carolina
OP- 182

isotopes—copper ores

porphyry copper: $^{18}\text{O}/^{16}\text{O}$ and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada
OP- 1159

isotopes—fractionation

Lu-176/Hf-176: Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution
OP- 936

radioactive isotopes: Neptunium and americium speciation in selected basalt, granite, shale, and tuff ground waters
OP- 234

isotopes—gold ores

stable isotopes: Preliminary mineralogical, fluid inclusion, and stable isotope study of the Mahd adh Dhahab gold mine, Kingdom of Saudi Arabia
OF 83-0291

isotopes—ground water

aquifers: Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer
OP- 46

ratios: Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States
OP- 1136

tracers: Isotopes in ground-water investigations
OP- 1234

isotopes—hafnium

crystalline rocks: Evolution of continental crust and mantle heterogeneity; evidence from Hf isotopes
OP- 937

isotopes—igneous rocks

glasses: Stable isotope compositions of glasses from the Juan de Fuca Ridge
OP- 661

ratios: The chemical and isotopic record of rock-water interaction in the Sherman Granite, Wyoming and Colorado
OP- 1344

volcanic rocks: Oxygen and strontium isotopic studies of basaltic lavas from the Snake River plain, Idaho
OF 83-0338

— The isotopic and chemical evolution of Mount St. Helens
OP- 472

isotopes—lead

Pb-207/Pb-204: Implications for continental evolution from U-Pb zircon and common lead isotope data in and around the Archean craton of Wyoming
OP- 1173

— U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina
OP- 679

Pb-208/Pb-204: Plumbotectonics of Japan; some evidence for a rejuvenated craton
OP- 307

ratios: Lead isotope characteristics of ore systems in central Idaho
OF 83-0836

— Lead isotopes in the "Cascades mineral belt", Washington and Oregon
OP- 680

— Lead-isotopic compositions of diverse igneous rocks and ore deposits from southwestern New Mexico and their implications for early Proterozoic crustal evolution in the western United States
OP- 1174

— The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria, and the Sultanate of Oman
OP- 1227

isotopes—metal ores

stable isotopes: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits
OF 83-0450

— Light-stable isotope characteristics of ore systems in central Idaho
OF 83-0836

isotopes—mollusks

- analysis:* Uptake of ^{60}Co , ^{110m}Ag , and ^{65}Zn from well-defined sediments by *Macoma balthica*
OF 80-0341

isotopes—neodymium

- Nd-144/Nd-143:* Origin and age of Adirondack anorthosites re-evaluated with Nd isotopes
OP- 73

isotopes—oxygen

- O-18/O-16:* Downhole measurements and fluid chemistry of a Castle Rock steam well, The Geysers, Lake County, California OP- 1240
— Geology of the Roseland District, Virginia OP- 525
— Late Pleistocene *Eucampia* antarctica abundance stratigraphy in the Atlantic sector of the Southern Ocean OP- 170
— Long-cycle paleohydrologic regimes in Southeast California; a possible cause OP- 1148
— New evidence for the age of the Gubik Formation, Alaskan North Slope OP- 1017
— Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation OP- 748
— Recognition of Miocene deep-sea hiatuses OP- 63
— Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67 OP- 491
— Siderite concretions; indicators of early diagenesis in the Gammon Shale (Cretaceous) OP- 414
— The oxygen isotope composition of granitoid and sedimentary rocks of the southern Snake Range, Nevada OP- 674
— Thermodynamics and lattice vibrations of minerals; 5. Applications to phase equilibria, isotopic fractionation, and high-pressure thermodynamic properties OP- 619

isotopes—Plantae

- radioactive isotopes:* Effects of nuclear and conventional chemical explosions on vegetation
OF 81-1300

isotopes—polymetallic ores

- analysis:* Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru
OP- 882

isotopes—radon

- Rn-222:* Radon emanation in the New Madrid seismic zone
P 1236

isotopes—ratios

- stable isotopes:* Isotopic research, climate, and the genesis of mineral deposits
C 0822

isotopes—sedimentary rocks

- grainstone:* Burial cement in Sunniland reservoirs, Lower Cretaceous of southern Florida
OP- 469
limestone: Stable isotope analyses
P 1173
ratios: Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40
— Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884
sandstone: Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah OP- 970

isotopes—sediments

- marine sediments:* ^{210}Pb method for estimating the rate of carbonate sand sedimentation
OP- 541
ratios: $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the

Northeast Caribbean, late Holocene

- OP- 542
— Origin of magnesium clays from the Amargosa Desert, Nevada
OP- 618

isotopes—strontium

- Sr-87/Sr-86:* Configuration of the pre-Middle Jurassic continental margin in the Western United States
OP- 629
— Genesis of reversely zoned granites; Bottle Lake complex, Maine
OP- 45
— Genetic implication of minor-element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado
OP- 36
— Origin of bimodal volcanism, southern Basin and Range Province, west-central Arizona
OP- 1199

isotopes—sulfur

- S-34/S-32:* Controls and consequences of sulfate reduction in Recent marine sediments
OP- 434
— Fault-leaked H_2S and the origin of South Texas uranium deposits; implications of sulfur isotopic studies
OP- 173
— Geochemistry of water from two wells in the Tertiary limestone aquifer system, Georgia and Florida
OP- 1169
— Role of fluid mixing and fault-related sulfide in the origin of the Ray Point uranium district, South Texas
OP- 435
— The origin and isotopic composition of dissolved sulfide in groundwater from carbonate aquifers in Florida and Texas
OP- 1063

isotopes—thermal waters

- ratios:* An isotopic study of the Coso, California, geothermal area
OP- 396

isotopes—water

- surface water:* An isotopic and chemical study of Lake Vanda and Don Juan Pond, Antarctica
C 0911

Israel—stratigraphy

- archaeology:* Evidence for earlier date of Ubeidiya, Israel, hominid site
OP- 1018
Pleistocene: Evidence for earlier date of Ubeidiya, Israel, hominid site
OP- 1018

Italy—petrology

- volcanism:* Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily
OP- 732

J

Japan—economic geology

- lead ores:* Plumbotectonics of Japan; some evidence for a rejuvenated craton
OP- 307

Japan—seismology

- earthquakes:* Broadband analysis of the extended foreshock sequence of the Miyagi-Oki earthquake of 12 June 1978
OP- 225
— Magnetic measurements across the Long Valley Caldera, 1972-1983; a comparison with observations and mechanisms during the Matsu-shiro earthquake swarm
OP- 586

Japan—stratigraphy

- Quaternary:* Correlations of the Clear Lake, Calif., Core CL-73-4 pollen sequence with other long climatic records
OP- 2

Japan—tectonophysics

- crust:* In-situ stress measurements by means of the hydraulic fracturing technique in the Kanto-Tokai area, Japan
OF 82-1075

joints see under style under fractures**Jupiter—geomorphology**

- landform evolution:* Thermal evolution of Gany-mede and Callisto
OP- 1129

Jupiter—geophysical surveys

- remote sensing:* Identification of two classes of Io's volcanic plumes
OP- 772
— Internal crustal modification of the satellites of Saturn and Jupiter and implications for Venus
OP- 746
— The Galilean Satellite Geological Mapping Program, continued
OP- 706
— Voyager cartography
OP- 76

Jupiter—satellites

- Io:* High resolution controlled photomosaics of Io
I-1494

Jurassic *see also under geochronology under Utah; see also under stratigraphy under Alabama; Alaska; Arizona; California; Colorado; Florida; Gulf Coastal Plain; Louisiana; Mississippi; Montana; New Mexico; North Dakota; Texas; Utah*

Jurassic—sedimentary petrology

- sedimentary rocks:* Changing patterns of phosphogenesis in Mesozoic and Cenozoic
OP- 1123

K

Kansas—economic geology

- coal:* Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa
OP- 497

Kansas—engineering geology

- waterways:* Sediment and channel-geometry investigations for the Kansas River bank stabilization study, Kansas, Nebraska, and Colorado
OF 81-0128

Kansas—environmental geology

- land use:* Land use and land cover and associated maps for Enid, Oklahoma; Kansas
OF 83-0553

- Land use and land cover and associated maps for Lincoln, Nebraska; Kansas
OF 82-0249
— Land use and land cover, 1978, Grand Island, Nebraska; Kansas
L-0186

- Remote sensing investigations in the coal fields of southeastern Kansas
OP- 613

- maps:* Land use and land cover and associated maps for Enid, Oklahoma; Kansas
OF 83-0553

- Land use and land cover and associated maps for Lincoln, Nebraska; Kansas
OF 82-0249
— Land use and land cover, 1978, Grand Island, Nebraska; Kansas
L-0186

- pollution:* Statistical summaries of selected chemical constituents in Kansas ground-water supplies
OF 83-0263

Kansas—geochemistry

- organic materials:* Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa
OP- 498

Kansas—geophysical surveys

- remote sensing:* Remote sensing investigations in the coal fields of southeastern Kansas
OP- 613

Kansas—hydrogeology

- ground water:* A numerical model to evaluate proposed ground-water allocations in Southwest Kansas
WRI 82-4095
— Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming
WRI 83-4123
— Geohydrologic data from sandstone aquifers in southwestern Kansas
OF 82-0868

- January 1981 water levels, and data related to water-level changes, western and south-central Kansas OF 81-1001
- January 1983 water levels, and data related to water-level changes, western and south-central Kansas OF 83-0762
- Kansas ground-water observation-well network, 1983 OF 83-0528
- hydrology:** Analysis and computer simulation of stream-aquifer hydrology, Arkansas River Valley, southwestern Kansas W 2200
- Determination of irrigation pumpage in parts of Kearny and Finney counties, southwestern Kansas WRI 82-4011
- Flood of June 15, 1981, in Great Bend and vicinity, central Kansas WRI 82-4123
- Geohydrology and model analysis of the stream-aquifer system along the Arkansas River in Kearny and Finney counties, south-western Kansas OF 83-0222
- Physical and hydrologic environments of the Mulberry coal reserves in eastern Kansas WRI 82-4074
- Quality-of-water data and statistical summary for selected coal-mined strip pits in Crawford and Cherokee counties, southeastern Kansas OF 82-1021
- Remote sensing investigations in the coal fields of southeastern Kansas OP- 613
- Saline ground-water discharge to the Smoky Hill River between Salina and Abilene, central Kansas PB-82 237 637
- Sediment data for mid-Arkansas and upper-Red River basins through 1980 OF 83-0692
- Water-quality and fluvial-sediment characteristics of selected streams in Northeast Kansas WRI 82-4005
- maps:** Map of water table in Graham County, northwestern Kansas, March 1979 OF 81-0333
- Map of water table in Solomon River valley, Waconda Lake to Solomon, north-central Kansas, May 1980 OF 81-0334
- Percentage change in saturated thickness of the High Plains Aquifer, west-central Kansas, 1950 to average 1980-82 OF 82-1010
- Kansas—sedimentary petrology**
- sedimentary rocks:** Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40
- Short-range vertical variation in organic carbon, carbonate carbon, total sulfur contents and Munsell color values in a core from the Upper Pennsylvanian Stark Shale Member of the Dennis Limestone, Wabaunsee County, Kansas OF 83-0315
- Kansas—soils**
- water regimes:** Determination of irrigation pumpage for an area in southwestern Kansas OP- 692
- Kansas—stratigraphy**
- Carboniferous:** Plant megafossils at Carboniferous-Permian boundary OP- 955
- Permian:** Plant megafossils at Carboniferous-Permian boundary OP- 955
- kaolin deposits** *see also* under economic geology under Georgia
- Kentucky—economic geology**
- coal:** Correlation of coal beds, coal zones, and key stratigraphic units in the Pennsylvanian rocks of eastern Kentucky MF-1188
- maps:** Mineral resource potential maps of the Beaver Creek Wilderness, McCreary County, Kentucky MF-1348-D

mineral resources: Mineral resource potential maps of the Beaver Creek Wilderness, McCreary County, Kentucky MF-1348-D

- Relations of dolomite associated with faults to the stratigraphy and structure of central Kentucky OP- 102

oil shale: Stratigraphy and resource assessment of Mississippian and Devonian oil shales of northeastern Kentucky OP- 82

Kentucky—engineering geology

earthquakes: Actions proposed for reducing losses from earthquakes in the Mississippi Valley region affecting the Commonwealth of Kentucky OF 83-0157

- Earthquake-hazards reduction; perspective of a geological survey OF 83-0157
- Earthquake preparedness along New Madrid fault; the Kentucky perspective OF 83-0157

geologic hazards: Actions proposed for reducing losses from earthquakes in the Mississippi Valley region affecting the Commonwealth of Kentucky OF 83-0157

- Earthquake-hazards reduction; perspective of a geological survey OF 83-0157
- Earthquake preparedness along New Madrid fault; the Kentucky perspective OF 83-0157

Kentucky—environmental geology

land use: Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104

maps: Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104

pollution: Chloroform contamination in part of the alluvial aquifer, southwest Louisville, Kentucky W 2202

Kentucky—geochronology

Ordovician: NDS 161; Ordovician; Caradoc, K-Ar/biotite, Eastern Interior American Basin OP- 894

Kentucky—geomorphology

fluvial features: Stream piracy near Ivyton in eastern Kentucky OP- 1028

Kentucky—hydrogeology

hydrology: Drainage areas of streams at selected locations in Kentucky OF 81-0061

- Hydrology of area 14, Eastern Coal Province, Kentucky OF 81-0137

Kentucky—paleontology

Bryozoa: Pilodictyoid Cryptostomata Bryozoa from the Middle and Upper Ordovician rocks of central Kentucky OP- 597

Coelenterata: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N

Kentucky—sedimentary petrology

clay mineralogy: Chemical characteristics and origin of Ordovician K-bentonites along the Cincinnati Arch; a discussion OP- 1099

- Volcanic origin of the flint clay parting in the Hazard No. 4 (Fire Clay) coal bed of the Breathitt Formation in eastern Kentucky OP- 124

Kentucky—seismology

maps: Seismicity map of the State of Kentucky MF-1144

Kentucky—stratigraphy

Carboniferous: Palynomorph content of the Hazard No. 7 Coal Bed, Kentucky OP- 644

Devonian: Stratigraphy and resource assessment of Mississippian and Devonian oil shales of northeastern Kentucky OP- 82

Mississippian: Stratigraphy and resource assessment of Mississippian and Devonian oil shales of northeastern Kentucky OP- 82

Ordovician: Bryozoan fauna of the Upper Clays Ferry, Kope, and Lower Fairview formations

(Edenian, Upper Ordovician) at Moffett Road, northern Kentucky OF 83-0021

— Facies control of Ordovician leperditicoid ostracodes from Kentucky OP- 94

Pennsylvanian: Correlation of coal beds, coal zones, and key stratigraphic units in the Pennsylvanian rocks of eastern Kentucky MF-1188

— Introduction; the stratigraphic framework of the Pennsylvanian rocks in eastern Kentucky OP- 1027

Permian: Mauzy Formation, a new stratigraphic unit of Permian age in western Kentucky B 1529-H

Kentucky—structural geology

maps: Magnetic and gravity features of western Kentucky; their geologic significance OF 83-0164

tectonics: Magnetic and gravity features of western Kentucky; their geologic significance OF 83-0164

— Relations of dolomite associated with faults to the stratigraphy and structure of central Kentucky OP- 102

L

lacustrine features *see* under geomorphology

land subsidence—causes

underground mining: Subsidence from underground mining; environmental analysis and planning considerations C 0876

land use *see also* under environmental geology under

Alabama; Alaska; Appalachians; Arizona; Arkansas; Colorado; Connecticut; Florida; Georgia; glossaries; Great Plains; Idaho; Indiana; Iowa; Kansas; Kentucky; Louisiana; Michigan; Minnesota; Mississippi Valley; Missouri; Montana; Nebraska; Nevada; North Carolina; Oklahoma; South Carolina; South Dakota; Tennessee; Texas; United States; Utah; Virginia; Washington; Western U.S.; Wisconsin; Wyoming

land use—maps

cartography: Land use and land cover digital data C 0895-E

- Land use and natural resource mapping; glossary of terms OF 83-0102
- Specifications for updating USGS land use and land cover maps OF 83-0116

land use—mines

effects: Assessment of potential impacts to the hydrologic system related to surface mining OF 79-1598

land use—remote sensing

applications: Test of airborne radar for mapping two types of land cover; forested wetland and perennial snow and ice OF 82-0815

cartography: Land resources map making from remote sensing products OP- 19

interpretation: Land use/land cover environmental photointerpretation keys B 1600

wetlands: Applications of remote sensing to wetlands OP- 205

landform description *see* under geomorphology

landform evolution *see* under geomorphology

landslides *see* under slope stability; *see* under mass movements under geomorphology

laterites *see* under geochemical methods under mineral exploration; *see* under soils under bibliography

lava *see also* igneous rocks; magmas

lava—distribution

lava flows: Distribution of differentiated tholeiitic basalts on the lower East Rift Zone of Kilauea Volcano, Hawaii; a possible guide to geothermal exploration OP- 829

- Potential hazards from future volcanic eruptions on the Island of Maui, Hawaii I-1442

lava—flow mechanism

flow structures: El Malpais OP- 755

lava—genesis

paleoenvironment: Characteristics, depositional environment, and tectonic interpretations of the Proterozoic Cardenas Lavas, eastern Grand Canyon, Arizona OP- 712

lava—geochemistry

isotopes: Oxygen and strontium isotopic studies of basaltic lavas from the Snake River plain, Idaho OF 83-0338

— Stable isotope compositions of glasses from the Juan de Fuca Ridge OP- 661

trace elements: Geochemistry of subsurface basalt from the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina; magma type and tectonic implications P 1028

— Large partition coefficients for trace elements in high-silica rhyolites OP- 731

— Rhyolites in the Gillies Hill-Woodtick Hill area, Beaver County, Utah OP- 354

— The isotopic and chemical evolution of Mount St. Helens OP- 472

lava—observations

lava domes: Deformation monitoring at Mount St. Helens in 1981 and 1982 OP- 216

lava flows: Reconnaissance geology of Amlia Island, Aleutian Islands, Alaska OP- 782

lava lakes: Drilling report and core logs for the 1981 drilling of Kilauea Iki lava lake (Kilauea Volcano, Hawaii), with comparative notes on earlier (1967-1979) drilling experiences OF 83-0326

sampling: Basalt samples and water-column samples from the southern Juan de Fuca Ridge; preliminary results of cruise L13-82-WF OF 83-0827

thickness: Spectral analysis of the 1976 aeromagnetic survey of Harrat Rahat, Kingdom of Saudi Arabia OF 83-0640

lava—petrology

dacites: Petrologic monitoring of 1981 and 1982 eruptive products from Mount St. Helens OP- 214

lava fields: The Challis volcanic field OF 83-0836

lava—properties

magnetic properties: Paleomagnetic data from the Coso Range, California and current status of the Cobb Mountain normal geomagnetic polarity event OP- 736

— Tectonic rotations recorded by flows in the Columbia River Basalt Group, Washington and Oregon OP- 1137

physical properties: Thermodynamic and thermophysical properties of selected phases in the $MgO-SiO_2-H_2O-CO_2$, $CaO-Al_2O_3-SiO_2-H_2O-CO_2$, and $Fe-FeO-Fe_2O_3-SiO_2$ chemical systems, with special emphasis on the properties of basalts and their mineral components OF 83-0079

lead—abundance

sediments: Correlation of Pb concentrations and chemistry of sediments with Pb in the bivalve *Scrobicularia plana* OF 80-0341

lead—geochemistry

stream sediments: Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-I

— Distribution and abundance of lead, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-E

— Distribution and abundance of lead, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-D

lead— isotopes

Pb-206/Pb-204: Plumbotectonics of Japan; some evidence for a rejuvenated craton OP- 307

Pb-207/Pb-204: Implications for continental evolution from U-Pb zircon and common lead isotope data in and around the Archean craton of Wyoming OP- 1173

— U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina OP- 679

Pb-210: ^{210}Pb method for estimating the rate of carbonate sand sedimentation OP- 541

ratios: Lead isotope characteristics of ore systems in central Idaho OF 83-0836

— Lead isotopes in the "Cascades mineral belt", Washington and Oregon OP- 680

— Lead-isotopic compositions of diverse igneous rocks and ore deposits from southwestern New Mexico and their implications for early Proterozoic crustal evolution in the western United States OP- 1174

— The isotopic and chemical evolution of Mount St. Helens OP- 472

— The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria, and the Sultanate of Oman OP- 1227

lead ores *see also* under economic geology under Alaska; catalogs; Japan

lead-zinc deposits—inventory

global: Geologic and grade-tonnage information on volcanic-hosted copper-zinc-lead massive sulfide deposits OF 83-0089

lead-zinc deposits—resources

models: Mineral deposit grade-tonnage models OF 83-0623

Lesser Antilles—hydrogeology

ground water: Ground-water records in St. Croix, Virgin Islands, 1969-73 OF 83-0546

Levant *see* Middle East**lexicons** *see also* glossaries**Liberia—areal geology**

maps: Geologic map of Liberia I-1480

Nimba County: Geology of Nimba County, Liberia B 1540

lignite *see also* under economic geology under Arkansas

limestone *see also* under carbonate rocks under sedimentary rocks

limnology *see* under hydrology

lineation *see also* foliation; structural analysis

liquid inclusions *see* fluid inclusions

lithium—geochemistry

ground water: Hydrology of the hydrothermal system in southern Grass Valley, Pershing County, Nevada OP- 1282

pegmatite: Origin of lithium-rich pegmatitic magmas, southern Black Hills, South Dakota OP- 887

Louisiana—economic geology

geothermal energy: Geopressed-geothermal energy resource appraisal; hydrogeology and well testing determine producibility OP- 1266

— Geopressed-geothermal resources in the northern Gulf of Mexico Basin; an overview OP- 1268

— Regional and local geologic setting of the Technadriil-Fenix and Scisson, Department of Energy, Gladys McCall No. 1 well site OP- 83

— Road log OP- 1267

oil and gas fields: Chemical geothermometers applied to formation waters, Gulf of Mexico and California basins OP- 617

Louisiana—environmental geology

ecology: Water quality of the Barataria Unit; Jean Lafitte National Historical Park, Louisiana (April 1981-March 1982) OF 82-0691

impact statements: The oil and gas industry of coastal Louisiana and its effects on land use and other socioeconomic patterns OF 83-0118

land use: Land use and land cover and associated maps for Palestine, Texas; Louisiana OF 83-0561

— The oil and gas industry of coastal Louisiana and its effects on land use and other socioeconomic patterns OF 83-0118

maps: Land use and land cover and associated maps for Palestine, Texas; Louisiana OF 83-0561

Louisiana—hydrogeology

ground water: Ground-water conditions along route from New Orleans to Grand Cheniere, via Baton Rouge, Lafayette, and Abbeville OP- 196

— Ground-water data for the Mississippi River parishes in the greater New Orleans area, Louisiana OP- 299

— Ground-water resources of the Arcadia-Minden area, Louisiana OP- 1061

hydrology: A two-dimensional finite-element model study of backwater and flow distribution at the I-10 crossing of the Pearl River near Slidell, Louisiana WRI 82-4119

— Analyses of native water, bottom material, elutriate samples, and dredged material from selected southern Louisiana waterways and selected areas in the Gulf of Mexico, 1979-81 OF 82-0690

— Backwater and discharge at highway crossings with multiple bridges in Louisiana and Mississippi WRI 83-4065

— Floods of April 1983 in southern Mississippi and southeastern Louisiana OF 83-0685

— Hydrology, water quality, and biology of Baptiste Collette Bayou in relation to the Lower Mississippi River at Venice, Louisiana OP- 292

— Premining hydrology of the lignite area in southeastern De Soto Parish, Louisiana OP- 1150

— Water quality of the upper Vermilion River, Louisiana, April-August 1980 OP- 293

Louisiana—oceanography

continental shelf: Hoffa Reef; a shelf-edge calcareous prominence in the northern Gulf of Mexico OF 83-0745

continental slope: Gulf of Mexico types of intraslope basins as determined by seismic reflection patterns OP- 136

Louisiana—paleontology

Mollusca: Predation on sub-Holocene scaphopod mollusks from southern Louisiana P 1282

Louisiana—stratigraphy

Jurassic: Upper Jurassic ammonites from Louisiana, Texas, and Mississippi OP- 564

lunar studies *see* Moon

lutetium— isotopes

Lu-176/Hf-176: Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution OP- 936

M

magmas *see also* igneous rocks; intrusions; lava

magmas—classification

geochemistry: Geochemistry and tectonic significance of subsurface basalts near Charleston, South Carolina; Clubhouse Crossroads test holes #2 and #3 P 1313

magmas—composition

interpretation: Compositional and chronologic variations in volcanic rocks across the Colorado Plateau margin in Arizona OP- 1246

magmas—differentiation

controls: Possible relations between magmatism, rates of extension, and the state of stress in the crust OP- 47

fluid phase: Problems in the use of fluid inclusions to investigate fluid-rock interactions in igneous and metamorphic processes OP- 1050

fractional crystallization: Chemical differentiation of the Bishop Tuff and other high-silica magmas through crystallization processes OP- 532

— Crystallization of the Dufek Intrusion, Antarctica C 0911

— Distribution of differentiated tholeiitic basalts on the lower East Rift Zone of Kilauea Volcano, Hawaii; a possible guide to geothermal exploration OP- 829

— Genetic implication of minor-element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado OP- 36

— Geologic and petrologic data bearing on potential volcanic hazards in Long Valley Caldera, eastern California OP- 53

— Geology of granodiorite in the Coxcomb Mountains, southeastern California OP- 184

— Millerton Lake Quadrangle, west-central Sierra Nevada, California; analytic data P 1261

— The mineralogy of the Snake Creek-Williams Canyon pluton, southern Snake Range, Nevada OF 83-0337

— Tin granites of Seward Peninsula, Alaska OP- 558

magmas—evolution

cooling: Cooling history; can we tell a magma ocean from a magma puddle? evidence from microstructures OP- 876

magma chambers: Composition of the Samail ocean crust OP- 933

— Magmatic resurgence in Long Valley Caldera, California; possible cause of the 1980 Mammoth Lakes earthquakes OP- 1078

— Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily OP- 732

oceanic crust: Plutonic processes in spreading ocean-ridge magma chambers, illustrated by the Samail Ophiolite, Oman OP- 547

P-T conditions: Garnet peridotites from the Williams Kimberlites, north-central Montana OP- 511

tectonic controls: Volcanic studies in the Pacific Northwest, 1879-1979 OP- 1202

volcanoes: The isotopic and chemical evolution of Mount St. Helens OP- 472

magmas—genesis

anatexis: Origin and age of Adirondack anorthositic re-evaluated with Nd isotopes OP- 73

mantle: Incompatible-element-rich andesitic amphibolites from the Archean of Montana and Wyoming; evidence for mantle metasomatism OP- 842

partial melting: Origin of bimodal volcanism, southern Basin and Range Province, west-central Arizona OP- 1199

magmas—geochemistry

lithium: Origin of lithium-rich pegmatitic magmas, southern Black Hills, South Dakota OP- 887

trace elements: Geochemistry of subsurface basalt from the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina; magma type and tectonic implications P 1028

magmas—properties

magma chambers: Deep earthquakes beneath Mount St. Helens; evidence for magmatic gas transport? OP- 1279

magnesium—geochemistry

carbonate rocks: Evaporite deposits and magnesium carbonate rocks P 1173

magnetic field see under Earth**magnetic methods see under geophysical methods**

magnetic surveys see under geophysical surveys under Alabama; Alaska; Appalachians; Arabian Peninsula; Arizona; Atlantic Ocean; California; Colorado; Eastern U.S.; Hawaii; Idaho; Midwest; Missouri; Nevada; New Mexico; Ohio; Oregon; Pacific Coast; Saudi Arabia; South Carolina; United States; Virginia; Wyoming

magnetotelluric methods see under geophysical methods

magnetotelluric surveys see under geophysical surveys under Azores; Idaho; Montana; New Mexico

Maine—economic geology

copper ores: Biogeochemical prospecting data from the Catheart Mountain porphyry copper-molybdenum prospect, west-central Maine OP- 192

maps: Surficial geology map of the Great Heath, Washington County, Maine OF 83-0004

molybdenum ores: Biogeochemical prospecting data from the Catheart Mountain porphyry copper-molybdenum prospect, west-central Maine OP- 192

— Quartz-molybdenite veins in the Priestly Lake granodiorite, north-central Maine OF 83-0800

peat: Environmental classification of the peat deposits in the wetlands of Maine OF 83-0413

— Sketch maps, sections and laboratory analyses of peat resources in deposits of southern and western Maine OF 83-0018

— Surficial geology map of the Great Heath, Washington County, Maine OF 83-0004

— The significance of surficial mapping to peat exploration OP- 185

Maine—environmental geology

ecology: Environmental classification of the peat deposits in the wetlands of Maine OF 83-0413

— Reconnaissance of the effect of landfill leachate on the water quality of Marshall Brook, Southwest Harbor, Hancock County, Maine OF 80-1120

Maine—geochemistry

trace elements: Quartz-molybdenite veins in the Priestly Lake granodiorite, north-central Maine OF 83-0800

Maine—hydrogeology

ground water: Ground water availability in Acadia National Park and vicinity, Hancock and Knox counties, Maine OF 80-1050

hydrology: Cost-effectiveness of the stream-gaging program in Maine OF 83-0261

— Drainage areas of surface water bodies of central Maine coastal river basins OF 78-0556-I

— Hydrologic data from the Johnson Brook phosphorus loading study, Kennebec County, Maine OF 83-0143

— Initial assessment of time of travel and mixing through Gulf Island Pond and the lower Androscoggin River, Maine WRI 83-4020

— Time-of-travel studies for the Little Androscoggin River, Maine OF 81-0640

maps: Ground-water availability and surficial geology of the Royal, upper Presumpscot, and upper Saco River basins, Maine OF 79-1287

— Ground-water resources map, southwestern Maine OF 79-1337

springs: Records of selected wells, springs, and test holes, in the Royal, upper Presumpscot, and upper Saco River basins in Maine OF 79-1169

— Records of selected wells, springs and test holes in the upper Androscoggin River valley, Maine OF 80-0412

Maine—petrology

intrusions: Genesis of reversely zoned granites; Bottle Lake complex, Maine OP- 45

Maine—stratigraphy

Archean: Diamictite of the Chain Lakes Massif of Maine; a possible metasuevite? OP- 135

Pleistocene: Late Wisconsin deglaciation of high-relief alpine terrain in northern Washington compared to New England OP- 1263

— Permafrost in the northeastern United States coastal plain OP- 907

Silurian: Silurian-Lower Devonian stratigraphy of eastern and south-central New Hampshire; extensions from western Maine OP- 499

Mammalia—Suiiformes

Miocene: Mastritherium (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin OF 83-0488

mammals—biostratigraphy

Miocene: Mastritherium (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin OF 83-0488

Oligocene: Chandler Bridge Formation; a new Oligocene stratigraphic unit in the lower coastal plain of South Carolina B 1529-H

Pleistocene: Evidence for earlier date of Ubeidiya, Israel, hominid site OP- 1018

— New evidence for the age of the Gubik Formation, Alaskan North Slope OP- 1017

mammals—ecology

marine environment: Assessment of gray whale feeding grounds and sea floor interaction in the northeastern Bering Sea OF 83-0727

mammals—paleoecology

Quaternary: Paleocology of Beringia; a synthesis OP- 1105

manganese—geochemistry

sediments: Amorphous and crystalline ferromanganese deposits from seamounts in Gulf of Alaska OP- 649

manganese ores—genesis

controls: Influences of ocean anoxic events on manganese deposition and ophiolite-hosted sulfide preservation C 0822

Manitoba—engineering geology

rock mechanics: Acoustic character of hydraulic fractures in granite OP- 932

Manitoba—geophysical surveys

well-logging: Acoustic character of hydraulic fractures in granite OP- 932

mantle see also under seismology under California; Montana; *see also under* tectonophysics under United States

mantle—geochemistry

heterogeneity: Evolution of continental crust and mantle heterogeneity; evidence from Hf isotopes OP- 937

maps see also under areal geology under Alabama; Alaska; Antarctica; Arizona; California; Colorado; Georgia; Idaho; Liberia; Mars; Massachusetts; Mercury Planet; Missouri; Montana; Nevada; New Mexico; North Carolina; Oregon; Puerto Rico; Saudi Arabia; South Carolina; Tennessee; United States; Utah; Virginia; Wash-

- ington; Wyoming; *see also under* economic geology *under* Alabama; Alaska; Appalachians; Arizona; Arkansas; Basin and Range Province; California; catalogs; Colorado; Eastern U.S.; Florida; Georgia; Idaho; Illinois; Kentucky; Maine; Michigan; Midwest; Missouri; Montana; Nebraska; Nevada; New Mexico; North America; North Carolina; Oklahoma; Oregon; Pacific region; Pennsylvania; South Carolina; South Dakota; Tennessee; Texas; United States; Utah; Virginia; Washington; West Virginia; Wisconsin; Wyoming; *see also under* engineering geology *under* Alaska; Appalachians; Arctic Ocean; Basin and Range Province; Bering Sea; California; Colorado; Colorado Plateau; Maryland; Rocky Mountains; United States; Utah; Virginia; Wyoming; *see also under* environmental geology *under* Alabama; Alaska; Appalachians; Arizona; Arkansas; California; Georgia; Hawaii; Idaho; Iowa; Kansas; Kentucky; Louisiana; Michigan; Minnesota; Mississippi; Mississippi Valley; Missouri; Montana; Nebraska; Nevada; North Carolina; Oklahoma; South Carolina; Tennessee; Texas; United States; Utah; Virginia; Washington; Wisconsin; Wyoming; *see also under* geochemistry *under* Alaska; Arizona; California; Colorado; Georgia; Idaho; Montana; Nevada; New Mexico; Oregon; Tennessee; Utah; *see also under* geochronology *under* California; *see also under* geomorphology *under* Alaska; California; Colorado; Idaho; Mars; Massachusetts; Montana; Moon; Nevada; Oregon; Papua New Guinea; Utah; Washington; Wyoming; *see also under* geophysical surveys *under* Alabama; Alaska; Arizona; Atlantic Ocean; Bering Sea; California; Colorado; Eastern U.S.; Hawaii; Idaho; Michigan; Midwest; Montana; Nevada; New Mexico; Ohio; Oregon; Pacific Coast; Pacific Ocean; Saudi Arabia; South Carolina; United States; Utah; Virginia; Washington; Wisconsin; Wyoming; *see also under* hydrogeology *under* Alabama; Arizona; California; Colorado; Eastern U.S.; Florida; Georgia; Great Plains; Gulf Coastal Plain; Idaho; Kansas; Maine; Maryland; Mississippi; Montana; New York; Oklahoma; Oregon; Texas; United States; Utah; Virginia; *see also under* oceanography *under* Alaska; Atlantic Ocean; Bering Sea; Gulf of Mexico; Pacific Ocean; Puerto Rico; Rhode Island; Texas; United States; *see also under* seismology *under* Arkansas; Basin and Range Province; California; Kentucky; Minnesota; New Mexico; Pennsylvania; South Carolina; Virginia; *see also under* stratigraphy *under* Alaska; California; Colorado; Missouri; Montana; New Mexico; North Dakota; Oregon; Pacific Ocean; Utah; *see also under* structural geology *under* California; Eastern U.S.; Kentucky; Nevada; New Mexico; Texas; United States; Utah; Wyoming; *see also under* tectonophysics *under* North America; Pacific region; Southwestern U.S.
- maps—cartography**
- automatic cartography:* A hybrid structure for the storage and manipulation of very large spatial data sets OF 82-0816
- A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping OF 83-0352
- Computer-generated mineral commodity deposit maps OF 83-0410
- Digital cartography C 0902-A-P
- Digital line graphs from 1:2,000,000-scale maps C 0895-D
- Geographic Names Information System C 0895-F
- Land use and land cover digital data C 0895-E
- NCIC; a service to the geologic community OP- 609
- Overview and USGS activities C 0895-A
- Transformation of mapped data to grid systems with applications to earthquake data OF 83-0248
- Use of Apple II in mapping geology of coastal plain of NPR Alaska OP- 940
- Use of microcomputer in mapping depth of stratigraphic horizons in National Petroleum Reserve in Alaska OF 82-1054
- User's manual for RASSMP OF 82-0623
- User's manual for STATMAP OF 82-0622
- User's manual for ZMP OF 82-0621
- WELLMAP, a Fortran computer program for the generation of maps of specified geographic areas with a variety of well symbols available to depict the current status of given oil and gas drilling OF 83-0155
- coordinates:* A U. S. Geological Survey data standard; specifications for representation of geographic point locations for information interchange C 0878-B
- environmental geology maps:* Applications of remote sensing to wetlands OP- 205
- Land resources map making from remote sensing products OP- 19
- Specifications for updating USGS land use and land cover maps OF 83-0116
- land use maps:* Land use and natural resource mapping; glossary of terms OF 83-0102
- map projections:* Map projections used by the U. S. Geological Survey B 1532
- The properties and uses of selected map projections I-1402
- practice:* In the United States, Mapping falls, survey data show OP- 408
- remote sensing:* Evaluation of radar imagery for geological and cartographic applications OF 81-1358
- New Landsat products OF 83-0558
- Recent U. S. Geological Survey Landsat thematic and image maps OF 83-0121
- Regional thermal-inertia mapping from an experimental satellite OP- 1276
- maps—economic geology**
- fuel resources:* Map of prospective hydrocarbon provinces of the world MF-1044-A
- marine geology** *see also* oceanography; *see also under* oceanography *under* Alaska; Antarctic Ocean; Arctic Ocean; Atlantic Ocean; Bering Sea; Caribbean Sea; North America; Pacific Ocean; Puerto Rico; United States
- marine geology—instruments**
- systems:* A system for measuring bottom profile, waves and currents in the high-energy near-shore environment OP- 1067
- marine geology—practice**
- programs:* The marine geology program of the U. S. Geological Survey C 0906
- marine installations** *see also under* engineering geology *under* Alaska
- marine sediments** *see under* sediments
- Mars—areal geology**
- maps:* Controlled photomosaic of the Aeolis Northeast Quadrangle of Mars I-1497
- Controlled photomosaic of the Amenthes Northeast Quadrangle of Mars I-1426
- Controlled photomosaic of the Arabia Northeast Quadrangle of Mars I-1464
- Controlled photomosaic of the Arabia Northwest Quadrangle of Mars I-1467
- Controlled photomosaic of the Arabia Southeast Quadrangle of Mars I-1466
- Controlled photomosaic of the Arabia Southwest Quadrangle of Mars I-1465
- Controlled photomosaic of the Casius Southeast Quadrangle of Mars I-1432
- Controlled photomosaic of the Casius Southwest Quadrangle of Mars I-1525
- Controlled photomosaic of the Cebrenia Northwest Quadrangle of Mars I-1521
- Controlled photomosaic of the Eridania Northwest Quadrangle of Mars I-1341
- Controlled photomosaic of the Hellas Northeast Quadrangle of Mars I-1451
- Controlled photomosaic of the Hellas Northwest Quadrangle of Mars I-1452
- Controlled photomosaic of the Hellas Southeast Quadrangle of Mars I-1453
- Controlled photomosaic of the Hellas Southwest Quadrangle of Mars I-1454
- Controlled photomosaic of the Mare Tyrrhenum Northeast Quadrangle of Mars I-1469
- Controlled photomosaic of the Mare Tyrrhenum Northwest Quadrangle of Mars I-1468
- Controlled photomosaic of the Mare Tyrrhenum Southeast Quadrangle of Mars I-1470
- Controlled photomosaic of the Mare Tyrrhenum Southwest Quadrangle of Mars I-1471
- regional:* Martian geology OP- 200
- Mars—exploration**
- landing sites:* A summary of Viking sample-trench analyses for angles of internal friction and cohesions OP- 827
- Mars—geochemistry**
- volatiles:* Periodic climate change on Mars; review of evidence and effects on distribution of volatiles OP- 202
- Mars—geomorphology**
- drainage patterns:* SIR-A images reveal major subsurface drainages in the eastern Sahara; applications to Mars OP- 766
- erosion:* Erosion of surface materials at the Mutch Memorial Station (Lander I), Mars OP- 825
- fluvial features:* Chryse Basin channels; low-gradients and ponded flows OP- 709
- Meander relics; evidence of extensive flooding on Mars OP- 1108
- glacial features:* Ice sculpture in the Martian outflow channels OP- 703
- glacial geology:* Downward-travelling infrared flux at the Martian surface for past CO₂/H₂O atmospheres OP- 237
- Ground ice and debris flows in the fretted terrain, Mars OP- 710
- Mars and Earth; comparison of cold-climate features OP- 707
- impact features:* A new time-saving crater-count technique, with application to narrow features OP- 1211
- Mars; paleostratigraphic restoration of buried surfaces in Tharsis Montes OP- 1110
- lacustrine features:* Lakes or playas in Vallis Marineris OP- 704
- landform description:* Collapse; a mechanism for Martian scarp retreat OP- 70
- Mars-analog studies in Wright and Victoria valleys, Antarctica C 0911
- Mars; subdivisions of highland rocks OP- 1109
- Martian channels and valleys; their characteristics, distribution, and age OP- 203
- Modeling Mars, Moon surfaces OP- 1171
- landform evolution:* Relict drainages, conical hills, and the eolian veneer in Southwest Egypt; applications to Mars OP- 144
- maps:* Revisions of 1:5,000,000 scale Mars maps OP- 78

- Shaded relief map of the Arcadia Quadrangle of Mars I-1477
- Shaded relief map of the Chryse Planitia region of Mars I-1448
- Shaded relief map of the Ismenius Lacus Quadrangle of Mars I-1495
- Shaded relief map of the Mare Acidalium Quadrangle of Mars I-1476
- Shaded relief map of the Phoenixis Lacus Northwest Quadrangle of Mars I-1478
- Topographic map of Mars I-0961
- volcanic features*: Assessing the volcanic probability of Martian landforms OP- 923
- Syrtis Major; a low-relief volcanic shield OP- 1081
- Volcanoes and volcanic provinces; Martian western hemisphere OP- 1107
- Mars—geophysical surveys**
- remote sensing*: A catalog of selected Viking orbiter images OP- 1244
- Albedo map of Mars OP- 79
- Computer enhancement as an aid to interpretation of geologic features on Viking imagery; a preliminary progress report OP- 71
- Mapping precision of the Viking lander images OP- 1326
- Planetwide control network of Mars OP- 1327
- Rapid estimate of Martian topography from Viking Orbiter image photometry OP- 281
- Special purpose Mars mapping OP- 77
- Thermal inertia mapping of Mars from 60°S to 60°N OP- 934
- 1:2,000,000 scale controlled photomosaics of Mars OP- 80
- Mars—observations**
- review*: The geology of the terrestrial planets OP- 201
- Mars—petrology**
- igneous rocks*: Mapping volcanic features on Mars OP- 824
- maps*: Geologic map of Olympus Mons OP- 835
- Mars—sedimentary petrology**
- sedimentation*: Preferential development of chaotic terrains on sedimentary deposits, Mars OP- 705
- sediments*: Channel deposits on Mars OP- 826
- Maryland—engineering geology**
- maps*: Bedrock map and geotechnical properties of rocks of the Culpeper Basin and vicinity, Virginia and Maryland I-1313-C
- Maryland—geochemistry**
- ground water*: Groundwater geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland OP- 220
- Maryland—geochronology**
- Holocene*: Holocene sedimentation in the tidal Potomac River and estuary OP- 430
- Maryland—geomorphology**
- changes of level*: Holocene sedimentation in the tidal Potomac River and estuary OP- 430
- shore features*: Computer-supported photogrammetry applied to measurements of shore erosion in the tidal Potomac River and estuary, Maryland and Virginia OP- 796
- Maryland—hydrogeology**
- ground water*: Aqueous geochemistry and the exchangeable cation composition of glauconite in the Aquia Aquifer, Maryland OP- 221
- Ground-water geochemistry and calcite cementation of the Aquia Aquifer in southern Maryland OP- 219
- Test well DO-CE 88 at Cambridge, Dorchester County, Maryland OF 82-1015
- hydrology*: Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach W 2216
- Downstream effects of reservoir releases to the Potomac River from Luke, Maryland, to Washington, DC WRI 82-4062
- Hydrology of area 5, Eastern Coal Province, Pennsylvania, Maryland, and West Virginia OF 81-0538
- Hydrology of area 6, Eastern Coal Province, Maryland, West Virginia, and Pennsylvania OF 83-0033
- Submersed aquatic plants of the tidal Potomac River B 1543
- Technique for estimating magnitude and frequency of floods in Maryland OF 80-1016
- maps*: Chemical quality of ground water in the Culpeper Basin, Virginia and Maryland I-1313-D
- Maryland—sedimentary petrology**
- sediments*: Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides OP- 512
- Maryland—stratigraphy**
- Ordovician*: Conodonts revise the Lower-Middle Ordovician boundary and timing of miogeoclinal events in the East-Central Appalachian Basin OP- 486
- Pennsylvanian*: Stratigraphy, structure, and coal-bed correlations in the Castleman Basin, Garrett County, Maryland OP- 574
- mass movements** *see under* geomorphology
- Massachusetts—areal geology**
- maps*: Bedrock geologic map of Massachusetts p. 149
- Massachusetts—economic geology**
- water resources*: Distribution of aquifers, liquid-waste impoundments, and municipal water-supply sources, Massachusetts OF 80-0431
- Management of the Lawrence Swamp Aquifer, Amherst, Massachusetts OP- 949
- Massachusetts—engineering geology**
- foundations*: Bedrock and Quaternary geology of the Boston area, Massachusetts OP- 600
- waste disposal*: Distribution of aquifers, liquid-waste impoundments, and municipal water-supply sources, Massachusetts OF 80-0431
- Sewage plume in a sand and gravel aquifer, Cape Cod, Massachusetts OP- 672
- Massachusetts—geomorphology**
- glacial geology*: Deglacial history of Glacial Lake Nashua, east-central Massachusetts OP- 650
- Pleistocene stratigraphy of Nantucket, Martha's Vineyard, the Elizabeth Islands, and Cape Cod, Massachusetts OP- 906
- Topographic control of the deglaciation of eastern Massachusetts; ice lobation and the marine incursion OP- 1190
- maps*: The Massachusetts state surficial geologic map OP- 1189
- Massachusetts—hydrogeology**
- ground water*: Cape Cod Aquifer, Cape Cod, Massachusetts OF 80-0571
- Digital models of ground-water flow in the Cape Cod aquifer system, Massachusetts OF 80-0067
- Distribution of dissolved substances in ground water resulting from infiltration of treated sewage through sand filter beds OP- 673
- Estimating high ground-water levels from observed water levels in Massachusetts OP- 405
- Potential hydrologic impacts of ground-water withdrawal from the Cape Cod National Seashore, Truro, Massachusetts OF 82-0438
- Probable high ground-water levels on Cape Cod, Massachusetts OF 80-1008
- Sewage plume in a sand and gravel aquifer, Cape Cod, Massachusetts OP- 672
- hydrology*: Drainage divides, Massachusetts; Blackstone and Thames River basins OF 82-0631
- Drainage divides, Massachusetts; Connecticut River lowlands and Chicopee River basin OF 82-0633
- Drainage divides, Massachusetts; Deerfield and Millers River basins OF 82-0632
- Drainage divides, Massachusetts; Housatonic River basin OF 82-0634
- Drainage divides, Massachusetts-Hudson River basin OF 81-1199
- Drainage divides, Massachusetts; Westfield and Farmington River basins OF 82-0635
- Estimating peak discharges of small, rural streams in Massachusetts W 2214
- Hydrologic data of the coastal drainage basins of northeastern Massachusetts, from Castle Neck River, Ipswich, to Mystic River, Boston OF 80-1017
- Hydrologic data of the coastal drainage basins of southeastern Massachusetts, northwest shore of Buzzards Bay OF 80-0583
- Hydrologic data of the Lake Cochituate drainage basin, Framingham-Natick, Massachusetts OF 82-0342
- Hydrologic data of the lower Merrimack River basin, Massachusetts, from Concord River, Lowell, to Plum Island, Newburyport OF 81-1185
- Hydrologic data of the Shawsheen River basin, Massachusetts OF 81-0802
- Massachusetts—oceanography**
- continental shelf*: Erosional channels on the shoreface of Nauset Beach, Cape Cod, Massachusetts OP- 852
- Preliminary interpretation of marine sparker reflection profiles offshore from Cape Ann, Massachusetts, to Hampton, New Hampshire OF 83-0460
- continental slope*: Past and potential mass movement on continental slope off northeastern United States OP- 131
- Massachusetts—sedimentary petrology**
- sedimentary structures*: Spatial variations in sand-wave size and migration rate; implications for shoal dynamics OP- 152
- Massachusetts—stratigraphy**
- Mississippian*: Pseudo plant fossils in the Boston Basin, Massachusetts OP- 720
- Paleozoic*: Formation names in the Worcester area, Massachusetts B 1529-H
- Stratigraphic names in eastern Massachusetts and adjacent states B 1529-H
- Pleistocene*: Permafrost in the northeastern United States coastal plain OP- 907
- Pleistocene stratigraphy of Nantucket, Martha's Vineyard, the Elizabeth Islands, and Cape Cod, Massachusetts OP- 906
- Precambrian*: Pseudo plant fossils in the Boston Basin, Massachusetts OP- 720
- Quaternary*: Bedrock and Quaternary geology of the Boston area, Massachusetts OP- 600
- Tertiary*: Stratigraphic, paleoclimatic, and paleobiogeographic significance of Tertiary sporomorphs from Massachusetts OP- 398
- mathematical geology** *see also* automatic data processing
- mathematical geology—methods**
- automatic data processing*: Fourier cosine and sine transforms using lagged convolutions in double-precision (subprograms DLAGF0/DLAGF1) OF 83-0320
- correspondence analysis*: Correspondence analysis in geochemistry OP- 795

- manuals*: Multics STATPAC user handbook; Part 1, A guide with examples for editing and correcting a STATPAC dataset OF 83-0667
- Multics STATPAC user handbook; Part 2, A guide with examples to basic statistical programs and more advanced generation operation OF 83-0737
- regression analysis*: Improper use of regression equations in earth sciences OP- 1304
- statistical analysis*: A procedure to estimate the parent population of the size of oil and gas fields as revealed by a study of economic truncation OP- 1098
- Introduction to the special issue on geostatistics, geomathematics, and computer applications OP- 760
- medical geology** *see under* concepts *under* environmental geology; geochemistry
- Mediterranean region** *see also* the individual countries
- Mediterranean Sea—petrology**
- volcanism*: Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily OP- 732
- meetings** *see* symposia
- melange** *see under* evolution *under* metamorphic rocks; *see under* interpretation *under* structural analysis
- mercury—analysis**
- atomic absorption*: Atomic-absorption determination of mercury in geological materials by flame and carbon-rod atomisation after solvent extraction and using co-extracted silver as a matrix modifier OP- 1075
- mercury—geochemistry**
- coal*: Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska OP- 5
- stream sediments*: Distribution and abundance of antimony and mercury in minus-80-mesh stream-sediment and antimony in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples, Medfra Quadrangle, Alaska OF 80-0811-L
- Mercury Planet—areal geology**
- maps*: Geologic map of the Shakespeare Quadrangle of Mercury I-1408
- Geologic map of the Victoria Quadrangle of Mercury I-1409
- Mercury Planet—geomorphology**
- impact features*: Crater peaks to basin rings; the transition on Mercury and other bodies OP- 962
- Geomorphology of craters on Mercury; first results from a new sample OP- 963
- Mercury Planet—observations**
- review*: The geology of the terrestrial planets OP- 201
- Mesozoic** *see also under* geochronology *under* California; Georgia; South Carolina; *see also under* stratigraphy *under* Alaska; Antarctica; Atlantic Coastal Plain; Atlantic Ocean; California; Eastern U.S.; New Mexico; South Carolina
- metal ores** *see also* manganese ores; nickel ores; *see also under* economic geology *under* Alaska; Antarctica; Appalachians; Arizona; bibliography; California; Colombia; Colorado Plateau; Eastern U.S.; Idaho; Montana; Nevada; New England; North Carolina; Oregon; Pacific Ocean; Rocky Mountains; Saudi Arabia; South Carolina; symposia; Utah; Washington; Western U.S.; Wisconsin; Wyoming
- metal ores—genesis**
- classification*: Comparative anatomy of epithermal precious- and base-metal districts hosted by volcanic rocks OF 83-0710
- environment*: Organic carbon, sulfur, and iron relationships as an aid to understanding depositional environments and syngenetic metals in Recent and ancient sediments C 0822
- lacustrine environment*: Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes OP- 1041
- ore-forming fluids*: Origin of fluids and metals in porphyry and epithermal mineral deposits OP- 669
- processes*: Metallogenesis OP- 66
- metal ores—geochemistry**
- fluid inclusions*: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450
- metal ores—mineral exploration**
- ore guides*: Mineralogy and occurrence of europium-rich dark monazite P 1181
- remote sensing*: Significant results from using earth observation satellites for mineral and energy resource exploration OP- 208
- metal ores—possibilities**
- nodules*: Analysis of the world distribution of metal-rich subsea manganese nodules C 0886
- metal ores—resources**
- models*: Mineral deposit grade-tonnage models OF 83-0623
- Mineral deposit grade-tonnage models II OF 83-0902
- metals—abundance**
- nodules*: Analysis of the world distribution of metal-rich subsea manganese nodules C 0886
- stream sediments*: A listing and statistical summary of analytical results for pebbles, stream sediments, and heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-A
- metals—analysis**
- chemical analysis*: Determining the form of metals in oxidized sediments; assessing the action of chemical extractants OF 80-0341
- Effect of sample storage on metal extractability from oxidized estuarine sediments OF 80-0341
- Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types OF 80-0341
- metals—geochemistry**
- black shale*: Inorganic geochemistry of deep-sea black shales C 0822
- intrusive rocks*: The Dufek Intrusion of Antarctica and a survey of its minor metals and possible resources C 0909
- living taxa*: Controls on the availability of Ag, Cd, Co, Fe and Mn to estuarine bivalves (*Scrobicularia plana*) and polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341
- Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge OF 80-0341
- minerals*: Minerals of tin, titanium, niobium and tantalum in granitic pegmatites OP- 381
- sediments*: Concentrations of metals in sediments and shellfish in San Francisco Bay OF 80-0341
- Determining the availability of sediment-bound trace metals to aquatic deposit-feeding animals OF 80-0341
- Determining the form of metals in oxidized estuarine sediments; statistical assessments OF 80-0341
- surface water*: Trace metals in surface water and stream sediments of Healy and Lignite Creek basins, Alaska WRI 83-4173
- metamorphic rocks** *see also* igneous rocks; metamorphism; metasomatism
- metamorphic rocks—amphibolites**
- orthoamphibolite*: Incompatible-element-rich andesitic amphibolites from the Archean of Montana and Wyoming; evidence for mantle metasomatism OP- 842
- metamorphic rocks—distribution**
- basement*: Pre-Cretaceous rocks beneath the Georgia Coastal Plain; regional implications P 1313
- bedrock*: Bedrock geologic map of the Putnam Quadrangle, Windham County, Connecticut GQ-1562
- complexes*: Late Proterozoic island-arc complexes and tectonic belts in the southern part of the Arabian Shield, Kingdom of Saudi Arabia OF 83-0296
- The Northern Complex OP- 193
- petrology*: Wakefield, Michigan, area OP- 997
- metamorphic rocks—evolution**
- melange*: Melange terrane in the central Virginia Piedmont OP- 159
- metamorphic rocks—facies**
- amphibolite facies*: Time-space relations of tourmaline-rich rocks at the Elizabeth Mine and vicinity, Vermont copper belt OP- 1145
- blueschist facies*: Geology of a subduction complex in the Franciscan assemblage of northern California OP- 105
- metamorphic rocks—genesis**
- protoliths*: Wallrocks of the central Sierra Nevada Batholith, California; a collage of accreted tectono-stratigraphic terranes P 1255
- metamorphic rocks—geochemistry**
- trace elements*: Redefinition of the Precambrian Tusas Mountain and Tres Piedras granites, north-central New Mexico OP- 1314
- Strangways Crater, Northern Territory, Australia; siderophile element enrichment and lithophile element fractionation OP- 833
- metamorphic rocks—gneisses**
- absolute age*: Age relationships in Proterozoic Z rocks of the Blue Ridge Anticlinorium of northern Virginia OP- 715
- orthogneiss*: Correlation of Eastford Gneiss with Canterbury Gneiss, eastern Connecticut B 1529-H
- petrology*: The core of the Blue Ridge Anticlinorium in northern Virginia OP- 231
- sillimanite gneiss*: A sillimanite gneiss dome in the Yukon crystalline terrane, east-central Alaska; petrography and garnet-biotite geothermometry P 1170-E
- textures*: Regional character of mylonitic gneiss in the Cadiz Valley area, southeastern California OP- 552
- metamorphic rocks—lithostratigraphy**
- Paleozoic*: Adoption of the name Hutchinson River Group and its subdivisions in Bronx and Westchester counties, southeastern New York B 1529-H
- Correlation of metamorphosed Paleozoic strata of the southeastern Mojave Desert region, California and Arizona OP- 1194
- Proterozoic*: Las Animas Formation (upper Precambrian) in the subsurface of southeastern Colorado B 1529-G
- metamorphic rocks—marbles**
- geochemistry*: Chemical and X-ray analyses of 175 calcite and marble samples from the collection of the National Museum of Natural History, Smithsonian Institution OF 83-0863
- metamorphic rocks—metaigneous rocks**
- geochemistry*: Chemistry of volcanic and plutonic rocks of the Precambrian shield, Kingdom of Saudi Arabia OP- 1087

metamorphic rocks—metasedimentary rocks

distribution: Bedrock geologic map of the East Killingly Quadrangle, Connecticut and Rhode Island GQ-1571

— Geophysical and geologic studies in southern Mecklenburg County and vicinity, North Carolina and South Carolina OF 83-0093

granofels: Thermal metamorphism of Triassic and Jurassic sedimentary rocks in the Culpeper Basin, Virginia OP- 676

lithostratigraphy: Silurian-Lower Devonian stratigraphy of eastern and south-central New Hampshire; extensions from western Maine OP- 499

metagraywacke: Sedimentology and structure of Franciscan Assemblage, Yolla Bolly terrane, Northern California OP- 104

metasuevite: Diamictite of the Chain Lakes Massif of Maine; a possible metasuevite? OP- 135

petrology: Geology of the Piedmont between the Brevard and Towaliga fault zones in the Atlanta and Griffin, Ga., 1°×30', 1:100,000-scale quadrangles OP- 529

— Magnesian tourmaline-rich metasediments in the Grenville Lowlands of New York; potential for occurrence of massive sulfide deposits OP- 156

metamorphic rocks—metavolcanic rocks

geochemistry: Merced Peak Quadrangle, central Sierra Nevada, California; analytic data P 1170-D

metamorphic rocks—mineral assemblages

amphibole group: Chapter 2, Experimental studies of amphibole stability; Phase relations and compositions of amphiboles produced in studies of the melting behavior of rocks OP- 521

composition: BASIC programs for calculation of cation site occupancies and plotting of mineral data with applications for evaluation of metamorphic mineral assemblages OF 83-0905

flysch: Paleogene metamorphism of an accretionary flysch terrane, eastern Gulf of Alaska OP- 559

hornblende: Hornblende-rich, high grade metamorphic terranes in the southernmost Sierra Nevada, California, and implications for crustal depths and batholith roots OF 83-0465

ophiolite: Submarine hydrothermal metamorphism of the Del Puerto ophiolite, California OP- 355

metamorphic rocks—mylonites

pseudotachylite: Pseudotachylite from the Vredefort Ring, South Africa, and the origins of some lunar breccias OP- 1104

metamorphic rocks—petrology

complexes: Stillwater Complex, Montana; rock succession, metamorphism and structure of the complex and adjacent rocks P 0999

metamorphic rocks—properties

physical properties: Density, porosity, and magnetic properties of rock specimens from southwestern Arizona OF 83-080

— Rock property measurements and analysis of selected igneous, sedimentary, and metamorphic rocks from worldwide localities OF 83-0736

metamorphic rocks—textures

petrography: Petrographic (thin section) notes on selected samples from hornblende-rich metamorphic terranes in the southernmost Sierra Nevada, California OF 83-0587

metamorphism *see also* metamorphic rocks; metasomatism

metamorphism—age

chronostratigraphy: Timing of metamorphism in the Appalachian Orogen based on ⁴⁰Ar/³⁹Ar dates of hornblende and biotite OP- 1200

fluid phase: Problems in the use of fluid inclusions to investigate fluid-rock interactions in igneous and metamorphic processes OP- 1050

metamorphism—burial metamorphism

evolution: Influence of time on metamorphism of sedimentary organic matter in liquid-dominated geothermal systems, western North America OP- 57

— Structure, burial history, and petroleum potential of frontal thrust belt and adjacent foreland, Southwest Montana OP- 943

metamorphism—contact metamorphism

indicators: Mineralogy and occurrence of europium-rich dark monazite P 1181

metamorphism—dynamic metamorphism

mylonitization: Mylonitization coincident with batholith emplacement; Bitterroot Lobe, Idaho Batholith OP- 412

metamorphism—environment

submarine environment: Submarine hydrothermal metamorphism of the Del Puerto ophiolite, California OP- 355

metamorphism—grade

high-grade metamorphism: Geochronology of the Farmington Canyon Complex, Wasatch Mountains, Utah OP- 516

metamorphism—P-T conditions

experimental studies: Geothermometry of (Ca,Fe,Mn)SiO₃ minerals; the experimental approach OP- 158

metamorphism—polymetamorphism

deformation: The Reading Prong of New Jersey and eastern Pennsylvania; an appraisal of rock relations and chemistry of a major Proterozoic terrane in the Appalachians OP- 317

intrusions: Stillwater Complex, Montana; rock succession, metamorphism and structure of the complex and adjacent rocks P 0999

metamorphism—regional metamorphism

mylonitization: Regional character of mylonitic gneiss in the Cadiz Valley area, southeastern California OP- 552

P-T conditions: Paleogene metamorphism of an accretionary flysch terrane, eastern Gulf of Alaska OP- 559

metamorphism—temperature

geologic thermometry: A sillimanite gneiss dome in the Yukon crystalline terrane, east-central Alaska; petrography and garnet-biotite geothermometry P 1170-E

indicators: Thermal maturation values (conodont color alteration indices) for Paleozoic and Triassic rocks, Chandler Lake, De Long Mountains, Howard Pass, Killik River, Misheguk Mountain, and Point Hope quadrangles, Northwest Alaska, and subsurface NPRA OF 83-0505

metamorphism—thermal metamorphism

granulites: Thermal metamorphism of Triassic and Jurassic sedimentary rocks in the Culpeper Basin, Virginia OP- 676

metasomatic rocks *see also* igneous rocks; metamorphic rocks; metamorphism; metasomatism

metasomatism *see also* metamorphism

metasomatism—processes

hydrothermal alteration: High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt OF 83-0793

— High-alumina hydrothermal systems in volcanic rocks of the Carolina slate belt OP- 1088

— Selective concentration of cesium in analcime during hydrothermal alteration, Yellowstone National Park, Wyoming OP- 602

wallrock alteration: Petrology of igneous rocks and wall rock alteration, Mayflower Mine, Wasatch County, Utah; Part I, Primary rock and mineral compositions OF 82-1086

meteor craters *see also* meteorites; *see also* under geomorphology under Canadian Shield; Northern Territory; Ontario

meteor craters—genesis

comets: Collision of astronomically observable bodies with the Earth OP- 1289

meteorites *see also* tektites

meteorites—age

Abee Meteorite: Ar-40/Ar-39 and U-Th-Pb dating of separated clasts from the Abee E4 chondrite OP- 122

absolute age: Comment; problems regarding meteorite and lunar chronology OP- 1217

meteorites—detection

remote sensing: The use of satellite technology in the search for meteorites in Antarctica C 0911

meteorites—textures

carbonaceous chondrites: Significance of Ca-Al-rich silicate melt inclusions in olivine crystals from the Murchison type II carbonaceous chondrite OP- 1049

meteorology—water

atmospheric precipitation: Rainfall associated with the January 1982 rainstorm in the San Francisco Bay region, California OF 83-0016

methods *see under* general under education; *see under* geophysical methods under automatic data processing; *see under* absolute age; automatic data processing; chemical analysis; geodesy; geology; geomorphology; geophysical methods; hydrogeology; hydrology; mathematical geology; mineral exploration; mining geology; petrology; remote sensing; soil mechanics; spectroscopy; stratigraphy; well-logging; *see under* mineral exploration under barite; nickel ores; *see under* seismology under automatic data processing

Mexico *see also* Gulf Coastal Plain; Gulf of California

Mexico—economic geology

barite deposits: Bedded barite deposits of middle and late Paleozoic age in central Sonora, Mexico OP- 985

natural gas: Petroleum geology and resources of northeastern Mexico OF 83-0712

oil and gas fields: Petroleum geology and resources of northeastern Mexico OF 83-0712

polymetallic ores: Strata-bound, silver-bearing iron, lead, and zinc sulfide deposits in Silurian and Ordovician rocks of allochthonous terranes, Nevada and northern Mexico OF 83-0792

Mexico—environmental geology

geologic hazards: Volcanic cloud may alter Earth's climate OP- 1229

Mexico—geochemistry

trace elements: Large partition coefficients for trace elements in high-silica rhyolites OP- 731

Mexico—hydrogeology

thermal waters: Preliminary plasma spectrometric analyses for selected elements in some geothermal waters from Cerro Prieto, Mexico WRI 83-4056

Mexico—mineralogy

vanadates: Margaritasite; a new mineral of hydrothermal origin from the Pena Blanca uranium district, Mexico OP- 1284

Mexico—paleontology

- Mollusca*: Historical evolution and application of the Pleistocene province concept along the eastern Pacific margin of North America
OP- 610

Mexico—seismology

- observatories*: Strong-motion data recorded in Mexico during the main shock P 1254

Mexico—structural geology

- neotectonics*: Tectonic preservation of the divide between the Salton Basin and the Gulf of California OP- 427

Mexico—volcanology

- El Chichon*: Volcanic cloud may alter Earth's climate OP- 1229

Michigan—economic geology

- copper ores*: Mineral resource assessment of the Iron River 1° by 2° Quadrangle, Michigan and Wisconsin C 0887
gold ores: The Northern Complex OP- 193
iron ores: Michigan's iron ranges OP- 194
— Mineral resource assessment of the Iron River 1° by 2° Quadrangle, Michigan and Wisconsin C 0887
maps: Iron River Quadrangle, Michigan and Wisconsin OP- 406
mineral resources: Mineral resources of the Rock River Canyon Wilderness Study Area, Alger County, Michigan B 1549
uranium ores: Iron River Quadrangle, Michigan and Wisconsin OP- 406

Michigan—environmental geology

- land use*: Land use and land cover and associated maps for Cheboygan, Michigan OF 83-0552
— Land use and land cover and associated maps for Iron Mountain, Wisconsin, Michigan OF 82-0243
maps: Land use and land cover and associated maps for Cheboygan, Michigan OF 83-0552
— Land use and land cover and associated maps for Iron Mountain, Wisconsin, Michigan OF 82-0243
pollution: Ground-water contamination at Wurtsmith Air Force Base, Michigan WRI 83-4002

Michigan—geophysical surveys

- maps*: Airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan OF 82-0060-A
— Airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin OF 83-0195-A
surveys: Airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan OF 82-0060-A
— Airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin OF 83-0195-A
— Analog records from an airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan OF 82-0060-B
— Mineral resources of the Rock River Canyon Wilderness Study Area, Alger County, Michigan B 1549
— Stacked profiles of data from an airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin OF 83-0195-B

Michigan—hydrogeology

- ground water*: Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136
— Ground water and geology of Marquette County, Michigan OF 82-0501
— Ground-water data for Michigan, 1981 OF 82-0754

- Ground water for public water supply at Windigo, Isle Royale National Park, Michigan OF 82-0567
hydrology: Time of travel of the Flint River, Utah Dam to Highway M-13, Michigan, August 4-8, 1981 OF 82-0853
— Water quality of coal deposits and abandoned mines, Saginaw County, Michigan OF 82-0511

Michigan—mineralogy

- sheet silicates*: Pink prehnite from Michigan, a mineral much confused OP- 555

Michigan—petrology

- inclusions*: Lake Ellen kimberlite, Michigan, U.S.A. OF 83-0156
metamorphic rocks: Wakefield, Michigan, area OP- 997

Michigan—stratigraphy

- Proterozoic*: Evolution of early Proterozoic basins of the Great Lakes region OP- 1139

Michigan—tectonophysics

- crust*: Geologic interpretation of gravity and magnetic data in northern Michigan and Wisconsin OP- 630

micropaleontology *see also* palynology**micropaleontology—techniques**

- photography*: Application of Eastman Kodak's Technical Pan 2415 Film to palynological photomicrography OP- 1118

Middle East *see also* Cyprus; Israel; Syria; Turkey**Middle East—economic geology**

- fuel resources*: Assessment of undiscovered conventionally recoverable petroleum resources of the Arabian-Iranian Basin C 0881

Midwest *see also* Illinois; Indiana; Iowa; Kansas; Michigan; Minnesota; Missouri; Nebraska; North Dakota; Ohio; South Dakota; Wisconsin**Midwest—economic geology**

- geothermal energy*: Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0440
— Low-temperature geothermal resources in the Central and Eastern United States C 0892
industrial minerals: Introduction; symposium on industrial minerals of the upper Midwest OP- 888

- lead-zinc deposits*: Zinc, lead, and barite deposits and occurrences in Paleozoic rocks, east-central United States OF 83-0187

- maps*: Zinc, lead, and barite deposits and occurrences in Paleozoic rocks, east-central United States OF 83-0187

Midwest—engineering geology

- geologic hazards*: Earthquake hazard zoning in the central and eastern United States; improvements based on new geologic foundations OP- 1292

Midwest—geomorphology

- fluvial features*: Character and history of the upper Ohio River valley B 1141-I

Midwest—geophysical surveys

- magnetic surveys*: Digital magnetic-anomaly map of central United States; description of major features GP-0955
— Magnetic terrane in the central U.S. from interpretation of digital magnetic data OP- 530

- maps*: Digital magnetic-anomaly map of central United States; description of major features GP-0955

- surveys*: Geology of buried Precambrian rocks in the northern Midcontinent inferred from geophysical data OP- 195

Midwest—hydrogeology

- ground water*: The chemical evolution of water quality in the Cambrian-Ordovician aquifer, north-central United States OP- 1135

- thermal waters*: Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0440

Midwest—structural geology

- tectonics*: Geology of buried Precambrian rocks in the northern Midcontinent inferred from geophysical data OP- 195
— Lexington Lineament; marginal graben fault not a metamorphic front OP- 103
— Magnetic terrane in the central U.S. from interpretation of digital magnetic data OP- 530

mineral deposits, genesis—barite deposits

- hydrothermal processes*: Bedded barite deposits of middle and late Paleozoic age in central Sonora, Mexico OP- 985

mineral deposits, genesis—base metals

- interpretation*: Geochemical evidence for a Brooks Range mineral belt, Alaska OP- 744

mineral deposits, genesis—cobalt ores

- exhalative processes*: Cobalt in Precambrian rocks of central Idaho OF 83-0836

mineral deposits, genesis—concepts

- ore-forming fluids*: Origin of fluids and metals in porphyry and epithermal mineral deposits OP- 669

mineral deposits, genesis—controls

- geochemical controls*: The many roles of organic matter in the genesis of mineral deposits OP- 65
— The oxygen minimum zone of continental margins C 0822
hydrogeological controls: Effect of sea-level fluctuations on porosity and mineralogic changes in coastal aquifers C 0822
— Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884
paleogeographic controls: The U.S. Atlantic continental margin; eustasy, paleoceanography and mineral deposits C 0822
structural controls: Intrusive rocks and plutonic belts of southeastern Alaska, U.S.A. OP- 147

mineral deposits, genesis—copper ores

- mineralization*: Geochronology, geochemistry and tectonic environment of porphyry mineralization in the central Alaska Peninsula OF 83-0783

mineral deposits, genesis—environment

- interpretation*: Volcano-tectonic setting of Tertiary ore deposits, Southern Rocky Mountains OP- 695
lacustrine environment: Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes OP- 1041
models: U. S. Geological Survey-Ingeominas mineral resource assessment of Colombia; ore deposit models OF 83-0423
paleoclimatology: Building a biostratigraphic framework around an anoxic-kenoxic event C 0822
— Paleoclimate and mineral deposits C 0822
— Some climatic and oceanographic controls on the time and place of mineralization C 0822
submarine environment: Geochemistry and economic potential of massive sulfide deposits from the eastern Pacific Ocean OF 83-0324

mineral deposits, genesis—fluorspar

- geochemical controls*: Pelletal and oolitic fluorite in a lacustrine zeolitic tuff near Buckhorn, Grant County, New Mexico OP- 1124

mineral deposits, genesis—gold ores

- geochemical controls*: Possible origins of placer gold in Kovukuk and Chandalar districts, Brooks Range, Alaska C 0911

- hydrothermal processes:** Arsenic and gold mineralization in the McFarland Canyon-Story Mine area, Maricopa County, Arizona OF 83-0442
- Preliminary mineralogic, fluid inclusion, and stable isotope study of the Mahd adh Dhahab gold mine, Kingdom of Saudi Arabia OF 83-0291
- mineralization:** Bald Mountain gold mining region, northern Black Hills, South Dakota OF 83-0791
- Implications of the compositions of lode and placer gold OF 82-1052
 - K/Ar chronology of mineralization and igneous activity OF 82-1052
 - Preliminary report on the geology and gold mineralization of the Gold Basin-Lost Basin mining districts, Mohave County, Arizona OF 82-1052
- mineral deposits, genesis—iron ores**
- interpretation:** Distribution of the lanthanides and yttrium in apatites from iron ores and its bearing on the genesis of ores of the kiruna type OP- 378
- mineral deposits, genesis—manganese ores**
- controls:** Influences of ocean anoxic events on manganese deposition and ophiolite-hosted sulfide preservation C 0822
- lacustrine environment:** Manganese cycles and the origin of manganese nodules, Oneida Lake, New York, U.S.A. OP- 286
- volcanic processes:** Volcanic manganese deposits in the Western Cordillera; lithologic associations and paleoceanographic settings and economic deposits associated with biogenic siliceous rocks C 0822
- Volcanogenic manganese deposits in Western Cordillera OP- 647
- mineral deposits, genesis—metal ores**
- controls:** Controls and characteristics of mineralization in middle and upper Paleozoic rocks in central Idaho OF 83-0836
- Pre-Tertiary sedimentary terranes of the Bayhorse area; Challis 1° × 2° Quadrangle OF 83-0836
- epithermal processes:** A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450
- Comparative anatomy of epithermal precious- and base-metal districts hosted by volcanic rocks OF 83-0710
- geochemical controls:** Isotopic research, climate, and the genesis of mineral deposits C 0822
- Light-stable isotope characteristics of ore systems in central Idaho OF 83-0836
- hydrothermal processes:** High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt OF 83-0793
- igneous processes:** Controls and characteristics of metallic mineral deposits in the southern Absaroka Mountains, Wyoming OP- 372
- Mineral deposits in the southern parts of the Atlanta Lobe of the Idaho Batholith and their relationship to Tertiary intrusive rocks and faulting OF 83-0836
 - Phanerozoic magmatism and mineralization in the Toole 1° × 2° Quadrangle, Utah OP- 830
- processes:** Metallogenesis OP- 66
- structural controls:** Structural and stratigraphic controls of ore deposits in the Bayhorse region, Custer County, Idaho OF 83-0836
- syngensis:** Organic carbon, sulfur, and iron relationships as an aid to understanding depositional environments and syngenetic metals in Recent and ancient sediments C 0822
- Stratabound sulfide deposits of the New England region; an overview OP- 1144
- volcanic processes:** Ordovician-Silurian volcanogenic massive sulfide deposits on the southern Prince of Wales Island and the barrier islands, southeastern Alaska OF 83-0318
- Precious metal contents of Proterozoic massive sulfide deposits in Arizona OP- 298
 - Relation of Proterozoic massive sulfide deposits to contemporaneous volcanic activity, Bagdad, Arizona OP- 245
 - The Twin Peaks Caldera and associated ore deposits OF 83-0836
 - Volcanogenic mineralization at Copper Camp Creek and the potential for massive sulfide deposits in the Proterozoic Alder Formation, Arizona OP- 248
- mineral deposits, genesis—molybdenum ores**
- igneous processes:** Cretaceous rocks of the Atlanta Lobe of the Idaho Batholith OF 83-0836
- mineral deposits, genesis—patterns**
- metallogeny:** Correlation of metal occurrence and terrane attributes in the northwestern conterminous United States OP- 1233
- Distribution of mineral deposits in accreted terranes and cratonic rocks of Western United States OP- 9
- spatial distribution:** Spatial and temporal distribution of selected mineral resources in the Challis Quadrangle, Idaho OF 83-0836
- mineral deposits, genesis—phosphate deposits**
- phosphogenic provinces:** Phosphogenic provinces of Circum-Pacific region OP- 1122
- structural controls:** Structural and sedimentary setting of phosphorite deposits in North Carolina and in northern Florida OP- 801
- mineral deposits, genesis—polymetallic ores**
- hydrothermal processes:** Source of mineralizing components in hydrothermal ore fluids as evidenced by ⁸⁷Sr/⁸⁶Sr and stable isotope data from the Pasto Bueno deposit, Peru OP- 882
- igneous processes:** Mineralization and rhyolite intrusions in the Challis volcanic field OF 83-0836
- structural controls:** Epithermal gold-silver mineralization related to volcanic subsidence in the Custer Graben, Custer County, Idaho OF 83-0836
- Ore deposits related to the Thunder Mountain caldera complex OF 83-0836
- mineral deposits, genesis—potash**
- controls:** Progress report on the potash deposits of the Khorat Plateau, Thailand OF 82-1096
- mineral deposits, genesis—processes**
- igneous processes:** Mineral deposits associated with alkaline intrusive complexes; examples from Wyoming, Colorado, Montana, and California OP- 34
- weathering:** Continental aluminous weathering sequences and their climatic implications in the United States C 0822
- mineral deposits, genesis—salt**
- sedimentary processes:** Notes on the clay mineralogy of the Retsof salt bed, International Salt Company Mine, Retsof, New York OF 83-0718
- mineral deposits, genesis—silver ores**
- volcanic processes:** Nevado Portuqueza volcanic center, central Peru; a Pliocene central volcano-collapse caldera complex with associated silver mineralization OP- 873
- mineral deposits, genesis—sodium carbonate**
- sedimentary processes:** Genesis and distribution of trona deposits in Southwest Wyoming OP- 274
- mineral deposits, genesis—tungsten ores**
- structural controls:** Depositional controls of tungsten in central Idaho OF 83-0836
- mineral deposits, genesis—uranium ores**
- age:** U-Pb ages of uranium ores in the Churchock uranium district, New Mexico OP- 713
- geochemical controls:** Experimental study of metastable sulfur oxyanion formation during pyrite oxidation at pH 6-9 and 30°C OP- 433
- Fault-leaked H₂S and the origin of South Texas uranium deposits; implications of sulfur isotopic studies OP- 173
 - Iron disulfide minerals and the genesis of roll-type uranium deposits OP- 1025
 - Petrography of some Ambrosia Lake, New Mexico, prefault uranium ores, and implications for their genesis OF 83-0008
 - Role of fluid mixing and fault-related sulfide in the origin of the Ray Point uranium district, South Texas OP- 435
- mineralization:** Age of uranium mineralization at the Highland Mine, Powder River basin, Wyoming, as indicated by U-Pb isotope analyses OP- 1074
- processes:** Alteration and vein mineralization, Schwartzwalder uranium deposit, Front Range, Colorado OF 83-0417
- sedimentary processes:** Magnetic-susceptibility logging in sedimentary uranium environments OP- 1111
- Sedimentology of the lower part of the Upper Triassic Chinle Formation and its relationship to uranium deposits, White Canyon area, southeastern Utah OF 83-0459
- structural controls:** Geologic and structural maps and sections of the Marshall Pass mining district, Saguache, Gunnison, and Chaffee counties, Colorado I-1425
- Structural and mineralogical characteristics and distribution of carbonate-dominated fault breccias associated with uranium deposits, Front Range, Colorado OP- 1265
- mineral exploration—geobotanical methods**
- metal ores:** Biogeochemical prospecting data from the Cathart Mountain porphyry copper-molybdenum prospect, west-central Maine OP- 192
- polymetallic ores:** Biogeochemical sampling in the Mahd adh Dhahab district, Kingdom of Saudi Arabia OF 83-0330
- trace elements:** A case for plants in exploration; gold in Douglas-fir at the Red Mountain stockwork, Yellow Pine District, Idaho OF 83-0836
- uranium ores:** Laser fluorometric analysis of plants for uranium exploration OP- 484
- mineral exploration—geochemical methods**
- anomalies:** Geochemical anomaly map of the Sugarloaf Roadless Area, Mineral and Esmeralda counties, Nevada MF-1400-B
- Geochemical evaluation of felsic plutonic rocks in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0369
 - Geochemical map showing anomalous concentrations of selected elements in stream sediments from the Golden Trout Wilderness, California MF-1231-C
 - Geochemical map showing anomalous concentrations of selected elements in the non-magnetic heavy-mineral concentrates from the Golden Trout Wilderness, California MF-1231-B
 - Geochemical maps showing distributions of anomalous element concentrations and of anomalous drainage basins, Mokelumne Wild-

- erness and contiguous roadless areas, central Sierra Nevada, California MF-1201-C
- Map and interpretation of geochemical anomalies in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Areas, White Mountains, California and Nevada MF-1361-B
 - Mineral potential of selected felsic plutons in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0370
 - Reconnaissance geochemical survey of Al Jurdhawiyah and Wadi al Jarir quadrangles, sheets 25/42 D and 25/42 C, Kingdom of Saudi Arabia OF 83-0299
 - The mineral resource potential of the Thaniyah and Al Ufayriyah quadrangles, sheets 20/42 C and 20/42 A, Kingdom of Saudi Arabia OF 83-0388
 - U. S. Geological Survey-Ingeominas mineral resource assessment of Colombia; ore deposit models OF 83-0423
- copper ores:** $^{18}\text{O}/^{16}\text{O}$ and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada OP- 1159
- data:** Analyses and descriptions of geochemical samples, Snowbird Roadless Area, Graham County, North Carolina OF 83-0173
- Analyses of geochemical samples and descriptions of rock samples, Adams Gap and Shinnel Creek Roadless Areas, Clay County, Alabama OF 83-0335
 - Analytical data, geographic coordinates, and sample locality map of geochemical samples from the Mount Henry Roadless Area, Lincoln County, Montana OF 83-0088
 - Analytical results and sample locality map for 340 rock, 322 stream-sediment and soil, and 263 panned-concentrate samples from the Sapphire Wilderness Study Area, Granite and Ravalli counties, Montana OF 83-0196
 - Analytical results for 249 water samples from the Mount Belknap caldera and Deer Trail Mountain-Alunite Ridge areas and vicinity, southwestern Utah OF 83-0738
 - Chemical analyses and statistical summaries for samples of rock, minus 60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Raymond Peak Roadless Area, Toiyabe National Forest, Alpine County, California OF 82-1050
 - Geochemical analyses of rock and stream-sediment samples from Birdseye, Nephi, and Santaquin Roadless areas, Juab and Utah counties, Utah OF 83-0175
 - Geochemical analyses of rock, stream-sediment, and heavy-mineral concentrate samples collected from the Spanish Peaks Wilderness Study Area, Huerfano and Las Animas counties, Colorado OF 83-0391
 - Geochemical characteristics of the metalliferous Salmon River sequence, central Idaho OF 83-0670
 - Geochemical data for samples of rock, stream sediment, and nonmagnetic dense-mineral concentrate in the Andrews Mountain, Mazourka, and Paiute Roadless Areas, Inyo County, California OF 83-0403
 - Geochemical data for the Crossman Peak Wilderness Study Area, Mohave County, Arizona OF 83-0581
 - Geochemical data for the Guadalupe Escarpment Wilderness Study Area, Eddy County, New Mexico OF 83-0007
 - Geochemical data for the West Clear Creek Roadless Area, Yavapai and Coconino counties, Arizona OF 83-0165
 - Methodology, statistical summary, and listing of analyses of geochemical samples, Lower San Francisco River Wilderness Study Area and contiguous roadless area (RARE II), Catron and Grant counties, New Mexico, and Greenlee County, Arizona OF 83-0494
 - gold ores:** Arsenic and gold mineralization in the McFarland Canyon-Story Mine area, Maricopa County, Arizona OF 83-0442
 - Gold in exploration geochemistry OP- 30
 - gossan:** Strata-bound, silver-bearing iron, lead, and zinc sulfide deposits in Silurian and Ordovician rocks of allochthonous terranes, Nevada and northern Mexico OF 83-0792
 - haloes:** A reconnaissance geochemical survey of the Allegheny Front and Hickory Creek Roadless Areas, Allegheny National Forest, Warren County, Pennsylvania OF 83-0005
 - heavy minerals:** Geochemical analyses of panned heavy-mineral concentrates, stream sediments and rock samples from the East Yuba and West Yuba Roadless Areas, Plumas and Sierra counties, California OF 82-0825
 - Maps showing the distribution and relationships of selected metals in heavy-mineral concentrates of the Hells Hole Further Planning Area (RARE II), Greenlee County, Arizona, and Grant County, New Mexico MF-1344-D
 - isotopes:** Lead isotope characteristics of ore systems in central Idaho OF 83-0836
 - laterites:** Exploration methods for laterite-type bauxite and nickel laterite OP- 939
 - metal ores:** Geochemistry and economic potential of massive sulfide deposits from the eastern Pacific Ocean OF 83-0324
 - Ordovician-Silurian volcanogenic massive sulfide deposits on the southern Prince of Wales Island and the barrier islands, southeastern Alaska OF 83-0318
 - mineral resources:** The MIRA (mineral resource analysis) system users manual; a microcomputer-based geochemical data analysis system OF 83-0424
 - molybdenum ores:** GRANNY, a data bank of chemical analyses of Laramide and younger high-silica rhyolites and granites from Colorado and north-central New Mexico OF 83-0516
 - ore guides:** High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt OF 83-0793
 - rocks:** Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Cypress Roadless Area, Kern County, California OF 83-0643
 - Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Mount Raymond Roadless Area, Madera County, California OF 83-0646
 - Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Sweetwater Roadless Area, Mono County, California, and Lyon and Douglas counties, Nevada OF 83-0647
 - Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Horse Meadow, Log Cabin-Saddlebag, and Tioga Lake Roadless Areas, and Hall Natural Area, Mono County, California OF 83-0649
 - Chemical analyses of samples of rock and stream-sediment, and nonmagnetic heavy-mineral concentrate, Coyote-SE and Table Mountain Roadless Areas, Inyo County, California OF 82-0996
 - Chemical analysis of rock, minus-80-mesh stream-sediment, and magnetic and nonmagnetic fractions of heavy-mineral concentrate samples of the Turtle Mountain Wilderness Study Area, (CDCA-307), San Bernardino County, California OF 83-0415
 - Geochemical analyses of rock and stream-sediment samples from Mount Eddy and Castle Crags Roadless Areas, Shasta, Siskiyou, and Trinity counties, California OF 83-0013
 - Geochemical analyses of rock and stream-sediment samples from the Long Swamp Roadless Area, Okanogan County, Washington OF 83-0227
 - Geochemical analyses of rock, stream-sediment, and nonmagnetic heavy-mineral concentrate samples, Laurel-McGee and Wheeler Ridge Roadless Areas, Inyo and Mono counties, California OF 83-0003
 - Geochemical and mineralogical data for altered rocks and soils collected in and near the Williams Fork and St. Louis Peak Roadless Areas, Clear Creek, Grand, and Summit counties, Colorado OF 83-0651
 - Geochemical map and rock and stream-sediment data from the Wild Rogue Wilderness, Coos and Curry counties, Oregon MF-1381-B
- sampling:** Geochemical sample locality map for the White Cloud-Boulder Roadless Area, Custer County, Idaho OF 83-0236
- Mineral resource potential of the Glacier View Roadless Area, Pierce County, Washington OF 83-0501
- statistical analysis:** Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Carson Iceberg and Leavitt Lake Roadless Areas, Alpine, Mono, and Tuolumne counties, California OF 82-0954
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Freeland and Dardanelles Roadless Areas, Alpine and El Dorado counties, California OF 83-0077
 - Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Pyramid Roadless Area, El Dorado County, California OF 83-0644
 - Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Lincoln Creek Roadless Area, Douglas County, Nevada OF 83-0666
 - Chemical data for samples of rocks, stream-sediment, and nonmagnetic dense-mineral concentrate in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Area, White Mountains, California and Nevada OF 82-0984
 - Estimation of the geochemical threshold and its statistical significance OP- 794
 - The MIRA (mineral resource analysis) system users manual; a microcomputer-based geochemical data analysis system OF 83-0424
- stream sediments:** A listing and statistical summary of analytical results for pebbles, stream sediments, and heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-A

- A preliminary evaluation of stream sediment sampling for the detection of cobalt mineralization in the Bou Azzer District, Morocco OF 83-0383
- Analyses of the less than 0.180-mm fraction of drainage sediments, Richfield 1° by 2° Quadrangle, Utah OF 83-0074
- Analytical and statistical results for samples collected from the Sandia Mountain Wilderness, Bernalillo and Sandoval counties, New Mexico OF 83-0407
- Analytical and statistical results for stream sediment, panned concentrate, water, and rock samples collected from the Whetstone Roadless Area, Pima and Cochise counties, Arizona OF 83-0242
- Analytical determinations from samples taken in the Ten Mile West Roadless Area, Boise and Elmore counties, Idaho OF 82-1099
- Analytical results for stream-sediment concentrate, sieved stream-sediment, rock, and water samples from the Silver City 1° × 2° Quadrangle, New Mexico and Arizona PB-83 220 863
- Analytical results for stream sediments, panned concentrates from stream sediments, and rock samples from the Homestead, Lake Fork, and Lick Creek Roadless Areas, Baker and Wallowa counties, Oregon OF 83-0522
- Analytical results for stream sediments, panned concentrates from stream sediments, and rocks collected from the Wonder Mountain Roadless Area (6086), Washington OF 82-1066
- Analytical results for 178 stream-sediment, 98 heavy-mineral-concentrate, 27 rock, and 11 water samples from the Rattlesnake and Wet Beaver Roadless Areas, Coconino and Yavapai counties, Arizona OF 83-0339
- Analytical results of a geochemical survey utilizing heavy-mineral fractions and the less-than-180 micrometer fraction of stream sediments, Tushar Mountains and adjoining areas, Marysvale volcanic field, Utah OF 83-0444
- Chemical and statistical analysis of stream sediments, heavy-mineral concentrates, and rocks of the Hells Gate Roadless Area, Gila County, Arizona OF 83-0498
- Chemical and statistical analysis of stream sediments, panned heavy-mineral concentrates, and rocks of the Coxcomb Mountains Wilderness Study Area (CDCA-328), Riverside and San Bernardino counties, California OF 83-0012
- Comparison of hot hydroxylamine hydrochloride and oxalic acid leaching of stream sediment and coated rock samples as anomaly enhancement techniques OP- 369
- Contour maps of analytical results for stream sediments and panned concentrates from stream sediments, and plots of the mineralogy of the nonmagnetics, heavy-mineral concentrates from stream sediments from the Glacier Peak Wilderness Study Area, Washington OF 83-0366
- Contour maps, statistical summaries, and analytical data for stream-sediment samples collected from the Glacier Peak Study Area and analyzed using an aquaregia leach/inductively coupled plasma method OF 83-0343
- Distribution and abundance of antimony and mercury in minus-80-mesh stream-sediment and antimony in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples, Medfra Quadrangle, Alaska OF 80-0811-L
- Distribution and abundance of arsenic and bismuth in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and arsenic in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-K
- Distribution and abundance of barium, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-I
- Distribution and abundance of barium, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-H
- Distribution and abundance of cadmium determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-M
- Distribution and abundance of chromium, as determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-T
- Distribution and abundance of chromium, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-U
- Distribution and abundance of cobalt, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-R
- Distribution and abundance of cobalt, determined by spectrographic analysis, in the nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-S
- Distribution and abundance of copper, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-C
- Distribution and abundance of copper, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-B
- Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-I
- Distribution and abundance of detectable gold, arsenic, bismuth, and antimony in the nonmagnetic fraction of heavy-mineral concentrates and in the minus-80-mesh fraction from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-K
- Distribution and abundance of determinable silver by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments and in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-J
- Distribution and abundance of gold and silver in nonmagnetic and moderately magnetic heavy-mineral-concentrate and minus-80-mesh stream-sediment samples and silver in ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-H
- Distribution and abundance of lead, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-E
- Distribution and abundance of lead, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-D
- Distribution and abundance of molybdenum, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-O
- Distribution and abundance of molybdenum, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-N
- Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-J
- Distribution and abundance of nickel, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-Q
- Distribution and abundance of nickel, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-P
- Distribution and abundance of tin determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-L
- Distribution and abundance of tungsten, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-W
- Distribution and abundance of tungsten, determined from colorimetric and spectrographic analysis, in the minus-80-mesh fraction of stream sediment, Petersburg area, Southeast Alaska OF 83-0420-V
- Distribution and abundance of zinc, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-G
- Distribution and abundance of zinc, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-F
- Geochemical analyses for gold and zinc of 137 stream-sediment samples from the John Muir Wilderness, California OF 81-0254
- Geochemical and statistical analysis of analytical results for stream sediments, panned concentrates from stream sediments, rocks, ores, and waters collected from the Indian Heaven Roadless Area, Skamania County, Washington OF 83-0234
- Geochemical element maps of the Hoover Wilderness and adjacent study area, Mono and Tuolumne counties, California OF 82-0283
- Geochemical evidence for a Brooks Range mineral belt, Alaska OP- 744
- Geochemical studies in the Challis 1° × 2° Quadrangle OF 83-0836
- Guidelines for finding concretionary Mn-Fe oxides in streams OP- 891
- Map showing anomalous silver distribution in stream sediment concentrates, Hillsboro and San Lorenzo quadrangles, exclusive of the Black Range Primitive Area, Sierra and Grant counties, New Mexico MF-0900-C
- Mineral resource assessment of the Circle Quadrangle, Alaska OF 83-0170-B

- Mineral resource potential of the Lost Creek Roadless Area, Shasta County, California OF 83-0508
- Mineral resource potential of the southeast addition to the White Mountain Wilderness, Lincoln County, New Mexico OF 83-0594
- Mineral resource potential of the Tatoosh Roadless Area, Lewis County, Washington OF 83-0471
- Multi-element maps showing the distribution and relative amounts of selected elements in four geochemical sampling media, Medfra Quadrangle, Alaska OF 80-0811-M
- Semiquantitative spectrographic analyses of stream-sediment samples from the Wenaha Tucannon Wilderness, Washington and Oregon OF 83-0297
- Some preliminary findings of a reconnaissance geochemistry study, West Shasta District, California OF 83-0057
- Spectrographic analyses of panned concentrates from stream-sediment samples from the Mazatzal Wilderness and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona OF 83-0524
- Spectrographic analyses of stream-sediment samples from the Mazatzal Wilderness Area and Mazatzal Wilderness Contiguous Roadless Area, Gila, Maricopa, and Yavapai counties, Arizona OF 83-0197
- Statistical parameters for resource evaluation of geochemical data from the Ajo 1° by 2° Quadrangle, Arizona OF 83-0734
- Stream-sediment geochemical survey of the Bureau of Land Management's Arkansas Canyon Planning Unit in south-central (Canon City area) Colorado OF 81-0673
- techniques:* Major, minor, and trace elements in samples from the Wheeler Wilderness Study Area, Colorado, as determined by inductively coupled argon plasma-atomic emission spectrometry OF 83-0405
- trace elements:* A hydrogeochemical survey in east-central Nevada OF 83-0286
- A reconnaissance geochemical survey of the Clarion River Roadless Area, Allegheny National Forest, Elk County, Pennsylvania OF 83-0022
- Analyses of samples from the Lava Creek mining district, Blaine and Butte counties, Idaho OF 83-0705
- Analytical results and statistical analyses of rocks, ores, and stream pebbles from the Eagle Rock and Glacier Peak Roadless Areas, Snohomish and King counties, Washington OF 83-0342
- Assessment of uranium favorability for the crystalline rocks of the Wind River Range, Wyoming OF 83-0323
- Distribution of trace elements in drilling chip samples around a roll-type uranium deposit, San Juan Basin, New Mexico OF 83-0056
- Distribution of uranium and thorium in the lower Tertiary Orca Group and related rocks in part of the Cordova Quadrangle, southern Alaska OF 82-1032
- Geochemical analyses of rock and stream-sediment samples from the North Fork Smith River Roadless Area, Del Norte County, California, and Curry County, Oregon OF 82-0976
- Manganese dioxide causes spurious gold values in flame atomic-absorption readings from HBr-Br₂ digestions OP- 191
- Preliminary assessment of the geochemistry and mineral favorability of the postorogenic granites of the southeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0486
- Statistical tables, sample locality maps, and an explanation of data sets for samples from the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana OF 83-0054
- The Dufek Intrusion of Antarctica and a survey of its minor metals and possible resources C 0909
- The mineral resource potential of the Harrat Nawasif, sheet 21/42 C, Ranyah, sheet 21/42 D, and Jabal Dalfa, sheet 21/43 C quadrangles, Kingdom of Saudi Arabia OF 83-0372
- The mineral resource potential of the Wadi Habawnah and Najran quadrangles, sheets 17/44A and 17/44C, Kingdom of Saudi Arabia OF 83-0009
- The partitioning of copper among selected phases of geologic media of two porphyry copper districts, Puerto Rico OP- 670
- Trace-element geochemistry of postorogenic granites from the northeastern Arabian Shield, Kingdom of Saudi Arabia OF 83-0287
- uranium ores:* Chemical data and statistical interpretations for rocks and ores from the Ranger uranium mine, N. T., Australia OF 83-0239
- Iron River Quadrangle, Michigan and Wisconsin OP- 406
- mineral exploration—geological methods**
- gold ores:* Gold-bearing gravel of the ancestral Yuba River, Sierra Nevada, California P 0722
- metal ores:* Mineralization and other geologic factors related to the Morrison Formation in particular the northern two-thirds of the Colorado Plateau region; basic data and factor-analysis results OF 82-1130
- molybdenum ores:* Quartz-molybdenite veins in the Priestly Lake granodiorite, north-central Maine OF 83-0800
- potash:* Progress report on the potash deposits of the Khorat Plateau, Thailand OF 82-1096
- uranium ores:* Uranium occurrences in Precambrian rocks of the Adirondack region, New York OP- 892
- mineral exploration—geophysical methods**
- electrical methods:* Numerical modeling of three-dimensional surface topography for buried electrode resistivity surveys OP- 1290
- Warburg impedances at single water-mineral interfaces OP- 909
- gravity methods:* Gravity studies in volcanic terranes OP- 1302
- radioactivity methods:* Hand-held ratioing radiometer data for 66 selected mineral samples OF 83-0838
- tungsten ores:* Selected physical properties of rocks from the Baid al Jimalah West tungsten deposit, Kingdom of Saudi Arabia, and recommendations for geophysical surveys OF 83-0449
- mineral exploration—geophysical surveys**
- chromite ores:* Strategic minerals geophysical research; the chromite example OP- 1328
- electrical surveys:* Preliminary results of spectral induced polarization measurements, Wadi Bidah District, Kingdom of Saudi Arabia OF 83-0612
- electromagnetic surveys:* Ground-followup studies of the 1977 airborne electromagnetic survey in the Assifar and Mulhal areas, Wadi Bidah district, Kingdom of Saudi Arabia OF 83-0367
- Time-domain electromagnetic tests in the Wadi Bidah District, Kingdom of Saudi Arabia OF 83-0613
- gravity surveys:* Bouguer gravity anomaly map of the Glacier Peak Wilderness and vicinity, Chelan, Skagit, and Snohomish counties, Washington OF 83-0595
- radioactivity surveys:* Summary of radiometric anomalies in Alaska OF 83-0169
- surveys:* Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0703
- Geologic interpretation of geophysical data for the Wadi al Jarir and Al Jurdhawiyah quadrangles, sheets 25/42 C and D, Kingdom of Saudi Arabia OF 83-0371
- Geophysical investigations of the Umm ar Rummf copper prospect, Al Qunfudhah Quadrangle, Kingdom of Saudi Arabia OF 83-0298
- Geophysical studies in the Challis 1° × 2° Quadrangle, Idaho OF 83-0836
- mineral exploration—hydrological methods**
- data:* Analytical results for 328 water samples from the Silver City 1° by 2° Quadrangle, Arizona and New Mexico OF 83-0084
- hydrochemistry:* Hydrogeochemical prospecting for porphyry copper deposits in the tropical-marine climate of Puerto Rico OP- 803
- mineral exploration—methods**
- automatic data processing:* A search for stratiform massive-sulfide exploration targets in Appalachian Devonian rocks; a case study using computer-assisted attribute-coincidence mapping OF 83-0352
- blind deposits:* Preliminary report on geology, geochemical exploration, and biogeochemical exploration of the Red Mountain stockwork, Yellow Pine District, Valley County, Idaho OF 83-0151
- uranium ores:* Albuquerque Quadrangle, New Mexico OP- 446
- Aztec Quadrangle, New Mexico and Colorado OP- 444
- Cortez Quadrangle, Colorado and Utah OP- 188
- Craig Quadrangle, Colorado OP- 263
- Delta Quadrangle, Utah OP- 180
- Denver Quadrangle, Colorado OP- 536
- Escalante Quadrangle, Utah OP- 953
- Flagstaff Quadrangle, Arizona OP- 1285
- Gallup Quadrangle, Arizona and New Mexico OP- 445
- Gillette Quadrangle, Wyoming, South Dakota, and Montana OP- 305
- Greeley Quadrangle, Colorado OP- 537
- Moab Quadrangle, Colorado and Utah OP- 189
- Newcastle Quadrangle, Wyoming and South Dakota OP- 1073
- Price Quadrangle, Utah OP- 186
- Pueblo Quadrangle, Colorado OP- 300
- Richfield Quadrangle, Utah OP- 153
- Salina Quadrangle, Utah OP- 187
- Shiprock Quadrangle, Arizona, New Mexico, Colorado, Utah OP- 443
- Torrington Quadrangle, Wyoming and Nebraska OP- 1112
- Vernal Quadrangle, Colorado and Utah OP- 262
- Walker Lake Quadrangle, California and Nevada OP- 326
- mineral exploration—ore guides**
- copper ores:* Time-space relations of tourmaline-rich rocks at the Elizabeth Mine and vicinity, Vermont copper belt OP- 1145
- lead-zinc deposits:* Outlying mineral occurrences related to the Upper Mississippi Valley mineral district, Wisconsin, Iowa, Illinois, and Minnesota OP- 526
- limonite:* Preliminary map of limonitic hydrothermal alteration for portions of the Needles 1° by 2° Quadrangle, Arizona and California OF 83-0421

- monazite:** Mineralogy and occurrence of europium-rich dark monazite P 1181
- uranium ores:** Structural and mineralogical characteristics and distribution of carbonate-dominated fault breccias associated with uranium deposits, Front Range, Colorado OP- 1265
- Uraniferous opal, Virgin Valley, Nevada; conditions of formation and implications for uranium exploration OP- 1342
- mineral exploration—programs**
- international cooperation:* International minerals resource assessment project OF 83-0313
- metal ores:* Geological and geochemical studies in the Wadi Bidah District, Kingdom of Saudi Arabia OF 83-0672
- Peralkaline and peraluminous granites and related mineral deposits of the Arabian Shield, Kingdom of Saudi Arabia OF 83-0389
- mineral resources:* Mineral resource potential of the Thousand Lakes Wilderness, Shasta County, California OF 83-0408
- Mineral resources of the Caney Creek Wilderness, Polk County, Arkansas B 1551
- Mineral resources of the Rock River Canyon Wilderness Study Area, Alger County, Michigan B 1549
- The mineral resource potential of the Wadi Al Jarir and Al Jurdhawiyah quadrangles, sheets 25/42 C and 25/42 D, Kingdom of Saudi Arabia OF 83-0368
- objectives:* Mineral surveys by the Geological Survey and the Bureau of Mines of Bureau of Land Management Wilderness Study Areas C 0901
- thorium ores:** Geology and description of thorium and rare-earth deposits in the southern Bear Lodge Mountains, northeastern Wyoming P 1049-D
- U. S. Geological Survey:* History of U.S. Geological Survey geologic exploration and mineral-resource evaluation, Arctic Alaska C 0911
- mineral exploration—remote sensing**
- bibliography:* Objectives, accomplishments, and future plans of IGCP Project 143, Remote sensing and mineral exploration OP- 209
- cartography:* Mapping of hydrothermally altered rocks using airborne multispectral scanner data, Marysvale, Utah, mining area OP- 980
- copper ores:** Digital data base application to porphyry copper mineralization in Alaska; a case study OP- 921
- Digital data base application to porphyry copper mineralization in Alaska; case study summary OF 82-0801
- imagery:* Mapping of ultramafic rocks in a heavily vegetated terrain using Landsat data OP- 1001
- ore guides:** Landsat analysis for uranium exploration in Northeast Turkey OF 83-0099
- reflectance spectra:** Use of reflectance spectra of native plant species for interpreting airborne multispectral scanner data in the East Tintic Mountains, Utah OP- 808
- statistical analysis:** Use of Landsat multispectral scanner data for the definition of limonitic exposures in heavily vegetated areas OP- 1113
- uranium ores:** Use of airborne multispectral scanner data to map alteration related to roll-front uranium migration OP- 948
- mineral exploration—techniques**
- automatic data processing:* Operation manual for the muPROSPECTOR consultant system OF 83-0804
- mineral inclusions** see under inclusions
- mineral prospecting** see mineral exploration
- mineral resources** see also the individual deposits; see also under economic geology under Alabama; Alaska; Antarctica; Appalachians; Arizona; Arkansas; automatic data processing; Basin and Range Province; bibliography; California; catalogs; Colombia; Colorado; Florida; Georgia; Great Basin; Great Lakes region; Idaho; Illinois; Kentucky; Michigan; Missouri; Montana; Nevada; New Mexico; North America; North Carolina; Oklahoma; Oregon; Pacific region; Pennsylvania; Saudi Arabia; South Carolina; symposia; Tennessee; Texas; United States; Utah; Virginia; Washington; West Virginia; Western U.S.; Wyoming
- mineral resources—genesis**
- environment:* Paleoclimate and mineral deposits C 0822
- Some climatic and oceanographic controls on the time and place of mineralization C 0822
- metalogenic provinces:* Keynote paper; Tectonics and metallogenic provinces OP- 458
- mineral resources—inventory**
- objectives:* International minerals resource assessment project OF 83-0313
- mineral resources—resources**
- models:* Mineral deposit grade-tonnage models II OF 83-0902
- ocean floors:* Bibliography on the world's subsea mineral resources and related geological and geophysical studies (1960-1972) OF 83-0153
- possibilities:* Definition of mineral resource potential OP- 1218
- mineralogy—automatic data processing**
- crystal chemistry:* RDARL4, a Fortran interface for transferring chemical analytical data from an Applied Research Laboratories electron microprobe to a PDP-11 computing system OF 83-0713
- mineralogy—bibliography**
- miscellaneous minerals:* The Ford-Fleischer file of mineralogical references, 1981-1982 inclusive OF 83-0615
- minerals** see also crystal chemistry; crystal growth; crystal structure
- minerals—aluminosilicates**
- occurrence:* The aluminosilicate fraction of North Pacific manganese nodules OP- 100
- minerals—carbonates**
- calcite:* Chemical and X-ray analyses of 175 calcite and marble samples from the collection of the National Museum of Natural History, Smithsonian Institution OF 83-0863
- The solubilities of calcite, aragonite and vaterite in CO₂-H₂O solutions between 0 and 90°C, and an evaluation of the aqueous model for the system CaCO₃-CO₂-H₂O OP- 973
- minerals—chain silicates, amphibole group**
- chemical composition:* Chapter 2, Experimental studies of amphibole stability; Phase relations and compositions of amphiboles produced in studies of the melting behavior of rocks OP- 521
- minerals—crystal chemistry**
- tin minerals:* Minerals of tin, titanium, niobium and tantalum in granitic pegmatites OP- 381
- minerals—framework silicates, scapolite group**
- coexisting minerals:* T-XCO₂ stability relations and phase equilibria of a calcic carbonate scapolite OP- 8
- minerals—framework silicates, silica minerals**
- jasper:* Aphanitic silica rock P 1173
- opal:* Uraniferous opal, Virgin Valley, Nevada; conditions of formation and implications for uranium exploration OP- 1342
- quartz:* A method of calculating quartz solubilities in aqueous sodium chloride solutions OP- 391
- Calculation of amorphous silica solubilities at 25° to 300°C and apparent cation hydration numbers in aqueous salt solutions using the concept of effective density of water OP- 392
- minerals—framework silicates, zeolite group**
- laumontite:* Middle Tertiary laumontite isograd offset 37 km by left-lateral strike-slip on Santa Ynez Fault, California OP- 768
- thomsonite:* Pink prehnite from Michigan, a mineral much confused OP- 555
- minerals—mineral data**
- gems:* Fluid inclusions in gemstones; valuable defects OP- 1048
- minerals—miscellaneous minerals**
- mineral list:* The Ford-Fleischer file of mineralogical references, 1981-1982 inclusive OF 83-0615
- minerals—native elements**
- graphite:* The origin of epigenetic graphite; evidence from isotopes OP- 1280
- minerals—oxides**
- iron oxides:* Guidelines for finding concretionary Mn-Fe oxides in streams OP- 891
- manganese oxides:* Characterization of mineral precipitates by electron microscope photographs and electron diffraction patterns W 2204
- Some factors affecting the form of manganese oxides precipitated from aqueous solutions OP- 522
- minerals—phase equilibria**
- mineral data:* Thermodynamic and thermophysical properties of selected phases in the MgO-SiO₂-H₂O-CO₂, CaO-Al₂O₃-SiO₂-H₂O-CO₂, and Fe-FeO-Fe₂O₃-SiO₂ chemical systems, with special emphasis on the properties of basalts and their mineral components OF 83-0079
- minerals—phosphates**
- apatite:* Distribution of the lanthanides and yttrium in apatites from iron ores and its bearing on the genesis of ores of the kiruna type OP- 378
- vashegyite:* Vashegyite from Nevada and "palfevite" from Nevada (= richmondite) and Arkansas (= kingite) OP- 807
- vivianite:* Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides OP- 512
- minerals—ring silicates**
- tourmaline:* Magnesian tourmaline-rich metasediments in the Grenville Lowlands of New York; potential for occurrence of massive sulfide deposits OP- 156
- Time-space relations of tourmaline-rich rocks at the Elizabeth Mine and vicinity, Vermont copper belt OP- 1145
- minerals—sheet silicates**
- crystal growth:* Mineral paragenesis in a talc-water experimental hydrothermal system OP- 1298
- prehnite:* Pink prehnite from Michigan, a mineral much confused OP- 555
- minerals—sheet silicates, clay minerals**
- mixed-layer minerals:* Mixed-layer kerolite/stevensite from the Amargosa Desert, Nevada OP- 332
- minerals—sheet silicates, mica group**
- biotite:* The chemistry of seven igneous biotites from eastern Nevada and western Utah OF 83-0629
- minerals—silicates**
- thermodynamic properties:* Heat capacity, relative enthalpy, and calorimetric entropy of silicate minerals; an empirical method of prediction OP- 1044

- Thermodynamics and lattice vibrations of minerals; 5, Applications to phase equilibria, isotopic fractionation, and high-pressure thermodynamic properties OP- 619
- minerals—sulfates**
- dwornikite*: Restudy of patronite (VS₄) ore, Minasragra, Peru; two new minerals; unnamed VOSO₄·3H₂O and dwornikite (Ni_{0.8}Fe_{0.2})SO₄·H₂O OP- 805
- phase equilibria*: The effect of sulfate on aluminum concentrations in natural waters; some stability relations in the system Al₂O₃-SO₃-H₂O at 298 K OP- 881
- minerals—sulfides**
- iron disulfides*: Iron disulfide minerals and the genesis of roll-type uranium deposits OP- 1025
- orickite*: Orickite and coyoteite, two new sulfide minerals from Coyote Peak, Humboldt County, California OP- 348
- pyrite*: Sulfur diagenesis in Everglades peat and origin of pyrite in coal OP- 17
- minerals—vanadates**
- margaritasite*: Margaritasite; a new mineral of hydrothermal origin from the Pena Blanca uranium district, Mexico OP- 1284
- mining geology—evaluation**
- hydrology*: Assessment of potential impacts to the hydrologic system related to surface mining OF 79-1598
- surface mining*: Premining hydrology of the lignite area in southeastern De Soto Parish, Louisiana OP- 1150
- mining geology—methods**
- mines*: Ground-water monitoring around coal mines for non-regulatory purposes OP- 55
- monitoring*: Evaluation of the physical hydrology and hydrochemistry of active and proposed surface-mine sites and spoils in western North Dakota OP- 450
- Ground-water monitoring in three small surface-mined watersheds of eastern Ohio OP- 1007
- Probable hydrologic effects of subsurface mining OP- 1196
- Minnesota—economic geology**
- lead-zinc deposits*: Outlying mineral occurrences related to the Upper Mississippi Valley mineral district, Wisconsin, Iowa, Illinois, and Minnesota OP- 526
- water resources*: Data for water resource management in Minnesota OP- 548
- Water-resources investigations of the U. S. Geological Survey in the Souris-Red rivers basin in Minnesota, North Dakota, and South Dakota OF 83-0218
- Minnesota—environmental geology**
- land use*: Land use and land cover and associated maps for Hibbing, Minnesota OF 82-0247
- maps*: Land use and land cover and associated maps for Hibbing, Minnesota OF 82-0247
- pollution*: Degradation of phenolic contaminants in ground water by anaerobic bacteria; St. Louis Park, Minnesota OP- 338
- Minnesota—hydrogeology**
- ground water*: Availability and chemical quality of water from surficial aquifers in Southwest Minnesota WRI 83-4030
- Baseline water-quality data for sand-plain aquifers in Hubbard, Morrison, Otter Tail, and Wadena counties, Minnesota OF 82-0909
- Degradation of phenolic contaminants in ground water by anaerobic bacteria; St. Louis Park, Minnesota OP- 338
- Evaluating ground-water data by a flow model of the Twin Cities metropolitan area, Minnesota OP- 1096
- Ground-water-use trends in the Twin Cities metropolitan area, Minnesota, 1880-1980 WRI 83-4033
- Potentiometric surface of regional aquifers in the Hollandale Embayment, southeastern Minnesota OP- 1321
- Seasonal versus long-term variations in potentiometric levels in the Mount Simon-Hinckley and Prairie du Chien-Jordan aquifers, Twin Cities metropolitan area, Minnesota OP- 1095
- hydrology*: Changes in flood response of the Red River of the North Basin, North Dakota-Minnesota OF 82-0774
- Geochemistry of Williams Lake, Hubbard County, Minnesota OP- 452
- Quality of surface water before implementation of a flood-control project in Chaska, Minnesota ADA-114 818
- Simplified testing of hydrologic regression regions OP- 1213
- Small-stream flood investigations in Minnesota, October 1958 to September 1980 OF 82-0433
- Streamflow and suspended-sediment transport in Garvin Brook, Winona County, southeastern Minnesota; hydrologic data for 1982 OF 83-0212
- Minnesota—seismology**
- maps*: Seismicity map of the State of Minnesota MF-1323
- Minnesota—stratigraphy**
- Cretaceous*: Lower Upper Cretaceous strata in Minnesota and adjacent areas; time-stratigraphic correlations and structural attitudes P 1253
- Molluscan fossil record from the northeastern part of the Upper Cretaceous seaway, Western Interior P 1253
- Stratigraphy and paleontology of Mid-Cretaceous rocks in Minnesota and contiguous areas P 1253
- Proterozoic*: Evolution of early Proterozoic basins of the Great Lakes region OP- 1139
- Miocene** *see also under* geochronology *under* California; *see also under* stratigraphy *under* Alaska; Arizona; Atlantic Coastal Plain; Atlantic Ocean; California; Eastern U.S.; Indian Ocean; North Carolina; Oregon; Pacific Ocean; Red Sea region; Saudi Arabia; Washington
- Miocene—sedimentary petrology**
- sedimentary rocks*: Changing patterns of phosphogenesis in Mesozoic and Cenozoic OP- 1123
- Miocene—stratigraphy**
- paleo-oceanography*: Paleooceanographic implications of Miocene deep-sea hiatuses OP- 604
- miospores** *see under* palynomorphs
- Mississippi—economic geology**
- water resources*: Estimated water use in Mississippi, 1980 OF 83-0224
- Mississippi—engineering geology**
- earthquakes*: Actions to improve the state-of-earthquake-preparedness in Arkansas and Mississippi OF 83-0157
- geologic hazards*: Actions to improve the state-of-earthquake-preparedness in Arkansas and Mississippi OF 83-0157
- waste disposal*: Preliminary report of the geohydrology near Cypress Creek and Richton salt domes, Perry County, Mississippi WRI 83-4169
- Mississippi—environmental geology**
- geologic hazards*: Flood of April 1979 on Pearl River in Jackson, Mississippi, and vicinity HA-0655
- maps*: Flood of April 1979 on Pearl River in Jackson, Mississippi, and vicinity HA-0655
- Mississippi—hydrogeology**
- hydrology*: Background hydrologic information in potential lignite mining areas in Mississippi, July 1982 OF 83-0257
- Backwater and discharge at highway crossings with multiple bridges in Louisiana and Mississippi WRI 83-4065
- Compendium of available surface-water data in the upper Tombigbee River basin OF 82-0558
- Floods of April 1983 in southern Mississippi and southeastern Louisiana OF 83-0685
- Hydrologic monitoring in the area of the proposed Yazoo River navigation project, west-central Mississippi, 1978-80 OF 82-0369
- Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama OF 81-0546
- Hydrologic monitoring in the area of the Tennessee-Tombigbee Waterway, Mississippi-Alabama, fiscal year 1981 OF 82-0503
- Quality of water and time of travel in Bakers Creek near Clinton, Mississippi OF 82-0427
- Quality of water in Luxapallia Creek at Columbus, Mississippi OF 82-0373
- maps*: Potentiometric map of the Cockfield Aquifer in Mississippi, fall, 1980 OF 81-1053
- Potentiometric map of the Sparta aquifer system in Mississippi, fall, 1980 OF 81-1051
- Water-level maps of the alluvial aquifer, northwestern Mississippi, April 1982 WRI 82-4061
- Water-level maps of the alluvial aquifer, northwestern Mississippi, September 1981 OF 82-0574
- Water-level maps of the alluvial aquifer, northwestern Mississippi, September 1982 WRI 83-4133
- Mississippi—stratigraphy**
- Cretaceous*: Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia OP- 1155
- Preliminary report on Upper Cretaceous geological studies along the Tombigbee River, western Alabama and eastern Mississippi OP- 1147
- Upper Cretaceous (Maestrichtian) Mollusca from the Haustator bilira assemblage zone in the East Gulf Coastal Plain OF 83-0451
- Eocene*: Late Eocene to early Oligocene calcareous nannofossils in Alabama OP- 177
- Late Eocene to early Oligocene calcareous nannofossils in Alabama and Mississippi OP- 176
- Jurassic*: Upper Jurassic ammonites from Louisiana, Texas, and Mississippi OP- 564
- Mississippi Valley—economic geology**
- lead-zinc deposits*: Outlying mineral occurrences related to the Upper Mississippi Valley mineral district, Wisconsin, Iowa, Illinois, and Minnesota OP- 526
- Mississippi Valley—engineering geology**
- earthquakes*: Damaging earthquakes of the Central Mississippi Valley P 1236
- Estimation of earthquake effects associated with a great earthquake in the New Madrid seismic zone OF 83-0179
- Investigations of the New Madrid, Missouri, earthquake region P 1236
- Investigations of the New Madrid, Missouri, earthquake region; overview and discussion P 1236

- Mississippi River seismic survey OP- 1120
- Overview of earthquake hazards and risk in the Mississippi Valley OF 83-0157
- Planning efforts for earthquakes in the Mississippi Valley area OF 83-0157
- Proceedings of Conference XVIII; a workshop on Continuing actions to reduce losses from earthquakes in the Mississippi Valley area OF 83-0157
- Radon emanation in the New Madrid seismic zone P 1236
- Summary report of the workshop on Continuing actions to reduce losses from earthquakes in the Mississippi Valley OF 83-0157
- geologic hazards:** Damaging earthquakes of the Central Mississippi Valley P 1236
- Estimation of earthquake effects associated with a great earthquake in the New Madrid seismic zone OF 83-0179
- Investigations of the New Madrid, Missouri, earthquake region P 1236
- Investigations of the New Madrid, Missouri, earthquake region; overview and discussion P 1236
- Mississippi River seismic survey OP- 1120
- Overview of earthquake hazards and risk in the Mississippi Valley OF 83-0157
- Planning efforts for earthquakes in the Mississippi Valley area OF 83-0157
- Proceedings of Conference XVIII; a workshop on Continuing actions to reduce losses from earthquakes in the Mississippi Valley area OF 83-0157
- Radon emanation in the New Madrid seismic zone P 1236
- Summary report of the workshop on Continuing actions to reduce losses from earthquakes in the Mississippi Valley OF 83-0157
- The northeastern extension of the New Madrid fault seismic zone P 1236
- Mississippi Valley—environmental geology**
- land use:** Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
- maps:** Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
- Mississippi Valley—geophysical surveys**
- seismic surveys:** Crustal structure of the northern Mississippi Embayment and a comparison with other continental rift zones OP- 817
- Mississippi River seismic survey OP- 1120
- Tectonic features of the New Madrid seismic zone from seismic-reflection profiles P 1236
- Mississippi Valley—hydrogeology**
- hydrology:** Floods of December 1982 and January 1983 in central and southern Mississippi River basin OF 83-0213
- Mississippi Valley—seismology**
- crust:** A crustal structure study of the Mississippi Embayment P 1236
- Configuration and deformation of the Paleozoic bedrock surface in the New Madrid seismic zone P 1236
- Crustal structure of the northern Mississippi Embayment and a comparison with other continental rift zones OP- 817
- earthquakes:** Microearthquakes and faulting in the area of New Madrid, Missouri-Reelfoot Lake, Tennessee P 1236
- Present-day seismicity and identification of active faults in the New Madrid seismic zone P 1236
- The northeastern extension of the New Madrid fault seismic zone P 1236
- Mississippi Valley—stratigraphy**
- Eocene:** Preliminary chart of stratigraphic nomenclature of Paleocene and Eocene lignite-bearing and associated strata of the Gulf Coast Plain-Mississippi Embayment OF 83-0310
- Mississippi Valley—structural geology**
- neotectonics:** High-resolution seismic-reflection surveying on Reelfoot scarp, northwestern Tennessee P 1236
- Style and significance of surface deformation in the vicinity of New Madrid, Missouri P 1236
- Tectonic features of the New Madrid seismic zone from seismic-reflection profiles P 1236
- tectonics:** Stratigraphy and structure of Post-Paleozoic sediments above the Newport Pluton of northeastern Arkansas P 1236
- Mississippi Valley—tectonophysics**
- crust:** Heat flow in the upper Mississippi Embayment P 1236
- Magnetic basement in the upper Mississippi Embayment region; a preliminary report P 1236
- Mississippian** *see also under* stratigraphy *under* Arizona; Kentucky; Massachusetts; Montana; United States; Western U.S.
- Missouri—areal geology**
- maps:** Generalized geologic and geochemical maps of the Cambrian Bonnetterre Formation, Rolla 1° by 2° Quadrangle, Missouri MF-1004-B
- Missouri—economic geology**
- coal:** Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa OP- 497
- maps:** Geologic, geochemical, and mineral resource potential map of the Piney Creek Wilderness, Stone and Barry counties, Missouri MF-1494
- Mineral resource potential map of Hercules Glades Wilderness, Taney County, Missouri MF-1377-C
- Mineral resource potential map of the Irish Wilderness Roadless Area, Oregon County, Missouri MF-1511-A
- Mineral resource potential map of the Rock Pile Mountain Wilderness Study Area, Madison County, Missouri MF-1339-B
- mineral resources:** Geologic, geochemical, and mineral resource potential map of the Piney Creek Wilderness, Stone and Barry counties, Missouri MF-1494
- Mineral-resource appraisal of the Rolla 1° by 2° Quadrangle, Missouri, as of September 1980; a nontechnical summary C 0869
- Mineral resource potential map of Hercules Glades Wilderness, Taney County, Missouri MF-1377-C
- Mineral resource potential map of the Irish Wilderness Roadless Area, Oregon County, Missouri MF-1511-A
- Mineral resource potential map of the Rock Pile Mountain Wilderness Study Area, Madison County, Missouri MF-1339-B
- Slides showing quantitative models for mineral-resource assessment of the Rolla 1° by 2° Quadrangle, Missouri OF 83-0387
- water resources:** Water resources investigations of U. S. Geological Survey in Missouri, fiscal year 1983 OF 83-0251
- Missouri—engineering geology**
- earthquakes:** Actions to improve the state of earthquake preparedness in Missouri OF 83-0157
- Earthquake hazard studies in southeastern Missouri OF 81-0888
- Earthquake seminars and workshops; Missouri OF 83-0157
- geologic hazards:** Actions to improve the state of earthquake preparedness in Missouri OF 83-0157
- Earthquake seminars and workshops; Missouri OF 83-0157
- Missouri—environmental geology**
- geologic hazards:** Earthquake hazard studies in southeastern Missouri OF 81-0888
- land use:** Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
- maps:** Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri L-0135
- Missouri—geochemistry**
- organic materials:** Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa OP- 498
- Missouri—geophysical surveys**
- heat flow:** Heat flow in the upper Mississippi Embayment P 1236
- magnetic surveys:** Tape of aeromagnetic data from southeastern Missouri, Irish Wilderness Area, parts of Shannon, Carter, Oregon, and Ripley counties, Missouri PB-83 220 814
- seismic surveys:** Mississippi River seismic survey OP- 1120
- Missouri—hydrogeology**
- ground water:** Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136
- Preliminary investigation of ground-water occurrences in the Weldon Spring area, St. Charles County, Missouri OF 82-1008
- hydrology:** Floods in Kansas City, Missouri, and vicinity, August 12-13, 1982 WRI 83-4141
- Suspended-sediment data in the Salt River basin, Missouri OF 83-0275
- Missouri—seismology**
- earthquakes:** Microearthquakes and faulting in the area of New Madrid, Missouri-Reelfoot Lake, Tennessee P 1236
- The earthquakes of January 5, 1843, and October 31, 1895, in the central Mississippi Valley OP- 545
- Missouri—stratigraphy**
- Cambrian:** Isopach and selected lithofacies map of the Cambrian Bonnetterre Formation, Rolla 1° by 2° Quadrangle, Missouri MF-1002-J
- maps:** Isopach and selected lithofacies map of the Cambrian Bonnetterre Formation, Rolla 1° by 2° Quadrangle, Missouri MF-1002-J
- Phanerozoic:** Biostratigraphy and paleoecology of lower Paleozoic, Upper Cretaceous, and lower Tertiary rocks in U. S. Geological Survey New Madrid test wells, southeastern Missouri OP- 401
- Missouri—structural geology**
- neotectonics:** Style and significance of surface deformation in the vicinity of New Madrid, Missouri P 1236
- Mohorovicic discontinuity** *see also under* tectonophysics *under* California
- Mollusca—Ammonoidea**
- Jurassic:** Preliminary interpretations of the Jurassic paleobiogeography of North America OP- 563

Mollusca—biogeography

- Pleistocene*: Historical evolution and application of the Pleistocene province concept along the eastern Pacific margin of North America
OP- 610

Mollusca—Cephalopoda

- Devonian*: A Devonian aptychus (Cephalopoda) from Alabama
OP- 1335

Mollusca—faunal studies

- Cretaceous*: Molluscan fossil record from the northeastern part of the Upper Cretaceous seaway, Western Interior
P 1253

Mollusca—fossilization

- Cretaceous*: Preservation effects in paleoecological studies; Cretaceous mollusc examples
OP- 637

Mollusca—Gastropoda

- Ordovician*: An Early Ordovician patelliform gastropod, Palaeophacmaea, reinterpreted as a coelenterate
OP- 1338
- Triassic*: Middle Triassic Gastropoda from Qingyan, Guizhou Province, China; 1, Pleurotomariacea and Murchisoniacea
OP- 1333
- Middle Triassic Gastropoda from Qingyan, Guizhou Province, China; 2, Trochacea and Neritacea
OP- 1334

Mollusca—morphology

- shells*: Odds favor the mollusks
OP- 1337

Mollusca—paleoecology

- Cretaceous*: Substrate preference among some Late Cretaceous shallow-water benthic mollusks
OP- 1154

Mollusca—Pterinea

- Triassic*: Middle Triassic molluscan fossils of biostratigraphic significance from the Humboldt Range, northwestern Nevada
P 1207

Mollusca—Scaphopoda

- Pleistocene*: Predation on sub-Holocene scaphopod mollusks from southern Louisiana
P 1282

Mollusca—Venerida

- biochemistry*: Bioaccumulation and toxicity to Cu in *Macoma balthica*; inter-population heterogeneity and the role of Ag
OF 80-0341
- Controls on Cu concentrations in estuarine bivalves (*Scrobicularia plana*), polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*)
OF 80-0341
- Controls on the availability of Ag, Cd, Co, Fe and Mn to estuarine bivalves (*Scrobicularia plana*) and polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*)
OF 80-0341
- Correlation of Pb concentrations and chemistry of sediments with Pb in the bivalve *Scrobicularia plana*
OF 80-0341
- Development of methodology for incorporating sediment chemistry into predictions of metal bioavailability in sediments; case study, Zn
OF 80-0341
- Uptake by the clam *Macoma balthica* of sediment-bound Cd from well-defined types of sediment
OF 80-0341
- Uptake of ^{60}Co , ^{110m}Ag , and ^{65}Zn from well-defined sediments by *Macoma balthica*
OF 80-0341

mollusks—ammonoids

- Jurassic*: Upper Jurassic ammonites from Louisiana, Texas, and Mississippi
OP- 564

mollusks—biochemistry

- amino acids*: Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia
C 0911

- toxic materials*: The impact of waste-water discharge on biological communities in San Francisco Bay
OP- 717

mollusks—biostratigraphy

- Cretaceous*: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina
P 1028
- Graywacke of Buchia Ridge and correlative Lower Cretaceous rocks in the Goodnews Bay and Bethel quadrangles, southwestern Alaska
B 1529-C
- Mid-Cretaceous molluscan biostratigraphy and paleogeography of south-western part of Western Interior, United States
OP- 239
- Molluscan fossil record from the northeastern part of the Upper Cretaceous seaway, Western Interior
P 1253
- Upper Cretaceous (Maestrichtian) Mollusca from the Haustator bilira assemblage zone in the East Gulf Coastal Plain
OF 83-0451
- Jurassic*: Preliminary interpretations of the Jurassic paleobiogeography of North America
OP- 563
- Miocene*: Biostratigraphy of the marine Neogene sequence at Cape Blanco, southwestern Oregon
P 0774-G
- Depositional framework and paleoenvironments of Miocene strata from North Carolina and Maryland
OP- 424
- Late Miocene mollusks of Tachilni Formation, Alaska Peninsula, Alaska
OP- 737
- Pennsylvanian*: Biostratigraphy of the Watahomigi Formation
P 1173
- Correlation of the Middle Pennsylvanian *Diaboloceras neumeieri* and *D. varicostatum* zones in the South-central and Southeastern United States
OP- 438
- Triassic*: Middle Triassic molluscan fossils of biostratigraphic significance from the Humboldt Range, northwestern Nevada
P 1207

mollusks—bivalves

- ecology*: Concentrations of metals in sediments and shellfish in San Francisco Bay
OF 80-0341
- Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge
OF 80-0341

mollusks—paleoecology

- Cretaceous*: Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia
OP- 1155
- Pleistocene*: The Half Moon Bay terrace, San Mateo County, California, and the age of its Pleistocene invertebrate faunas
OP- 612

molybdenum—geochemistry

- coal*: Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska
OP- 5
- granites*: Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia
OP- 320
- stream sediments*: Distribution and abundance of molybdenum, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska
OF 83-0420-O
- Distribution and abundance of molybdenum, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska
OF 83-0420-N
- Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska
OF 80-0811-J

- molybdenum ores** *see also under economic geology under bibliography*; Colorado; Maine; Nevada; North America

molybdenum ores—resources

- models*: Mineral deposit grade-tonnage models
OF 83-0623

monazite deposits *see also under economic geology under Alaska***Montana—areal geology**

- maps*: Bedrock geologic map of part of the northern disturbed belt, Lewis and Clark, Teton, Pondera, Glacier, Flathead, Cascade, and Powell counties, Montana
I-1375
- Complete Bouguer gravity and generalized geologic and structure map of the Choteau 1° by 2° Quadrangle, Montana
MF-1489
- Complete Bouguer gravity and generalized geologic and structure map of the Choteau 1° by 2° Quadrangle, Montana
MF-1489
- Geologic and structure maps of the Monarch Quadrangle, Sheridan County, Wyoming, and Big Horn County, Montana
MF-1517
- Geologic map of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area, Lemhi County, Idaho
MF-1557-B
- Geologic map of the Middle Mountain-Tobacco Root Roadless Area, Madison County, Montana
MF-1590-A
- Geologic map of the Mitten Lake, Half Dome Crag, Hyde Creek, East Glacier Park, Big Rock, and Magee Range quadrangles, Pondera and Glacier counties, Montana
OF 82-1030
- Geologic map of the Sapphire Wilderness and contiguous roadless area, Granite and Ravalli counties, Montana
MF-1469-A
- Geologic structure map of the Choteau 1° by 2° Quadrangle, western Montana
I-1300
- Photogeologic and reconnaissance geologic map of the Hathaway Quadrangle, Custer and Rosebud counties, Montana
MF-1663
- Photogeologic and reconnaissance geologic map of the Locate Quadrangle, Custer County, Montana
MF-1513
- Photogeologic and reconnaissance geologic map of the Orinoco Quadrangle, Rosebud County, Montana
MF-1664
- Photogeologic and reconnaissance geological map of the Horton Quadrangle, Custer and Rosebud counties, Montana
MF-1662
- Preliminary geologic and structure maps of part of the Kalispell 1° by 2° Quadrangle, Montana
OF 83-0502
- Preliminary geologic map and cross sections of the northwest part of Glacier National Park, Montana
MF-1604-A
- Preliminary geologic map of the Dillon 1° by 2° Quadrangle, Montana
OF 83-0168
- Reconnaissance geologic map of the Big Fork-Avon Environmental Study Area, Flathead, Lake, Lewis and Clark, Missoula, and Powell counties, Montana
I-1380
- Reconnaissance geologic map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana
MF-1495-B

- Pioneer Mountains*: Geology of north end of East Pioneer Mountains, Beaverhead County, Montana
OP- 1341

- western Montana*: 100 years of geology by the United States Geological Survey in the Pacific Northwest
OP- 1281

Montana—economic geology

- bibliography*: Selective annotated bibliography of ground-water resources, records of wells and springs, and availability of streamflow data on Indian reservations in Montana
OF 83-0129

coal: Application of computer graphics to coal geology and coal-resource-assessment studies, Canyon coal bed, Birney 1° sheet, Montana OP- 787

— Distribution and age of clinker in northern Powder River basin, Montana OP- 518

— Fluvial facies associations; guide to Tertiary coal development and exploration in Powder River basin, Wyoming and Montana

OP- 380

energy sources: Energy resources map of the Powder River basin, Wyoming and Montana

I-0847-A

fuel resources: Mineral resource potential of the Reservoir-North and the Deep Creek Roadless Areas, Teton County, Montana OF 82-0988

geothermal energy: Montana; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0432

maps: Energy resources map of the Powder River basin, Wyoming and Montana I-0847-A

— Map showing geology and mineral deposits of the southeast part of the Alder Gulch Quadrangle, Granite County, Montana OF 83-0414

— Mineral resource potential map of the Gallatin Divide Roadless Area, Gallatin and Park counties, Montana MF-1569-A

— Mineral resource potential map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-A

— Mineral resource potential map of the West Pioneer Wilderness Study Area, Beaverhead County, Montana MF-1585-A

— Mineral resource potential maps of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area MF-1557-A

metal ores: Gold in exploration geochemistry OP- 30

mineral resources: Map showing geology and mineral deposits of the southeast part of the Alder Gulch Quadrangle, Granite County, Montana OF 83-0414

— Mineral deposits associated with alkaline intrusive complexes; examples from Wyoming, Colorado, Montana, and California OP- 34

— Mineral resource potential map of the Gallatin Divide Roadless Area, Gallatin and Park counties, Montana MF-1569-A

— Mineral resource potential map of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-A

— Mineral resource potential map of the West Pioneer Wilderness Study Area, Beaverhead County, Montana MF-1585-A

— Mineral resource potential maps of the Blue Joint Wilderness Study Area, Ravalli County, Montana, and the Blue Joint Roadless Area MF-1557-A

— Mineral resource potential of the Reservoir-North and the Deep Creek Roadless Areas, Teton County, Montana OF 82-0988

— Statistical tables, sample locality maps, and an explanation of data sets for samples from the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana OF 83-0054

natural gas: Facies in upper part of Madison Group, Sawtooth Range, northwestern Montana OP- 864

petroleum: Petroleum potential of wilderness lands in Montana C 0902-A-P

— Structure, burial history, and petroleum potential of frontal thrust belt and adjacent foreland, Southwest Montana OP- 943

— The southern part of the Southwest Montana thrust belt; a preliminary re-evaluation of structure, thermal maturation and petroleum potential OP- 942

water resources: Selective annotated bibliography of ground-water resources, records of wells and springs, and availability of streamflow data on Indian reservations in Montana OF 83-0129

— Water-resources investigations of the U. S. Geological Survey in Montana, October 1982 through September 1983 OF 83-0260

Montana—engineering geology

land subsidence: Subsidence of reclaimed coal mine spoils, Colstrip, Montana OP- 1296

Montana—environmental geology

ecology: Significance of water quality to fish propagation, waterfowl habitat, livestock watering, and recreation use for 24 lakes and reservoirs in Valley and Phillips counties, Montana WRI 82-4008

impact statements: Potential effects of surface coal mining on the hydrology of the Greenleaf-Miller area, Ashland coal field, southeastern Montana WRI 82-4101

— Potential effects of surface coal mining on the hydrology of the Snider Creek area, Rosebud and Ashland coal fields, southeastern Montana WRI 82-4051

land use: Land use and land cover, 1975-1976, Great Falls South, Montana L-0168

maps: Land use and land cover, 1975-1976, Great Falls South, Montana L-0168

reclamation: Reclamation of mined lands in the western coal region C 0872

Montana—geochemistry

maps: Geochemical map of the Middle Mountain-Tobacco Root Roadless Area, Madison County, Montana MF-1590-B

— Geochemical maps of the Selway-Bitterroot Wilderness, Idaho County, Idaho, and Missoula and Ravalli counties, Montana MF-1495-C

surveys: Analytical data, geographic coordinates, and sample locality map of geochemical samples from the Mount Henry Roadless Area, Lincoln County, Montana OF 83-0088

— Analytical results and sample locality map for 340 rock, 322 stream-sediment and soil, and 263 panned-concentrate samples from the Sapphire Wilderness Study Area, Granite and Ravalli counties, Montana OF 83-0196

Montana—geochronology

Cretaceous: NDS 107; Santonian, K-Ar/biotite-bentonite, Interior N American Basin OP- 901

— NDS 108; Coniacian/Turonian, K-Ar/biotite-bentonite, Interior N American Basin OP- 902

— NDS 109; Turonian, K-Ar/biotite-bentonite, Interior N American Basin OP- 903

— NDS 111; Albian, K-Ar/minerals-bentonite, Interior N American Basin OP- 905

Quaternary: Distribution and age of clinker in northern Powder River basin, Montana OP- 518

Montana—geomorphology

maps: Channel changes of Powder River, 1938-78, Powder River County, Montana HA-0661

— Shaded relief, oblique view map, vicinity of Going-to-the-Sun Road, Glacier National Park, Montana I-1508-A

Montana—geophysical surveys

gravity surveys: Principal facts and complete Bouguer gravity anomaly map for the Dillon 1° by 2° Quadrangle, Montana and Idaho OF 83-0051

magnetotelluric surveys: Map showing results of audio-magnetotelluric studies in the northwestern part of the Wallace 1° by 2° Quadrangle, Montana and Idaho MF-1354-B

maps: Map showing results of audio-magnetotelluric studies in the northwestern part of the Wallace 1° by 2° Quadrangle, Montana and Idaho MF-1354-B

— Principal facts and complete Bouguer gravity anomaly map for the Dillon 1° by 2° Quadrangle, Montana and Idaho OF 83-0051

remote sensing: Use of Landsat multispectral scanner data for the definition of limonitic exposures in heavily vegetated areas OP- 1113

seismic surveys: Use of vertical and surface seismic profiles to investigate distribution of aquifers in Madison Group and Red River Formation, Powder River Basin, Wyoming-Montana OP- 54

Montana—hydrogeology

ground water: Appraisal of water in bedrock aquifers, northern Cascade County, Montana OF 82-1025

— Geohydrology of the Madison and associated aquifers in parts of Montana, North Dakota, South Dakota, and Wyoming OF 82-0914

— Hydrogeology and simulation of water flow in the Kootenai Aquifer of the Judith Basin, central Montana WRI 83-4146

— Potentially favorable areas for large-yield wells in the Red River Formation and Madison Limestone in parts of Montana, North Dakota, South Dakota, and Wyoming P 1273-E

— Potentiometric surface and quality of the water of Madison Group, Montana OP- 363

— Relationship of porosity and permeability to petrology of the Madison Limestone in rock cores from three test wells in Montana and Wyoming P 1273-C

— Use of vertical and surface seismic profiles to investigate distribution of aquifers in Madison Group and Red River Formation, Powder River Basin, Wyoming-Montana OP- 54

hydrology: Data from the surface-water hydrologic investigations of the Hay Creek Study Area, Montana, and the West Branch Antelope Creek Study Area, North Dakota, October 1976 through April 1982 OF 83-0136

— Flood estimates for ungaged streams in Glacier and Yellowstone national parks, Montana WRI 83-4147

— Hydrology of area 50, Northern Great Plains and Rocky Mountain coal provinces, Wyoming and Montana OF 83-0545

— Mean annual runoff and peak flow estimates based on channel geometry of streams in northeastern and western Montana WRI 83-4046

— Mean annual runoff and peak flow estimates based on channel geometry of streams in southeastern Montana WRI 82-4092

— Suspended sediment in selected streams of southeastern Montana WRI 82-4087

maps: Map showing altitude of the top of the "Dakota Sandstone," Montana WRI 82-4036

— Map showing altitude of the top of the Eagle Sandstone, Montana WRI 82-4034

— Map showing altitude of the top of the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4041

— Map showing altitude of the top of the Judith River Formation, Montana WRI 82-4027

— Map showing altitude of the top of the Lakota Formation and equivalent rocks, Montana WRI 82-4039

- Map showing altitude of the top of the Swift Formation, Montana WRI 82-4029
- Map showing cumulative thickness of sandstone in the "Dakota Sandstone," Montana WRI 82-4035
- Map showing cumulative thickness of sandstone in the Eagle Sandstone and Telegraph Creek Formation, Montana WRI 82-4032
- Map showing cumulative thickness of sandstone in the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4043
- Map showing cumulative thickness of sandstone in the Judith River Formation, Montana WRI 82-4038
- Map showing cumulative thickness of sandstone in the Lakota Formation and equivalent rocks, Montana WRI 82-4040
- Map showing cumulative thickness of sandstone in the Swift Formation, Montana WRI 82-4030
- Map showing total thickness of the "Dakota Sandstone," Montana WRI 82-4037
- Map showing total thickness of the Eagle Sandstone and Telegraph Creek Formation, Montana WRI 82-4033
- Map showing total thickness of the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4042
- Map showing total thickness of the Judith River Formation, Montana WRI 82-4028
- Map showing total thickness of the Lakota Formation and equivalent rocks, Montana WRI 82-4026
- Map showing total thickness of the Swift Formation, Montana WRI 82-4031
- Potentiometric-surface map of water in the Eagle Sandstone and equivalent units in the Northern Great Plains area of Montana OF 82-0565
- Potentiometric-surface map of water in the Fox Hills-Lower Hell Creek aquifer in the Northern Great Plains area of Montana OF 82-0564
- Potentiometric-surface map of water in the Judith River Formation in the Northern Great Plains area of Montana OF 82-0562
- Potentiometric-surface map of water in the Lakota Formation and equivalent units in the Northern Great Plains area of Montana OF 82-0563
- springs*: Montana; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0432
- Survey of helium in natural water wells and springs in Southwest Montana and Imperial Valley, California; Part V, January 1- December 31, 1982 OF 83-0500
- thermal waters*: Montana; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0432
- Montana—petrology**
- igneous rocks*: Garnet peridotites from the Williams Kimberlites, north-central Montana OP- 511
- inclusions*: Garnet peridotites from Williams kimberlites, north-central Montana, U.S.A. OF 83-0172
- intrusions*: Fe-Ti oxides of the Stillwater Complex, Montana; mineralogy, chemistry, and implications OP- 758
- Stillwater Complex, Montana; rock succession, metamorphism and structure of the complex and adjacent rocks P 0999
- maps*: Geologic map of the banded upper zone of the Stillwater Complex and adjacent rocks, Stillwater, Sweet Grass, and Park counties, Montana I-1383
- Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming I-1091-E
- metamorphic rocks*: Incompatible-element-rich andesitic amphibolites from the Archean of Montana and Wyoming; evidence for mantle metasomatism OP- 842
- Montana—sedimentary petrology**
- sedimentary rocks*: Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska OF 82-0906
- sedimentary structures*: Example of inner-shelf sand ridges from Upper Cretaceous Eagle Sandstone, Central Montana Uplift OP- 1031
- sedimentation*: Depositional setting and geometric characteristics of the Shannon Sandstone Member of Gammon Shale; a continental shelf sand ridges field OP- 1133
- Lemhi Arch OP- 1058
- Montana—seismology**
- earthquakes*: Instrumental seismicity of the Northern Rocky Mountains of the United States OP- 297
- Survey of helium in natural water wells and springs in Southwest Montana and Imperial Valley, California; Part V, January 1- December 31, 1982 OF 83-0500
- mantle*: Compressional-wave-velocity structure of the Yellowstone-Snake River plain system to a depth of 300 km; fundamental constraints on system models OP- 352
- Montana—stratigraphy**
- Cretaceous*: Environmental-stratigraphic cross sections of the Cretaceous Fox Hills Sandstone and Hell Creek Formation and Paleocene Fort Union Formation, Richland and Roosevelt counties, Montana MF-1554
- Map showing altitude of the top of the "Dakota Sandstone," Montana WRI 82-4036
- Map showing altitude of the top of the Eagle Sandstone, Montana WRI 82-4034
- Map showing altitude of the top of the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4041
- Map showing altitude of the top of the Judith River Formation, Montana WRI 82-4027
- Map showing altitude of the top of the Lakota Formation and equivalent rocks, Montana WRI 82-4039
- Map showing cumulative thickness of sandstone in the "Dakota Sandstone," Montana WRI 82-4035
- Map showing cumulative thickness of sandstone in the Eagle Sandstone and Telegraph Creek Formation, Montana WRI 82-4032
- Map showing cumulative thickness of sandstone in the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4043
- Map showing cumulative thickness of sandstone in the Judith River Formation, Montana WRI 82-4038
- Map showing cumulative thickness of sandstone in the Lakota Formation and equivalent rocks, Montana WRI 82-4040
- Map showing cumulative thickness of sandstone in the Swift Formation, Montana WRI 82-4030
- Map showing total thickness of the "Dakota Sandstone," Montana WRI 82-4037
- Map showing total thickness of the Eagle Sandstone and Telegraph Creek Formation, Montana WRI 82-4033
- Map showing total thickness of the Fox Hills-Lower Hell Creek Aquifer, Montana WRI 82-4042
- Map showing total thickness of the Judith River Formation, Montana WRI 82-4028
- Map showing total thickness of the Lakota Formation and equivalent rocks, Montana WRI 82-4026
- Map showing total thickness of the Swift Formation, Montana WRI 82-4031
- Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin OF 83-0717
- Stratigraphic sections of the uppermost part of the Madison Group (Mississippian) disturbed belt, Montana OF 82-1078
- Mississippian*: New members of the Madison Limestone (Devonian and Mississippian), north-central Wyoming and southern Montana B 1529-H

- Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin OF 83-0717
- Stratigraphic sections of the uppermost part of the Madison Group (Mississippian) disturbed belt, Montana OF 82-1078
- Paleocene:** Environmental-stratigraphic cross sections of the Cretaceous Fox Hills Sandstone and Hell Creek Formation and Paleocene Fort Union Formation, Richland and Roosevelt counties, Montana MF-1554
- Pleistocene:** Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park OP- 1035
- Precambrian:** Stratigraphy of Precambrian and Cambrian sedimentary rocks, Polaris 1SE Quadrangle, Beaverhead County, Montana OP- 1345
- Quaternary:** Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
- Tertiary:** Late Tertiary sedimentary rocks of the Big Hole Basin, Southwest Montana OP- 480

Montana—structural geology

- deformation:** Sequence of compressional deformation in a segment of the Sapphire thrust plate, southwestern Montana OP- 690
- faults:** Medicine Lodge thrust system, east-central Idaho and Southwest Montana P 1031
- tectonics:** Anorogenic tectonism in the Northern Great Plains (NGP) of Montana, North Dakota, South Dakota, and Wyoming OP- 29
- Foreland deformation in the northern part of the Ruby Range of southwestern Montana OP- 1245
- Great Falls lineament, Idaho and Montana OP- 915
- Landsat linear features in Montana plains OP- 1131
- Preliminary interpretation of the thrust belt in Southwest and west-central Montana and east central Idaho OP- 1059
- Recurrent tectonic activity in the Ruby and Highland ranges, Southwest Montana OP- 411

Moon—genesis

- concepts:** Could the Earth's core and Moon have formed at the same time? OP- 22

Moon—geochronology

- absolute age:** Comment; problems regarding meteorite and lunar chronology OP- 1217

Moon—geomorphology

- landform description:** Modeling Mars, Moon surfaces OP- 1171
- maps:** The completion of photogrammetric compilation of the global topographic map of the Moon OP- 1325

Moon—observations

- review:** The geology of the terrestrial planets OP- 201

Moon—petrology

- igneous rocks:** Lunar basalts & highlands rocks OP- 577
- Subdivision of the Mg-suite noritic rocks into Mg-gabbro-norites and Mg-norites OP- 578
- lunar breccia:** Petrology and comparative thermal and mechanical histories of clasts in breccia 62236 OP- 877
- Pseudotachylite from the Vredefort Ring, South Africa, and the origins of some lunar breccias OP- 1104

Moon—structural geology

- tectonics:** Procellarum, a giant planetary basin OP- 1301

moraines see under glacial features under glacial geology**Morocco—economic geology**

- cobalt ores:** A preliminary evaluation of stream sediment sampling for the detection of cobalt mineralization in the Bou Azzer District, Morocco OF 83-0383

mud volcanoes see also volcanology**museums see also associations; survey organizations****N****nannofossils see under algal flora****native elements see under minerals****natural gas see also under economic geology under**

- Appalachians; automatic data processing; Bering Sea; Colorado; Eastern U.S.; Great Plains; Gulf of Mexico; Mexico; Montana; New Mexico; North Dakota; Rocky Mountains; South Dakota; Western Interior; Wyoming

natural gas—exploration

- geochemical methods:** Geochemical prospecting for oil and gas; microbiologist's viewpoint OP- 918

- well-logging:** WELLMAP, a Fortran computer program for the generation of maps of specified geographic areas with a variety of well symbols available to depict the current status of given oil and gas drilling OF 83-0155

natural gas—genesis

- geochemistry:** Thermal decarboxylation of acetic acid; implications for origin of natural gas OP- 615

- microorganisms:** Significance of shallow gas in ancient marine sequences OP- 1030

- occurrence:** Occurrence and origin of marine gas hydrates OP- 658

natural resources see under conservation**Nebraska—economic geology**

- maps:** Torrington Quadrangle, Wyoming and Nebraska OP- 1112
- uranium ores:** Torrington Quadrangle, Wyoming and Nebraska OP- 1112

Nebraska—engineering geology

- waterways:** Sediment and channel-geometry investigations for the Kansas River bank stabilization study, Kansas, Nebraska, and Colorado OF 81-0128

Nebraska—environmental geology

- land use:** Land use and land cover and associated maps for Fremont, Nebraska, Iowa OF 82-0248

- Land use and land cover and associated maps for Lincoln, Nebraska; Kansas OF 82-0249

- Land use and land cover and associated maps for Sioux City, Nebraska, Iowa, South Dakota OF 82-0246

- Land use and land cover, 1978, Grand Island, Nebraska; Kansas L-0186

- maps:** Land use and land cover and associated maps for Fremont, Nebraska, Iowa OF 82-0248

- Land use and land cover and associated maps for Lincoln, Nebraska; Kansas OF 82-0249

- Land use and land cover and associated maps for Sioux City, Nebraska, Iowa, South Dakota OF 82-0246

- Land use and land cover, 1978, Grand Island, Nebraska; Kansas L-0186

Nebraska—hydrogeology

- ground water:** Appraisal of data for ground-water quality in Nebraska OF 83-0128

- Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123

- Geohydrology of the High Plains aquifer system in Nebraska OF 82-0502

- Groundwater levels in Nebraska 1982 OP- 583

- Pumpage data from irrigation wells in eastern Laramie County, Wyoming, and Kimball County, Nebraska OF 83-0029

- hydrology:** A statistical analysis of the quality of surface water in Nebraska W 2179

- Changes in channel cross-section area and streamflow in the Platte River, Nebraska OP- 627

- Hydrogeologic reconnaissance of the Republican River basin, Nebraska OF 81-0531

- do, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123

- Geohydrology of the High Plains aquifer system in Nebraska OF 82-0502

- Groundwater levels in Nebraska 1982 OP- 583

- Pumpage data from irrigation wells in eastern Laramie County, Wyoming, and Kimball County, Nebraska OF 83-0029

- hydrology:** A statistical analysis of the quality of surface water in Nebraska W 2179

- Changes in channel cross-section area and streamflow in the Platte River, Nebraska OP- 627

- Hydrogeologic reconnaissance of the Republican River basin, Nebraska OF 81-0531

- Hydrogeologic reconnaissance of the Republican River basin, Nebraska OF 81-0531

Nebraska—sedimentary petrology

- sedimentary rocks:** Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska OF 82-0906

neodymium—isotopes

- Nd-144/Nd-143:** Origin and age of Adirondack anorthosites re-evaluated with Nd isotopes OP- 73

- The isotopic and chemical evolution of Mount St. Helens OP- 472

- Neogene see also under geochronology under California; see also under stratigraphy under California; Idaho; Oregon; Pacific Ocean; Texas**

- neotectonics see also under structural geology under Alaska; Atlantic Coastal Plain; Basin and Range Province; British Columbia; California; Colorado; Columbia Plateau; Great Basin; Hawaii; Mexico; Mississippi Valley; Missouri; Nevada; New Mexico; North Carolina; South Carolina; Tennessee; United States; Utah; Washington; Wyoming**

- neotectonics—effects**

- magnetic field:** Tectonomagnetism OP- 585

- neptunium—geochemistry**

- ground water:** Neptunium and americium speciation in selected basalt, granite, shale, and tuff ground waters OP- 234

- Nevada—areal geology**

- maps:** Geologic map of the Freel Peak 15-minute Quadrangle, California and Nevada I-1424

- Geologic map of the Walker Lake 1° by 2° Quadrangle, California and Nevada MF-1382-A

- Preliminary geologic map of Tecoma and Lucin quadrangles, Box Elder County, Utah, and Elko County, Nevada OF 83-0725

- Preliminary geologic map of the Kyle Hot Springs 7.5-minute quadrangle, Pershing County, Nevada OF 83-0393

- Preliminary geologic map of the northern Adobe Range, Elko County, Nevada OF 83-0290

- Preliminary geologic map of the Peko Hills, Elko County, Nevada OF 83-0289

- Preliminary geologic map of the southern Snake Mountains, Elko County, Nevada OF 83-0303

- Preliminary geologic map of the Spruce Mountain-4 Quadrangle, Elko County, Nevada OF 83-0301

- Nevada—economic geology**

- clays:** Origin of magnesium clays from the Amargosa Desert, Nevada OP- 618

- copper ores:** $^{18}\text{O}/^{16}\text{O}$ and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada OP- 1159

- geothermal energy:** Geothermal resources of the western arm of the Black Rock Desert, northwestern Nevada; Part I, Geology and geophysics OF 81-0918

- Gravity survey of Dixie Valley, west-central Nevada OF 82-0111
- Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0433-A
- Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0433-B
- gold ores*: Maps showing gold and silver potential of the Round Mountain and Manhattan quadrangles, Nye County, Nevada MF-1467
- industrial minerals*: Zeolites in Tertiary tuffs along the Little Humboldt River, Humboldt and Elko counties, Nevada OF 83-0458
- maps*: Geology and mineral resources of the Red Rocks Escarpment Instant Study Area, Clark County, Nevada MF-1522
- Geology and oil shale deposits of the Elko Formation, Pinon Range, Elko County, Nevada MF-1546
- Map showing mineral exploration potential in the Death Valley Quadrangle, California and Nevada MF-0873
- Maps showing gold and silver potential of the Round Mountain and Manhattan quadrangles, Nye County, Nevada MF-1467
- Mineral resource potential map of the Lincoln Creek Roadless Area, Douglas County, Nevada MF-1545
- Mineral resource potential map of the Sugarloaf Roadless Area, Esmeralda and Mineral counties, Nevada MF-1400-C
- Mineral resource potential of the Wheeler Peak and Highland Ridge further planning areas, White Pine County, Nevada MF-1343-B
- Preliminary map of the mineralized areas in the Basin and Range area of Nevada OF 82-1100
- Preliminary map of the resource areas in the Basin and Range Province of Nevada OF 83-0721
- Walker Lake Quadrangle, California and Nevada OP- 326
- metal ores*: A hydrogeochemical survey in east-central Nevada OF 83-0286
- mineral resources*: Chemical data for samples of rocks, stream-sediment, and nonmagnetic dense-mineral concentrate in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Area, White Mountains, California and Nevada OF 82-0984
- Geology and mineral resources of the Red Rocks Escarpment Instant Study Area, Clark County, Nevada MF-1522
- Map showing mineral exploration potential in the Death Valley Quadrangle, California and Nevada MF-0873
- Mineral resource potential map of the Lincoln Creek Roadless Area, Douglas County, Nevada MF-1545
- Mineral resource potential map of the Sugarloaf Roadless Area, Esmeralda and Mineral counties, Nevada MF-1400-C
- Mineral resource potential of the Wheeler Peak and Highland Ridge further planning areas, White Pine County, Nevada MF-1343-B
- Preliminary map of the mineralized areas in the Basin and Range area of Nevada OF 82-1100
- Preliminary map of the resource areas in the Basin and Range Province of Nevada OF 83-0721
- molybdenum ores*: Geochronology and tectonics of the Buckingham porphyry molybdenum deposit, Lander County, Nevada OP- 1224
- oil shale*: Geology and oil shale deposits of the Elko Formation, Pinon Range, Elko County, Nevada MF-1546
- Results of oil-shale investigations in northeastern Nevada OF 83-0586
- petroleum*: Petroleum potential of wilderness lands in Nevada C 0902-A-P
- polymetallic ores*: Strata-bound, silver-bearing iron, lead, and zinc sulfide deposits in Silurian and Ordovician rocks of allochthonous terranes, Nevada and northern Mexico OF 83-0792
- silver ores*: Maps showing gold and silver potential of the Round Mountain and Manhattan quadrangles, Nye County, Nevada MF-1467
- springs*: Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0433-A
- Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0433-B
- uranium ores*: Uraniferous opal, Virgin Valley, Nevada; conditions of formation and implications for uranium exploration OP- 1342
- Walker Lake Quadrangle, California and Nevada OP- 326
- Nevada—engineering geology**
- bibliography*: Bibliography of reports by U. S. Geological Survey personnel on studies of underground nuclear test sites and on waste management studies at the Nevada Test Site and the Waste Isolation Pilot Plant site, New Mexico, January 1 to December 31, 1981 OF 83-0478
- earthquakes*: A study of surface and subsurface ground motions at Calico Hills, Nevada Test Site OF 82-1044
- explosions*: Explosion-induced stress changes estimated from vibrating-wire stressmeter measurements near the Mighty Epic event, Nevada Test Site OF 83-0642
- Sourcebook of locations of geophysical surveys in tunnels and horizontal holes including results of seismic refraction surveys, Rainier Mesa, Aqueduct Mesa, and Area 16, Nevada Test Site OF 83-0399
- geologic hazards*: A study of surface and subsurface ground motions at Calico Hills, Nevada Test Site OF 82-1044
- rock mechanics*: A comparative study of deep hydrofracturing and overcoring stress measurements at six locations with particular interest to the Nevada Test Site OF 82-1075
- waste disposal*: A study of surface and subsurface ground motions at Calico Hills, Nevada Test Site OF 82-1044
- Bibliography of reports by U. S. Geological Survey personnel on studies of underground nuclear test sites and on waste management studies at the Nevada Test Site and the Waste Isolation Pilot Plant site, New Mexico, January 1 to December 31, 1981 OF 83-0478
- Commercial geophysical well logs from the USW G-1 drill hole, Nevada Test Site, Nevada OF 83-0321
- E-field ratio telluric traverses near Forty Mile Wash, Nevada Test Site, Nevada OF 82-1042
- Geology of faults exposed in trenches in Crater Flat, Nye County, Nevada OF 83-0608
- Hydraulic-fracturing measurements in two boreholes near the Spent Fuel Test-Climax, Climax Stock, Nevada Test Site OF 83-0406
- Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient; summary of results OF 83-0475
- Preliminary assessment of in-situ geomechanical characteristics in drill hole USW G-1, Yucca Mountain, Nevada OF 83-0401
- Resistivity sounding investigation by the Schlumberger method in the Yucca Mountain and Jackass Flats area, Nevada Test Site, Nevada OF 82-1043
- Nevada—environmental geology**
- land use*: Land use and land cover and associated maps for Elko, Nevada OF 83-0109
- Land use and land cover and associated maps for Lovelock, Nevada OF 83-0111
- maps*: Land use and land cover and associated maps for Elko, Nevada OF 83-0109
- Land use and land cover and associated maps for Lovelock, Nevada OF 83-0111
- Nevada—geochemistry**
- isotopes*: Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient OP- 837
- The oxygen isotope composition of granitoid and sedimentary rocks of the southern Snake Range, Nevada OP- 674
- $^{18}\text{O}/^{16}\text{O}$ and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada OP- 1159
- maps*: Geochemical anomaly map of the Sugarloaf Roadless Area, Mineral and Esmeralda counties, Nevada MF-1400-B
- Map and interpretation of geochemical anomalies in the White Mountains, Blanco Mountain, Birch Creek, and Black Canyon Roadless Areas, White Mountains, California and Nevada MF-1361-B
- trace elements*: Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Lincoln Creek Roadless Area, Douglas County, Nevada OF 83-0666
- Chemical analyses and statistical summaries for samples of rock, minus-60-mesh (0.25-mm) stream sediment, and nonmagnetic heavy-mineral concentrate, Sweetwater Roadless Area, Mono County, California, and Lyon and Douglas counties, Nevada OF 83-0647
- weathering*: Sources of mineral constituents in water from granitic rocks, Sierra Nevada, California and Nevada W 1535-1
- Nevada—geochronology**
- Cretaceous*: K-Ar ages of micas related to mineralization in selected mining districts, Lyon and Mineral counties, Nevada OP- 779
- Nevada—geomorphology**
- maps*: Map showing surficial geology of the Lathrop Wells Quadrangle, Nye County, Nevada I-1361
- processes*: Paleoclimatic significance of nivation in the western and central Great Basin, Nevada and California OP- 309
- Nevada—geophysical surveys**
- Earth-current surveys*: E-field ratio telluric traverses near Forty Mile Wash, Nevada Test Site, Nevada OF 82-1042
- electrical surveys*: Resistivity sounding investigation by the Schlumberger method in the Yucca Mountain and Jackass Flats area, Nevada Test Site, Nevada OF 82-1043
- gravity surveys*: Bouguer gravity map of the western arm of the Black Rock Desert, northwestern Nevada GP-0952
- Gravity interpretation of Yucca Mountain, Nye County, Nevada and its implications for southern Nevada structure OP- 1151
- Gravity investigations OF 83-0377
- Gravity survey of Dixie Valley, west-central Nevada OF 82-0111

- Lithologic and gravity characteristics of the southern Peavine volcanic center, Toiyabe Range, Nevada OP- 145
 - Principal facts and density estimates for borehole gravity stations in exploratory wells Ue7h, Ue4al, and Ue11a at the Nevada Test Site, Nye County, Nevada OF 83-0244
 - Principal facts of gravity stations with gravity and magnetic profiles from the Southwest Nevada Test Site, Nye County, Nevada, as of January, 1982 OF 82-1041
 - heat flow*: Geothermal resources of the western arm of the Black Rock Desert, northwestern Nevada; Part I, Geology and geophysics OF 81-0918
 - Hydrology of the hydrothermal system in southern Grass Valley, Pershing County, Nevada OP- 1282
 - magnetic surveys*: Aeromagnetic map of part of the Las Vegas 1° by 2° Quadrangle, Nevada OF 83-0729
 - Aeromagnetic map of part of the White and Inyo Mountains, California and Nevada OF 83-0656
 - Aeromagnetic map of the Eureka and Saline valleys area, California and Nevada OF 83-0653
 - Aeromagnetic map of the northern part of the Inyo National Forest, California and Nevada OF 83-0654
 - Aeromagnetic map of Yucca Mountain and surrounding regions, Southwest Nevada OF 83-0616
 - Magnetic investigations OF 83-0377
 - Preliminary aeromagnetic map of the Tonopah 1° by 2° Quadrangle, Nevada OF 83-0619
 - maps*: Aeromagnetic map of part of the Las Vegas 1° by 2° Quadrangle, Nevada OF 83-0729
 - Aeromagnetic map of part of the White and Inyo Mountains, California and Nevada OF 83-0656
 - Aeromagnetic map of the Eureka and Saline valleys area, California and Nevada OF 83-0653
 - Aeromagnetic map of the northern part of the Inyo National Forest, California and Nevada OF 83-0654
 - Aeromagnetic map of Yucca Mountain and surrounding regions, Southwest Nevada OF 83-0616
 - Bouguer gravity map of the western arm of the Black Rock Desert, northwestern Nevada GP-0952
 - Preliminary aeromagnetic map of the Tonopah 1° by 2° Quadrangle, Nevada OF 83-0619
 - seismic surveys*: Sourcebook of locations of geophysical surveys in tunnels and horizontal holes including results of seismic refraction surveys, Rainier Mesa, Aqueduct Mesa, and Area 16, Nevada Test Site OF 83-0399
 - surveys*: Geologic and geophysical investigations of Climax Stock intrusive, Nevada OF 83-0377
 - Geophysical reconnaissance of Lemmon Valley, Nevada OP- 1083
 - Preliminary appraisal of gravity and magnetic data at Syncline Ridge, western Yucca Flat, Nevada Test Site, Nye County, Nevada OF 82-0931
 - well-logging*: An interpretation of precision temperature logs in a deep geothermal well near Desert Peak, Churchill County, Nevada OP- 1247
 - Hole-to-surface resistivity measurements OP- 278
- Nevada—hydrogeology**
- ground water*: Aquifer systems in the Great Basin region of Nevada, Utah, and adjacent states; a study plan OF 82-0445
 - Geohydrologic and drill-hole data for test well USW-H1, adjacent to Nevada Test Site, Nye County, Nevada OF 83-0141
 - Hydrology of the hydrothermal system in southern Grass Valley, Pershing County, Nevada OP- 1282
 - Incorporation of prior information on parameters into nonlinear regression ground-water flow models; 2, Applications OP- 254
 - Mathematical model analysis of the Eagle Valley ground-water basin, west-central Nevada OF 80-1224
 - Two-dimensional, steady-state model of ground-water flow, Nevada Test Site and vicinity, Nevada-California WRI 82-4085
 - hydrology*: Big Soda Lake, Nevada; Part II, Carbon isotopes OP- 1046
 - Soda Lake, Nevada; I, Hydrogeochemistry of an alkaline meromictic desert lake OP- 616
 - springs*: A hydrogeochemical survey in east-central Nevada OF 83-0286
 - thermal waters*: Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part A OF 83-0433-A
 - Nevada; basic data for thermal springs and wells as recorded in Geotherm; Part B OF 83-0433-B
- Nevada—mineralogy**
- phosphates*: Vashegyite from Nevada and "palfevite" from Nevada (= richmondite) and Arkansas (= kingite) OP- 807
- Nevada—paleontology**
- Arthropoda*: Preliminary report on the occurrence of Angustidontus in Nevada and Utah OF 83-0355
- Nevada—petrology**
- igneous rocks*: The chemistry of seven igneous biotites from eastern Nevada and western Utah OF 83-0629
 - intrusions*: Geologic investigations OF 83-0377
 - Summary of geologic and geophysical investigations OF 83-0377
 - The mineralogy of the Snake Creek-Williams Canyon pluton, southern Snake Range, Nevada OF 83-0337
 - maps*: Map showing distribution, ages, and petrographic characteristics of Mesozoic plutonic rocks in the Walker Lake 1° by 2° Quadrangle, California and Nevada MF-1382-B
 - volcanology*: Lithologic and gravity characteristics of the southern Peavine volcanic center, Toiyabe Range, Nevada OP- 145
- Nevada—sedimentary petrology**
- clay mineralogy*: Mixed-layer kerolite/stevensite from the Amargosa Desert, Nevada OP- 332
 - sedimentation*: Late Triassic cyclic deposition on the Colorado Plateau and its regional implications OP- 718
- Nevada—seismology**
- crust*: Three-dimensional modeling of the Nevada Test Site and vicinity from teleseismic P-wave residuals OF 82-0409
 - explosions*: A discrimination analysis of short-period regional seismic data recorded at Tonto Forest Observatory OP- 845
- Nevada—stratigraphy**
- Cambrian*: Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada OP- 798
 - Carboniferous*: Carboniferous-Permian boundary in Southwestern United States OP- 313
- Devonian*: Allochthonous Devonian eugeosynclinal rocks in southern Fish Creek Range of central Nevada OP- 986
- Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada OP- 319
- Eocene*: Geology and oil shale deposits of the Elko Formation, Pinon Range, Elko County, Nevada MF-1546
- Paleozoic*: Correlation of metamorphosed Paleozoic strata of the southeastern Mojave Desert region, California and Arizona OP- 1194
- Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada OP- 582
- Permian*: Carboniferous-Permian boundary in Southwestern United States OP- 313
- Proterozoic*: Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada OP- 798
- Quaternary*: Nivation and cryoplanation in the west-central Basin and Range OP- 308
- Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
- Triassic*: Middle Triassic molluscan fossils of biostratigraphic significance from the Humboldt Range, northwestern Nevada P 1207
- Smithian (Lower Triassic) conodont biofacies in Idaho, Utah and Nevada OP- 1273
 - Unraveling Neogondolella carinata Clark, an Early Triassic conodont OP- 1274
- Nevada—structural geology**
- maps*: Map showing late Cenozoic faults in the Walker Lake 1° by 2° Quadrangle, Nevada-California MF-1382-D
 - neotectonics*: Geology of faults exposed in trenches in Crater Flat, Nye County, Nevada OF 83-0608
 - Map showing late Cenozoic faults in the Walker Lake 1° by 2° Quadrangle, Nevada-California MF-1382-D
 - tectonics*: Allochthonous Devonian eugeosynclinal rocks in southern Fish Creek Range of central Nevada OP- 986
 - Friction, faulting, and in-situ stress OP- 1347
 - Geochronology and tectonics of the Buckingham porphyry molybdenum deposit, Lander County, Nevada OP- 1224
 - Geometry and structural history of the Mesozoic thrust belt in the Goodsprings District, southern Spring Mountains, Nevada OP- 199
 - Mesozoic and Cenozoic tectonic development of the Muddy, North Muddy, and northern Black Mountains, Clark County, Nevada OP- 123
 - Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada OP- 319
 - Overlapping overthrust belts of late Paleozoic and Mesozoic ages, northern Elko County, Nevada OP- 238
 - Spatial variation, style, and age of Cenozoic extensional tectonics in the Great Basin OP- 1185
 - Structural geology of the Montgomery Mountains and the northern half of the Nopah and Resting Spring ranges, Nevada and California OP- 169
- New Brunswick—seismology**
- earthquakes*: A teleseismic analysis of the New Brunswick earthquake of January 9, 1982 OP- 226

- Stress drops of the aftershocks of the 1982 New Brunswick earthquake OP- 118
- New Caledonia—economic geology**
chromite ores: Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
platinum ores: Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
- New Caledonia—geochemistry**
trace elements: Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
- New England—economic geology**
metal ores: Stratabound sulfide deposits of the New England region; an overview OP- 1144
- New England—environmental geology**
pollution: Electromagnetic conductivity techniques in delineating ground-water-pollution plumes OP- 325
- New England—hydrogeology**
hydrology: Chemical composition of atmospheric precipitation in the Northeastern United States W 1535-P
- New England—stratigraphy**
changes of level: Quaternary geology of the Rhode Island inner shelf OP- 853
Paleozoic: Silurian-Lower Devonian stratigraphy of eastern and south-central New Hampshire; extensions from western Maine OP- 499
Pleistocene: Late Wisconsin deglaciation of high-relief alpine terrain in northern Washington compared to New England OP- 1263
Proterozoic: Stratigraphic names in eastern Massachusetts and adjacent states B 1529-H
- New England—structural geology**
tectonics: External massifs of western New England; variously reactivated North American cratonic basement OP- 1002
- New Hampshire—engineering geology**
rock mechanics: The relation between in situ ultrasonic properties of rock and in situ stress OF 82-1075
- New Hampshire—environmental geology**
pollution: Trichloroethylene in the ground-water supply of Pease Air Force Base, Portsmouth, New Hampshire OF 80-0557
- New Hampshire—oceanography**
continental shelf: Preliminary interpretation of marine sparker reflection profiles offshore from Cape Ann, Massachusetts, to Hampton, New Hampshire OF 83-0460
- New Hampshire—stratigraphy**
Devonian: Silurian-Lower Devonian stratigraphy of eastern and south-central New Hampshire; extensions from western Maine OP- 499
Pleistocene: Late Wisconsin deglaciation of high-relief alpine terrain in northern Washington compared to New England OP- 1263
 — Permafrost in the northeastern United States coastal plain OP- 907
Silurian: Late Silurian conodonts update the metamorphosed Fitch Formation, Littleton area, New Hampshire OP- 485
- New Jersey—areal geology**
regional: The National Gazetteer of the United States of America; New Jersey 1983 P 1200-NJ
- New Jersey—economic geology**
uranium ores: Chronology of metamorphic rocks associated with uranium occurrences, Hudson Highlands, New York - New Jersey OP- 10
- New Jersey—geochronology**
Paleocene: NDS 92; Palaeocene, K-Ar/glaucopy, NE American Basin OP- 896
Paleozoic: Chronology of metamorphic rocks associated with uranium occurrences, Hudson Highlands, New York - New Jersey OP- 10
- New Jersey—geophysical surveys**
surveys: High-resolution seismic profile and sidescan-sonar data collected during June 1980 offshore New Jersey, Whitefoot cruise 80-1 OF 83-0422
- New Jersey—hydrogeology**
ground water: Computer simulation model of the Pleistocene valley-fill aquifer in southwestern Essex and southeastern Morris counties, New Jersey WRI 83-4028
 — Geology and ground-water resources of Camden County, New Jersey WRI 83-4029
hydrology: Chemical-quality reconnaissance of the water and surficial bed material in the Delaware River estuary and adjacent New Jersey tributaries, 1980-81 PB-83 151 852
 — Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach W 2216
 — Drainage areas in New Jersey; Delaware River basin and streams tributary to Delaware Bay OF 82-0572
 — Report of the River Master of the Delaware River for the period December 1, 1981, to November 30, 1982 OF 83-0538
 — Report of the River Master of the Delaware River for the period of December 1, 1980 to November 30, 1981 OF 82-0341
- New Jersey—oceanography**
continental shelf: Mass movement features and geomorphology of the continental slope off New Jersey OP- 477
continental slope: Past and potential mass movement on continental slope off northeastern United States OP- 131
- New Jersey—petrology**
metamorphism: The Reading Prong of New Jersey and eastern Pennsylvania; an appraisal of rock relations and chemistry of a major Proterozoic terrane in the Appalachians OP- 317
- New Jersey—sedimentary petrology**
sedimentation: Tectonism and sedimentation in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey OP- 1243
- New Jersey—stratigraphy**
Pleistocene: Permafrost in the northeastern United States coastal plain OP- 907
- New Jersey—structural geology**
tectonics: Tectonism and sedimentation in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey OP- 1243
- New Mexico—areal geology**
bibliography: Geologic references index for the Navajo Indian Reservation, Arizona, New Mexico, and Utah OF 83-0002
Chaco Canyon National Monument: Geology of Chaco Canyon National Monument, New Mexico OP- 1094
maps: Geologic and isopach maps of the Bisti, De-Na-Zin, and Ah-Shi-Sle-Pah Wilderness Study Areas, San Juan County, New Mexico MF-1508-A
 — Geologic map of the Alamo Mesa East Quadrangle, San Juan County, New Mexico MF-1497
 — Geologic map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico MF-1523-C
 — Geologic map of the Fence Lake Quadrangle, Cibola County, New Mexico MF-1533
- Geologic map of the Huerfano Trading Post SW Quadrangle, San Juan County, New Mexico MF-1498
 — Geologic map of the Latir Peak and Wheeler Peak Wilderness and Columbine-Hondo Wilderness Study Area, Taos County, New Mexico MF-1570-B
 — Geologic map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico MF-1463-B
 — Geologic map of the Moreno Hill Quadrangle, Cibola and Catron counties, New Mexico MF-1509
 — Geologic map of the Moreno Hill Quadrangle, Cibola and Catron counties, New Mexico MF-1509
 — Geologic map of the Mule Creek Quadrangle, Grant County, New Mexico MF-1666
 — Geologic map of the Rincon Hondo Quadrangle, Cibola County, New Mexico MF-1506
- New Mexico—economic geology**
coal: Coal resource occurrence and coal development potential maps of the Nageezi NE Quadrangle, Rio Arriba and San Juan counties, New Mexico OF 79-0619
 — Geologic map of the Chaco Canyon 30' by 60' Quadrangle, showing coal zones of Fruitland Formation, San Juan, Rio Arriba, and Sandoval counties, New Mexico C-0092-A
fluorspar: Pelletal and oolitic fluorite in a lacustrine zeolitic tuff near Buckhorn, Grant County, New Mexico OP- 1124
fuel resources: Influence of deposition and early diagenesis on porosity and chemical compaction in two Paleozoic buildups; Mississippian and Permian age rocks in the Sacramento Mountains, New Mexico OP- 1128
geothermal energy: New Mexico; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0434
maps: Albuquerque Quadrangle, New Mexico OP- 446
 — Aztec Quadrangle, New Mexico and Colorado OP- 444
 — Coal resource occurrence and coal development potential maps of the Nageezi NE Quadrangle, Rio Arriba and San Juan counties, New Mexico OF 79-0619
 — Gallup Quadrangle, Arizona and New Mexico OP- 445
 — Geologic map of the Chaco Canyon 30' by 60' Quadrangle, showing coal zones of Fruitland Formation, San Juan, Rio Arriba, and Sandoval counties, New Mexico C-0092-A
 — Geology and mineral deposits of the Priest Tank Quadrangle, Sierra County, New Mexico MF-1665
 — Mine and prospect map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico MF-1523-A
 — Mineral deposit map of the Silver City 1° by 2° Quadrangle, New Mexico and Arizona I-1310-B
 — Mineral resource potential and geologic map of Guadalupe Escarpment Wilderness Study Area, Eddy County, New Mexico MF-1560-A
 — Mineral resource potential and geologic map of the Caballo and Polvadera Roadless Areas, Los Alamos and Rio Arriba counties, New Mexico MF-1516
 — Mineral resource potential and geologic map of the Little Dog and Pup Canyons Roadless Area, Otero County, New Mexico MF-1468

- Mineral resource potential map of Bunk Robinson Peak and Whitmire Canyon Roadless Areas, Hidalgo County, New Mexico, and Cochise County, Arizona MF-1425-B
 - Mineral resource potential map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico MF-1523-B
 - Mineral resource potential map of the Columbine-Hondo Wilderness Study Area, Taos County, New Mexico MF-1570-A
 - Mineral resource potential map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico MF-1463-C
 - Shiprock Quadrangle, Arizona, New Mexico, Colorado, Utah OP- 443
 - mineral resources:* Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0703
 - Geology and mineral deposits of the Priest Tank Quadrangle, Sierra County, New Mexico MF-1665
 - Mine and prospect map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico MF-1523-A
 - Mineral deposit map of the Silver City 1° by 2° Quadrangle, New Mexico and Arizona I-1310-B
 - Mineral resource areas of the Basin and Range Province of New Mexico OF 83-0665
 - Mineral resource potential and geologic map of Guadalupe Escarpment Wilderness Study Area, Eddy County, New Mexico MF-1560-A
 - Mineral resource potential and geologic map of the Caballo and Polvadera Roadless Areas, Los Alamos and Rio Arriba counties, New Mexico MF-1516
 - Mineral resource potential and geologic map of the Little Dog and Pup Canyons Roadless Area, Otero County, New Mexico MF-1468
 - Mineral resource potential map of Bunk Robinson Peak and Whitmire Canyon Roadless Areas, Hidalgo County, New Mexico, and Cochise County, Arizona MF-1425-B
 - Mineral resource potential map of the Chama River Canyon Wilderness and contiguous roadless area, Rio Arriba County, New Mexico MF-1523-B
 - Mineral resource potential map of the Columbine-Hondo Wilderness Study Area, Taos County, New Mexico MF-1570-A
 - Mineral resource potential map of the Lower San Francisco Wilderness Study Area and contiguous roadless area, Greenlee County, Arizona, and Catron and Grant counties, New Mexico MF-1463-C
 - Mineral resource potential of the southeast addition to the White Mountain Wilderness, Lincoln County, New Mexico OF 83-0594
 - Slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0443
 - natural gas:* The San Juan Basin contains large reserves of nonassociated gas OP- 1033
 - petroleum:* Petroleum potential of wilderness lands in New Mexico C 0902-A-P
 - uranium ores:* Albuquerque Quadrangle, New Mexico OP- 446
 - Aztec Quadrangle, New Mexico and Colorado OP- 444
 - Distribution of trace elements in drilling chip samples around a roll-type uranium deposit, San Juan Basin, New Mexico OF 83-0056
 - Gallup Quadrangle, Arizona and New Mexico OP- 445
 - Geochemical characteristics of the Church Rock 1 and 1 East uranium deposits, Grants uranium region, New Mexico OF 83-0194
 - Magnetic-susceptibility logging in sedimentary uranium environments OP- 1111
 - Petrography of some Ambrosia Lake, New Mexico, prefault uranium ores, and implications for their genesis OF 83-0008
 - Shiprock Quadrangle, Arizona, New Mexico, Colorado, Utah OP- 443
 - U-Pb ages of uranium ores in the Churchrock uranium district, New Mexico OP- 713
 - water resources:* Review of selected ground-water resource studies in the Albuquerque Basin, New Mexico OP- 654
 - Water-resources investigations of the U.S. Geological Survey in New Mexico; fiscal year 1981 OF 83-0772
 - Water resources of the Zuni Tribal Lands, McKinley and Cibola counties, New Mexico OF 82-1013
- New Mexico—engineering geology**
- bibliography:* Bibliography of reports by U. S. Geological Survey personnel on studies of underground nuclear test sites and on waste management studies at the Nevada Test Site and the Waste Isolation Pilot Plant site, New Mexico, January 1 to December 31, 1981 OF 83-0478
- waste disposal:* Bibliography of reports by U. S. Geological Survey personnel on studies of underground nuclear test sites and on waste management studies at the Nevada Test Site and the Waste Isolation Pilot Plant site, New Mexico, January 1 to December 31, 1981 OF 83-0478
- Geologic and well-construction data for the H-10 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico WRI 83-4124
 - Geologic and well-construction data for the H-8 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico WRI 82-4118
 - Geologic and well-construction data for the H-9 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico WRI 82-4111
 - Instrumentation used for hydraulic testing of potential water-bearing formations at the Waste Isolation Pilot Plant site in southeastern New Mexico OF 83-0144
 - Report of reprocessing of reflection seismic profile X-5 Waste Isolation Pilot Plant site, Eddy County, New Mexico OF 83-0316
- New Mexico—environmental geology**
- reclamation:* Reclamation of mined lands in the western coal region C 0872
- New Mexico—geochemistry**
- igneous rocks:* GRANNY, a data bank of chemical analyses of Laramide and younger high-silica rhyolites and granites from Colorado and north-central New Mexico OF 83-0516
- maps:* Geochemical maps of Bunk Robinson Peak and Whitmire Canyon Roadless areas, Hidalgo County, New Mexico, and Cochise County, Arizona MF-1425-C
- Map showing anomalous silver distribution in stream sediment concentrates, Hillsboro and San Lorenzo quadrangles, exclusive of the Black Range Primitive Area, Sierra and Grant counties, New Mexico MF-0900-C
 - Maps showing the distribution and relationships of selected metals in heavy-mineral concentrates of the Hells Hole Further Planning Area (RARE II), Greenlee County, Arizona, and Grant County, New Mexico MF-1344-D
- surveys:* Analytical results for stream-sediment concentrate, sieved stream-sediment, rock, and water samples from the Silver City 1° × 2° Quadrangle, New Mexico and Arizona PB-83 220 863
- Geochemical data for the Guadalupe Escarpment Wilderness Study Area, Eddy County, New Mexico OF 83-0007
 - trace elements:* Analytical and statistical results for samples collected from the Sandia Mountain Wilderness, Bernalillo and Sandoval counties, New Mexico OF 83-0407
 - Analytical results for 26 water samples from southern New Mexico OF 83-0777
 - Methodology, statistical summary, and listing of analyses of geochemical samples, Lower San Francisco River Wilderness Study Area and contiguous roadless area (RARE II), Catron and Grant counties, New Mexico, and Greenlee County, Arizona OF 83-0494
 - Mineral resource potential of the southeast addition to the White Mountain Wilderness, Lincoln County, New Mexico OF 83-0594
 - Petrography of some Ambrosia Lake, New Mexico, prefault uranium ores, and implications for their genesis OF 83-0008
- New Mexico—geochronology**
- Precambrian:* Redefinition of the Precambrian Tusas Mountain and Tres Piedras granites, north-central New Mexico OP- 1314
- Proterozoic:* Lead-isotopic compositions of diverse igneous rocks and ore deposits from southwestern New Mexico and their implications for early Proterozoic crustal evolution in the western United States OP- 1174
- New Mexico—geophysical surveys**
- magnetic surveys:* Mapping basement magnetization zones from aeromagnetic data in the San Juan Basin, New Mexico OP- 259
- magnetotelluric surveys:* Audio-magnetotelluric data log and station-location map for the Latir Peak Wilderness and Columbine-Hondo Roadless Area, New Mexico OF 83-0340
- maps:* Mapping basement magnetization zones from aeromagnetic data in the San Juan Basin, New Mexico OP- 259
- seismic surveys:* Report of reprocessing of reflection seismic profile X-5 Waste Isolation Pilot Plant site, Eddy County, New Mexico OF 83-0316
- surveys:* Description of slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0703
- Slides showing aeromagnetic and gravity data for regional mineral exploration in Colorado, New Mexico, and Arizona OF 83-0443
- New Mexico—hydrogeology**
- ground water:* Annual water-resources review, White Sands Missile Range, New Mexico OF 82-0757
- Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123
 - Supplement to the New Mexico three-dimensional model OF 82-0857
 - hydrology:* Estimated natural streamflow in the Rio San Jose upstream from the pueblos of Acoma and Laguna, New Mexico WRI 82-4096
 - Estimation of natural streamflow in the Jemez River at the boundaries of Indian lands, central New Mexico WRI 82-4113

- Floods of November 1978 to March 1979 in Arizona and west-central New Mexico
OF 83-0201
- Hydrogeology and water resources of San Juan Basin, New Mexico OP- 1195
- Miscellaneous surface-water data, Pecos River basin, New Mexico OF 81-0218
- Modeling of a transient streambed in the Rio Grande, Cochiti Dam to near Albuquerque, New Mexico OF 82-0106
- springs*: Analytical results for 328 water samples from the Silver City 1° by 2° Quadrangle, Arizona and New Mexico OF 83-0084
- New Mexico; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0434
- thermal waters*: New Mexico; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0434
- New Mexico—petrology**
- volcanology*: El Malpais OP- 755
- Volcanic history of southwestern Mogollon-Datil volcanic field as recorded along the Morenci Lineament, New Mexico and Arizona OP- 1004
- New Mexico—sedimentary petrology**
- sedimentary rocks*: The nonopaque, detrital heavy mineralogy of the Morrison Formation near Crownpoint, San Juan Basin, New Mexico OF 83-0191
- sedimentation*: Continuous subaqueous deposition of the Permian Castile evaporites, Delaware Basin, Texas and New Mexico OP- 283
- Influence of geologic structure on sedimentation of the Upper Jurassic Morrison Formation, Southern Juan Basin, New Mexico OP- 244
- New Mexico—seismology**
- earthquakes*: Earthquake sequence of 1938-1939 in Mogollon Mountains, New Mexico OP- 1210
- maps*: Seismicity map of the State of New Mexico MF-1660
- New Mexico—stratigraphy**
- Cretaceous*: Isopach and contour structure maps of the Burro Canyon(?) Formation in the Mesa Golondrina and Mesa de Los Viejos areas, Chama Basin, New Mexico MF-1496-A
- Isopach and structure contour maps of the Burro Canyon(?) Formation in the Canjilon-Ghost Ranch area, Chama Basin, New Mexico MF-1496-B
- Isopach and structure contour maps of the Burro Canyon(?) Formation in the Chama-El Vado area, Chama Basin, New Mexico MF-1496-C
- Magnetic mineralogy of continental deposits, San Juan Basin, New Mexico, and Clark's Fork Basin, Wyoming OP- 175
- Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas OP- 811
- Jurassic*: Stratigraphic sections of subsurface Jurassic rocks in the San Juan Basin, New Mexico, Colorado, Utah, and Arizona OC-0118
- maps*: Isopach and contour structure maps of the Burro Canyon(?) Formation in the Mesa Golondrina and Mesa de Los Viejos areas, Chama Basin, New Mexico MF-1496-A
- Isopach and structure contour maps of the Burro Canyon(?) Formation in the Canjilon-Ghost Ranch area, Chama Basin, New Mexico MF-1496-B
- Isopach and structure contour maps of the Burro Canyon(?) Formation in the Chama-El Vado area, Chama Basin, New Mexico MF-1496-C
- Mesozoic*: Mesozoic stratigraphy of the Laguna-Grants region OP- 754
- Paleocene*: Magnetic mineralogy of continental deposits, San Juan Basin, New Mexico, and Clark's Fork Basin, Wyoming OP- 175
- Pennsylvanian*: Stratigraphic summary of Pennsylvanian and Lower Permian rocks, Manzano Mountains, New Mexico OP- 846
- Permian*: Stratigraphic summary of Pennsylvanian and Lower Permian rocks, Manzano Mountains, New Mexico OP- 846
- Precambrian*: Precambrian rocks of the Mora-Rociada area, southern Sangre de Cristo Mountains, New Mexico OP- 914
- Tertiary*: Fence Lake Formation (Tertiary), west-central New Mexico OP- 783
- Triassic*: Aspects of the palynology of the Chinle Formation (Upper Triassic), Colorado Plateau, Arizona, Utah, and New Mexico OF 82-0937
- New Mexico—structural geology**
- faults*: Quaternary and Pliocene faults in the La Jencia and southern part of the Albuquerque-Belen basins, New Mexico; evidence of fault history from fault-scarp morphology and Quaternary geology OP- 723
- maps*: Map of Quaternary and Pliocene faults in the Socorro and western part of the Fort Sumner 1° by 2° Quadrangles, New Mexico MF-1465-A
- neotectonics*: Extension in the Rio Grande Rift OP- 258
- Map of Quaternary and Pliocene faults in the Socorro and western part of the Fort Sumner 1° by 2° Quadrangles, New Mexico MF-1465-A
- tectonics*: Precambrian rocks of the Mora-Rociada area, southern Sangre de Cristo Mountains, New Mexico OP- 914
- New Mexico—tectonophysics**
- crust*: Extension in the Rio Grande Rift OP- 258
- plate tectonics*: Paleomagnetic evidence bearing on the structural development of the Latir volcanic field near Questa, New Mexico OP- 465
- New York—economic geology**
- salt*: Notes on the clay mineralogy of the Retsof salt bed, International Salt Company Mine, Retsof, New York OF 83-0718
- uranium ores*: Chronology of metamorphic rocks associated with uranium occurrences, Hudson Highlands, New York - New Jersey OP- 10
- Uranium occurrences in Precambrian rocks of the Adirondack region, New York OP- 892
- water resources*: The U. S. Geological Survey's water resources program in New York OF 83-0270
- New York—engineering geology**
- foundations*: Engineering problems in an urban setting; their geologic significance OP- 69
- The foundation geology of New York City OP- 72
- rock mechanics*: The relation between in situ ultrasonic properties of rock and in situ stress OF 82-1075
- New York—geochemistry**
- manganese*: Manganese cycles and the origin of manganese nodules, Oneida Lake, New York, U.S.A. OP- 286
- trace elements*: Origin and age of Adirondack anorthosites re-evaluated with Nd isotopes OP- 73
- New York—geochronology**
- Paleozoic*: Chronology of metamorphic rocks associated with uranium occurrences, Hudson Highlands, New York - New Jersey OP- 10
- Proterozoic*: Origin and age of Adirondack anorthosites re-evaluated with Nd isotopes OP- 73
- New York—geomorphology**
- glacial geology*: Tectonic versus frost-wedging origin of faulted glacially polished surfaces in the lower Hudson River valley area OP- 1003
- New York—hydrogeology**
- ground water*: An atlas of 11 selected aquifers in New York OF 82-0553
- Analysis of three tests of the unconfined aquifer in southern Nassau County, Long Island, New York WRI 82-4021
- Geologic reconnaissance of an extensive clay unit in north-central Suffolk County, Long Island, New York WRI 82-4075
- Geology and ground-water resources of Oswego County, New York PB-83 124 651
- Geology of the "20-foot" clay and Gardiners Clay in southern Nassau and southwestern Suffolk counties, Long Island, New York WRI 82-4056
- Ground-water appraisal of the Pine Bush area, Albany County, New York WRI 82-4000
- Ground-water pumpage in Nassau County, Long Island, New York, 1920-77; Introduction and user's guide to the data compilation OF 81-0499
- Instructions for using the U. S. Geological Survey data base of wells on Long Island, New York OF 82-0568
- Water levels in Nassau County sewer districts 2 and 3, Long Island, New York WRI 82-4017
- hydrology*: Base flow of streams in Nassau County sewer districts 2 and 3, Long Island, New York, 1978-79 OF 81-0420
- Changes in the chemistry of bulk precipitation in New York State, 1965-1978 OP- 59
- Chemical composition of atmospheric precipitation in the Northeastern United States W 1535-P
- Computation of inflows and outflows of eight regulated lakes in the Oswego River basin, New York, 1930-79 WRI 82-4112
- Effects of sanitary sewers on ground-water levels and streams in Nassau and Suffolk counties, New York; Part I, Geohydrology, modeling strategy, and regional evaluation WRI 82-4045
- Report of the River Master of the Delaware River for the period December 1, 1981, to November 30, 1982 OF 83-0538
- maps*: Potentiometric surface of the Lloyd Aquifer, Long Island, New York, in January 1979 OF 82-0162
- Potentiometric surface of the Magothy Aquifer, Long Island, New York, March 1979 OF 82-0160
- Water table on Long Island, New York, March 1979 OF 82-0163
- New York—mineralogy**
- native elements*: The origin of epigenetic graphite; evidence from isotopes OP- 1280
- New York—petrology**
- intrusions*: Paleomagnetic study of diabasic dikes and miscellaneous granitic gneisses in St. Lawrence and Jefferson counties, New York OF 83-0226
- metamorphic rocks*: Magnesian tourmaline-rich metasediments in the Grenville Lowlands of New York; potential for occurrence of massive sulfide deposits OP- 156
- New York—stratigraphy**
- Cambrian*: Adoption of the name Hutchinson River Group and its subdivisions in Bronx and Westchester counties, southeastern New York B 1529-H

- Devonian:** Adoption of names of certain members of formations in the Hamilton Group (Middle Devonian) of New York B 1529-H
- Ordovician:** Adoption of the name Hutchinson River Group and its subdivisions in Bronx and Westchester counties, southeastern New York B 1529-H
- New York—structural geology**
faults: Cameron's Line in the vicinity of New York City OP- 790
- nickel—geochemistry**
stream sediments: Distribution and abundance of nickel, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-Q
 — Distribution and abundance of nickel, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-P
- nickel ores—mineral exploration**
methods: Exploration methods for laterite-type bauxite and nickel laterite OP- 939
- nickel ores—resources**
models: Mineral deposit grade-tonnage models OF 83-0623
- Nigeria—hydrogeology**
ground water: Chemical properties of ground water and their corrosion and encrustation effects on wells P 0498-D
- nitrogen—geochemistry**
surface water: Nutrient and detritus transport in the Apalachicola River, Florida OF 83-0130
- noble gases** *see also* argon; helium; radon
- nodules—ferromanganese composition**
genesis: Amorphous and crystalline ferromanganese deposits from seamounts in Gulf of Alaska OP- 649
- nodules—manganese composition**
composition: The aluminosilicate fraction of North Pacific manganese nodules OP- 100
distribution: Analysis of the world distribution of metal-rich subsea manganese nodules C 0886
genesis: Manganese cycles and the origin of manganese nodules, Oneida Lake, New York, U.S.A. OP- 286
observations: Distribution, mineralogy, and texture of manganese nodules and their relation to sedimentation at DOMES Site A in the equatorial North Pacific OP- 968
- nomenclature** *see under* aquifers *under* ground water; *see under* areal geology *under* catalogs; *see under* classification *under* ground water; *see under* economic geology; hydrogeology; stratigraphy
- North America** *see also* Appalachians; Atlantic Coastal Plain; Canada; Great Lakes; Great Lakes region; Great Plains; Gulf Coastal Plain; Mexico; Rocky Mountains; United States
- North America—economic geology**
bibliography: A bibliography of stockwork molybdenite deposits and related topics (with an emphasis on the North American literature) OF 83-0382
manganese ores: Volcanogenic manganese deposits in Western Cordillera OP- 647
maps: Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin OF 83-0717
mineral resources: A strategy for mineral and energy resource independence; the North American Plate Mosaic Project OP- 207
molybdenum ores: A bibliography of stockwork molybdenite deposits and related topics (with an emphasis on the North American literature) OF 83-0382
- petroleum:* Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin OF 83-0717
- North America—environmental geology**
pollution: An evaluation of trends in the acidity of precipitation and the related acidification of surface water in North America W 2249
- North America—geochemistry**
surface water: Relationship of two lacustrine ostracode species to solute composition and salinity; implications for paleohydrochemistry OP- 386
- North America—geophysical surveys**
remote sensing: A strategy for mineral and energy resource independence; the North American Plate Mosaic Project OP- 207
seismic surveys: The paleoenvironment and development of the eastern North American continental margin OP- 1085
- North America—oceanography**
continental shelf: The paleoenvironment and development of the eastern North American continental margin OP- 1085
marine geology: The eastern Pacific and Hawaii OP- 561
- North America—paleontology**
Mollusca: Preliminary interpretations of the Jurassic paleobiogeography of North America OP- 563
Ostracoda: The ostracode tribe Campylocytherini in Cenozoic marine deposits of North America OP- 272
Radiolaria: Bizarre Nassellariina (Radiolaria) from the Middle and Upper Jurassic of North America OP- 945
- North America—sedimentary petrology**
sedimentary rocks: Depositional environments and age of radiolarian chert in western North America OP- 589
- North America—seismology**
earthquakes: Geologic setting of seismicity in eastern North America OP- 473
 — Rifts, passive margins, and seismicity in southeastern North America OP- 1293
- North America—soils**
bibliography: Selected bibliography on laterites of N. America OP- 938
- North America—stratigraphy**
Carboniferous: The Devonian-Carboniferous boundary in North America OP- 1069
Cretaceous: Late Cretaceous and Paleogene non-marine climates in North America C 0822
Devonian: Phylogeny and ranges of Late Devonian taxa of the conodont family Icriodontidae OP- 1070
 — The Devonian-Carboniferous boundary in North America OP- 1069
Paleogene: Late Cretaceous and Paleogene non-marine climates in North America C 0822
Quaternary: Correlations of the Clear Lake, Calif., Core CL-73-4 pollen sequence with other long climatic records OP- 2
 — Ostracodes as indicators of rapid climate change OP- 385
Tertiary: Tertiary marine and nonmarine climatic trends OP- 1317
- North America—tectonophysics**
crust: Correlation of major eastern earthquake centers with mafic/ultramafic masses P 1028
maps: Paleomagnetism and suspect terranes of the North American Cordillera OF 83-0799
plate tectonics: Melanges and their bearing on late Mesozoic and Tertiary subduction and interplate translation at the west edge of the North American Plate P 1198
- Paleomagnetism and suspect terranes of the North American Cordillera OF 83-0799
 — Persistent zones of weakness in North America OP- 843
 — Rifts, passive margins, and seismicity in southeastern North America OP- 1293
 — Tertiary dismemberment of western North America OP- 822
- North Carolina—areal geology**
maps: Geologic map of the Charlotte 1° x 2° Quadrangle, North Carolina and South Carolina OP- 437
 — Geologic map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-B
- North Carolina—economic geology**
fuel resources: Hydrocarbon potential of the Dan River-Danville Triassic basin, North Carolina and Virginia OP- 1223
maps: Index to slides of geological map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-A
 — Mineral resource potential map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-D
 — Mineral resource potential map of the Snowbird Roadless Area, Graham County, North Carolina MF-1587-C
 — Slides of geologic map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource potential maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-B
- metal ores:* High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt OF 83-0793
- mineral resources:* Index to slides of geological map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-A
 — Mineral resource potential map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-D
 — Mineral resource potential map of the Snowbird Roadless Area, Graham County, North Carolina MF-1587-C
 — Slides of geologic map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource potential maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-B
- phosphate deposits:* Stratigraphy, structure and phosphate deposits of the Pungo River Formation of North Carolina OP- 799
 — Structural and sedimentary setting of phosphate deposits in North Carolina and in northern Florida OP- 801
- North Carolina—environmental geology**
land use: Land use and land cover, 1972, Norfolk, Virginia; North Carolina L-0105
 — Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104
maps: Land use and land cover, 1972, Norfolk, Virginia; North Carolina L-0105
 — Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104

North Carolina—geochemistry

surveys: Analyses and descriptions of geochemical samples, Snowbird Roadless Area, Graham County, North Carolina OF 83-0173

North Carolina—geophysical surveys

seismic surveys: Description of high-resolution seismic reflection data collected in Albemarle and Croatan sounds, North Carolina (cruise NE-82-1) OF 83-0513

— Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515

— High-resolution seismic reflection profiles collected August 4 to 28, 1979, between Cape Hatteras and Cape Fear, North Carolina, and off Georgia and northern Florida (cruise GS-7903-6) OF 83-0512

surveys: A geophysical study of plutons in the northern Charlotte Belt, North Carolina and South Carolina OP- 1307

— Geophysical and geologic studies in southern Mecklenburg County and vicinity, North Carolina and South Carolina OF 83-0093

North Carolina—hydrogeology

ground water: Field reports; Installation of shallow sand-packed piezometers in loose saturated sediment OP- 413

hydrology: Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach W 2216

— Drainage areas of selected sites on streams in North Carolina OF 83-0211

— The effects of channel excavation on water-quality characteristics of the Black River and ground-water levels near Dunn, North Carolina WRI 82-4083

— Water-quality characteristics for selected sites on the Cape Fear River, North Carolina, 1955-80; variability, loads, and trends of selected constituents OF 83-0526

— Water quality of North Carolina streams W 2185-E

North Carolina—oceanography

continental shelf: Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515

— The middle Tertiary origin of Albemarle Sound, North Carolina OP- 989

continental slope: The middle Tertiary origin of Albemarle Sound, North Carolina OP- 989

North Carolina—sedimentary petrology

sedimentation: The middle Tertiary origin of Albemarle Sound, North Carolina OP- 989

North Carolina—soils

surveys: Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits OP- 739

North Carolina—stratigraphy

Cretaceous: The Black Creek-Peedee formational contact (Upper Cretaceous) in the Cape Fear River region of North Carolina P 1285

Devonian: Paleomagnetic results from seven middle Paleozoic plutons in the Appalachian Piedmont of North and South Carolina OF 83-0916

Miocene: Stratigraphy, structure and phosphate deposits of the Pungo River Formation of North Carolina OP- 799

Pleistocene: Calcareous nannofossil and planktic foraminiferal biostratigraphy of Pliocene and

Pleistocene Atlantic Coastal Plain deposits OP- 179

Tertiary: The middle Tertiary origin of Albemarle Sound, North Carolina OP- 989

North Carolina—structural geology

neotectonics: The Cape Fear River; a late Quaternary drainage OP- 740

tectonics: Structure and history of the Carolina Platform (Cape Fear Arch) OP- 990

North Dakota—economic geology

coal: Structural-stratigraphic framework and correlation of coal beds in the Tongue River and Sentinel Butte members of the Fort Union Formation, Daglum 15-minute Quadrangle, Billings, Stark, and Slope counties, North Dakota MF-1345-A

natural gas: Clays, cations, and geophysical log response of gas-producing and nonproducing zones in the Gammon Shale (Cretaceous), southwestern North Dakota OP- 418

water resources: Ground-water resources of Logan County, North Dakota OP- 632

— Ground-water resources of Ransom and Sargent counties, North Dakota OP- 37

— Guide to North Dakota's ground-water resources W 2236

— Water-resources investigations in North Dakota; fiscal year 1983 OF 83-0220

— Water-resources investigations of the U. S. Geological Survey in the Souris-Red rivers basin in Minnesota, North Dakota, and South Dakota OF 83-0218

North Dakota—environmental geology

reclamation: Reclamation of mined lands in the western coal region C 0872

North Dakota—geochemistry

isotopes: Distribution of gaseous $^{12}\text{CO}_2$, $^{13}\text{CO}_2$, and $^{14}\text{CO}_2$ in the sub-soil unsaturated zone of the western US Great Plains OP- 1228

— $^{13}\text{CO}_2$ and $^{14}\text{CO}_2$ measurements on soil atmosphere sampled in the western Great Plains of the US OP- 462

North Dakota—hydrogeology

ground water: Evaluation of the physical hydrology and hydrochemistry of active and proposed surface-mine sites and spoils in western North Dakota OP- 450

— Geohydrology of the Madison and associated aquifers in parts of Montana, North Dakota, South Dakota, and Wyoming OF 82-0914

— Ground-water data for Bottineau and Rolette counties, North Dakota OP- 656

— Ground-water data for selected coal areas in western North Dakota OF 83-0219

— Ground-water data for Towner County, North Dakota OP- 657

— Potentially favorable areas for large-yield wells in the Red River Formation and Madison Limestone in parts of Montana, North Dakota, South Dakota, and Wyoming P 1273-E

hydrology: Changes in flood response of the Red River of the North Basin, North Dakota-Minnesota OF 82-0774

— Data from the surface-water hydrologic investigations of the Hay Creek Study Area, Montana, and the West Branch Antelope Creek Study Area, North Dakota, October 1976 through April 1982 OF 83-0136

North Dakota—sedimentary petrology

sedimentary rocks: Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska OF 82-0906

— Paleocene lignite-bearing fluvial deposits, southwestern North Dakota OP- 1275

North Dakota—stratigraphy

Cretaceous: Patterns of sedimentation and paleogeography across the Western Interior Seaway during time of deposition of Upper Cretaceous Eagle Sandstone and equivalent rocks, Northern Great Plains OP- 1032

Devonian: Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin OF 83-0717

Jurassic: Porosity and thermal maturity of limestone bodies in Jurassic Swift Formation, Williston Basin, North Dakota OF 83-0723

maps: Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin OF 83-0717

— Structural-stratigraphic framework and correlation of coal beds in the Tongue River and Sentinel Butte members of the Fort Union Formation, Daglum 15-minute Quadrangle, Billings, Stark, and Slope counties, North Dakota MF-1345-A

Paleocene: Structural-stratigraphic framework and correlation of coal beds in the Tongue River and Sentinel Butte members of the Fort Union Formation, Daglum 15-minute Quadrangle, Billings, Stark, and Slope counties, North Dakota MF-1345-A

North Dakota—structural geology

tectonics: Anorogenic tectonism in the Northern Great Plains (NGP) of Montana, North Dakota, South Dakota, and Wyoming OF- 29

Northern Hemisphere see also Africa; Arctic Ocean; Asia; Atlantic Ocean; Central America; Europe; North America; Pacific Ocean; USSR

Northern Territory—economic geology

uranium ores: An introduction to the Jabiluka Project; regional and mine geology of the unconformity-type uranium deposit at Jabiluka, Northern Territory, Australia OF 83-0163

— Chemical data and statistical interpretations for rocks and ores from the Ranger uranium mine, N. T., Australia OF 83-0239

Northern Territory—geomorphology

meteor craters: Strangways Crater, Northern Territory, Australia; siderophile element enrichment and lithophile element fractionation OP- 833

Northern Territory—stratigraphy

Proterozoic: An introduction to the Jabiluka Project; regional and mine geology of the unconformity-type uranium deposit at Jabiluka, Northern Territory, Australia OF 83-0163

Norway—tectonophysics

sea-floor spreading: Influence of the Greenland-Scotland Ridge on the geological history of the North Atlantic and Norwegian-Greenland sea areas OP- 867

nuclear facilities see also under engineering geology under California

O

ocean basins see also under oceanography under Arctic Ocean; Gulf of Mexico

ocean circulation see also under oceanography under Atlantic Ocean; California; Pacific Ocean

ocean floors see also under oceanography under Atlantic Coastal Plain; Atlantic Ocean; Bering Sea; Caribbean Sea; Pacific Ocean; symposia

ocean floors—bottom features

genesis: Evidence for and consequences of thermal rejuvenation OP- 788

ocean floors—exploration

drilling: COSOD; a critique OP- 1254

ocean floors—mineral resources

bibliography: Bibliography on the world's subsea mineral resources and related geological and geophysical studies (1960-1972) OF 83-0153

nodules: Analysis of the world distribution of metal-rich subsea manganese nodules C 0886

ocean floors—sedimentation

submarine fans: Submarine fans OP- 554

ocean waves see also under oceanography under Bering Sea**oceanography—bibliography**

mineral resources: Bibliography on the world's subsea mineral resources and related geological and geophysical studies (1960-1972) OF 83-0153

oceanography—instruments

current meters: Working notes on current-meter deployment, recovery, maintenance, and data processing for San Francisco Bay OF 80-1297

systems: A system for measuring bottom profile, waves and currents in the high-energy near-shore environment OP- 1067

oceanography—practice

programs: The marine geology program of the U.S. Geological Survey C 0906

oceanography—research

critical review: COSOD; a critique OP- 1254

Ohio—environmental geology

reclamation: Drift-mine reclamation in Big Four Hollow near Lake Hope, Ohio; a preliminary data report OF 83-0217

Ohio—geochronology

Pennsylvanian: U-Th-Pb dating of conodonts OP- 651

Ohio—geomorphology

fluvial features: Character and history of the upper Ohio River valley B 1141-I

Ohio—geophysical surveys

magnetic surveys: Aeromagnetic map of southern Ohio OF 83-0059

maps: Aeromagnetic map of southern Ohio OF 83-0059

Ohio—hydrogeology

ground water: Ground-water hydrology before, during, and after coal strip mining of a small watershed in Coshocton County, Ohio WRI 83-4155

— Ground-water monitoring in three small surface-mined watersheds of eastern Ohio OP- 1007

— Model modifications for simulation of flow through stratified rocks in eastern Ohio WRI 82-4019

— Simulations of non-steady flow in a glacial outwash aquifer, southern Franklin County, Ohio WRI 83-4022

hydrology: Flood of June 13-15, 1981, in the Blanchard River basin, northwestern Ohio WRI 82-4044

— Flood of June 18, 1978, on Honey Creek tributary at Thornville, Ohio OF 80-0016

— Surface water quality in coal regions of Ohio OP- 520

Ohio—paleontology

Coelenterata: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N

oil and gas fields see also under economic geology under Arctic Ocean; California; Idaho; Louisiana; Mexico; Oklahoma; Texas; USSR; Utah; Wyoming

oil sands see also under economic geology under Alberta; California

oil shale see also under economic geology under Colorado; Kentucky; Nevada; United States; Utah; Western U.S.; Wyoming

Oklahoma—economic geology

coal: Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa OP- 497

— Federal coal resource occurrence and Federal coal development potential maps of the Stigler east 7.5-minute quadrangle, Muskogee and Haskell counties, Oklahoma OF 79-0307

— Federal coal resource occurrence and Federal coal development potential maps of the Stigler West 7.5-minute Quadrangle, Muskogee and Haskell counties, Oklahoma OF 79-0306

— Federal coal resource occurrence and Federal coal development potential maps of the Wilburton 7.5-minute Quadrangle, Latimer County, Oklahoma OF 79-0303

energy sources: Geology and energy resources of the Arkoma Basin, Oklahoma and Arkansas OP- 466

maps: Federal coal resource occurrence and Federal coal development potential maps of the Stigler east 7.5-minute quadrangle, Muskogee and Haskell counties, Oklahoma OF 79-0307

— Federal coal resource occurrence and Federal coal development potential maps of the Stigler West 7.5-minute Quadrangle, Muskogee and Haskell counties, Oklahoma OF 79-0306

— Federal coal resource occurrence and Federal coal development potential maps of the Wilburton 7.5-minute Quadrangle, Latimer County, Oklahoma OF 79-0303

— Mineral resource potential and geologic map of the Black Fork Mountain Roadless Area, Polk County, Arkansas, and Le Flore County, Oklahoma MF-1599

mineral resources: Mineral resource potential and geologic map of the Black Fork Mountain Roadless Area, Polk County, Arkansas, and Le Flore County, Oklahoma MF-1599

oil and gas fields: Integration of geologic, geochemical, and geophysical data of the Cement oil field, Oklahoma, using spatial array processing OP- 341

water resources: Numerical simulation of the alluvium and terrace aquifer along the North Canadian River from Canton Lake to Lake Overholser, central Oklahoma OP- 227

— Oklahoma; summary of activities of the U.S. Geological Survey Water Resources Division for 1983 OF 83-0767

— Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma OF 83-0046

Oklahoma—environmental geology

geologic hazards: Urban flood analysis in Oklahoma City, Oklahoma OF 83-0026

land use: Land use and land cover and associated maps for Enid, Oklahoma; Kansas OF 83-0553

— Land use and land cover and associated maps for Texas, Arkansas, Oklahoma OF 82-0806

— Land use and land cover and associated maps for Woodward, Oklahoma; Kansas OF 82-0244

maps: Land use and land cover and associated maps for Enid, Oklahoma; Kansas OF 83-0553

— Land use and land cover and associated maps for Texas, Arkansas, Oklahoma OF 82-0806

— Land use and land cover and associated maps for Woodward, Oklahoma; Kansas OF 82-0244

pollution: Potential contamination of the Roubidoux Aquifer by water from abandoned zinc mines, northeastern Oklahoma OP- 359

Oklahoma—geochemistry

organic materials: Epigenetic zoning in surface and near-surface rocks resulting from seepage-induced redox gradients, Velma oil field, Oklahoma OP- 311

— Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa OP- 498

Oklahoma—geophysical surveys

remote sensing: Integration of geologic, geochemical, and geophysical data of the Cement oil field, Oklahoma, using spatial array processing OP- 341

Oklahoma—hydrogeology

ground water: Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123

— Geohydrology and numerical simulation of the alluvium and terrace aquifer along the Beaver-North Canadian River from the Panhandle to Canton Lake, northwestern Oklahoma OF 81-0483

— Geohydrology of the Vamoosa-Ada Aquifer, east-central Oklahoma OF 81-0062

— Ground-water levels in observation wells in Oklahoma, 1980-82 OF 83-0760

— Ground-water quality data for Oklahoma, 1981 OF 83-0686

— Ground-water records for the area surrounding the Chickasaw National Recreational Area, Murray County, Oklahoma OF 83-0027

— Numerical simulation of the alluvium and terrace aquifer along the North Canadian River from Canton Lake to Lake Overholser, central Oklahoma OP- 227

— Potential contamination of the Roubidoux Aquifer by water from abandoned zinc mines, northeastern Oklahoma OP- 359

— Preliminary projections of the effects of chloride-control structures on the Quaternary aquifer at Great Salt Plains, Oklahoma PB-83 151 431

hydrology: Preliminary appraisal of the hydrology of the Blocker area, Pittsburg County OF 81-1187

— Preliminary appraisal of the hydrology of the Stigler area, Haskell County, Oklahoma WRI 82-4099

— Report of the annual yield of the Arkansas River basin for the Arkansas River Basin Compact, Arkansas-Oklahoma, 1980 water year OF 81-0208

— Sediment data for mid-Arkansas and upper-Red River basins through 1980 OF 83-0692

maps: Altitude and configuration of the predevelopment water table in the High Plains regional aquifer, northwestern Oklahoma OF 82-0275

Oklahoma—sedimentary petrology

sedimentation: Deep-water deposition of Ordovician strata in the Ouachita Mountains, Arkansas and Oklahoma OP- 1191

Oklahoma—stratigraphy

Pennsylvanian: Fusulinids of the Atoka Formation, south-central Oklahoma OP- 312

Oligocene see also under stratigraphy under Alabama; Gulf Coastal Plain; South Carolina

Oligocene—stratigraphy

paleoecology: Multiple microtektite horizons in upper Eocene marine sediments; no evidence for mass extinctions OP- 605

olistostromes *see under* soft sediment deformation *under* sedimentary structures

Oman—geochemistry

isotopes: The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria, and the Sultanate of Oman OP- 1227

Oman—petrology

intrusions: Plutonic processes in spreading ocean-ridge magma chambers, illustrated by the Samail Ophiolite, Oman OP- 547

Oman—tectonophysics

crust: Composition of the Samail ocean crust OP- 933

Ontario—areal geology

Lake Superior region: Geology and tectonics of the Lake Superior Basin OP- 1315
— Lake Superior geology and tectonics; overview and major unsolved problems OP- 538

Ontario—geomorphology

meteor craters: Concentrically zoned pattern in the Bouguer gravity anomaly map of northeastern North America OP- 151

Ontario—geophysical surveys

surveys: Gravity and magnetic anomaly studies of Lake Superior OP- 539

Ontario—stratigraphy

Proterozoic: Evolution of early Proterozoic basins of the Great Lakes region OP- 1139

opal *see under* abundance *under* uranium; *see under* dates *under* absolute age; *see under* framework silicates, silica minerals *under* crystal growth; minerals

ophiolite *see under* mineral assemblages *under* metamorphic rocks; *see under* ultramafics *under* igneous rocks

Ordovician *see also under* geochronology *under* Kentucky; *see also under* stratigraphy *under* Appalachians; Eastern U.S.; Kentucky; Maryland; New York; Pennsylvania; Tennessee; Virginia

ore guides *see under* mineral exploration

Oregon—areal geology

maps: Geologic map of Oregon west of the 121st meridian I-0325

— Geologic map of the Doolittle Creek Quadrangle, Malheur County, Oregon MF-1471

— Geologic map of the Little Whitehorse Creek Quadrangle, Harney and Malheur counties, Oregon MF-1472

— Geologic map of the North Fork Smith Roadless Area, Del Norte County, Northern California, and Curry County, Oregon MF-1423-A

— Geologic map of the Oregon Canyon 3 NW Quadrangle, Malheur County, Oregon MF-1473

— Geologic map of the Pole Canyon Quadrangle, Harney County, Oregon OF 83-0285

— Geologic map of the Red Lookout Butte Quadrangle, Harney County, Oregon OF 83-0283

— Geologic map of the Red Mountains Quadrangle, Harney County, Oregon OF 83-0282

— Geologic map of the Sky Lakes Roadless Area and Mountain Lakes Wilderness, Jackson and Klamath counties, Oregon MF-1507-A

— Geologic map of the Trout Creek Canyon Quadrangle, Harney County, Oregon OF 83-0281

— Geologic map of the Wenaha Tucannon Wilderness, Washington and Oregon MF-1536

— Preliminary geologic map of the west half of the Vancouver (Washington-Oregon) 1° by 2° Quadrangle, Oregon OF 83-0591

— Reconnaissance geologic map of the Borax Lake Quadrangle, Harney County, Oregon OF 82-1126

— Reconnaissance geologic map of the Tum Tum Lake Quadrangle, Harney County, Oregon OF 82-1127

— Reconnaissance geologic map of the Whitehorse Ranch Quadrangle, Harney and Malheur counties, Oregon OF 83-0284

regional: 100 years of geology by the United States Geological Survey in the Pacific Northwest OP- 1281

Oregon—economic geology

geothermal energy: Airborne electromagnetic surveys of the Cascade Range, western United States OF 83-0092

— Newberry Volcano, Oregon; a Cascade Range geothermal prospect OP- 726

— Oregon; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0435

— Schlumberger soundings near Newberry Caldera, Oregon OF 83-0825

— Time-domain electromagnetic soundings of Newberry Volcano, Deschutes County, Oregon OF 83-0832

gold ores: Map showing characteristics of lode gold in the Medford 1° by 2° Quadrangle, Oregon-California MF-1383-D

maps: Map showing characteristics of lode gold in the Medford 1° by 2° Quadrangle, Oregon-California MF-1383-D

— Mineral resource assessment maps of the Medford 1° by 2° Quadrangle, Oregon-California MF-1383-C

— Mineral resource potential map of the North Fork John Day River Roadless Area, Grant County, Oregon MF-1581-A

— Mineral resource potential map of the Sky Lakes Roadless Area and Mountain Lakes Wilderness, Jackson and Klamath counties, Oregon MF-1507-B

— Mineral resource potential map of the Wild Rogue Wilderness, Coos and Curry counties, Oregon MF-1381-D

— Summary map of the status of the Oregon wilderness and roadless areas resource potential evaluation OF 83-0100

metal ores: Lead isotopes in the "Cascades mineral belt", Washington and Oregon OP- 680

mineral resources: Mineral resource assessment maps of the Medford 1° by 2° Quadrangle, Oregon-California MF-1383-C

— Mineral resource potential map of the North Fork John Day River Roadless Area, Grant County, Oregon MF-1581-A

— Mineral resource potential map of the Sky Lakes Roadless Area and Mountain Lakes Wilderness, Jackson and Klamath counties, Oregon MF-1507-B

— Mineral resource potential map of the Wild Rogue Wilderness, Coos and Curry counties, Oregon MF-1381-D

— Mineral resource potential of the Deschutes Canyon Roadless Area, Jefferson and Deschutes counties, Oregon OF 83-0375

— Mineral resource potential of the Hells Canyon Wilderness and contiguous roadless areas, Wallowa County, Oregon, and Idaho, Nez Perce, and Adams counties, Idaho OF 83-0397

— Mineral resource potential of the Homestead, Lake Fork, and Lick Creek Roadless Areas, Baker and Wallowa counties, Oregon OF 83-0409

— Mineral resource potential of the Pine Creek Roadless Area, Harney County, Oregon OF 82-0822

— Mineral resource potential of the Wenaha Tucannon Wilderness, Washington and Oregon OF 83-0374

— Semiquantitative spectrographic analyses of stream-sediment samples from the Wenaha Tucannon Wilderness, Washington and Oregon OF 83-0297

— Summary map of the status of the Oregon wilderness and roadless areas resource potential evaluation OF 83-0100

petroleum: Petroleum potential of wilderness lands in Oregon C 0902-A-P

Oregon—engineering geology

slope stability: Debris flow hazard assessment for the Oregon Caves National Monument WRI 83-4100

Oregon—environmental geology

geologic hazards: Debris flow hazard assessment for the Oregon Caves National Monument WRI 83-4100

— Magnitude and frequency of floods in eastern Oregon WRI 82-4078

— Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens C 0850-X

impact statements: Potential hydrologic effects of developing coal and other geo-energy resources of Oregon; a review OF 81-1014

Oregon—geochemistry

isotopes: Lead isotopes in the "Cascades mineral belt", Washington and Oregon OP- 680

maps: Geochemical map and rock and stream-sediment data from the Wild Rogue Wilderness, Coos and Curry counties, Oregon MF-1381-B

radioactivity: Spectrographic, chemical, and radio-activity analyses of rock, stream sediment, and soil samples from the Hell's Canyon study area, Wallowa County, Oregon, and Idaho and Adams counties, Idaho PB-83 255 059

surveys: Geochemical analyses of rock and stream-sediment samples from the North Fork Smith River Roadless Area, Del Norte County, California, and Curry County, Oregon OF 82-0976

trace elements: Analytical results for stream sediments, panned concentrates from stream sediments, and rock samples from the Homestead, Lake Fork, and Lick Creek Roadless Areas, Baker and Wallowa counties, Oregon OF 83-0522

Oregon—geomorphology

glacial features: Oblique dunes of Oregon coast OP- 1034

maps: Comparative physiographic diagrams of Mount St. Helens, Washington, and Crater Lake, Oregon MF-1403

— Reconnaissance surficial geologic map of the Medford 1° by 2° Quadrangle, Oregon-California MF-1528

shore features: Storm-controlled oblique dunes of the Oregon coast OP- 560

Oregon—geophysical surveys

electrical surveys: Schlumberger soundings near Newberry Caldera, Oregon OF 83-0825

electromagnetic surveys: Time-domain electromagnetic soundings of Newberry Volcano, Deschutes County, Oregon OF 83-0832

heat flow: On the terrestrial heat flow and physical limnology of Crater Lake, Oregon OP- 1303

magnetic surveys: Map and interpretation of aeromagnetic data for the Wild Rogue Wilderness,

- Coos and Curry counties, Oregon MF-1381-C
- Maps showing aeromagnetic data and interpretation for the Kalmiopsis Wilderness, southwestern Oregon MF-1240-D
 - maps*: Geophysical data collected across the continental margin between Washington and Oregon along line 16, USGS R/V S. P. Lee cruise 11-80 OF 83-0020
 - Map and interpretation of aeromagnetic data for the Wild Rogue Wilderness, Coos and Curry counties, Oregon MF-1381-C
 - Maps showing aeromagnetic data and interpretation for the Kalmiopsis Wilderness, southwestern Oregon MF-1240-D
 - surveys*: Geophysical data collected across the continental margin between Washington and Oregon along line 16, USGS R/V S. P. Lee cruise 11-80 OF 83-0020
- Oregon—hydrogeology**
- hydrology*: Analyses of elutriates, native water, and bottom material in selected rivers and estuaries in western Oregon and Washington OF 82-0922
 - Hydrology of the Newberry Volcano caldera, Oregon WRI 83-4091
 - Water-quality data for Smith and Bybee lakes, Portland, Oregon, June to November, 1982 OF 83-0204
 - maps*: Configuration of the water table, March, 1980, in the Snake River plain regional aquifer system, Idaho and eastern Oregon OF 82-1022
 - springs*: On the terrestrial heat flow and physical limnology of Crater Lake, Oregon OP- 1303
 - Oregon; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0435
 - thermal waters*: Oregon; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0435
- Oregon—oceanography**
- sedimentation*: Bedform climbing in theory and nature OP- 1056
- Oregon—petrology**
- maps*: Map showing geologic, geophysical, and geochemical characteristics of granitic plutons in the Medford 1° by 2° Quadrangle, Oregon-California MF-1383-E
- Oregon—sedimentary petrology**
- clay mineralogy*: Clay minerals of Lake Abert, an alkaline, saline lake OP- 588
 - sedimentary rocks*: Sedimentology of the Upper Cretaceous Hornbrook Fm., southwestern Oregon and north-central California OP- 868
 - sedimentation*: Gravel bedload transport processes OP- 635
 - Heavy-mineral variability in beach and dune sands in the vicinity of the mouth of the Columbia River OF 82-1091
- Oregon—seismology**
- earthquakes*: Oregon seismicity; 1981 OP- 1039
- Oregon—stratigraphy**
- Carboniferous*: Carboniferous formations in central Oregon B 1529-H
 - Cretaceous*: Geologic map of the outcrop area of the Hornbrook Formation, Oregon and California OF 83-0373
 - Eocene*: Depositional relations of the Umpqua and Tyee formations (Eocene) of southwestern Oregon OP- 809
 - maps*: Geologic map of the outcrop area of the Hornbrook Formation, Oregon and California OF 83-0373
 - Miocene*: Biostratigraphy of the marine Neogene sequence at Cape Blanco, southwestern Oregon P 0774-G
 - Tectonic rotations recorded by flows in the Columbia River Basalt Group, Washington and Oregon OP- 1137
 - Neogene*: Biostratigraphy of the marine Neogene sequence at Cape Blanco, southwestern Oregon P 0774-G
 - Neogene lacustrine diatom biostratigraphy of western Snake River basin, Idaho and Oregon OP- 652
 - Phanerozoic*: Consequences of interfingering lithologies in the Seven Devils island arc OP- 716
 - Quaternary*: Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
 - Tertiary*: Sections showing biostratigraphy and correlation of Tertiary rocks penetrated in wells drilled on the southern Oregon continental margin MF-1482
- Oregon—tectonophysics**
- plate tectonics*: The late Mesozoic Coast Range orogeny and subsequent collision events in Northern California and southwestern Oregon OP- 106
- organic materials—abundance**
- organic carbon*: High-resolution carbonate and organic-carbon stratigraphies for the late Neogene and Quaternary from the western Caribbean and eastern Equatorial Pacific OP- 410
- organic materials—alteration**
- metamorphism*: Structure, burial history, and petroleum potential of frontal thrust belt and adjacent foreland, Southwest Montana OP- 943
 - thermal alteration*: Influence of time on metamorphism of sedimentary organic matter in liquid-dominated geothermal systems, western North America OP- 57
 - Thermal maturation values (conodont color alteration indices) for Paleozoic and Triassic rocks, Chandler Lake, De Long Mountains, Howard Pass, Killik River, Misheguk Mountain, and Point Hope quadrangles, Northwest Alaska, and subsurface NPRA OF 83-0505
- organic materials—amino acids**
- diagenesis*: Amino-acid diagenesis in late Pleistocene sediments of core CL-80-1, Clear Lake, California OP- 115
 - racemization*: Amino acids in sediments from Leg 68, Site 502 OP- 659
 - Aminostratigraphy and faunal correlations of late Quaternary marine terraces, Pacific Coast, USA OP- 611
- organic materials—analysis**
- chemical analysis*: Methods for the determination of organic substances in water and fluvial sediments, U. S. Geological Survey Techniques of Water-Resources Investigations; Book 5, Laboratory analysis, Chapter A3 OF 82-1004
- organic materials—bitumens**
- sedimentary rocks*: Epigenetic zoning in surface and near-surface rocks resulting from seepage-induced redox gradients, Velma oil field, Oklahoma OP- 311
- organic materials—distribution**
- black shale*: Short-range vertical variation in organic carbon, carbonate carbon, total sulfur contents and Munsell color values in a core from the Upper Pennsylvanian Stark Shale Member of the Dennis Limestone, Wabaunsee County, Kansas OF 83-0315
 - sedimentary rocks*: A geochemical profile of Tunalik No. 1 well, National Petroleum Reserve in Alaska (NPRA) OF 83-0627
- organic materials—geochemistry**
- black shale*: Cretaceous black-shale deposition within an oxidized red clay, turbidite environment, southern Angola Basin, South Atlantic Ocean OP- 284
 - coal*: Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa OP- 497
 - decarboxylation*: Thermal decarboxylation of acetic acid; implications for origin of natural gas OP- 615
 - ground water*: Geochemical controls on organic and inorganic contamination in ground water and their hydrologic consequences OP- 49
 - lead-zinc deposits*: The many roles of organic matter in the genesis of mineral deposits OP- 65
 - marine sediments*: An interpretation of carbon and sulfur relationships in Black Sea sediments as indicators of environments of deposition OP- 686
 - Gas hydrates on continental margins of the United States based on occurrence of bottom simulating reflectors on marine seismic records OF 83-0822
 - pore water*: Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67 OP- 491
 - sedimentary rocks*: Geochemistry; Norton COST well 1 OF 83-0124
 - Geochemistry; Norton Sound COST well No. 2 OF 83-0557
 - Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa OP- 498
 - Hydrocarbon potential of the Dan River-Danville Triassic basin, North Carolina and Virginia OP- 1223
 - Origin and geochemistry of redox cycles of Jurassic to Eocene age, Cape Verde Basin (DSDP Site 367), continental margin of Northwest Africa OP- 285
 - Petroleum geochemistry of the North Slope of Alaska; time and degree of thermal maturity OP- 729
 - source rocks*: Petroleum source rock richness, type and maturity for four rock units on the Alaskan North Slope; are they sources for the two oil types? C 0911
 - sulfur*: Sulfur diagenesis in Everglades peat and origin of pyrite in coal OP- 17
 - surface water*: Nutrient and detritus transport in the Apalachicola River, Florida OF 83-0130
 - trace elements*: Organic carbon, sulfur, and iron relationships as an aid to understanding depositional environments and syngenetic metals in Recent and ancient sediments C 0822
 - water*: Discharge of organic carbon from rivers; estimates and sources of errors OP- 879
- organic materials—hydrocarbons**
- analysis*: Natural gas analyses from offshore Gulf of Mexico OF 83-0152
 - geochemistry*: Gas hydrates in sediments of holes 497 and 498A, Deep Sea Drilling Project Leg 67 OP- 490
 - Methane and other hydrocarbon gases in marine sediments OP- 233
 - Petroleum geology of Cook Inlet Basin, Alaska; an exploration model OP- 728

- lake sediments*: Hydrocarbons in sediments from Great Salt Lake, Utah OP- 50
- methane*: Diagenesis and methane generation in Upper Cretaceous Gammon Shale, northern Great Plains, United States OP- 415
- Methane production and simultaneous sulphate reduction in anoxic, salt marsh sediments OP- 920
- Methanogenesis and sulfate-reduction; a mechanism for simultaneity OP- 982
- Origin of natural-gas hydrates in oceanic sediment OP- 660
- Significance of shallow gas in ancient marine sequences OP- 1030
- sediments*: Geochemical prospecting for hydrocarbons in Navarin Basin province OP- 1253
- thermal alteration*: Relation of natural gas composition to thermal maturity and source rock type in San Juan Basin, northwestern New Mexico and southwestern Colorado OP- 1029
- organic materials—kerogen**
- pyrolysis*: Limitations of Rock-Eval pyrolysis assay to characterize kerogen OP- 685
- orogeny—absolute age**
- orogenic belts*: Plutonism and orogeny in north-central Washington; timing and regional context P 0989
- orogeny—evolution**
- Appalachian Phase*: Crustal structure beneath the Southern Appalachians; nonuniqueness of gravity modeling OP- 562
- Brooks Range Orogeny*: Stratigraphy, structure, and palinspastic synthesis of the western Brooks Range, northwestern Alaska OF 83-0779
- Coast Range Orogeny*: The late Mesozoic Coast Range orogeny and subsequent collision events in Northern California and southwestern Oregon OP- 106
- mobile belts*: Proterozoic to Mesozoic mobile-belt geology, Pensacola Mountains, Antarctica C 0911
- sedimentation*: Depositional provinces of Paleozoic and uppermost Precambrian rocks in Great Basin, Western United States OP- 1186
- Sevier Orogeny*: Interrelations of thrust and transcurrent faults in the central Sevier orogenic belt near Leamington, Utah OP- 836
- orogeny—mechanism**
- Pan-African Orogeny*: Chemistry of volcanic and plutonic rocks of the Precambrian shield, Kingdom of Saudi Arabia OP- 1087
- plate collision*: Late Proterozoic island-arc complexes and tectonic belts in the southern part of the Arabian Shield, Kingdom of Saudi Arabia OF 83-0296
- Ostracoda** *see also* ostracods
- Ostracoda—Cytherocopina**
- Holocene*: Relationship of two lacustrine ostracode species to solute composition and salinity; implications for paleohydrochemistry OP- 386
- Ostracoda—ecology**
- Holocene*: The importance of temperature, salinity, and solute composition on the distribution of limnic ostracodes OP- 383
- Ostracoda—faunal studies**
- Pennsylvanian*: Ostracodes of the "Winifrede Limestone" (Middle Pennsylvanian) in the region of the proposed Pennsylvanian System stratotype, West Virginia OP- 1158
- Ostracoda—paleoecology**
- Miocene*: Paleoenvironmental implications of some estuarine and non-marine ostracodes from Ridge Basin, Southern California OP- 387
- Quaternary*: Quaternary ostracode assemblages from the continental shelf of the Gulf of Alaska; application to depth zonation, paleoenvironment, and sediment-transport patterns OP- 155
- shelf environment*: Bathyal ostracodes from the Florida-Hatteras Slope, the Straits of Florida, and Blake Plateau and their application to paleoceanography of continental margins OP- 270
- ostracods** *see also* Ostracoda
- ostracods—biostratigraphy**
- Cenozoic*: Biostratigraphic utility of the ostracode genus *Malzella* OP- 508
- The ostracode tribe *Campylocytherini* in Cenozoic marine deposits of North America OP- 272
- Cretaceous*: Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maastrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province OP- 507
- Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maastrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province OP- 506
- Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
- Mesozoic*: Foraminiferal, ostracod and calpionellid correlation across the Jurassic-Cretaceous boundary in the Northwest Atlantic (Georges Bank; East Newfoundland Basin) OP- 42
- Ordovician*: Facies control of Ordovician leperditicoid ostracodes from Kentucky OP- 94
- Paleozoic*: Biostratigraphic evaluation of the Carboniferous and Permian ostracodes of Texas OP- 1156
- Biostratigraphy of Late Silurian through Early Devonian ostracodes of the United States OP- 93
- Pennsylvanian*: Ostracodes of the "Winifrede Limestone" (Middle Pennsylvanian) in the region of the proposed Pennsylvanian System stratotype, West Virginia OP- 1158
- Quaternary*: Atlantic continental margin Quaternary paleoenvironments OP- 96
- Tertiary*: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
- ostracods—occurrence**
- marine environment*: Occurrence and distribution chart of ostracodes from the northeastern Gulf of Alaska MF-1518
- ostracods—paleoecology**
- Quaternary*: Ostracode paleoenvironmental implications in Clear Lake, California OP- 384
- Ostracodes as indicators of rapid climate change OP- 385
- oxides** *see under* minerals
- oxygen—geochemistry**
- sea water*: Bolivinids as paleoenvironmental monitors on continental slopes OP- 978
- sedimentary rocks*: Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa OP- 498
- The oxygen minimum zone of continental margins C 0822
- oxygen— isotopes**
- O-18/O-16*: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450
- An isotopic study of the Coso, California, geothermal area OP- 396
- Burial cement in Sunniland reservoirs, Lower Cretaceous of southern Florida OP- 469
- Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah OP- 970
- Downhole measurements and fluid chemistry of a Castle Rock steam well, The Geysers, Lake County, California OP- 1240
- $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the Northeast Caribbean, late Holocene OP- 542
- Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40
- Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136
- Geology of the Roseland District, Virginia OP- 525
- Isotopes in ground-water investigations OP- 1234
- Isotopic research, climate, and the genesis of mineral deposits C 0822
- Late Pleistocene *Eucampia* antarctica abundance stratigraphy in the Atlantic sector of the Southern Ocean OP- 170
- Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884
- Long-cycle paleohydrologic regimes in Southeast California; a possible cause OP- 1148
- New evidence for the age of the Gubik Formation, Alaskan North Slope OP- 1017
- Origin of magnesium clays from the Amargosa Desert, Nevada OP- 618
- Oxygen and strontium isotopic studies of basaltic lavas from the Snake River plain, Idaho OF 83-0338
- Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation OP- 748
- Preliminary mineralogic, fluid inclusion, and stable isotope study of the Mahd adh Dhahab gold mine, Kingdom of Saudi Arabia OF 83-0291
- Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer OP- 46
- Recognition of Miocene deep-sea hiatuses OP- 63
- Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67 OP- 491
- Siderite concretions; indicators of early diagenesis in the Gammon Shale (Cretaceous) OP- 414
- Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru OP- 882
- Stable isotope analyses P 1173
- Stable isotope compositions of glasses from the Juan de Fuca Ridge OP- 661
- The isotopic and chemical evolution of Mount St. Helens OP- 472
- The oxygen isotope composition of granitoid and sedimentary rocks of the southern Snake Range, Nevada OP- 674
- Thermodynamics and lattice vibrations of minerals; 5, Applications to phase equilibria, isotopic fractionation, and high-pressure thermodynamic properties OP- 619

- $^{18}\text{O}/^{16}\text{O}$ and D/H characteristics of the Ann-Mason porphyry copper deposit, Yerington, Nevada OP- 1159

P

P-T conditions *see under evolution under magmas; see under metamorphism; see under regional metamorphism under metamorphism*

Pacific Coast *see also the individual states and provinces*

Pacific Coast—areal geology

Pacific Northwest: 100 years of geology by the United States Geological Survey in the Pacific Northwest OP- 1281

Pacific Coast—engineering geology

geologic hazards: Array analysis of the ground velocities and accelerations from the 1971 San Fernando earthquake OP- 515

— Maps showing distribution, thickness, and mass of late Pleistocene and Holocene tephra from major volcanoes in the Pacific Northwest of the United States; a preliminary assessment of hazards from volcanic ejecta to nuclear reactors in the Pacific Northwest MF-1435

waterways: An engineering economic analysis of artificial recharge in a conjunctive irrigation plan in the Columbia Basin Project PB-83 196 022

— Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens C 0850-K

Pacific Coast—geophysical surveys

electromagnetic surveys: Airborne electromagnetic surveys of the Cascade Range, western United States OF 83-0092

magnetic surveys: Magnetic measurements across the Long Valley Caldera, 1972-1983; a comparison with observations and mechanisms during the Matsushiro earthquake swarm OP- 586

maps: Airborne electromagnetic surveys of the Cascade Range, western United States OF 83-0092

surveys: Operations of the U. S. Geological Survey at Mount St. Helens OP- 950

Pacific Coast—hydrogeology

thermal waters: Monitoring hot springs and shallow groundwater in the Long Valley Caldera, California OP- 1161

Pacific Coast—oceanography

continental shelf: Deposition on Pacific shelf edge; zone of contrasts OP- 367

Pacific Coast—seismology

crust: A time-term study of the Imperial Valley, California OP- 639

— Deep earthquakes under the Puget Sound basin OP- 793

— Seismicity and seismotectonic boundaries in Washington OP- 1277

— Teleseismic traveltime anomaly at Mono and Inyo craters, California; a dike-form low-velocity body? OP- 572

Pacific Coast—stratigraphy

Quaternary: Aminostratigraphy and faunal correlations of late Quaternary marine terraces, Pacific Coast, USA OP- 611

Pacific Coast—tectonophysics

plate tectonics: A comparison of the rate of seismic activity and several estimates of deformation in the Puget Sound area OF 83-0019

— Horizontal tectonic stress during the late Cenozoic in the Northwestern United States OF 83-0019

Pacific Ocean *see also Bering Sea; Gulf of California; New Caledonia*

Pacific Ocean—economic geology

fuel resources: A summary of geologic hazards for proposed OCS oil and gas lease sale 68, Southern California OF 82-0033

— An oilspill risk analysis for the Southern California (proposed sale 68) outer continental shelf lease area OF 81-0605

— Estimated oil and gas reserves, Southern California outer continental shelf OF 83-0559

— Estimated oil and gas reserves, Southern California outer continental shelf, December 31, 1981 OF 82-0037

— Hydrocarbon resource studies in the Southwest Pacific, 1982 OF 83-0293

— Modeling the cumulative onshore effects of offshore oil and gas development OF 81-0317

metal ores: Geochemistry and economic potential of massive sulfide deposits from the eastern Pacific Ocean OF 83-0324

— Metal sulfide deposits on the Juan de Fuca Ridge OP- 648

petroleum: An oilspill risk analysis for the central California outer continental shelf lease offering (October 1983) OF 83-0117

polymetallic ores: Geologic setting of polymetallic sulfide deposits on East Pacific Rise at 21°N and Juan de Fuca Ridge near 45°N OP- 883

zinc ores: Zinc-rich massive sulfide deposits from the southern Juan de Fuca Ridge OP- 646

Pacific Ocean—engineering geology

geologic hazards: Eastern Gulf of Alaska seismicity; final report to the National Oceanic and Atmospheric Administration for July 1, 1975, through September 30, 1981 OF 83-0592

— Geotechnical framework, Northeast Gulf of Alaska OF 83-0499

soil mechanics: Bulk density and shear strength of several deep-sea calcareous sediments OP- 675

Pacific Ocean—environmental geology

geologic hazards: Central Santa Rosa-Cortes Ridge OF 83-0062

— Gulf of Santa Catalina and adjacent shelf OF 83-0062

— Reconnaissance geology and geologic hazards of selected areas of the Southern California continental borderland OF 83-0062

— Western Santa Barbara Channel-Point Conception OF 83-0062

pollution: An oilspill risk analysis for the Southern California lease offering (February 1984) OF 83-0563

Pacific Ocean—geochemistry

isotopes: Stable isotope compositions of glasses from the Juan de Fuca Ridge OP- 661

organic materials: Origin of natural-gas hydrates in oceanic sediment OP- 660

sediments: Gas hydrates in sediments of holes 497 and 498A, Deep Sea Drilling Project Leg 67 OP- 490

— Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67 OP- 491

trace elements: Geochemistry and economic potential of massive sulfide deposits from the eastern Pacific Ocean OF 83-0324

Pacific Ocean—geophysical surveys

acoustical surveys: Large submarine slump off Eureka, California OP- 368

gravity surveys: Marine free-air gravity map of the western Gulf of Alaska, lower Cook Inlet and Shelikof Strait, Alaska OF 83-0052

maps: Geophysical data collected across the continental margin between Washington and Ore-

gon along line 16, USGS R/V S. P. Lee cruise 11-80 OF 83-0020

— Marine free-air gravity map of the western Gulf of Alaska, lower Cook Inlet and Shelikof Strait, Alaska OF 83-0052

— Multichannel seismic-reflection profiles collected in 1979 in the eastern Pacific Ocean of the California coast, south of Pt. Conception OF 83-0593

— Structure maps and seismic stratigraphy of Yakataga segment of the continental margin, northern Gulf of Alaska MF-1424

seismic surveys: A summary of geologic hazards for proposed OCS oil and gas lease sale 68, Southern California OF 82-0033

— Geologic evolution of Hess Rise, central North Pacific Ocean OP- 1249

— Interpretation of seismic-reflection data of the Middle America Trench offshore Guatemala OP- 663

— Multichannel seismic-reflection profiles collected in 1979 in the eastern Pacific Ocean of the California coast, south of Pt. Conception OF 83-0593

— Offshore Quaternary geology of the northern Puget Sound-eastern Strait of Juan de Fuca region, Washington OF 83-0019

— Structure maps and seismic stratigraphy of Yakataga segment of the continental margin, northern Gulf of Alaska MF-1424

— Tectonic and geologic implications of the Zodiak Fan, Aleutian abyssal plain, Northeast Pacific OP- 1183

surveys: Geophysical data collected across the continental margin between Washington and Oregon along line 16, USGS R/V S. P. Lee cruise 11-80 OF 83-0020

— Geophysical observations of slope deposits, Middle America Trench off Guatemala OP- 1258

— Hydrocarbon resource studies in the Southwest Pacific, 1982 OF 83-0293

— Marine geological profiles in the southern California continental borderland collected in 1974 on the R/V S.P. Lee OF 82-0975

— Underway geophysics collected on Deep Sea Drilling Project Leg 68 OP- 409

Pacific Ocean—oceanography

continental shelf: Map showing the geological structure of the continental shelf southeast and southwest of Kodiak Island, Alaska MF-1457

continental slope: Mineralogical and sedimentological data collected on the shelf and upper slope adjacent to the Russian River, Northern California OF 83-0517

maps: Gas hydrates on continental margins of the United States based on occurrence of bottom simulating reflectors on marine seismic records OF 83-0822

— Isopach map of Holocene sediment on the outer continental shelf between Yakutat Bay and Dry Bay, eastern Gulf of Alaska OF 83-0104

— Map showing the geological structure of the continental shelf southeast and southwest of Kodiak Island, Alaska MF-1457

— Photogeology and evolution of the Juan de Fuca Ridge OF 83-0464

marine geology: Introduction OP- 1238

— Marine geological profiles in the southern California continental borderland collected in 1974 on the R/V S.P. Lee OF 82-0975

— The eastern Pacific and Hawaii OP- 561

nodules: Distribution, mineralogy, and texture of manganese nodules and their relation to sedimentation at DOMES Site A in the equatorial North Pacific OP- 968

- ocean circulation*: Enhanced late Miocene upwelling in the middle- and low-latitude Pacific OP- 61
- ocean floors*: Aprons, moats, arches, swells and guyot relief OP- 789
- Basalt samples and water-column samples from the southern Juan de Fuca Ridge; preliminary results of cruise L13-82-WF OF 83-0827
- Factors influencing sediment transport at shelf break OP- 598
- Field study of subaqueous avalanching OP- 302
- Geologic evolution of Hess Rise, central North Pacific Ocean OP- 1249
- Geologic setting of polymetallic sulfide deposits on East Pacific Rise at 21°N and Juan de Fuca Ridge near 45°N OP- 883
- Photogeology and evolution of the Juan de Fuca Ridge OF 83-0464
- Summary; Leg 67, Middle America Trench transect off Guatemala OP- 1256
- Tectonic and geologic implications of the Zodiak Fan, Aleutian abyssal plain, Northeast Pacific OP- 1183
- Two Cretaceous volcanic episodes in the western Pacific Ocean OP- 1008
- Underway geophysics collected on Deep Sea Drilling Project Leg 68 OP- 409
- sedimentation*: Deposition on Pacific shelf edge; zone of contrasts OP- 367
- Glacial-marine sedimentation; a model OP- 814
- Sedimentation in a low-energy abyssal environment OP- 339
- sediments*: Amorphous and crystalline ferromanganese deposits from seamounts in Gulf of Alaska OP- 649
- Geotechnical framework study of the Kodiak Shelf, Alaska OF 83-0171
- Quantitative microfossil, sedimentologic, and geochemical data on cores V1-80-P3, V1-80-G1, and V1-80-P8 from continental slope off Northern California OF 83-0083
- Pacific Ocean—paleontology**
- Ostracoda*: Quaternary ostracode assemblages from the continental shelf of the Gulf of Alaska; application to depth zonation, paleoenvironment, and sediment-transport patterns OP- 155
- Pacific Ocean—sedimentary petrology**
- sedimentary rocks*: A quantitative index of mixing to determine the relative amount of downslope contamination in subsurface sediments of a submarine fan OP- 160
- Pacific Ocean—seismology**
- crust*: Ultrasonic borehole televiwer investigation of oceanic crustal layer 2A, Costa Rica Rift OP- 1348
- Pacific Ocean—stratigraphy**
- biogeography*: Occurrence and distribution chart of ostracodes from the northeastern Gulf of Alaska MF-1518
- Cenozoic*: Cenozoic radiolarian paleogeography of eastern Pacific OP- 114
- Cenozoic silicoflagellates from offshore Guatemala, Deep Sea Drilling Project Site 495 OP- 168
- High-resolution carbonate and organic-carbon stratigraphies for the late Neogene and Quaternary from the western Caribbean and eastern Equatorial Pacific OP- 410
- maps*: Foraminiferal biostratigraphy and correlations in the Gulf of Alaska Tertiary province OC-0120
- Miocene*: Biochronology of the northern Pacific Miocene OP- 987
- Enhanced late Miocene upwelling in the middle- and low-latitude Pacific OP- 61
- Miocene paleo-oceanography and paleo-productivity OP- 603
- Paleotemperature oscillations in the middle and late Miocene of the northeastern Pacific OP- 64
- Recognition of Miocene deep-sea hiatuses OP- 63
- Neogene*: Neogene silicoflagellates of the eastern Equatorial Pacific, Deep Sea Drilling Project Hole 503A OP- 167
- Tertiary*: Foraminiferal biostratigraphy and correlations in the Gulf of Alaska Tertiary province OC-0120
- Sections showing biostratigraphy and correlation of Tertiary rocks penetrated in wells drilled on the southern Oregon continental margin MF-1482
- Tertiary marine and nonmarine climatic trends OP- 1317
- Pacific Ocean—tectonophysics**
- crust*: Permeability, underpressures, and convection in the oceanic crust at Deep Sea Drilling Project Hole 504B OP- 1349
- Statistical averaging of marine magnetic anomalies and the aging of oceanic crust OP- 109
- heat flow*: Permeability, underpressures, and convection in the oceanic crust at Deep Sea Drilling Project Hole 504B OP- 1349
- Ultrasonic borehole televiwer investigation of oceanic crustal layer 2A, Costa Rica Rift OP- 1348
- plate tectonics*: A summary of results from the IPOD transects across the Japan, Mariana, and Middle-America convergent margins OP- 1259
- Controls of subduction geometry, location of magmatic arcs, and tectonics of arc and back-arc regions OP- 374
- Earthquakes at Loihi submarine volcano and the Hawaiian hot spot OP- 634
- Interpretation of seismic-reflection data of the Middle America Trench offshore Guatemala OP- 663
- Model for the origin of the Yakutat Block, an accreting terrane in the northern Gulf of Alaska OP- 161
- Northeast-trending subcrustal fault transects western Washington OF 83-0398
- Small-scale deformation structures and physical properties related to convergence in Japan Trench slope sediments OP- 204
- Structural deformation in northern Gulf of Alaska; transition from transform to convergent plate motion OP- 162
- Subduction-related structure along eastern Aleutian Trench OP- 1257
- Summary; Leg 67, Middle America Trench transect off Guatemala OP- 1256
- Tectonic uplift of a middle Wisconsin marine platform near the Mendocino triple junction, California OP- 781
- sea-floor spreading*: Geochemistry and economic potential of massive sulfide deposits from the eastern Pacific Ocean OF 83-0324
- Geologic setting of polymetallic sulfide deposits on East Pacific Rise at 21°N and Juan de Fuca Ridge near 45°N OP- 883
- Time and space constraints on the evolution of medium-rate spreading centers OP- 688
- Pacific region** *see also* the individual countries
- Pacific region—economic geology**
- energy sources*: Slope-stability problems of Circum-Pacific region as related to mineral and energy resources OP- 1250
- geothermal energy*: Geothermal resources of Circum-Pacific region OP- 1295
- maps*: Circum-Pacific minerals maps OP- 459
- mineral resources*: Circum-Pacific minerals maps OP- 459
- Slope-stability problems of Circum-Pacific region as related to mineral and energy resources OP- 1250
- phosphate deposits*: Phosphogenic provinces of Circum-Pacific region OP- 1122
- Pacific region—engineering geology**
- slope stability*: Slope-stability problems of Circum-Pacific region as related to mineral and energy resources OP- 1250
- Pacific region—tectonophysics**
- continental drift*: Preliminary tectono-stratigraphic terrane map of Circum-Pacific region OP- 590
- crust*: Tectonostratigraphic terrane map of the Circum-Pacific region OF 83-0716
- maps*: Preliminary tectono-stratigraphic terrane map of Circum-Pacific region OP- 590
- Tectonostratigraphic terrane map of the Circum-Pacific region OF 83-0716
- plate tectonics*: Plutonic rocks of Jurassic age in the Alaska-Aleutian Range Batholith; chemical variations and polarity OP- 1011
- Tectonostratigraphic terrane map of the Circum-Pacific region OF 83-0716
- Pakistan—hydrogeology**
- ground water*: Chemical properties of ground water and their corrosion and encrustation effects on wells P 0498-D
- paleobotany—applications**
- paleoaltitude*: Paleoelevation (by paleobotanical data) OP- 256
- Paleocene** *see also* under geochronology under Colorado; New Jersey; South Dakota; *see also* under stratigraphy under Alabama; Arctic region; Atlantic Coastal Plain; Georgia; Gulf Coastal Plain; Montana; New Mexico; North Dakota; Virginia
- Paleocene—sedimentary petrology**
- sedimentary rocks*: Changing patterns of phosphogenesis in Mesozoic and Cenozoic OP- 1123
- paleoclimatology—applications**
- mineralization*: Paleoclimate and mineral deposits C 0822
- Some climatic and oceanographic controls on the time and place of mineralization C 0822
- paleoclimatology—Carboniferous**
- Appalachians*: Paleoclimatic controls on the occurrence and quality of coal C 0822
- paleoclimatology—Cenozoic**
- Atlantic Coastal Plain*: Mineral phases produced by weathering on surfaces of different ages from New Jersey to South Carolina; a comparison of rate and duration of weathering OP- 926
- California*: Core KM-3, a surface-to-bedrock record of late Cenozoic sedimentation in Searles Valley, California P 1256
- Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
- Egypt*: The interplay of fluvial, mass-wasting and eolian processes in the eastern Gilf Kebir region OP- 765
- global*: Cenozoic paleoceanography C 0822
- Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation OP- 748
- Time series analysis of Cenozoic era sea level and paleotemperature data OF 83-0566
- Great Basin*: Pliocene and Pleistocene calcitic veins as indicators of paleohydrologic, paleo-

- climatologic, and neotectonic events, southern Great Basin; an initial appraisal C 0822
- Gulf of Mexico*: Bolivinids as paleoenvironmental monitors on continental slopes OP- 978
- Pacific Ocean*: Cenozoic silicoflagellates from offshore Guatemala, Deep Sea Drilling Project Site 495 OP- 168
- High-resolution carbonate and organic-carbon stratigraphies for the late Neogene and Quaternary from the western Caribbean and eastern Equatorial Pacific OP- 410
- paleoclimatology—changes**
- effects*: Late Triassic cyclic deposition on the Colorado Plateau and its regional implications OP- 718
- interpretation*: Supply of sediment to oceans; climate and eustatic sea level changes and interregional unconformities OP- 38
- paleoclimatology—cycles**
- paleoatmosphere*: Carbon dioxide, geochemical modeling, and paleoenvironmental reconstructions C 0822
- paleoclimatology—Eocene**
- California*: Comparison of middle Eocene sporomorph assemblages from Southern California and Gulf Coast OP- 400
- global*: Botanical, paleoecologic, paleobiogeographic, and paleoclimatic significance of the Eocene pollen species "Diporites" iszkaszentgyorgyi Kedves 1965 OP- 403
- Multiple microtektite horizons in upper Eocene marine sediments; no evidence for mass extinctions OP- 605
- Western U.S.*: Sedimentation history of rich oil-shale sequences in Eocene lakes Gosiute and Uinta, Wyoming and Utah OP- 916
- Wyoming*: Physical evidence for saline cycles of deposition in Eocene Lake Gosiute in Southwest Wyoming OP- 1051
- paleoclimatology—Holocene**
- Alaska*: Late Holocene ice wedges near Fairbanks, Alaska, U.S.A.; environmental setting and history of growth OP- 474
- Antarctica*: Climatic significance of lacustrine deposits around Lake Vanda and Don Juan Pond, Antarctica C 0911
- paleoclimatology—indicators**
- isotopes*: Isotopic research, climate, and the genesis of mineral deposits C 0822
- paleoclimatology—Miocene**
- California*: Integration of diatom and planktonic foraminiferal data for biostratigraphic and paleoclimatic interpretation of middle and upper Miocene Monterey Shale OP- 62
- global*: Paleooceanographic implications of Miocene deep-sea hiatuses OP- 604
- Pacific Ocean*: Paleotemperature oscillations in the middle and late Miocene of the northeastern Pacific OP- 64
- Recognition of Miocene deep-sea hiatuses OP- 63
- paleoclimatology—Neogene**
- Pacific Ocean*: Neogene silicoflagellates of the eastern Equatorial Pacific, Deep Sea Drilling Project Hole 503A OP- 167
- paleoclimatology—Paleozoic**
- global*: Paleozoic atmospheric circulation and oceanic upwelling C 0822
- paleoclimatology—Phanerozoic**
- North America*: Late Cretaceous and Paleogene nonmarine climates in North America C 0822
- United States*: Continental aluminous weathering sequences and their climatic implications in the United States C 0822
- paleoclimatology—Pleistocene**
- Alaska*: A Pleistocene sand desert in Arctic Alaska C 0911
- Antarctic Ocean*: Late Pleistocene Eucampia antarctica abundance stratigraphy in the Atlantic sector of the Southern Ocean OP- 170
- Arctic region*: Aspects of the paleogeography of Beringia during the late Pleistocene OP- 544
- Basin and Range Province*: Selected geologic and hydrologic characteristics of the Basin and Range Province, Western United States; Pleistocene lakes and marshes OF 83-0751
- California*: Temperature and precipitation estimates through the last glacial cycle from Clear Lake, California, pollen data OP- 3
- The Half Moon Bay terrace, San Mateo County, California, and the age of its Pleistocene invertebrate faunas OP- 612
- Great Basin*: Paleoclimatic significance of nivation in the western and central Great Basin, Nevada and California OP- 309
- North America*: Historical evolution and application of the Pleistocene province concept along the eastern Pacific margin of North America OP- 610
- paleoclimatology—Proterozoic**
- Utah*: Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho OP- 268
- paleoclimatology—Quaternary**
- Alaska*: Quaternary geology of Alaska P 0835
- California*: Correlations of the Clear Lake, Calif., Core CL-73-4 pollen sequence with other long climatic records OP- 2
- Diatom biostratigraphy of Clear Lake, California OP- 139
- Long-cycle paleohydrologic regimes in Southeast California; a possible cause OP- 1148
- Pollen zonation and informal climatic units for Clear Lake, California, cores CL-73-4 and CL-73-7 OP- 1
- Radiocarbon content, sedimentation rates, and a time scale for Clear Lake, California, core CL-73-4 OP- 1045
- Temperature and precipitation calibration of pollen records from Clear Lake, California, through the last full glacial cycle OP- 4
- global*: Rapid sea level and climatic change; evidence from the continental margin OP- 271
- North America*: Ostracodes as indicators of rapid climate change OP- 385
- Saudi Arabia*: The environmental history and present condition of Saudi Arabia's northern sand seas OF 83-0749
- United States*: Rapid climatic cycles recorded in closed-basin lakes OP- 666
- Western U.S.*: Nivation and cryoplanation in the west-central Basin and Range OP- 308
- paleoclimatology—Tertiary**
- global*: Tertiary marine and nonmarine climatic trends OP- 1317
- Massachusetts*: Stratigraphic, paleoclimatic, and paleobiogeographic significance of Tertiary sporomorphs from Massachusetts OP- 398
- paleoecology—algal flora**
- Quaternary*: Nivation and cryoplanation in the west-central Basin and Range OP- 308
- paleoecology—analysis**
- colonial taxa*: Comments on a colonization curve OP- 999
- paleoecology—Cenozoic**
- Bering Sea*: Paleontology and biostratigraphy OF 83-0124
- Paleontology and biostratigraphy OF 83-0557
- paleoecology—Coelenterata**
- Ordovician*: Middle and Late Ordovician solitary rugose corals of the Cincinnati Arch region P 1066-N
- paleoecology—Cretaceous**
- North Carolina*: The Black Creek-Peedee formation contact (Upper Cretaceous) in the Cape Fear River region of North Carolina P 1285
- paleoecology—Devonian**
- Antarctica*: Sedimentology of the Horlick Formation (Lower Devonian), Ohio Range, Transantarctic Mountains C 0911
- paleoecology—echinoderms**
- Paleozoic*: Bedded barite deposits of middle and late Paleozoic age in central Sonora, Mexico OP- 985
- paleoecology—Eocene**
- global*: Multiple microtektite horizons in upper Eocene marine sediments; no evidence for mass extinctions OP- 605
- paleoecology—foraminifers**
- Cenozoic*: Bolivinids as paleoenvironmental monitors on continental slopes OP- 978
- Oxygen isotope record of ice volume history; 100 m.y. of glacio-eustatic sea level fluctuation OP- 748
- Quaternary*: Quaternary microfossils on the Arctic shelf C 0911
- paleoecology—Holocene**
- California*: Holocene sedimentation in Richardson Bay, California OF 83-0312
- paleoecology—Miocene**
- Oregon*: Biostratigraphy of the marine Neogene sequence at Cape Blanco, southwestern Oregon P 0774-G
- Pacific Ocean*: Paleotemperature oscillations in the middle and late Miocene of the northeastern Pacific OP- 64
- paleoecology—Mississippian**
- United States*: Mississippian continental margins of continuous United States OP- 461
- paleoecology—Mollusca**
- Cretaceous*: Substrate preference among some Late Cretaceous shallow-water benthic mollusks OP- 1154
- Pleistocene*: Predation on sub-Holocene scaphopod mollusks from southern Louisiana P 1282
- paleoecology—mollusks**
- Cretaceous*: Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia OP- 1155
- paleoecology—Ostracoda**
- lacustrine environment*: Relationship of two lacustrine ostracode species to solute composition and salinity; implications for paleohydrochemistry OP- 386
- Miocene*: Paleoenvironmental implications of some estuarine and non-marine ostracodes from Ridge Basin, Southern California OP- 387
- Quaternary*: Quaternary ostracode assemblages from the continental shelf of the Gulf of Alaska; application to depth zonation, paleoenvironment, and sediment-transport patterns OP- 155
- paleoecology—ostracods**
- Cenozoic*: The ostracode tribe Campylocytherini in Cenozoic marine deposits of North America OP- 272
- Ordovician*: Facies control of Ordovician leperditicoid ostracodes from Kentucky OP- 94
- Pennsylvanian*: Ostracodes of the "Winifrede Limestone" (Middle Pennsylvanian) in the region of the proposed Pennsylvanian System stratotype, West Virginia OP- 1158

- Quaternary:** Ostracode paleoenvironmental implications in Clear Lake, California OP- 384
— Ostracodes as indicators of rapid climate change OP- 385
- paleoecology—palynomorphs**
Alaska: Vegetational history of western Alaska during the Wisconsin glacial interval and the Holocene OP- 6
Eocene: Botanical, paleoecologic, paleobiogeographic, and paleoclimatic significance of the Eocene pollen species "Diporites" *iszkaszentgyorgyi* Kedves 1965 OP- 403
Pleistocene: Temperature and precipitation estimates through the last glacial cycle from Clear Lake, California, pollen data OP- 3
Quaternary: Late Quaternary pollen record from Hidden Lake, Kenai Peninsula, Alaska OP- 7
— Pollen zonation and informal climatic units for Clear Lake, California, cores CL-73-4 and CL-73-7 OP- 1
— Temperature and precipitation calibration of pollen records from Clear Lake, California, through the last full glacial cycle OP- 4
- paleoecology—Phanerozoic**
Missouri: Biostratigraphy and paleoecology of lower Paleozoic, Upper Cretaceous, and lower Tertiary rocks in U. S. Geological Survey New Madrid test wells, southeastern Missouri OP- 401
- paleoecology—Plantae**
Cretaceous: Late Cretaceous and Paleogene non-marine climates in North America C 0822
- paleoecology—Pleistocene**
Alaska: New evidence for the age of the Gubik Formation, Alaskan North Slope OP- 1017
Rocky Mountains: Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park OP- 1035
- paleoecology—Quaternary**
Arctic region: Paleocology of Beringia; a synthesis OP- 1105
Atlantic Ocean: Atlantic continental margin Quaternary paleoenvironments OP- 96
Bering Sea: Micropaleontologic analysis of Navarin Basin, Bering Sea, Alaska OP- 998
- Paleogene** *see also under* geochronology *under* Arizona; *see also under* stratigraphy *under* Alaska; Arkansas; Atlantic Coastal Plain; California; Gulf Coastal Plain; North America; United States; Virginia; Wyoming
- paleogeography—Cenozoic**
Gulf of Mexico: Bolivinids as paleoenvironmental monitors on continental slopes OP- 978
- paleogeography—Cretaceous**
United States: Mid-Cretaceous molluscan biostratigraphy and paleogeography of southwestern part of Western Interior, United States OP- 239
Utah: Early Late Cretaceous paleogeography of east-central Utah OP- 1065
— Transgressive-regressive cycles and the occurrence of coal in some Upper Cretaceous strata of Utah OP- 360
Western Interior: Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas OP- 811
— Patterns of sedimentation and paleogeography across the Western Interior Seaway during time of deposition of Upper Cretaceous Eagle Sandstone and equivalent rocks, Northern Great Plains OP- 1032
- paleogeography—Jurassic**
Alaska: Stratigraphy, structure, and palinspastic synthesis of the western Brooks Range, northwestern Alaska OF 83-0779
Utah: Paleogeography of Middle Jurassic continental, shoreline and shallow marine sedimentation, southern Utah OP- 110
- paleogeography—Mesozoic**
Antarctica: Configuration of eastern Gondwanaland C 0911
California: Correlation and provenance of upper Mesozoic chert-rich conglomerate of California OP- 1116
Pacific region: Preliminary tectono-stratigraphic terrane map of Circum-Pacific region OP- 590
- paleogeography—Miocene**
California: Lithostratigraphy and diagenesis of Monterey Formation near Ojai, California OP- 606
Saudi Arabia: Mastritherium (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin OF 83-0488
- paleogeography—Mississippian**
Arizona: Pre-Supai buried valleys P 1173
United States: Mississippian continental margins of conterminous United States OP- 461
- paleogeography—Paleocene**
Wyoming: Tectonic setting and depositional environments of Hanna Formation, south-central Wyoming OP- 481
- paleogeography—Paleozoic**
Alaska: Paleomagnetic studies and hypothetical rotation of Arctic Alaska OP- 535
Arizona: Paleogeography P 1173
California: Correlation of metamorphosed Paleozoic strata of the southeastern Mojave Desert region, California and Arizona OP- 1194
— Tectonic, significance of late Paleozoic to Jurassic radiolarians from the North Fork Terrane, Klamath Mountains, California OP- 113
Rocky Mountains: Lemhi Arch OP- 1058
Texas: Biostratigraphic evaluation of the Carboniferous and Permian ostracodes of Texas OP- 1156
- paleogeography—Phanerozoic**
Arctic Ocean: Paleogeographic affinities and endemism of Cretaceous and Paleocene marine faunas in the Arctic C 0911
- paleogeography—Pleistocene**
Arctic region: Aspects of the paleogeography of Beringia during the late Pleistocene OP- 544
Basin and Range Province: Selected geologic and hydrologic characteristics of the Basin and Range Province, Western United States; Pleistocene lakes and marshes OF 83-0751
- paleogeography—Tertiary**
California: Gold-bearing gravel of the ancestral Yuba River, Sierra Nevada, California P 0722
— Sedimentation of a middle Tertiary caludal deposit, northern San Joaquin Valley, California OP- 67
- paleogeography—Triassic**
Idaho: Smithian (Lower Triassic) conodont biofacies in Idaho, Utah and Nevada OP- 1273
Utah: Sedimentology of the lower part of the Upper Triassic Chinle Formation and its relationship to uranium deposits, White Canyon area, southeastern Utah OF 83-0459
- paleomagnetism** *see under* geochronology
- paleomagnetism—changes**
piezoremanent magnetization: Tectonomagnetism OP- 585
- paleomagnetism—Cretaceous**
Arkansas: Magnetostratigraphy of Upper Cretaceous deposits in the northwestern Mississippi Embayment OP- 689
Texas: Magnetostratigraphy of Upper Cretaceous deposits in the northwestern Mississippi Embayment OP- 689
- paleomagnetism—Devonian**
Appalachians: Paleomagnetic results from seven middle Paleozoic plutons in the Appalachian Piedmont of North and South Carolina OF 83-0916
- paleomagnetism—Eocene**
Western U.S.: Sedimentation history of rich oil-shale sequences in Eocene lakes Gosiute and Uinta, Wyoming and Utah OP- 916
- paleomagnetism—experimental studies**
isothermal remanent magnetization: Magnetic mineralogy of continental deposits, San Juan Basin, New Mexico, and Clark's Fork Basin, Wyoming OP- 175
magnetic susceptibility: Rock property measurements and analysis of selected igneous, sedimentary, and metamorphic rocks from worldwide localities OF 83-0736
- paleomagnetism—Holocene**
global: Secular variation of field directions and intensity from young volcanic rocks OP- 217
- paleomagnetism—interpretation**
dikes: Paleomagnetic study of diabasic dikes and miscellaneous granitic gneisses in St. Lawrence and Jefferson counties, New York OF 83-0226
magnetic anomalies: The ocean crustal tape recorder; distinguishing the signal from the noise OP- 107
magnetic field: Can the Earth be dated from decay of its magnetic field? OP- 276
magnetic properties: Density, porosity, and magnetic properties of rock specimens from southwestern Arizona OF 83-080
microplates: Wandering terranes in southern Alaska; the Aleutia microplate and implications for the Bering Sea OP- 741
terraces: Paleomagnetism and suspect terranes of the North American Cordillera OF 83-0799
- paleomagnetism—Mesozoic**
Alaska: Evolution of sedimentary systems during Mesozoic and Cenozoic in southern Alaska; an overview OP- 730
South Carolina: Paleomagnetic investigations of the Clubhouse Crossroads basalt P 1313
- paleomagnetism—Miocene**
Washington: Tectonic rotations recorded by flows in the Columbia River Basalt Group, Washington and Oregon OP- 1137
- paleomagnetism—Neogene**
California: Cenozoic rocks in the Barstow Basin area of Southern California; stratigraphic relations, radiometric ages, and paleomagnetism B 1529-E
- paleomagnetism—Paleocene**
Alaska: Limits to northward drift of the Paleocene Cantwell Basin, central Alaska OP- 534
- paleomagnetism—Paleozoic**
Alaska: Paleomagnetic studies and hypothetical rotation of Arctic Alaska OP- 535
- paleomagnetism—Pleistocene**
California: Paleomagnetic data from the Coso Range, California and current status of the Cobb Mountain normal geomagnetic polarity event OP- 736

paleomagnetism—pole positions

block structures: Paleomagnetic studies in Antarctica C 0911

paleomagnetism—Proterozoic

Saudi Arabia: Paleomagnetic investigation of upper Proterozoic rocks in the eastern Arabian Shield, Kingdom of Saudi Arabia OP- 607
 — Paleomagnetic investigation of upper Proterozoic rocks in the eastern Arabian Shield, Kingdom of Saudi Arabia OP- 608

paleomagnetism—reversals

magnetostratigraphy: A statistical comparator of two independent records of a sequence of geological events OP- 108

paleomagnetism—Tertiary

Alaska: Structural evolution of the La Perouse layered gabbro Fairweather Range, southeastern Alaska OP- 701
Idaho: Correlation of major Pliocene and Miocene ash-flow sheets, eastern Snake River plain, Idaho OP- 759
New Mexico: Paleomagnetic evidence bearing on the structural development of the Latir volcanic field near Questa, New Mexico OP- 465

paleontology—biologic evolution

observations: Impacts and extinctions; a planetary perspective on evolutionary biology OP- 1130

paleontology—concepts

extinction: Multiple microtektite horizons in upper Eocene marine sediments; no evidence for mass extinctions OP- 605

paleontology—fossilization

taphonomy: Preservation effects in paleoecological studies; Cretaceous mollusc examples OP- 637

paleontology—history

research: Paleontology in the United States Federal service, 1804-1904 OP- 856

Paleosols *see under soils under California***paleotemperature** *see geologic thermometry under fluid inclusions*

Paleozoic *see also under geochronology under Appalachians; Idaho; New Jersey; New York; see also under stratigraphy under Alaska; Appalachians; Arizona; Arkansas; California; Connecticut; Georgia; Idaho; Massachusetts; Nevada; New England; Rhode Island; United States*

Paleozoic—paleontology

Coelenterata: Arborescent corals OP- 911

Paleozoic—stratigraphy

paleoclimatology: Paleozoic atmospheric circulation and oceanic upwelling C 0822

palladium—abundance

chromite: Palladium, platinum, rhodium, ruthenium, and iridium in chromites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
igneous rocks: Comparison of platinum, palladium, and rhodium distributions in some layered intrusions with special reference to the late differentiates (upper zone) of the Bushveld Complex, South Africa OP- 928

paleontology *see also micropaleontology***paleontology—techniques**

photography: Application of Eastman Kodak's Technical Pan 2415 Film to palynological photomicrography OP- 1118

paleontology—biostratigraphy

Carboniferous: Palynomorph content of the Hazard No. 7 Coal Bed, Kentucky OP- 644
Cenozoic: Paleontology and biostratigraphy OF 83-0124

— Paleontology and biostratigraphy OF 83-0557

Cretaceous: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028

— Summit Island Formation, a new Upper Cretaceous formation in southwestern Alaska B 1529-B

Mississippian: Pre-Supai buried valleys P 1173

Paleogene: Paleocene-Eocene boundary in eastern Gulf Coast OP- 402

Phanerozoic: Biostratigraphy and paleoecology of lower Paleozoic, Upper Cretaceous, and lower Tertiary rocks in U. S. Geological Survey New Madrid test wells, southeastern Missouri OP- 401

— Coastal Plain faults affect ground-water flow OP- 362

Tertiary: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028

palynomorphs—dinoflagellates

Eocene: Biostratigraphically important species of Pentadinium Gerlich 1961 and a likely ancestor, Hafniasphaera goodmanii sp. nov., from the Eocene of the Atlantic and Gulf Coastal plains OP- 334

Paleocene: Paleocene and early Eocene dinocyst biostratigraphy OP- 337

Paleogene: Early Tertiary dinoflagellates in the Putneys Mill core, Virginia Coastal Plain, U.S.A. OP- 335

palynomorphs—miospores

Cretaceous: Holcopollenites pollen "lineage" from the Upper Cretaceous series of the Atlantic and eastern Gulf Coastal Plain Province OP- 229

— Palynostratigraphic framework for the Cretaceous (Albian-Maestrichtian) of the Overthrust Belt of Utah and Wyoming OP- 863

— The Black Creek-Peedee formational contact (Upper Cretaceous) in the Cape Fear River region of North Carolina P 1285

Eocene: Botanical, paleoecologic, paleobiogeographic, and paleoclimatic significance of the Eocene pollen species "Diporites" iszkaszentgyorgyi Kedves 1965 OP- 403

— Comparison of middle Eocene sporomorph assemblages from Southern California and Gulf Coast OP- 400

Holocene: Late Holocene ice wedges near Fairbanks, Alaska, U.S.A.; environmental setting and history of growth OP- 474

Paleozoic: Illustrations and comments concerning the type specimens of Calamospora, Florinites, and Raistrickia OP- 645

Pleistocene: Aspects of the paleogeography of Beringia during the late Pleistocene OP- 544

— Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park OP- 1035

— Permafrost in the northeastern United States coastal plain OP- 907

— Temperature and precipitation estimates through the last glacial cycle from Clear Lake, California, pollen data OP- 3

Quaternary: Correlations of the Clear Lake, Calif., Core CL-73-4 pollen sequence with other long climatic records OP- 2

— Late Quaternary pollen record from Hidden Lake, Kenai Peninsula, Alaska OP- 7

— Paleoecology of Beringia; a synthesis OP- 1105

— Pollen counts for core CL-80-1, Clear Lake, Lake County, California OF 83-0384

— Quantitative microfossil, sedimentologic, and geochemical data on cores V1-80-P3, V1-80-G1, and V1-80-P8 from continental slope off Northern California OF 83-0083

— Quaternary stratigraphic sections with radiocarbon dates, Survey Pass Quadrangle, Alaska OF 83-0072

— Radiocarbon content, sedimentation rates, and a time scale for Clear Lake, California, core CL-73-4 OP- 1045

— Temperature and precipitation calibration of pollen records from Clear Lake, California, through the last full glacial cycle OP- 4

— Vegetational history of western Alaska during the Wisconsin glacial interval and the Holocene OP- 6

Tertiary: Phyletic gradualism or punctuated equilibria; the evidence from fossil pollen of the Juglandaceae OP- 862

— Stratigraphic, paleoclimatic, and paleobiogeographic significance of Tertiary sporomorphs from Massachusetts OP- 398

Triassic: Aspects of the palynology of the Chinle Formation (Upper Triassic), Colorado Plateau, Arizona, Utah, and New Mexico OF 82-0937

— Illustrations of plant microfossils from the Chinle Formation, Garfield County, Utah OF 82-1092

palynomorphs—paleoecology

Quaternary: Pollen zonation and informal climatic units for Clear Lake, California, cores CL-73-4 and CL-73-7 OP- 1

Papua New Guinea—geomorphology

maps: Oblique map of Rabaul, Papua New Guinea OF 83-0229

paragenesis—observations

sheet silicates: Mineral paragenesis in a talc-water experimental hydrothermal system OP- 1298

peat *see also under economic geology under Alaska; California; Maine; see also under organic residues under sediments*

pegmatite *see also under economic geology under South Dakota; see also under granites under igneous rocks*

Pennsylvania—economic geology

coal: Stratigraphic cross sections within the Homer City, Pennsylvania, dedicated coal reserve area OF 83-0081

maps: Mineral resource potential map of Cornplanter Roadless Area, Warren County, Pennsylvania MF-1510-C

— Mineral resource potential maps of the Allegheny Front and Hickory Creek Roadless Areas, Warren County, Pennsylvania MF-1442-B

mineral resources: A reconnaissance geochemical survey of the Clarion River Roadless Area, Allegheny National Forest, Elk County, Pennsylvania OF 83-0022

— Mineral resource potential map of Cornplanter Roadless Area, Warren County, Pennsylvania MF-1510-C

— Mineral resource potential maps of the Allegheny Front and Hickory Creek Roadless Areas, Warren County, Pennsylvania MF-1442-B

water resources: Effect of urbanization on the water resources of Warminster Township, Bucks County, Pennsylvania WRI 82-4020

— Groundwater resources in the Cumberland and contiguous valleys of Franklin County, Pennsylvania OP- 84

— Water resources of the Clarion River and Redbank Creek basins, northwestern Pennsylvania OF 81-0070

Pennsylvania—geochemistry

surveys: A reconnaissance geochemical survey of the Allegheny Front and Hickory Creek Roadless Areas, Allegheny National Forest, Warren County, Pennsylvania OF 83-0005

Pennsylvania—geomorphology

mass movements: Relict debris flows in northwestern Pennsylvania OP- 984

Pennsylvania—hydrogeology

ground water: Probable hydrologic effects of subsurface mining OP- 1196

hydrology: Chemical composition of atmospheric precipitation in the Northeastern United States W 1535-P

— Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach W 2216

— Evaluation of rainfall-runoff models for the hydrologic characterization of surface-mined lands OP- 275

— Evaluation of the streamflow-data program in Pennsylvania PB-83 202 002

— Hydrology of area 3, Eastern Coal Province, Pennsylvania OF 81-0537

— Hydrology of area 5, Eastern Coal Province, Pennsylvania, Maryland, and West Virginia OF 81-0538

— Hydrology of area 6, Eastern Coal Province, Maryland, West Virginia, and Pennsylvania OF 83-0033

— Report of the River Master of the Delaware River for the period December 1, 1981, to November 30, 1982 OF 83-0538

— Report of the River Master of the Delaware River for the period of December 1, 1980 to November 30, 1981 OF 82-0341

— Time-of-travel and dispersion studies, Lehigh River, Francis E. Walter Lake to Easton, Pennsylvania OF 82-0861

— Water-quality assessment of Francis E. Walter Reservoir, Luzerne and Carbon counties, Pennsylvania WRI 83-4032

Pennsylvania—paleontology

Coelenterata: An Early Ordovician patelliform gastropod, Palaeophacmaea, reinterpreted as a coelenterate OP- 1338

Pennsylvania—petrology

metamorphism: The Reading Prong of New Jersey and eastern Pennsylvania; an appraisal of rock relations and chemistry of a major Proterozoic terrane in the Appalachians OP- 317

Pennsylvania—sedimentary petrology

sedimentation: Tectonism and sedimentation in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey OP- 1243

Pennsylvania—seismology

maps: Seismicity map of the State of Pennsylvania MF-1280

Pennsylvania—stratigraphy

Ordovician: Conodonts revise the Lower-Middle Ordovician boundary and timing of miogeoclinal events in the East-Central Appalachian Basin OP- 486

Pennsylvanian: Stratigraphic cross sections within the Homer City, Pennsylvania, dedicated coal reserve area OF 83-0081

Pennsylvania—structural geology

tectonics: Disturbed zones; indicators of deep-seated subsurface faults in the Valley and Ridge and Appalachian structural front of Pennsylvania OF 82-0967

— Tectonism and sedimentation in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey OP- 1243

Pennsylvanian *see also under* geochronology *under* Ohio; *see also under* stratigraphy *under* Alabama; Arizona; Colorado; Kentucky; Maryland; New Mexico; Oklahoma; Pennsylvania; Rocky Mountains; United States; West Virginia

peridotites *see under* igneous rocks

periglacial features *see under* glacial geology

permafrost *see also under* engineering geology *under* Alaska

permafrost—engineering properties

gas hydrates: Occurrence and origin of marine gas hydrates OP- 658

Permian *see also under* stratigraphy *under* Arizona; Idaho; Kansas; Kentucky; Nevada; New Mexico; Southwestern U.S.; Texas; Utah; West Virginia

Permian—paleontology

Coelenterata: Revision of Lithostrotrionella (Coelenterata, Rugosa) from the Carboniferous and Permian P 1247

Persian Gulf—economic geology

petroleum: Assessment of undiscovered conventionally recoverable petroleum resources of the Arabian-Iranian Basin C 0881

Peru—economic geology

polymetallic ores: Source of mineralizing components in hydrothermal ore fluids as evidenced by $^{87}\text{Sr}/^{86}\text{Sr}$ and stable isotope data from the Pasto Bueno deposit, Peru OP- 882

silver ores: Nevado Portuqueza volcanic center, central Peru; a Pliocene central volcano-collapse caldera complex with associated silver mineralization OP- 873

Peru—geochronology

Pliocene: Nevado Portuqueza volcanic center, central Peru; a Pliocene central volcano-collapse caldera complex with associated silver mineralization OP- 873

Peru—hydrogeology

hydrology: Distribution of sediments in the Amazon River bed; no appreciable change along the river OP- 880

Peru—mineralogy

sulfates: Restudy of patronite (VS_4) ore, Minasragra, Peru; two new minerals; unnamed $\text{VOSO}_4 \cdot 3\text{H}_2\text{O}$ and dwornikite ($\text{Ni}_{0.8}\text{Fe}_{0.2}\text{SO}_4 \cdot \text{H}_2\text{O}$) OP- 805

petroleum *see also under* economic geology *under* Africa; Alaska; Antarctica; Arabian Peninsula; Arizona; Atlantic Ocean; Bering Sea; California; China; Colorado; Eastern U.S.; Florida; Idaho; Indonesia; Iran; Montana; Nevada; New Mexico; North America; Oregon; Pacific Ocean; Persian Gulf; Saudi Arabia; USSR; Utah; Washington; Western U.S.; Wyoming

petroleum—exploration

geochemical methods: Geochemical prospecting for oil and gas; microbiologist's viewpoint OP- 918

statistical analysis: World finding-rate studies; crude oil OF 83-0715

well-logging: WELLMAP, a Fortran computer program for the generation of maps of specified geographic areas with a variety of well symbols available to depict the current status of given oil and gas drilling OF 83-0155

petroleum—genesis

lacustrine environment: Character of ancient petroliferous lake basins of the world OP- 388

sedimentary basins: Character of ancient petroliferous lake basins of the world OP- 389

petroleum—resources

global: Distribution and quantitative assessment of world crude oil reserves and resources OF 83-0728

statistical analysis: Procedures for petroleum resource assessment used by the U. S. Geological Survey; statistical and probabilistic methodology OF 83-0402

petrology—automatic data processing

metamorphic rocks: BASIC programs for calculation of cation site occupancies and plotting of mineral data with applications for evaluation of metamorphic mineral assemblages OF 83-0905

petrology—instruments

crucibles: Techniques for using iron crucibles in experimental igneous petrology OP- 1226

petrology—methods

statistical analysis: Correspondence analysis in geochemistry OP- 795

Phanerozoic *see also under* geochronology *under* Utah; *see also under* stratigraphy *under* Alaska; Idaho; Missouri; Oregon

phase equilibria—carbonates

$\text{CaCO}_3\text{-CO}_2\text{-H}_2\text{O}$: The solubilities of calcite, aragonite and vaterite in $\text{CO}_2\text{-H}_2\text{O}$ solutions between 0 and 90°C, and an evaluation of the aqueous model for the system $\text{CaCO}_3\text{-CO}_2\text{-H}_2\text{O}$ OP- 973

phase equilibria—chain silicates, amphibole group

stability: Chapter 2, Experimental studies of amphibole stability; Phase relations and compositions of amphiboles produced in studies of the melting behavior of rocks OP- 521

phase equilibria—experimental studies

$\text{Al}_2\text{O}_3\text{-SO}_3\text{-H}_2\text{O}$: The effect of sulfate on aluminum concentrations in natural waters; some stability relations in the system $\text{Al}_2\text{O}_3\text{-SO}_3\text{-H}_2\text{O}$ at 298 K OP- 881

$\text{NaCl-KCl-H}_2\text{O}$: Phase relations in the system $\text{NaCl-KCl-H}_2\text{O}$; Part I, Differential thermal analysis of the NaCl-KCl liquidus at 1 atmosphere and 500, 1000, 1500, and 2000 bars OP- 224

techniques: Techniques for using iron crucibles in experimental igneous petrology OP- 1226

phase equilibria—interpretation

fluid inclusions: Origin of fluid inclusions and changes that occur after trapping OP- 1047

phase equilibria—magmas

interpretation: Composition of the Samail ocean crust OP- 933

phase equilibria—minerals

$\text{MgO-SiO}_2\text{-H}_2\text{O-CO}_2$: Thermodynamic and thermophysical properties of selected phases in the $\text{MgO-SiO}_2\text{-H}_2\text{O-CO}_2$, $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2\text{-H}_2\text{O-CO}_2$, and $\text{Fe-FeO-Fe}_2\text{O}_3\text{-SiO}_2$ chemical systems, with special emphasis on the properties of basalts and their mineral components OF 83-0079

phase equilibria—sedimentary rocks

temperature: Diagenesis in laterally equivalent sections of the Miocene Monterey Formation, Santa Barbara area, California OP- 566

phase equilibria—silicates

gabbroic composition: Structural evolution of the La Perouse layered gabbro Fairweather Range, southeastern Alaska OP- 701

stability: T-XCO_2 stability relations and phase equilibria of a calcic carbonate scapolite OP- 8

theoretical studies: Thermodynamics and lattice vibrations of minerals; 5, Applications to phase equilibria, isotopic fractionation, and high-pressure thermodynamic properties OP- 619

phosphate deposits *see also under* economic geology *under* Atlantic Coastal Plain; automatic data processing; Florida; Idaho; North Carolina; Pacific region

phosphate deposits—mineral exploration

ore guides: Mineralogy and occurrence of europium-rich dark monazite P 1181

phosphate deposits—resources

global: The international phosphate resource data base; development and maintenance OF 83-0490

phosphates *see under* minerals

phosphorus—geochemistry

sediments: Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides OP- 512

- surface water*: Estimation of nonpoint sources of phosphorus for lakes in the Puget Sound region, Washington OF 82-0161
- Nutrient and detritus transport in the Apalachicola River, Florida OF 83-0130
- Relationships between water quality and phosphorus concentrations for lakes of the Puget Sound region, Washington OF 83-0255
- physical geography** *see* geomorphology
- Pisces—Holostei**
- Paleocene*: Paleocene pycnodont fishes from Jabal Umm Himar, Harrat Hadan area, Kingdom of Saudi Arabia OF 83-0453
- Pisces—occurrence**
- Ordovician*: Walcott's discovery of Middle Ordovician vertebrates OP- 1336
- placers—distribution**
- inventory*: Placer deposits of Alaska B 1374
- placers—gold ores**
- Alaska*: Mineral resource assessment of the Circle Quadrangle, Alaska OF 83-0170-B
- Possible origins of placer gold in Kovukuk and Chandalar districts, Brooks Range, Alaska C 0911
- Arizona*: Implications of the compositions of lode and placer gold OF 82-1052
- Preliminary report on the geology and gold mineralization of the Gold Basin-Lost Basin mining districts, Mohave County, Arizona OF 82-1052
- California*: Gold-bearing gravel of the ancestral Yuba River, Sierra Nevada, California P 0722
- Western U.S.*: Gold in exploration geochemistry OP- 30
- placers—monazite deposits**
- Alaska*: Mineralogy and occurrence of europium-rich dark monazite P 1181
- planetology** *see also* Jupiter; Mars; Mercury Planet; Moon; Saturn; Venus
- planetology—concepts**
- exploration*: Planetary geology OP- 708
- terrestrial planets*: The geology of the terrestrial planets OP- 201
- planetology—cosmochemistry**
- isotopes*: Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution OP- 936
- planetology—observations**
- biologic evolution*: Impacts and extinctions; a planetary perspective on evolutionary biology OP- 1130
- planetology—theoretical studies**
- craters*: A schematic model of crater modification by gravity OP- 964
- interplanetary comparison*: Searching for terrestrial analogs on other planets; within 3AU OP- 1153
- Plantae** *see also* algae; algal flora; bacteria; ferns; palynomorphs; problematic fossils; Protista
- Plantae—ecology**
- estuarine environment*: Submersed aquatic plants of the tidal Potomac River B 1543
- floodplains*: Production and decomposition of forest litter fall on the Apalachicola River flood plain, Florida W 2196-B
- terrestrial environment*: Effects of nuclear and conventional chemical explosions on vegetation OF 81-1300
- Plantae—floral studies**
- Eocene*: Differences between middle Eocene plant communities of Southern California and those of the Atlantic and Gulf coastal plains OP- 399
- Paleogene*: Time scales of megafloal assemblages OP- 1310
- Plantae—paleoecology**
- Cretaceous*: Late Cretaceous and Paleogene non-marine climates in North America C 0822
- plate tectonics** *see also* under tectonophysics under Alaska; Arabian Peninsula; Arctic region; Arizona; Asia; Atlantic Coastal Plain; Atlantic Ocean; Bering Sea; California; Central America; Colorado Plateau; Columbia Plateau; Far East; New Mexico; North America; Oregon; Pacific Coast; Pacific Ocean; Pacific region; Rocky Mountains; Saudi Arabia; symposia; United States; Western U.S.
- plate tectonics—effects**
- earthquakes*: A viscoelastic model for periodically recurring earthquakes in subduction zones OP- 1221
- magnetic field*: Tectonomagnetism OP- 585
- transition zones*: Analysis of states of stress between provinces of constant stress OP- 773
- plate tectonics—evolution**
- rheology*: Mechanisms of mechanical weakening of the lithosphere OP- 626
- plate tectonics—mechanism**
- lithosphere*: Constraints on yield strength in the oceanic lithosphere derived from observations of flexure OP- 785
- plate tectonics—movement**
- reconstruction*: Some geometrical aspects of uncertainties in combined plate reconstructions OP- 1188
- plate tectonics—processes**
- heat flow*: Evidence for and consequences of thermal rejuvenation OP- 788
- plate tectonics—rifting**
- processes*: Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes OP- 1041
- plate tectonics—subduction**
- seismotectonics*: A dislocation model of strain accumulation and release at a subduction zone OP- 1077
- subduction zones*: Shelf-slope boundary at active subduction zones OP- 823
- platinum—abundance**
- chromitite*: Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
- igneous rocks*: Comparison of platinum, palladium, and rhodium distributions in some layered intrusions with special reference to the late differentiates (upper zone) of the Bushveld Complex, South Africa OP- 928
- platinum ores** *see also* under economic geology under New Caledonia; South Africa
- Pleistocene** *see also* under geochronology under Alaska; Atlantic Coastal Plain; California; *see also* under stratigraphy under Alaska; Antarctic Ocean; Atlantic Coastal Plain; Atlantic Ocean; Basin and Range Province; California; Colorado; Connecticut; Delaware; Florida; Greenland; Illinois; Israel; Maine; Massachusetts; Montana; New England; New Hampshire; New Jersey; North Carolina; Rhode Island; Rocky Mountains; USSR; Washington; Wyoming
- Pliocene** *see also* under geochronology under Alaska; Peru; *see also* under stratigraphy under Atlantic Coastal Plain; California; South Carolina
- plutons** *see* under intrusions
- pollution** *see also* under environmental geology under Alaska; Bering Sea; California; Colorado; Florida; Gulf Coastal Plain; Gulf of Mexico; Illinois; Kansas; Kentucky; Michigan; Minnesota; New England; New Hampshire; North America; Oklahoma; Pacific Ocean; Puerto Rico; Rhode Island; South Carolina; Tennessee; United States; Washington
- pollution—causes**
- explosions*: Effects of nuclear and conventional chemical explosions on vegetation OF 81-1300
- pollution—effects**
- construction materials*: The weathering of brick; causes, assessment and measurement OF 83-0272
- pollution—ground water**
- controls*: A model for managing sources of groundwater pollution OP- 439
- Contaminated ground water OF 83-0126
- detection*: Determination of pentachlorophenol in water and aquifer sediments by high-performance liquid chromatography OF 82-0124
- models*: Solute-transport modeling OF 83-0126
- permeability*: Geochemical controls on organic and inorganic contamination in ground water and their hydrologic consequences OP- 49
- radioactive waste*: Lessons learned in the geohydrology of low-level radioactive waste disposal OP- 1043
- review*: Ground water; a review OP- 142
- pollution—pollutants**
- trace elements*: Bioaccumulation and toxicity to Cu in *Macoma balthica*; inter-population heterogeneity and the role of Ag OF 80-0341
- Controls on Cu concentrations in estuarine bivalves (*Scrobicularia plana*), polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341
- Controls on the availability of Ag, Cd, Co, Fe and Mn to estuarine bivalves (*Scrobicularia plana*) and polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341
- Correlation of Pb concentrations and chemistry of sediments with Pb in the bivalve *Scrobicularia plana* OF 80-0341
- Detection of trace contaminant effects; theory OF 80-0341
- Determining the availability of sediment-bound trace metals to aquatic deposit-feeding animals OF 80-0341
- Determining the form of metals in oxidized estuarine sediments; statistical assessments OF 80-0341
- Determining the form of metals in oxidized sediments; assessing the action of chemical extractants OF 80-0341
- Development of methodology for incorporating sediment chemistry into predictions of metal bioavailability in sediments; case study, Zn OF 80-0341
- Effect of sample storage on metal extractability from oxidized estuarine sediments OF 80-0341
- Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types OF 80-0341
- Uptake by the clam *Macoma balthica* of sediment-bound Cd from well-defined types of sediment OF 80-0341
- Uptake of ^{60}Co , ^{110m}Ag , and ^{65}Zn from well-defined sediments by *Macoma balthica* OF 80-0341
- pollution—surface water**
- simulation*: Simulation of the transport of an adsorbing solute in a small pool-and-riffle stream OP- 89
- streams*: Kinetic analysis of strontium and potassium sorption onto sands and gravels in a natural channel OP- 90
- Simulation of solute transport in a mountain pool-and-riffle stream with a kinetic mass transfer model for sorption OP- 88

pollution—waste disposal

liquid waste: Determination of ultimate carbonaceous BOD and the specific rate constant (K₁) OF 82-0645

radioactive waste: Disposal of high-level nuclear waste above the water table in arid regions C 0903

pollution—water

acid rainfall: Acid rain OF 83-0126

water quality: Mining, reclamation, and water quality OF 79-1597

polymetallic ores *see also under* economic geology *under* catalogs; Idaho; Mexico; Nevada; Pacific Ocean; Peru; Saudi Arabia

polymetallic ores—inventory

global: Geologic and grade-tonnage information on volcanic-hosted copper-zinc-lead massive sulfide deposits OF 83-0089

Portugal *see also* Azores

potash *see also under* economic geology *under* Thailand

potassium—geochemistry

granites: Tertiary epizonal plutonic rocks of the Selway-Bitterroot Wilderness, Idaho OP- 840

sand: Kinetic analysis of strontium and potassium sorption onto sands and gravels in a natural channel OP- 90

Precambrian *see also under* geochronology *under* Appalachians; New Mexico; Red Sea; Rocky Mountains; South Carolina; Utah; Wyoming; *see also under* stratigraphy *under* Arizona; Eastern U.S.; Georgia; Idaho; Massachusetts; Montana; New Mexico

Precambrian—stratigraphy

boundary: Evolutionary and geologic problems at the Precambrian-Cambrian boundary; historical perspectives OP- 1117

precious stones *see* gems

pressure *see under* experimental studies *under* geophysics

problematic fossils—faunal studies

Devonian: Soft parts of styliolinids (Devonian) OP- 1198

problematic fossils—occurrence

Ordovician: Walcott's discovery of Middle Ordovician vertebrates OP- 1336

Proterozoic *see also under* geochronology *under* Appalachians; Arabian Peninsula; Egypt; New Mexico; New York; Rhode Island; Saudi Arabia; Virginia; *see also under* stratigraphy *under* Arizona; Colorado; Great Basin; Great Lakes region; Idaho; Michigan; Minnesota; Nevada; New England; Northern Territory; Ontario; Saudi Arabia; Utah; Wisconsin

Protista—biostratigraphy

Mesozoic: Foraminiferal, ostracod and calpionellid correlation across the Jurassic-Cretaceous boundary in the Northwest Atlantic (Georges Bank; East Newfoundland Basin) OP- 42

Protista—Silicoflagellata

Cenozoic: Cenozoic silicoflagellates from offshore Guatemala, Deep Sea Drilling Project Site 495 OP- 168

— Paleontology and biostratigraphy OF 83-0124

— Paleontology and biostratigraphy OF 83-0557

Miocene: Biostratigraphy of the marine Neogene sequence at Cape Blanco, southwestern Oregon P 0774-G

Neogene: Neogene silicoflagellates of the eastern Equatorial Pacific, Deep Sea Drilling Project Hole 503A OP- 167

Protozoa *see* Protista

pteridophytes *see also* ferns

Puerto Rico—areal geology

maps: Preliminary geologic map of Patillas and Guayama quadrangles, Puerto Rico OF 82-1097

Puerto Rico—economic geology

copper ores: Hydrogeochemical prospecting for porphyry copper deposits in the tropical-marine climate of Puerto Rico OP- 803

— The partitioning of copper among selected phases of geologic media of two porphyry copper districts, Puerto Rico OP- 670

Puerto Rico—environmental geology

geologic hazards: Flood of September 16, 1975, in the Guanica area, Puerto Rico OF 81-0480

— Flood of September 16, 1975, in the Yauco Valley, Puerto Rico OF 81-0331

pollution: Carbon tetrachloride spill in the shallow limestone aquifer, Barceloneta, Puerto Rico OP- 1235

Puerto Rico—hydrogeology

ground water: Ground-water levels and chloride concentrations in alluvial aquifers on the south coast of Puerto Rico, February 1980 OF 81-0626

— Ground-water levels in alluvium on the south coast of Puerto Rico, February 1979

— Reconnaissance of ground-water quality, throughout Puerto Rico, September-October 1981 OF 82-0332

Puerto Rico—oceanography

maps: Marine geologic map of the Puerto Rico insular shelf, northwestern area; Rio Grande de Anasco to Rio Camuy I-1418

marine geology: Marine geologic map of the Puerto Rico insular shelf, northwestern area; Rio Grande de Anasco to Rio Camuy I-1418

pyrite *see under* sulfides *under* minerals

pyroclastics *see under* igneous rocks

Q

quartz *see under* framework silicates, silica minerals *under* minerals

Quaternary *see also under* geochronology *under* Alaska; California; Montana; *see also under* stratigraphy *under* Alaska; Arctic Ocean; Arctic region; Atlantic Ocean; Bering Sea; California; Europe; Florida; Idaho; Japan; Massachusetts; Montana; Nevada; North America; Oregon; Pacific Coast; Rhode Island; United States; USSR; Utah; Virginia; Washington; Western U.S.; Wyoming; Yukon Territory

Quaternary—geochronology

tephrochronology: Geochronology of Quaternary tephra deposits OP- 847

Quaternary—stratigraphy

changes of level: Rapid sea level and climatic change; evidence from the continental margin OP- 271

quicksilver *see* mercury

R

racemization *see under* geochronology

radar methods *see under* methods *under* remote sensing

radioactive dating *see* absolute age

radioactivity *see under* geochemistry *under* Oregon

radioactivity methods *see under* geophysical methods

radioactivity surveys *see under* geophysical surveys *under* Alaska; mineral exploration; Virginia

radiocarbon dating *see* absolute age

Radiolaria—Nassellina

Jurassic: Bizarre Nassellariina (Radiolaria) from the Middle and Upper Jurassic of North America OP- 945

radiolarians—biogeography

Cenozoic: Cenozoic radiolarian paleogeography of eastern Pacific OP- 114

radiolarians—biostratigraphy

Carboniferous: Stratigraphy of upper Paleozoic volcanic rocks and regional unconformities in part of the northern Sierra terrane, California OP- 494

Cretaceous: Graywacke of Buchia Ridge and correlative Lower Cretaceous rocks in the Goodnews Bay and Bethel quadrangles, southwestern Alaska B 1529-C

Holocene: Distribution, mineralogy, and texture of manganese nodules and their relation to sedimentation at DOMES Site A in the equatorial North Pacific OP- 968

Jurassic: Middle Jurassic (Callovian) Radiolaria from southern Alaska OP- 112

Mesozoic: Sedimentology and structure of Franciscan Assemblage, Yolla Bolly terrane, Northern California OP- 104

— Tectonic, significance of late Paleozoic to Jurassic radiolarians from the North Fork Terrane, Klamath Mountains, California OP- 113

Miocene: Microfossils from type Relizian and Luisian stages of California OP- 771

— Paleocceanographic implications of Miocene deep-sea hiatuses OP- 604

— Recognition of Miocene deep-sea hiatuses OP- 63

Mississippian: Mississippian continental margins of conterminous United States OP- 461

Paleozoic: Bedded barite deposits of middle and late Paleozoic age in central Sonora, Mexico OP- 985

Quaternary: Micropaleontologic analysis of Navarin Basin, Bering Sea, Alaska OP- 998

radon— isotopes

Rn-222: Radon emanation in the New Madrid seismic zone P 1236

rare earth deposits *see also under* economic geology *under* Alaska; Wyoming

rare earths *see also* europium; lutetium; neodymium; yttrium

rare earths—abundance

biotite granite: Tin granites of Seward Peninsula, Alaska OP- 558

rare earths—analysis

spectroscopy: The separation and preconcentration of the rare earth elements by ion exchange from geological materials for determination by ICAP-OES OP- 269

rare earths—geochemistry

apatite: Distribution of the lanthanides and yttrium in apatites from iron ores and its bearing on the genesis of ores of the kiruna type OP- 378

basalts: Geochemistry and tectonic significance of subsurface basalts near Charleston, South Carolina; Clubhouse Crossroads test holes #2 and #3 P 1313

— Geochemistry of subsurface basalt from the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina; magma type and tectonic implications P 1028

coal: Modes of occurrence of trace elements and minerals in coal; an analytical approach OP- 371

igneous rocks: Disseminated thorium and rare-earth deposits in the southern Bear Lodge Mountains, Wyoming OP- 1172

- magmas:** Incompatible-element-rich andesitic amphibolites from the Archean of Montana and Wyoming; evidence for mantle metasomatism OP- 842
- volcanic rocks:** Geochemistry of the volcanic rocks of northeastern Wisconsin OP- 1101
- reclamation** *see also* under environmental geology under Arizona; California; Colorado; Montana; New Mexico; North Dakota; Ohio; Utah; Western U.S.; Wyoming
- reclamation—environment**
mines: Mining, reclamation, and water quality OF 79-1597
- reclamation—natural resources**
water resources: Ground water; a review OP- 142
 — Procedures for assessment of cumulative impacts of coal mining on the hydrologic balance OF 82-0334
- Red Sea—geochronology**
Precambrian: Geochronology of basement rocks along the northern Red Sea OP- 517
- Red Sea—tectonophysics**
sea-floor spreading: Mastritherium (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin OF 83-0488
 — Middle Tertiary continental rift and evolution of the Red Sea in southwestern Saudi Arabia OF 83-0641
- Red Sea region—stratigraphy**
Miocene: Mastritherium (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin OF 83-0488
- reefs** *see also* under oceanography under Belize; Gulf of Mexico; *see also* under sedimentary petrology under Atlantic Coastal Plain; Southern U.S.
- regional geology** *see* areal geology under the appropriate area term
- remote sensing** *see* under land use; mineral exploration; *see also* under geophysical surveys under Alaska; Antarctica; Arizona; automatic data processing; California; catalogs; China; Egypt; Great Plains; Iceland; Idaho; Jupiter; Kansas; Mars; Montana; North America; Oklahoma; Rocky Mountains; Sahara; Saturn; South Dakota; Tennessee; Texas; United States; Utah; Venus; Virginia; Washington; Wyoming
- remote sensing—applications**
cartography: Regional thermal-inertia mapping from an experimental satellite OP- 1276
glaciers: Satellite glaciology (glaciers) OP- 1305
land use: Test of airborne radar for mapping two types of land cover; forested wetland and perennial snow and ice OF 82-0815
magnetic anomalies: Crustal magnetic anomalies measured by satellite; problems and possibilities OP- 957
magnetic field: The use of Magsat data to determine secular variation OP- 183
mineral exploration: Objectives, accomplishments, and future plans of IGCP Project 143, Remote sensing and mineral exploration OP- 209
 — Significant results from using earth observation satellites for mineral and energy resource exploration OP- 208
natural resources: Land resources map making from remote sensing products OP- 19
wetlands: Applications of remote sensing to wetlands OP- 205
- remote sensing—automatic data processing**
data bases: Magnetic observatory hourly average digital data for Magsat correlation (Sept. 1979-June 1980) OF 83-0061
- remote sensing—imagery**
color imagery: Mapping of ultramafic rocks in a heavily vegetated terrain using Landsat data OP- 1001
glaciers: Satellite image atlas of glaciers; the polar areas C 0911
interpretation: The effects of look direction on the interpretation of side-looking airborne radar imagery OF 83-0585
maps: New Landsat products OF 83-0558
 — Recent U. S. Geological Survey Landsat thematic and image maps OF 83-0121
thermal emission: General characteristics and availability of Landsat 3 and heat capacity mapping mission thermal infrared data OF 83-0123
- remote sensing—interpretation**
land use: Land use/land cover environmental photointerpretation keys B 1600
magnetic anomalies: Application of dipole modeling to magnetic anomalies OP- 1091
- remote sensing—methods**
high-resolution methods: Topographic mapping from space OP- 315
radar methods: Evaluation of radar imagery for geological and cartographic applications OF 81-1358
- reservoir rocks** *see* under environmental analysis under sedimentary rocks; *see* under petroleum engineering under engineering geology
- reservoirs** *see also* under engineering geology under Colorado
- resistivity** *see* under electrical logging under well-logging; *see* under electrical methods under geophysical methods
- Rhode Island—environmental geology**
pollution: Ground-water contamination plume from low-level radioactive wastes, Wood River Junction, Rhode Island OP- 1062
- Rhode Island—geochronology**
Proterozoic: Timing of plutonic events in Rhode Island OP- 524
- Rhode Island—geophysical surveys**
electrical surveys: Ground-water contamination plume from low-level radioactive wastes, Wood River Junction, Rhode Island OP- 1062
- Rhode Island—oceanography**
continental shelf: Maps showing geology and shallow structure of western Rhode Island Sound, Rhode Island MF-1537
 — Quaternary geology of the Rhode Island inner shelf OP- 853
maps: Maps showing geology and shallow structure of western Rhode Island Sound, Rhode Island MF-1537
- Rhode Island—petrology**
intrusions: Timing of plutonic events in Rhode Island OP- 524
maps: Bedrock geologic map of the East Killingly Quadrangle, Connecticut and Rhode Island GQ-1571
- Rhode Island—stratigraphy**
Paleozoic: Stratigraphic names in eastern Massachusetts and adjacent states B 1529-H
Pleistocene: Permafrost in the northeastern United States coastal plain OP- 907
Quaternary: Quaternary geology of the Rhode Island inner shelf OP- 853
- rhodium—abundance**
chromitite: Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
- igneous rocks:** Comparison of platinum, palladium, and rhodium distributions in some layered intrusions with special reference to the late differentiates (upper zone) of the Bushveld Complex, South Africa OP- 928
- rhyolites** *see* under igneous rocks
- ring silicates** *see* under minerals
- ripple marks** *see* under bedding plane irregularities under sedimentary structures
- rivers** *see* under fluvial features under geomorphology
- road log** *see* under areal geology under California
- rock mechanics** *see also* soil mechanics; underground installations
- rock mechanics—deformation**
cracks: Formation and interpretation of dilatant echelon cracks OP- 983
strain: Differential strain curve analysis; does it work? OF 82-1075
 — Investigation of internal friction in fused quartz, steel, Plexiglass and Westerly Granite from 0.01 to 1.00 Hertz at 10^{-8} to 10^{-7} strain amplitude OP- 698
stress: Analysis of deep in situ stress measurements in the Mojave Desert; implications for the state of stress along the San Andreas Fault OP- 777
 — Determination of the state of stress at the Stripa Mine, Sweden OF 82-1075
 — Do instantaneous shut-in pressures accurately represent the minimum principal stress? OF 82-1075
 — Experience with hydraulic fracturing as a means of estimating in-situ stress in Australian coal basin sediments OF 82-1075
 — Explosion-induced stress changes estimated from vibrating-wire stressmeter measurements near the Mighty Epic event, Nevada Test Site OF 83-0642
 — Factors influencing the initiation orientation of hydraulically induced fractures OF 82-1075
 — Hydraulic fracture in arbitrarily oriented boreholes; an analytic approach OF 82-1075
 — Hydraulic fracture initiation related to the stress field at failure OF 82-1075
 — Hydraulic-fracturing measurements in two boreholes near the Spent Fuel Test-Climax, Climax Stock, Nevada Test Site OF 83-0406
 — Hydraulic fracturing to estimate minimum stress and rockmass stability at a pumped hydro project OF 82-1075
 — Measurement of instantaneous shut-in pressure in crystalline rock OF 82-1075
 — Note on effects of infiltration on the criterion for breakdown pressure in hydraulic fracturing stress measurements OF 82-1075
 — Proceedings Workshop XVII; Workshop on hydraulic fracturing stress measurements OF 82-1075
 — Some examples and implications of observed elastic deformations associated with the growth of hydraulic fractures in the Earth OF 82-1075
 — State of the art and future plans about hydraulic fracturing stress measurements in Sweden OF 82-1075
 — Stress measurements in salt in a deep borehole, southeastern Utah OF 82-1075
 — Studies of earth stress and rock properties and the hydraulic fracturing process OF 82-1075
 — The correlation between the orientation of induced fractures and in situ stress of rock anisotropy OF 82-1075
 — The interpretation of hydraulic fracturing pressure-time data for in-situ stress determination OF 82-1075

- tensile strength*: A statistical fracture mechanics determination of the apparent tensile strength in hydraulic fracture OF 82-1075
- rock mechanics—elasticity**
- shear stress*: Implications of an elastic analysis of in situ stress measurements near the San Andreas Fault OP- 776
- stress*: The relation between in situ ultrasonic properties of rock and in situ stress OF 82-1075
- rock mechanics—experimental studies**
- acoustical waves*: Acoustic emissions detected by hydrophone during hydraulic fracturing stress measurement OF 82-1075
- Stripa acoustic emission experiment OF 82-1075
- compaction*: Mechanical and chemical compaction in fine-grained shallow-water limestones OP- 1127
- failures*: Hydrotectonics; principles and relevance OP- 643
- stress*: Drilling holes for earthquake prediction OP- 509
- rock mechanics—field studies**
- compressive strength*: Aspects of the size-strength relationship of unjointed rocks OP- 1208
- elastic waves*: In-situ measurements of seismic velocity at 22 locations in the Los Angeles, California region OF 82-0833
- geothermal gradient*: Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient OP- 837
- hydraulic fracturing*: Recent in-situ stress measurements at depth in the western Mojave Desert OP- 528
- instruments*: In situ geomechanics of crystalline and sedimentary rocks; Part IV, Continued field testing of the modified U.S. Geological Survey 3-D borehole stress probe OF 83-0750
- rock mechanics—materials, properties**
- bedrock*: Bedrock map and geotechnical properties of rocks of the Culpeper Basin and vicinity, Virginia and Maryland 1-1313-C
- breccia*: Continuous formation of gouge and breccia during fault displacement OP- 1042
- clinker*: Geologic, geotechnical, and geophysical properties of core from the Acme Fire-Pit-1 drill hole, Sheridan County, Wyoming OF 83-0069
- crystalline rocks*: Density estimates of crystalline rocks OP- 1318
- elastic properties*: In situ studies of velocity in fractured crystalline rocks OP- 832
- granites*: Acoustic character of hydraulic fractures in granite OP- 932
- permeability*: Application of borehole geophysics to the acoustic characterization of low permeability rocks OP- 931
- physical properties*: Density, porosity, and magnetic properties of rock specimens from southwestern Arizona OF 83-080
- Rock property measurements and analysis of selected igneous, sedimentary, and metamorphic rocks from worldwide localities OF 83-0736
- shale*: Final report on the permeability of geopressured Gulf Coastal shale cores OF 83-0180
- strength*: Strengths of clay and non-clay fault gouges at elevated temperatures and pressures OP- 820
- stress*: Status of the hydraulic fracturing method for in-situ stress measurements OP- 1350
- tuff*: Permeability and pore-fluid chemistry of the Bullfrog Tuff in a temperature gradient; summary of results OF 83-0475
- Preliminary assessment of in-situ geomechanical characteristics in drill hole USW G-1, Yucca Mountain, Nevada OF 83-0401
- rock mechanics—techniques**
- hydraulic fracturing*: A comparative study of deep hydrofracturing and overcoring stress measurements at six locations with particular interest to the Nevada Test Site OF 82-1075
- A note on downhill detection of conductive fractures OF 82-1075
- Analysis of injection tests for in-situ stress determination OF 82-1075
- Experiments in the in-situ stress measurements using the stress relieving and hydraulic fracturing techniques OF 82-1075
- Hydraulic fracturing in Alberta tar sand formations; a unique material for in situ stress measurements OF 82-1075
- In-situ stress determination in deep wells as an aid to stimulation design OF 82-1075
- Instantaneous shut in pressure and its relationship to the minimum in situ stress OF 82-1075
- Rocky Mountains** *see also* the individual states and provinces
- Rocky Mountains—areal geology**
- Uinta Mountains*: The geologic story of the Uinta Mountains B 1291
- Rocky Mountains—economic geology**
- fuel resources*: Overpressured reservoirs in Rocky Mountain region OP- 1164
- metal ores*: Volcano-tectonic setting of Tertiary ore deposits, Southern Rocky Mountains OP- 695
- natural gas*: Gas reservoirs in composite shale-sandstone lithologies; a Rocky Mountain energy frontier OP- 417
- Rocky Mountains—engineering geology**
- maps*: Landslide overview map of the conterminous United States P 1183
- petroleum engineering*: Geologic aspects of tight gas reservoirs in the Rocky Mountain region OP- 1163
- slope stability*: Landslide overview map of the conterminous United States P 1183
- Rocky Mountains—geochemistry**
- trace elements*: Incompatible-element-rich andesitic amphibolites from the Archean of Montana and Wyoming; evidence for mantle metasomatism OP- 842
- Rocky Mountains—geochronology**
- Precambrian*: Geochronology of the Farmington Canyon Complex, Wasatch Mountains, Utah OP- 516
- Rocky Mountains—geophysical surveys**
- remote sensing*: Recurrent tectonic activity in the Ruby and Highland ranges, Southwest Montana OP- 411
- Rocky Mountains—hydrogeology**
- hydrology*: Hydrology of area 54, Northern Great Plains and Rocky Mountain coal provinces, Colorado and Wyoming OF 83-0146
- Hydrology of area 56, Northern Great Plains and Rocky Mountain coal provinces, Utah and Colorado OF 83-0038
- Rocky Mountains—paleobotany**
- palynomorphs*: Phyletic gradualism or punctuated equilibria; the evidence from fossil pollen of the Juglandaceae OP- 862
- Rocky Mountains—petrology**
- volcanology*: Cenozoic magmatism associated with extensional tectonics in the Rocky Mountains OP- 696
- Rocky Mountains—sedimentary petrology**
- sedimentation*: Lemhi Arch OP- 1058
- Rocky Mountains—seismology**
- earthquakes*: Instrumental seismicity of the Northern Rocky Mountains of the United States OP- 297
- Rocky Mountains—stratigraphy**
- Cambrian*: Stratigraphy of Precambrian and Cambrian sedimentary rocks, Polaris 1SE Quadrangle, Beaverhead County, Montana OP- 1345
- Cretaceous*: Palynostratigraphic framework for the Cretaceous (Albian-Maestrichtian) of the Overthrust Belt of Utah and Wyoming OP- 863
- Pennsylvanian*: Minturn and Sangre de Cristo formations of southern Colorado; a prograding fan-delta to alluvial-fan sequence shed from ancestral Rocky Mountains OP- 694
- Pleistocene*: Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park OP- 1035
- Rocky Mountains—structural geology**
- tectonics*: A synopsis of the structure and stratigraphy of south-central Idaho; contributions by the U. S. Geological Survey since 1975 OP- 1143
- Fission-track ages of apatite in the Wasatch Mountains, Utah; an uplift study OP- 848
- Foreland deformation in the northern part of the Ruby Range of southwestern Montana OP- 1245
- Lineaments and their tectonic implications in Rocky Mountains and adjacent plains region OP- 749
- Preliminary interpretation of the thrust belt in Southwest and west-central Montana and east central Idaho OP- 1059
- Structure, burial history, and petroleum potential of frontal thrust belt and adjacent foreland, Southwest Montana OP- 943
- The southern part of the Southwest Montana thrust belt; a preliminary re-evaluation of structure, thermal maturation and petroleum potential OP- 942
- Rocky Mountains—tectonophysics**
- plate tectonics*: Cenozoic magmatism associated with extensional tectonics in the Rocky Mountains OP- 696
- rubidium—geochemistry**
- volcanic rocks*: Volcanic stratigraphy of part of McLendon Volcano, Yavapai County, Arizona OP- 154
- Russia** *see* USSR
- ruthenium—abundance**
- chromitite*: Palladium, platinum, rhodium, ruthenium, and iridium in chromitites from the Massif du Sud and Tiebaghi Massif, New Caledonia OP- 927
- S
- Sahara** *see also* the individual countries
- Sahara—geophysical surveys**
- remote sensing*: SIR-A images reveal major subsurface drainages in the eastern Sahara; applications to Mars OP- 766
- salt** *see also* under economic geology under New York
- salt tectonics** *see also* under structural geology under Utah
- sands** *see also* under economic geology under Arctic Ocean
- sandstone** *see also* under clastic rocks under sedimentary rocks

Saturn—geophysical surveys

remote sensing: Internal crustal modification of the satellites of Saturn and Jupiter and implications for Venus OP- 746

— Voyager cartography OP- 76

Saturn—satellites

Iapetus Satellite: Preliminary pictorial map of Iapetus I-1486

Saudi Arabia—areal geology

Al Ufayriyah Quadrangle: Reconnaissance geology of the Al Ufayriyah Quadrangle, sheet 20/42 A, Kingdom of Saudi Arabia

OF 83-0295

Ghazzalah Quadrangle: Reconnaissance geology of the Ghazzalah Quadrangle, sheet 26/41 A, Kingdom of Saudi Arabia

OF 83-0331

Jabal Dalfa Quadrangle: Reconnaissance geology of the Jabal Dalfa Quadrangle, sheet 21/43 C, Kingdom of Saudi Arabia

OF 83-0333

Jabal Saq Quadrangle: Reconnaissance geology of the Jabal Saq Quadrangle, sheet 26/43 C, Kingdom of Saudi Arabia

OF 83-0447

maps: Index map of published 1:100,000 scale geologic quadrangle maps, Kingdom of Saudi Arabia

OF 82-0289

— Reconnaissance geologic map of the Harrat Tuffil Quadrangle, sheet 20/39 B, Kingdom of Saudi Arabia

OF 83-0332

— Reconnaissance geologic map of the Jabal Zain Quadrangle, sheet 20/44 A, Kingdom of Saudi Arabia

OF 83-0639

— Reconnaissance geology of the Jabal Khatam Quadrangle, sheet 26/39 D, Kingdom of Saudi Arabia

OF 83-0674

Thaniyah Quadrangle: Reconnaissance geology of the Thaniyah Quadrangle, sheet 20/42 C, Kingdom of Saudi Arabia

OF 83-0448

Saudi Arabia—economic geology

copper ores: Geophysical investigations of the Umm ar Rummf copper prospect, Al Qunfudhah Quadrangle, Kingdom of Saudi Arabia

OF 83-0298

gold ores: Preliminary mineralogic, fluid inclusion, and stable isotope study of the Mahd adh Dhahab gold mine, Kingdom of Saudi Arabia

OF 83-0291

metal ores: Geological and geochemical studies in the Wadi Bidah District, Kingdom of Saudi Arabia

OF 83-0672

— Peralkaline and peraluminous granites and related mineral deposits of the Arabian Shield, Kingdom of Saudi Arabia

OF 83-0389

— Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia

OP- 320

— Preliminary assessment of the geochemistry and mineral favorability of the postorogenic granites of the southeastern Arabian Shield, Kingdom of Saudi Arabia

OF 83-0486

— Preliminary results of spectral induced polarization measurements, Wadi Bidah District, Kingdom of Saudi Arabia

OF 83-0612

— Time-domain electromagnetic tests in the Wadi Bidah District, Kingdom of Saudi Arabia

OF 83-0613

mineral resources: Mineral potential of selected felsic plutons in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia

OF 83-0370

— The mineral resource potential of the Harrat Nawasif, sheet 21/42 C, Ranyah, sheet 21/42 D, and Jabal Dalfa, sheet 21/43 C quadrangles, Kingdom of Saudi Arabia

OF 83-0372

— The mineral resource potential of the Thaniyah and Al Ufayriyah quadrangles, sheets 20/42 C and 20/42 A, Kingdom of Saudi Arabia

OF 83-0388

— The mineral resource potential of the Wadi Al Jarir and Al Jurdhawiyah quadrangles, sheets 25/42 C and 25/42 D, Kingdom of Saudi Arabia

OF 83-0368

— The mineral resource potential of the Wadi Habawnah and Najran quadrangles, sheets 17/44A and 17/44C, Kingdom of Saudi Arabia

OF 83-0009

petroleum: Assessment of undiscovered conventionally recoverable petroleum resources of the Arabian-Iranian Basin

C 0881

polymetallic ores: Biogeochemical sampling in the Mahd adh Dhahab district, Kingdom of Saudi Arabia

OF 83-0330

tungsten ores: Selected physical properties of rocks from the Baid al Jimalah West tungsten deposit, Kingdom of Saudi Arabia, and recommendations for geophysical surveys

OF 83-0449

Saudi Arabia—geochemistry

surveys: Reconnaissance geochemical survey of Al Jurdhawiyah and Wadi al Jarir quadrangles, sheets 25/42 D and 25/42 C, Kingdom of Saudi Arabia

OF 83-0299

trace elements: Biogeochemical sampling in the Mahd adh Dhahab district, Kingdom of Saudi Arabia

OF 83-0330

— Geochemical evaluation of felsic plutonic rocks in the eastern and southeastern Arabian Shield, Kingdom of Saudi Arabia

OF 83-0369

— Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia

OP- 320

— Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia

OP- 321

— Trace-element geochemistry of postorogenic granites from the northeastern Arabian Shield, Kingdom of Saudi Arabia

OF 83-0287

Saudi Arabia—geochronology

Proterozoic: U-Pb zircon ages of igneous rocks and a model for late Proterozoic crustal evolution in the easternmost region of the Arabian Shield, Kingdom of Saudi Arabia

OP- 448

Saudi Arabia—geomorphology

aeolian features: The environmental history and present condition of Saudi-Arabia's northern sand seas

OF 83-0749

Saudi Arabia—geophysical surveys

electrical surveys: Preliminary results of spectral induced polarization measurements, Wadi Bidah District, Kingdom of Saudi Arabia

OF 83-0612

electromagnetic surveys: Ground-followup studies of the 1977 airborne electromagnetic survey in the Assifar and Mulhal areas, Wadi Bidah district, Kingdom of Saudi Arabia

OF 83-0367

— Time-domain electromagnetic tests in the Wadi Bidah District, Kingdom of Saudi Arabia

OF 83-0613

magnetic surveys: An aeromagnetic interpretation of eleven map sheets, scale 1:250,000, in the southern Najd and part of the southern Tuwayq quadrangles, Kingdom of Saudi Arabia

OF 82-1048

— Spectral analysis of the 1976 aeromagnetic survey of Harrat Rahat, Kingdom of Saudi Arabia

OF 83-0640

maps: An aeromagnetic interpretation of eleven map sheets, scale 1:250,000, in the southern Najd and part of the southern Tuwayq quadrangles, Kingdom of Saudi Arabia

OF 82-1048

seismic surveys: Crustal structure of southwestern Saudi Arabia

OF 83-0638

— Saudi Arabian seismic deep-refraction profiles; final project report

OF 83-0390

surveys: Geologic interpretation of geophysical data for the Wadi al Jarir and Al Jurdhawiyah quadrangles, sheets 25/42 C and D, Kingdom of Saudi Arabia

OF 83-0371

— Geophysical investigations of the Umm ar Rummf copper prospect, Al Qunfudhah Quadrangle, Kingdom of Saudi Arabia

OF 83-0298

Saudi Arabia—paleontology

Pisces: Paleocene pycnodont fishes from Jabal Umm Himar, Harrat Hadan area, Kingdom of Saudi Arabia

OF 83-0453

Saudi Arabia—petrology

igneous rocks: Chemistry of volcanic and plutonic rocks of the Precambrian Shield, Kingdom of Saudi Arabia

OP- 1086

metamorphic rocks: Chemistry of volcanic and plutonic rocks of the Precambrian shield, Kingdom of Saudi Arabia

OP- 1087

Saudi Arabia—seismology

crust: Crustal structure of southwestern Saudi Arabia

OF 83-0638

Saudi Arabia—stratigraphy

bibliography: Summary of Tertiary investigations in western Saudi Arabia, current work by the U. S. Geological Survey and recommended future studies

OF 83-0487

Miocene: Mastritherium (Artiodactyla, Anthracotheriidae) from Wadi Sabya, southwestern Saudi Arabia; an earliest Miocene age for continental rift-valley volcanic deposits of the Red Sea margin

OF 83-0488

Proterozoic: Paleomagnetic investigation of upper Proterozoic rocks in the eastern Arabian Shield, Kingdom of Saudi Arabia

OP- 607

— Paleomagnetic investigation of upper Proterozoic rocks in the eastern Arabian Shield, Kingdom of Saudi Arabia

OP- 608

Tertiary: Summary of Tertiary investigations in western Saudi Arabia, current work by the U. S. Geological Survey and recommended future studies

OF 83-0487

Saudi Arabia—structural geology

tectonics: Late Proterozoic island-arc complexes and tectonic belts in the southern part of the Arabian Shield, Kingdom of Saudi Arabia

OF 83-0296

Saudi Arabia—tectonophysics

plate tectonics: Chemistry of volcanic and plutonic rocks of the Precambrian Shield, Kingdom of Saudi Arabia

OP- 1086

— Middle Tertiary continental rift and evolution of the Red Sea in southwestern Saudi Arabia

OF 83-0641

schistosity see under folds under structural analysis**Scotland—tectonophysics**

sea-floor spreading: Influence of the Greenland-Scotland Ridge on the geological history of the North Atlantic and Norwegian-Greenland sea areas

OP- 867

sea-floor spreading see also under tectonophysics

under Faeroe Islands; Greenland; Iceland; Norway; Pacific Ocean; Red Sea; Scotland

sea-floor spreading—concepts

magnetic anomalies: The ocean crustal tape recorder; distinguishing the signal from the noise

OP- 107

sea water—geochemistry

calcium: Total individual ion activity coefficients of calcium and carbonate in seawater at 25°C and 35‰ salinity, and implications to the agreement between apparent and thermodynamic constants of calcite and aragonite

OP- 975

properties: Physical and chemical properties of San Francisco Bay waters, 1977

OF 80-1191

- reactions:* A note on the chemistry of seawater in the range 350°-500°C OP- 101
- sedimentary petrology—symposia**
- isotopes:* Report on the Second SEPM research conference; Stable isotopes in sedimentary geology OP- 39
- sedimentary petrology—techniques**
- peeling:* Rigid-peel technique for preserving structures in coarse-grained sediments OP- 422
- sedimentary rocks** *see also* sedimentary structures; sedimentation; sediments
- sedimentary rocks—carbonate rocks**
- diagenesis:* Carbonate porosity versus depth; a predictable relation for South Florida OP- 1092
- Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40
- dolomite:* Hoffa Reef; a shelf-edge calcareous prominence in the northern Gulf of Mexico OF 83-0745
- Relations of dolomite associated with faults to the stratigraphy and structure of central Kentucky OP- 102
- geochemistry:* The oxygen isotope composition of granitoid and sedimentary rocks of the southern Snake Range, Nevada OP- 674
- grainstone:* Burial cement in Sunniland reservoirs, Lower Cretaceous of southern Florida OP- 469
- lacustrine environment:* Sedimentology and structure of Lower Jurassic lake beds in the Culpeper Basin at Thorofare Gap, Virginia OP- 523
- limestone:* Birdseyes, fenestrae, shrinkage pores, and loferites; a reevaluation OP- 1125
- Influence of deposition and early diagenesis on porosity and chemical compaction in two Paleozoic buildups; Mississippian and Permian age rocks in the Sacramento Mountains, New Mexico OP- 1128
- Mechanical and chemical compaction in fine-grained shallow-water limestones OP- 1127
- Porosity and thermal maturity of limestone bodies in Jurassic Swift Formation, Williston Basin, North Dakota OF 83-0723
- Porosity prediction in shallow vs. deepwater limestones OP- 1097
- Stable isotope analyses P 1173
- lithofacies:* Carbonate submarine fan facies along a Paleozoic prograding continental margin, Western United States OP- 249
- Facies in upper part of Madison Group, Sawtooth Range, northwestern Montana OP- 864
- Nonmarine carbonates of Neogene Lake Idaho in Utah OP- 767
- packstone:* Late Pleistocene deposits of Florida Keys OP- 489
- porosity:* Carbonate porosity versus depth; "compaction" curve for South Florida OP- 470
- textures:* High-porosity Cenozoic carbonate rocks of South Florida; progressive loss of porosity with depth OP- 471
- sedimentary rocks—chemically precipitated rocks**
- chert:* Comparisons between open-ocean and continental margin chert sequences OP- 519
- Volcanic manganese deposits in the Western Cordillera; lithologic associations and paleoceanographic settings and economic deposits associated with biogenic siliceous rocks C 0822
- evaporites:* Continuous subaqueous deposition of the Permian Castile evaporites, Delaware Basin, Texas and New Mexico OP- 283
- Evaporite mineral cycles, Paradox Basin, Utah and Colorado OP- 1006
- iron formations:* Michigan's iron ranges OP- 194
- phosphate rocks:* Changing patterns of phosphogenesis in Mesozoic and Cenozoic OP- 1123
- Phanerozoic paleoceanography and phosphorites OP- 935
- Phosphogenic provinces of Circum-Pacific region OP- 1122
- sedimentary rocks—clastic rocks**
- bentonite:* Chemical characteristics and origin of Ordovician K-bentonites along the Cincinnati Arch; a discussion OP- 1099
- black shale:* Cretaceous black-shale deposition within an oxidized red clay, turbidite environment, southern Angola Basin, South Atlantic Ocean OP- 284
- Inorganic geochemistry of deep-sea black shales C 0822
- Short-range vertical variation in organic carbon, carbonate carbon, total sulfur contents and Munsell color values in a core from the Upper Pennsylvanian Stark Shale Member of the Dennis Limestone, Wabunsee County, Kansas OF 83-0315
- Upper Devonian black shales across Appalachian Basin OP- 282
- conglomerate:* Conglomerates P 1173
- Correlation and provenance of upper Mesozoic chert-rich conglomerate of California OP- 1116
- Geology of the basement rocks near Charleston, South Carolina; data from detrital rock fragments in lower Mesozoic(?) rocks in Clubhouse Crossroads test hole #3 P 1313
- Tectonic models for Early Cretaceous rifting in southeastern Arizona OP- 318
- diagenesis:* Distribution and age of clinker in northern Powder River basin, Montana OP- 518
- diamictite:* Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho OP- 268
- geochemistry:* Geochemical characteristics of the Church Rock 1 and 1 East uranium deposits, Grants uranium region, New Mexico OF 83-0194
- graywacke:* Graywacke of Buchia Ridge and correlative Lower Cretaceous rocks in the Goodnews Bay and Bethel quadrangles, southwestern Alaska B 1529-C
- heavy minerals:* The nonopaque, detrital heavy mineralogy of the Morrison Formation near Crownpoint, San Juan Basin, New Mexico OF 83-0191
- lithofacies:* Sedimentation of a middle Tertiary paludal deposit, northern San Joaquin Valley, California OP- 67
- Sedimentology of the Upper Cretaceous Hornbrook Fm., southwestern Oregon and north-central California OP- 868
- petrography:* Fence Lake Formation (Tertiary), west-central New Mexico OP- 783
- petrology:* Field characterization of rocks in the Monterey Formation along the coast near Santa Barbara, California OP- 569
- provenance:* Minturn and Sangre de Cristo formations of southern Colorado; a prograding fan-delta to alluvial-fan sequence shed from ancestral Rocky Mountains OP- 694
- pyroclastics:* Pelletal and oolitic fluorite in a lacustrine zeolitic tuff near Buckhorn, Grant County, New Mexico OP- 1124
- Volcanic origin of the flint clay parting in the Hazard No. 4 (Fire Clay) coal bed of the Brea
- thitt Formation in eastern Kentucky OP- 124
- radiolarite:* Comparisons between open-ocean and continental margin chert sequences OP- 519
- Depositional environments and age of radiolarian chert in western North America OP- 589
- red beds:* Geology of the lower Mesozoic(?) sedimentary rocks in Clubhouse Crossroads test hole #3, near Charleston, South Carolina P 1313
- sandstone:* Availability of petrographic thin-sections from measured sections and wells in Early to Late Cretaceous Nanushuk Group rocks, National Petroleum Reserve in Alaska, North Slope, Alaska OF 83-0520
- Continental shelf OP- 137
- Depositional environments and reservoir properties of sandstones of Lower Cretaceous Nanushuk and Upper Cretaceous Colville groups, Umiat Test Well 11, National Petroleum Reserve, Alaska OP- 397
- Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah OP- 970
- Dune size in paleodeserts of Colorado Plateau OP- 1057
- Environment of deposition of sandstone bodies P 1173
- Epigenetic zoning in surface and near-surface rocks resulting from seepage-induced redox gradients, Velma oil field, Oklahoma OP- 311
- Minor sedimentary features, contorted structures, and homogeneous sedimentary rocks P 1173
- Post-depositional alteration of titanomagnetite in a Miocene sandstone, South Texas (U.S.A.) OP- 1024
- Reconnaissance geology of Amliia Island, Aleutian Islands, Alaska OP- 782
- Sandstones P 1173
- shale:* Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa OP- 497
- Diagenesis and methane generation in Upper Cretaceous Gammon Shale, northern Great Plains, United States OP- 415
- Outline of diagenesis in the Monterey Formation examined laterally along the Santa Barbara coast, California OP- 568
- Siderite concretions; indicators of early diagenesis in the Gammon Shale (Cretaceous) OP- 414
- turbidite:* A quantitative index of mixing to determine the relative amount of downslope contamination in subsurface sediments of a submarine fan OP- 160
- Active diapirism and slope steepening, northern Gulf of Mexico continental slope OP- 745
- Comparison of proximal and distal thin-bedded turbidites with current-winnowed deep-sea sands OP- 855
- underclay:* Origin of an underclay as revealed by vertical variations in mineralogy and chemistry OP- 1038
- sedimentary rocks—composition**
- insoluble residues:* Insoluble residue patterns P 1173
- mineral composition:* Evaporite deposits and magnesian carbonate rocks P 1173
- Mineral phases produced by weathering on surfaces of different ages from New Jersey to

- South Carolina; a comparison of rate and duration of weathering OP- 926
siliceous composition: Aphanitic silica rock P 1173
- sedimentary rocks—diagenesis**
siliceous composition: Diagenesis in laterally equivalent sections of the Miocene Monterey Formation, Santa Barbara area, California OP- 566
- sedimentary rocks—environmental analysis**
fluvial environment: Alluvial fan deposits OP- 865
- Sedimentology of the lower part of the Upper Triassic Chinle Formation and its relationship to uranium deposits, White Canyon area, southeastern Utah OF 83-0459
 - Tectonic setting and depositional environments of Hanna Formation, south-central Wyoming OP- 481
- intertidal environment*: Depositional environments of Upper Cretaceous Fox Hills Formation, Niobrara and Weston counties, east-central Wyoming OP- 306
- lacustrine environment*: Character of ancient petroliferous lake basins of the world OP- 388
- Lacustrine environments OP- 390
- marine environment*: Sedimentology and structure of Franciscan Assemblage, Yolla Bolly terrane, Northern California OP- 104
- Submarine fans OP- 554
- nearshore environment*: Sedimentology of the Horlick Formation (Lower Devonian), Ohio Range, Transantarctic Mountains C 0911
- reservoir rocks*: Character of ancient petroliferous lake basins of the world OP- 389
- slope environment*: Continental slopes OP- 250
- sedimentary rocks—geochemistry**
organic carbon: Origin and geochemistry of redox cycles of Jurassic to Eocene age, Cape Verde Basin (DSDP Site 367), continental margin of North-West Africa OP- 285
- organic materials*: A geochemical profile of Tunalik No. 1 well, National Petroleum Reserve in Alaska (NPRA) OF 83-0627
- Geochemistry; Norton COST well 1 OF 83-0124
 - Geochemistry; Norton Sound COST well No. 2 OF 83-0557
 - Geochemistry of organic-rich shales and coals from Middle Pennsylvanian Cherokee Group and lower part of Marmaton Group, Oklahoma, Kansas, Missouri, and Iowa OP- 498
 - Hydrocarbon potential of the Dan River-Danville Triassic basin, North Carolina and Virginia OP- 1223
 - Petroleum geochemistry of the North Slope of Alaska; time and degree of thermal maturity OP- 729
- trace elements*: Mineralogical and chemical composition of the Pierre Shale and equivalent rocks, northern Great Plains, U.S.A. OP- 1100
- sedimentary rocks—lithofacies**
biofacies: Biofacies of the Haustator bilira Zone (mid-Maestrichtian, Cretaceous) in Mississippi, Alabama, and Georgia OP- 1155
- clay mineralogy*: Clay mineralogy P 1173
- environmental analysis*: Depositional and structural controls on heavy-petroleum tar sands in Santa Cruz Mountains OP- 958
- Physical evidence for saline cycles of deposition in Eocene Lake Gosiute in Southwest Wyoming OP- 1051
- petrography*: Petrography of the Supai Group and Pakoon Limestone P 1173
- thickness*: Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska OF 82-0906
- sedimentary rocks—lithostratigraphy**
Cenozoic: A description of dredge samples collected in 1982 from the Bering Sea continental margin west of Navarin Basin OF 83-0325
- Cretaceous*: Depositional relations of Cretaceous and lower Tertiary rocks, northeastern Alaska OP- 812
- Geologic map of the outcrop area of the Hornbrook Formation, Oregon and California OF 83-0373
 - Lithostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
 - Lower Upper Cretaceous strata in Minnesota and adjacent areas; time-stratigraphic correlations and structural attitudes P 1253
 - Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas OP- 811
 - Preliminary report on Upper Cretaceous geological studies along the Tombigbee River, western Alabama and eastern Mississippi OP- 1147
 - Revision of Upper Cretaceous nomenclature in Montana and South Dakota B 1529-H
 - Section C-C; surface and subsurface correlations of some Upper Cretaceous and Tertiary rocks from the northeast flank of Rock Springs Uplift to the Rawlings Uplift, Great Divide Basin, Wyoming OF 83-0418
 - Summit Island Formation, a new Upper Cretaceous formation in southwestern Alaska B 1529-B
 - The Black Creek-Peedee formational contact (Upper Cretaceous) in the Cape Fear River region of North Carolina P 1285
- Devonian*: Huntersville Chert (Devonian) extending from southwestern Virginia into southwestern New York, and its Bobs Ridge Sandstone Member B 1529-H
- New members of the Madison Limestone (Devonian and Mississippian), north-central Wyoming and southern Montana B 1529-H
- Jurassic*: Paleogeography of Middle Jurassic continental, shoreline and shallow marine sedimentation, southern Utah OP- 110
- Stratigraphic sections of Middle Jurassic Entrada Sandstone and related rocks from Dewey Bridge, Utah, to Bridgeport, Colorado OC-0122
 - Structural control of Jurassic sedimentation in Alabama and Florida OP- 800
- Mesozoic*: Mesozoic stratigraphy of the Laguna-Grants region OP- 754
- Miocene*: Lithostratigraphy and diagenesis of Monterey Formation near Ojai, California OP- 606
- Neogene*: The Kern River Formation, southeastern San Joaquin Valley, California B 1529-D
- Ordovician*: Nealmont Limestone (Middle Ordovician) extending from southwestern Virginia into southwestern New York in the Central Appalachians B 1529-H
- Paleozoic*: Mid-Paleozoic age of the Roberts thrust unsettled by new data from northern Nevada OP- 582
- New Paleozoic formations in the northern Kuskokwim Mountains, west-central Alaska B 1529-H
 - Paleozoic rocks in the Black Pine Mountains, Cassia County, Idaho B 1536
- Stratigraphic summary of Pennsylvanian and Lower Permian rocks, Manzano Mountains, New Mexico OP- 846
- Stratigraphy and lithology P 1173
- Permian*: Mauzy Formation, a new stratigraphic unit of Permian age in western Kentucky B 1529-H
- Phanerozoic*: Petroleum geology of Cook Inlet Basin, Alaska; an exploration model OP- 728
- Pliocene*: Recognition and formalization of the Pliocene "Goose Creek phase" in the Charleston, South Carolina, area B 1529-H
- Precambrian*: Stratigraphy of Precambrian and Cambrian sedimentary rocks, Polaris ISE Quadrangle, Beaverhead County, Montana OP- 1345
- Tertiary*: Lithostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
- Triassic*: Stratigraphic sections of the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation in the northern part of the White Canyon, Red Canyon, and Blue Notch Canyon area, southeastern Utah OF 83-0188
- sedimentary rocks—organic residues**
coal: Automated lithologic interpretation from geophysical well logs in a coal depositional environment, Carbon County, Wyoming OP- 279
- Chemical analysis of coal from the Blackhawk Formation, Wasatch Plateau coalfield, Sevier County, Utah OF 83-0363
 - Coal quality loss from acquisition to analysis; a preliminary time study OF 83-0167
 - Comparative organic geochemistry of shales and coals from Cherokee Group and lower part of Marmaton Group of Middle Pennsylvanian age, Oklahoma, Kansas, Missouri, and Iowa OP- 497
 - Deposition of sulfide and associated minerals in coal as a function of the ratios of A) iron to sulfur in the first deposited phase and B) swamp to sea water OP- 56
 - Fluvial facies associations; guide to Tertiary coal development and exploration in Powder River basin, Wyoming and Montana OP- 380
 - Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska OP- 5
 - Organic matter in a coal ball; peat or coal? OP- 500
 - Paleoclimatic controls on the occurrence and quality of coal C 0822
 - Preliminary thermal-maturity map of the Cameo and Fairfield or equivalent coal zone in the Piceance Creek basin, Colorado MF-1575
 - Recommended procedures and methodology of coal description C 0894
 - Sulfur diagenesis in Everglades peat and origin of pyrite in coal OP- 17
 - Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 1, Lithologic descriptions and geophysical logs of coreholes in the southwestern Virginia coal field, Dickinson, Lee, Scott, and Wise counties, Virginia OF 83-0628
 - Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 2, Analyses of coal cores from the southwestern Virginia coal field OF 83-0620
 - Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 3, Lithologic descriptions and geophysical logs of coreholes in the Valley coal fields, Bland, Botetourt,

- Montgomery, Pulaski, Smyth, and Wythe counties, Virginia OF 83-0637
- Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 4, Analyses of coal cores from the Valley coal fields OF 83-0626
 - Transgressive-regressive cycles and the occurrence of coal in some Upper Cretaceous strata of Utah OP- 360
 - Weathering-induced chemical changes in surface coals from Paleocene Fort Union Formation, Red Rim area, Sweetwater and Carbon counties, Wyoming OP- 496
 - lignite*: Chemical composition of Gulf Coast lignites; data as of 1981 OP- 913
 - Paleocene lignite-bearing fluvial deposits, southwestern North Dakota OP- 1275
 - Preliminary report on near-surface lignite occurrences, Cleveland County, Arkansas OF 83-0053
 - Stratigraphic framework and distribution of lignite on Crowleys Ridge, Arkansas OF 83-0609
 - oil shale*: Descriptions of four stratigraphic sections of parts of the Green River and Uinta formations in the eastern Uinta Basin, Uintah County, Utah, and Rio Blanco County, Colorado OF 83-0017
 - peat*: Eustatic control of distribution of lower Upper Cretaceous coal beds in Utah; application in coal exploration OP- 1064
 - vitrinite*: Time as factor in organic metamorphism and use of vitrinite reflectance as an absolute paleogeothermometer OP- 996
- sedimentary rocks—petrology**
- allochthons*: Pre-Tertiary sedimentary terranes of the Bayhorse area; Challis 1° × 2° Quadrangle OF 83-0836
- sedimentary rocks—properties**
- physical properties*: Density, porosity, and magnetic properties of rock specimens from southwestern Arizona OF 83-080
 - Rock property measurements and analysis of selected igneous, sedimentary, and metamorphic rocks from worldwide localities OF 83-0736
 - reservoir properties*: Gas reservoirs in composite shale-sandstone lithologies; a Rocky Mountain energy frontier OP- 417
 - Lithology and geophysical log interpretation OF 83-0124
 - Lithology and geophysical log interpretation OF 83-0557
- sedimentary rocks—provenance**
- interpretation*: Summary of the stratigraphy and sedimentology of the Paleozoic rocks, Ouachita Mountains, Arkansas OP- 1192
- sedimentary structures** *see also* sedimentary rocks; sediments
- sedimentary structures—bedding plane irregularities**
- antidunes*: Dune size in paleodeserts of Colorado Plateau OP- 1057
 - ripple marks*: Pseudo plant fossils in the Boston Basin, Massachusetts OP- 720
 - sand waves*: Example of inner-shelf sand ridges from Upper Cretaceous Eagle Sandstone, Central Montana Uplift OP- 1031
 - Morphology, sedimentology, and genesis of three large submarine canyons adjacent to Navarin Basin, Bering Sea OP- 197
 - Spatial variations in sand-wave size and migration rate; implications for shoal dynamics OP- 152
- sedimentary structures—biogenic structures**
- bioturbation*: Depositional environments of Upper Cretaceous Fox Hills Formation, Niobrara and Weston counties, east-central Wyoming OP- 306
- sedimentary structures—environmental analysis**
- arid environment*: A Pleistocene sand desert in Arctic Alaska C 0911
 - estuarine environment*: Discrimination between subtidal and intertidal facies in Pleistocene deposits, Willapa Bay, Washington OP- 236
 - Estuarine deposits OP- 235
 - fluvial environment*: Alluvial fan deposits OP- 865
 - lacustrine environment*: Lacustrine environments OP- 390
 - marine environment*: Birdseyes, fenestrae, shrinkage pores, and loferites; a reevaluation OP- 1125
 - nearshore environment*: Sedimentology of the Horlick Formation (Lower Devonian), Ohio Range, Transantarctic Mountains C 0911
 - shelf environment*: Continental shelf OP- 137
 - slope environment*: Continental slopes OP- 250
- sedimentary structures—genesis**
- interpretation*: Facies characteristics of modern size-graded shelf deposits, northwestern Gulf of Mexico OP- 533
 - models*: Bedform climbing in theory and nature OP- 1056
- sedimentary structures—interpretation**
- techniques*: Rigid-peel technique for preserving structures in coarse-grained sediments OP- 422
- sedimentary structures—patterns**
- sandstone*: Minor sedimentary features, contorted structures, and homogeneous sedimentary rocks P 1173
- sedimentary structures—planar bedding structures**
- cross-stratification*: Sandstones P 1173
 - graded bedding*: Field study of subaqueous availing OP- 302
 - laminations*: Intra-lamina grain size distributions; 1, Heavy and light minerals from subaerial and subaqueous grain flow deposits OF 83-0351
 - rhythmic bedding*: Continuous subaqueous deposition of the Permian Castile evaporites, Delaware Basin, Texas and New Mexico OP- 283
 - sand bodies*: Environment of deposition of sandstone bodies P 1173
 - stratification*: Porosity and textural characteristics of eolian stratification OP- 1084
- sedimentary structures—secondary structures**
- concretions*: Chert derived from magadiite in the middle Eocene McBean Formation, South Carolina OP- 549
 - Guidelines for finding concretionary Mn-Fe oxides in streams OP- 891
 - Siderite concretions; indicators of early diagenesis in the Gammon Shale (Cretaceous) OP- 414
- sedimentary structures—soft sediment deformation**
- ball-and-pillow*: Deformational structures in the Inner Coastal Plain, western Georgia-eastern Alabama OP- 1016
 - olistostromes*: Tectonic geology of the northern Vermont ultramafic belt OP- 1176
 - slump structures*: Evidence for massive slumping along the Potomac River, Virginia Coastal Plain OP- 991
- sedimentation—controls**
- geochemical controls*: Origin and geochemistry of redox cycles of Jurassic to Eocene age, Cape Verde Basin (DSDP Site 367), continental margin of North-West Africa OP- 285
- paleogeographic controls**: Lemhi Arch OP- 1058
- tectonic controls**: Complex Tertiary stratigraphy and structure, Mohave Mountains, Arizona; a preliminary report OP- 961
- Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska OF 82-0906
 - Early Late Cretaceous paleogeography of east-central Utah OP- 1065
 - Evolution of early Proterozoic basins of the Great Lakes region OP- 1139
 - Evolution of sedimentary systems during Mesozoic and Cenozoic in southern Alaska; an overview OP- 730
 - Influence of geologic structure on sedimentation of the Upper Jurassic Morrison Formation, Southern Juan Basin, New Mexico OP- 244
 - Influence of the Onion Creek salt diapir on the late Cenozoic history of Fisher Valley, southeastern Utah OP- 241
 - Late Quaternary stratigraphy and paleolimnology, Clear Lake, California OP- 1138
 - Melange terrane in the central Virginia Piedmont OP- 159
 - Mesozoic stratigraphy; the key to tectonic analysis of southern and central Alaska OP- 591
 - Mid-Tertiary stratigraphic record produced during regional detachment faulting and development of extensional arches and basins, southwest of the Colorado Plateau margin OP- 407
 - Middle and Late Devonian sedimentation and tectonism at the Petersburg Lineament, northeastern West Virginia OP- 1291
 - Offscraping and underthrusting of sediment at the deformation front of the Barbados Ridge; Deep Sea Drilling Project Leg 78A OP- 828
 - Paleotectonism reflected in the Niobrara Formation of the northern Great Plains OP- 1132
 - Stratigraphy and structure of Post-Paleozoic sediments above the Newport Pluton of northeastern Arkansas P 1236
 - Structural control of Jurassic sedimentation in Alabama and Florida OP- 800
 - Tectonic framework of Clear Lake Basin, California OP- 510
 - Tectonic models for Early Cretaceous rifting in southeastern Arizona OP- 318
 - The influence of tectonic movement on depositional environments in the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation, White Canyon area, southeastern Utah OP- 322
- sedimentation—cyclic processes**
- causes*: Late Triassic cyclic deposition on the Colorado Plateau and its regional implications OP- 718
 - deltaic sedimentation*: Minturn and Sangre de Cristo formations of southern Colorado; a prograding fan-delta to alluvial-fan sequence shed from ancestral Rocky Mountains OP- 694
 - deposition*: Stratigraphy of the Hatchetigbee Formation (lower Eocene) in eastern Alabama-western Georgia OP- 423
 - estuarine sedimentation*: Holocene history of the estuarine area surrounding Portage, Alaska as recorded in a 93 m core OP- 68
 - fluvial sedimentation*: Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
 - glaciolacustrine sedimentation*: Tens of successive, colossal Missoula floods at north and east margins of channelled scabland OF 83-0671

- lacustrine sedimentation:** Physical evidence for saline cycles of deposition in Eocene Lake Gosiute in Southwest Wyoming OP- 1051
- marine sedimentation:** Evaporite mineral cycles, Paradox Basin, Utah and Colorado OP- 1006
- nearshore sedimentation:** Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas OP- 811
- Paleogeography of Middle Jurassic continental, shoreline and shallow marine sedimentation, southern Utah OP- 110
- Quaternary microfossils on the Arctic shelf C 0911
- salinity:** Continuous subaqueous deposition of the Permian Castile evaporites, Delaware Basin, Texas and New Mexico OP- 283
- transgression:** Paleocene to middle Eocene stratigraphy of Alabama OP- 426
- Transgression and regression P 1173
- Transgressive-regressive cycles and the occurrence of coal in some Upper Cretaceous strata of Utah OP- 360
- sedimentation—deposition**
- coal seams:** Depositional model for Upper Mississippian and Lower Pennsylvanian coal-bearing rocks of southwestern Virginia OP- 347
- environment:** Depositional environments and age of radiolarian chert in western North America OP- 589
- lithofacies:** Depositional relations of Cretaceous and lower Tertiary rocks, northeastern Alaska OP- 812
- sulfides:** Deposition of sulfide and associated minerals in coal as a function of the ratios of A) iron to sulfur in the first deposited phase and B) swamp to sea water OP- 56
- sedimentation—diagenesis**
- lithification:** Mechanical and chemical compaction in fine-grained shallow-water limestones OP- 1127
- sedimentation—environment**
- anaerobic environment:** An interpretation of carbon and sulfur relationships in Black Sea sediments as indicators of environments of deposition OP- 686
- basins:** Continuous subaqueous deposition of the Permian Castile evaporites, Delaware Basin, Texas and New Mexico OP- 283
- coastal environment:** Non-oolitic, high-energy carbonate sand accumulation; the Quicksands, Southwest Florida Keys OP- 1126
- Spatial variations in sand-wave size and migration rate; implications for shoal dynamics OP- 152
- deep-sea environment:** Inorganic geochemistry of deep-sea black shales C 0822
- deltaic environment:** Depositional environments and reservoir properties of sandstones of Lower Cretaceous Nanushuk and Upper Cretaceous Colville groups, Umiat Test Well 11, National Petroleum Reserve, Alaska OP- 397
- Eustatic control of distribution of lower Upper Cretaceous coal beds in Utah; application in coal exploration OP- 1064
- estuarine environment:** Discrimination between subtidal and intertidal facies in Pleistocene deposits, Willapa Bay, Washington OP- 236
- Estuarine deposits OP- 235
- Sedimentary processes in restricted Gulf Coast estuarine system; Corpus Christi Bay, Texas OP- 1134
- fluvial environment:** Alluvial fan deposits OP- 865
- Depositional systems in the Salt Wash Member of the Morrison Formation (Upper Jurassic) in southern Utah OP- 951
- Distribution of sediments in the Amazon River bed; no appreciable change along the river OP- 880
- Fence Lake Formation (Tertiary), west-central New Mexico OP- 783
- Late Tertiary sedimentary rocks of the Big Hole Basin, Southwest Montana OP- 480
- Paleocene lignite-bearing fluvial deposits, southwestern North Dakota OP- 1275
- Sedimentology of the lower part of the Upper Triassic Chinle Formation and its relationship to uranium deposits, White Canyon area, southeastern Utah OF 83-0459
- Stratigraphic sections of the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation in the northern part of the White Canyon, Red Canyon, and Blue Notch Canyon area, southeastern Utah OF 83-0188
- Tectonic setting and depositional environments of Hanna Formation, south-central Wyoming OP- 481
- The Kern River Formation, southeastern San Joaquin Valley, California B 1529-D
- glacial environment:** Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho OP- 268
- Guidebook, 1983 Friends of the Pleistocene field trip; Glacial sequence near McCall, Idaho OF 83-0724
- glaciomarine environment:** Sedimentary facies and depositional environments of late Wisconsinian glacial-marine deposits in central Puget Lowland, Washington OP- 946
- high-energy environment:** Late Pleistocene deposits of Florida Keys OP- 489
- intertidal environment:** Depositional environments of Upper Cretaceous Fox Hills Formation, Niobrara and Weston counties, east-central Wyoming OP- 306
- lacustrine environment:** Character of ancient petroliferous lake basins of the world OP- 388
- Character of ancient petroliferous lake basins of the world OP- 389
- Climatic significance of lacustrine deposits around Lake Vanda and Don Juan Pond, Antarctica C 0911
- Core KM-3, a surface-to-bedrock record of late Cenozoic sedimentation in Searles Valley, California P 1256
- Lacustrine environments OP- 390
- Manganese cycles and the origin of manganese nodules, Oneida Lake, New York, U.S.A. OP- 286
- Mixed-layer kerolite/stevensite from the Amargosa Desert, Nevada OP- 332
- Nonmarine carbonates of Neogene Lake Idaho in Utah OP- 767
- Origin of magnesium clays from the Amargosa Desert, Nevada OP- 618
- Rapid climatic cycles recorded in closed-basin lakes OP- 666
- Sedimentation history of rich oil-shale sequences in Eocene lakes Gosiute and Uinta, Wyoming and Utah OP- 916
- Sedimentology and structure of Lower Jurassic lake beds in the Culpeper Basin at Thoroughfare Gap, Virginia OP- 523
- Tectonism and sedimentation in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey OP- 1243
- marine environment:** Calcareous nannofossil and foraminiferal biostratigraphy of the Tallahatta Formation (Eocene) in the eastern Gulf Coastal Plain OP- 178
- Carbonate submarine fan facies along a Paleozoic prograding continental margin, Western United States OP- 249
- Deep-water deposition of Ordovician strata in the Ouachita Mountains, Arkansas and Oklahoma OP- 1191
- Influences of ocean anoxic events on manganese deposition and ophiolite-hosted sulfide preservation C 0822
- Late Cretaceous depositional patterns of the Blake Plateau OP- 965
- Paleocene and early Eocene dinocyst biostratigraphy OP- 337
- Paleogene benthic foraminiferal biostratigraphy and paleobathymetry of the central Coast Ranges of California P 1213
- Stratigraphic reference section for Georges Bank Basin; depositional model for New England passive margin OP- 976
- Submarine fans OP- 554
- The Black Creek-Peedee formational contact (Upper Cretaceous) in the Cape Fear River region of North Carolina P 1285
- nearshore environment:** Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. OP- 1068
- Patterns of sedimentation and paleogeography across the Western Interior Seaway during time of deposition of Upper Cretaceous Eagle Sandstone and equivalent rocks, Northern Great Plains OP- 1032
- Sedimentology of the Horlick Formation (Lower Devonian), Ohio Range, Transantarctic Mountains C 0911
- Smithian (Lower Triassic) conodont biofacies in Idaho, Utah and Nevada OP- 1273
- The oxygen minimum zone of continental margins C 0822
- paludal environment:** Sedimentation of a middle Tertiary paludal deposit, northern San Joaquin Valley, California OP- 67
- reefs:** Foundations of Quaternary reefs in south-central Belize Lagoon, Central America OP- 223
- Hoffa Reef; a shelf-edge calcareous prominence in the northern Gulf of Mexico OF 83-0745
- Influence of deposition and early diagenesis on porosity and chemical compaction in two Paleozoic buildups; Mississippian and Permian age rocks in the Sacramento Mountains, New Mexico OP- 1128
- Late Mesozoic carbonate banks and reefs along U. S. Atlantic margin OP- 454
- shallow-water environment:** Geochemical and sedimentologic indicators of depositional environments and diagenetic trends in the Niobrara Formation (Upper Cretaceous), Colorado and Kansas OP- 40
- Regional hydrogeologic framework of the Floridan Aquifer OP- 802
- shelf environment:** Changing patterns of phosphogenesis in Mesozoic and Cenozoic OP- 1123
- Continental shelf OP- 137
- Depositional complexities in sea-ice environment of Arctic shelves; example from Harrison Bay, Alaska OP- 1015
- Depositional provinces of Paleozoic and uppermost Precambrian rocks in Great Basin, Western United States OP- 1186
- slope environment:** Continental slopes OP- 250
- subtidal environment:** Depositional setting and geometric characteristics of the Shannon Sandstone Member of Gammon Shale; a continental shelf sand ridges field OP- 1133
- terrestrial environment:** Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah OP- 970

- Geology of the Tulare Formation and other continental deposits, Kettleman City area, San Joaquin Valley, California, with a section on ground-water management considerations and use of texture maps WRI 83-4000
- sedimentation—processes**
- bioturbation*: Assessment of gray whale feeding grounds and sea floor interaction in the northeastern Bering Sea OF 83-0727
- deep-sea sedimentation*: Paleocceanographic implications of Miocene deep-sea hiatuses OP- 604
- Sedimentation in a low-energy abyssal environment OP- 339
- deltaic sedimentation*: The middle Tertiary origin of Albemarle Sound, North Carolina OP- 989
- estuarine sedimentation*: Maps showing time-sequence surface patterns of estuarine hydrography and suspended sediments in Corpus Christi Bay, Texas Gulf Coast MF-1530
- fluvial sedimentation*: Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides OP- 512
- glaciolacustrine sedimentation*: Guidebook for 1983 Friends of the Pleistocene field trip to the Sanpoil River valley, northeastern Washington OF 83-0456
- glaciomarine sedimentation*: Acoustic interpretation of Quaternary sedimentation and erosion on the channelled upper Laurentian Fan, Atlantic margin of Canada OP- 966
- Glacial-marine sedimentation; a model OP- 814
- lacustrine sedimentation*: Accumulation of fossil fuels and metallic minerals in active and ancient rift lakes OP- 1041
- marine sedimentation*: High-resolution carbonate and organic-carbon stratigraphies for the late Neogene and Quaternary from the western Caribbean and eastern Equatorial Pacific OP- 410
- nearshore sedimentation*: Environment of deposition of sandstone bodies P 1173
- Intra-lamina grain size distributions; 1, Heavy and light minerals from subaerial and subaqueous grain flow deposits OF 83-0351
- slumping*: Evidence for massive slumping along the Potomac River, Virginia Coastal Plain OP- 991
- Summary of the stratigraphy and sedimentology of the Paleozoic rocks, Ouachita Mountains, Arkansas OP- 1192
- sedimentation—provenance**
- conglomerate*: Correlation and provenance of upper Mesozoic chert-rich conglomerate of California OP- 1116
- Geology of the basement rocks near Charleston, South Carolina; data from detrital rock fragments in lower Mesozoic(?) rocks in Clubhouse Crossroads test hole #3 P 1313
- deep-sea sedimentation*: Tectonic and geologic implications of the Zodiac Fan, Aleutian abyssal plain, Northeast Pacific OP- 1183
- gravel*: Gold-bearing gravel of the ancestral Yuba River, Sierra Nevada, California P 0722
- indicators*: Radionuclide tracers for sediment in the upper Chesapeake Bay OP- 310
- marine sediments*: Quaternary sedimentation on the Alaskan Beaufort shelf; sediment sources, glacioeustatism, and regional tectonics C 0911
- red beds*: Geology of the lower Mesozoic(?) sedimentary rocks in Clubhouse Crossroads test hole #3, near Charleston, South Carolina P 1313
- sand*: Heavy-mineral variability in beach and dune sands in the vicinity of the mouth of the Columbia River OF 82-1091
- sedimentation—sedimentation rates**
- controls*: Deposition on Pacific shelf edge; zone of contrasts OP- 367
- Supply of sediment to oceans; climate and eustatic sea level changes and interregional unconformities OP- 38
- deep-sea sedimentation*: Geologic evolution of Hess Rise, central North Pacific Ocean OP- 1249
- effects*: Modern benthic foraminifera from the Gyre intraslope basin, Gulf of Mexico OP- 1023
- estuarine sedimentation*: Holocene sedimentation in Richardson Bay, California OF 83-0312
- interpretation*: Radiocarbon content, sedimentation rates, and a time scale for Clear Lake, California, core CL-73-4 OP- 1045
- Radiocarbon dating of Recent sediments from Leg 64, Gulf of California OP- 1168
- marine sedimentation*: Sedimentology of Southwestern Roads region, U.S. Virgin Islands; origin and rate of sediment accumulation OP- 621
- radioactive isotopes*: ²¹⁰Pb method for estimating the rate of carbonate sand sedimentation OP- 541
- reworking*: Seabed changes resulting from combined sea ice and hydraulic processes on shelves of Arctic Basin; example from Harrison Bay, Alaska OP- 60
- sedimentation—transport**
- ice rafting*: Sedimentary facies on an ice dominated shelf, Beaufort Sea, Alaska C 0911
- marine transport*: Erosional channels on the shoreface of Nauset Beach, Cape Cod, Massachusetts OP- 852
- Example of inner-shelf sand ridges from Upper Cretaceous Eagle Sandstone, Central Montana Uplift OP- 1031
- Factors influencing sediment transport at shelf break OP- 598
- Geotechnical properties and slope stability analysis of surficial sediments on the Atlantic continental slope in two regions; Georges Bank and Baltimore Canyon OP- 130
- Measurements of debris-line elevations and beach profiles following a major storm; northern Bering Sea coast of Alaska OF 83-0394
- Phanerozoic paleoceanography and phosphorites OP- 935
- Response of the suspended sediment transport system to continental shelf dynamics OP- 599
- Role of mass movement in the formation of submarine-canyon systems on the United States east coast continental slope OP- 129
- Sand-wave movement on Little Georges Bank OF 83-0746
- Sediment content of nearshore fast ice; fall 1980, Beaufort Sea, Alaska OF 82-0716
- processes*: Catastrophic floods, wind erosion, and historical occupation on the Helmand River delta, Southwest Afghanistan OP- 1299
- Probable nonglacial origin of "till" in the mountains of north-central Colorado OP- 727
- stream transport*: Adjustment of the East Fork River to bedload sediment contributed by Muddy Creek OP- 26
- An analytical treatment of channel-morphology relations P 1288
- Bank stability and channel width adjustment, East Fork River, Wyoming OP- 24
- Bedload trap, East Fork River OP- 681
- Characteristics of Columbia River sediment following the eruption of Mount St. Helens on May 18, 1980 C 0850-J
- Characteristics of suspended sediment in the San Juan River near Bluff, Utah WRI 82-4104
- Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach W 2216
- Data from sediment studies of the Rio Orinoco, Venezuela, August 15-25, 1982 OF 83-0679
- Entrainment of gravel and cobbles from a non-uniform streambed OP- 25
- Entrainment of gravel from naturally sorted riverbed material OP- 28
- Evaluation of sediment yield and sediment data-collection network in the Piceance basin, northwestern Colorado WRI 82-4046
- Gravel bedload transport processes OP- 635
- Measurement of bedload discharge in nine Illinois streams with the Helley-Smith sampler WRI 83-4136
- Nutrient and detritus transport in the Apalachicola River, Florida OF 83-0130
- Sediment and channel-geometry investigations for the Kansas River bank stabilization study, Kansas, Nebraska, and Colorado OF 81-0128
- Sediment and stream-velocity data for the Sacramento River near Hood, California, May 1978 to September 1981 OF 83-0135
- Sediment data for mid-Arkansas and upper Red River basins through 1980 OF 83-0692
- Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens C 0850-K
- Sediment discharge from two earthflows in Franciscan terrane, northwestern California OP- 874
- Streamflow and sediment data collected at seven stream-gaging stations in the James River basin downstream from Forestburg, South Dakota, from October 1, 1981, to September 30, 1983 OF 83-0773
- Streamflow and suspended-sediment transport in Garvin Brook, Winona County, southeastern Minnesota; hydrologic data for 1982 OF 83-0212
- Suspended-sediment data in the Salt River basin, Missouri OF 83-0275
- The role of hillslope/stream channel interaction in controlling sediment yield in steep terrane OP- 875
- Variability of bedload and some hydraulic characteristics along a reach of East Fork River OP- 345
- World-wide delivery of river sediment to the oceans OP- 804
- turbidity currents*: Comparison of proximal and distal thin-bedded turbidites with current-winnowed deep-sea sands OP- 855
- Cretaceous black-shale deposition within an oxidized red clay, turbidite environment, southern Angola Basin, South Atlantic Ocean OP- 284
- Morphology, sedimentology, and genesis of three large submarine canyons adjacent to Navarin Basin, Bering Sea OP- 197
- wind transport*: A Pleistocene sand desert in Arctic Alaska C 0911
- Oblique dunes of Oregon coast OP- 1034
- Origin and character of loesslike silt in unglaciated south-central Yakutia, Siberia, USSR P 1262

- Porosity and textural characteristics of eolian stratification OP- 1084
- Relict drainages, conical hills, and the eolian veneer in Southwest Egypt; applications to Mars OP- 144
- Storm-controlled oblique dunes of the Oregon coast OP- 560
- sediments** *see also* sedimentary rocks; sedimentary structures; sedimentation
- sediments—carbonate sediments**
 - composition*: ^{210}Pb method for estimating the rate of carbonate sand sedimentation OP- 541
- sediments—clastic sediments**
 - alluvium*: Alluvial fan deposits OP- 865
 - Guidelines for finding concretionary Mn-Fe oxides in streams OP- 891
 - diamicton*: Probable nonglacial origin of "till" in the mountains of north-central Colorado OP- 727
 - distribution*: Geologic materials and hydrogeologic characteristics in the Fire Lakes-Eklutna area, Anchorage, Alaska OF 83-0479
 - environmental analysis*: Discrimination between subtidal and intertidal facies in Pleistocene deposits, Willapa Bay, Washington OP- 236
 - gravel*: Gold-bearing gravel of the ancestral Yuba River, Sierra Nevada, California P 0722
 - lithofacies*: Stratigraphy of Woodfordian till and lake beds in Iroquois and neighboring counties, Illinois OP- 821
 - mineral composition*: Postdepositional alteration of surface and near-surface minerals in selected coastal plain formations of the Middle Atlantic States P 1067-F
 - physical properties*: A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County OP- 930
 - pyroclastics*: Old Crow tephra; a new late Pleistocene stratigraphic marker across North-central Alaska and western Yukon Territory OP- 1288
 - sand*: Field study of subaqueous avalanching OP- 302
 - Heavy-mineral variability in beach and dune sands in the vicinity of the mouth of the Columbia River OF 82-1091
 - Non-oolitic, high-energy carbonate sand accumulation; the Quicksands, Southwest Florida Keys OP- 1126
 - Porosity and textural characteristics of eolian stratification OP- 1084
 - silt*: Origin and character of loesslike silt in unglaciated south-central Yakutia, Siberia, USSR P 1262
 - textures*: Geology of the Tulare Formation and other continental deposits, Kettleman City area, San Joaquin Valley, California, with a section on ground-water management considerations and use of texture maps WRI 83-4000
 - till*: Calcium carbonate cementation of tills rich in ultramafic rocks, northern Puget Sound region, Washington OP- 954
- sediments—composition**
 - clay minerals*: Clay minerals of Lake Abert, an alkaline, saline lake OP- 588
 - heavy minerals*: Heavy mineral data from lower Cook Inlet, Alaska OF 83-0782
- sediments—distribution**
 - controls*: Sedimentary processes in restricted Gulf Coast estuarine system; Corpus Christi Bay, Texas OP- 1134
 - thickness*: Maps showing post-neoglacial sediment thickness and bathymetry in Tarr Inlet, Glacier Bay, Alaska MF-1456

sediments—environmental analysis

- estuarine environment*: Estuarine deposits OP- 235
- Holocene history of the estuarine area surrounding Portage, Alaska as recorded in a 93 m core OP- 68
- lacustrine environment*: Climatic significance of lacustrine deposits around Lake Vanda and Don Juan Pond, Antarctica C 0911
- Core KM-3, a surface-to-bedrock record of late Cenozoic sedimentation in Searles Valley, California P 1256
- Lacustrine environments OP- 390
- marine environment*: Continental shelf OP- 137
- Continental slopes OP- 250
- Submarine fans OP- 554
- sediments—geochemistry**
 - amino acids*: Amino acids in sediments from Leg 68, Site 502 OP- 659
 - cadmium*: Uptake by the clam *Macoma balthica* of sediment-bound Cd from well-defined types of sediment OF 80-0341
 - isotopes*: Uptake of ^{60}Co , ^{110m}Ag , and ^{65}Zn from well-defined sediments by *Macoma balthica* OF 80-0341
 - lead*: Correlation of Pb concentrations and chemistry of sediments with Pb in the bivalve *Scrobicularia plana* OF 80-0341
 - metals*: Determining the availability of sediment-bound trace metals to aquatic deposit-feeding animals OF 80-0341
 - Determining the form of metals in oxidized estuarine sediments; statistical assessments OF 80-0341
 - Determining the form of metals in oxidized sediments; assessing the action of chemical extractants OF 80-0341
 - Effect of sample storage on metal extractability from oxidized estuarine sediments OF 80-0341
 - Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types OF 80-0341
 - organic materials*: Hydrocarbons in sediments from Great Salt Lake, Utah OP- 50
 - Methane production and simultaneous sulphate reduction in anoxic, salt marsh sediments OP- 920
 - Significance of shallow gas in ancient marine sequences OP- 1030
 - phosphorus*: Authigenic vivianite in Potomac River sediments; control by ferric oxy-hydroxides OP- 512
 - trace elements*: Chemical and physical characteristics of water and sediment in Scofield Reservoir, Carbon County, Utah OF 83-0252
 - Concentrations of metals in sediments and shellfish in San Francisco Bay OF 80-0341
 - zinc*: Development of methodology for incorporating sediment chemistry into predictions of metal bioavailability in sediments; case study, Zn OF 80-0341

sediments—lithofacies

- environmental analysis*: Depositional framework and paleoenvironments of Miocene strata from North Carolina and Maryland OP- 424
- marine environment*: Facies characteristics of modern size-graded shelf deposits, northwestern Gulf of Mexico OP- 533

sediments—lithostratigraphy

- Cenozoic*: Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
- Eocene*: Revision of the Hatchetigbee and Bashi formations (lower Eocene) in the eastern Gulf Coastal Plain B 1529-H

- Oligocene*: Chandler Bridge Formation; a new Oligocene stratigraphic unit in the lower coastal plain of South Carolina B 1529-H
- Paleocene*: New stratigraphic unit in the Wilcox Group (upper Paleocene-lower Eocene) in Alabama and Georgia B 1529-H

sediments—marine sediments

- composition*: Quantitative microfossil, sedimentologic, and geochemical data on cores V1-80-P3, V1-80-G1, and V1-80-P8 from continental slope off Northern California OF 83-0083
- deposition*: Depositional complexities in sea-ice environment of Arctic shelves; example from Harrison Bay, Alaska OP- 1015
- Sedimentology of Southwestern Roads region, U.S. Virgin Islands; origin and rate of sediment accumulation OP- 621
- distribution*: Marine geologic map of the Puerto Rico insular shelf, northwestern area; Rio Grande de Anasco to Rio Camuy I-1418
- Paleooceanographic implications of Miocene deep-sea hiatuses OP- 604
- Sediment content of nearshore fast ice; fall 1980, Beaufort Sea, Alaska OF 82-0716
- geochemistry*: Amorphous and crystalline ferromanganese deposits from seamounts in Gulf of Alaska OP- 649
- An interpretation of carbon and sulfur relationships in Black Sea sediments as indicators of environments of deposition OP- 686
- Controls and consequences of sulfate reduction in Recent marine sediments OP- 434
- Gas hydrates in sediments of holes 497 and 498A, Deep Sea Drilling Project Leg 67 OP- 490
- Methane and other hydrocarbon gases in marine sediments OP- 233
- Origin of natural-gas hydrates in oceanic sediment OP- 660
- Relationship between sedimentary facies and interstitial water chemistry of slope, trench, and Cocos Plate sites from the Middle America Trench transect, active margin off Guatemala, Deep Sea Drilling Project Leg 67 OP- 491
- isotopes*: $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the Northeast Caribbean, late Holocene OP- 542
- lithofacies*: Sedimentary facies on an ice dominated shelf, Beaufort Sea, Alaska C 0911
- mechanical properties*: Geotechnical framework study of the northern Bering Sea, Alaska OF 83-0404
- mineral composition*: Mineralogical and sedimentological data collected on the shelf and upper slope adjacent to the Russian River, Northern California OF 83-0517
- organic materials*: Gas hydrates on continental margins of the United States based on occurrence of bottom simulating reflectors on marine seismic records OF 83-0822
- physical properties*: Geotechnical framework study of Shelikof Strait, Alaska OF 83-0200
- Offscraping and underthrusting of sediment at the deformation front of the Barbados Ridge; Deep Sea Drilling Project Leg 78A OP- 828
- Small-scale deformation structures and physical properties related to convergence in Japan Trench slope sediments OP- 204
- properties*: Geotechnical framework study of the Kodiak Shelf, Alaska OF 83-0171
- provenance*: Quaternary sedimentation on the Alaskan Beaufort shelf; sediment sources, glacioeustatism, and regional tectonics C 0911
- Two Cretaceous volcanic episodes in the western Pacific Ocean OP- 1008

- textures*: Use of heavy-mineral density ratios to determine the degree of sediment homogenization in offshore areas OP- 714
- sediments—organic residues**
- peat*: Environmental classification of the peat deposits in the wetlands of Maine OF 83-0413
- Late Holocene ice wedges near Fairbanks, Alaska, U.S.A.; environmental setting and history of growth OP- 474
 - Sketch maps, sections and laboratory analyses of peat resources in deposits of southern and western Maine OF 83-0018
 - Sulfur diagenesis in Everglades peat and origin of pyrite in coal OP- 17
 - Surficial geology map of the Great Heath, Washington County, Maine OF 83-0004
- sediments—pore water**
- geochemistry*: Geochemical evolution of Great Salt Lake, Utah OP- 1167
- sediments—textures**
- grain size*: Intra-lamina grain size distributions; 1, Heavy and light minerals from subaerial and subaqueous grain flow deposits OF 83-0351
- seismic methods** *see under* geophysical methods
- seismic surveys** *see under* geophysical surveys *under* Alaska; Appalachians; Arctic Ocean; Atlantic Coastal Plain; Atlantic Ocean; automatic data processing; Basin and Range Province; Bering Sea; California; Caribbean Sea; Connecticut; Eastern U.S.; Florida; Georgia; Great Lakes; Gulf of Mexico; Mississippi Valley; Missouri; Montana; Nevada; New Mexico; North America; North Carolina; Pacific Ocean; Saudi Arabia; South Carolina; Tennessee; Utah; Virginia; Wyoming
- seismology** *see also* engineering geology
- seismology—automatic data processing**
- accelerograms*: AGRAM; a series of computer programs for processing digitized strong-motion accelerograms (version 1.0) OF 83-0276
- computer programs*: A computer program from projecting and plotting stereograms OF 82-0726
- HP-85 computer programs for reading Sprengnether DR-100 seismograph cassettes with DP-100 playback system OF 83-0521
- manuals*: User's guide to QPLOT, an interactive computer plotting program for earthquake and geophysical data OF 83-0621
- techniques*: Operator's manual for a four-film computer-based, sonic digitizing table to locate earthquakes OF 83-0319
- seismology—catalogs**
- earthquakes*: An earthquake catalog for the Basin and Range Province, 1803-1977 OF 83-0086
- Catalog of earthquakes in southern Alaska, April-June 1980 OF 83-0014
 - Catalog of earthquakes in southern Alaska, July-September 1980 OF 83-0015
 - Earthquake Information Bulletin, v. 14, no. 6, November-December 1982 p. 11
 - Earthquake Information Bulletin, v. 15, no. 1, January-February 1983 p. 11
 - Earthquake Information Bulletin, v. 15, no. 2, March-April 1983 p. 11
 - Earthquake Information Bulletin, v. 15, no. 3, May-June 1983 p. 11
 - Earthquake Information Bulletin, v. 15, no. 4, July-August 1983 p. 11
 - Earthquake Information Bulletin, v. 15, no. 5, September-October 1983 p. 11
 - Earthquakes in the United States, October-December 1981 C 0871-D
- Preliminary determination of epicenters. Monthly listing for April 1983 p. 11
 - Preliminary determination of epicenters. Monthly listing for August 1982 p. 11
 - Preliminary determination of epicenters. Monthly listing for December 1982 p. 11
 - Preliminary determination of epicenters. Monthly listing for February 1983 p. 11
 - Preliminary determination of epicenters. Monthly listing for January 1983 p. 11
 - Preliminary determination of epicenters. Monthly listing for July 1982 p. 11
 - Preliminary determination of epicenters. Monthly listing for June 1983 p. 11
 - Preliminary determination of epicenters. Monthly listing for March 1983 p. 11
 - Preliminary determination of epicenters. Monthly listing for May 1983 p. 11
 - Preliminary determination of epicenters. Monthly listing for November 1982 p. 11
 - Preliminary determination of epicenters. Monthly listing for October 1982 p. 11
 - Preliminary determination of epicenters. Monthly listing for September 1982 p. 11
 - Seismicity near Charleston, South Carolina, March 1973 to December 1979 P 1313
- seismology—crust**
- basement*: A time-term study of the Imperial Valley, California OP- 639
- discontinuities*: Marine geophysical measurements in central Puget Sound, Washington OP- 543
- geophysical profiles*: Interpretive seismic profile along interstate I-64 from the Valley and Ridge to the coastal plain in central Virginia OC-0123
- seismicity*: In-situ crustal deformation, and intraplate seismicity OP- 1351
- strain*: Precise measurement of seismic travel-times; investigation of variation from tidal stress in shallow crust OP- 699
- trend-surface analysis*: Configuration and deformation of the Paleozoic bedrock surface in the New Madrid seismic zone P 1236
- velocity structure*: A crustal structure study of the Mississippi Embayment P 1236
- A preliminary shallow crustal model between Columbia and Charleston, South Carolina, determined from quarry blast monitoring and other geophysical data P 1028
 - A reflection seismic study near Charleston, South Carolina P 1313
 - Compressional-wave velocity structure of the Medicine Lake Volcano and vicinity from teleseismic relative traveltime residuals OP- 350
 - Crustal structure of southwestern Saudi Arabia OF 83-0638
 - Crustal structure of the Imperial Valley region P 1254
 - Crustal structure of the northern Mississippi Embayment and a comparison with other continental rift zones OP- 817
 - Data report for the August 1982 seismic-refraction experiment in the Mono Craters-Long Valley region, California OF 83-0708
 - Exploring the Charleston, South Carolina, earthquake area with seismic refraction; a preliminary study P 1028
 - Land multichannel seismic-reflection evidence for tectonic features near Charleston, South Carolina P 1313
 - Marine multichannel seismic-reflection evidence for Cenozoic faulting and deep crustal structure near Charleston, South Carolina P 1313
- Preliminary results of geophysical and geological studies of the Bering Sea shelf during 1982 OF 83-0322
 - Saudi Arabian seismic deep-refraction profiles; final project report OF 83-0390
 - Seismic-refraction study in the area of the Charleston, South Carolina, 1886 earthquake P 1313
 - Subsurface structure near Charleston, South Carolina; results of COCORP reflection profiling in the Atlantic Coastal Plain P 1313
 - Synthetic seismogram modeling for the laterally varying structure in the central Imperial Valley P 1254
 - Three-dimensional modeling of the Nevada Test Site and vicinity from teleseismic P-wave residuals OF 82-0409
 - Ultrasonic borehole televiewer investigation of oceanic crustal layer 2A, Costa Rica Rift OP- 1348
- seismology—earthquakes**
- aftershocks*: Aftershocks and preearthquake seismicity P 1254
- Crustal structure of the northern Sierras from an aftershock-traveltime analysis OP- 441
 - Event J of the 1975 Oroville aftershock sequence; an example of the breaking of a single asperity? OP- 280
 - High resolution recording of aftershocks of the January 1983 Mammoth Lakes, California earthquakes OP- 682
 - Preliminary study of selected aftershocks from digital acceleration and velocity recordings P 1254
 - Preliminary views of the aftershock distribution of the May 2, 1983, Coalinga earthquake OF 83-0511 83-0511
 - Stress drops of the aftershocks of the 1982 New Brunswick earthquake OP- 118
 - The 1979 Homestead Valley earthquake sequence, California; control of aftershocks and postseismic deformation OP- 1180
- arrival time*: What caused the large vertical arrivals observed in the 1979 Imperial Valley, California, earthquake? OP- 264
- basins*: Preliminary interpretation of a seismic reflection profile crossing the South Carolina coastal plain and Piedmont, and implications concerning the origin of the Charleston, 1886, earthquake OP- 87
- bibliography*: 1981 Annual index of current earthquake literature OF 82-0316
- catalogs*: Earthquakes in the United States, January-March 1982 C 0896-A
- causes*: Isostatic effects of the last glaciation in the Puget Lowland, Washington OF 83-0019
- Magmatic resurgence in Long Valley Caldera, California; possible cause of the 1980 Mammoth Lakes earthquakes OP- 1078
 - Methane in association with seismic activity OP- 919
 - Rifts, passive margins, and seismicity in southeastern North America OP- 1293
 - Studies related to the Charleston, South Carolina, earthquake of 1886; tectonics and seismicity P 1313
 - Tidal triggering of earthquakes OP- 514
 - Triggered reverse fault and earthquake due to crustal unloading, Northwest Transverse Ranges, California OP- 1332
- deep-focus earthquakes*: Deep earthquakes under the Puget Sound basin OP- 793
- detection*: A microprocessor based low-power data acquisition system OP- 18
- Applications of digital processing technology to the study of local earthquakes in California OP- 342

- CUSP; automated processing and management for large, regional seismic networks OP- 580
- Realtime monitoring of the Mammoth Lakes, California earthquake swarm with automatic processing equipment OP- 14
- effects:* Deformation across the Long Valley (California) Caldera from 1980 (postearthquake) to January 1983 OP- 1079
- The Santa Barbara, California earthquake of 13 August 1978 OP- 255
- elasticity:* A viscoelastic model for periodically recurring earthquakes in subduction zones OP- 1221
- epicenters:* Earthquake sequence of 1938-1939 in Mogollon Mountains, New Mexico OP- 1210
- Map, cross sections, and chart showing late Quaternary faults, folds, and earthquake epicenters on the Alaskan Beaufort Shelf I-1182-C
- Relocation of instrumentally recorded pre-1974 earthquakes in the South Carolina region P 1313
- The magnitude 4.6 South Puget Sound earthquake of March 11, 1978; main shock and aftershocks OF 83-0019
- The northeastern extension of the New Madrid fault seismic zone P 1236
- focal mechanism:* Bouguer gravity map of the Summerville-Charleston, South Carolina, epicentral zone and tectonic implications P 1028
- Focal mechanisms of Central California earthquakes OP- 750
- Magnetic measurements across the Long Valley Caldera, 1972-1983; a comparison with observations and mechanisms during the Matsu-shiro earthquake swarm OP- 586
- Mechanisms of the May 1980 earthquakes near Long Valley Caldera, California; evidence for dike injection OP- 594
- Regenerated faults of small Cenozoic offset; probable earthquake sources in the Southeastern United States P 1313
- Seismic activity in the vicinity of Anchorage, Alaska, 1972-82 OP- 665
- Speculations on the nature of seismicity at Charleston, South Carolina P 1313
- Structure and Cenozoic tectonism along the Wasatch fault zone, Utah OP- 1354
- Tectonic setting OF 83-0511 83-0511
- The focal mechanism from the Global Digital Seismograph Network P 1254
- The 1971 San Fernando earthquake; a double event? OP- 513
- focus:* A well-recorded 55-km-deep earthquake in western north-central California OP- 240
- foreshocks:* Broadband analysis of the extended foreshock sequence of the Miyagi-Oki earthquake of 12 June 1978 OP- 225
- genesis:* Compressional-wave-velocity structure of the Yellowstone-Snake River plain system to a depth of 300 km; fundamental constraints on system models OP- 352
- ground motion:* Analysis of the ground accelerations radiated by the 1980 Livermore Valley earthquakes for directivity and dynamic source characteristics OP- 119
- Landslides and related ground failures OF 83-0511
- Problems in the construction of a map to zone the earthquake ground shaking hazard OP- 503
- Simulation of ground accelerations for the May 1980 Mammoth Lakes, California, earthquakes OP- 493
- The May 2, 1983 earthquake at Coalinga, California; the search for surface faulting OF 83-0511
- Variability in ground motions; root mean square acceleration and peak acceleration for the 1971 San Fernando, California, earthquake OP- 761
- magnitude:* Main-shock location and magnitude determination using combined U.S. and Mexican data P 1254
- magnitude-frequency ratio:* Maximum likelihood estimation of b values for magnitude grouped data OP- 92
- mathematical methods:* Easy computation of static stress drop, slip, and moment on two-dimensional heterogeneous faults OP- 753
- observations:* Precise releveling of the Coalinga epicentral region and adjacent portions of the San Andreas Fault OF 83-0511
- The Coalinga, California earthquake sequence commencing May 2, 1983 (preliminary report on field investigations and data collected as of May 12, 1983) OF 83-0511
- P-waves:* Analysis of near-source static and dynamic measurements from the 1979 Imperial Valley earthquake OP- 32
- periodicity:* A dislocation model of strain accumulation and release at a subduction zone OP- 1077
- precursors:* Soil-gas helium variations related to seismic activity OP- 1014
- prediction:* Do radon anomalies predict earthquakes? OP- 622
- Drilling holes for earthquake prediction OP- 509
- Earthquake prediction; what we have learned and what we should do now OP- 357
- Nonlinear strain buildup and the earthquake cycle on the San Andreas Fault OP- 1222
- Seismic triggering and earthquake prediction OP- 1220
- Survey of helium in natural water wells and springs in Southwest Montana and Imperial Valley, California; Part V, January 1- December 31, 1982 OF 83-0500
- research:* Studies related to the Charleston, South Carolina, earthquake of 1886; a preliminary report P 1028
- Studies related to the Charleston, South Carolina, earthquake of 1886; introduction and discussion P 1028
- seismic intensity:* Intensity patterns in eastern Asia OP- 356
- Maps showing maximum earthquake intensity predicted in the southern San Francisco Bay region, California, for large earthquakes on the San Andreas and Hayward faults MF-0709
- Reinterpretation of the intensity data for the 1886 Charleston, South Carolina, earthquake P 1028
- The earthquakes of January 5, 1843, and October 31, 1895, in the central Mississippi Valley OP- 545
- seismic response:* A study of seismic response at stations 6 and 7, El Centro strong motion array, Imperial Valley, California PB-84 119 924
- seismic sources:* A teleseismic analysis of the New Brunswick earthquake of January 9, 1982 OP- 226
- Analysis of digital data from local Charleston, S.C., earthquakes OP- 1026
- Reply to "Comments on 'The corner frequency shift, earthquake source models, and Q'" OP- 478
- seismicity:* Circumstances surrounding the preparation and suppression of a report on the 1868 California earthquake OP- 993
- Historical activity at calderas of the world as a framework for interpreting recent activity at Long Valley Caldera, California OP- 860
- Instrumental seismicity of the Northern Rocky Mountains of the United States OP- 297
- Investigations of the New Madrid, Missouri, earthquake region P 1236
- Investigations of the New Madrid, Missouri, earthquake region; overview and discussion P 1236
- Monitoring hot springs and shallow groundwater in the Long Valley Caldera, California OP- 1161
- Review of earthquake activity and current status of seismic monitoring in the region of the Bradley Lake Hydroelectric Project, southern Kenai Peninsula, Alaska; December 1981-May 1983 OF 83-0744
- Review of seismicity in the Puget Sound region from 1970 through 1978 OF 83-0019
- Seismic setting, location, and focal mechanism of the May 2, 1983, Coalinga earthquake OF 83-0511
- Seismicity of the Mount Shasta and Lassen Peak areas, California OP- 1271
- Seismicity of the Olympic Peninsula, Washington OP- 1209
- Seismicity patterns near Parkfield, California OP- 693
- Some comments on the seismicity of the northern Puget Sound-southern Vancouver Island region OF 83-0019
- seismograms:* Data from the Global Digital Seismograph Network P 1254
- seismotectonics:* A comparison of the rate of seismic activity and several estimates of deformation in the Puget Sound area OF 83-0019
- An in depth look at the 1979 Imperial Valley earthquake OP- 33
- Deformation across the San Andreas Fault near San Francisco, California, 1978-1982 OP- 623
- Offshore Quaternary geology of the northern Puget Sound-eastern Strait of Juan de Fuca region, Washington OF 83-0019
- Physical processes responsible for successive earthquakes OP- 1287
- Relationships between late Quaternary faults and earthquakes in the Puget Sound, Washington area OF 83-0019
- Seismicity and seismotectonic boundaries in Washington OP- 1277
- shallow-focus earthquakes:* Shallow-focus seismicity, composite focal mechanism, and tectonics of the Valle Central of Costa Rica OP- 816
- strain relation:* The partition of radiated seismic energy and a comparison of three estimates of stress release for nine small earthquakes at Monticello, South Carolina OP- 379
- strong motion:* Analog strong motion data and processed main event records obtained by U. S. Geological Survey near Coalinga, California OF 83-0511
- Digital strong-motion data recorded by U. S. Geological Survey near Coalinga, California OF 83-0511
- Strong-motion seismology OP- 126
- swarms:* An unusual sequence of swarms in Indian Wells Valley, Southern California OP- 429
- Long Valley Caldera earthquake swarm; January 7, 1983 OP- 971
- Surface deformation in the Long Valley, California caldera since 1975 OP- 1037
- tilt:* Ground tilt since May 1982 at Long Valley Caldera, California OP- 328

- traveltime*: Teleseismic traveltime anomaly at Mono and Inyo craters, California; a dike-form low-velocity body? OP- 572
- seismology—elastic waves**
- acceleration*: A dynamic model for far-field acceleration OP- 116
- anelastic materials*: P and S waves in low-loss anelastic solids OP- 132
- attenuation*: Attenuation of seismic waves from local earthquakes at Roosevelt Hot Springs, Utah OP- 277
- ground motion*: 'max OP- 479
- long-period waves*: Long-period surface waves P 1254
- P-waves*: Linearized inversion of transmitted acoustic wavefields for modulus and density perturbations; comparison with a linearized travel time inversion technique OP- 1179
- Station arrival data for a quarry blast on Santa Catalina Island, California OF 83-0462
- Pn-waves*: A dipping Moho and crustal low-velocity zone from Pn arrivals at The Geysers-Clear Lake, California OP- 1119
- seismographs*: Automatic phase pickers; their present use and future prospects OP- 15
- short-period waves*: A discrimination analysis of short-period regional seismic data recorded at Tonto Forest Observatory OP- 845
- surface waves*: Introduction to special papers on the dynamic characteristics of faulting inferred from recordings of strong ground motion OP- 117
- The empirical prediction of ground motion OP- 128
- Upper bounds on near-source peak ground motion based on a model of inhomogeneous faulting OP- 774
- traveltime*: Precise measurement of seismic travel time; variations from tidal stress? OP- 700
- seismology—instruments**
- seismographs*: A teleseism-specific, digital detect algorithm for isolated, triggered seismographs OP- 351
- Global digital networks; current status and future directions OP- 346
- tiltmeters*: Description and history of mercury-tube tiltmeters used in the San Francisco Bay area, California OF 83-0463
- seismology—interior**
- velocity structure*: Crustal and upper mantle structure of the northern and central Sierra Nevada OP- 751
- seismology—microearthquakes**
- focal mechanism*: Microearthquakes and faulting in the area of New Madrid, Missouri-Reelfoot Lake, Tennessee P 1236
- induced earthquakes*: Induced seismicity at The Geysers, California OP- 917
- observations*: Present-day seismicity and identification of active faults in the New Madrid seismic zone P 1236
- seismic sources*: Source parameters of microearthquakes near San Juan Bautista, California OP- 780
- seismotectonics*: Recent microseismicity along the eastern Gulf of Alaska and its relation to the Yakataga seismic gap OP- 1181
- seismology—observatories**
- arrays*: Assessment of a prototype earthquake prediction network for Southern California OF 83-0576
- El Centro differential ground motion array P 1254
- calibration*: Test and calibration of the digital world-wide standardized seismograph OF 82-1087
- seismographs*: USGS program at the South Pole C 0911
- seismology—properties**
- elastic properties*: In situ studies of velocity in fractured crystalline rocks OP- 832
- Investigation of internal friction in fused quartz, steel, Plexiglass and Westerly Granite from 0.01 to 1.00 Hertz at 10^{-8} to 10^{-7} strain amplitude OP- 698
- seismology—seismic sources**
- algorithms*: Determination of seismic source parameters from the inversion of waveform data OP- 1142
- propagation*: Separation of source and propagation spectra OP- 23
- seismology—seismicity**
- active faults*: Seismicity of the Imperial Valley P 1254
- earthquakes*: Large submarine slump off Eureka, California OP- 368
- faults*: Could a charleston-type earthquake occur elsewhere along the East Coast of North America? OP- 86
- geothermal fields*: Geothermal induced seismicity; bane or blessing? OP- 164
- Reservoir conditions related to induced seismicity at The Geysers steam reservoir, Northern California OP- 294
- history*: Recent seismicity near Charleston, South Carolina, and its relationship to the August 31, 1886, earthquake P 1028
- The seismicity of South Carolina prior to 1886 P 1028
- induced earthquakes*: Induced seismicity in The Geysers geothermal area, California OP- 331
- interpretation*: Seismicity in the Clear Lake area, California OP- 330
- magnitude*: Oregon seismicity; 1981 OP- 1039
- maps*: Seismicity map of the State of Arkansas MF-1154
- Seismicity map of the State of Kentucky MF-1144
- Seismicity map of the State of Minnesota MF-1323
- Seismicity map of the State of New Mexico MF-1660
- Seismicity map of the State of Pennsylvania MF-1280
- Seismicity map of the State of South Carolina MF-1225
- Seismicity map of the State of Virginia MF-1346
- networks*: Seismicity and tectonics of the Oriskany Fault and Southeast Diablo Range, California OP- 664
- patterns*: Comparison between the seismicity of the San Juan Bautista and Parkfield regions, California OP- 839
- refraction*: Crustal structure in the Mississippi Embayment; crossprofiles OP- 428
- Crustal structure of the Mississippi Embayment; axial profile OP- 719
- seismic zoning*: Geologic setting of seismicity in eastern North America OP- 473
- seismograms*: Frequency domain calculation of extended source seismograms OP- 1170
- Yet another method for the calculation of complete theoretical seismograms in a vertically varying medium OP- 41
- seismotectonics*: Eastern Gulf of Alaska seismicity; final report to the National Oceanic and Atmospheric Administration for July 1, 1975, through September 30, 1981 OF 83-0592
- seismology—theoretical studies**
- mathematical models*: The solution of the dynamic field of the Haskell fault model reconsidered OP- 697
- seismology—volcanology**
- volcanic earthquakes*: Deep earthquakes and possible magmatic gas transport at Mount St. Helens, Washington OP- 1278
- Deep earthquakes beneath Mount St. Helens; evidence for magmatic gas transport? OP- 1279
- Earthquakes at Loihi submarine volcano and the Hawaiian hot spot OP- 634
- Focal mechanisms and locations of earthquakes in the vicinity of the 1975 Kalapana earthquake aftershock zone 1970-1979; implications for tectonics of the south flank of Kilauea Volcano, Island of Hawaii OP- 273
- Geologic and petrologic data bearing on potential volcanic hazards in Long Valley Caldera, eastern California OP- 53
- Recent seismicity around Spurr, Redoubt, and Iliamna volcanoes, southern Alaska OP- 929
- Seismic precursors to the Mount St. Helens eruptions in 1981 and 1982 OP- 735
- Seismic structure of the Lassen volcanic area OP- 815
- Seismicity and surface deformation of Mauna Loa Volcano, Hawaii OP- 288
- Tilt measurements at Long Valley caldera, California, May-August 1982 OF 82-0893
- selenium—geochemistry**
- coal*: Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska OP- 5
- shale** *see under* clastic rocks *undersedimentary rocks*
- sheet silicates** *see under* minerals
- shore features** *see under* geomorphology
- shorelines** *see also under* engineering geology *under* Atlantic Ocean; California; Florida; Gulf of Mexico
- shorelines—beaches**
- sand*: Soil mechanics related to permeability anisotropy of coastal sand deposits OP- 421
- silicates** *see under* minerals
- silt** *see under* clastic sediments *under* sediments
- Silurian** *see also under* stratigraphy *under* Appalachians; Connecticut; Maine; New Hampshire
- silver—abundance**
- shells*: The impact of waste-water discharge on biological communities in San Francisco Bay OP- 717
- silver—analysis**
- chemical analysis*: Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types OF 80-0341
- silver—geochemistry**
- gold ores*: Implications of the compositions of lode and placer gold OF 82-1052
- living taxa*: Bioaccumulation and toxicity to Cu in Macoma balthica; inter-population heterogeneity and the role of Ag OF 80-0341
- Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge OF 80-0341
- stream sediments*: Distribution and abundance of determinable silver by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments and in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-J
- Distribution and abundance of gold and silver in nonmagnetic and moderately magnetic heavy-mineral-concentrate and minus-80-mesh stream-sediment samples and silver in

- ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-H
- Map showing anomalous silver distribution in stream sediment concentrates, Hillsboro and San Lorenzo quadrangles, exclusive of the Black Range Primitive Area, Sierra and Grant counties, New Mexico MF-0900-C
- water*: Analytical results for 26 water samples from southern New Mexico OF 83-0777
- silver—isotopes**
- Ag-110*: Uptake of ^{60}Co , ^{110m}Ag , and ^{65}Zn from well-defined sediments by *Macoma balthica* OF 80-0341
- silver ores** *see also* under economic geology under Andes; Idaho; Nevada; Peru
- slope stability** *see also* engineering geology; geomorphology; *see also* under engineering geology under Appalachians; Atlantic Ocean; California; Colorado; Colorado Plateau; Indonesia; Oregon; Pacific region; Rocky Mountains; United States; Utah; Washington
- slope stability—landslides**
- creep*: A model for creeping flow in landslides OP- 1080
- zoning*: The principles and practice of landslide hazard zonation OP- 1251
- sodium—geochemistry**
- surface water*: Geochemical evolution of Great Salt Lake, Utah OP- 1167
- sodium carbonate** *see also* under economic geology under Wyoming
- soil mechanics** *see also* rock mechanics; underground installations
- soil mechanics—applications**
- shear strength*: Application of modulus degradation model of clays OP- 222
- soil mechanics—case studies**
- clastic sediments*: A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County OP- 930
- soil mechanics—field studies**
- debris flows*: Debris flow hazard assessment for the Oregon Caves National Monument WRI 83-4100
- elastic waves*: In-situ measurements of seismic velocity at 22 locations in the Los Angeles, California region OF 82-0833
- soil mechanics—liquefaction**
- earthquakes*: Landslides, soil liquefaction, and related ground failures in Puget Sound earthquakes OF 83-0019
- soil mechanics—materials, properties**
- density*: Density of basin-fill deposits calculated from borehole gravity data in four basins in central and southern Arizona OP- 1241
- expansive materials*: Use of swelling clays to reduce permeability and its potential application to nuclear waste repository sealing OP- 818
- loading*: Sinkhole formation from abnormal saturation of overburden in a karst area OP- 361
- marine sediments*: Geotechnical framework study of Shelikof Strait, Alaska OF 83-0200
- Geotechnical framework study of the Kodiak Shelf, Alaska OF 83-0171
- Geotechnical framework study of the northern Bering Sea, Alaska OF 83-0404
- Geotechnical profiles for 31 sites on the mid-Atlantic upper continental slope OF 82-0841
- mechanical properties*: Soil mechanics related to permeability anisotropy of coastal sand deposits OP- 421
- shear strength*: Bulk density and shear strength of several deep-sea calcareous sediments OP- 675
- triaxial tests*: Geotechnical properties of two calcareous oozes OP- 1248
- unconsolidated materials*: Active diapirism and slope steepening, northern Gulf of Mexico continental slope OP- 745
- soil mechanics—methods**
- automatic data processing*: A microcomputer-based data acquisition and control system for the direct shear, ring shear, triaxial shear, and consolidation tests OF 83-0491
- soils—field studies**
- sampling*: Mapping of ultramafic rocks in a heavily vegetated terrain using Landsat data OP- 1001
- soils—surveys**
- Alabama*: Analyses of geochemical samples and descriptions of rock samples, Adams Gap and Shinbone Creek Roadless Areas, Clay County, Alabama OF 83-0335
- Alaska*: Chemical analyses of native soil and vegetation samples, Capps coal field, Alaska OF 82-0246
- Chemical composition and variability of soils from the Capps coal field, Alaska OF 83-0190
- Atlantic Coastal Plain*: Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits OP- 739
- California*: Extraction techniques for selective dissolution of amorphous iron oxides from soils and sediments OP- 218
- Late Cenozoic stratigraphy and structure of the western margin of the central San Joaquin Valley, California OF 82-0526
- Colorado*: Geochemical and mineralogical data for altered rocks and soils collected in and near the Williams Fork and St. Louis Peak Roadless Areas, Clear Creek, Grand, and Summit counties, Colorado OF 83-0651
- Role of solute-transport models in the analysis of groundwater salinity problems in agricultural areas OP- 641
- Idaho*: Guidebook, 1983 Friends of the Pleistocene field trip; Glacial sequence near McCall, Idaho OF 83-0724
- Kansas*: Determination of irrigation pumpage for an area in southwestern Kansas OP- 692
- North Carolina*: The Cape Fear River; a late Quaternary drainage OP- 740
- North Dakota*: $^{13}\text{CO}_2$ and $^{14}\text{CO}_2$ measurements on soil atmosphere sampled in the western Great Plains of the US OP- 462
- Wyoming*: Torrington Quadrangle, Wyoming and Nebraska OP- 1112
- soils—water regimes**
- characterization*: Estimating study-state evaporation rates from bare soils under conditions of high water table W 2019-A
- Hydraulic considerations in sampling the unsaturated zone with inclined gravity lysimeters WRI 83-4005
- movement*: Temperature dependence of unsaturated hydraulic conductivity of two soils OP- 247
- solubility** *see* under properties under geochemistry
- solution features** *see* under geomorphology
- South Africa—economic geology**
- platinum ores*: Comparison of platinum, palladium, and rhodium distributions in some layered intrusions with special reference to the late differentiates (upper zone) of the Bushveld Complex, South Africa OP- 928
- South Africa—geochemistry**
- trace elements*: Comparison of platinum, palladium, and rhodium distributions in some layered intrusions with special reference to the late differentiates (upper zone) of the Bushveld Complex, South Africa OP- 928
- South Africa—petrology**
- metamorphic rocks*: Pseudotachylite from the Vredefort Ring, South Africa, and the origins of some lunar breccias OP- 1104
- South America** *see also* Andes; Brazil; Colombia; Peru; Venezuela
- South America—geophysical surveys**
- acoustical surveys*: Sand waves on the Amazon River OP- 376
- South Carolina—areal geology**
- maps*: Geologic map of the Charlotte 1° x 2° Quadrangle, North Carolina and South Carolina OP- 437
- Geologic map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-B
- South Carolina—economic geology**
- maps*: Index to slides of geological map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-A
- Mineral resource potential map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-D
- Mineral resource potential map of the Hell Hole Bay, Wambaw Swamp, Little Wambaw Swamp, and Wambaw Creek Wilderness, Berkeley and Charleston counties, South Carolina MF-1556-B
- Slides of geologic map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource potential maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-B
- metal ores*: High-alumina hydrothermal systems in volcanic rocks and their significance to mineral prospecting in the Carolina slate belt OF 83-0793
- mineral resources*: Index to slides of geological map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-A
- Mineral resource potential map of the Ellicott Rock Wilderness and additions, South Carolina, North Carolina, and Georgia MF-1287-D
- Mineral resource potential map of the Hell Hole Bay, Wambaw Swamp, Little Wambaw Swamp, and Wambaw Creek Wilderness, Berkeley and Charleston counties, South Carolina MF-1556-B
- Slides of geologic map, mineral occurrence maps, geochemical maps, heavy mineral maps, and mineral resource potential maps, Charlotte 1° by 2° Quadrangle, North Carolina and South Carolina (CUSMAP program) OF 82-1074-B
- South Carolina—engineering geology**
- earthquakes*: Earthquake hazards information dissemination; a study of Charleston, South Carolina OF 82-0233
- waste disposal*: Movement of radionuclides in unconsolidated coastal sediments at the low-level radwaste burial site near Barnwell, South Carolina OP- 182
- South Carolina—environmental geology**
- geologic hazards*: Earthquake hazards information dissemination; a study of Charleston, South Carolina OF 82-0233
- land use*: Land use and land cover, 1973, Augusta, Georgia; South Carolina L-0173

- maps*: Land use and land cover, 1973, Augusta, Georgia; South Carolina L-0173
- pollution*: Movement of radionuclides in unconsolidated coastal sediments at the low-level radwaste burial site near Barnwell, South Carolina OP- 182
- waste disposal*: Hydrology of the low-level radioactive solid waste burial site and vicinity near Barnwell, South Carolina OF 82-0863
- South Carolina—geochemistry**
- isotopes*: U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina OP- 679
- trace elements*: Geochemistry and tectonic significance of subsurface basalts near Charleston, South Carolina; Clubhouse Crossroads test holes #2 and #3 P 1313
- Geochemistry of subsurface basalt from the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina; magma type and tectonic implications P 1028
- South Carolina—geochronology**
- Mesozoic*: $^{40}\text{Ar}/^{39}\text{Ar}$ ages of basalt from Clubhouse Crossroads test hole #2 near Charleston, South Carolina P 1313
- Precambrian*: U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina OP- 679
- South Carolina—geophysical surveys**
- gravity surveys*: Bouguer gravity map of the Summerville-Charleston, South Carolina, epicentral zone and tectonic implications P 1028
- heat flow*: Heat flow from a corehole near Charleston, South Carolina P 1028
- magnetic surveys*: Aeromagnetic map of South Carolina GP-0950
- Magnetic basement near Charleston, South Carolina; a preliminary report P 1028
- maps*: Aeromagnetic map of South Carolina GP-0950
- Bouguer gravity map of the Summerville-Charleston, South Carolina, epicentral zone and tectonic implications P 1028
- seismic surveys*: A preliminary shallow crustal model between Columbia and Charleston, South Carolina, determined from quarry blast monitoring and other geophysical data P 1028
- A reflection seismic study near Charleston, South Carolina P 1313
- Could a Charleston-type earthquake occur elsewhere along the East Coast of North America? OP- 86
- Exploring the Charleston, South Carolina, earthquake area with seismic refraction; a preliminary study P 1028
- Land multichannel seismic-reflection evidence for tectonic features near Charleston, South Carolina P 1313
- Seismic-refraction study in the area of the Charleston, South Carolina, 1886 earthquake P 1313
- Subsurface structure near Charleston, South Carolina; results of COCORP reflection profiling in the Atlantic Coastal Plain P 1313
- surveys*: A geophysical study of plutons in the northern Charlotte Belt, North Carolina and South Carolina OP- 1307
- Electric and electromagnetic soundings near Charleston, South Carolina; a preliminary report P 1028
- Geophysical and geologic studies in southern Mecklenburg County and vicinity, North Carolina and South Carolina OF 83-0093
- well-logging*: In situ studies of velocity in fractured crystalline rocks OP- 832
- South Carolina—hydrogeology**
- ground water*: Coastal Plain faults affect groundwater flow OP- 362
- Digital model evaluation of the predevelopment flow system of the Tertiary limestone aquifer system, Southeast Georgia, Northeast Florida, and South Carolina OF 82-0173
- Fluoride concentrations in water from four principal coastal plain aquifer systems, South Carolina OF 81-0140
- Regional hydrogeologic framework of the Floridan Aquifer OP- 802
- hydrology*: Impact of discharges from point and nonpoint sources on water quality of the upper Reedy River near Greenville, South Carolina WRI 83-4054
- South Carolina—oceanography**
- continental shelf*: Basement structure indicated by seismic-refraction measurements offshore from South Carolina and adjacent areas P 1313
- Mesozoic development and structure of the continental margin off South Carolina P 1313
- South Carolina—sedimentary petrology**
- sedimentary rocks*: Geology of the basement rocks near Charleston, South Carolina; data from detrital rock fragments in lower Mesozoic(?) rocks in Clubhouse Crossroads test hole #3 P 1313
- Geology of the lower Mesozoic(?) sedimentary rocks in Clubhouse Crossroads test hole #3, near Charleston, South Carolina P 1313
- sedimentary structures*: Chert derived from magadiite in the middle Eocene McBean Formation, South Carolina OP- 549
- South Carolina—seismology**
- crust*: A preliminary shallow crustal model between Columbia and Charleston, South Carolina, determined from quarry blast monitoring and other geophysical data P 1028
- A reflection seismic study near Charleston, South Carolina P 1313
- Exploring the Charleston, South Carolina, earthquake area with seismic refraction; a preliminary study P 1028
- Land multichannel seismic-reflection evidence for tectonic features near Charleston, South Carolina P 1313
- Marine multichannel seismic-reflection evidence for Cenozoic faulting and deep crustal structure near Charleston, South Carolina P 1313
- Seismic-refraction study in the area of the Charleston, South Carolina, 1886 earthquake P 1313
- Subsurface structure near Charleston, South Carolina; results of COCORP reflection profiling in the Atlantic Coastal Plain P 1313
- earthquakes*: A dynamic model for far-field acceleration OP- 116
- Analysis of digital data from local Charleston, S.C., earthquakes OP- 1026
- Bouguer gravity map of the Summerville-Charleston, South Carolina, epicentral zone and tectonic implications P 1028
- Could a Charleston-type earthquake occur elsewhere along the East Coast of North America? OP- 86
- Exploring the Charleston, South Carolina, earthquake area with seismic refraction; a preliminary study P 1028
- Preliminary interpretation of a seismic reflection profile crossing the South Carolina coastal plain and Piedmont, and implications concerning the origin of the Charleston, 1886, earthquake OP- 87
- Recent seismicity near Charleston, South Carolina, and its relationship to the August 31, 1886, earthquake P 1028
- Regenerated faults of small Cenozoic offset; probable earthquake sources in the Southeastern United States P 1313
- Reinterpretation of the intensity data for the 1886 Charleston, South Carolina, earthquake P 1028
- Relocation of instrumentally recorded pre-1974 earthquakes in the South Carolina region P 1313
- Seismicity near Charleston, South Carolina, March 1973 to December 1979 P 1313
- Speculations on the nature of seismicity at Charleston, South Carolina P 1313
- Studies related to the Charleston, South Carolina, earthquake of 1886; a preliminary report P 1028
- Studies related to the Charleston, South Carolina, earthquake of 1886; introduction and discussion P 1028
- Studies related to the Charleston, South Carolina, earthquake of 1886; tectonics and seismicity P 1313
- The partition of radiated seismic energy and a comparison of three estimates of stress release for nine small earthquakes at Monticello, South Carolina OP- 379
- The seismicity of South Carolina prior to 1886 P 1028
- maps*: Seismicity map of the State of South Carolina MF-1225
- South Carolina—soils**
- surveys*: Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits OP- 739
- South Carolina—stratigraphy**
- Cenozoic*: Bolivinites as paleoenvironmental monitors on continental slopes OP- 978
- Calcareous nannofossil and planktic foraminiferal biostratigraphy of Pliocene and Pleistocene Atlantic Coastal Plain deposits OP- 179
- Cretaceous*: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
- Lithostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
- Devonian*: Paleomagnetic results from seven middle Paleozoic plutons in the Appalachian Piedmont of North and South Carolina OF 83-0916
- Eocene*: The Fishburne Formation (lower Eocene), a newly defined subsurface unit in the South Carolina coastal plain B 1537-C
- Mesozoic*: Paleomagnetic investigations of the Clubhouse Crossroads basalt P 1313
- Oligocene*: Chandler Bridge Formation; a new Oligocene stratigraphic unit in the lower coastal plain of South Carolina B 1529-H
- Pliocene*: Recognition and formalization of the Pliocene "Goose Creek phase" in the Charleston, South Carolina, area B 1529-H
- Tertiary*: Biostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
- Lithostratigraphy of the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina P 1028
- South Carolina—structural geology**
- faults*: The Belair Fault; a Cenozoic reactivation structure in the eastern Piedmont OP- 141
- neotectonics*: Bouguer gravity map of the Summerville-Charleston, South Carolina, epicentral zone and tectonic implications P 1028

- Marine multichannel seismic-reflection evidence for Cenozoic faulting and deep crustal structure near Charleston, South Carolina P 1313
- structural analysis*: Fold events in the inner Piedmont of South Carolina OP- 232
- tectonics*: Friction, faulting, and in-situ stress OP- 1347
- Geochemistry of subsurface basalt from the deep corehole (Clubhouse Crossroads corehole 1) near Charleston, South Carolina; magma type and tectonic implications P 1028
- Land multichannel seismic-reflection evidence for tectonic features near Charleston, South Carolina P 1313
- Mesozoic tectonics of the Southeastern United States coastal plain and continental margin P 1313
- South Carolina—tectonophysics**
- crust*: Magnetic basement near Charleston, South Carolina; a preliminary report P 1028
- The nature of the geophysical basement beneath the coastal plain of South Carolina and northeastern Georgia P 1028
- South Dakota—economic geology**
- geothermal energy*: Model of the geothermal system in southwestern South Dakota from gravity and aeromagnetic studies OP- 531
- gold ores*: Bald Mountain gold mining region, northern Black Hills, South Dakota OF 83-0791
- maps*: Newcastle Quadrangle, Wyoming and South Dakota OP- 1073
- natural gas*: The relation of natural gas occurrences to lineaments in South Dakota OP- 146
- pegmatite*: Iron content of spodumene in different mineral assemblages of pegmatites, Black Hills, South Dakota OP- 886
- uranium ores*: Newcastle Quadrangle, Wyoming and South Dakota OP- 1073
- water resources*: Water-resources investigations of the U. S. Geological Survey in South Dakota OF 82-0912
- Water-resources investigations of the U. S. Geological Survey in South Dakota, project status summary, July 1, 1983 OF 83-0754
- Water-resources investigations of the U. S. Geological Survey in the Souris-Red rivers basin in Minnesota, North Dakota, and South Dakota OF 83-0218
- South Dakota—environmental geology**
- land use*: Land use and land cover and associated maps for Sioux City, Nebraska, Iowa, South Dakota OF 82-0246
- South Dakota—geochronology**
- Cretaceous*: NDS 105; Campanian, K-Ar/minerals-bentonite, Interior N American Basin OP- 900
- Paleocene*: Early Tertiary age of pitchstone in the northern Black Hills, South Dakota OP- 1010
- South Dakota—geophysical surveys**
- heat flow*: Temperatures, thermal conductivity, and heat flow from a well in Pierre Shale near Hayes, South Dakota OF 83-0025
- remote sensing*: The relation of natural gas occurrences to lineaments in South Dakota OP- 146
- surveys*: Model of the geothermal system in southwestern South Dakota from gravity and aeromagnetic studies OP- 531
- South Dakota—hydrogeology**
- ground water*: A digital-computer model of the Big Sioux Aquifer in Minnehaha County, South Dakota WRI 82-4064
- Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123
- Evaluation of the response of the Big Sioux Aquifer to extreme drought conditions in Minnehaha County, South Dakota WRI 83-4234
- Geohydrology of the Madison and associated aquifers in parts of Montana, North Dakota, South Dakota, and Wyoming OF 82-0914
- Major aquifers in Hanson and Davison counties, South Dakota OP- 482
- Major aquifers in Yankton County, South Dakota OP- 166
- Potentially favorable areas for large-yield wells in the Red River Formation and Madison Limestone in parts of Montana, North Dakota, South Dakota, and Wyoming P 1273-E
- Process and rate of dedolomitization; mass transfer and ^{14}C dating in a regional carbonate aquifer OP- 46
- Records of water levels in the Big Sioux Aquifer, Minnehaha County, South Dakota, 1981 OF 82-1020
- Regional flow in the Dakota Aquifer; a study of the role of confining layers W 2237
- The hydrology of the Pierre Shale of South Dakota; some observations OP- 858
- Water-level records for the Big Sioux Aquifer, Minnehaha County, South Dakota OF 81-0222
- hydrology*: Streamflow and sediment data collected at seven stream-gaging stations in the James River basin downstream from Forestburg, South Dakota, from October 1, 1981, to September 30, 1983 OF 83-0773
- South Dakota—petrology**
- igneous rocks*: Origin of lithium-rich pegmatitic magmas, southern Black Hills, South Dakota OP- 887
- maps*: Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming I-1091-E
- South Dakota—sedimentary petrology**
- sedimentary rocks*: Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska OF 82-0906
- sedimentation*: Depositional setting and geometric characteristics of the Shannon Sandstone Member of Gammon Shale; a continental shelf sand ridges field OP- 1133
- South Dakota—stratigraphy**
- Cretaceous*: Patterns of sedimentation and paleogeography across the Western Interior Seaway during time of deposition of Upper Cretaceous Eagle Sandstone and equivalent rocks, Northern Great Plains OP- 1032
- Revision of Upper Cretaceous nomenclature in Montana and South Dakota B 1529-H
- South Dakota—structural geology**
- tectonics*: Anorogenic tectonism in the Northern Great Plains (NGP) of Montana, North Dakota, South Dakota, and Wyoming OP- 29
- Southern Hemisphere** *see also* Africa; Antarctic Ocean; Antarctica; Atlantic Ocean; Indian Ocean; Pacific Ocean; South America
- Southern U.S.** *see also* Alabama; Arkansas; Kentucky; Louisiana; Mississippi; Tennessee
- Southern U.S.—sedimentary petrology**
- reefs*: Influence of deposition and early diagenesis on porosity and chemical compaction in two Paleozoic buildups; Mississippian and Permian age rocks in the Sacramento Mountains, New Mexico OP- 1128
- Southwestern U.S.** *see also* Arizona; New Mexico; Oklahoma; Texas
- Southwestern U.S.—geophysical surveys**
- gravity surveys*: Comparison of Bouguer anomaly and isostatic residual-gravity maps of the southwestern Cordillera OP- 910
- Southwestern U.S.—stratigraphy**
- Carboniferous*: Carboniferous-Permian boundary in Southwestern United States OP- 313
- Permian*: Carboniferous-Permian boundary in Southwestern United States OP- 313
- Southwestern U.S.—tectonophysics**
- isostasy*: Comparison of Bouguer anomaly and isostatic residual-gravity maps of the southwestern Cordillera OP- 910
- maps*: Comparison of Bouguer anomaly and isostatic residual-gravity maps of the southwestern Cordillera OP- 910
- Soviet Union** *see* USSR
- spectrometry** *see* spectroscopy
- spectroscopy** *see also* chemical analysis; electron microscopy; thermal analysis; X-ray analysis
- spectroscopy—methods**
- atomic absorption*: Atomic-absorption determination of mercury in geological materials by flame and carbon-rod atomisation after solvent extraction and using co-extracted silver as a matrix modifier OP- 1075
- Manganese dioxide causes spurious gold values in flame atomic-absorption readings from HBr-Br₂ digestions OP- 191
- emission spectroscopy*: Major, minor, and trace elements in samples from the Wheeler Wilderness Study Area, Colorado, as determined by inductively coupled argon plasma-atomic emission spectrometry OF 83-0405
- The separation and preconcentration of the rare earth elements by ion exchange from geological materials for determination by ICAP-OES OP- 269
- laser methods*: Determination of uranium in geologic materials by laser-excited fluorescence OP- 778
- Spermatophyta—ecology**
- fluvial environment*: Wetland hydrology and tree distribution of the Apalachicola River flood plain, Florida W 2196-A
- springs** *see also* ground water; *see also under* hydrogeology *under* Alaska; Arizona; California; Colorado; Eastern U.S.; Hawaii; Idaho; Maine; Montana; Nevada; New Mexico; Oregon; Texas; United States; Utah; Virginia; Washington; Wyoming
- springs—hot springs**
- catalogs*: Thermal springs of the United States and other countries of the world; a summary P 0492
- standard materials—analysis**
- U. S. Geological Survey*: Quality-assurance data for routine water analysis in the laboratories of the U. S. Geological Survey; 1981 annual report WRI 83-4090
- stratigraphy—methods**
- biostratigraphy*: A review of quantitative interval-zone and assemblage-zone biostratigraphy OP- 230
- Numerical and semi-objective biostratigraphy, review and prediction OP- 333
- mathematical methods*: Quantitative biostratigraphy; the methods should suit the data OP- 336
- stratigraphy—nomenclature**
- revision*: Stratigraphic notes, 1980-1982 B 1529-H

stromatolites *see under* algae

strontium—geochemistry

- sand*: Kinetic analysis of strontium and potassium sorption onto sands and gravels in a natural channel OP- 90
- surface water*: Simulation of solute transport in a mountain pool-and-riffle stream with a kinetic mass transfer model for sorption OP- 88
- volcanic rocks*: Volcanic stratigraphy of part of McLendon Volcano, Yavapai County, Arizona OP- 154

strontium—isotopes

- Sr-87/Sr-86*: An isotopic and chemical study of Lake Vanda and Don Juan Pond, Antarctica C 0911
- Configuration of the pre-Middle Jurassic continental margin in the Western United States OP- 629
- Genesis of reversely zoned granites; Bottle Lake complex, Maine OP- 45
- Genetic implication of minor-element and Sr-isotope geochemistry of alkaline rock complexes in the Wet Mountains area, Fremont and Custer counties, Colorado OP- 36
- Origin of bimodal volcanism, southern Basin and Range Province, west-central Arizona OP- 1199
- Oxygen and strontium isotopic studies of basaltic lavas from the Snake River plain, Idaho OF 83-0338
- Source of mineralizing components in hydrothermal ore fluids as evidenced by ⁸⁷Sr/⁸⁶Sr and stable isotope data from the Pasto Bueno deposit, Peru OP- 882
- The isotopic and chemical evolution of Mount St. Helens OP- 472

structural analysis *see also* folds; foliation

structural analysis—faults

- glaciotectonics*: Tectonic versus frost-wedging origin of faulted glacially polished surfaces in the lower Hudson River valley area OP- 1003
- patterns*: Faulting of rocks in three-dimensional strain fields; I, Failure of rocks in polyaxial, servo-control experiments OP- 1009

structural analysis—folds

- breccia*: Thrust zones in the pre-Silurian eugeoclinal rocks of Vermont OP- 1177
- deformation*: Multi-stage deformation of the Preston Gabbro, eastern Connecticut OP- 303
- isoclinal folds*: Precambrian rocks of the Morarociada area, southern Sangre de Cristo Mountains, New Mexico OP- 914
- olistostromes*: Tectonic geology of the northern Vermont ultramafic belt OP- 1176
- schistosity*: Fold events in the inner Piedmont of South Carolina OP- 232

structural analysis—interpretation

- block structures*: Tectonic setting of late Miocene, Pliocene, and Pleistocene rocks in part of the Coast Ranges north of San Francisco, California P 1239
- complexes*: Stillwater Complex, Montana; rock succession, metamorphism and structure of the complex and adjacent rocks P 0999
- domes*: Structural evidence for dikes beneath silicic domes, Medicine Lake Highland Volcano, California OP- 370
- melange*: Melanges and their bearing on late Mesozoic and Tertiary subduction and interplate translation at the west edge of the North American Plate P 1198
- petrofabbrics*: Cretaceous deformation in the western foothills of the Sierra Nevada, California OP- 75
- terrane*s: Wallrocks of the central Sierra Nevada Batholith, California; a collage of accreted tectono-stratigraphic terranes P 1255

structural analysis—preferred orientation

- interpretation*: Mylonitization coincident with batholith emplacement; Bitterroot Lobe, Idaho Batholith OP- 412

structural geology—practice

- linesmanship*: Linesmanship and the practice of linear geo-art OP- 1294

structural petrology *see* structural analysis

Sudan—economic geology

- energy sources*: Geologic assessment of the fossil energy and geothermal potential of the Sudan OF 83-0356

sulfates *see under* minerals

sulfides *see under* minerals

sulfur—geochemistry

- black shale*: Short-range vertical variation in organic carbon, carbonate carbon, total sulfur contents and Munsell color values in a core from the Upper Pennsylvanian Stark Shale Member of the Dennis Limestone, Wabunsee County, Kansas OF 83-0315
- coal*: Deposition of sulfide and associated minerals in coal as a function of the ratios of A) iron to sulfur in the first deposited phase and B) swamp to sea water OP- 56
- Geochemistry of the Capps and Waterfall coal beds, Tyonek Formation, Capps coal field, Cook Inlet region, Alaska OP- 5
- marine sediments*: An interpretation of carbon and sulfur relationships in Black Sea sediments as indicators of environments of deposition OP- 686
- Controls and consequences of sulfate reduction in Recent marine sediments OP- 434
- peat*: Sulfur diagenesis in Everglades peat and origin of pyrite in coal OP- 17

sulfur—isotopes

- S-34/S-32*: A compilation of fluid inclusion and stable isotope data on selected precious- and base-metal epithermal deposits OF 83-0450
- Fault-leaked H₂S and the origin of South Texas uranium deposits; implications of sulfur isotopic studies OP- 173
- Geochemistry of water from two wells in the Tertiary limestone aquifer system, Georgia and Florida OP- 1169
- Isotopic research, climate, and the genesis of mineral deposits C 0822
- Preliminary mineralogic, fluid inclusion, and stable isotope study of the Mahd adh Dhahab gold mine, Kingdom of Saudi Arabia OF 83-0291
- Role of fluid mixing and fault-related sulfide in the origin of the Ray Point uranium district, South Texas OP- 435
- The origin and isotopic composition of dissolved sulfide in groundwater from carbonate aquifers in Florida and Texas OP- 1063

sulphur *see* sulfur

survey organizations *see also* associations

survey organizations—annual report

- U. S. Geological Survey*: United States Geological Survey yearbook, fiscal year 1982 p. 11

survey organizations—current research

- Illinois State Geological Survey*: Illinois State Geological Survey OF 82-1001
- Illinois State Water Survey*: Illinois State Water Survey OF 82-1001
- Kentucky Geological Survey*: Earthquake-hazards reduction; perspective of a geological survey OF 83-0157
- U. S. Geological Survey*: A study of trends in dissolved oxygen and fecal coliform bacteria at NASQAN stations OF 82-1019
- A summary of U. S. Geological Survey marine geologic studies on the inner shelf of the Chukchi Sea, Alaska, 1975 and 1981 OF 83-0071

- A summary of U. S. Geological Survey marine geological data collected in the Beaufort Sea, Alaska, 1982 OF 83-0493
- Acid rain OF 83-0126
- Acoustic systems for the measurement of streamflow W 2213
- Activities in Idaho; status of projects, fiscal years 1982-83 OF 83-0040
- Analog strong motion data and processed main event records obtained by U. S. Geological Survey near Coalinga, California OF 83-0511
- Bibliography of reports by U. S. Geological Survey personnel on studies of underground nuclear test sites and on waste management studies at the Nevada Test Site and the Waste Isolation Pilot Plant site, New Mexico, January 1 to December 31, 1981 OF 83-0478
- Challenging times for the Water Resources Division OF 83-0126
- Coal resource classification system of the United States Geological Survey, 1982 OP- 1319
- Description of U. S. Geological Survey studies of potential hazards from future eruptions in California OP- 797
- Digital line graphs from 1:2,000,000-scale maps C 0895-D
- Digital simulation models and the role of the Water Resources Division in documenting, verifying, and distributing them OF 83-0126
- Digital strong-motion data recorded by U. S. Geological Survey near Coalinga, California OF 83-0511
- Fourth national conference, Water Resources Division, U. S. Geological Survey OF 83-0126
- Functions and activities of Office of Water Data Coordination OF 82-1001
- In situ geomechanics of crystalline and sedimentary rocks; Part IV, Continued field testing of the modified U.S. Geological Survey 3-D borehole stress probe OF 83-0750
- Installation and service manual for U.S. Geological Survey manometers TWI 08-A2
- Land use and land cover digital data C 0895-E
- Mineral surveys by the Geological Survey and the Bureau of Mines of Bureau of Land Management Wilderness Study Areas C 0901
- Oil and gas potential of the Maritime Boundary region in the central Gulf of Mexico OP- 382
- Oklahoma; summary of activities of the U.S. Geological Survey Water Resources Division for 1983 OF 83-0767
- Operations of the U. S. Geological Survey at Mount St. Helens OP- 950
- Overview and USGS activities C 0895-A
- Paleoclimate and mineral deposits C 0822
- Program for mapping Antarctica C 0911
- Publications of the Geological Survey, 1982 p. 63
- Quality-assurance data for routine water analysis in the laboratories of the U. S. Geological Survey; 1981 annual report WRI 83-4090
- Quality assurance practices for the chemical and biological analyses of water and fluvial sediments TWI 05-A6
- Recent U. S. Geological Survey Landsat thematic and image maps OF 83-0121
- Role of computers in WRD programs in the 1980's OF 83-0126
- Role of U. S. Geological Survey in assessment of conventional energy resources in countries other than USA OP- 95

- Specifications for updating USGS land use and land cover maps OF 83-0116
 - Summary of Tertiary investigations in western Saudi Arabia, current work by the U. S. Geological Survey and recommended future studies OF 83-0487
 - Support by the U. S. Geological Survey for adjudications, compacts, and treaties OF 82-0680
 - The Coalinga, California earthquake sequence commencing May 2, 1983 (preliminary report on field investigations and data collected as of May 12, 1983) OF 83-0511
 - The Federal-State cooperative program OF 83-0126
 - The Geological Survey in polar perspective C 0911
 - The marine geology program of the U.S. Geological Survey C 0906
 - The role of the U. S. Geological Survey as seen by the Director OF 83-0126
 - The U. S. Geological Survey in Alaska; 1982 programs C 0867
 - The U. S. Geological Survey's water resources program in New York OF 83-0270
 - The Volcano Hazards Program; objectives and long-range plans OF 83-0400
 - U. S. Geological Survey OF 82-1001
 - U. S. Geological Survey activities in oil shale OP- 120
 - U. S. Geological Survey Polar research symposium; abstracts with program C 0911
 - U. S. Geological Survey role at Mount St. Helens before and during early 1980; geologic studies and coordination with public agencies OP- 844
 - U.S. Geological Survey-Ingeominas mineral resource assessment of Colombia; additional ore deposit models OF 83-0901
 - U.S. Geological Survey research in radioactive waste disposal; fiscal year 1981 WRI 83-4105
 - USGS program at the South Pole C 0911
 - USGS WRD full-time equivalency tracking system OF 82-0556
 - Water Resources Division in the 1980's C 0893
 - Water-resources investigations in North Dakota; fiscal year 1983 OF 83-0220
 - Water-resources investigations of the U. S. Geological Survey in Colorado; fiscal year 1983 OF 83-0138
 - Water-resources investigations of the U. S. Geological Survey in Iowa; fiscal year 1981 OF 81-0349
 - Water-resources investigations of the U. S. Geological Survey in Montana, October 1982 through September 1983 OF 83-0260
 - Water-resources investigations of the U. S. Geological Survey in South Dakota, project status summary, July 1, 1983 OF 83-0754
 - Water-resources investigations of the U. S. Geological Survey in the Souris-Red rivers basin in Minnesota, North Dakota, and South Dakota OF 83-0218
 - Water-resources investigations of the U. S. Geological Survey in Wyoming, fiscal years 1981 and 1982 OF 83-0254
 - Water-resources investigations of the U. S. Geological Survey in New Mexico; fiscal year 1981 OF 83-0772
 - Water resources investigations of U. S. Geological Survey in Missouri, fiscal year 1983 OF 83-0251
 - Water-resources studies in Utah by the U. S. Geological Survey, July 1, 1982 to June 30, 1983 OF 83-0531
 - Working with restricted resources in the 1980's OF 83-0126
 - WRD goals for the 1980's OF 83-0126
 - 1983 Water Quality Laboratory services catalog OF 82-0766
- survey organizations—general**
- U. S. Geological Survey: Directory of assistance centers of the National Water Data Exchange (NAWDEX)* OF 82-0925
 - Evaluation of the Geological Survey's experiments with alternative work schedules OF 82-0813
 - Identification codes for organizations listed in computerized data systems of the U. S. Geological Survey OF 82-0921
 - 1982 Water Quality Laboratory services catalog OF 81-1016
- survey organizations—history**
- U. S. Geological Survey: A look at the years since Albuquerque; summary of Water Resources Division accomplishments, 1975-81* OF 83-0126
 - Funding history of the U.S. Geological Survey Federal data collection and analysis program, 1973-1982 OF 83-0047
 - I. C. Russell; frontiersman of science OP- 1000
 - Paleontology in the United States Federal service, 1804-1904 OP- 856
 - Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
 - 100 years of geology by the United States Geological Survey in the Pacific Northwest OP- 1281
- survey organizations—organization**
- U. S. Geological Survey: A look ahead* OF 83-0126
 - U. S. Geological Survey, Water Resources Division: Organization of instrumentation within the U. S. Geological Survey, Water Resources Division* OP- 1261
- survey organizations—research**
- California Division of Mines and Geology: Data-processing procedures for main-shock motions recorded by the California Division of Mines and Geology strong-motion network* P 1254
 - U. S. Geological Survey: A synopsis of the structure and stratigraphy of south-central Idaho; contributions by the U. S. Geological Survey since 1975* OP- 1143
 - A U. S. Geological Survey data standard; specifications for representation of geographic point locations for information interchange C 0878-B
 - An index of geophysical well logging in Virginia by the U. S. Geological Survey OF 82-0432
 - Coal resource classification system of the U. S. Geological Survey C 0891
 - Digitization and processing of main-shock ground-motion data from the U. S. Geological Survey accelerograph network P 1254
 - General introduction and hydrologic definitions; Manual of hydrology; Part 1, General surface-water techniques W 1541-A
 - History of U.S. Geological Survey geologic exploration and mineral-resource evaluation, Arctic Alaska C 0911
 - Hydrologic and geologic aspects of waste management and disposal; a bibliography of publications by U.S. Geological Survey authors, 1950-81 C 0907
 - Hydrologic studies of the U. S. Geological Survey in major coal-resource areas of Utah through 1980 OF 81-0216
- Instructions for using the U. S. Geological Survey data base of wells on Long Island, New York OF 82-0568
 - Map projections used by the U. S. Geological Survey B 1532
 - Procedures for petroleum resource assessment used by the U. S. Geological Survey; statistical and probabilistic methodology OF 83-0402
 - U. S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978 C 0870
 - Wilderness mineral potential; assessment of mineral-resource potential in U.S. Forest Service lands studied in 1964-1984 P 1300
- Sweden—engineering geology**
- rock mechanics: State of the art and future plans about hydraulic fracturing stress measurements in Sweden* OF 82-1075
 - waste disposal: Determination of the state of stress at the Stripa Mine, Sweden* OF 82-1075
 - Stripa acoustic emission experiment OF 82-1075
- symposia—areal geology**
- Polar regions: U. S. Geological Survey Polar research symposium; abstracts with program* C 0911
- symposia—economic geology**
- metal ores: Origin of fluids and metals in porphyry and epithermal mineral deposits* OP- 669
 - mineral resources: Abstracts of the symposium on the geology and mineral deposits of the Challis 1° by 2° Quadrangle, Idaho* OF 83-0836
 - Paleoclimate and mineral deposits C 0822
 - water resources: Fourth national conference, Water Resources Division, U. S. Geological Survey* OF 83-0126
 - Proceedings, Illinois water-data users meeting OF 82-1001
- symposia—engineering geology**
- earthquakes: Earthquake seminars and workshops; Missouri* OF 83-0157
 - Proceedings of workshop XIV; Earthquake hazards of the Puget Sound region, Washington OF 83-0019
 - Summary report of the workshop on Continuing actions to reduce losses from earthquakes in the Mississippi Valley OF 83-0157
 - geologic hazards: Proceedings of Conference XVIII; a workshop on Continuing actions to reduce losses from earthquakes in the Mississippi Valley area* OF 83-0157
 - rock mechanics: Proceedings Workshop XVII; Workshop on hydraulic fracturing stress measurements* OF 82-1075
- symposia—environmental geology**
- geologic hazards: Goals and tasks of the landslide part of a ground-failure hazards reduction program* C 0880
- symposia—geochemistry**
- isotopes: Report on the Second SEPM research conference; Stable isotopes in sedimentary geology* OP- 39
- symposia—geophysics**
- magnetic field: Geomagnetic workshop* OP- 296
- symposia—hydrogeology**
- ground water: A Northeast conference; The impact of waste storage and disposal on ground-water resources* OP- 890
- symposia—oceanography**
- ocean floors: COSOD; a critique* OP- 1254
- symposia—paleontology**
- Ostracoda: In Houston, Ostracoda symposium convenes* OP- 1157

symposia—seismology

elastic waves: Introduction to special papers on the dynamic characteristics of faulting inferred from recordings of strong ground motion

OP- 117

symposia—stratigraphy

Tertiary: Studies in Tertiary stratigraphy of the California Coast Ranges

P 1213

symposia—tectonophysics

plate tectonics: Introduction to papers presented at the geology of continental margins symposium (active margins section)

OP- 1255

Syria—geochemistry

isotopes: The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria, and the Sultanate of Oman

OP- 1227

T

techniques *see under* automatic data processing *under* seismology; *see under* differential thermal analysis *under* thermal analysis; *see under* electromagnetic methods *under* geophysical methods; *see under* experimental studies *under* phase equilibria; *see under* fission-track dating *under* geochronology; *see under* geochemical methods *under* mineral exploration; *see under* gravity methods *under* geophysical methods; *see under* interpretation *under* sedimentary structures; *see under* magnetic methods *under* geophysical methods; *see under* methods *under* geophysical methods; *see under* seismic methods *under* geophysical methods; *see under* absolute age; chemical analysis; electron microscopy; hydrology; micropaleontology; mineral exploration; palynology; rock mechanics; sedimentary petrology; well-logging

tectonics *see also* faults; folds; orogeny; structural analysis; *see also under* structural geology *under* Alabama; Alaska; Antarctica; Appalachians; Arizona; Arkansas; Atlantic Coastal Plain; Atlantic Ocean; Bering Sea; California; Canadian Shield; Colorado; Colorado Plateau; Columbia Plateau; Eastern U.S.; Georgia; Great Basin; Guatemala; Gulf Coastal Plain; Gulf of Mexico; Idaho; Indiana; Kentucky; Midwest; Mississippi Valley; Montana; Moon; Nevada; New England; New Jersey; New Mexico; North Carolina; North Dakota; Pennsylvania; Rocky Mountains; Saudi Arabia; South Carolina; South Dakota; United States; Utah; Venus; Vermont; Virginia; West Virginia; Wyoming

tectonics—concepts

lineaments: Linesmanship and the practice of linear geo-art

OP- 1294

tectonophysics—bibliography

crust: Rheology of the lithosphere

OP- 625

tektites *see also* meteorites**tektites—age**

microtektites: Multiple microtektite horizons in upper Eocene marine sediments; no evidence for mass extinctions

OP- 605

telluric surveys *see* Earth-current surveys *under* geophysical surveys *under* Nevada

temperature *see under* sedimentary rocks *under* phase equilibria; *see under* metamorphism

Tennessee—areal geology

maps: Geologic map of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee

MF-1474-A

— Geologic maps of the Cohutta Wilderness and the Hemp Top Roadless Area, northern Georgia and southeastern Tennessee

MF-1415-A

Tennessee—economic geology

maps: Maps showing mines, quarries, and prospects, with analyses of samples, Gee Creek Wilderness, Polk and Monroe counties, Tennessee

MF-1474-C

— Mineral resource potential map of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee

MF-1474-D

mineral resources: Maps showing mines, quarries, and prospects, with analyses of samples, Gee Creek Wilderness, Polk and Monroe counties, Tennessee

MF-1474-C

— Mineral resource potential map of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee

MF-1474-D

— Mineral resource potential of the Unaka Mountain RARE II area, Unicoi County, Tennessee

OF 83-0445

Tennessee—engineering geology

earthquakes: Actions to improve the state of earthquake preparedness in Tennessee

OF 83-0157

— Federal Emergency Management Agency earthquake vulnerability study; Memphis-Shelby County

OF 83-0157

— Memphis area seismic preparedness experiences

OF 83-0157

— Role of the Tennessee Emergency Management Agency in FEMA's earthquake hazard vulnerability study

OF 83-0157

geologic hazards: Actions to improve the state of earthquake preparedness in Tennessee

OF 83-0157

— Federal Emergency Management Agency earthquake vulnerability study; Memphis-Shelby County

OF 83-0157

— Memphis area seismic preparedness experiences

OF 83-0157

— Role of the Tennessee Emergency Management Agency in FEMA's earthquake hazard vulnerability study

OF 83-0157

waterways: Cane Creek flood-flow characteristics at State Route 30 near Spencer, Tennessee

OF 83-0267

— Man-induced channel adjustment in Tennessee streams

OF 83-0043

Tennessee—environmental geology

ecology: A survey of benthic macroinvertebrates of streams of coal surface mining areas of the Cumberland Plateau in Tennessee

OF 82-0773

geologic hazards: Technique for estimating depth of floods in Tennessee

WRI 83-4050

land use: Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri

L-0135

— Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina

L-0104

maps: Land use and land cover, 1973, Blytheville, Arkansas; Tennessee; Alabama; Missouri

L-0135

— Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina

L-0104

pollution: Results of pesticide sampling in Tennessee

OF 83-0148

Tennessee—geochemistry

maps: Geochemical survey of the Cohutta Wilderness and the Hemp Top Roadless Area, northern Georgia and southeastern Tennessee

MF-1415-B

— Reconnaissance geochemical maps of the Gee Creek Wilderness, Polk and Monroe counties, Tennessee

MF-1474-B

Tennessee—geomorphology

fluvial features: Man-induced channel adjustment in Tennessee streams

WRI 82-4098

Tennessee—geophysical surveys

heat flow: Heat flow in the upper Mississippi Embayment

P 1236

remote sensing: Use of digital land-cover data from the Landsat satellite in estimating the streamflow characteristics in the Cumberland Plateau of Tennessee

WRI 82-4059

seismic surveys: High-resolution seismic-reflection surveying on Reelfoot scarp, northwestern Tennessee

P 1236

Tennessee—hydrogeology

ground water: Effects of urban development on the aquifers in the Memphis area, Tennessee

WRI 82-4024

hydrology: Base flow and ground water in upper Sweetwater Valley, Tennessee

WRI 83-4068

— Effects of urbanization on the magnitude and frequency of floods on small streams in Tennessee; basic data report no. 2

OF 82-0911

— Evaluation of rainfall-runoff models for the hydrologic characterization of surface-mined lands

OP- 275

— Hydrology of area 16, Eastern Coal Province, Virginia-Tennessee

OF 81-0204

— Hydrology of area 18, Eastern Coal Province, Tennessee

OF 81-0492

Tennessee—seismology

earthquakes: Microearthquakes and faulting in the area of New Madrid, Missouri-Reelfoot Lake, Tennessee

P 1236

Tennessee—stratigraphy

Ordovician: Conodonts from the Stones River Group (Middle Ordovician) of the central basin of Tennessee

OP- 1260

— Magnitude of the post-Knox unconformity (Lower/Middle Ordovician) in the Central Basin of Tennessee, as measured by conodonts

OP- 1019

Tennessee—structural geology

neotectonics: Style and significance of surface deformation in the vicinity of New Madrid, Missouri

P 1236

tephrochronology *see under* geochronology

terraces *see under* dates *under* absolute age; *see under* fluvial features *under* geomorphology

terrestrial core *see core*

Tertiary *see also under* geochronology *under* Arizona; Colorado; Utah; *see also under* stratigraphy *under* Alaska; Arkansas; Atlantic Ocean; California; Colorado; Columbia Plateau; Eastern U.S.; Idaho; Massachusetts; Montana; New Mexico; North America; North Carolina; Oregon; Pacific Ocean; Saudi Arabia; South Carolina; symposia; Wyoming

Tertiary—stratigraphy

paleo-oceanography: Cenozoic paleoceanography

C 0822

Texas—economic geology

geothermal energy: Geopressured-geothermal resources in the northern Gulf of Mexico Basin; an overview

OP- 1268

— Regional and local geologic setting of the Technadriil-Fenix and Scisson, Department of Energy, Gladys McCall No. 1 well site

OP- 83

— Texas; basic data for thermal springs and wells as recorded in Geotherm

OF 83-0436

maps: Mineral resource potential map of the Four Notch Roadless Area, Sam Houston National Forest, Walker County, Texas

MF-1549

mineral resources: Mineral resource areas of the Basin and Range Province of Texas

OF 83-0709

- Mineral resource potential map of the Four Notch Roadless Area, Sam Houston National Forest, Walker County, Texas MF-1549
- oil and gas fields*: Chemical geothermometers applied to formation waters, Gulf of Mexico and California basins OP- 617
- uranium ores*: Fault-leaked H₂S and the origin of South Texas uranium deposits; implications of sulfur isotopic studies OP- 173
- Iron disulfide minerals and the genesis of roll-type uranium deposits OP- 1025
- Laser fluorometric analysis of plants for uranium exploration OP- 484
- Magnetic-susceptibility logging in sedimentary uranium environments OP- 1111
- Role of fluid mixing and fault-related sulfide in the origin of the Ray Point uranium district, South Texas OP- 435
- water resources*: Ground-water resources of Colorado, Lavaca, and Wharton counties, Texas OP- 702
- Texas—engineering geology**
 - geologic hazards*: Land-surface subsidence in the Texas coastal region OP- 1005
 - land subsidence*: Approximate water-level changes in wells in the Chicot and Evangeline aquifers, 1977-83 and 1983-83 and measured compaction, 1973-83 in Harris and Galveston counties, Texas OF 83-0150
 - Ground-water withdrawals and land-surface subsidence in the Houston-Galveston region, Texas OF 82-0571
 - Land-surface subsidence in the Texas coastal region OP- 1005
- Texas—environmental geology**
 - geologic hazards*: The Austin, Texas, flood of May 24-25, 1981 OP- 831
 - impact statements*: Projected effects of proposed salinity-control projects on shallow ground water; preliminary results for the upper Brazos River basin, Texas OF 82-0908
 - land use*: Hydrologic data for urban studies in the Dallas, Texas, metropolitan area, 1979 OF 81-0491
 - Land use and land cover and associated maps for Palestine, Texas; Louisiana OF 83-0561
 - Land use and land cover and associated maps for Texas, Arkansas, Oklahoma OF 82-0806
 - Land use and land cover and associated maps for Tyler, Texas OF 82-0805
 - maps*: Land use and land cover and associated maps for Palestine, Texas; Louisiana OF 83-0561
 - Land use and land cover and associated maps for Texas, Arkansas, Oklahoma OF 82-0806
 - Land use and land cover and associated maps for Tyler, Texas OF 82-0805
- Texas—geochemistry**
 - isotopes*: Distribution of gaseous ¹²CO₂, ¹³CO₂, and ¹⁴CO₂ in the sub-soil unsaturated zone of the western US Great Plains OP- 1228
- Texas—geomorphology**
 - lacustrine features*: Theories of playa lake development in the High Plains OP- 1021
- Texas—geophysical surveys**
 - remote sensing*: Electromagnetic remote sensing OP- 636
- Texas—hydrogeology**
 - ground water*: Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming WRI 83-4123
 - Ground-water withdrawals and changes in water levels in the Houston District, Texas OF 82-0431
 - Hydrogeologic investigation of the Edwards Aquifer OP- 724
 - Hydrology of the Jasper Aquifer in the Southeast Texas coastal plain OF 83-0677
 - Hydrostratigraphic subdivisions and fault barriers of the Edwards Aquifer, south-central Texas, U.S.A. OP- 725
 - Records of ground-water recharge, discharge, water levels, and chemical quality of water for the Edwards Aquifer in the San Antonio area, Texas, 1934-80 OP- 1013
 - Structure, temperature, pressure, and salinity of Cenozoic aquifers of South Texas HA-0654
 - The origin and isotopic composition of dissolved sulfide in groundwater from carbonate aquifers in Florida and Texas OP- 1063
 - Water levels and salinities of water within the Evangeline Aquifer in an area southwest of Corpus Christi, Texas OF 82-0174
 - hydrology*: Gain-loss study along two streams in the upper Sabine River basin, Texas; August-September 1981 OF 83-0036
 - Hydrologic data for urban studies in the Austin, Texas, metropolitan area, 1981 OF 83-0044
 - Hydrologic data for urban studies in the Houston, Texas, metropolitan area, 1979 OF 82-0164
 - Hydrologic data for urban studies in the Houston, Texas, metropolitan area, 1980 OF 83-0264
 - Hydrologic data for urban studies in the San Antonio, Texas, metropolitan area, 1981 OF 83-0035
 - Index of surface-water stations in Texas, January 1982 OF 82-0269
 - Index of surface-water stations in Texas, January 1983 OF 83-0202
 - The effect of input errors in using precipitation-runoff models for runoff prediction OP- 1239
 - Water quality of Belton Lake, central Texas OF 82-0650
 - Water quality of Lake Granbury, north-central Texas OF 82-0676
 - Water quality of Somerville Lake, south-central Texas WRI 82-4124
 - maps*: Approximate altitude of water levels in wells in the Chicot and Evangeline aquifers in the Houston area, Texas, spring 1983 OF 83-0529
 - springs*: Texas; basic data for thermal springs and wells as recorded in Geotherm OF 83-0436
 - thermal waters*: Texas; basic data for thermal springs and wells as recorded in Geotherm OF 83-0436

- Texas—oceanography**
 - continental shelf*: Facies characteristics of modern size-graded shelf deposits, northwestern Gulf of Mexico OP- 533
 - continental slope*: Gulf of Mexico types of intraslope basins as determined by seismic reflection patterns OP- 136
 - estuaries*: Chemical and physical characteristics of water in estuaries of Texas; October 1975-September 1976 OP- 691
 - maps*: Maps showing time-sequence surface patterns of estuarine hydrography and suspended sediments in Corpus Christi Bay, Texas Gulf Coast MF-1530
 - sedimentation*: Sedimentary processes in restricted Gulf Coast estuarine system; Corpus Christi Bay, Texas OP- 1134

Texas—sedimentary petrology

- diagenesis*: Post-depositional alteration of titanomagnetite in a Miocene sandstone, South Texas (U.S.A.) OP- 1024
- sedimentation*: Continuous subaqueous deposition of the Permian Castile evaporites, Delaware Basin, Texas and New Mexico OP- 283
- Late Triassic cyclic deposition on the Colorado Plateau and its regional implications OP- 718

Texas—stratigraphy

- Carboniferous*: Biostratigraphic evaluation of the Carboniferous and Permian ostracodes of Texas OP- 1156
- Cretaceous*: Magnetostratigraphy of Upper Cretaceous deposits in the northwestern Mississippi Embayment OP- 689
- Jurassic*: Upper Jurassic ammonites from Louisiana, Texas, and Mississippi OP- 564
- Neogene*: Stratigraphic studies; geologic studies OP- 1012
- Permian*: Biostratigraphic evaluation of the Carboniferous and Permian ostracodes of Texas OP- 1156

Texas—structural geology

- maps*: Faults in parts of north-central and western Houston metropolitan area, Texas MF-1136

Texas—tectonophysics

- crust*: Stratigraphic studies; geologic studies OP- 1012

textbooks see under hydrogeology**Thailand—economic geology**

- potash*: Progress report on the potash deposits of the Khorat Plateau, Thailand OF 82-1096

theoretical studies see under movement underground water; see under silicates under phase equilibria; see under crust; deformation; fluid inclusions; geophysics; heat flow; planetology; seismology**thermal analysis see also chemical analysis; electron microscopy; spectroscopy; X-ray analysis****thermal analysis—differential thermal analysis**

- techniques*: Phase relations in the system NaCl-KCl-H₂O; Part I, Differential thermal analysis of the NaCl-KCl liquidus at 1 atmosphere and 500, 1000, 1500, and 2000 bars OP- 224

thermal waters see also under hydrogeology under Alaska; Arizona; automatic data processing; bibliography; California; catalogs; Colorado; Eastern U.S.; Hawaii; Idaho; Mexico; Midwest; Montana; Nevada; New Mexico; Oregon; Pacific Coast; Texas; United States; Utah; Washington; Wyoming**thorium—geochemistry**

- granites*: Tertiary epizonal plutonic rocks of the Selway-Bitterroot Wilderness, Idaho OP- 840

metamorphic rocks: U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina

- OP- 679

monazite: Mineralogy and occurrence of europium-rich dark monazite

- P 1181

sedimentary rocks: Distribution of uranium and thorium in the lower Tertiary Orca Group and related rocks in part of the Cordova Quadrangle, southern Alaska

- OF 82-1032

thorium— isotopes

- Th-232/Th-230*: Isotopic composition of uranium and thorium in crystalline rocks OP- 1054

thorium ores see also under economic geology under Colorado; Wyoming**thrust faults see under displacements under faults****time scales see under geochronology**

tin—geochemistry

granites: Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia

OP- 320

stream sediments: Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska

OF 80-0811-J

— Distribution and abundance of tin determined by spectrographic analysis in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska

OF 83-0420-L

tourmaline *see under* ring silicates *under* minerals

trace elements *see under* experimental studies *under* geochemistry; *see under* geobotanical methods *under* mineral exploration; *see under* geochemical methods *under* mineral exploration; *see under* geochemistry *under* Alaska; Arizona; arsenic; Atlantic Ocean; bismuth; California; coal; Colorado; Great Lakes region; Idaho; igneous rocks; intrusions; iron ores; lava; magmas; Maine; metamorphic rocks; Mexico; Nevada; New Caledonia; New Mexico; New York; Oregon; organic materials; Pacific Ocean; Rocky Mountains; Saudi Arabia; sedimentary rocks; sediments; South Africa; South Carolina; Utah; Washington; Wisconsin; Wyoming; *see under* pollutants *under* pollution

Triassic *see also under* stratigraphy *under* Alaska; Arizona; Colorado Plateau; Idaho; Nevada; New Mexico; Utah

tritium *see also* deuterium; hydrogen

tritium—geochemistry

ground water: Movement of radionuclides in unconsolidated coastal sediments at the low-level radwaste burial site near Barnwell, South Carolina

OP- 182

tungsten—geochemistry

granites: Peraluminous granites of the eastern Arabian Shield, Kingdom of Saudi Arabia

OP- 320

stream sediments: Distribution and abundance of molybdenum, tin, and tungsten in nonmagnetic and moderately magnetic heavy-mineral-concentrate samples and tin in minus-80-mesh stream-sediment and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska

OF 80-0811-J

— Distribution and abundance of tungsten, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska

OF 83-0420-W

— Distribution and abundance of tungsten, determined from colorimetric and spectrographic analysis, in the minus-80-mesh fraction of stream sediment, Petersburg area, Southeast Alaska

OF 83-0420-V

tungsten ores *see also under* economic geology *under* China; Idaho; Saudi Arabia

tungsten ores—resources

models: Mineral deposit grade-tonnage models

OF 83-0623

turbidity currents *see under* transport *undersedimentation*

Turkey—economic geology

uranium ores: Landsat analysis for uranium exploration in Northeast Turkey

OF 83-0099

U

underground installations—stability

land subsidence: Subsidence from underground mining; environmental analysis and planning considerations

C 0876

underground water *see* ground water

United Kingdom *see also* Scotland

United States *see also* Alabama; Alaska; Arizona; Arkansas; California; Colorado; Connecticut; Delaware; District of Columbia; Eastern U.S.; Florida; Georgia; Hawaii; Idaho; Illinois; Indiana; Iowa; Kansas; Kentucky; Louisiana; Maine; Maryland; Massachusetts; Michigan; Midwest; Minnesota; Mississippi; Missouri; Montana; Nebraska; Nevada; New England; New Hampshire; New Jersey; New Mexico; New York; North Carolina; North Dakota; Ohio; Oklahoma; Oregon; Pacific Coast; Pennsylvania; Rhode Island; South Carolina; South Dakota; Southern U.S.; Southwestern U.S.; Tennessee; Texas; Utah; Vermont; Virginia; Washington; West Virginia; Western U.S.; Wisconsin; Wyoming

United States—areal geology

maps: Geologic map of the United States (exclusive of Alaska and Hawaii)

p. 149

regional: A U. S. Geological Survey data standard; specifications for representation of geographic point locations for information interchange

C 0878-B

United States—economic geology

coal: Coal resource classification system of the U. S. Geological Survey

C 0891

— Coal resource classification system of the United States Geological Survey, 1982

OP- 1319

construction materials: Maps showing natural aggregates of the conterminous United States

OF 83-0743

fuel resources: Atlas of discovery rate profiles showing oil and gas discovery rates by geological province in the United States

OF 83-0075

— Impact of the Wyoming-Utah-Idaho thrust belt, Beaufort Sea on U.S. oil, gas resource estimates

OP- 260

geothermal energy: Assessment of low-temperature geothermal resources of the United States; 1982

C 0892

— Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM

OF 83-0440

— Low-temperature geothermal resources in the Central and Eastern United States

C 0892

— Selected data for low-temperature (less than 90°C) geothermal systems in the United States; reference data for U. S. Geological Survey Circular 892

OF 83-0250

lead-zinc deposits: Zinc, lead, and barite deposits and occurrences in Paleozoic rocks, east-central United States

OF 83-0187

maps: Maps showing natural aggregates of the conterminous United States

OF 83-0743

— Zinc, lead, and barite deposits and occurrences in Paleozoic rocks, east-central United States

OF 83-0187

mineral resources: Continental aluminous weathering sequences and their climatic implications in the United States

C 0822

— Introduction; symposium on industrial minerals of the upper Midwest

OP- 888

— Wilderness mineral potential; assessment of mineral-resource potential in U.S. Forest Service lands studied in 1964-1984

P 1300

oil shale: Development of publicly owned oil shale lands of United States; prospect for 1980s

OP- 861

water resources: A national water-use information program

OF 82-0862

— Definitions of components of the Water Data Sources Directory maintained by the National Water Data Exchange

OF 82-0923

— Directory of assistance centers of the National Water Data Exchange (NAWDEX)

OF 82-0925

— Directory of member organizations of the National Water Data Exchange

OF 82-0902

— Estimated use of water in the United States in 1980

C 1001

— Fourth national conference, Water Resources Division, U. S. Geological Survey

OF 83-0126

— Summary of water withdrawals in the United States, 1950-1980

OF 83-0207

— The Federal-State cooperative program

OF 83-0126

— Water Resources Division in the 1980's

C 0893

— Working with restricted resources in the 1980's

OF 83-0126

United States—engineering geology

bibliography: Hydrologic and geologic aspects of waste management and disposal; a bibliography of publications by U.S. Geological Survey authors, 1950-81

C 0907

earthquakes: Fifty years of the United States strong-motion program

OP- 733

— On the status of in-situ strong ground motion and structural response investigations

OP- 1053

maps: Map showing utility and industrial power sources in the conterminous United States

MF-1392

slope stability: Goals and tasks of the landslide part of a ground-failure hazards reduction program

C 0880

waste disposal: Hydrologic and geologic aspects of waste management and disposal; a bibliography of publications by U.S. Geological Survey authors, 1950-81

C 0907

— U.S. Geological Survey research in radioactive waste disposal; fiscal year 1981

WRI 83-4105

United States—environmental geology

geologic hazards: Goals and tasks of the landslide part of a ground-failure hazards reduction program

C 0880

— Landslide overview map of the conterminous United States

P 1183

land use: A land use and land cover classification system for use with remote sensor data

P 0964

maps: Landslide overview map of the conterminous United States

P 1183

pollution: A study of trends in dissolved oxygen and fecal coliform bacteria at NASQAN stations

OF 82-1019

— An evaluation of trends in the acidity of precipitation and the related acidification of surface water in North America

W 2249

— Evidence for acid-precipitation-induced trends in stream chemistry at hydrologic bench-mark stations

C 0910

United States—geophysical surveys

gravity surveys: Crust and mantle structure of the conterminous U.S. from wavelength-filtered gravity data

OP- 596

— Preparation of a gravity anomaly map of the conterminous United States and aeromagnetic maps of Alaska and Hawaii

OP- 432

- magnetic surveys:** Digital magnetic-anomaly map of central United States; description of major features GP-0955
- maps:** Digital magnetic-anomaly map of central United States; description of major features GP-0955
- Preparation of a gravity anomaly map of the conterminous United States and aeromagnetic maps of Alaska and Hawaii OP- 432
- remote sensing:** A land use and land cover classification system for use with remote sensor data P 0964
- Fifty years of the United States strong-motion program OP- 733
- well-logging:** Magnetic-susceptibility logging in sedimentary uranium environments OP- 1111
- United States—hydrogeology**
- ground water:** Subsidence in United States due to ground-water withdrawal OP- 981
- hydrology:** Flood characteristics of urban watersheds in the United States W 2207
- Funding history of the U.S. Geological Survey Federal data collection and analysis program, 1973-1982 OF 83-0047
- Support by the U. S. Geological Survey for adjudications, compacts, and treaties OF 82-0680
- Urban stormwater data management system OP- 316
- maps:** Configuration of the base of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States OF 81-1177
- Generalized map showing annual runoff and productive aquifers in the conterminous United States HA-0194
- Geology and configuration of the base of the Tertiary limestone aquifer system, Southeastern United States OF 81-1176
- Geology and configuration of the top of the Tertiary limestone aquifer system, Southeastern United States OF 81-1178
- Thickness of the Tertiary limestone aquifer system, Southeastern United States OF 81-1124
- Thickness of the upper permeable zone of the Tertiary limestone aquifer system, Southeastern United States OF 81-1179
- springs:** Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0440
- GEOTHERM data tape giving geochemistry of geothermal springs, wells in the United States p. 63
- thermal waters:** Central and Eastern United States; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0440
- GEOTHERM data tape giving geochemistry of geothermal springs, wells in the United States p. 63
- Thermal springs of the United States and other countries of the world; a summary P 0492
- United States—oceanography**
- continental shelf:** Gas hydrates on continental margins of the United States based on occurrence of bottom simulating reflectors on marine seismic records OF 83-0822
- U. S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978 C 0870
- continental slope:** Sidescan sonar depiction of slump features associated with diapirism on continental slope off southeastern United States OP- 213
- maps:** Gas hydrates on continental margins of the United States based on occurrence of bottom simulating reflectors on marine seismic records OF 83-0822
- marine geology:** U. S. Geological Survey program of offshore resource and geoenvironmental studies, Atlantic-Gulf of Mexico region, from September 1, 1976, to December 31, 1978 C 0870
- United States—paleobotany**
- Plantae:** Time scales of megafloral assemblages OP- 1310
- United States—sedimentary petrology**
- weathering:** Continental aluminous weathering sequences and their climatic implications in the United States C 0822
- United States—seismology**
- crust:** Crustal structure in the Mississippi Embayment; crossprofiles OP- 428
- Crustal structure of the Mississippi Embayment; axial profile OP- 719
- earthquakes:** Earthquakes in the United States, January-March 1982 C 0896-A
- Earthquakes in the United States, October-December 1981 C 0871-D
- observatories:** Strong-motion data recorded in the United States P 1254
- seismicity:** Problems in the construction of a map to zone the earthquake ground shaking hazard OP- 503
- United States—stratigraphy**
- Cretaceous:** Biostratigraphic and chronostratigraphic distribution of ostracodes in the Coniacian-Maestrichtian (Austinian-Navarroan) in the Atlantic and Gulf Coastal Province OP- 506
- Mid-Cretaceous molluscan biostratigraphy and paleogeography of south-western part of Western Interior, United States OP- 239
- Mississippian:** Mississippian continental margins of conterminous United States OP- 461
- Paleogene:** Preliminary chart of stratigraphic nomenclature of Paleocene and Eocene lignite-bearing and associated strata of the Gulf Coast Plain-Mississippi Embayment OF 83-0310
- Paleozoic:** Biostratigraphy of Late Silurian through Early Devonian ostracodes of the United States OP- 93
- Pennsylvanian:** Correlation of the Middle Pennsylvanian Diaboloceras neumeieri and D. varicostatum zones in the South-central and Southeastern United States OP- 438
- Quaternary:** Rapid climatic cycles recorded in closed-basin lakes OP- 666
- United States—structural geology**
- maps:** Maps of vertical crustal movements in the conterminous United States over the last ten million years I-1315
- neotectonics:** Maps of vertical crustal movements in the conterminous United States over the last ten million years I-1315
- tectonics:** Friction, faulting, and in-situ stress OP- 1347
- Structural framework and tectonic evolution of the New Madrid seismic zone, central United States OP- 1060
- United States—tectonophysics**
- crust:** Crust and mantle structure of the conterminous U.S. from wavelength-filtered gravity data OP- 596
- heat flow:** Regional heat flow and temperature gradients C 0892
- mantle:** Crust and mantle structure of the conterminous U.S. from wavelength-filtered gravity data OP- 596
- plate tectonics:** The relation to plate motions of United States Cordilleran foreland deformation OP- 475
- uranium—abundance**
- marine sediments:** ^{210}Pb method for estimating the rate of carbonate sand sedimentation OP- 541
- opal:** Uraniferous opal, Virgin Valley, Nevada; conditions of formation and implications for uranium exploration OP- 1342
- uranium—analysis**
- spectroscopy:** Determination of uranium in geologic materials by laser-excited fluorescence OP- 778
- uranium—geochemistry**
- granites:** Tertiary epizonal plutonic rocks of the Selway-Bitterroot Wilderness, Idaho OP- 840
- metamorphic rocks:** U-Th-Pb whole-rock studies in the Kings Mountain belt, South Carolina OP- 679
- sedimentary rocks:** Distribution of uranium and thorium in the lower Tertiary Orca Group and related rocks in part of the Cordova Quadrangle, southern Alaska OF 82-1032
- volcanic rocks:** The mobility of uranium and other elements during alteration of rhyolite ash to montmorillonite; a case study in the Troublesome Formation, Colorado, U.S.A. OP- 1343
- Volcanic stratigraphy of part of McLendon Volcano, Yavapai County, Arizona OP- 154
- uranium— isotopes**
- U-238/U-234:** Isotopic composition of uranium and thorium in crystalline rocks OP- 1054
- uranium ores** *see also under economic geology under* Alaska; Arizona; California; Colorado; Colorado Plateau; Eastern U.S.; Michigan; Nebraska; Nevada; New Jersey; New Mexico; New York; Northern Territory; South Dakota; Texas; Turkey; Utah; Wisconsin; Wyoming
- USSR—economic geology**
- fuel resources:** Petroleum geology and resources of the Volga-Ural province, USSR C 0885
- oil and gas fields:** Geology of the Volga-Ural petroleum province and detailed description of the Ramashkino and Arlan oil fields OF 83-0711
- petroleum:** Geology of the Volga-Ural petroleum province and detailed description of the Ramashkino and Arlan oil fields OF 83-0711
- USSR—sedimentary petrology**
- sediments:** Origin and character of loesslike silt in unglaciated south-central Yakutia, Siberia, USSR P 1262
- USSR—stratigraphy**
- changes of level:** Correlation of late Cenozoic marine transgressions of the Arctic Coastal Plain with those in western Alaska and northeastern Russia C 0911
- Pleistocene:** Aspects of the paleogeography of Beringia during the late Pleistocene OP- 544
- Quaternary:** Paleogeography of Beringia; a synthesis OP- 1105
- Utah—areal geology**
- bibliography:** Geologic references index for the Navajo Indian Reservation, Arizona, New Mexico, and Utah OF 83-0002
- maps:** Bedrock geologic map of the Kaiparowits coal-basin area, Utah I-1033-I
- Geologic map of the North Hansel Mountains, Idaho and Utah MF-1643
- Geologic map of the northwest quarter of the Beaver Quadrangle, Beaver County, Utah I-1445
- Geologic map of the southwest-quarter of the Beaver Quadrangle, Beaver County, Utah I-1444
- Geologic map of the Tushar Mountains and adjoining areas, Marysvale volcanic field, Utah I-1430-A

- Geologic map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona, and Kane County, Utah MF-1475-A
- Geologic map of the Vernal 1° by 2° Quadrangle, Colorado, Utah and Wyoming MF-1163
- Geology of the Richfield Quadrangle, west-central Utah OF 83-0583
- Geology of the Salina Quadrangle, Utah I-0591-A
- Preliminary geologic map of the Beaver Lake Mountains Quadrangle, Beaver and Millard counties, Utah OF 83-0181
- Preliminary geologic map of the Wah Wah Summit Quadrangle, Millard and Beaver counties, Utah MF-0637
- Uinta Mountains: The geologic story of the Uinta Mountains* B 1291
- Utah—economic geology**
 - bibliography:* Water-resources studies in Utah by the U. S. Geological Survey, July 1, 1982 to June 30, 1983 OF 83-0531
 - coal:* Chemical analysis of coal from the Blackhawk Formation, Wasatch Plateau coalfield, Sevier County, Utah OF 83-0363
 - Eustatic control of distribution of lower Upper Cretaceous coal beds in Utah; application in coal exploration OP- 1064
 - Geologic cross sections of the Kaiparowits coal-basin area, Utah I-1033-J
 - Geologic map and coal sections of the Old Woman Plateau Quadrangle, Sevier County, Utah OF 82-1093
 - Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Convulsion Canyon and Wash Rock Canyon areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier and Emery counties, Utah C-0093-B
 - Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Johns Peak and Old Woman Plateau areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier County, Utah C-0093-A
 - Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Muddy Creek and Nelson Mountain areas of the Wasatch Plateau coal field, Manti 30' by 60' Quadrangle, Emery, Sevier, and Sanpete counties, Utah C-0094-A
 - Transgressive-regressive cycles and the occurrence of coal in some Upper Cretaceous strata of Utah OP- 360
 - fuel resources:* Impact of the Wyoming-Utah-Idaho thrust belt, Beaufort Sea on U.S. oil, gas resource estimates OP- 260
 - geothermal energy:* Reconnaissance of the hydrothermal resources of Utah P 1044-H
 - Temperature profiles from Salt Valley, Utah, thermal conductivity of 10 samples from drill hole DOE 3, and preliminary estimates of heat flow OF 83-0455
 - Thermal data from well GD-1, Gibson Dome, Paradox Valley, Utah OF 83-0476
 - Utah; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0437
 - maps:* Cortez Quadrangle, Colorado and Utah OP- 188
 - Delta Quadrangle, Utah OP- 180
 - Escalante Quadrangle, Utah OP- 953
 - Geologic map and coal sections of the Old Woman Plateau Quadrangle, Sevier County, Utah OF 82-1093
 - Geology, structure, and uranium deposits of the Moab Quadrangle, Colorado and Utah I-0360
 - Map showing general availability of ground water in the Alton-Kolob coal fields area, Utah I-1235-C
 - Mine and prospect map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona and Kane County, Utah MF-1475-C
 - Mineral resource potential map of the Birdseye, Nephi, and Santaquin Roadless Areas, Juab and Utah counties, Utah MF-1574
 - Mineral resource potential map of the Box-Death Hollow Roadless Area, Garfield County, Utah MF-1319-B
 - Mineral resource potential map of the Mount Naomi Roadless Area, Cache County, Utah, and Franklin County, Idaho MF-1566-A
 - Mineral resource potential map of the Stansbury Roadless Area, Tooele County, Utah MF-1353-C
 - Preliminary map of the resource areas in the Basin and Range Province of Utah OF 83-0722
 - Price Quadrangle, Utah OP- 186
 - Richfield Quadrangle, Utah OP- 153
 - Salina Quadrangle, Utah OP- 187
 - Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Johns Peak and Old Woman Plateau areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier County, Utah C-0093-A
 - Structure and uranium deposits of the Salina Quadrangle, Utah I-0591-B
 - Vernal Quadrangle, Colorado and Utah OP- 262
 - metal ores:* Use of reflectance spectra of native plant species for interpreting airborne multi-spectral scanner data in the East Tintic Mountains, Utah OP- 808
 - mineral resources:* Mine and prospect map of the Vermilion Cliffs-Paria Canyon Instant Study Area and adjacent wilderness study areas, Coconino County, Arizona and Kane County, Utah MF-1475-C
 - Mineral resource potential map of the Birdseye, Nephi, and Santaquin Roadless Areas, Juab and Utah counties, Utah MF-1574
 - Mineral resource potential map of the Box-Death Hollow Roadless Area, Garfield County, Utah MF-1319-B
 - Mineral resource potential map of the Mount Naomi Roadless Area, Cache County, Utah, and Franklin County, Idaho MF-1566-A
 - Mineral resource potential map of the Stansbury Roadless Area, Tooele County, Utah MF-1353-C
 - Preliminary map of the resource areas in the Basin and Range Province of Utah OF 83-0722
 - oil and gas fields:* Depositional setting and diagenetic evolution of some Tertiary unconventional reservoir rocks, Uinta Basin, Utah OP- 970
 - Petroleum potential of wilderness lands in Wyoming-Utah-Idaho Thrust Belt C 0902-A-P
 - oil shale:* Characteristics of some oil shale, east-central Uinta Basin, Utah OP- 601
 - Development of publicly owned oil shale lands of United States; prospect for 1980s OP- 861
 - Sedimentation history of rich oil-shale sequences in Eocene lakes Gosiute and Uinta, Wyoming and Utah OP- 916
 - Water resources and potential hydrologic effects of oil-shale development in the southeastern Uinta Basin, Utah and Colorado OF 83-0216
- petroleum:* Petroleum potential of wilderness lands in Utah C 0902-A-P
- Petroleum potential of wilderness lands in Wyoming-Utah-Idaho Thrust Belt C 0902-A-P
- uranium ores:* Cortez Quadrangle, Colorado and Utah OP- 188
- Delta Quadrangle, Utah OP- 180
- Escalante Quadrangle, Utah OP- 953
- Geology, structure, and uranium deposits of the Moab Quadrangle, Colorado and Utah I-0360
- Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884
- Price Quadrangle, Utah OP- 186
- Richfield Quadrangle, Utah OP- 153
- Salina Quadrangle, Utah OP- 187
- Sedimentology of the lower part of the Upper Triassic Chinle Formation and its relationship to uranium deposits, White Canyon area, southeastern Utah OF 83-0459
- Stratigraphic sections of the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation in the northern part of the White Canyon, Red Canyon, and Blue Notch Canyon area, southeastern Utah OF 83-0188
- Structure and uranium deposits of the Salina Quadrangle, Utah I-0591-B
- Vernal Quadrangle, Colorado and Utah OP- 262
- vanadium ores:* Localization of tabular, sediment-hosted uranium-vanadium deposits of Henry structural basin, Utah OP- 884
- water resources:* Map showing general availability of ground water in the Alton-Kolob coal fields area, Utah I-1235-C
- Water-resources studies in Utah by the U. S. Geological Survey, July 1, 1982 to June 30, 1983 OF 83-0531
- Utah—engineering geology**
 - earthquakes:* Estimating the characteristics of earthquake ground shaking in urban areas of Utah OP- 505
 - Zoning of the earthquake ground-shaking hazard along the Wasatch Fault zone, Utah OP- 504
 - maps:* Preliminary map of landslide deposits, Vernal 1° by 2° Quadrangle, Colorado and Utah MF-0696
 - slope stability:* Highway-related landslides in mountainous volcanic terrain; an example from West-central Utah OP- 289
 - Potential for debris flow and debris flood along the Wasatch Front between Salt Lake City and Willard, Utah, and measures for their mitigation OF 83-0635
 - Preliminary map of landslide deposits, Vernal 1° by 2° Quadrangle, Colorado and Utah MF-0696
 - waste disposal:* Results of hydraulic tests in U.S. Dept. of Energy's wells DOE-4, 5, 6, 7, 8, and 9, Salt Valley, Grand County, Utah OF 82-0346
 - Stress measurements in salt in a deep borehole, southeastern Utah OF 82-1075
- Utah—environmental geology**
 - geologic hazards:* Potential for debris flow and debris flood along the Wasatch Front between Salt Lake City and Willard, Utah, and measures for their mitigation OF 83-0635
 - impact statements:* Water resources and potential hydrologic effects of oil-shale development in the southeastern Uinta Basin, Utah and Colorado OF 83-0216

- land use*: Land use and land cover and associated maps for Cedar City, Arizona; Utah
OF 82-0801
- Land use and land cover and associated maps for Richfield, Utah
OF 82-0804
- maps*: Land use and land cover and associated maps for Cedar City, Arizona; Utah
OF 82-0801
- Land use and land cover and associated maps for Richfield, Utah
OF 82-0804
- reclamation*: Reclamation of mined lands in the western coal region
C 0872
- Utah—geochemistry**
- isotopes*: Implications for continental evolution from U-Pb zircon and common lead isotope data in and around the Archean craton of Wyoming
OP- 1173
- maps*: Geochemical data and sample locality map of the Vermilion Cliffs-Paria Canyon Instant Study area and adjacent wilderness study areas, Coconino County, Arizona, and Kane County, Utah
MF-1475-B
- surveys*: Analyses of the less than 0.180-mm fraction of drainage sediments, Richfield 1° by 2° Quadrangle, Utah
OF 83-0074
- Analytical results for 249 water samples from the Mount Belknap caldera and Deer Trail Mountain-Alunite Ridge areas and vicinity, southwestern Utah
OF 83-0738
- Geochemical analyses of rock and stream-sediment samples from Birdseye, Nephi, and Santaquin Roadless areas, Juab and Utah counties, Utah
OF 83-0175
- trace elements*: Analytical results of a geochemical survey utilizing heavy-mineral fractions and the less-than-180 micrometer fraction of stream sediments, Tushar Mountains and adjoining areas, Marysville volcanic field, Utah
OF 83-0444
- Chemical analysis of coal from the Blackhawk Formation, Wasatch Plateau coalfield, Sevier County, Utah
OF 83-0363
- Utah—geochronology**
- Cretaceous*: Fission-track ages of apatite in the Wasatch Mountains, Utah; an uplift study
OP- 848
- Jurassic*: NDS 102; Bajocian, K-Ar; Rb-Sr/biotite-bentonite, Middle West N American Basin
OP- 897
- Phanerozoic*: Phanerozoic magmatism and mineralization in the Toole 1° × 2° Quadrangle, Utah
OP- 830
- Precambrian*: Geochronology of the Farmington Canyon Complex, Wasatch Mountains, Utah
OP- 516
- Tertiary*: Fission-track ages of apatite in the Wasatch Mountains, Utah; an uplift study
OP- 848
- Utah—geomorphology**
- changes of level*: Lake Bonneville; selected features of relevance to neotectonic analysis
OF 82-1070
- maps*: Preliminary surficial geologic map of the Fisher Valley-Professor Valley area, southeastern Utah
OF 83-0058
- Surficial geologic map along part of the Wasatch Front, Salt Lake valley, Utah
MF-1198
- Utah—geophysical surveys**
- heat flow*: Reconnaissance of the hydrothermal resources of Utah
P 1044-H
- Subsurface temperature map showing depth to 180° Fahrenheit in the Greater Green River basin of Wyoming, Colorado, and Utah
MF-1504
- Temperature profiles from Salt Valley, Utah, thermal conductivity of 10 samples from drill hole DOE 3, and preliminary estimates of heat flow
OF 83-0455
- Thermal data from well GD-1, Gibson Dome, Paradox Valley, Utah
OF 83-0476
- maps*: Regional magnetic and gravity features of the Gibson Dome area and surrounding region, Paradox Basin, Utah; a preliminary report
OF 83-0359
- Subsurface temperature map showing depth to 180° Fahrenheit in the Greater Green River basin of Wyoming, Colorado, and Utah
MF-1504
- remote sensing*: Mapping of hydrothermally altered rocks using airborne multispectral scanner data, Marysville, Utah, mining area
OP- 980
- Use of reflectance spectra of native plant species for interpreting airborne multispectral scanner data in the East Tintic Mountains, Utah
OP- 808
- seismic surveys*: Preliminary interpretation of a 30 km long seismic reflection profile in the Hingeline-Overthrust region near Nephi, Utah
OP- 1352
- Shallow structure of the Sevier Desert Detachment
OP- 1353
- surveys*: Regional magnetic and gravity features of the Gibson Dome area and surrounding region, Paradox Basin, Utah; a preliminary report
OF 83-0359
- Utah—hydrogeology**
- bibliography*: Hydrologic studies of the U. S. Geological Survey in major coal-resource areas of Utah through 1980
OF 81-0216
- ground water*: Aquifer systems in the Great Basin region of Nevada, Utah, and adjacent states; a study plan
OF 82-0445
- Bedrock aquifers in the northern San Rafael Swell area, Utah, with special emphasis on the Navajo Sandstone
OF 82-0866
- Ground-water hydrology and projected effects of ground-water withdrawals in the Sevier Desert, Utah
OF 83-0688
- Ground water in the southeastern Uinta Basin, Utah and Colorado
OF 83-0271
- Hydrology of the Ferron Sandstone aquifer and effects of proposed surface-coal mining in Castle Valley, Utah
W 2195
- hydrology*: Characteristics of suspended sediment in the San Juan River near Bluff, Utah
WRI 82-4104
- Chemical and physical characteristics of water and sediment in Scofield Reservoir, Carbon County, Utah
OF 83-0252
- Hydrology of area 56, Northern Great Plains and Rocky Mountain coal provinces, Utah and Colorado
OF 83-0038
- Hydrology of coal-resource areas in the southern Wasatch Plateau, central Utah
WRI 82-4009
- Hydrology of the coal-resource areas in the upper drainages of Huntington and Cottonwood creeks, central Utah
OF 81-0539
- Hydrology of the Price River basin, Utah, with emphasis on selected coal-field areas
OF 83-0208
- Preliminary hydrologic evaluation of the North Horn Mountain coal-resource area, Utah
OF 81-0141
- Selected biological characteristics of streams in the southeastern Uinta Basin, Utah and Colorado
OF 81-0644
- Selected hydrologic data, Price River basin, Utah, water 1979 and 1980
OF 82-0916
- maps*: Map showing selected surface-water data for the Alton-Kolob coal-fields area, Utah
I-1235-D
- surveys*: Reconnaissance of the hydrothermal resources of Utah
P 1044-H
- Utah; basic data for thermal springs and wells as recorded in GEOTHERM
OF 83-0437
- thermal waters*: Reconnaissance of the hydrothermal resources of Utah
P 1044-H
- Utah; basic data for thermal springs and wells as recorded in GEOTHERM
OF 83-0437
- Utah—paleontology**
- Arthropoda*: Preliminary report on the occurrence of Angustidontus in Nevada and Utah
OF 83-0355
- Utah—petrology**
- igneous rocks*: Petrology of igneous rocks and wall rock alteration, Mayflower Mine, Wasatch County, Utah; Part I, Primary rock and mineral compositions
OF 82-1086
- Rhyolites in the Gillies Hill-Woodtick Hill area, Beaver County, Utah
OP- 354
- The chemistry of seven igneous biotites from eastern Nevada and western Utah
OF 83-0629
- Utah—sedimentary petrology**
- sedimentary rocks*: Evaporite mineral cycles, Paradox Basin, Utah and Colorado
OP- 1006
- Nonmarine carbonates of Neogene Lake Idaho in Utah
OP- 767
- sedimentation*: Depositional systems in the Salt Wash Member of the Morrison Formation (Upper Jurassic) in southern Utah
OP- 951
- The influence of tectonic movement on depositional environments in the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation, White Canyon area, southeastern Utah
OP- 322
- sediments*: Hydrocarbons in sediments from Great Salt Lake, Utah
OP- 50
- Utah—seismology**
- earthquakes*: Attenuation of seismic waves from local earthquakes at Roosevelt Hot Springs, Utah
OP- 277
- Utah—stratigraphy**
- Cambrian*: Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada
OP- 798
- Carboniferous*: Carboniferous-Permian boundary sequence of northern Oquirrh Basin, Idaho-Utah
OP- 1330
- changes of level*: Geochemical evolution of Great Salt Lake, Utah
OP- 1167
- Cretaceous*: Early Late Cretaceous paleogeography of east-central Utah
OP- 1065
- Major depositional cycles and regional correlations of Upper Cretaceous rocks, southern Colorado Plateau and adjacent areas
OP- 811
- Palynostratigraphic framework for the Cretaceous (Albian-Maestrichtian) of the Overthrust Belt of Utah and Wyoming
OP- 863
- Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Convulsion Canyon and Wash Rock Canyon areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier and Emery counties, Utah
C-0093-B
- Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Johns Peak and Old Woman Plateau areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier County, Utah
C-0093-A
- Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Muddy Creek and Nelson Mountain areas of the Wasatch Plateau coal field, Manti 30' by

- 60' Quadrangle, Emery, Sevier, and Sanpete counties, Utah C-0094-A
- Transgressive-regressive cycles and the occurrence of coal in some Upper Cretaceous strata of Utah OP- 360
- Devonian:** Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. OP- 1068
- Eocene:** Descriptions of four stratigraphic sections of parts of the Green River and Uinta formations in the eastern Uinta Basin, Uintah County, Utah, and Rio Blanco County, Colorado OF 83-0017
- Jurassic:** Paleogeography of Middle Jurassic continental, shoreline and shallow marine sedimentation, southern Utah OP- 110
- Stratigraphic diagram of Middle Jurassic San Rafael Group and associated formations from the San Rafael Swell to Bluff in southeastern Utah OC-0119
 - Stratigraphic sections of Middle Jurassic Entrada Sandstone and related rocks from Dewey Bridge, Utah, to Bridgeport, Colorado OC-0122
 - Stratigraphic sections of subsurface Jurassic rocks in the San Juan Basin, New Mexico, Colorado, Utah, and Arizona OC-0118
- maps:** Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Convulsion Canyon and Wash Rock Canyon areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier and Emery counties, Utah C-0093-B
- Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Johns Peak and Old Woman Plateau areas of the Wasatch Plateau coal field, Salina 30' by 60' Quadrangle, Sevier County, Utah C-0093-A
 - Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Muddy Creek and Nelson Mountain areas of the Wasatch Plateau coal field, Manti 30' by 60' Quadrangle, Emery, Sevier, and Sanpete counties, Utah C-0094-A
- Permian:** Carboniferous-Permian boundary sequence of northern Oquirrh Basin, Idaho-Utah OP- 1330
- Proterozoic:** Allochthonous quartzite sequence in the Albion Mountains, Idaho, and proposed Proterozoic Z and Cambrian correlatives in the Pilot Range, Utah and Nevada OP- 798
- Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho OP- 268
- Quaternary:** Geochemical evolution of Great Salt Lake, Utah OP- 1167
- Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah OF 83-0288
 - Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
- Triassic:** Aspects of the palynology of the Chinle Formation (Upper Triassic), Colorado Plateau, Arizona, Utah, and New Mexico OF 82-0937
- Illustrations of plant microfossils from the Chinle Formation, Garfield County, Utah OF 82-1092
 - Sedimentology of the lower part of the Upper Triassic Chinle Formation and its relationship to uranium deposits, White Canyon area, southeastern Utah OF 83-0459

- Smithian (Lower Triassic) conodont biofacies in Idaho, Utah and Nevada OP- 1273
 - Stratigraphic sections of the Shinarump, Monitor Butte, and Moss Back members of the Upper Triassic Chinle Formation in the northern part of the White Canyon, Red Canyon, and Blue Notch Canyon area, southeastern Utah OF 83-0188
- Utah—structural geology**
- faults:** Shallow structure of the Sevier Desert Detachment OP- 1353
- Variations in structural style and correlation of thrust plates in the Sevier foreland thrust belt, Great Salt Lake area, Utah OP- 1232
- maps:** Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah OF 83-0288
- neotectonics:** Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah OF 83-0288
- Vertical movement on the Wasatch fault zone, northern Utah OP- 1320
- salt tectonics:** Influence of the Onion Creek salt diapir on the late Cenozoic history of Fisher Valley, southeastern Utah OP- 241
- Overthrusts and salt diapirs, central Utah OP- 1312
 - Salt diapirism in central Utah OP- 1311
 - Salt diapirism in central Utah OP- 1313
- tectonics:** Friction, faulting, and in-situ stress OP- 1347
- Interrelations of thrust and transcurrent faults in the central Sevier orogenic belt near Leamington, Utah OP- 836
 - Late Jurassic tectonism on west side of Colorado Plateau, Utah and Arizona OP- 952
 - Late Miocene displacement of pre-Tertiary and Tertiary rocks in the Matlin Mountains, northwestern Utah OP- 1231
 - Preliminary interpretation of a 30 km long seismic reflection profile in the Hingeline-Overthrust region near Nephi, Utah OP- 1352
 - Spatial variation, style, and age of Cenozoic extensional tectonics in the Great Basin OP- 1185
 - Structure and Cenozoic tectonism along the Wasatch fault zone, Utah OP- 1354

V

- valleys** *see* under landform evolution *under* geomorphology
- vanadates** *see* under minerals
- vanadium ores** *see* also under economic geology *under* Utah
- varves** *see* lacustrine features *under* geomorphology; *see* under geochronology
- Venezuela—hydrogeology**
- hydrology:** Data from sediment studies of the Rio Orinoco, Venezuela, August 15-25, 1982 OF 83-0679
- Venus—geophysical surveys**
- remote sensing:** Internal crustal modification of the satellites of Saturn and Jupiter and implications for Venus OP- 746
- Venus—observations**
- review:** The geology of the terrestrial planets OP- 201
- Venus—structural geology**
- tectonics:** Tectonics and surface roughness of Venus; a progress report OP- 1082
- Vermont—economic geology**
- copper ores:** Time-space relations of tourmaline-rich rocks at the Elizabeth Mine and vicinity, Vermont copper belt OP- 1145

Vermont—structural geology

- tectonics:** Tectonic geology of the northern Vermont ultramafic belt OP- 1176
- Thrust zones in the pre-Silurian eugeoclinal rocks of Vermont OP- 1177
- Vertebrata** *see* also Mammalia; Pisces; problematic fossils
- vertebrates** *see* also mammals
- vertebrates—biostratigraphy**
- Phanerozoic:** Biostratigraphy and paleoecology of lower Paleozoic, Upper Cretaceous, and lower Tertiary rocks in U. S. Geological Survey New Madrid test wells, southeastern Missouri OP- 401
- Tertiary:** Late Tertiary sedimentary rocks of the Big Hole Basin, Southwest Montana OP- 480

Virginia—areal geology

- maps:** Geologic map of the Amonate Quadrangle, Virginia-West Virginia OF 83-0446

Virginia—economic geology

- coal:** Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 1, Lithologic descriptions and geophysical logs of coreholes in the southwestern Virginia coal field, Dickenson, Lee, Scott, and Wise counties, Virginia OF 83-0628
- Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 2, Analyses of coal cores from the southwestern Virginia coal field OF 83-0620
 - Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 3, Lithologic descriptions and geophysical logs of coreholes in the Valley coal fields, Bland, Botetourt, Montgomery, Pulaski, Smyth, and Wythe counties, Virginia OF 83-0637
 - Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 4, Analyses of coal cores from the Valley coal fields OF 83-0626
- fuel resources:** Hydrocarbon potential of the Dan River-Danville Triassic basin, North Carolina and Virginia OP- 1223
- maps:** Mineral resource potential map of the Dolly Ann Roadless Area, Alleghany County, Virginia MF-1358-D
- Mineral resource potential map of the southern Massanutten Roadless Area, Page and Rockingham counties, Virginia MF-1527-D
- mineral resources:** Mineral resource potential map of the Dolly Ann Roadless Area, Alleghany County, Virginia MF-1358-D
- Mineral resource potential map of the southern Massanutten Roadless Area, Page and Rockingham counties, Virginia MF-1527-D
 - Mineral resources of the Mill Creek, Mountain Lake, and Peters Mountain Wilderness Study Areas, Craig and Giles counties, Virginia, and Monroe County, West Virginia B 1510

Virginia—engineering geology

- earthquakes:** The Giles County, Virginia, seismic zone OP- 125
- maps:** Bedrock map and geotechnical properties of rocks of the Culpeper Basin and vicinity, Virginia and Maryland I-1313-C
- Virginia—environmental geology**
- geologic hazards:** Land-use implications of flooding; Ashburn-Arcola area of northern Virginia OF 82-0023
- land use:** Land use and land cover, 1972, Norfolk, Virginia; North Carolina L-0105
- Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104

- Land-use implications of flooding; Ashburn-Arcola area of northern Virginia OF 82-0023
- Preservation of surficial materials in the Appalachian Valley and Ridge Province OP- 550
- maps*: Land use and land cover, 1972, Norfolk, Virginia; North Carolina L-0105
- Land use and land cover, 1976-1978, Johnson City, Tennessee; Virginia; Kentucky; North Carolina L-0104
- Land-use implications of flooding; Ashburn-Arcola area of northern Virginia OF 82-0023
- Virginia—geochronology**
- Proterozoic*: Age relationships in Proterozoic Z rocks of the Blue Ridge Anticlinorium of northern Virginia OP- 715
- Virginia—geomorphology**
- fluvial features*: Geomorphic differences east and west of the Stafford fault system, northeastern Virginia OP- 757
- Preservation of surficial materials in the Appalachian Valley and Ridge Province OP- 550
- shore features*: Computer-supported photogrammetry applied to measurements of shore erosion in the tidal Potomac River and estuary, Maryland and Virginia OP- 796
- Virginia—geophysical surveys**
- gravity surveys*: Principal facts for gravity stations in part of the central Virginia Piedmont OF 83-0070
- magnetic surveys*: Aeromagnetic contour map of the Culpeper Basin and vicinity, Virginia OP- 584
- maps*: Aeromagnetic contour map of the Culpeper Basin and vicinity, Virginia OP- 584
- Total-count aeroradiometric contour map of the Culpeper Basin and vicinity, Virginia OP- 671
- radioactivity surveys*: Total-count aeroradiometric contour map of the Culpeper Basin and vicinity, Virginia OP- 671
- remote sensing*: A principal component enhancement for Landsat images; possible structural applications in vegetated Virginia piedmont OP- 653
- seismic surveys*: Description of high-resolution seismic reflection profile collected between the Chesapeake Bay, Virginia, and Cape Romain, South Carolina, September 26, to October 2, 1981 (cruise R/V Gyre, 81-G-14) OF 83-0514
- Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515
- Interpretive seismic profile along interstate I-64 from the Valley and Ridge to the coastal plain in central Virginia OC-0123
- Seismic-reflection data in the Central Appalachians OP- 488
- well-logging*: An index of geophysical well logging in Virginia by the U. S. Geological Survey OF 82-0432
- Virginia—hydrogeology**
- ground water*: Field reports; Installation of shallow sand-packed piezometers in loose saturated sediment OP- 413
- hydrology*: Daily water and sediment discharges from selected rivers of the Eastern United States; a time-series modeling approach W 2216
- Downstream effects of reservoir releases to the Potomac River from Luke, Maryland, to Washington, DC WRI 82-4062
- Hydrology of area 16, Eastern Coal Province, Virginia-Tennessee OF 81-0204
- Submersed aquatic plants of the tidal Potomac River B 1543
- Water quality of the Potomac River at Chain Bridge at Washington, DC; hydrologic-data report, 1978 water year OF 83-0147
- maps*: Chemical quality of ground water in the Culpeper Basin, Virginia and Maryland I-1313-D
- Ground-water resources of Fairfax County and vicinity, Virginia, and some aspects of their development I-1473
- springs*: Summary of hydrologic data collected at Wytheville National Fish Hatchery No. 2, Max Meadows, Virginia, 1976 to 1979 OF 82-0686
- Virginia—oceanography**
- continental shelf*: Description of single-channel, high-resolution, seismic-reflection data collected from the continental shelf, slope, and upper rise between Cape Hatteras, North Carolina, and Norfolk, Virginia; and Vero Beach and Miami, Florida (cruise 80-G-9) OF 83-0515
- Virginia—petrology**
- igneous rocks*: The core of the Blue Ridge Anticlinorium in northern Virginia OP- 231
- intrusions*: Geology of the Roseland District, Virginia OP- 525
- metamorphism*: Thermal metamorphism of Triassic and Jurassic sedimentary rocks in the Culpeper Basin, Virginia OP- 676
- Virginia—sedimentary petrology**
- sedimentation*: Depositional model for Upper Mississippian and Lower Pennsylvanian coal-bearing rocks of southwestern Virginia OP- 347
- Sedimentology and structure of Lower Jurassic lake beds in the Culpeper Basin at Thoroughfare Gap, Virginia OP- 523
- Virginia—seismology**
- crust*: Interpretive seismic profile along interstate I-64 from the Valley and Ridge to the coastal plain in central Virginia OC-0123
- maps*: Seismicity map of the State of Virginia MF-1346
- Virginia—soils**
- surveys*: Soil chronosequences from the Virginia to South Carolina Quaternary coastal plain deposits OP- 739
- Virginia—stratigraphy**
- Cenozoic*: Calcareous nannofossil and planktic foraminiferal biostratigraphy of Pliocene and Pleistocene Atlantic Coastal Plain deposits OP- 179
- Eocene*: Paleocene and early Eocene dinocyst biostratigraphy OP- 337
- Ordovician*: Conodonts revise the Lower-Middle Ordovician boundary and timing of miogeoclinal events in the East-Central Appalachian Basin OP- 486
- Paleocene*: Paleocene and early Eocene dinocyst biostratigraphy OP- 337
- Paleogene*: Early Tertiary dinoflagellates in the Putneys Mill core, Virginia Coastal Plain, U.S.A. OP- 335
- Quaternary*: Evidence for massive slumping along the Potomac River, Virginia Coastal Plain OP- 991
- Virginia—structural geology**
- fractures*: Joint control of valley form and process in unconsolidated coastal plain sediments, Westmoreland County, Virginia OP- 575
- tectonics*: A principal component enhancement for Landsat images; possible structural applications in vegetated Virginia piedmont OP- 653
- Melange terrane in the central Virginia Piedmont OP- 159
- volcanic features** *see under* geomorphology
- volcanic rocks** *see under* igneous rocks
- volcanism** *see under* volcanology
- volcanoes** *see under* volcanology
- volcanology—research**
- review*: Volcanology OP- 1204
- volcanology—volcanism**
- calderas*: Nevado Portuguese volcanic center, central Peru; a Pliocene central volcano-collapse caldera complex with associated silver mineralization OP- 873
- Ore deposits related to the Thunder Mountain caldera complex OF 83-0836
- Paleomagnetic evidence bearing on the structural development of the Latir volcanic field near Questa, New Mexico OP- 465
- The hydrothermal system of Long Valley caldera, California P 1044-A
- The Twin Peaks Caldera and associated ore deposits OF 83-0836
- causes*: Tertiary extensional tectonics and associated volcanism in west-central Arizona OP- 924
- composition*: Cenozoic magmatism associated with extensional tectonics in the Rocky Mountains OP- 696
- effects*: Phanerozoic magmatism and mineralization in the Toole 1° × 2° Quadrangle, Utah OP- 830
- Tectonic framework of Clear Lake Basin, California OP- 510
- eruptions*: Additional geophysical techniques for monitoring volcanoes; geodetic, gravity, thermal, electrical, magnetic and radioactivity OP- 287
- Description of U. S. Geological Survey studies of potential hazards from future eruptions in California OP- 797
- Historical activity at calderas of the world as a framework for interpreting recent activity at Long Valley Caldera, California OP- 860
- Monitoring hot springs and shallow groundwater in the Long Valley Caldera, California OP- 1161
- Other potential eruption centers in California; Long Valley-Mono Lake, Coso, and Clear Lake volcano fields OP- 52
- Volcanic hazard potential in the California Cascades OP- 228
- evolution*: Geology of the central and eastern parts of the Springerville-Show Low volcanic field, Arizona OP- 44
- Volcanic history of southwestern Mogollon-Datil volcanic field as recorded along the Morenci Lineament, New Mexico and Arizona OP- 1004
- lava fields*: The Challis volcanic field OF 83-0836
- magma chambers*: Data report for the August 1982 seismic-refraction experiment in the Mono Craters-Long Valley region, California OF 83-0708
- Miocene*: Lithologic and gravity characteristics of the southern Peavine volcanic center, Toiyabe Range, Nevada OP- 145
- Paleozoic*: Layered igneous and sedimentary rocks of Rampart Group, central Alaska; roots of oceanic volcanoes? OP- 181
- periodicity*: Nested calderas and trapdoor uplift at Pantelleria, Strait of Sicily OP- 732

- Time and space constraints on the evolution of medium-rate spreading centers OP- 688
- Two Cretaceous volcanic episodes in the western Pacific Ocean OP- 1008
- Pliocene*: Possible relations between magmatism, rates of extension, and the state of stress in the crust OP- 47
- vents*: Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming I-1091-E
- Use of grain-shape regularity measurements in determining source area in secondary pyroclastic rocks, McLendon Volcano, Yavapai County, Arizona OF 83-0630
- Van Horn Peak; a welded tuff vent in central Idaho OP- 340
- volcanic earthquakes*: Geologic and petrologic data bearing on potential volcanic hazards in Long Valley Caldera, eastern California OP- 53
- volcanoes*: Gravity studies in volcanic terranes OP- 1302
- volcanology—volcanoes**
 - El Chichon*: Volcanic cloud may alter Earth's climate OP- 1229
 - Furnas*: Preliminary geologic map of Furnas Volcano, Sao Miguel, Azores OF 83-0395
 - Haleakala*: Potential hazards from future volcanic eruptions on the Island of Maui, Hawaii I-1442
 - Hawaii*: Reconnaissance map showing thicknesses of volcanic ash deposits in the Greater Hilo area, Hawaii MF-1499
 - Iceland*: Remote sensing studies of dynamic environmental phenomena in Iceland C 0911
 - Indonesia*: Eruptive history of the Dieng Mountains region, central Java, and potential hazards from future eruptions OF 83-0068
 - Kilauea*: Complete data listings for CSEM soundings on Kilauea Volcano, Hawaii OF 83-0066
 - Distribution of differentiated tholeiitic basalts on the lower East Rift Zone of Kilauea Volcano, Hawaii; a possible guide to geothermal exploration OP- 829
 - Drilling report and core logs for the 1981 drilling of Kilauea Iki lava lake (Kilauea Volcano, Hawaii), with comparative notes on earlier (1967-1979) drilling experiences OF 83-0326
 - Focal mechanisms and locations of earthquakes in the vicinity of the 1975 Kalapana earthquake aftershock zone 1970-1979; implications for tectonics of the south flank of Kilauea Volcano, Island of Hawaii OP- 273
 - Stripping of Keanakakoi tephra on Kilauea Volcano, Hawaii OP- 734
 - The August and October 1968 east rift eruptions of Kilauea Volcano, Hawaii P 0890
 - The Seco inclinometer; a monitor of the deformation tied to volcanic activity in Hawaii OP- 1329
 - Lassen Peak*: Principal facts for 382 gravity stations in Lassen Volcanic National Park and vicinity, California OF 83-0584
 - Seismic structure of the Lassen volcanic area OP- 815
 - Loihi*: Earthquakes at Loihi submarine volcano and the Hawaiian hot spot OP- 634
 - Mauna Loa*: Seismicity and surface deformation of Mauna Loa Volcano, Hawaii OP- 288
 - Medicine Lake*: Compressional-wave velocity structure of the Medicine Lake Volcano and vicinity from teleseismic relative traveltimes residuals OP- 350
 - Mount Baker*: Origin, distribution, and rapid removal of hydrothermally formed clay at Mount Baker, Washington P 1022-E
 - Mount Saint Helens*: Characteristics of Columbia River sediment following the eruption of Mount St. Helens on May 18, 1980 C 0850-J
 - Comparative physiographic diagrams of Mount St. Helens, Washington, and Crater Lake, Oregon MF-1403
 - Deep earthquakes and possible magmatic gas transport at Mount St. Helens, Washington OP- 1278
 - Deep earthquakes beneath Mount St. Helens; evidence for magmatic gas transport? OP- 1279
 - Deformation monitoring at Mount St. Helens in 1981 and 1982 OP- 216
 - Effects of volcanism on the glaciers of Mount St. Helens C 0850-D
 - Engineering aspects of the 1980 Mount St. Helens eruptions OP- 1102
 - Eruption prediction aided by electronic tiltmeter data at Mount St. Helens OP- 329
 - Eruption-triggered avalanche, flood, and lahar at Mount St. Helens; effects of winter snow-pack OP- 1264
 - Forecasting eruptions at Mount St. Helens by monitoring ground deformation OP- 1206
 - Forecasts and predictions OP- 1203
 - Gas emissions and the eruptions of Mount St. Helens through 1982 OP- 211
 - Gas emissions and the prediction of eruptive behavior at Mount St. Helens, Washington OP- 210
 - Initial and subsequent drainage basin and channel responses to the 1980 eruption of Mount St. Helens OP- 792
 - Operations of the U. S. Geological Survey at Mount St. Helens OP- 950
 - Overview of Mount St. Helens volcanic eruption OP- 1230
 - Petrologic monitoring of 1981 and 1982 eruptive products from Mount St. Helens OP- 214
 - Physiographic diagrams of Mount St. Helens, Washington, showing changes in its summit crater, 1982 MF-1608
 - Predicting eruptions at Mount St. Helens, June 1980 through December 1982 OP- 1205
 - Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens C 0850-K
 - Seismic precursors to the Mount St. Helens eruptions in 1981 and 1982 OP- 735
 - The isotopic and chemical evolution of Mount St. Helens OP- 472
 - Topographic map of Mount St. Helens, Washington, showing changes between April 11 and May 16, 1980 I-1411
 - U. S. Geological Survey role at Mount St. Helens before and during early 1980; geologic studies and coordination with public agencies OP- 844
 - Newberry*: Hydrology of the Newberry Volcano caldera, Oregon WRI 83-4091
 - Newberry Volcano, Oregon; a Cascade Range geothermal prospect OP- 726
 - Schlumberger soundings near Newberry Caldera, Oregon OF 83-0825
 - Time-domain electromagnetic soundings of Newberry Volcano, Deschutes County, Oregon OF 83-0832
 - Pacific Coast*: Maps showing distribution, thickness, and mass of late Pleistocene and Holocene tephra from major volcanoes in the Pacific Northwest of the United States; a preliminary assessment of hazards from volcanic ejecta to nuclear reactors in the Pacific Northwest MF-1435
 - Spurr*: Recent seismicity around Spurr, Redoubt, and Iliamna volcanoes, southern Alaska OP- 929
 - Western U.S.*: The Volcano Hazards Program; objectives and long-range plans OF 83-0400
 - Volcanic studies in the Pacific Northwest, 1879-1979 OP- 1202
- W
- Washington—areal geology**
 - bibliography*: Annotated guide to geologic reports and maps of the Glacier Peak Wilderness and adjacent areas, northern Cascades, Washington OF 83-0097
 - maps*: Generalized geologic map of the Goat Rocks Wilderness and Roadless Areas (6036, Parts A, C, and D), Lewis and Yakima counties, Washington OF 83-0357
 - Geologic map of the Kirkland Quadrangle, Washington MF-1543
 - Geologic map of the Wenaha Tucannon Wilderness, Washington and Oregon MF-1536
 - Geologic map of the Wenatchee 1:100,000 Quadrangle, central Washington I-1311
 - Map of bedrock geologic data sites, Glacier Peak Wilderness Study, Chelan, Skagit, and Snohomish counties, Washington OF 83-0454
 - Preliminary geologic map of the Abercrombie Mountain area, Pend Oreille County, Washington OF 83-0600
 - Preliminary geologic map of the Gypsy Peak area, Pend Oreille County, Washington, and Bonner and Boundary counties, Idaho OF 83-0601
 - regional*: 100 years of geology by the United States Geological Survey in the Pacific Northwest OP- 1281
- Washington—economic geology**
 - construction materials*: Map showing potential sources of sand, gravel, and quarry rock, Port Townsend Quadrangle, Washington I-1198-B
 - geothermal energy*: Airborne electromagnetic surveys of the Cascade Range, western United States OF 83-0092
 - Washington State; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0438
 - gravel deposits*: Map showing potential sources of sand, gravel, and quarry rock, Port Townsend Quadrangle, Washington I-1198-B
 - maps*: Map showing potential sources of sand, gravel, and quarry rock, Port Townsend Quadrangle, Washington I-1198-B
 - Map showing the status of mineral resource potential evaluation of wilderness and roadless areas, Washington OF 83-0392
 - Mineral resource potential map of the Eagle Rock Roadless Area, Snohomish and King counties, Washington MF-1380-B
 - Mineral resource potential map of the Goat Rocks Wilderness and adjacent roadless areas, Lewis and Yakima counties, Washington MF-1653-A
 - Mineral resource potential map of the Long Swamp Roadless Area, Okanogan County, Washington MF-1550
 - Mineral resource potential map of the Wonder Mountain Roadless Area, Mason County, Washington MF-1418-B

- metal ores:** Analytical results for stream sediments, panned concentrates from stream sediments, and rocks collected from the Wonder Mountain Roadless Area (6086), Washington OF 82-1066
- Lead isotopes in the "Cascades mineral belt", Washington and Oregon OP- 680
- mineral resources:** Map showing the status of mineral resource potential evaluation of wilderness and roadless areas, Washington OF 83-0392
- Mineral resource potential map of the Eagle Rock Roadless Area, Snohomish and King counties, Washington MF-1380-B
 - Mineral resource potential map of the Goat Rocks Wilderness and adjacent roadless areas, Lewis and Yakima counties, Washington MF-1653-A
 - Mineral resource potential map of the Long Swamp Roadless Area, Okanogan County, Washington MF-1550
 - Mineral resource potential map of the Wonder Mountain Roadless Area, Mason County, Washington MF-1418-B
 - Mineral resource potential of the Glacier View Roadless Area, Pierce County, Washington OF 83-0501
 - Mineral resource potential of the Indian Heaven Roadless Area, Skamania County, Washington OF 83-0467
 - Mineral resource potential of the Tatoosh Roadless Area, Lewis County, Washington OF 83-0471
 - Mineral resource potential of the Wenaha Tuccannon Wilderness, Washington and Oregon OF 83-0374
 - Semiquantitative spectrographic analyses of stream-sediment samples from the Wenaha Tuccannon Wilderness, Washington and Oregon OF 83-0297
- petroleum:** Petroleum potential of wilderness lands in Washington C 0902-A-P
- water resources:** Water resources of the Gig Harbor Peninsula and adjacent areas, Washington OF 81-1021
- Washington—engineering geology**
- earthquakes:** A study of Puget Sound strong ground motion OF 83-0019
- Deep earthquakes beneath Mount St. Helens; evidence for magmatic gas transport? OP- 1279
 - Elevation changes related to seismic hazard evaluation with the use of gravity meters OF 83-0019
 - Geologic units that likely control seismic ground shaking in the Greater Seattle area OF 83-0019
 - Landslides, soil liquefaction, and related ground failures in Puget Sound earthquakes OF 83-0019
 - Proceedings of workshop XIV; Earthquake hazards of the Puget Sound region, Washington OF 83-0019
 - Seismic precursors to the Mount St. Helens eruptions in 1981 and 1982 OP- 735
- geologic hazards:** Engineering aspects of the 1980 Mount St. Helens eruptions OP- 1102
- slope stability:** Eruption-triggered avalanche, flood, and lahar at Mount St. Helens; effects of winter snowpack OP- 1264
- Landslides, soil liquefaction, and related ground failures in Puget Sound earthquakes OF 83-0019
 - Origin, distribution, and rapid removal of hydrothermally formed clay at Mount Baker, Washington P 1022-E
- Washington—environmental geology**
- geologic hazards:** A study of Puget Sound strong ground motion OF 83-0019
- Characteristics of Columbia River sediment following the eruption of Mount St. Helens on May 18, 1980 C 0850-J
 - Deep earthquakes beneath Mount St. Helens; evidence for magmatic gas transport? OP- 1279
 - Deformation monitoring at Mount St. Helens in 1981 and 1982 OP- 216
 - Effects of volcanism on the glaciers of Mount St. Helens C 0850-D
 - Elevation changes related to seismic hazard evaluation with the use of gravity meters OF 83-0019
 - Eruption prediction aided by electronic tiltmeter data at Mount St. Helens OP- 329
 - Eruption-triggered avalanche, flood, and lahar at Mount St. Helens; effects of winter snowpack OP- 1264
 - Evidence of tectonic stability along the middle Columbia River, Washington, in Quaternary time OF 83-0365
 - Flood elevations for the Soleduck River at Sol Duc Hot Springs, Clallam County, Washington WRI 83-4083
 - Forecasting eruptions at Mount St. Helens by monitoring ground deformation OP- 1206
 - Gas emissions and the eruptions of Mount St. Helens through 1982 OP- 211
 - Gas emissions and the prediction of eruptive behavior at Mount St. Helens, Washington OP- 210
 - Geologic units that likely control seismic ground shaking in the Greater Seattle area OF 83-0019
 - Horizontal tectonic stress during the late Cenozoic in the Northwestern United States OF 83-0019
 - Initial and subsequent drainage basin and channel responses to the 1980 eruption of Mount St. Helens OP- 792
 - Isostatic effects of the last glaciation in the Puget Lowland, Washington OF 83-0019
 - Landslides, soil liquefaction, and related ground failures in Puget Sound earthquakes OF 83-0019
 - Mudflow hazards along the Toutle and Cowlitz rivers from a hypothetical failure of Spirit Lake blockage WRI 82-4125
 - Operations of the U. S. Geological Survey at Mount St. Helens OP- 950
 - Proceedings of workshop XIV; Earthquake hazards of the Puget Sound region, Washington OF 83-0019
 - Sediment deposition in the Columbia and lower Cowlitz rivers, Washington-Oregon, caused by the May 18, 1980, eruption of Mount St. Helens C 0850-K
 - Seismic precursors to the Mount St. Helens eruptions in 1981 and 1982 OP- 735
 - U. S. Geological Survey role at Mount St. Helens before and during early 1980; geologic studies and coordination with public agencies OP- 844
 - Use of stratigraphy in studying erosion of Recent tephra, Shultz Creek, Mt. St. Helens, Washington OP- 912
- impact statements:** Impact of changes in land use on the ground-water system in the Sequim-Dungeness Peninsula, Clallam County, Washington WRI 83-4094
- land use:** Land use and land cover and associated maps for Ritzville, Washington OF 82-0003
- maps:** Land use and land cover and associated maps for Ritzville, Washington OF 82-0003
- Map showing some potential effects of petroleum spills on shorelines of the Port Townsend Quadrangle, central Puget Sound region, Washington MF-1238
- pollution:** Data supplement to Quality of coal mine drainage to Washington, 1975-77 OF 83-0205
- Map showing some potential effects of petroleum spills on shorelines of the Port Townsend Quadrangle, central Puget Sound region, Washington MF-1238
- Washington—geochemistry**
- isotopes:** Lead isotopes in the "Cascades mineral belt", Washington and Oregon OP- 680
- surveys:** Analytical results and statistical analyses of rocks, ores, and stream pebbles from the Eagle Rock and Glacier Peak Roadless Areas, Snohomish and King counties, Washington OF 83-0342
- Geochemical analyses of rock and stream-sediment samples from the Long Swamp Roadless Area, Okanogan County, Washington OF 83-0227
- trace elements:** Contour maps of analytical results for stream sediments and panned concentrates from stream sediments, and plots of the mineralogy of the nonmagnetics, heavy-mineral concentrates from stream sediments from the Glacier Peak Wilderness Study Area, Washington OF 83-0366
- Contour maps, statistical summaries, and analytical data for stream-sediment samples collected from the Glacier Peak Study Area and analyzed using an aquaregia leach/inductively coupled plasma method OF 83-0343
 - Geochemical and statistical analysis of analytical results for stream sediments, panned concentrates from stream sediments, rocks, ores, and waters collected from the Indian Heaven Roadless Area, Skamania County, Washington OF 83-0234
- Washington—geomorphology**
- glacial geology:** Guidebook for 1983 Friends of the Pleistocene field trip to the Sanpoil River valley, northeastern Washington OF 83-0456
- guidebook:** Tens of successive, colossal Missoula floods at north and east margins of channeled scabland OF 83-0671
- maps:** Comparative physiographic diagrams of Mount St. Helens, Washington, and Crater Lake, Oregon MF-1403
- Physiographic diagrams of Mount St. Helens, Washington, showing changes in its summit crater, 1982 MF-1608
 - Topographic map of Mount St. Helens, Washington, showing changes between April 11 and May 16, 1980 I-1411
- Washington—geophysical surveys**
- gravity surveys:** Bouguer gravity anomaly map of the Glacier Peak Wilderness and vicinity, Chelan, Skagit, and Snohomish counties, Washington OF 83-0595
- Elevation changes related to seismic hazard evaluation with the use of gravity meters OF 83-0019
- maps:** Bouguer gravity anomaly map of the Glacier Peak Wilderness and vicinity, Chelan, Skagit, and Snohomish counties, Washington OF 83-0595
- Geophysical data collected across the continental margin between Washington and Oregon along line 16, USGS R/V S. P. Lee cruise 11-80 OF 83-0020
- remote sensing:** Overview of Mount St. Helens volcanic eruption OP- 1230

- surveys*: Geophysical data collected across the continental margin between Washington and Oregon along line 16, USGS R/V S. P. Lee cruise 11-80 OF 83-0020
- Marine geophysical measurements in central Puget Sound, Washington OP- 543
- Washington—hydrogeology**
- ground water*: Evaluation of water-quality characteristics of part of the Spokane Aquifer, Washington and Idaho, using a solute-transport digital model OF 82-0769
- hydrology*: Analyses of elutriates, native water, and bottom material in selected rivers and estuaries in western Oregon and Washington OF 82-0922
- Estimation of nonpoint sources of phosphorus for lakes in the Puget Sound region, Washington OF 82-0161
- Filling of Spirit Lake, Washington, May 18, 1980 to July 31, 1982 OF 82-0771
- Groundwater-surfacewater relationships in the Bonaparte Creek basin, Okanogan County, Washington, 1979-80 OF 82-0172
- Lake phosphorus loading from septic systems by seasonally perched ground water, Puget Sound region, Washington OF 82-0907
- Relationships between water quality and phosphorus concentrations for lakes of the Puget Sound region, Washington OF 83-0255
- springs*: Washington State; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0438
- thermal waters*: Washington State; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0438
- Washington—petrology**
- igneous rocks*: Chemical analyses of selected Tertiary and Quaternary volcanic rocks, Cascade Range, Washington OF 83-0001
- Intrusive rocks of the Holden and Lucerne quadrangles, Washington; the relation of depth zones, composition, textures, and emplacement of plutons P 1220
- Washington—sedimentary petrology**
- diagenesis*: Calcium carbonate cementation of tills rich in ultramafic rocks, northern Puget Sound region, Washington OP- 954
- sedimentation*: Heavy-mineral variability in beach and dune sands in the vicinity of the mouth of the Columbia River OF 82-1091
- Sedimentary facies and depositional environments of late Wisconsinian glacial-marine deposits in central Puget Lowland, Washington OP- 946
- sediments*: Discrimination between subtidal and intertidal facies in Pleistocene deposits, Willapa Bay, Washington OP- 236
- Washington—seismology**
- crust*: Marine geophysical measurements in central Puget Sound, Washington OP- 543
- earthquakes*: A comparison of the rate of seismic activity and several estimates of deformation in the Puget Sound area OF 83-0019
- Deep earthquakes and possible magmatic gas transport at Mount St. Helens, Washington OP- 1278
- Deep earthquakes under the Puget Sound basin OP- 793
- Isostatic effects of the last glaciation in the Puget Lowland, Washington OF 83-0019
- Offshore Quaternary geology of the northern Puget Sound-eastern Strait of Juan de Fuca region, Washington OF 83-0019
- Relationships between late Quaternary faults and earthquakes in the Puget Sound, Washington area OF 83-0019
- Review of seismicity in the Puget Sound region from 1970 through 1978 OF 83-0019
- Seismicity and seismotectonic boundaries in Washington OP- 1277
- Seismicity of the Olympic Peninsula, Washington OP- 1209
- Some comments on the seismicity of the northern Puget Sound-southern Vancouver Island region OF 83-0019
- The magnitude 4.6 South Puget Sound earthquake of March 11, 1978; main shock and aftershocks OF 83-0019
- Washington—stratigraphy**
- Cenozoic*: Geologic units that likely control seismic ground shaking in the Greater Seattle area OF 83-0019
- changes of level*: Sedimentary facies and depositional environments of late Wisconsinian glacial-marine deposits in central Puget Lowland, Washington OP- 946
- Miocene*: Tectonic rotations recorded by flows in the Columbia River Basalt Group, Washington and Oregon OP- 1137
- Pleistocene*: Late Wisconsin deglaciation of high-relief alpine terrain in northern Washington compared to New England OP- 1263
- Quaternary*: Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262
- Washington—structural geology**
- faults*: Northeast-trending subcrustal fault transects western Washington OF 83-0398
- neotectonics*: Elevation changes related to seismic hazard evaluation with the use of gravity meters OF 83-0019
- Geologic constraints on the movement history of the Straight Creek Fault OF 83-0019
- Offshore Quaternary geology of the northern Puget Sound-eastern Strait of Juan de Fuca region, Washington OF 83-0019
- Relationships between late Quaternary faults and earthquakes in the Puget Sound, Washington area OF 83-0019
- orogeny*: Plutonism and orogeny in north-central Washington; timing and regional context P 0989
- Washington—tectonophysics**
- isostasy*: Isostatic effects of the last glaciation in the Puget Lowland, Washington OF 83-0019
- Washington—volcanology**
- Mount Saint Helens*: Forecasts and predictions OP- 1203
- Overview of Mount St. Helens volcanic eruption OP- 1230
- Petrologic monitoring of 1981 and 1982 eruptive products from Mount St. Helens OP- 214
- Predicting eruptions at Mount St. Helens, June 1980 through December 1982 OP- 1205
- The isotopic and chemical evolution of Mount St. Helens OP- 472
- waste disposal** *see also under* engineering geology *under* automatic data processing; Basin and Range Province; California; Colorado; Delaware; Florida; Illinois; Massachusetts; Mississippi; Nevada; New Mexico; South Carolina; Sweden; United States; Utah; *see also under* environmental geology *under* South Carolina
- waste disposal—liquid waste**
- seepage*: Modeling the movement of contaminants in saturated ground-water systems OP- 453
- toxic materials*: Erosional unloading and fluid pressures in hydraulically "tight" rocks OP- 859
- waste water*: Determination of ultimate carbonaceous BOD and the specific rate constant (K_1) OF 82-0645
- waste disposal—pollution**
- ground water*: A model for managing sources of groundwater pollution OP- 439
- waste disposal—radioactive waste**
- experimental studies*: Chemical reactions accompanying fluid flow through granite held in a temperature gradient OP- 819
- feasibility studies*: Disposal of high-level nuclear waste above the water table in arid regions C 0903
- pollution*: Lessons learned in the geohydrology of low-level radioactive waste disposal OP- 1043
- storage*: A critique of "Brine migration in salt and its implications in the geologic disposal of nuclear waste," Oak Ridge National Laboratory Report 5818 OF 82-1131
- Application of borehole geophysics to the acoustic characterization of low permeability rocks OP- 931
- Evaluation of ash-flow tuffs as hosts for radioactive waste; criteria based on selective leaching of manganese oxides OF 83-0480
- Thermodynamic and thermophysical properties of selected phases in the $MgO-SiO_2-H_2O-CO_2$, $CaO-Al_2O_3-SiO_2-H_2O-CO_2$, and $FeO-Fe_2O_3-SiO_2$ chemical systems, with special emphasis on the properties of basalts and their mineral components OF 83-0079
- U.S. Geological Survey research in radioactive waste disposal; fiscal year 1981 WRI 83-4105
- Use of swelling clays to reduce permeability and its potential application to nuclear waste repository sealing OP- 818
- waste disposal—site exploration**
- land use*: Information resources useful for evaluating waste-disposal sites OP- 1269
- magnetic methods*: Geophysical methods for locating abandoned wells OF 83-0702
- water** *see also* ground water; hydrogeology; hydrology
- water quality** *see under* catalogs *under* hydrogeology; *see under* geochemistry *under* ground water; *see under* limnology *under* hydrology; *see under* pollution *under* ground water; *see under* resources *under* water resources; *see under* rivers and streams *under* hydrology; *see under* water *under* pollution
- water resources** *see also under* economic geology *under* Alabama; Arkansas; automatic data processing; California; Colorado; Eastern U.S.; Florida; Great Plains; Gulf Coastal Plain; Hawaii; Idaho; Illinois; Iowa; Massachusetts; Minnesota; Mississippi; Missouri; Montana; New Mexico; New York; North Dakota; Oklahoma; Pennsylvania; South Dakota; symposia; Texas; United States; Utah; Washington; Western U.S.; Wyoming
- water resources—resources**
- conservation*: Before the well runs dry; a workshop on how to design a local water conservation plan OF 82-0235
- ground water*: A review of distributed parameter groundwater management modeling methods OP- 440
- Basic ground-water hydrology W 2220
- water management*: Storage analyses for water supply; hydrologic analysis and interpretation TWI 04-B2
- water quality*: Nonparametric tests for trends in water quality data using the statistical analysis system OF 83-0550
- water supply** *see under* rivers and streams *under* hydrology

waterways *see also* under engineering geology under Alabama; California; Colorado; Kansas; Nebraska; Pacific Coast; Tennessee; Western U.S.

waterways—channels

stability: Stream channel stability assessment
OP- 149

weathering *see also* under geochemistry under California; Colorado; construction materials; Nevada; *see also* under geomorphology under Idaho; *see also* under sedimentary petrology under Atlantic Coastal Plain; United States

weathering—sedimentary rocks

coal: Weathering-induced chemical changes in surface coals from Paleocene Fort Union Formation, Red Rim area, Sweetwater and Carbon counties, Wyoming
OP- 496

rates: Mineral phases produced by weathering on surfaces of different ages from New Jersey to South Carolina; a comparison of rate and duration of weathering
OP- 926

well-logging—acoustical logging

applications: A note on downhill detection of conductive fractures
OF 82-1075

boreholes: Acoustic character of hydraulic fractures in granite
OP- 932

interpretation: In situ studies of velocity in fractured crystalline rocks
OP- 832

oceanic crust: Ultrasonic borehole televiewer investigation of oceanic crustal layer 2A, Costa Rica Rift
OP- 1348

well-logging—applications

coal: Coal resource classification system of the U. S. Geological Survey
C 0891

— Geophysical logs of water wells logged for coal occurrences in northern Campbell and eastern Sheridan counties, Wyoming
OF 83-0411

— Reconnaissance drilling during 1980 in the Goose Creek coal field, Cassia County, Idaho
OF 83-0477

crust: The use of borehole breakouts in the study of crustal stress
OF 82-1075

ground water: Application of borehole geophysics to water-resources investigations TWI 02-E1

— Borehole geophysics and ground water; state of the art
OP- 614

— Density of basin-fill deposits calculated from borehole gravity data in four basins in central and southern Arizona
OP- 1241

— Test-well drilling and logging WRI 82-4076

hydrogeology: Geophysical logging in carbonate aquifers
OP- 722

natural gas: The Eastern Gas Shales Project (EGSP) Data System; a case study in data base design, development, and application
OP- 327

waste disposal: Commercial geophysical well logs from the USW G-1 drill hole, Nevada Test Site, Nevada
OF 83-0321

— Geologic and well-construction data for the H-8 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico
WRI 82-4118

— Geologic and well-construction data for the H-9 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico
WRI 82-4111

well-logging—automatic data processing

automatic cartography: WELLMAP, a Fortran computer program for the generation of maps of specified geographic areas with a variety of well symbols available to depict the current status of given oil and gas drilling
OF 83-0155

coal: Automated lithologic interpretation from geophysical well logs in a coal depositional environment, Carbon County, Wyoming
OP- 279

well-logging—electrical logging

automatic data processing: Automatic interpretation of Schlumberger sounding curves, using modified Dar Zarrouk functions
B 1313-E

resistivity: Hole-to-surface resistivity measurements
OP- 278

well-logging—electromagnetic logging

magnetic susceptibility: Magnetic-susceptibility logging in sedimentary uranium environments
OP- 1111

well-logging—instruments

gravimeters: Borehole gravity surveys; theory, mechanics, and nature of measurements
OF 83-0076

probes: In situ geomechanics of crystalline and sedimentary rocks; Part IV, Continued field testing of the modified U.S. Geological Survey 3-D borehole stress probe
OF 83-0750

sensors: Instrumentation used for hydraulic testing of potential water-bearing formations at the Waste Isolation Pilot Plant site in southeastern New Mexico
OF 83-0144

well-logging—interpretation

aquifers: Data for ground-water test hole near Butte City, Central Valley aquifer project, California
OF 83-0697

— Data for ground-water test hole near Nicolaus, Central Valley aquifer project, California
OF 83-0273

— Test well DO-CE 88 at Cambridge, Dorchester County, Maryland
OF 82-1015

coal: Geophysical logs of nine holes drilled in 1978 in the Yampa coal field, Hamilton and Pagoda quadrangles, Moffat County, Colorado
OF 82-0475

— Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 1, Lithologic descriptions and geophysical logs of coreholes in the southwestern Virginia coal field, Dickenson, Lee, Scott, and Wise counties, Virginia
OF 83-0628

— Test drilling for coal in 1982-83 in the Jefferson National Forest, Virginia; Part 3, Lithologic descriptions and geophysical logs of coreholes in the Valley coal fields, Bland, Botetourt, Montgomery, Pulaski, Smyth, and Wythe counties, Virginia
OF 83-0637

continental shelf: Shallow geologic setting, Norton Sound COST No. 1 well
OF 83-0124

— Shallow geologic setting, Norton Sound COST No. 2 well
OF 83-0557

density: Principal facts and density estimates for borehole gravity stations in exploratory wells Ue7h, Ue4al, and Ue11a at the Nevada Test Site, Nye County, Nevada
OF 83-0244

diatomaceous earth: A Pleistocene diatomaceous clay and a pumiceous ash; Yolo County
OP- 930

faults: Coastal Plain faults affect ground-water flow
OP- 362

geologic hazards: Preliminary lithologic, geotechnical, and geophysical data from drill hole CW-81-2, Chuitna West coal field, Cook Inlet region, Alaska
OF 83-0078

heat flow: Heat flow from a corehole near Charleston, South Carolina
P 1028

hydraulic conductivity: Geohydrologic and drill-hole data for test well USW-H1, adjacent to Nevada Test Site, Nye County, Nevada
OF 83-0141

— Results of hydraulic tests in U.S. Dept. of Energy's wells DOE-4, 5, 6, 7, 8, and 9, Salt Valley, Grand County, Utah
OF 82-0346

lithostratigraphy: Petroleum geology of Cook Inlet Basin, Alaska; an exploration model
OP- 728

oil shale: Results of oil-shale investigations in northeastern Nevada
OF 83-0586

reservoir properties: Lithology and geophysical log interpretation
OF 83-0124

— Lithology and geophysical log interpretation
OF 83-0557

sedimentary rocks: Geologic and well-construction data for the H-10 borehole complex near the proposed Waste Isolation Pilot Plant site, southeastern New Mexico
WRI 83-4124

source rocks: Preliminary log-derived maps of the Bakken Formation, North Dakota and Montana portions of Williston Basin
OF 83-0717

temperature logging: Temperature logs of wells and test wells in Yuma area, Arizona and California
OF 80-0335

— Temperature profiles from Salt Valley, Utah, thermal conductivity of 10 samples from drill hole DOE 3, and preliminary estimates of heat flow
OF 83-0455

— Thermal data from well GD-1, Gibson Dome, Paradox Valley, Utah
OF 83-0476

wells: Ground-water data for Towner County, North Dakota
OP- 657

well-logging—methods

catalogs: An index of geophysical well logging in Virginia by the U. S. Geological Survey
OF 82-0432

well-logging—radioactivity

gamma-ray methods: Geostatistical analysis of a 113-billion-ton coal deposit, central part of the Powder River basin, northwestern Wyoming
OP- 959

well-logging—techniques

drilling: Operational summary
OF 83-0124

— Operational summary
OF 83-0557

temperature logging: An interpretation of precision temperature logs in a deep geothermal well near Desert Peak, Churchill County, Nevada
OP- 1247

— Measurement of heat flow by a downhole probe technique in the San Joaquin Valley, California
OF 82-0819

West Germany—paleontology

problematic fossils: Soft parts of styliolinids (Devonian)
OP- 1198

West Indies *see also* Bahamas; Lesser Antilles; Puerto Rico

West Indies—oceanography

sedimentation: ²¹⁰Pb method for estimating the rate of carbonate sand sedimentation
OP- 541

sediments: $\delta^{18}\text{O}$ variations in the Halimeda of Virgin Islands sands; evidence of cool water in the Northeast Caribbean, late Holocene
OP- 542

— Sedimentology of Southwestern Roads region, U.S. Virgin Islands; origin and rate of sediment accumulation
OP- 621

West Virginia—economic geology

maps: Mineral resource potential maps of the Cheat Mountain Roadless Area, Randolph County, West Virginia
MF-1271-E

mineral resources: Mineral resource potential maps of the Cheat Mountain Roadless Area, Randolph County, West Virginia
MF-1271-E

— Mineral resources of the Mill Creek, Mountain Lake, and Peters Mountain Wilderness Study Areas, Craig and Giles counties, Virginia, and Monroe County, West Virginia
B 1510

West Virginia—engineering geology

geologic hazards: Trends in flooding in the Tug Fork basin
OP- 1106

West Virginia—environmental geology

geologic hazards: Traveltimes of flood waves on the New River between Hinton and Hawks Nest, West Virginia W 2225

West Virginia—geomorphology

fluvial features: Character and history of the upper Ohio River valley B 1141-I

West Virginia—hydrogeology

hydrology: Drainage of the Kanawha River basin, West Virginia OF 82-0351
— Hydrology of area 5, Eastern Coal Province, Pennsylvania, Maryland, and West Virginia OF 81-0538
— Hydrology of area 6, Eastern Coal Province, Maryland, West Virginia, and Pennsylvania OF 83-0033

West Virginia—paleontology

Ostracoda: Ostracodes of the "Winifrede Limestone" (Middle Pennsylvanian) in the region of the proposed Pennsylvanian System stratotype, West Virginia OP- 1158

West Virginia—stratigraphy

Carboniferous: Plant megafossils at Carboniferous-Permian boundary OP- 955
Pennsylvanian: Ostracodes of the "Winifrede Limestone" (Middle Pennsylvanian) in the region of the proposed Pennsylvanian System stratotype, West Virginia OP- 1158
Permian: Plant megafossils at Carboniferous-Permian boundary OP- 955

West Virginia—structural geology

tectonics: Middle and Late Devonian sedimentation and tectonism at the Petersburg Lineament, northeastern West Virginia OP- 1291

Western Hemisphere *see also* Atlantic Ocean; Central America; North America; Pacific Ocean; South America

Western Interior—economic geology

natural gas: Gas reservoirs in composite shale-sandstone lithologies; a Rocky Mountain energy frontier OP- 417

Western Interior—stratigraphy

Cretaceous: Lower Upper Cretaceous strata in Minnesota and adjacent areas; time-stratigraphic correlations and structural attitudes P 1253
— Mid-Cretaceous molluscan biostratigraphy and paleogeography of south-western part of Western Interior, United States OP- 239
— Molluscan fossil record from the northeastern part of the Upper Cretaceous seaway, Western Interior P 1253
— Stratigraphy and paleontology of Mid-Cretaceous rocks in Minnesota and contiguous areas P 1253

Western U.S. *see also* Alaska; California; Colorado; Hawaii; Idaho; Montana; Nevada; Oregon; Pacific Coast; Utah; Washington; Wyoming

Western U.S.—economic geology

coal: An assessment of the hydrologic information required for the U.S. Bureau of Land Management-U.S. Geological Survey coal-hydrology program in the West OF 82-1012
geothermal energy: Low-temperature geothermal resources in the Western United States C 0892
manganese ores: Volcanic manganese deposits in the Western Cordillera; lithologic associations and paleoceanographic settings and economic deposits associated with biogenic siliceous rocks C 0822
— Volcanogenic manganese deposits in Western Cordillera OP- 647
metal ores: Correlation of metal occurrence and terrane attributes in the northwestern conterminous United States OP- 1233

— Distribution of mineral deposits in accreted terranes and cratonic rocks of Western United States OP- 9

mineral resources: Mineral surveys by the Geological Survey and the Bureau of Mines of Bureau of Land Management Wilderness Study Areas C 0901

oil shale: U. S. Geological Survey activities in oil shale OP- 120

petroleum: Estimates of the potential petroleum resources in wilderness lands C 0902-A-P

— Petroleum potential of wilderness lands in the Western United States C 0902-A-P

— Petroleum resource assessments of the wilderness lands in the Western United States C 0902-A-P

— Probabilistic methodology for petroleum resource appraisal of wilderness lands C 0902-A-P

water resources: An assessment of the hydrologic information required for the U.S. Bureau of Land Management-U.S. Geological Survey coal-hydrology program in the West OF 82-1012

— Availability and quality of water related to Western energy OP- 556

— Water resources and potential hydrologic effects of oil-shale development in the southeastern Uinta Basin, Utah and Colorado OF 83-0216

Western U.S.—engineering geology

earthquakes: Public information aspects of earthquake hazards OP- 944

waterways: An engineering economic analysis of artificial recharge in a conjunctive irrigation plan in the Columbia Basin Project PB-83 196 022

Western U.S.—environmental geology

geologic hazards: The Volcano Hazards Program; objectives and long-range plans OF 83-0400

land use: An assessment of the hydrologic information required for the U.S. Bureau of Land Management-U.S. Geological Survey coal-hydrology program in the West OF 82-1012

reclamation: Reclamation of mined lands in the western coal region C 0872

Western U.S.—geochronology

Cretaceous: NDS 105; Campanian, K-Ar/minerals-bentonite, Interior N American Basin OP- 900

Western U.S.—geophysical surveys

geodesy: Strain accumulation in Western United States OP- 1076

Western U.S.—hydrogeology

hydrology: Streamflow characteristics related to channel geometry of streams in Western United States W 2193

Western U.S.—petrology

igneous rocks: Volcanic studies in the Pacific Northwest, 1879-1979 OP- 1202

maps: Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming I-1091-E

metamorphism: Influence of time on metamorphism of sedimentary organic matter in liquid-dominated geothermal systems, western North America OP- 57

volcanology: Cenozoic magmatism associated with extensional tectonics in the Rocky Mountains OP- 696

Western U.S.—sedimentary petrology

sedimentary rocks: Carbonate submarine fan facies along a Paleozoic prograding continental margin, Western United States OP- 249

sedimentation: Depositional provinces of Paleozoic and uppermost Precambrian rocks in Great Basin, Western United States

OP- 1186

Western U.S.—stratigraphy

Mississippian: Middle Devonian to Late Mississippian geologic history of the Utah Hingeline and Overthrust Belt region, Western U.S. OP- 1068

Quaternary: Quaternary research in the Northwest 1805-1979 by early government surveys and the U.S. Geological Survey, and prospects for the future OP- 1262

Western U.S.—tectonophysics

crust: Configuration of the pre-Middle Jurassic continental margin in the Western United States OP- 629

— Horizontal tectonic stress during the late Cenozoic in the Northwestern United States OF 83-0019

— Lead-isotopic compositions of diverse igneous rocks and ore deposits from southwestern New Mexico and their implications for early Proterozoic crustal evolution in the western United States OP- 1174

heat flow: Temperatures, thermal conductivity, and heat flow from a well in Pierre Shale near Hayes, South Dakota OF 83-0025

plate tectonics: Cenozoic magmatism associated with extensional tectonics in the Rocky Mountains OP- 696

— Tectonic, significance of late Paleozoic to Jurassic radiolarians from the North Fork Terrane, Klamath Mountains, California

OP- 113

Wisconsin—economic geology

lead-zinc deposits: Outlying mineral occurrences related to the Upper Mississippi Valley mineral district, Wisconsin, Iowa, Illinois, and Minnesota OP- 526

maps: Iron River Quadrangle, Michigan and Wisconsin OP- 406

metal ores: Mineral resource assessment of the Iron River 1° by 2° Quadrangle, Michigan and Wisconsin C 0887

uranium ores: Iron River Quadrangle, Michigan and Wisconsin OP- 406

Wisconsin—environmental geology

ecology: Aquatic biology in Nederlo Creek, southwestern Wisconsin PB-83 165 175

land use: Land use and land cover and associated maps for Iron Mountain, Wisconsin, Michigan OF 82-0243

— Land use and land cover and associated maps for Rice Lake, Wisconsin OF 82-0245

maps: Land use and land cover and associated maps for Iron Mountain, Wisconsin, Michigan OF 82-0243

— Land use and land cover and associated maps for Rice Lake, Wisconsin OF 82-0245

Wisconsin—geochemistry

trace elements: Geochemistry of the volcanic rocks of northeastern Wisconsin OP- 1101

Wisconsin—geophysical surveys

maps: Airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin OF 83-0195-A

surveys: Airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin OF 83-0195-A

— Geologic interpretation of gravity and magnetic data in northern Michigan and Wisconsin OP- 630

— Stacked profiles of data from an airborne radiometric and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin OF 83-0195-B

Wisconsin—hydrogeology

ground water: Geochemical evidence for Pleistocene glacial meltwater recharge to the Cambrian-Ordovician aquifer in the Northcentral United States OP- 1136

— Trends in ground-water levels in Wisconsin through 1981 OP- 349

hydrology: An assessment of streamflow, water quality, and the effects of constructing an impoundment on Bridge Creek at Augusta, Wisconsin OF 81-1192

— Automatic dilution gaging of rapidly varying flow WRI 83-4088

— Hydrology of Wisconsin wetlands OP- 889

— Low-flow characteristics in the Lake Michigan basin, Wisconsin OF 81-1193

— Low-flow characteristics of streams in the central Wisconsin River basin, Wisconsin OF 81-0495

Wisconsin—stratigraphy

Proterozoic: Evolution of early Proterozoic basins of the Great Lakes region OP- 1139

Wisconsin—tectonophysics

crust: Geologic interpretation of gravity and magnetic data in northern Michigan and Wisconsin OP- 630

worms—Polychaeta

biochemistry: Controls on Cu concentrations in estuarine bivalves (*Scrobicularia plana*), polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341

— Controls on the availability of Ag, Cd, Co, Fe and Mn to estuarine bivalves (*Scrobicularia plana*) and polychaetes (*Nereis diversicolor*) and seaweed (*Fucus vesiculosus*) OF 80-0341

Wyoming—areal geology

maps: Bedrock geologic map of the Pine Mountain-Oil Mountain area, Natrona County, Wyoming OF 83-0748

— Geologic and structure maps of the Monarch Quadrangle, Sheridan County, Wyoming, and Big Horn County, Montana MF-1517

— Geologic map of the Preston 1° by 2° Quadrangle, southeastern Idaho and western Wyoming I-1127

— Preliminary geologic map of the Story Quadrangle, Sheridan and Johnson counties, Wyoming MF-1512

— Preliminary geologic map of Wyoming OF 83-0802

Wyoming—economic geology

coal: Automated lithologic interpretation from geophysical well logs in a coal depositional environment, Carbon County, Wyoming OP- 279

— Coal resources of the Cache Bed, Recluse geologic model area, Campbell County, Wyoming OP- 1093

— Fluvial facies associations; guide to Tertiary coal development and exploration in Powder River basin, Wyoming and Montana OP- 380

— Geologic map and coal sections of the Meadow Draw Quadrangle, Uinta County, Wyoming OF 82-0533

— Geophysical logs of water wells logged for coal occurrences in northern Campbell and eastern Sheridan counties, Wyoming OF 83-0411

— Geostatistical analysis of a 113-billion-ton coal deposit, central part of the Powder River basin, northwestern Wyoming OP- 959

energy sources: Energy resources map of the Powder River basin, Wyoming and Montana I-0847-A

fuel resources: Impact of the Wyoming-Utah-Idaho thrust belt, Beaufort Sea on U.S. oil, gas resource estimates OP- 260

geothermal energy: Wyoming; basic data for thermal springs and wells as recorded in GEOTHERM OF 83-0439

maps: Energy resources map of the Powder River basin, Wyoming and Montana I-0847-A

— Geologic map and coal sections of the Meadow Draw Quadrangle, Uinta County, Wyoming OF 82-0533

— Gillette Quadrangle, Wyoming, South Dakota, and Montana OP- 305

— Newcastle Quadrangle, Wyoming and South Dakota OP- 1073

— Torrington Quadrangle, Wyoming and Nebraska OP- 1112

metal ores: Controls and characteristics of metallic mineral deposits in the southern Absaroka Mountains, Wyoming OP- 372

— Gold in exploration geochemistry OP- 30

mineral resources: Mineral deposits associated with alkaline intrusive complexes; examples from Wyoming, Colorado, Montana, and California OP- 34

natural gas: Abnormally high-pressured, low-permeability, Upper Cretaceous and Tertiary gas reservoirs, northern Green River basin, Wyoming OP- 668

oil and gas fields: Petroleum potential of wilderness lands in Wyoming-Utah-Idaho Thrust Belt C 0902-A-P

oil shale: Development of publicly owned oil shale lands of United States; prospect for 1980s OP- 861

— Sedimentation history of rich oil-shale sequences in Eocene lakes Gosiute and Uinta, Wyoming and Utah OP- 916

petroleum: Petroleum potential of wilderness lands in Wyoming C 0902-A-P

— Petroleum potential of wilderness lands in Wyoming-Utah-Idaho Thrust Belt C 0902-A-P

rare earth deposits: Disseminated thorium and rare-earth deposits in the southern Bear Lodge Mountains, Wyoming OP- 1172

— Geology and description of thorium and rare-earth deposits in the southern Bear Lodge Mountains, northeastern Wyoming P 1049-D

sodium carbonate: Genesis and distribution of trona deposits in Southwest Wyoming OP- 274

thorium ores: Disseminated thorium and rare-earth deposits in the southern Bear Lodge Mountains, Wyoming OP- 1172

— Geology and description of thorium and rare-earth deposits in the southern Bear Lodge Mountains, northeastern Wyoming P 1049-D

uranium ores: Age of uranium mineralization at the Highland Mine, Powder River basin, Wyoming, as indicated by U-Pb isotope analyses OP- 1074

— Assessment of uranium favorability for the crystalline rocks of the Wind River Range, Wyoming OF 83-0323

— Gillette Quadrangle, Wyoming, South Dakota, and Montana OP- 305

— Iron disulfide minerals and the genesis of roll-type uranium deposits OP- 1025

— Magnetic-susceptibility logging in sedimentary uranium environments OP- 1111

— Newcastle Quadrangle, Wyoming and South Dakota OP- 1073

— Torrington Quadrangle, Wyoming and Nebraska OP- 1112

— Use of airborne multispectral scanner data to map alteration related to roll-front uranium migration OP- 948

water resources: Water-resources investigations of the U. S. Geological Survey in Wyoming, fiscal years 1981 and 1982 OF 83-0254

— Water resources of the Laramie, Shirley, and Hanna basins and adjacent areas, southeastern Wyoming HA-0471

— Water resources of the Laramie, Shirley, and Hanna basins and adjacent areas, southeastern Wyoming HA-0471

Wyoming—engineering geology

geologic hazards: Coal mine subsidence and land use planning OP- 324

land subsidence: Coal mine subsidence and land use planning OP- 324

maps: Engineering geologic map of the Sheridan Quadrangle, Sheridan County, Wyoming I-1449

rock mechanics: Geologic, geotechnical, and geophysical properties of core from the Acme Fire-Pit-1 drill hole, Sheridan County, Wyoming OF 83-0069

Wyoming—environmental geology

land use: A plan for hydrologic investigations of in situ oil-shale retorting near Rock Springs, Wyoming OF 82-0758

— Land use and land cover and associated maps for Sheridan, Wyoming; Montana OF 83-0112

maps: Land use and land cover and associated maps for Sheridan, Wyoming; Montana OF 83-0112

reclamation: Reclamation of mined lands in the western coal region C 0872

Wyoming—geochemistry

isotopes: Implications for continental evolution from U-Pb zircon and common lead isotope data in and around the Archean craton of Wyoming OP- 1173

— Isotopic composition of uranium and thorium in crystalline rocks OP- 1054

trace elements: Selective concentration of cesium in analcime during hydrothermal alteration, Yellowstone National Park, Wyoming OP- 602

Wyoming—geochronology

Cretaceous: NDS 104; Maastrichtian, K-Ar/biotite-bentonite, Interior N American Basin OP- 899

— NDS 110; Cenomanian, K-Ar/biotite-bentonite, Interior N American Basin OP- 904

— NDS 157; Albian, K-Ar/biotite-bentonite, Middle West N American Basin OP- 893

Eocene: Physical evidence for saline cycles of deposition in Eocene Lake Gosiute in Southwest Wyoming OP- 1051

Precambrian: Geochronology of the southern Wyoming age province; a summary OP- 947

— Precambrian geology and geochronology of the Hartville Uplift, Wyoming OP- 1152

Wyoming—geomorphology

fluvial features: Bank stability and channel width adjustment, East Fork River, Wyoming OP- 24

landform evolution: An hypothesis for bedrock control on surface morphology of Wind River basin OP- 738

maps: Surficial geologic map of the eastern Snake River Plain and adjacent areas, 111° to 115° west, Idaho and Wyoming I-1372

Wyoming—geophysical surveys

heat flow: Subsurface temperature map showing depth to 180° Fahrenheit in the Greater Green River basin of Wyoming, Colorado, and Utah MF-1504

- magnetic surveys:** Aeromagnetic map of the Palisades area, Idaho and Wyoming
OF 81-1161
- maps:** Aeromagnetic map of the Palisades area, Idaho and Wyoming
OF 81-1161
- Subsurface temperature map showing depth to 180° Fahrenheit in the Greater Green River basin of Wyoming, Colorado, and Utah
MF-1504
- remote sensing:** Use of airborne multispectral scanner data to map alteration related to roll-front uranium migration
OP- 948
- seismic surveys:** Use of vertical and surface seismic profiles to investigate distribution of aquifers in Madison Group and Red River Formation, Powder River Basin, Wyoming-Montana
OP- 54
- well-logging:** Automated lithologic interpretation from geophysical well logs in a coal depositional environment, Carbon County, Wyoming
OP- 279
- Geostatistical analysis of a 113-billion-ton coal deposit, central part of the Powder River basin, northwestern Wyoming
OP- 959
- Wyoming—hydrogeology**
- ground water:** Computer program and data listing for two-dimensional ground-water model for Laramie County, Wyoming
WRI 83-4137
- Digital model of the Bates Creek alluvial aquifer near Casper, Wyoming
WRI 82-4068
- Estimating 1980 ground-water pumpage for irrigation on the High Plains in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming
WRI 83-4123
- Geohydrology of the Madison and associated aquifers in parts of Montana, North Dakota, South Dakota, and Wyoming
OF 82-0914
- Ground-water data from selected wells in alluvial aquifers, Powder River basin, northeastern Wyoming
OF 82-0856
- Ground-water levels in Wyoming, 1971 through part of 1980
OF 82-0859
- Hydrogeologic features of the alluvial deposits in the Owl Creek valley, Bighorn Basin, Wyoming
WRI 82-4007
- Hydrologic evaluation of proposed ground-water withdrawals in Muleshoe Flat near Wheatland, southwestern Wyoming
WRI 83-4150
- Potentially favorable areas for large-yield wells in the Red River Formation and Madison Limestone in parts of Montana, North Dakota, South Dakota, and Wyoming
P 1273-E
- Process and rate of dedolomitization; mass transfer and ¹⁴C dating in a regional carbonate aquifer
OP- 46
- Pumpage data from irrigation wells in eastern Laramie County, Wyoming, and Kimball County, Nebraska
OF 83-0029
- Relationship of porosity and permeability to petrology of the Madison Limestone in rock cores from three test wells in Montana and Wyoming
P 1273-C
- Use of vertical and surface seismic profiles to investigate distribution of aquifers in Madison Group and Red River Formation, Powder River Basin, Wyoming-Montana
OP- 54
- hydrology:** Adjustment of the East Fork River to bedload sediment contributed by Muddy Creek
OP- 26
- Bedload trap, East Fork River
OP- 681
- Hydrology of area 50, Northern Great Plains and Rocky Mountain coal provinces, Wyoming and Montana
OF 83-0545
- Hydrology of area 54, Northern Great Plains and Rocky Mountain coal provinces, Colorado and Wyoming
OF 83-0146
- Variability of bedload and some hydraulic characteristics along a reach of East Fork River
OP- 345
- springs:** Wyoming; basic data for thermal springs and wells as recorded in GEOTHERM
OF 83-0439
- thermal waters:** Wyoming; basic data for thermal springs and wells as recorded in GEOTHERM
OF 83-0439
- Wyoming—petrology**
- igneous rocks:** Archean granitic rocks in the Seminoe Mountains, Wyoming
OP- 304
- maps:** Map showing distribution, composition, and age of late Cenozoic volcanic centers in Idaho, western Montana, west-central South Dakota, and northwestern Wyoming
I-1091-E
- metamorphic rocks:** Incompatible-element-rich andesitic amphibolites from the Archean of Montana and Wyoming; evidence for mantle metasomatism
OP- 842
- Wyoming—sedimentary petrology**
- sedimentary rocks:** Correlation of paleostructure and sediment deposition in the Madison Limestone and associated rocks in parts of Montana, North Dakota, South Dakota, Wyoming, and Nebraska
OF 82-0906
- Weathering-induced chemical changes in surface coals from Paleocene Fort Union Formation, Red Rim area, Sweetwater and Carbon counties, Wyoming
OP- 496
- sedimentation:** Depositional environments of Upper Cretaceous Fox Hills Formation, Niobrara and Weston counties, east-central Wyoming
OP- 306
- Gravel bedload transport processes
OP- 635
- Wyoming—seismology**
- crust:** Compressional-wave-velocity structure of the Yellowstone-Snake River plain system to a depth of 300 km; fundamental constraints on system models
OP- 352
- earthquakes:** Instrumental seismicity of the Northern Rocky Mountains of the United States
OP- 297
- Wyoming—stratigraphy**
- Cretaceous:** Biostratigraphic correlation chart of some Upper Cretaceous rocks from the Lost Soldier area, Wyoming, to west of Craig, Colorado
MF-1548
- Palynostratigraphic framework for the Cretaceous (Albian-Maastrichtian) of the Overthrust Belt of Utah and Wyoming
OP- 863
- Patterns of sedimentation and paleogeography across the Western Interior Seaway during time of deposition of Upper Cretaceous Eagle Sandstone and equivalent rocks, Northern Great Plains
OP- 1032
- Section C-C; surface and subsurface correlations of some Upper Cretaceous and Tertiary rocks from the northeast flank of Rock Springs Uplift to the Rawlins Uplift, Great Divide Basin, Wyoming
OF 83-0418
- Stratigraphy of Upper Cretaceous and lower Tertiary outcrops in the Rock Springs Uplift, Wyoming
I-1500
- Devonian:** New members of the Madison Limestone (Devonian and Mississippian), north-central Wyoming and southern Montana
B 1529-H
- Paleogene:** Magnetic mineralogy of continental deposits, San Juan Basin, New Mexico, and Clark's Fork Basin, Wyoming
OP- 175
- Pleistocene:** Environmental amelioration at beginning of early/middle Wisconsin interstadial about 54,000 B.P. in Yellowstone National Park
OP- 1035
- Quaternary:** Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah
OF 83-0288
- Tertiary:** Section A-A', subsurface correlations of some Upper Cretaceous and Tertiary rocks from the Cherokee Ridge, Wyoming, to the southeast flank of the Sand Wash Basin, Colorado
OF 83-0362
- Section C-C; surface and subsurface correlations of some Upper Cretaceous and Tertiary rocks from the northeast flank of Rock Springs Uplift to the Rawlins Uplift, Great Divide Basin, Wyoming
OF 83-0418
- Stratigraphy of Upper Cretaceous and lower Tertiary outcrops in the Rock Springs Uplift, Wyoming
I-1500
- Wyoming—structural geology**
- faults:** Catastrophic large-scale late Cenozoic detachment faulting, Absaroka Range, Northwest Wyoming
OP- 138
- maps:** Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah
OF 83-0288
- neotectonics:** Quaternary faults in Lincoln and Uinta counties, Wyoming, and Rich County, Utah
OF 83-0288
- tectonics:** Anorogenic tectonism in the Northern Great Plains (NGP) of Montana, North Dakota, South Dakota, and Wyoming
OP- 29
- Tectonic setting and depositional environments of Hanna Formation, south-central Wyoming
OP- 481

X

X-ray analysis *see also* chemical analysis; spectroscopy; thermal analysis

X-ray analysis—X-ray diffraction analysis

applications: Characterization of mineral precipitates by electron microscope photographs and electron diffraction patterns
W 2204

X-ray diffraction analysis *see under* X-ray analysis

xenoliths *see under* inclusions

Y

yttrium—geochemistry

apatite: Distribution of the lanthanides and yttrium in apatites from iron ores and its bearing on the genesis of ores of the Kiruna type
OP- 378

Yukon Territory—stratigraphy

changes of level: Aspects of the paleogeography of Beringia during the late Pleistocene
OP- 544

Quaternary: Old Crow tephra; a new late Pleistocene stratigraphic marker across North-central Alaska and western Yukon Territory
OP- 1288

— Paleocology of Beringia; a synthesis
OP- 1105

Z

zinc—analysis

chemical analysis: Development of methodology for incorporating sediment chemistry into predictions of metal bioavailability in sediments; case study, Zn
OF 80-0341

— Estimating bioavailability using chemical extractants; laboratory studies with well-defined sediment-types
OF 80-0341

zinc—geochemistry

living taxa: Fluctuations of copper, zinc and silver in clams from South San Francisco Bay as related to freshwater discharge OF 80-0341

stream sediments: Distribution and abundance of copper, lead, and zinc in nonmagnetic and moderately magnetic heavy-mineral-concentrate, minus-80-mesh stream-sediment, and ash of aquatic-bryophyte samples, Medfra Quadrangle, Alaska OF 80-0811-I

— Distribution and abundance of zinc, determined by spectrographic analysis, in nonmagnetic fraction of heavy-mineral concentrates from stream sediments, Petersburg area, Southeast Alaska OF 83-0420-G

— Distribution and abundance of zinc, determined by spectrographic analysis, in the minus-80-mesh fraction of stream sediments, Petersburg area, Southeast Alaska OF 83-0420-F

— Geochemical analyses for gold and zinc of 137 stream-sediment samples from the John Muir Wilderness, California OF 81-0254

zinc— isotopes

Zn-65: Uptake of ^{60}Co , $^{110\text{m}}\text{Ag}$, and ^{65}Zn from well-defined sediments by *Macoma balthica* OF 80-0341

zinc ores *see also under economic geology under* Alaska; Pacific Ocean

AUTHORS

- A**
- Aamodt, R. L. OF 82-1075
 Aaron, J. M. OP- 131
 Abel, J. F., Jr. C 0876
 Abou-Sayed, A. OF 82-1075
 Abram, E. C. I-1313-C
 Abrams, G. PB-83 220 814
 Abrams, M. OP- 636
 Acevedo, William I-1443
 Ackerman, D. J. OF 83-0378
 Ackermann, H. D. OF 82-1065,
 83-0604; P 1028, 1313
 Adam, D. P. OP- 1,
 2, 3, 4, 1045
 Adams, D. B. OF 82-0696;
 OP- 1242; WRI 82-4076
 Addicott, W. O. OP- 987;
 P 0774-G
 Adolphson, D. G. WRI 83-4030
 Adrian, B. M. OF 83-0005,
 83-0022, 83-0407
 Affolter, R. H. OP- 5,
 496
 Afifi, A. A. WRI 82-4018
 Afifi, A. M. OF 83-0291
 Ager, T. A. OP- 6,
 7, 474
 Aitken, B. G. OP- 8
 Albers, J. P. OP- 9
 Albert, N. R. C 0793
 Albright, L. L. OF 83-0220
 Aldridge, B. N. OF 83-0201
 Aleinikoff, J. N. OP- 10
 Alexander, E. C., Jr. OP- 452
 Alexander, L. G. OF 82-1075
 Alexander, R. B. C 0910;
 OF 82-1019
 Alexander, T. W. WRI 83-4141
 Algermissen, S. T. MF-1144,
 1154, 1225, 1280, 1323, 1346,
 1660; OF 83-0086, 83-0179,
 83-0358; OP- 503, 545;
 P 1254
 Alheid, H. J. OF 82-1075
 Allaway, W. H., Jr. MF-1539-A
 Aldredge, L. R. OP- 11,
 12, 13
 Allen, C. M. MF-1603-A
 Allen, C. R. P 1254
 Allen, R. V. OP- 14
 Allen, Rex OP- 15
 Alley, W. M. OP- 16
 Allingham, J. W. C 0872
 Allison, Mel OF 82-1001
 Allmendinger, R. W. MF-1643
 Alminas, H. V. MF-0900-C
 Alpha, T. R. I-1402;
 MF-1403, 1608, 1659;
 OF 83-0229, 83-0230;
 OP- 560
 Altschaeffl, A. G. OP- 1248
 Altschuler, Z. S. OP- 17
 Amaral, Roberto OF 83-0441
 Ambuter, B. OP- 18
 Amstutz, D. E. OF 83-0567
 Anderson, J. G. P 1254
 Anderson, J. J. I-1430-A
 Anderson, J. R. OP- 19;
 P 0964
 Anderson, K. E. C 0895-E
 Anderson, K. H. MF-1002-J
 Anderson, L. W. MF-0696
- Anderson, P. D. OP- 51
 Anderson, R. C. OP- 20
 Anderson, R. E. OP- 21
 Anderson, R. N. OP- 1348,
 1349
 Anderson, R. Y. OP- 283
 Anderson, W. L. OF 83-0233,
 83-0320, 83-0830
 Anderson, Warren OF 82-0331
 Andresen, Kenneth .. OF 82-0014
 Andrew, Griscom MF-1419-B
 Andrews, D. J. OP- 22,
 23
 Andrews, E. D. OP- 24,
 25, 26, 27, 28
 Andrews, Freeman OF 82-0676
 Andrews, M. C. OP- 817
 Anima, R. J. OP- 302
 Anna, L. O. OP- 29
 Annell, C. S. P 1028,
 1313
 Annis, M. P. OP- 1145
 Anthony, E. R. OF 81-1016,
 82-0766
 Antweiler, J. C. C 0911;
 MF-1584-A; OF 82-1052,
 83-0196; OP- 30
 Appgar, M. OP- 48
 Appel, D. H. W 2225
 Aral, M. M. OP- 31
 Arbogast, Belinda OF 83-0705
 Archuleta, R. J. OP- 32,
 33
 Arihood, L. D. PB-83 184 309,
 83 196 147
 Armbrustmacher, T. OP- 34,
 35, 36
 Armin, R. A. I-1424;
 MF-1322-C, 1365-C
 Armstrong, C. A. OP- 37
 Armstrong, M. K. MF-1505-B,
 1561-C, 1578
 Arnow, T. OF 83-0126
 Arteaga, F. E. OF 80-1224
 Arth, J. G. OP- 58,
 558
 Arthur, M. A. OP- 38,
 39, 40, 204
 Aruscavage, P. J. OF 83-0324;
 OP- 928
 Asbury, J. L. OF 83-0493
 Ascher, Uri OP- 41
 Ascoli, P. OP- 42
 Ashe, S. J. OP- 694
 Askew, B. L. OF 83-0358
 Askew, Bonny OF 83-0086,
 83-0248
 Astrue, M. C. OF 83-0319;
 OP- 118
 Atkins, R. L. OP- 529
 Attanasi, E. D. OP- 43;
 P 1294
 Atwater, B. F. OF 83-0456;
 OP- 592
 Aubele, J. C. OP- 44
 Aubert, Jane P 1213
 Aubouin, Jean OP- 1256
 August, L. L. C-0093-A,
 0093-B
 Austin, C. B. P 1236
 Austin, W. A. OF 83-0229,
 83-0247
- Avanzino, R. J. OP- 89,
 90
 Averett, R. C. OF 83-0126
 Avery, Charles OF 83-0029
 Avery, D. W. MF-1550-C
 Ayers, Graeme C 0911
 Ayuso, R. A. OF 83-0800;
 OP- 45, 156
- B**
- Babcock, R. N. OF 83-0411
 Back, William C 0822;
 OP- 46, 49, 684, 1063
 Bacon, C. R. OP- 47
 Bader, J. W. MF-1548;
 OF 83-0362
 Baedecker, M. J. OP- 48,
 49, 50
 Baedecker, P. A. OF 83-0324
 Baer, M. J. OF 83-0238
 Bailey, G. B. OP- 51
 Bailey, R. A. MF-1659;
 OF 83-0230, 83-0400; OP- 52,
 53
 Bailey, Z. C. OF 81-0498;
 WRI 82-4016
 Baker, C. H., Jr. WRI 82-4095
 Baker, E. T., Jr. OF 83-0677
 Bakun, W. H. OP- 693,
 780
 Balch, A. H. OP- 54,
 677
 Baldauf, J. G. OP- 998
 Balding, G. O. OF 82-1001
 Baldwin, F. W. C 0896-A
 Baldwin, Frank OP- 1210
 Baldwin, M. J. OF 83-0377
 Ball, J. W. WRI 83-4056
 Ball, M. M. OF 83-0023,
 83-0280; OP- 301
 Ballantyne, R. S. OF 83-0559
 Banaszak, K. J. OP- 55,
 56
 Banerjee, S. OP- 296
 Banet, A. C., Jr. OF 83-0627
 Banks, A. D. OF 83-0563
 Banks, Doreen OF 83-0120,
 83-0570
 Barats, G. M. OF 83-0373;
 OP- 868
 Barcus, Loretta OP- 1326
 Barczak, V. J. P 1256
 Bargh, B. L. OF 83-0272
 Barker, C. E. OP- 40,
 57
 Barker, Fred I-0764;
 OP- 58
 Barker, J. L. WRI 83-4032
 Barker, R. A. W 2200
 Barnes, C. G. MF-1452-A,
 1526-A
 Barnes, C. R. OP- 59
 Barnes, C. W. OF 83-0731
 Barnes, D. J. MF-1317-C;
 OF 83-0467
 Barnes, Ivan OF 81-0684;
 P 0498-D
 Barnes, P. W. C 0911;
 OF 82-0716, 83-0071, 83-0493;
 OP- 60, 1015
 Barnes, Peter OF 82-0608
 Barnhard, L. M. P 1254
- Barnum, B. E. MF-1517
 Barr, D. E. WRI 82-4110
 Barr, G. L. OF 82-0867,
 82-1011, 83-0031, 83-0547,
 83-0868
 Barracrough, D. R. .. C 0873
 Barron, E. J. OP- 284
 Barron, J. A. OF 83-0083,
 83-0325; OP- 61, 62, 63, 64,
 604, 771, 987
 Bartel, A. J. OF 83-0378,
 83-0486
 Bartels, E. R. OP- 536
 Barton, H. N. MF-1162-E;
 OF 83-0651, 83-0734
 Barton, Nick OF 82-1075
 Barton, P. B., Jr. OP- 65,
 66
 Bartow, J. A. B 1529-D;
 MF-1430; OP- 67
 Bartow, N. C. B 1543
 Bartsch-Winkler, Susan OF 83-0520;
 OP- 68
 Baskerville, C. A. B 1529-H;
 OP- 69, 70, 71, 72, 790
 Baskin, G. D. OF 83-0473
 Basler, J. A. OF 83-0144
 Basu, A. R. OP- 73
 Bateman, P. C. GQ-1570;
 OP- 74, 75; P 1261
 Bateson, J. T. MF-1471,
 1472
 Bath, G. D. OF 83-0377
 Batson, R. M. OP- 76,
 77, 78, 79, 80
 Batten, L. G. OP- 81
 Bauer, D. P. WRI 82-4076
 Baumgärtner, J. OF 82-1075
 Bawden, W. F. OF 82-1075
 Bayer, K. C. OC-0123;
 OP- 488; P 1313
 Beard, J. G. B 1529-H;
 OP- 82
 Beauchemin, P. R. OF 83-0400
 Beavers, J. E. OF 83-0157
 Bebout, D. G. OP- 83
 Becher, A. E. OP- 84
 Beck, M. E., Jr. OF 83-0799
 Becker, L. D. WRI 83-4141
 Beckmann, G. E. OP- 607,
 608
 Beckmann, J. P. OP- 1238
 Bedinger, M. S. OF 83-0699,
 83-0751, 83-0756, 83-0759
 Been, J. M. OF 83-0827;
 OP- 764
 Beetem, W. A. OF 81-1016,
 82-0766
 Behrendt, J. C. C 0909,
 0911; GP-0956; OP- 85, 86,
 87; P 1313
 Behum, P. T. MF-1271-E,
 1288-D, 1474-C, 1474-D,
 1527-D
 Beikman, H. M. p. 149;
 C 0901
 Bell, Henry, III MF-1287-B,
 1287-D
 Bell, J. S. OF 82-1075
 Belval, D. A. OF 83-0743
 Ben-Avraham, Zvi OF 83-0716
 Bencala, K. E. OP- 88,
 89, 90

Bender, B. K.	OP- 91	Blair, W. N.	OF 82-1052	Borcherdt, R. D.	MF-0709;	Briggs, J. P.	MF-1570-A;
Bender, B. L.	OF 83-0358	Blake, M. C., Jr.	MF-1595-A,		OF 83-0511;		OF 83-0594
Bender, Bernice	OF 82-0294;	1595-B; OP- 104, 105, 106			OP- 132, 133, 1052, 1053	Briggs, N. D.	OP- 150,
	OP- 92	Blakely, R. J.	MF-1240-D,		WRI 82-4113		847
Benham, J. R.	MF-1447-C,	1361-C, 1381-C, 1381-D,		Borland, J. P.	HA-0669,	Briggs, P. H.	OF 83-0378
1507-B, 1550, 1550-C, 1557-A,		1383-C, 1383-E, 1492-B;		Borman, R. G.	0670, 0671	Briggs, R. P.	OP- 151
1559-A, 1585-A		OF 83-0241; OP- 107, 108,		Bortleson, G. C.	OF 83-0255;	Briggs, S. R.	OF 83-0606;
		109, 296			WRI 82-4081		OP- 152
Bennett, E. H.	OF 83-0836	Blakey, R. C.	OP- 110	Bosio, N. J.	OP- 880	Brigham, J. K.	C 0911
Bennett, G. D.	OF 83-0126	Blanchard, L. F.	C-0093-A,	Bostick, N. H.	OP- 943	Brigida, M.	OF 83-0126
Bennett, J. P.	OF 82-0645	0093-B; OF 82-1093		Bothner, W. A.	OF 83-0460	Brock, M. R.	OF 83-0639;
Bennett, R. R.	W 1988	Blanchard, S. F.	OF 83-0147	Bottjer, D. J.	OP- 689		OP- 406
Bennett, T. J.	OP- 845	Blanchfield, J. S.	OP- 638	Boucher, Gary	OP- 134	Brockman, S. R.	P 1236
Bentall, Ray	W 1536-I	Blank, H. R.	OF 83-0298,	Boudette, E. L.	OP- 135;	Broker, M. M.	OF 82-1042
Bentley, C. B.	WRI 83-4169	83-0390, 83-0638, 83-0640;			OP- 263, 300	Broker, Michael	OF 83-0441
Bentley, R. D.	I-1311	OP- 111		Bouma, A. H.	OP- 136,	Bromfield, C. S.	OP- 153
Benton, E. R.	OP- 296	Blank, J. A.	OF 83-0376		137, 745	Brook, C. A.	C 0892;
Benton, J. D.	OF 81-0491	Blankennagel, R. K.	OF 82-0906	Bove, Dana	OF 83-0704		OF 83-0250
Berdan, J. M.	OF 83-0355;	Blaskowski, M. J.	OF 83-0414	Bowen, R. W.	C 0886	Brooke, J. P.	OF 82-0034,
	OP- 93, 94	Blattner, J. L.	OF 83-0253	Bower, D. E.	OF 81-0061		83-0122
Berg, H. C.	OF 82-1088,	Bliss, J. D.	p. 63;	Bowes, D. R.	OP- 842	Brooks, R.	OF 82-0903
83-0091, 83-0318		C 0892; OF 83-0002, 83-0426,		Bowles, C. G.	OP- 764	Brooks, Tom	WRI 83-4069
Bergen, J. A.	OP- 828	83-0427, 83-0428-A,		Bowles, J. M.	OF 81-1300	Brooks, W. E.	MF-1666;
Berger, B. R.	MF-1585-A	83-0428-B, 83-0429, 83-0430,		Bowles, R. M.	OF 83-0023		OF 83-0630; OP- 154, 1004
Berggren, W. A.	P 1213	83-0431-A, 83-0431-B,		Bown, T. M.	OP- 138	Brosge, W. P.	OF 82-1071
Bergin, M. J.	OP- 95	83-0432, 83-0433-A,		Boyce, E. G., Jr.	OF 83-0155	Brouwers, E. M.	C 0911;
Bergman, D. L.	OF 81-1187,	83-0433-B, 83-0434, 83-0435,		Boyce, R. E.	OP- 284		MF-1518; OP- 155, 387, 506,
	83-0026	83-0436, 83-0437, 83-0438,		Boyko, Christina	OP- 735		507, 689
Bergquist, J. R.	MF-1162-H,	83-0439, 83-0440		Brabb, E. E.	I-1257-A,	Brower, R. D.	OF 82-1001
1395-A, 1395-F; OF 82-0825					1257-B, 1257-C; P 1213	Brown, C. E.	OP- 156
Bergquist, W. E.	C 0834	Blome, C. D.	OP- 112,	Brabets, T. P.	WRI 83-4096	Brown, C. S.	OP- 157;
Berkas, W. R.	OF 83-0275		113, 945	Brace, W. F.	OF 82-1075		P 1258-C
Bermel, P. F.	C 0911	Blondeau, Alphonse..	P 1213	Bracken, R. E.	OF 83-0616;	Brown, D. E.	OF 81-0537,
Bernhard, J. M.	OP- 96	Blueford, J. R.	OP- 114,		OP- 596		81-0538
Berry, F. A.	OP- 97		968, 998	Bradbury, J. P.	OP- 139,	Brown, D. L.	OF 82-0906;
Berryhill, H. L.	OP- 137	Blumer, S. P.	OF 81-1187,		652, 666, 1035		P 1273-E
Bertoldi, G. L.	OF 83-0273,	83-0692; WRI 82-4099		Bradford, W. L.	OF 80-0341,	Brown, D. P.	PB-83 156 653,
	83-0697; OP- 930	Blunt, D.	OF 83-0557		81-0222		83 218 396
Bethke, P. M.	OF 83-0790	Blunt, D. J.	OP- 115,	Bradley, Edward	OF 80-0557	Brown, F. W.	OP- 500
Bevans, H. E.	WRI 82-4005,		612, 659	Bradley, J.	PB-83 220 814	Brown, G. F.	OF 83-0641;
	82-4074	Blunt, David	OF 83-0557	Bradley, J. A.	OF 83-0233,		OP- 1086, 1087
Beyer, L. A.	OF 83-0076,	Boatwright, John	OP- 116,		83-0830	Brown, J. L.	MF-1497,
	83-0906		117, 118, 119, 225, 226, 280,	Bradley, Jerry	OF 83-0249		1498, 1508-A
Bi Shang-xu	OF 82-1075		379		OF 83-0041,	Brown, L. D.	P 1313
Biehler, Shawn	OF 83-0096	Bobo, L. L.	OF 82-0639	Bradner, L. A.	83-0042, 83-0676	Brown, P. E.	OP- 158
Bielski, A. M.	MF-1555-A,	Bock, W. D.	OF 83-0023		C 0911	Brown, R. D.	OF 83-0511
	1558-A	Bodine, M. W., Jr.	OF 83-0718;	Bradshaw, M. A.	OF 83-0166;	Brown, R. D., Jr.	MF-0743
Bigelow, R. C.	OF 83-0343		OP- 120	Brady, A. G.	OP- 140; P 1254		
Bigsby, P. R.	MF-1468,	Bodnar, R. J.	OF 83-0790;	Brady, B. T.	OF 79-0303,	Brown, R. H.	W 1536-I,
	1566-A		OP- 121		79-0306, 79-0307, 83-0549,		1988
Biju-Duval, Bernard	OP- 828	Boerngen, J. G.	OP- 1100		83-0756	Brown, R. R.	OF 82-0475
Billings, Patty	OF 83-0704;	Boespflug, K. L.	OF 83-0136	Brady, G.	OF 83-0511 83-	Brown, S. D.	MF-1343-B
	OP- 98	Bogard, D. D.	OP- 122		-0511;	Brown, T. L.	C-0094-A
Billingsley, G. H.	OF 83-0731;	Boggess, D. H.	OF 81-0638		OP- 133	Brown, W. R.	OP- 159
	OP- 1285	Bohannon, R. G.	MF-1522;		P 1236	Brownfield, M. E.	OF 83-0633
Billingsley, H.	P 1173		OF 82-1030; OP- 123	Braile, L. W.	OP- 141	Brubaker, L. B.	OF 83-0072
Bilodeau, W. L.	OP- 318	Bohman, L. R.	OF 80-0589	Bramlett, K. W.	OF 83-0629	Bruchmiller, J. P.	OF 82-0164,
Binder, S. G.	I-1508-A	Bohor, B. F.	OP- 124	Brandt, E. L.	PB-83 152 223		83-0264
Bindschadler, R. A.	P 1258-D	Boje, R. R.	WRI 82-4013	Branson, F. A.	OP- 142,	Bruckheimer, Laura ..	OF 83-0141
Bingham, R. H.	OF 81-0540	Boling, J. K.	OP- 1037	Bredehoeft, J. D.	143, 858; W 2237	Brugman, M. M.	C 0850-D
Birch, D. R.	OF 83-0473	Bolke, E. L.	OF 82-0769		OP- 144,	Brumley, D. A.	I-1508-A
Bird, K. J.	C 0911;	Bollinger, G. A.	OP- 125;	Breed, C. S.	765, 766	Brune, J. N.	P 1254
	OP- 99		P 1028, 1313	Breheny, P. J.	OF 83-0157	Brunner, C. A.	OP- 160
Bischoff, J. L.	OF 83-0324;	Boim, J. G.	OF 83-0124,	Brem, G. F.	MF-1101-D;	Bruns, T. R.	MF-1424,
	OP- 100, 101, 395		83-0557		OF 83-0647; OP- 145		1480; OP- 161, 162, 1257
Bisdorf, R. J.	OF 83-0412,	Bond, K. R.	OF 83-0070	Brenner, R. L.	OP- 137	Bryan, G. W.	OF 80-0341
	83-0825	Bonilla, M. G.	P 1254	Bretz, R. F.	OP- 146	Bryant, Bruce	GQ-1073;
Bishop, K. R.	MF-1550;	Bonner, W. A.	OF 82-0014	Brew, D. A.	OP- 147,		OP- 516, 848
	OF 83-0227	Books, K. G.	OF 83-0226		148	Bryant, C. T.	WRI 82-4063
Black, D. F.	OP- 102,	Bookstrom, Art	OP- 669	Brewer, M. C.	OF 82-1039	Bryant, W. A.	OP- 689
	103	Boone, G. M.	OP- 135	Brice, J. C.	OP- 149	Bryn, S. M.	HA-0671
Black, R. F.	C 0911	Boore, D. M.	OP- 119,	Bricker, O. P.	OP- 310	Buchanan-Banks, J.	
Black, Uyless	OF 83-0126		126, 127, 128, 593, 761, 762,	Bridges, N. J.	OF 83-0490;		MF-1499
Blackinton, Grant	OP- 828		841; P 1254		PB-83 255 042	Buckley, T.	OF 83-0702
Blackwell, C. D.	OF 82-0902,	Boore, S. A.	OF 83-0229	Bridges, P. M.	OP- 78	Buckley, T. W.	OF 83-0233
	82-0925, 83-0262	Booth, J. S.	OP- 129,	Bridges, W. C.	WRI 82-4012	Bucknam, R. C.	OP- 163
Blackwell, D. D.	P 1236		130, 131				

Buckner, H. D.	OF 82-0269, 83-0202	Callahan, J. E.	OF 83-0836	Carter, L. D.	C 0911; OF 83-0634	Chatman, M. L.	MF-1527-D, 1587-C; OF 83-0445
Buckwalter, T. F.	OF 81-0070	Callanan, M. J.	OF 82-1075	Carter, M. D.	C 0891; OP- 783, 1319	Chavez, Dave.	P 1254
Bucurel-White, Hildie.	OF 83-0418	Callender, E.	OP- 512	Carter, R. F.	OF 81-0059, 82-0560	Chavez, P. S., Jr.	OP- 341
Budahn, J. R.	OF 83-0287	Calzia, J. P.	OP- 184	Carter, V.	OP- 413	Chayes, D.	OP- 213
Buddenhagen, H. J. ..	B 1529-H	Cameron, C. C.	MF-1556-B; OF 81-1301, 81-1302, 83-0004,	Carter, Virginia	B 1543; OP- 205	Chazin, Barbara.	OF 83-0012, 83-0581
Budding, K. E.	MF-1542-A, 1542-B, 1542-C; OF 83-0391	OF 83-0018, 83-0413; OP- 185				Chen, A. T.	OP- 222; PB-84 119 924
Bufe, C. G.	OP- 164, 294; P 1236	Campbell, A. M.	OP- 300, 536	Carter, W. D.	OP- 206, 207, 208, 209	Chen, Hsui-Hsuing ..	OF 82-0502
Buffler, R. T.	OP- 165	Campbell, D. L.	OF 83-0154; P 1028	Casadevall, T. J.	OP- 210, 211, 1204, 1205	Cheng, R. T.	OF 80-1297, 82-0153
Bugliosi, E. F.	OP- 166	Campbell, H. W.	MF-1317-C, 1322-C, 1340-C, 1389-B;	Case, J. E.	MF-1114-A, 1539-A; OP- 212, 449	Chesson, S. A.	MF-1377-C
Bukry, David.	OP- 167, 168; P 1213	OF 83-0508		Cashion, W. B.	OF 83-0017	Childers, J. M.	OF 81-1005
Bunker, C. M.	OF 83-0486	Campbell, J. A.	OP- 186, 187, 188, 189, 953	Cashman, K. V.	OP- 213, 214, 328	Childs, J. R.	OF 83-0906; OP- 742, 743
Burchfiel, B. C.	OP- 169	Campbell, W. H.	OP- 190	Cashman, Katherine	OF 82-0893	Chin, J. L.	OF 82-0824
Burckle, L. H.	OP- 170	Campbell, W. L.	OF 82-1052, 83-0196; OP- 30, 191	Cassard, Daniel.	OP- 927	Chleborad, A. F.	OP- 1080
Burdick, D. J.	OF 82-0033; OP- 1036	Campi, D. E.	P 1254	Castle, R. O.	OP- 427	Choi, D. R.	OP- 223
Burford, R. O.	OP- 171, 492	Cancilla, R. S.	OF 83-0014, 83-0015	Cater, F. W.	P 1220	Chornack, M. P.	OF 82-1042, 82-1043
Burke, D. B.	B 1529-E; P 1254	Canney, F. C.	OP- 192	Cathcart, J. B.	MF-1572-B	Chou, I-Ming.	OF 82-1131; OP- 224
Burmeister, I. L.	OF 81-0349	Cannon, H. L.	OF 81-1300	Cathcart, J. D.	OF 83-0167, 83-0411	Chowens, T. M.	P 1313
Burmester, R. F.	OF 83-0600	Cannon, J. K.	MF-1383-E	Cather, E. E.	MF-1273-C, 1322-C, 1340-C, 1365-C, 1501-B	Choy, G. L.	OP- 225, 226
Burnett, W. C.	OP- 1123	Cannon, M. R.	WRI 82-4051	Cathrall, J. B.	C 0911; OF 83-0420-A, 83-0420-B, 83-0420-C, 83-0420-D, 83-0420-E, 83-0420-F, 83-0420-G, 83-0420-H, 83-0420-I, 83-0420-J, 83-0420-K, 83-0420-L, 83-0420-M, 83-0420-N, 83-0420-O, 83-0420-P, 83-0420-Q, 83-0420-R, 83-0420-S, 83-0420-T, 83-0420-U, 83-0420-V, 83-0420-W; OP- 744	Christenson, S. C.	OF 81-0483; OP- 227, 359
Burnley, P. C.	OP- 172	Cannon, S. H.	OF 83-0635			Christiansen, A. C. ..	OF 83-0802; OP- 1112
Burns, A. W.	OF 83-0139	Cannon, W. F.	C 0822, 0887; OP- 193, 194, 195, 631; OP- 406			Christiansen, E. H. ..	OF 83-0337, 83-0486
Busacca, A. J.	GQ-1570; OP- 75; P 1261	Capstick, D. O.	MF-1411-B, 1417-B			Christiansen, R. L. ..	OP- 228
Busche, F. D.	OP- 173	Caputo, M. V.	OP- 110	Causaras, C. R.	OF 82-0920, 83-0134	Christie-Blick, Nicholas.	OP- 268
Busenberg, Eurybiades.	OF 83-0863; OP- 973	Card, K. D.	OP- 1139	Causey, J. D.	MF-1569-A	Christopher, R. A.	I-1417; OP- 229, 230, 401; P 1028, 1285
Bush, A. L.	MF-1475-A, 1475-B	Cardinell, A. P.	OF 82-0036	Cavaroc, V. B.	OP- 1275	Christopherson, K. R.	OF 81-0958
Bush, C. A.	OF 81-1300, 83-0486	Cardwell, G. T.	OP- 196	Cecil, C. B.	C 0822; OF 83-0081	Church, S. E.	MF-1380-B, 1418-B, 1653-A; OF 82-1066, 83-0234, 83-0342, 83-0343, 83-0366, 83-0467, 83-0471, 83-0501; OP- 680
Bush, P. W.	OP- 174; W 2210	Caress, M. E.	MF-1529-A, 1529-B, 1529-C; OF 82-1127, 83-0013	Cervione, M. A., Jr.	OP- 215	Churkin, Michael, Jr.	OF 83-0091
Butler, H. S.	OF 81-0491	Carey, M. A.	OP- 787, 1093	Chadwick, W. W., Jr.	OP- 216	Circe, R. C.	OF 83-0745
Butler, R. F.	OP- 175	Carlson, C. A.	OF 82-0621, 82-0622, 82-0623	Chaffee, M. A.	MF-1101-D, 1201-C, 1322-C, 1365-C, 1400-B, 1400-C, 1411-B, 1411-C, 1416-B, 1417-B, 1417-C, 1545, 1564-A; OF 82-0283, 82-0954, 82-0996, 82-1050, 83-0003, 83-0077, 83-0403, 83-0643, 83-0644, 83-0646, 83-0647, 83-0649, 83-0666	Claassen, H. C.	OF 82-1024
Buxton, H. T.	WRI 82-4045	Carlson, Christine ...	MF-1114-A			Clague, D. A.	OP- 646
Bybell, L. M.	B 1529-H, 1537-C; OP- 176, 177, 178, 179, 401, 402, 425, 426; P 1028	Carlson, D. D.	OF 83-0685	Causey, J. D.	MF-1569-A	Claiborne, H. C.	OF 82-1131
Bycroft, G. N.	P 1254	Carlson, J. E.	MF-1382-A	Cavaroc, V. B.	OP- 1275	Claire, R. W.	C 0895-E
Byerlee, J. D.	OF 83-0475; 83-0180; OP- 818, 819, 820, 837	Carlson, P. R.	MF-1456; OF 83-0024, 83-0618, 83-0707; OP- 162, 197, 198, 598, 1253	Cecil, C. B.	C 0822; OF 83-0081	Clanton, U. S.	MF-1136
Byerly, G. R.	I-1311; P 1313	Carlson, R. L.	OP- 869	Cervione, M. A., Jr.	OP- 215	Clark, M. M.	I-1329; MF-1396, 1659; OF 83-0511; OP- 1078
Byers, V. P.	OP- 443, 444, 445, 446	Carlson, R. R.	MF-1343-B; OF 83-0651; OP- 758	Chadwick, W. W., Jr.	OP- 216	Clark, R. F.	OP- 694
Bywaters, J. S.	MF-1558-A	Carlston, C. W.	B 1141-I	Chaffee, M. A.	MF-1101-D, 1201-C, 1322-C, 1365-C, 1400-B, 1400-C, 1411-B, 1411-C, 1416-B, 1417-B, 1417-C, 1545, 1564-A; OF 82-0283, 82-0954, 82-0996, 82-1050, 83-0003, 83-0077, 83-0403, 83-0643, 83-0644, 83-0646, 83-0647, 83-0649, 83-0666	Clark, S. H.	OF 83-0187, 83-0336
C		Carman, R. L.	OF 82-0445			Clarke, F. E.	P 0498-D
Cacchione, D. A.	OP- 598, 599	Carothers, W. W.	OP- 615, 616	Champion, D. E.	MF-1462-A, 1462-B; OP- 217	Clarke, J. S.	OF 80-1296, 82-0903
Cadigan, R. A.	OF 82-1130; OP- 180	Carpenter, D. H.	OF 80-1016	Champion, J. W., Jr.	P 1028	Clarke, J. W.	C 0885; OF 83-0711; OP- 231, 232, 715
Cady, J. W.	OP- 181	Carpenter, G. B.	OF 82-0036	Channel, L. K.	OF 83-0040	Clarke, S. H.	OF;
Cahal, D. I.	WRI 83-4054	Carpenter, M. C.	OP- 295, 1037	Chao, E. C.	C 0894	Clarke, S. H., Jr.	OF 83-0062
Cahill, J. M.	OF 82-0863; OP- 182	Carpenter, P. J.	OF 82-0771	Chao, T. T.	OP- 218, 369, 670, 1075	Clarke, S. H., Jr.	OF 82-0975
Cain, D. J.	OF 80-0341	Carr, D. D.	OP- 888	Chapelle, F. H.	OP- 219, 220, 221	Clay, D. M.	OF 81-0418
Cain, J. C.	C 0911; OF 83-0061; OP- 183, 296, 1089, 1090	Carr, M. D.	OP- 199	Chapman, R. M.	C 0911	Claypool, G. E.	C 0911; MF-1655-D; OP- 40, 233, 660, 728, 729, 828, 1030
Cairns, D. J.	W 2196-B	Carr, M. H.	OP- 200, 201, 202, 203	Chapman, W. H.	C 0911	Clayton, G. A.	MF-1653-A; OF 83-0357
Calkins, H. W.	C 0895-A, 0895-D	Carrara, P. E.	GQ-1568; MF-0696, 1163, 1604-A	Charlson, R. R.	I-1383	Clement, R. W.	WRI 82-4123
Callahan, J. A.	OF 83-0224	Carrillo, E. R.	OF 82-0269, 83-0202	Chase, E. B.	C 0893, 1001; OF 82-0862, 83-0126, 83-0207	Cleveland, J. M.	OP- 234
		Carroll, R. D.	OF 83-0399; OP- 1244	Chase, T. E.	OF 82-1090		
		Carroon, L. E.	HA-0655				
		Carson, Bobb.	OP- 204				
		Carson, S. E.	OF 82-1128				
		Carter, Claire.	OF 83-0091; OP- 442				

Clifton, D. G.	OF 83-0204	Cooley, M. E.	WRI 82-4007	Crook, C. N.	P 1254	Davis, L. L.	MF-1665
Clifton, H. E.	OP- 235, 236	Cooley, R. L.	OP- 252, 253, 254	Crosson, R. S.	OF 83-0019; OP- 273	Davis, M. E.	WRI 82-4108
Cloern, J. E.	OP- 717	Coonrad, W. L.	B 1529-B, 1529-C	Crouch, J. K.	OF 83-0593	Davis, M. F.	OP- 1013
Close, T. J.	MF-1569-A, 1653-A; OF 83-0397	Cooper, A. K.	OF 82-1090, 83-0322, 83-0325, 83-0519, 83-0707; OP- 741, 742, 743	Crovelli, R. A.	C 0902-A-P; OF 83-0402	Davis, P. A.	OP- 281, 1082
Clow, G. D.	OP- 203, 237, 827, 963	Cooper, H. H., Jr.	OP- 143; W 1988	Crowley, S. S.	OF 83-0617; OP- 1093	Davis, R. W.	W 2202
Clutson, F. G.	OF 83-0244	Cooper, J. R.	p.149	Crowther, H. G.	OF 81-0128	Davis, S. L.	OP- 79
Coates, D. A.	OP- 518	Copeland, C. W., Jr.	OP- 1147	Crumpler, L. S.	OP- 44	Davis, W. E.	MF-1555-B
Coats, R. R.	OP- 238	Coplen, T. B.	C 0822	Cruz, E. L.	OF 82-1088, 83-0278	Dawson, P.	OP- 1271
Cobb, E. H.	B 1374; OF 83-0073, 83-0199, 83-0278	Corbett, E. J.	OP- 255	Cserna, E. G.	OF 83-0748	Day, G. W.	MF-1425-C;
Cobban, W. A.	MF-1548; OP- 239; P 1253	Cordell, Lindrith	OP- 256, 257, 258, 259	Culbertson, W. C.	C 0891; OP- 274, 787, 1319		
Cochran, B. J.	OF 82-0873	Cormier, G. P.	MF-1513	Cummings, T. R.	OF 82-0853; WRI 83-4002		
Cockerham, R. S.	OP- 240, 594, 971	Cornet, F. H.	OF 82-1075	Cunningham, C. G.	I-1430-A; OF 83-0291; OP- 289		
Coe, Robert	OP- 296	Cornwall, H. R.	MF-1423-A	Cunningham, K. I.	C 0911		
Cofer, H. E., Jr.	OF 83-0580	Correia, G. A.	OF 83-0167	Cunningham, T. K.	OF 82-0300-J, 82-0300-K, 82-0300-L, 83-0300-A, 83-0300-B, 83-0300-C, 83-0300-D, 83-0300-E, 83-0300-F, 83-0300-G, 83-0300-H		
Cohen, Philip	OF 83-0126	Cosca, M. A.	MF-1411-B, 1411-C; OF 83-0003				
Cohn, S. N.	P 1254	Costain, J. K.	P 1313				
Cole, J. C.	OF 83-0371	Cotter, R. D.	OP- 349				
Coleman, R. G.	MF-1452-A, 1540-A; OF 83-0487	Coury, A. B.	C 0881; MF-1044-A; OP- 260	Curiale, J. A.	OP- 490		
Collins, D. L.	OF 82-0696	Covay, K. J.	WRI 82-4076	Currey, D. R.	OF 82-1070	Dean, W. E.	C 0822; OF 83-0083, 83-0378;
Collins, D. S.	OF 83-0069	Covert, Kathy	C 0911	Curtis, C. C.	OF 83-0679		OP- 283, 284, 285, 286, 390, 1249
Collinson, J. W.	OP- 1273, 1274	Covington, H. R.	I-1450; MF-1462-A; OP- 261	Curtis, D. L., Jr.	MF-1471, 1472, 1473	Dearborn, L. L.	OF 82-1016, 83-0078
Colman, S. M.	OF 83-0058, 83-0724; OP- 241, 242, 243, 628	Cowan, D. S.	OP- 828	Curtis, R. E., Jr.	OF 81-0128	Decker, E. M.	OF 82-0912, 83-0754
Colon-Dieppa, Eloy..	OF 81-0626, 81-0641	Coward, E. L.	OF 83-0023	Curtis, S. M.	OF 83-0183, 83-0184, 83-0185	Decker, R. W.	OP- 287, 288, 561
Colon-Ramos, H. M.	OF 83-0546	Cox, B. F.	MF-1159-B, 1161-C, 1563-A, 1649-A	Curtis, W. F.	OP- 880	DeGraff, J. V.	OP- 289
Colon-Ramos, Hector	OF 81-0626	Cox, D. P.	OF 83-0313, 83-0423, 83-0783, 83-0901	Curwick, P. B.	OP- 275	Delaney, D. F.	OF 80-0431, 80-1017, 81-0802, 81-1185
Colson, B. E.	OF 82-0558; WRI 83-4065	Cox, G. A.	MF-1471, 1472	Cushing, E. M.	P 1273-E	Delaney, J. R.	OF 83-0464; OP- 648
Colton, R. B.	MF-0696, 1513, 1662, 1663, 1664; P 1183	Coxe, B. W.	MF-1495-A, 1495-C; OF 83-0054	Cushing, G. W.	OF 83-0170-A	Delaney, P. T.	OP- 290, 983
Colvocoresses, A. P.	OF 83-0121, 83-0558	Craig, G. S.	OF 83-0146	Custis, K.	OF 83-0834		
Condes de la Torre, Alberto	OF 82-0680, 83-0047	Craig, J. D.	TWI 08-A2	Cutler, Reese	OF 83-0521		
Condon, S. M.	OP- 244; OP- 443, 444, 445, 446	Craig, L. C.	OP- 262, 263	Czarneske, G. K.	OF 83-0291; OP- 348		
Conelly, T. J.	OP- 245	Craig, R. W.	WRI 83-4091				
Coney, P. J.	OF 83-0011, 83-0799	Craighead, Ken	OF 83-0157	Daddow, P. D.	OF 83-0146	Delcourt, H. R.	OP- 291
Coniglio, Mario	OP- 489	Crandall, T. M.	MF-1470, 1479; OP- 306; OP- 536	Dallenbach, Don	OF 83-0157	Delcourt, P. A.	OP- 291
Connor, C. L.	OF 83-0312	Crandell, D. R.	I-1442	Dallmeyer, R. D.	OP- 1201	Delevaux, M. H.	OF 83-0836
Connor, C. W.	OF 83-0605	Crane, R. X.	OF 83-0618	Dalrymple, G. B.	OP- 276	Delin, G. N.	OP- 1321
Connor, J. C.	MF-1604-A	Cranston, C. C.	OF 81-0218	Dalziel, M. C.	OP- 311	Dellinger, D. A.	MF-1231-E, 1515; OF 81-0254, 82-0984
Connor, Maura	OP- 246	Cranswick, E.	OF 83-0511 83-0511	Dames and Moore	OF 79-0619	Demas, C. R.	OP- 292
Conrad, W. K.	OF 83-0281	Crawford, C. G.	OP- 264	Daniel, J. F.	OF 83-0126	Demcheck, D. K.	OP- 293
Constantz, Jim	OP- 247	Crawford, J. K.	OF 83-0526	Daniel, R. G.	OP- 277	Dengo, Gabriel	OP- 212
Constenius, K. N.	MF-1604-A	Crawford, T. J.	OP- 265, 266, 267	Daniels, D. L.	GP-0950; OF 83-0070; OP- 956, 1307; P 1313	Denis, E. E.	OF 82-0116
Converse, April	OF 83-0276	Creasey, S. C.	GQ-1559	Daniels, J. J.	OP- 278, 279, 1111, 1290	Denlinger, R. P.	OP- 294, 295, 1037
Conway, C. M.	OP- 245, 248	Cressler, C. W.	OF 82-0569; OP- 266, 267	Danielson, T. W.	OF 81-0539; WRI 82-4009	Denny, C. S.	P 1067-F
Conyac, M. D.	MF-1159-B, 1581-A; OF 83-0409	Cressman, E. R.	OF 83-0502	Dansereau, D. A.	OF 82-1065, 83-0604	DeNoyer, J.	OP- 296
Cook, A. L.	MF-1484	Criss, R. E.	OP- 1159	Darby, D. W.	OF 82-0916, 83-0208, 83-0252	Denson, N. M.	OP- 1112
Cook-Clark, Jennifer	OF 83-0715	Crist, M. A.	WRI 83-4137	Darden, Daphne	OF 82-0369, 82-0574; WRI 82-4061, 83-4133	Denton, D. K., Jr.	MF-1317-C, 1340-C, 1448-B, 1529-B; OF 82-0822
Cook, Earl	OP- 831	Crittenden, M. D., Jr.	OP- 268, 848	Dardner, D. W.	OF 82-0916, 83-0208, 83-0252	Denver, J. M.	OF 81-0916
Cook, H. E.	OP- 249, 250	Crock, J. G.	OF 83-0324, 83-0405; OP- 269	Das, S.	OP- 280	Derkey, P. D.	MR-0071
Cooke, D. W.	OP- 170	Crone, A. J.	OP- 401; P 1236	Davies, F. B.	OP- 517	Dessenberger, N. C.	MF-1130-B, 1130-C
Cookro, T. M.	OF 83-0836; OP- 251	Cronin, T. M.	C 0822; OP- 96, 270, 271, 272	Davies, R. E.	OF 81-0483	Dethier, D. P.	I-1198-B; OP- 946
Cooley, E. F.	OF 80-0811-H, 80-0811-I, 80-0811-K, 82-0976, 83-0415			Davies, W. E.	C 0911; P 1183	Detra, D. E.	OF 83-0012, 83-0242, 83-0415, 83-0498, 83-0581
				Davis, D. K.	WRI 82-4020	Detterman, R. L.	MF-1539-A
				Davis, D. W.	OF 83-0118	Dewey, J. W.	OP- 226, 297, 816; P 1313
						DeWitt, Ed.	OP- 298
						D'Hondt, Steven	OP- 605

Dial, D. C.	OP- 196; OP- 299	Downey, J. E.	OP- 314	Eberlein, G. D.	OF 83-0091	Erdman, J. A.	OF 83-0151, 83-0836; OP- 484
Diaz, A. M.	OF 82-1021; WRI 82-4074	Downey, J. S.	OF 82-0914; WRI 82-4107	Ebersole, N. L.	OF 80-1220-B, 80-1220-E	Erdmann, D. E.	OF 83-0173, 83-0524
Dibblee, T. W., Jr.	OP- 870, 871	Doyle, F. J.	OP- 315	Edds, Joe	OF 82-0852, 83-0268	Ericksen, G. E.	B 1551
Dickey, D. D.	OF 83-0288	Doyle, L. J.	OF 83-0425	Edgar, N. T.	C 0906	Erickson, M. S.	OF 83-0173, 83-0335, 83-0524
Dickin, A. P.	OP- 472	Doyle, W. H., Jr.	OP- 316	Edmondson, Thomas	C 0911	Erickson, R. L.	MF-1004-B, 1339-B, 1494
Dickinson, K. A.	OF 82-1032, 83-0169; OP- 300, 536	Drake, D. E.	OP- 599	Edward, J. R.	C 0901	Erickson, R. M.	OP- 349
Dickinson, R. G.	P 1300	Dreesen, Roland	OP- 1070	Edwards, B. A.	OF 83-0707	Ernst, W. G.	MF-1452-A
Dieterich, J. H.	OF 83-0576; OP- 1009	Drellack, S. L., Jr.	WRI 82-4111, 82-4118, 83-4124	Edwards, B. D.	OP- 368	Eskenasy, Diane	OF 83-0460
Dietzman, W. D.	OF 83-0728	Drescher, W. J.	W 1988	Edwards, L. E.	B 1537-C; OP- 333, 334, 335, 336, 337, 401	Espinoza, A. F.	P 1254
Diggles, M. F.	MF-1361-B, 1361-C; OF 81-0254, 82-0984, 82-0996, 83-0003	Drew, L. J.	OF 83-0075; OP- 1098	Edwards, M. D.	OF 82-0921, 82-0923	Etheridge, E.	OF 83-0511 83- -0511
Dilles, J. H.	OP- 1159	Drewes, Harald	MF-1521-A, 1521-B; OP- 318	Egbert, R. M.	OP- 249	Ethington, R. L.	OP- 1020
Dillon, W. P.	OP- 20, 301, 454, 852, 990; P 1313	Driver, N. E.	OF 82-0874	Ege, J. R.	OF 83-0596, 83-0597	Eugster, H. P.	OP- 1167
Diment, W. H.	OP- 843, 1247	Drost, B. W.	OF 81-1021; WRI 83-4094	Ehrlich, G. G.	OP- 338	Evaldi, R. D.	WRI 83-4068
Dingler, J. R.	OP- 302	Drowley, David	OP- 319	Eikenberry, S. E.	OF 82-0639; OP- 1121	Evans, J. G.	MF-1581-A; OF 83-0289, 83-0409, 83-0522
Dinter, D. A.	C 0911; I-1182-C	Dryden, J. W.	OF 83-0628, 83-0637	Eissen, Jean-Philippe	OF 83-0827; OP- 688	Evans, J. R.	OF 82-0409, 83-0521; OP- 350, 351, 352, 572
Dixon, H. R.	GQ-1562; OP- 303, 304	du Bray, E. A.	MF-1231-E, 1515; OF 81-0254, 83-0369, 83-0370, 83-0447; OP- 320, 321	Eittreim, S. L.	C 0911; OP- 339	Evans, K. V.	MF-1576-A; OP- 353
D'Lugosz, J. J.	OF 81-0062	Duarte, Carlos	P 1254	Ekren, E. B.	OF 83-0836; OP- 340	Evans, Keith	OF 82-1075
Dobrovolny, E. E.	OF 83-0179	Dubiel, R. F.	OF 83-0188, 83-0459; OP- 322; OP- 300, 444, 536	Elder, J. F.	OF 83-0130; W 2196-B	Evans, S. H., Jr.	OP- 354
Dockery, David	P 1282	Ducet, G. L., Jr.	OF 81-0208	Elder, W. P.	MF-1231-D, 1540-B; OF 83-0192	Evans, W. C.	OF 81-0684
Dodge, Barbara	OF 83-0061	Duennebier, Fred	OP- 828	Elias, R. J.	P 1066-N	Evarts, R. C.	MF-1550; OF 83-0227, 83-0392, 83-0471, 83-0501; OP- 355
Dodge, C. H.	OF 81-0070	Duerk, M. D.	WRI 83-4088	Eliason, E. M.	OP- 281, 1082	Evernden, J. F.	OP- 356, 357, 358
Dodge, F. C.	MF-1389-B	Duerr, A. D.	OF 83-0045; OP- 323	Eliason, P. T.	OP- 341	Ewert, J.	OP- 210, 211
Dodge, H. W., Jr.	OP- 306; OP- 305, 536, 537	Dula, W. F.	OP- 300, 536	Ellen, Stephen	OP- 1286	Eychaner, J. H.	W 2201
Dodge, J. E.	OF 82-0916, 83-0208	Dulong, F. T.	C 0822	Ellersieck, Inyo	C 0793; OF 83-0183, 83-0184, 83-0185, 83-0779, 83-0505	F	
Doe, B. R.	C 0822; OF 83-0836; OP- 307, 1227	Dunlap, L. E.	OF 83-0222; W 2200	Ellis, Clarence	MF-1339-B, 1494		
Doe, T. W.	OF 82-1075	Dunn, M. L., Jr.	B 1510, 1551; MF-1578	Ellis, M. J.	OF 81-0531	Fabiano, E. B.	C 0873
Doefler, J. T.	OF 82-0872	Dunrud, C. R.	OP- 324	Ellis, G. S.	OF 82-0996	Fairchild, R. W.	OP- 359
Doering, W. P.	OF 83-0500	Duran, P. B.	OP- 325	Ellis, J. E.	OF 83-0369, 83-0389, 83-0414	Fairer, G. M.	OF 83-0674
Doherty, D. J.	OP- 759	Durbin, T. J.	OF 81-0688	Elliott, M. A.	OF 83-0373	Fallick, A. E.	OP- 472
Dohrenwend, J. C.	MF-1382-D; OP- 308, 309	Durham, D. L.	OP- 326	Ellis, C. E.	MF-1582-A	Farlekas, G. M.	WRI 83-4029
Dollar, R. S.	OP- 429	Durst, S. L.	MF-1663	Ellis, Clarence	OF 83-0479	Farrar, C. D.	OP- 1161
Domaratz, M. A.	C 0895-D, 0902-A-P	Dusel-Bacon, Cynthia	P 1170-E	Ellis, M. J.	OF 83-0599; OP- 759	Farrell, D.	OP- 780
Domenico, J. A.	MF-1231-B, 1231-C; OF 83-0007	Dutro, J. T., Jr.	B 1529-H; OP- 485	Ellis, W. L.	OF 83-0401, 83-0406, 83-0642	Farrow, R. A.	OP- 130, 1296
Dominie, D. R., II.	OF 83-0143	Duval, J. S.	MF-1162-H; OP- 406	Ellsworth, W. L.	OP- 342, 343, 839, 1332	Fassett, J. E.	OP- 360
Donahoe, J. L.	MF-1400-B, 1400-C, 1492-A, 1492-B; OF 83-0403	Dvorak, J. J.	OP- 288	Elstons, D. P.	OP- 465	Faulkender, D. J.	OF 83-0749
Donahue, J. L.	MF-1317-C	Dwornik, E. J.	OP- 806, 807; P 1067-F	Emanuel, R. P.	OF 83-0479	Faulkner, G. L.	OP- 361
Donaldson, C. D.	OF 82-0160, 82-0162, 82-0163	Dyman, T. S.	OP- 314, 327	Embree, G. F.	OF 83-0599; OP- 759	Fayard, L. D.	OF 82-0860
Donato, M. M.	MF-1452-A, 1452-B, 1526-A, 1526-B, 1540-A	Dzurisin, Daniel	OF 82-0893, 83-0192; OP- 328, 329, 734, 1205	Emerson, D. G.	OF 83-0136	Faye, R. E.	OF 82-0903; OP- 362
Donnelly-Nolan, J. M.	OP- 510	E		Emmett, W. W.	OP- 344, 345, 635, 681	Feder, G. L.	OF 79-1597; OP- 546
Donoghue, J. F.	OP- 310			Endo, E. T.	OP- 273	Federspiel, F. E.	MF-1177-C, 1273-C, 1322-C, 1365-C, 1389-B; OF 83-0397
Donovan, T. J.	C 0911; OP- 311, 341	Eaby, J. S.	OF 83-0827	Enever, J. R.	OF 82-1075	Fegeas, R. G.	C 0895-E
Dooley, R. E.	P 1313	Earhart, R. L.	I-1300, 1375; MF-1604-A; OF 82-0988, 82-1030	Engberg, R. A.	OF 83-0128; W 2179	Fejfar, Oldrich	OP- 1018
Doonan, C. J.	OF 82-0501	Eaton, J. P.	OF 83-0511	Engdahl, E. R.	OP- 346	Felmlee, J. K.	OP- 300, 326
Doriski, T. P.	WRI 82-4056	Ebens, R. J.	OF 83-0330	Engelbreton, D. C. ..	OF 83-0019	Feltis, R. D.	OP- 363; WRI 82-4026, 82-4027, 82-4028, 82-4029, 82-4030, 82-4031, 82-4032, 82-4033, 82-4034, 82-4035, 82-4036, 82-4037, 82-4038, 82-4039, 82-4040, 82-4041, 82-4042, 82-4043
Dorsey, M. E.	OF 83-0044	Eberhart-Phillips, Donna	OF 83-0511; OP- 330, 331, 917	Engels, J. C.	P 0989	Fenton, M. D.	OF 83-0009, 83-0368, 83-0372, 83-0388
Doty, G. C.	C 0822	Eberl, D. D.	OP- 332, 618, 1038, 1298	Engler, V. L.	MR-0049	Ferguson, H. M.	OP- 709
Doughman, J. S.	OF 82-0768; WRI 83-4006	F		Englund, K. J.	MF-1271-E, 1348-D; OF 83-0620, 83-0626, 83-0628, 83-0637; OP- 347	Fernandez, M., Jr.	PB-83 205 070
Douglass, R. C.	OP- 312, 313, 1330			Eppinger, R. G.	OF 83-0651		
Dover, J. H.	I-1319; MF-1566-A			Epstein, J. B.	MF-1474-A, 1474-B, 1474-D		

- Fernandez, Mario, Jr. OP- 364
- Ferree, D. M. OF 83-0686
- Ferreira, R. F. WRI 83-4008
- Ferrians, O. J., Jr. C 0911; OP- 365
- Ferrigno, C. F. WRI 82-4072
- Ferrigno, J. G. C 0911; OP- 1306
- Ferris, J. G. W 1536-I, 1988
- Feth, J. H. W 1535-I
- Fey, D. L. OF 82-0954, 82-0984, 82-0996, 82-1050, 83-0003, 83-0077, 83-0403, 83-0643, 83-0644, 83-0646, 83-0647, 83-0649, 83-0666
- Ficklin, W. H. OF 83-0084, 83-0234, 83-0286, 83-0738, 83-0777; OP- 366, 803
- Fiebelkorn, R. B. MF-1340-C; OF 83-0100
- Field, M. E. OF 83-0062; OP- 250, 367, 368
- Filipek, L. H. OP- 369
- Finch, A. J. OF 82-0553
- Fink, J. H. OP- 370
- Finkelman, R. B. OP- 371
- Finn, Carol. OF 82-1080; OP- 1302
- Finnell, T. L. OP- 1004
- Firda, G. D. OF 83-0685
- Fischer, E. E. WRI 82-4113
- Fischer, J. M. OF 83-0024
- Fischer, L. B. OP- 1173
- Fish, J. E. OF 82-0920, 83-0134
- Fish, R. E. OF 82-0341, 83-0538
- Fisher, D. W. OP- 462, 1228; W 1535-P
- Fisher, F. S. OF 83-0236, 83-0523, 83-0670, 83-0836; OP- 372
- Fisher, M. A. MF-1457; OF 83-0052, 83-0178; OP- 373, 374
- Fisher, Michael OP- 1257
- Fishman, M. J. OF 82-1004
- Fishman, N. S. OF 83-0194; OP- 713
- Fitterman, D. V. OF 83-0302, 83-0832; OP- 375
- Fitzgerald, K. K. OF 81-0636
- Fitzgerald, M. G. OP- 376; W 2216
- Fitzpatrick, D. J. OF 82-0772
- Flaccus, Christopher OF 82-1075
- Flanigan, V. J. OF 83-0367, 83-0595, 83-0612, 83-0613, 83-0672
- Fleck, R. J. OF 83-0296
- Fleischer, Michael OF 83-0615; OP- 377, 378
- Fleming, M. D. C 0911
- Fleming, R. W. OF 83-0582
- Fletcher, C. H., III .. OP- 1067
- Fletcher, J. B. OP- 379, 699, 700; P 1254
- Flett, T. O. OF 83-0124, 83-0557
- Flippo, H. N., Jr. PB-83 202 002
- Flohr, M. J. OF 83-0905
- Flohr, M. K. OP- 578
- Flores, R. J. OP- 694
- Flores, R. M. MF-1554; OP- 380, 1275
- Fluty, L. OP- 839
- Fogelman, R. P. HA-0651
- Fogleman, K. A. OF 83-0014, 83-0015
- Foley, Duncan C 0892
- Foley, N. K. OF 83-0710
- Folger, D. W. C 0870
- Follett, C. R. OP- 702
- Fontaine, R. A. OF 78-0556-I, 83-0261
- Foord, E. E. OP- 381
- Foose, D. W. WRI 83-4107
- Foose, M. P. OF 83-0383
- Foose, P. L. MF-1271-E
- Foot, R. Q. OP- 382
- Force, E. R. B 1540; C 0822; OP- 103, 525
- Ford, A. B. C 0909, 0911; OF 83-0097, 83-0454
- Ford, S. H. OP- 300
- Forester, R. M. OP- 383, 384, 385, 386, 387, 666
- Forn, C. L. MF-1344-D; OF 83-0197, 83-0524; PB-83 220 863
- Foster, G. R. P 1288
- Foster, H. L. OF 83-0170-A, 83-0170-B; P 1170-E
- Foster, Lee C 0872
- Fouch, T. D. C 0902-A-P; OP- 388, 389, 390, 970
- Fountain, A. G. OF 82-0756
- Fourmier, R. O. OP- 391, 392, 393, 394, 395, 396
- Fovinci, M. A. P 1254
- Fox, B. F. P 1254
- Fox, J. E. OP- 397
- Fox, K. F., Jr. OF 83-0019, 83-0398; P 0989, 1198, 1239
- Francica, J. R. OF 83-0387
- Francois, D. K. OF 82-0036
- Franczyk, K. J. OP- 186, 187, 188, 189, 953
- Frank, David P 1022-E
- Frank, O. L. WRI 82-4045
- Franklin, M. A. W 2196-A
- Franks, B. J. OF 82-0255
- Fraser, D. C. OF 83-0092
- Fraser, G. D. OF 83-0301
- Frayser, J. B. OP- 1091
- Frayser, Jeffery OP- 183
- Freckleton, J. R. WRI 82-4060
- Frederick, D. G. OF 83-0126
- Frederiksen, N. O. OP- 398, 399, 400, 401, 402, 403; P 1028
- Freeman-Lynde, R. P. OP- 404
- Freiberg, J. A. OF 83-0014, 83-0015
- French, J. J. OF 83-0273, 83-0697
- Frenzel, P. F. OP- 1195
- Frenzel, S. A. WRI 82-4106
- Fretwell, M. O. OF 83-0205
- Frey, E. P. P 1236
- Frickel, D. G. PB-83 152 223
- Friday, John WRI 83-4100
- Frieders, Twila C 0901
- Friedman, I. OP- 1280
- Friedman, Irving C 0911; OF 83-0500
- Friedman, L. C. OF 81-1016, 82-0766; TWI 05-A6
- Friedmann, I. OP- 674
- Frimpter, M. H. OF 80-1008; OP- 405
- Frink, D. L. OF 82-0774
- Frischknecht, F. C. OF 83-0233, 83-0240, 83-0702, 83-0830
- Frishman, David OF 83-0239; OP- 406
- Friskin, J. G. MF-1418-B, 1550; OF 82-1066, 83-0227, 83-0234, 83-0366
- Frizzell, V. A., Jr. I-1311; MF-0743, 1655-D; OF 82-0818-A, 83-0001
- Froehlich, D. C. WRI 82-4119
- Froelich, A. J. I-1313-C; OP- 584
- Frost, E. G. OP- 407
- Frye, G. A. OP- 1240
- Fuhrer, G. J. OF 82-0922
- Fuis, G. S. OF 639; P 1254
- Fulford, J. M. OF 83-0213
- Fuller, H. K. OP- 408
- Fuller, R. H. OF 81-0539, 81-0644
- Fumal, T. E. OF 82-0833
- Fuste, L. A. OF 83-0205
- G**
- Gabby, P. N. MF-1340-C, 1492-B
- Gable, D. J. I-1315
- Gabrysch, R. K. OF 82-0431, 82-0571
- Gadoury, R. A. OF 82-0634, 82-0635
- Gage, T. B. OF 82-1089, 83-0460, 83-0806
- Gair, J. E. MF-1415-A, 1415-B; OF 82-1074-A, 82-1074-B
- Galanis, S. P., Jr. OF 82-0819, 83-0025
- Gale, M. H. OP- 1177
- Gale, N. H. OP- 1227
- Galehouse, Jon OP- 1238
- Galland, D. W. OF 80-0811-L
- Gambell, N. A. GQ-1559
- Gamble, C. R. OF 83-0267; WRI 83-4050
- Gammon, P. T. B 1543
- Garabedian, S. P. OF 82-1022; WRI 83-4034
- Gardiner, Heather OF 83-0044
- Gardner, C. A. OF 83-0078
- Gardner, J. V. OF 83-0083, 83-0517; OP- 250, 285, 409, 410
- Gardner, R. A. OF 80-0422, 82-0558
- Garihan, J. M. OP- 411
- Garland, D. P. OF 83-0205
- Garnezy, Lawrence.. OP- 412
- Garrett, M. K. OP- 413
- Garrison, C. R. OF 82-0691
- Gartner, J. W. OF 80-1297, 82-0153
- Garza, Sergio OF 82-0908
- Gates, J. H. P 1254
- Gates, J. S. OF 82-0445
- Gautier, D. L. B 1529-H; OP- 414, 415, 416, 417, 418, 1031
- Gay, F. B. OF 80-1017, 81-0802, 81-1185, 82-0342
- Gaydos, Leonard I-1443
- Gaydos, M. W. OF 83-0148
- Gazdik, G. C. MF-1287-D, 1474-C, 1474-D, 1556-B
- Gebert, W. A. OF 81-0495
- Gesaman, R. C. OP- 110
- Gehrels, G. E. OF 83-0318
- Geiger, L. H. OF 83-0037
- Geological Services of Tulsa OF 79-0303, 79-0306, 79-0307
- Geoterrex OF 82-0060-A, 82-0060-B
- Geraci, P. J. B 1549
- Gerlach, S. C. OP- 419
- Gerlach, T. OP- 211
- German, E. R. WRI 82-4094
- German, P. T. P 1254
- German, Peter OF 82-0726
- Gerstel, W. J. OF 83-0339
- Gettings, M. E. OF 83-0390, 83-0449, 83-0638; OP- 420
- Getzen, R. T. OP- 421, 422
- Gibbons, A. B. OF 83-0288
- Gibbs, J. F. MF-0709; OF 82-0833
- Gibbs, J. W. OF 82-0872
- Gibson, H. A. OF 83-0351
- Gibson, T. G. B 1529-H; OP- 178, 401, 402, 423, 424, 425, 426
- Gieskes, J. M. OP- 491
- Gilbert, J. J. WRI 82-4119
- Gilbert, Lewis OF 83-0023
- Gilbert, W. J. OF 83-0011
- Gill, H. E. WRI 83-4029
- Gill, J. R. MF-1548; OP- 1100
- Gillespie, J. B. PB-82 237 637
- Gillespie, W. H. OP- 347, 955
- Gilliom, R. J. OF 82-0161, 82-0907, 83-0255
- Gilman, Ralph P 1254
- Gilmore, T. D. OP- 427
- Gilroy, E. J. OP- 1216
- Ginzburg, A. OP- 428, 817
- Girol, V. P. MF-1442-B
- Given, D. D. OF 83-0462; OP- 429
- Glanzman, V. M. OF 83-0478
- Glass, R. L. OF 83-0142
- Glassgold, L. B. I-1430-A
- Gleason, J. D. OP- 674
- Gleason, J. P. OP- 1280
- Glenn, F. M. OF 82-0917
- Glenn, J. L. OP- 430
- Glick, E. E. MF-1578; P 1236
- Glover, K. C. OF 82-0758; WRI 82-4068
- Glover, Lynn, III..... OF 82-1097
- Gobla, Michael MF-1595-B
- Goddard, K. E. WRI 82-4076
- Godfrey, P. G. OP- 431
- Godley, J. H. OP- 18
- Godson, R. H. OF 83-0345, 83-0346; OP- 432, 596
- Godsy, E. M. OP- 338
- Goemaat, R. L. OF 83-0027, 83-0760
- Goerlitz, D. F. OF 82-0124; OP- 338
- Gognat, T. A. OP- 1132
- Gohn, G. S. B 1537-C; P 1028, 1313

Golan-Bac, Margaret	OF 83-0827	Grette, R.	OF 83-0702	Hale, W. N.	MF-1452-B	Harkins, J. R.	OF 81-0059,
Goldfarb, R. J.	MF-1231-B,	Grew, E. S.	B 1529-H	Hales, T. A.	OF 83-0201	81-0135	
	1231-C, 1231-E	Griffitts, W. R.	OF 83-0445	Haley, B. R.	OP- 466,	Harmon, J. G.	OF 83-0135;
Goldhaber, M. B.	OP- 173,	Grim, M. S.	GP-0956;	467, 468, 1191, 1192		WRI 82-4001	
433, 434, 435, 884, 970, 1025			OP- 85	Haley, S. M.	OF 83-0175	Harms, K. K.	OF 83-0511
Goldsmith, Richard..	p.149;	Grimes, D. J.	OF 83-0644,	Hall, C. A., Jr.	MF-1384	Harms, T. F.	OP- 484
B 1529-H; OP- 436, 437, 720		83-0666, 83-0705		Hall, W. E.	OF 83-0291,	Harned, Douglas	W 2185-E
Gomez-Gomez,		Griscom, Andrew	MF-1177-C,		83-0836	Harp, E. L.	OF 83-0511
Fernando	OF 82-0332	1417-B, 1564-A; OF 82-1048;		Hallam, C. A.	C 0895-D,	Harper, D. B.	OF 82-0023
Gonzales, Javier	P 1254	OP- 449			0895-E	Harrell, J. R.	OF 82-0445
Gonzalez, J. R.	OF 81-0641	Groenewold, G. H.	OP- 450	Halley, R. B.	OP- 39,	Harris, A. G.	OF 83-0505;
Gonzalez, Ralph	OF 81-0480	Grolier, M. J.	OP- 144,	469, 470, 471, 489, 1092		OP- 485, 486	
Gonzalez, V. M.	OP- 739	451, 765, 766		Halliday, A. N.	OP- 472	Harris, D.	OP- 210
Gooch, Roberts	OP- 831	Grommé, C. S.	OP- 534,	Hamachi, B. R.	OF 83-0016	Harris, D. D.	WRI 82-4078
Good, L. K.	OF 82-0036	535, 736		Hamblin, L. S.	OF 83-0531	Harris, L. D.	OC-0123;
Good, W. C.	OF 83-0102	Gronseth, J. M.	OF 82-1075	Hamidi, S.	OF 83-0068	OP- 487, 488	
Goodge, J. W.	OP- 551	Groschen, G. E.	OP- 452	Hamill, G. S., IV	OP- 169	Harris, L. E.	MF-1579
Gordon, A. B.	OF 83-0681	Grosz, A. E.	MF-1556-B;	Hamilton, M. M.	MF-1495-A	Harrison, C. J.	OP- 296
Gordon, Mackenzie,		OP- 671		Hamilton, R. M.	OP- 86,	Harrison, D. K.	B 1551;
Jr.	OP- 438;	Grout, M. A.	MF-1662,	87, 473, 817; P 1236, 1313		MF-1561-C	
	P 1173	1664		Hamilton, T. D.	C 0911;	Harrison, J. E.	I-1300;
Gore, J. A.	OF 82-0773	Grove, D. B.	OP- 453	OF 83-0072; OP- 474, 1288		OF 83-0502	
Gorelick, S. M.	OP- 439,	Grove, K. A.	I-1418	Hamilton, Warren	C 0911;	Harrison, R. S.	OP- 489
	440	Grow, J. A.	OP- 454,	OP- 475, 476, 1194		Harrison, W. E.	OP- 490,
Gori, P. L.	OF 82-0233,	455, 456, 457, 562, 990, 1207		Hamlin, S. N.	WRI 82-4121	491	
83-0157		Grubb, H. F.	WRI 82-4095	Hammack, R. W.	MF-1271-E,	Harrold, P. E.	OP- 922
Gortner, C. W.	OP- 441	Grundy, W. D.	OP- 959	1348-D		Harsh, P. W.	OP- 492;
Gorton, M. P.	OP- 1288	Gruzensky, A. L.	OF 80-0811-H,	Hammett, K. M.	OF 81-0494	P 1254	
Goss, J. A.	OF 83-0710	83-0234, 83-0407		Hammond, D. J.	OP- 1112	P 1254	
Gottfried, David	P 1028,	Grybeck, Donald	C 0793,	Hammond, P. E.	OF 83-0234,	Hart, E. W.	OP- 493
	1313	0911			83-0467	Hartzell, Stephen	
Gough, D. I.	OF 82-1075	Gryc, George	C 0911	Hampson, J. C., Jr.	OP- 477	Harwood, D. S.	MF-1177-C,
Gough, L. P.	OF 83-0190,	Gualtieri, J. L.	OF 83-0397	Hampson, P. S.	OF 81-0907	1273-C, 1501-A, 1501-B;	
83-0246		Gude, A. J., III	OF 83-0458;	Hampton, M. A.	OF 83-0171,	OP- 494	
Gouty, N. R.	P 1254	P 1173		83-0200, 83-0404		OP- 495	
Grabbe, R. R.	OF 82-1004	Guerra, R. T.	OP- 828	C 0907;		MF-1506,	
Grady, S. J.	WRI 83-4010	I-1408		Handman, E. H.	C 0907;	1509, 1533	
Graf, J. B.	WRI 83-4136	Guffanti, Marianne	C 0892	Handy, A. H.	WRI 83-4010	OP- 783	
Graham, D. D.	WRI 82-4024	Guild, P. W.	OP- 458,	Handy, M. R.	OF 82-0511	Haselton, H. T., Jr.	OF 83-0079
Graham, D. E.	MF-1419-B	459		Haney, J. T.	OP- 536	Hass, J. L., Jr.	OF 83-0079
Graham, M. J.	OF 81-0141	Gunard, K. T.	OF 82-0433	Hanks, T. C.	OF 83-0424	Hassemer, J. R.	MF-1344-D,
Granger, H. C.	OP- 300,	Guptill, S. C.	C 0895-E		OP- 478,	1425-B, 1425-C, 1463-C;	
	536, 537, 1112	Gurley, J. R.	OF 83-0157	Hanley, J. T.	479, 776, 777	OF 83-0057, 83-0084, 83-0494;	
Granica, M. P.	MF-1130-B,	Guswa, J. H.	OF 80-0067;		OF 83-0335,	PB-83 220 863	
1130-C		OP- 1096		Hanna, W. F.	83-0410	Hastings, D. A.	OF 83-0387;
Grannemann, N. G.	OF 82-0567	Gutentag, E. D.	OP- 460	Hanna, William	OF 82-0931	OP- 81	
Grantz, Arthur	C 0911;	Gutschick, R. C.	OP- 461	Hanneman, D. L.	MF-1585-A	Hatch, J. R.	OF 83-0315;
I-1182-C; OP- 442, 756		Guzzman, Senen	OF 82-0332	Hannum, C. H.	OP- 480	OP- 496, 497, 498	
Graser, W. F.	OP- 609			Hansen, A. J., Jr.	OF 80-1183	p.149;	
Grauch, R. I.	OF 81-0673,			Hansen, B. P.	PB-83 196 022	OP- 485, 499	
83-0163; OP- 10; OP- 153					OF 80-1050,	Hatcher, P. G.	OP- 500
Grauch, V. J.	OP- 259				80-1120	Hatton, Tom	I-1315
Gray, Floyd	MF-1240-D,				I-1033-I;	Hauff, P. H.	P 1173
1381-B, 1381-D, 1423-A;					OP- 481	Havens, J. S.	OF 82-0275;
OF 82-0976					OP- 482	OP- 501	
Gray, G. G.	MF-1526-A				WRI 82-4059	Hawkins, F. F.	OF 83-0058
Greeley, Ronald	I-1408				OP- 961	Hawkins, G. W.	OF 82-0568
Greeman, T. K.	OF 82-0918				B 1291;	Hawkinson, R. O.	OF 83-0138;
Green, G. N.	OP- 986				GF-1568; MF-1163; OP- 483	WRI 82-4076	
Green, H. G.	OF 83-0062				C 0822;	MF-1378;	
Green, M. W.	OP- 443,				OP- 46, 1063	OP- 1323	
444, 445, 446					OF 83-0191	Hay, S.	OF 83-0340
Green, S. L.	OF 83-0254				OF 82-1075	Hayashida, B. S.	OF 82-0316
Greene, H. G.	OF;				OF 83-0767	Hayba, D. O.	OF 83-0450,
OF 82-0975, 83-0062, 83-0293					OF 83-0358	83-0710	
Greene, M. R.	OF 82-0233				OP- 1238;	Hayes, E. C.	OF 81-0907,
Greene, R. C.	OF 83-0295,				P 1213	82-0915, 83-0030, 83-0687,	
83-0333, 83-0448					OF 81-0496	83-0869	
Greenland, L. P.	OP- 211				OF 80-1220-B,	Hayes, L. R.	WRI 82-4110
Greenlaw, F. W.	OF 81-0640				80-1220-E	Hayes, P. T.	MF-1425-B,
Greenlee, D. D.	OF 82-0801;				OP- 1120	1468, 1560-A; OP- 318	
OF 81, 921					Hardison, C. H.	OP- 43;	
Greenwood, W. R.	OF 83-0296;				P 0964	P 1294	
OP- 412, 447, 448					Hardy, E. E.	Hays, W. H.	OF 83-0365
Gregory, R. T.	OP- 933				OF 81-1301,	Hays, W. W.	OF 83-0157;
Greider, G. C.	OF 83-0075				81-1302	OP- 502, 503, 504, 505	
					OF 83-0836	B 1537-C;	
					Hargadine, G. D.	C 0822; OP- 272, 401, 506,	
					PB-82 237 637	507, 508, 689; P 1028	

Head, W. J.	WRI 82-4007	Hewitt, J. E.	OF 82-0034, 83-0122	Holland, T. W.	OP- 540	Hunn, J. D.	WRI 83-4075
Heald-Wetlaufer, P. ..	OF 83-0710	Heyl, A. V.	MF-1511-A, 1665; OP- 526	Holligan, J. A.	MF-0696	Hunt, G. S.	WRI 83-4020
Healey, D. L.	OF 83-0377	Hickey, J. J.	OP- 527	Holloway, C. D.	MF-1557-B	Hunter, R. E.	OF 83-0071, 83-0354; OP- 560, 1034, 1056, 1057
Healey, J. H.	P 1254	Hickling, N. L.	OF 83-0005, 83-0022	Hollyday, E. F.	WRI 82-4059	Huntzinger, T. L.	OF 83-0026; WRI 82-4099
Healy, J. H.	OF 83-0390, 83-0638; OP- 509, 640, 719	Hickman, S.	OP- 528	Holmes, C. W.	OP- 223, 541, 542, 621, 1126	Hussong, D. M.	OP- 561
Hearn, B. C.	OP- 510	Hickman, S. H.	OF 82-1075	Holmes, M. L.	OF 83-0178; OP- 543	Hussong, Donald	OP- 828
Hearn, B. C., Jr.	OF 83-0156, 83-0172; OP- 511	Hicks, D. W.	OF 80-1296	Holmes, W. F.	OF 83-0271, 83-0688	Hutchins, M. F.	OF 83-0665, 83-0709
Hearn, P. P.	OP- 512	Higgins, B. B.	P 1028	Holmstrom, B. K.	OF 81-1193	Hutchinson, Anne	OF 82-1002, 82-1003
Hearne, G. A.	OF 82-0857	Higgins, M. W.	OP- 529	Holt, H. E.	C 0911	Hutchinson, D. R.	OP- 455, 562, 1316
Heath, R. C.	W 2220	Hildebrand, R. T.	OF 83-0477	Hon, Ken	OF 83-0668	Hutchinson, E. C.	I-0856-J, 0856-K
Heaton, T. H.	OP- 513, 514, 515; P 1254	Hildenbrand, T. G. ..	GP-0955; OF 83-0164, 83-0237, 83-0359; OP- 530, 531, 596, 910; P 1236	Hon, Kenneth	OP- 300	Hutchison, J. S.	OF 83-0264
Hecht, L. G., Jr.	OF 81-0317, 81-0349	Hildreth, W.	OP- 472	Hooper, D. B.	OF 82-1043	Hutt, C. R.	OF 82-1087
Hedge, C. E.	OP- 36, 516, 517, 937, 1197, 1314	Hildreth, Wes.	OP- 532, 731, 732	Hood, J. W.	OF 82-0866	Hutton, L. K.	P 1254
Hedlund, D. C.	OP- 1174	Hill, D. P.	OF 83-0708; P 1254	Hood, W. C.	P 1236	Hutton, R. E.	OP- 827
Hedman, E. R.	W 2193	Hill, G. W.	OF 82-0824; OP- 533	Hook, S. C.	OP- 239	Hyndman, P. C.	OF 83-0397, 83-0409
Heermann, S. E.	OF 83-0053	Hill, R. H.	MF-1201-C; OF 82-0283, 82-0954, 82-0984, 82-0996, 82-1050, 83-0003, 83-0077, 83-0403, 83-0643, 83-0646, 83-0647, 83-0649	Hoober, D. B.	OF 82-1043	Hyndman, R. D.	OF 83-0019
Heffern, E. L.	MF-1513, 1662, 1663; OP- 518	Hill, T. J.	OF 82-0913	Hood, W. C.	P 1236		
Heimes, F. J.	WRI 83-4123	Hillhouse, J. W.	B 1529-E; OP- 534, 535	Hoover, D. L.	OF 83-0608		
Hein, J. R.	C 0822; OP- 519, 647, 782	Hillier, B. M.	OF 83-0705	Hoover, Donald	OF 83-0441		
Heisel, J. E.	OF 83-0218	Hillier, D. E.	I-0856-J, 0856-K	Hopkins, D. M.	C 0911; OP- 544, 1105		
Helaby, A. M.	OF 83-0672	Hills, F. A.	OP- 300, 536, 537, 1112	Hopkins, Dorothy	OF 81-0605, 83-0570		
Helgesen, J. O.	WRI 82-4019	Hilmes, G. E.	WRI 82-4095	Hopkins, H. T.	OF 82-0432		
Heliker, C. C.	OP- 216	Himmelberg, G. R. ..	C 0911; OP- 701	Hopkins, R. T.	OF 83-0196		
Helper, M. D.	MF-1540-A	Hinds, J. S.	MF-1345-A	Hopper, M. G.	OF 83-0179; OP- 545; P 1254		
Helsel, D. R.	OF 82-0901; OP- 520	Hinkle, M. E.	C 0901; MF-1649-A	Hopps, H. C.	OP- 546		
Helton, S. M.	OF 83-0015	Hinrichs, E. N.	I-1449; MF-1512	Hopson, C. A.	OP- 547		
Helz, R. T.	OF 83-0326; OP- 521	Hintze, L. F.	MF-0637	Horn, K. J.	MR-0049		
Hem, J. D.	OP- 522; W 1473	Hinze, W. J.	OP- 538, 539; OP- 1315; P 1236	Horn, M. A.	OP- 548; WRI 83-4033		
Hemleben, C. H.	OP- 828	Hirsch, R. M.	OF 83-0550; OP- 1106	Horn, M. C.	MF-1400-C		
Henderson, Thomas..	C 0911	Hite, R. J.	OF 82-1096	Horton, J. W., Jr.	OP- 437		
Hendrick, W. E., Jr.	OF 82-0686	Hladky, F. R.	OF 83-0594	House, L. B.	OF 81-1192		
Hendricks, J. D.	C 0911; OP- 712; P 1236	Hoare, J. M.	B 1529-B, 1529-C	Houser, B. B.	MF-1549; OP- 549, 550; P 1313		
Hendricks, T. A.	MF-1044-A	Hobbs, R. G.	OF 83-0167, 83-0411	Hovland, R. D.	OF 83-0245		
Hendry, C. W., Jr.	MF-1479	Hobbs, S. W.	OF 83-0836	Howard, G. E., Jr. ..	B 1600		
Hendzel, D. E.	OF 83-0407	Hochreiter, J. J., Jr.	PB-83 151 852	Howard, K. A.	MF-1602-A; OP- 551, 552, 553, 1194		
Henry, C. D.	OF 83-0709	Hodges, A. L., Jr.	PB-84 109 149	Howard, P. C.	OP- 1067		
Henry, V. J.	P 1313	Hodges, C. A.	OF 83-0313	Howd, P. A.	OP- 1067		
Hentz, T. F.	OP- 523	Hoffman, J. D.	OF 83-0420-A, 83-0420-B, 83-0420-C, 83-0420-D, 83-0420-E, 83-0420-F, 83-0420-G, 83-0420-H, 83-0420-I, 83-0420-J, 83-0420-K, 83-0420-L, 83-0420-M, 83-0420-N, 83-0420-O, 83-0420-P, 83-0420-Q, 83-0420-R, 83-0420-S, 83-0420-T, 83-0420-U, 83-0420-V, 83-0420-W	Howell, D. G.	OF 83-0716; OP- 104, 105, 554, 590		
Hepburn, J. C.	B 1529-H	Holcomb, R. T.	OP- 1206, 1264	Hoxie, D. T.	WRI 83-4150		
Heran, W. D.	OF 81-0958	Holdsworth, Brian	OP- 589	Hubbard, L. E.	WRI 82-4078		
Herb, W. J.	OF 81-0537, 81-0538			Hubbell, D. W.	C 0850-J		
Herbert, R. A.	OF 82-1012			Huber, D. F.	MF-1423-A		
Herd, D. G.	P 1254			Huber, N. K.	MF-1417-B, 1417-C, 1436, 1437; OP- 555		
Hereford, R.	OP- 1285			Hubiak, Peter	P 1254		
Herman, George	OP- 564			Hudson, H. H.	OP- 556		
Hermes, O. D.	OP- 524			Hudson, J. H.	OP- 1126, 1128		
Hernandez, G. X.	OF 83-0303			Hudson, Travis	OP- 557, 558, 559		
Herndon, R. E.	OF 79-1635, 80-0742, 80-0745, 80-0746, 80-1191			Huebner, J. S.	OF 83-0713; OP- 158, 1226		
Herrmann, R. B.	OF 81-0888			Huffman, A. C.	OP- 813		
Herz, Norman	OP- 525			Huffman, A. C., Jr.	OP- 443, 444, 445, 446		
Hess, G. R.	OF 83-0376			Huffman, G. C.	OF 82-0754		
Hess, M. M.	P 1067-F			Huffman, T. E.	OF 83-0566		
Hesse, Reinhard	OP- 491			Hufschmidt, P. W.	OF 81-0204		
Hester, T. C.	OF 83-0717, 83-0723			Hughes, J. D., Jr.	OF 82-0773		
Hester, W. C.	OF 82-0904			Hughes, R. E.	OF 83-0272		
Hester, W. F.	OF 82-0569			Hull, J. A.	WRI 82-4092, 83-4046, 83-4147		
Hester, W. G.	OF 80-0501-W, 81-1068			Hult, M. F.	OP- 338		
Heusser, L. E.	OF 83-0083, 83-0384						

I

Ibrahim, A. K.	OP- 663
Ikeda, Ryuji	OF 82-1075
Ikeya, Noriyuki	OP- 508
Imbrigiotta, T. E.	WRI 82-4016
Imlay, R. W.	OP- 563, 564
Ingram, B. L.	OP- 565
International Association of Engineering Geology, Commission on Landslide and Other Mass Movements	OP- 1251
Irwin, G. A.	WRI 83-4153
Irwin, J. J.	OP- 446
Irwin, W. P.	OP- 113
Isaacs, C. M.	OP- 566, 567, 568, 569, 570, 571
Iseri, K. T.	W 1541-A
Isom, A. L.	I-1508-A
Iverson, S. R.	MF-1317-C, 1417-B, 1418-B, 1563-A
Iwatsubo, E. Y.	OP- 216
Iyer, H. M.	OP- 352, 572, 1039, 1271
Izbicki, J. A.	WRI 83-4044
Izett, G. A.	OP- 847

J

Jachens, J. R.	MF-1395-F
Jachens, R. C.	MF-1231-D, 1231-E, 1395-B, 1452-B, 1526-B, 1540-B; OF 83-0192, 83-0193, 83-0584; OP- 573
Jackman, A. P.	OP- 90
Jackson, D. B.	OF 83-0066; P 0890
Jackson, Dallas	OF 83-0067
Jackson, W. H.	OF 81-0061
Jacob, C. E.	W 1536-I
Jacobsen, E. F.	OP- 574
Jacobson, M. L.	OF 83-0090, 83-0525
Jacobson, Muriel	OF 83-0019
Jacobson, R. L.	OP- 575
Jacobson, S. R.	OP- 863

Jahren, C. E.	OF 83-0377	Jones, J. G.	MF-1358-D	Kelley, J. S.	OF 83-0232	Kirkham, R. M.	OP- 628
James, O. B.	OP- 576,	Jones, O. D.	OP- 980	Kellogg, K. S.	C 0911;	Kirschenbaum,	
	577, 578	Jones, S. H.	OF 83-0258		OP- 607, 608	Herbert.....	B 1547
Janda, R. J.	OP- 792,	Jones, W. J.	OP- 630	Kelsey, H. M.	OF 81-0496	Kirschner, C. E.....	C 0911;
	874, 875, 1264	Jordan, Raymond ...	I-1411;	Kempema, E. W.	OF 83-0493		OP- 730
Jansa, L. F.	OP- 1085		MF-1484	Kemper, L. L.	OP- 609	Kistler, R. W.	GQ-1570;
Jansma, P. E.	OF 82-1041	Jorgensen, D. G.	WRI 82-4095	Kennedy, E. J.	TWI 03-A13		OP- 629
Jarrett, R. D.	OF 82-0873	Josefson, B. M.	OF 82-0921,	Kennedy, G. L.	OP- 610,	Klasner, J. S.	MF-1405-C,
Jayko, A. S.	MF-1595-A,		82-0925, 83-0262		611, 612		1565-C; OP- 151, 195, 630,
	1595-B; OP- 104, 105	Josselyn, M. N.	OP- 592	Kennedy, V. C.	OF 83-0126;		631
Jenkins, E. D.	WRI 82-4095	Journaux, André	P 1262		OP- 90	Klausing, R. L.	OP- 632
Jenkins, J. T., Jr.	OP- 1133	Joyce, J. M.	MF-1559-B	Kenny, J. F.	OP- 613;	Klein, D. P.	MF-1521-B,
Jenkins, L. B.	C 0864	Joyner, W. B.	OP- 128,		WRI 82-4074		1521-C; OF 83-0238, 83-0292,
Jenks, G. H.	OF 82-1131		593	Kent, B. H.	OP- 959		83-0443, 83-0703, 83-0808;
Jenne, E. A.	OF 80-0341;	Julian, B. R.	OP- 594;	Kent, T. M.	OP- 1306		OP- 633
	WRI 83-4056		P 1254	Kepferle, R. C.	OP- 82,	Klein, F. W.	OF 83-0621;
Jennings, M. E.	OP- 275				687		OP- 634
Jenson, S. K.	OF 83-0387;		K	Kernodle, D. R.	OF 81-1005	Klein, T. L.	MF-1561-C
	OP- 81			Kerns, G. J.	OF 83-0748	Kleinkopf, M. D.	OF 83-0371
Jeske, R. E.	MF-1317-C	Kachadoorian,		Ketner, K. B.	OF 83-0289,	Klemme, H. D.	C 0881
Johannesen, D. C.	MF-1382-A	Reuben	OP- 68		83-0290, 83-0301, 83-0303,	Klesert, Stephen.....	OF 82-0556
Johansson, C.	OF 80-0341	Kahle, J. E.	P 1254		83-0792; OP- 319, 582;	Klick, D. W.	OF 83-0400
John, B. E.	MF-1584-A;	Kalil, F. F.	OF 82-0037		OP- 180	Klingeman, P. C.	OP- 635
	OP- 551, 552, 579	Kalkhoff, S. J.	OF 82-0373,	Keuler, R. F.	MF-1238;	Klingman, D. S.	OF 83-0376
John, D. A.	I-1424;		82-0427, 83-0257		OP- 946, 954	Klise, D. H.	OF 83-0083,
	MF-1322-C, 1365-C, 1382-B,	Kalliokoski, J. O.	OP- 98	Keys, W. S.	OP- 614;		83-0517
	1545	Kalliokoski, Jorma....	OP- 406		TWI 02-E1	Klitgord, K. D.	OP- 455,
Johnson, A. I.	W 1988	Kammerer, P. A., Jr.	PB-83 165 175	Kharaka, Y. K.	OP- 97, 615,		562, 990, 1207; P 1313
Johnson, B. R.	MF-1476-A,	Kanamori, Hiroo	P 1254		616, 617, 1046	Klock, P. R.	OP- 779
	1476-B	Kane, Jean	OP- 913			Klockenbrink, J. L. ..	MF-1662,
Johnson, C. E.	OP- 255,	Kane, M. F.	OF 83-0616;	Khoury, H. N.	OP- 332,		1663, 1664
	429, 580; P 1254		OF- 595, 596, 1318; P 1028,		618	Kluender, S. E.	MF-1343-B,
Johnson, Carl.....	OF 82-0726		1236	Kibler, J. D.	OF 83-0642		1542-C
Johnson, D.	OF 83-0511	Kapinos, F. P.	OF 83-0400	Kibler, J. E.	OF 83-0321,	Knebel, H. J.	MF-1537;
		Kaplan, I. R.	OP- 434		83-0399		OP- 137, 430, 852, 853, 1072
Johnson, D. G.	WRI 82-4123	Karavitis, G. A.	OF 83-0127	Kidd, R. E.	OF 82-0913	Knepper, D.	OP- 636
Johnson, D. J.	OP- 329	Karklins, O. L.	OF 83-0021;	Kiefer, J. D.	OF 83-0157	Kness, R. F.	MF-1353-C
Johnson, E. A.	OP- 581		OF 83-0021,	Kieffer, H. H.	I-1411;	Knight, R. J.	OF 83-0287
Johnson, F. L.	MF-1380-B,	Karl, H. A.	OF 83-0024,		OP- 934	Knipmeyer, J. H.	OF 82-0034,
	1507-B		83-0618, 83-0707; OP- 197,	Kieffer, S. W.	OP- 619		83-0122
Johnson, G. R.	OF 83-0736,		198, 598, 599	Kiilsgaard, T. H.	MF-1500-A,	Knobel, L. L.	OF 82-1015;
	83-0808	Karl, S. M.	MF-1476-A;		1500-B, 1550-C; OF 82-1099,		OP- 221
Johnson, H. P.	OF 83-0464		OP- 519		83-0836; OP- 1281	Knott, R. K.	OF 83-0214
Johnson, J. G.	OP- 582	Karlinger, M. R.	PB-83 196 022;	Kilburn, Chabot	OF 81-0499	Knowles, D. B.	W 1536-I
Johnson, K. A.	MF-1340-C;		W 2216	Kilburn, J. E.	MF-1603-A;	Knox, R. D.	MF-1602-A
	OP- 197	Karpas, R. M.	OF 83-0117,		OF 83-0012, 83-0498	Koch, C. F.	OF 83-0451;
Johnson, K. G.	OF 81-0331,		83-0563	Kilpatrick, F. A.	OF 82-0871;		OP- 637, 1154, 1155
	81-0480	Karsten, J. L.	OF 83-0464		TWI 03-A14	Koch, N. C.	WRI 82-4064,
Johnson, K. M.	OF 83-0329,	Katzenbach, M. S.	OF 83-0681	Kimball, A. L.	MF-1476-B		83-4234
	83-0523, 83-0836	Kauahikaua, Jim	OF 83-0065,	Kimball, B. A.	OF 83-0216,	Kocherhaus, J. G.	OF 82-1075
Johnson, K. R.	OF 83-0727		83-0066, 83-0067		83-0271	Kockelman, W. J.	OF 83-0082;
Johnson, M. G.	MF-1383-C,	Kauffman, C. D., Jr.	OF 82-0861	Kimrey, J. O.	OF 82-0860;		OP- 638
	1383-D	Kauffmann, M. L.	OF 82-0316		OP- 620	Koehler, J. H.	WRI 82-4122,
Johnson, M. S.	OP- 583	Kaufman, Sidney	P 1313	Kindinger, J. L.	OP- 621		83-4053
Johnson, P. L.	MF-1348-D;	Kaufmann, H. E.	OF 83-0051	King, Chi-Yu	OP- 622	Koester, H. F.	OF 81-0070
	OP- 347	Kaye, C. A.	OP- 600	King, E. A.	I-1409	Koesterer, C. L.	OF 83-0462
Johnson, P. W.	OF 81-0140	Kays, M. A.	MF-1452-A	King, E. R.	OP- 195	Kohler, W. M.	OF 83-0390;
Johnson, R. B.	I-0558	Keefer, D. K.	OF 83-0019,	King, H. D.	OF 80-0811-H,		OP- 639, 640
Johnson, R. C.	MF-1130-B,		83-0511; OP- 1308		80-0811-I, 80-0811-J,	Kollman, A.	OP- 1271
	1130-C, 1575, 1667	Keefer, E. K.	MF-1562		80-0811-K, 80-0811-L,	Konikow, L. F.	OF 83-0126;
Johnson, S. S.	OP- 584,	Keefer, W. R.	I-0847-A		80-0811-M		OP- 641, 642; W 2044;
	671	Kehn, T. M.	B 1529-H;	King, K. W.	OF 82-1044;		WRI 83-4034
Johnson, T. C.	OP- 1316		C 0891; MF-1405-C, 1565-C;		OP- 504, 505	Kontis, A. L.	OP- 1135
Johnson, W. H.	OP- 821		OP- 1319	King, N. E.	OP- 623,	Koob, R. D.	OP- 450
Johnston, D. A.	OF 82-0893	Keighin, C. W.	OP- 601		624	Kopf, R. W.	OP- 643
Johnston, M.	OP- 296	Keith, T. E.	OF 83-0170-A;	King, P. B.	p.149	Kork, J. O.	OF 83-0492;
Johnston, M. J.	OP- 585,		OP- 181, 602	King, S. C.	MF-1004-B		PB-83 255 042
	586; P 1254	Keith, W. J.	MF-1101-D,	Kipp, K. L.	OP- 1062	Kornegay, B.	OF 83-0702
Johnston, R. H.	OP- 587		1416-B	Kirby, J. R.	OP- 477	Korzeb, S. L.	MF-1574,
Jones, A. C.	OF 83-0463	Keller, G. R.	OF 83-0164;	Kirby, S. H.	OP- 172,		1577-A
Jones, B. F.	OP- 332,		P 1236		625, 626, 678	Kosanke, R. M.	OP- 644,
	588, 618, 1167	Keller, Gerta	OP- 62,	Kircher, J. E.	OP- 627;		645
Jones, D. L.	OF 83-0011,		63, 64, 603, 604, 605		WRI 82-4046	Kosco, W. J.	C 0911
	83-0373, 83-0716; OP- 106,	Keller, M. A.	OP- 606	Kirk, A. R.	OF 83-0056,	Koski, R. A.	C 0822;
	589, 590, 591, 972	Keller, V. G.	OP- 586		83-0704; OP- 244, 813;		OP- 646, 647, 648, 649
Jones, D. M.	OP- 339	Kellev, D. L.	OF 83-0335		OP- 443, 444, 445, 446	Koszalka, E. J.	OF 82-0160,
							82-0162, 82-0163;
							WRI 82-4075

- Koteff, Carl OP- 650
 Kouvo, O. OP- 937
 Kovach, Jack OP- 651
 Koyanagi, R. Y. OP- 288;
 P 0890
 Kozak, R. C. OP- 1082
 Kratzer, W. M. OF 83-0251
 Krause, R. E. OF 80-1296,
 82-0173
 Kraxberger, V. E. MF-0900-C
 Krebs, W. N. OP- 652
 Kredler, T. J. MF-1584-A
 Krejmas, B. E. OF 82-0631,
 82-0632, 82-0633
 Kresch, D. L. WRI 82-4125
 Kriens, B. J. OF 82-1127
 Krinitzsky, E. L. OF 83-0636
 Krohn, M. D. OP- 653
 Kron, A. OP- 636
 Kropschot, S. J. P 1300
 Krotser, D. J. OP- 1036
 Krulikas, R. K. WRI 82-4075
 Krumhardt, A. P. WRI 82-4097
 Kry, P. R. OF 82-1075
 Ku, H. F. OF 81-0420;
 WRI 82-4017
 Kucks, R. P. GP-0955;
 OF 83-0359; OP- 531
 Kues, G. E. OF 81-0218;
 OP- 654
 Kuhn, Gerhard OF 83-0146
 Kuiper, L. K. OP- 655
 Kulik, D. M. MF-1489
 Kume, Jack OF 82-0868
 Kuntz, M. A. MF-1462-A,
 1462-B
 Kuriyagawa, Michio OF 82-1075
 Kurklin, J. K. OF 83-0767
 Kuzniar, R. L. OP- 656,
 657
 Kvenvolden, K. A. OF 83-0822;
 OP- 115, 233, 658, 659, 660,
 1253
 Kyser, T. K. OP- 661
- L
- La Rose, H. R. WRI 83-4126
 La Violette, J. W. OF 83-0834
 LaBelle, R. P. OF 83-0117,
 83-0119, 83-0563, 83-0882
 Lachenbruch, A. H. C 0911;
 OF 82-1039, 83-0455, 83-0476;
 OP- 662
 Ladd, J. W. OP- 663,
 1258
 Laenen, Antonius W 2213
 Laenen, J. M. C 0850-J
 LaForge, R. OP- 664
 Lahr, J. C. OF 83-0014,
 83-0015, 83-0592, 83-0744;
 OP- 665, 1181
 Laird, Jo. OF 83-0170-A
 Lajoie, K. R. MF-0709,
 1659; OP- 611, 612, 666, 781,
 834
 Lamar, D. L. OF 83-0834
 Lamb, T. E. OF 83-0046;
 WRI 82-4048
 Lambert, P. W. OP- 397
 Lampert, P. D. B 1600
 Lamson, R. J. OF 83-0390
 Landim, P. M. OP- 880
 Landis, E. R. MF-1509;
 OF 83-0280; OP- 95
 Landis, G. P. OP- 882,
 884
- Lane, L. J. P 1288
 Lane, M. E. MF-1319-B,
 1463-C, 1475-B, 1475-C,
 1483-A, 1483-C, 1516
 Lanfear, K. J. OF 81-0605,
 83-0117, 83-0120, 83-0563,
 83-0882
 Langbein, J. O. OP- 1146;
 P 1254
 Langbein, W. B. W 1541-A
 Langenheim, V. A. MF-1492-A
 Langer, W. H. OF 83-0743
 Langford, R. H. OF 83-0126
 Langston, C. A. OF 83-0019
 Lankford, N. K. OF 83-0220
 Lanphere, M. A. OF 83-0094;
 OP- 667, 1011; P 1313
 Lapham, W. W. PB-83 196 147
 Laraway, W. H. OF 83-0748
 Largen, J. B. WRI 82-4069
 Larragueta, L. L. HA-0657
 Larsen, D. M. C 0872
 Larson, J. D. I-1473;
 OF 82-0432
 Larson, L. R. OF 82-0758
 Larson, S. P. WRI 82-4019
 Latham, G. V. OP- 663
 Laughlin, C. P. OF 82-0331
 Law, B. E. MF-1548;
 OP- 668
 Law, L. M. OP- 616,
 617
 Law, R. E. MF-1504
 Lawrence, V. A. I-1310-B;
 MF-1542-A, 1542-B;
 OF 83-0391
 Lawson, W. A. OF 83-0392
 Lawver, L. A. OF 82-1039
 Leach, D. L. MF-1231-B,
 1231-C, 1231-E
 Leach, S. D. WRI 82-4090
 Leahy, P. P. OF 82-1015;
 WRI 82-4023
 LeAnderson, Jim OP- 669
 Learned, R. E. MF-1547-A;
 OP- 670, 803
 Leavesley, G. H. OF 83-0126
 Leavy, B. D. I-1313-C;
 OP- 671
 LeBlanc, D. R. OF 80-0067,
 82-0438; OP- 672, 673
 Lee, D. E. OF 83-0337,
 83-0629; OP- 674
 Lee, D. I. MR-0049
 Lee, F. T. C 0876
 Lee, G. K. OF 83-0196
 Lee, H. J. OF 83-0499;
 OP- 675, 1248
 Lee, J. K. WRI 82-4119
 Lee, K. Y. OP- 676
 Lee, Kennan OF 83-0099
 Lee, M. P. OP- 459
 Lee, M. W. OP- 54,
 677
 Lee, R. W. OP- 678
 Lee, W. H. OF 82-0316,
 83-0062, 83-0319; OP- 664
 Leeman, W. P. OF 83-0338
 Leenheer, J. A. WRI 82-4076
 Lefebvre, R. H. MF-1462-A,
 1462-B
 LeHuray, A. P. OP- 679,
 680
 Leighley, T. A. OP- 216
 Leinz, R. W. OF 83-0088,
 83-0644, 83-0666
- Leitman, H. M. W 2196-A
 Lemmon, D. M. OF 83-0181
 Lemon, E. M., Jr. B 1529-H;
 OP- 926
 Leonard, B. F. OF 83-0151,
 83-0836
 Leone, H. L., Jr. OP- 293
 Leone, L. E. OF 83-0390
 Leong, Kam OP- 100
 Leopold, L. B. OP- 681
 Lepp, C. L. MF-1554
 LeRoux, E. F. OF 82-0912,
 83-0754
 Leslie, T. P 1254
 Lesure, F. G. B 1510;
 MF-1358-D, 1510-C, 1527-D,
 1561-C, 1587-C; OF 83-0173
 Leszykowski, A. M. MF-1177-C,
 1395-F, 1515,
 1595-B; OF 83-0397
 Lettis, W. R. OF 82-0526
 Leutgert, J. OP- 682
 Leve, G. W. OP- 683,
 684
 Leventhal, J. S. C 0822;
 OF 83-0315; OP- 497, 498,
 685, 686, 687
 Leverett, K. A. MF-1559-B
 Levey, R. T. OP- 422
 Levine, Gilbert OP- 890
 Levings, G. W. OF 82-0562,
 82-0563, 82-0564, 82-0565,
 83-0129; WRI 82-4101
 Levings, J. F. WRI 83-4146
 Lewis, J. D. OF 82-0560
 Lewis, J. G. WRI 83-4068
 Lewis, R. E. P 1044-A;
 WRI 82-4006
 Lewis, R. L. OF 82-0036
 Lewis, R. S. OF 83-0836
 Li Fang-quan OF 82-1075
 Li Yan-mei OF 82-1075
 Lichte, F. E. OF 83-0405;
 OP- 269
 Lichtman, G. S. OF 83-0464;
 OP- 688
 Lico, M. S. OP- 617
 Liddicoat, J. C. OP- 689;
 P 1256
 Lidiak, E. G. P 1236
 Lidke, D. J. I-1033-J;
 MF-1469-A; OP- 690
 Lidwin, R. A. PB-83 165 175
 Lidz, B. H. OP- 1126,
 1128
 Lieb, R. J. C 0892
 Lienkaemper, J. J. OF 83-0511;
 P 1254
 Light, T. D. MF-1394-C,
 1523-A, 1523-B, 1560-A,
 1602-A; OF 83-0007, 83-0581
 Lind, C. J. OP- 522;
 W 2204
 Lind, W. B. OP- 691
 Linden, D. S. OF 82-0814
 Lindgren, R. J. OF 83-0222;
 OP- 692; WRI 82-4011
 Lindh, A. G. OF 83-0063,
 83-0511; OP- 441,
 693, 839
 Lindholm, G. F. OF 82-1022
 Lindner, J. B. HA-0671;
 WRI 82-4021
 Lindsey, D. A. OP- 694
 Lindskov, K. L. OF 83-0216
- Lindvall, R. M. GQ-1567
 Lines, G. C. OF 81-0216,
 83-0038; W 2195
 Link, P. K. OP- 268
 Linker, M. F. OP- 1146
 Linne, J. M. MF-1419-B,
 1526-B
 Lipman, P. W. I-0764;
 MF-1570-B; OP- 465, 695, 696
 Lipps, J. H. OP- 1238
 Lips, E. W. OF 83-0635
 Lipton, D. A. MF-1492-B,
 1649-A
 Liscum, Fred OF 82-0164,
 83-0264
 Lisowski, Michael OP- 994, 995
 1079, 1180
 List, J. H. OF 83-0351
 List, R. D. OP- 697
 Litke, D. W. WRI 82-4087
 Litner, S. F. C 0872
 Little, J. R. OF 83-0773
 Liu, H. L. OP- 515
 Liu, Hsi-Ping OP- 698,
 699, 700
 Liu-Peng OF 82-1075
 Lockwood, J. P. OP- 288
 Loelkes, G. L., Jr. B 1600;
 OF 83-0102
 Loen, J. S. OF 83-0414
 Lohman, S. W. W 1988
 Lohse, R. L. P 1236
 London, E. H. OP- 1193
 Loney, R. A. OP- 701
 Long, C. L. OF 83-0340
 Long, G. L. MF-1354-B
 Long, L. T. P 1028
 Longwill, S. M. OF 80-0326
 Longwill, W. D. MF-1564-A,
 1595-B
 Lopez, D. A. OF 83-0168;
 OP- 915, 1059
 Lopez, M. A. PB-83 171 884
 Lorens, J. A. OP- 316
 Loskot, C. L. OP- 702
 Love, J. D. OF 83-0802;
 OP- 1112
 Lowe, L. E. OF 82-1004
 Lowry, M. E. HA-0471;
 OF 83-0545
 Lowry, Paul OF 83-0124,
 83-0557
 Lucchitta, B. K. OP- 703,
 704, 705, 706, 707, 708, 709,
 710
 Lucchitta, Ivo B 1529-H;
 OP- 711, 712, 1199; P 1183
 Luce, R. W. MF-1287-B,
 1287-D
 Luckey, R. R. WRI 82-4072,
 83-4123
 Ludington, Steve MF-1570-A,
 1582-A; OF 83-0382, 83-0516;
 OP- 669
 Ludwig, A. H. OP- 540
 Ludwig, K. R. OP- 713,
 1074
 Luedke, R. G. I-0764,
 1091-E
 Luepke, Gretchen OF 82-1091;
 OP- 714
 Luft, S. J. MF-1513;
 OP- 186, 187, 262, 263
 Lukert, M. T. OP- 715

Lumb, A. M.	OF 82-0334	Mann, L. J.	WRI 83-4043	May, D. J.	MF-1378	McGarr, A.	OP- 773,
Lumbers, S. B.	OP- 1139	Mann, O. C.	OF 83-0157	May, F. E.	P 1028	774, 775, 776, 777; OP- 1146;	P 1254
Lumia, Richard	WRI 82-4112	Mann, W. B., IV	C 1001;	May, G. D.	OF 83-0236,	McGee, E. S.	OF 83-0156,
Lund, Karen	MF-1557-A,		OF 82-0862, 83-0207		83-0670	83-0172; OP- 511	
1557-B, 1576-A; OP- 716		Mansfield, Jerome	OF 83-0157	May, S. D.	C 0911;	McGee, J. J.	OF 83-0817
Luoma, S. N.	OF 80-0341;	Marcher, M. V.	OF 81-1187;		OP- 756	McGill, G. E.	I-1409
OP- 717		Marcus, S. M.	WRI 82-4099	May, S. R.	OF 83-0799	McGimsey, D. H.	MF-1604-A
Lupe, R. D.	OP- 186,	Marcuson, W. F., III	C 0901	May, V. J.	OF 81-0492	McGimsey, R. G.	MF-1465-A
188, 189, 443, 444, 445, 446,	953	Marincovich, L.	OF 83-0636	Mayer, Larry	OP- 757	McGinnis, L. D.	P 1313
Lupe, Robert	OC-0118;	Marincovich, L., Jr.	OP- 737	Mayerle, R. T.	MF-1547-A;	McGregor, B. A.	OF 83-0396
OP- 718		Marinenko, John	C 0911		OF 83-0409	McGuinness, C. L. ..	HA-0194;
Lurry, D. L.	OF 82-0690	Mariner, R. H.	OP- 807	Mayfield, C. F.	C 0793;	W 1988	
Lutter, W. J.	OP- 428,		C 0892;	OF 83-0183, 83-0184, 83-0185,			
719; P 1254		Mark, R. K.	OF 83-0250	83-0505, 83-0779		McHendrie, A. G.	OF 83-0706
Lybeck, L. D.	OF 83-0104	Markewich, H. W.	OF 80-0016	Mayo, R. I.	OF 80-0016	McHendrie, G. A.	OF 83-0906
Lyford, F. P.	OP- 1195		I-1417;	Mays, R. E.	OP- 602	McHugh, E. L.	OF 83-0408
Lyons, J. B.	OP- 499	Markon, Carl	OP- 738, 739, 740	Maze, W. B.	OP- 758	McHugh, J. B.	OF 83-0286,
Lyons, P. C.	OP- 500,	Marks, D. L.	C 0911	Mazzaferro, D. L.	OF 80-0751	83-0738, 83-0777; OP- 778	
574, 720, 721		Marks, L. Y.	OP- 129	McBroome, L. A.	MF-1462-A;	McIntyre, D. H.	I-1450;
Lystrom, D. J.	OF 83-0138	Marks, S. M.	OF 82-0988		OP- 759	OF 83-0236, 83-0329, 83-0523,	83-0836
		Marks, S. M.	OP- 343	McCalpin, James	OP- 242		P 1173
		Marlow, M. S.	OF 82-1090,	McCammon, R. B. ..	OF 83-0804;	McKee, E. D.	B 1529-E;
		83-0322, 83-0325, 83-0519,	83-0707; OP- 741, 742, 743,	OP- 760; PB-83 255 042		McKee, E. H.	MF-1317-C, 1400-C, 1411-C,
		828		McCann, M. W., Jr.	OP- 761,	1492-A, 1492-B; OF 82-1052;	
Mabey, D. R.	C 0866;	Marsh, L.	OP- 982		762	OP- 779, 830, 873, 1224	
MF-1462-A, 1462-B;		Marsh, L. M.	OP- 920	McCardle, Lauri	OP- 300	McKelvey, V. E.	C 0886
OF 83-0836; OP- 910		Marsh, S. P.	OF 83-0197,	McCartan, L.	C 0911	McKenzie, D. J.	WRI 83-4003,
MacCary, L. M.	OF 82-0906;	83-0442, 83-0524; OP- 744;		McCartan, Lucy	B 1529-H;	83-4153	
OP- 722; P 1273-E;			P 1300	McCarthy, C. M.	OF 83-0124,	McKenzie, S. W.	C 0850-J;
TWI 02-E1		Marshall, B. V.	C 0911;		83-0557	OF 82-0645; PB-83 188 235	
Machette, M. N.	I-1444,		OP- 662	McCarthy, K. P.	OP- 764	McKeown, F. A.	P 1236
1445; MF-1465-A; OP- 723		Marshall, W. L.	OP- 392	McCauley, J. F.	OP- 144,	McKown, D. M.	OF 83-0836
Maciel, G. E.	OP- 500	Martin, C. M.	MF-1556-B		765, 766	McLaren, M.	OP- 780
Macke, D. L.	OP- 1112	Martin, M. M.	OF 81-0916	McCauley, J. R.	OP- 613	McLaughlin, R. J.	MF-1544-A;
Mackenzie, A. B.	OP- 472	Martin, R. A.	MF-1463-C,	McClafflin, R. G.	OF 81-0062	OP- 510, 781, 834	
MacLay, R. W.	OP- 724,		1483-A, 1483-B	McClearn, R.	OF 83-0511	McLean, D. M.	P 1028
725; OP- 1013		Martin, R. G.	OF 83-0023;			McLean, Hugh.	MF-1559-B;
MacLeod, N. S.	OF 83-0591;	OP- 165, 382, 745		McClellan, P. H.	OP- 767	OP- 782	
OP- 726, 1264		Martinson, H. A.	HA-0661;	McClennen, C. E.	OF 83-0422	McLellan, M. W.	MF-1506,
MacQueen, J. D.	OP- 543		OP- 792	McCollough, W. F. ..	OP- 716	1509, 1533; OP- 783	
Madden, G. T.	OF 83-0453,	Marvin, R. F.	OP- 553,	McColly, R. A.	MF-1577-A	McLelland, James	P 1241-E
	83-0488		1004	McCoy, Scott	B 1529-B	McLennan, J. D.	OF 82-1075
Mades, D. M.	OF 82-0693	Maslia, M. L.	OP- 31	McCulloch, D. S.	OF 83-0906	McMechan, G. A.	P 1254
Madole, R. F.	I-1346;	Mason, J. L.	OF 82-0445	McCulloh, T. H.	OP- 150,	McMillen, K. J.	OP- 663
OP- 727		Mason, J. W.	PB-83 165 175		768; P 0420-A	McNellis, J. M.	OF 80-0326
Madrid, H. B.	OF 83-0586	Mason, R. G.	P 1254	McCutcheon, S. C. ..	OF 82-0851;	McNutt, M. K.	OP- 784,
Maevsky, Anthony ..	OF 80-0431	Masters, C. D.	C 0881,		OP- 769		785,
Magill, J. R.	OP- 1137		0911; OF 83-0728	McDanal, S. K.	OF 82-1066,		OP- 788,
Magistrale, Harold ..	OF 83-0519	Masursky, H.	OP- 746	83-0234, 83-0339, 83-0420-A,			789
Magoon, L. B.	C 0911;	Matalas, Nick	OP- 747	83-0420-B, 83-0420-C,		McPherson, B. F.	OP- 786;
OP- 728, 729, 730		Mathes, M. V.	OF 82-0351	83-0420-D, 83-0420-E,		WRI 83-4126	
Mahood, Gail.	OP- 731,	Mathieson, S. A.	OP- 612	83-0420-F, 83-0420-G,		McPherson, Emma ..	WRI 82-4124
	732	Matthews, E. W.	W 2202	83-0420-H, 83-0420-I,		McPhillips, Maureen	OP- 1065
Majer, E. L.	OF 82-1075	Matthews, J. V., Jr.	OP- 1105	83-0420-J, 83-0420-K,		McWreath, H. C.,	
Maley, R.	OF 83-0511;	Matthews, R. K.	OP- 748	83-0420-L, 83-0420-M,		III	C 0872
	OP- 133	Matthews, S. E.	OF 80-0501-W,	83-0420-N, 83-0420-O,		Meade, R. H.	HA-0661;
Maley, R. P.	OP- 733;	81-1068, 82-0904		83-0420-P, 83-0420-Q,		OF 83-0679; OP- 804, 879,	
	P 1254	Matthiesen, R. B.	P 1254	83-0420-R, 83-0420-S,			880
Malicki, Dave.	P 1236	Matti, J. C.	MF-1159-B,	83-0420-T, 83-0420-U,		Meador, P. J.	OF 83-0708
Malin, M. C.	OP- 734	1161-C, 1563-A; OF 82-1128		83-0420-V, 83-0420-W;		Medina, Mauro	P 1254
Malone, S. D.	OP- 735,	Mattraw, H. C., Jr. ..	OF 83-0130	PB-83 220 863, 83 255 059		Medlin, A. L.	OP- 783,
	1205, 1279	Maughan, E. K.	C 0902-A-P;	McDonnell, J. R.	OP- 300,		787
Maloney, T. J.	OF 83-0143	OP- 749, 942, 943		446, 536		Meehan, K.	OP- 636
Malterer, T. J.	OF 81-1301,	Maura, W. S.	OF 82-1017	McDonnell, J. R.,		Mehnert, H. H.	OF 83-0668
	81-1302	Maurer, D. K.	GP-0952;	Jr.	MF-1602-A	Meier, A. L.	OF 83-0242,
Mamet, Bernard.	OP- 99	OP- 1083		McDougal, C. M.	OF 83-0088,	83-0415	
Mancini, E. A.	OP- 426,	Mauzer, D. K.	OF 81-0918	83-0197, 83-0242, 83-0342,		Meier, M. F.	P 1258-C
	1147	Mavko, B. B.	OP- 750,	83-0524,		Meikle, R. L.	OF 83-0211
Mandle, R. J.	OP- 1135,		751	83-0705		Meinzer, O. E.	W 0494
	1136	Mavko, G. M.	OP- 752,	McDougall, Kristin ..	C 0911;	Meisler, Harold	OF 82-1015;
Manheim, F. T.	OP- 246		753	OP- 770, 771; P 1213		WRI 83-4028	
Manker, J. P.	OF 83-0580	Maxwell, C. H.	MF-1665;	McEvilly, T. V.	OF 82-1075	Meissner, C. R., Jr. ..	OF 83-0310,
Mankinen, E. A.	OP- 736	OP- 754, 755		McEwen, A. S.	OP- 772	83-0609; OP- 721, 913	
Manley, Kim	MF-1516	Maxwell, G.	OF 83-0511	McEwen, R. B.	C 0895-A	Melnick, J. P.	OF 83-0014,
Mann, D. M.	OF 83-0593			McFadden, K. W.	OF 82-0904		83-0015

Melosh, H. J.	OP- 964	Milton, D. J.	OP- 437	Morlock, Clayton	MF-1515	Murrey, D. G.	OP- 764
Menard, H. W.	OP- 785,	Milton, N. M.	OP- 808	Mörner, N. A.	OP- 834	Muth, L.	OF 83-0702
	788, 789	Minard, J. P.	MF-1543	Morrell, R. P.	OP- 147,	Muth, Loran	OP- 183
Mendieta, H. B.	OF 82-0650;	Ming, C. O.	OF 83-0752		148	Mutschler, F. E.	OF 83-0382,
	WRI 82-4124	Minges, D. R.	OF 82-0873	Morris, E. C.	C 0911;		83-0516
Mengis, R. C.	OF 82-0106	Mink, J. F.	OF 82-0628		OP- 835	Mutti, Emiliano	OP- 855
Menzie, W. D.	OF 83-0170-A,	Minkin, J. A.	C 0894	Morris, E. E.	WRI 82-4063	Myers, D. A.	OP- 846
	83-0170-B	Minor, S. A.	OF 82-1126,	Morris, H. T.	OF 83-0181,	Myers, D. R.	OF 83-0036
Mercer, Mark	OP- 1112		82-1127, 83-0281, 83-0282,		83-0583; OP- 836	Myette, C. F.	OF 82-0909
Meredith, T. S.	HA-0669		83-0283, 83-0284, 83-0285	Morris, R. W.	MF-1522	Mytton, J. W.	C-0092-A;
Merewether, E. A.	P 1253	Minsch, J. H.	C 0871-D,	Morrison, C. E.	C 0911		OP- 1094
Mergner-Keefer,			0896-A	Morrison, S. D.	OF 81-0496;		
Marcia P 1313		Missimer, T. M.	OF 81-0638		OP- 781, 834		
Merguerian, Charles	OP- 790	Missouri River Basin		Morrissey, D. J.	W 2195		
Merk, C. F.	OF 80-1220-B,	Commission OF 82-0235		Morrone, J. E.	OF 83-0169	Nady, Paul HA-0657	
	80-1220-E	Mitchell, B. J.	OF 81-0888;	Morrone, J. F.	OF 82-1032	Naeser, C. W.	OP- 150,
Merritt, M. L.	OF 83-0536;		P 1236	Morrow, C.	OF 83-0475;		464, 518, 847, 848, 895, 1004,
	OP- 791	Mitchell, C.	PB-83 220 814		OP- 837		1010
Meunier, T. K.	C 0911	Mitchell, G. D.	OF 80-0585	Morrow, C. A.	OF 83-0180;	Nakassis, Anastase ..	OF 83-0882
Meyer, C. E.	OP- 1104	Mitchell, Heidi-Lynn	OF 83-0727		OP- 818, 819	Nakata, J. K.	OP- 849
Meyer, D. F.	OP- 792	Mixon, R. B.	OP- 991	Mortensen, C. E.	OP- 838	Naqvi, M.	OF 83-0672
Meyer, Dann W 2185-E		Mize, L. D.	OF 83-0760	Morton, D. M.	P 1254	Narf, R. P.	PB-83 165 175
Meyer, F. W.	OF 83-0515;	Mizell, N. H.	OP- 1195	Morton, J. L.	B 1529-E;	Narten, P. F.	C 0872
	OP- 404	Modreski, P. J.	OF 83-0836;		OF 83-0464, 83-0827;	Nash, J. T.	OF 82-1052,
Meyer, G. A.	MF-1521-A		OP- 1284		OP- 648		82-1086, 83-0239; OP- 300,
Meyer, R. F.	OF 82-0475	Moench, R. H.	OP- 499	Mory, P. C.	B 1549;		536, 537
Meyer, R. R.	W 1536-I	Molenaar, C. M.	C 0902-A-P;		MF-1288-D, 1505-B	Nash, K. L.	OP- 234
Meyer, William	OF 82-0771		OP- 809, 810, 811, 812, 813	Moser, F. C.	OF 82-0818-A	Nason, Robert OP- 850,	
Michael, P. J.	OP- 532	Moll, E. J.	OF 80-0811-G	Moses, T. H., Jr.	OF 82-1039;		851; P 1254
Michaelson, C. A.	OP- 793	Molnar, Peter OP- 1188			OP- 662	Naten, R. W.	OF 81-0644
Miesch, A. T.	OF 83-0094;	Molnia, B. F.	MF-1456;	Mosier, D. L.	OF 83-0089,	Nathenson, M.	OP- 1240
	OP- 794, 795, 1011		OF 83-0247; OP- 814		83-0623, 83-0902	Nathenson, Manuel ..	C 0892
Milazzo, V. A.	OF 83-0116	Monfort, M.	OP- 815	Mosier, E. L.	C 0911;	Natland, J. H.	OP- 828
Miler, L. O.	OF 83-0157	Monfort, M. E.	OF 82-0409		MF-1004-B, 1344-D;	Nealey, L. D.	OP- 1285
Miller, A. J.	OP- 796	Monteith, Sara OP- 339			OF 82-1066, 83-0234, 83-0342,	Nealson, K. H.	OP- 286
Miller, B. M.	C 0902-A-P	Montero P., Walter ..	OP- 816		83-0366, 83-0471, 83-0501;	Needell, S. W.	C 0870;
Miller, C. D.	OF 83-0068;	Montgomery, C. T. ..	OF 82-1075		P 1181		MF-1537; OP- 852, 853
	OP- 797	Mooney, W. D.	OF 83-0390,	Moss, C. K.	MF-1343-B,	Needham, Russell	P 1254
Miller, D. M.	MF-1584-A; OF		83-0638; OP- 428, 682, 719,		1511-A	Neeley, C. L.	OF 83-0187
	83-0725; OP- 552, 798; P 1254		817, 1270; P 1254	Moss, M. E.	OF 83-0126,	Negri, J. C.	MF-1162-E
Miller, F. K.	MF-1447-A,	Moore, C. R.	OF 82-0768		83-0261	Nelson, A. E.	MF-1502-A;
	1447-B, 1447-C, 1448-A,	Moore, D.	OF 83-0475;	Moths, B. L.	OP- 839		OP- 854
	1448-B; OF 82-1061, 82-1062,		OP- 837	Motooka, J. M.	OF 83-0074,	Nelson, C. H.	OF 83-0727;
	82-1063, 83-0600, 83-0601,	Moore, D. E.	OP- 818,		83-0084, 83-0234, 83-0343,		OP- 855
	83-0602		819, 820		83-0444, 83-0738	Nelson, C. M.	OP- 856,
Miller, G. A.	WRI 82-4076	Moore, D. W.	OP- 821	Motzer, W. E.	OP- 840		857
Miller, G. P.	I-1257-B	Moore, G. E., Jr.	GQ-1571	Moulton, G. F.	P 1256	Nelson, G. H., Jr.	OF 79-1636,
Miller, J. A.	OF 81-1124,	Moore, G. K.	OF 81-1358	Moyle, W. R., Jr.	OF 82-0855		80-1183, 83-0752
	81-1176, 81-1177, 81-1178,	Moore, G. W.	OP- 822,	Mudge, M. R.	I-1300,	Nelson, G. L.	OF 81-0685,
	81-1179; OP- 800, 801, 802;		823		1375; OF 82-0988, 82-1030		82-1016
	OP- 799	Moore, H. J.	OP- 824,	Mudgett, P. B.	OP- 300,	Nelson, L. M.	WRI 83-4083
Miller, J. B.	OF 82-0853		825, 826, 827		536, 1112	Nelson, R. A.	OF 82-1075
Miller, J. E.	OF 82-0774	Moore, J. C.	OP- 828	Mueller, C.	OF 83-0511	Nelson, W. H.	C 0911;
Miller, J. J.	OF 83-0316;	Moore, J. E.	C 0893;				MF-1114-A
	OP- 54		OF 82-0862	Mueller, C. S.	OP- 841	Nemickas, Bronius....	WRI 83-4029
Miller, M. H.	MF-1377-C,	Moore, J. G.	MF-1564-A	Mueller, P. A.	OP- 842	Nervick, K. H.	OF 81-0958
	1525, 1562, 1578, 1579, 1599	Moore, M. A.	OF 83-0046	Mueller, R. J.	OP- 586	Nesteroff, W. D.	OP- 1238
Miller, M. S.	MF-1416-B	Moore, R. B.	OF 83-0395;	Muffler, L. J.	MF-1484;	Neubert, J. T.	MF-1574
Miller, R. B.	OF 83-0019		OP- 829; WRI 82-4112		OF 83-0508	Neuerberg, G. J.	OF 83-0836
Miller, R. D.	GQ-1073;	Moore, R. T.	p.149	Muir, K. S.	PB-83 149 229	Neuzil, C. E.	OP- 858,
	MF-1198	Moore, S. L.	MF-1569-A		P 1254		859; W 2237
Miller, R. F.	PB-83 152 223	Moore, S. W.	OF 83-0586	Mulheren, M. P.	OF 82-0432	Neuzil, S. G.	C 0822
Miller, R. J.	OF 83-0282,	Moore, T. C.	OP- 1238	Mullen, M. K.	OF 83-0004,	Newell, W. L.	OP- 575
	83-0283; OP- 621	Moore, W. J.	OP- 830		83-0018	Newhall, C. G.	OP- 860,
Miller, R. L.	C 0834;	Moore, W. L.	OP- 831		OF 83-0321		1205
	OF 81-0498	Moore, W. S.	OP- 286	Muller, D. C.	OP- 843	Newman, E. B.	OF 83-0016
Miller, S. T.	B 1529-E	Moos, Daniel OP- 832		Muller, O. H.	OP- 844	Newton, E. G.	OP- 861
Miller, S. W.	B 1600;	Morey, G. B.	OP- 1140	Mullineaux, D. R.	OP- 1124	Newton, G. D.	OF 82-1022
	OF 83-0102	Morgan, J. W.	OP- 833	Mumpton, F. A.	C 0892;	Newton, J. F.	OF 81-0540
Miller, T. S.	PB-83 124 651	Moring, Barry MF-1528		Munroe, R. J.	OF 82-0819	Nichols, D. J.	OP- 862,
Miller, W. R.	MF-1395-F;				OF 83-0374		863
	OF 83-0074, 83-0286, 83-0444,	Mork, P.	OF 83-0511	Munts, S. R.	OP- 589 ,	Nichols, D. R.	OP- 365
	83-0738, 83-0777; OP- 803			Murchey, Benita	985		OF 82-1078;
Milliman, J. D.	OP- 804	Mork, P. N.	OP- 140;		C 0911	Nichols, K. M.	OP- 864; P 1207
Milly, P. C.	W 2237		P 1254	Murphy, D. L.	OP- 845	Nichols, Ralph OP- 480	
Milton, Charles	OP- 805,	Morley, J. M.	MF-1403;	Murphy, J. R.	OP- 888	Nichols, T. C., Jr.	OF 83-0750
	806, 807		OF 83-0230	Murray, H. H.			

- Nichols, V. E. OF 83-0217
 Nichols, W. J. OF 81-0640
 Nichols, W. J., Jr. OF 83-0143
 Niem, A. R. OF 83-0591
 Niem, W. A. OF 83-0591
 Nilsen, T. H. OF 83-0373;
 OP- 865, 866, 867, 868, 869,
 870, 871, 872
 Nitkiewicz, A. M. MF-1395-A
 Nkomo, I. T. OP- 1344
 Noble, D. C. OP- 873
 Nokes, J. M. OF 82-0902
 Nokleberg, W. J. MF-1564-A;
 P 1255
 Nolan, K. M. OP- 874,
 875
 Norbeck, S. W. OF 83-0136,
 83-0219
 Nord, G. L., Jr. OP- 876,
 877
 Nordin, C. F., Jr. OF 83-0679;
 OP- 376, 878,
 879, 880; OP- 831
 Nordstrom, D. K. OP- 881
 Norman, D. I. OP- 882
 Norman, V. W. WRI 82-4076
 Normark, W. R. OF 83-0464,
 83-0827; OP- 160, 554, 648,
 883, 966, 967
 Norris, J. M. WRI 83-4084
 Northcut, C. R. OF 83-0016
 Northrop, H. R. OP- 884
 Norton, Ian OP- 1258
 Norton, J. J. OF 83-0791;
 OP- 885, 886, 887, 888, 1010
 Novitzki, R. P. OP- 889,
 890
 Nowlan, G. A. OP- 891
 Nowland, G. A. OP- 192
 Nuccio, V. F. MF-1575
 Nutt, C. J. OF 83-0163;
 OP- 10, 892
 Nuttli, O. W. OF 83-0157;
 P 1236
 Nyman, D. J. OP- 196
- O
- Oaksford, E. T. WRI 83-4005
 Obradovich, J. D. MF-1469-A;
 OP- 847, 893, 894, 895, 896,
 897, 898, 899, 900, 901, 902,
 903, 904, 905, 1010
 O'Byrne, M. P. OF 80-0501-W,
 81-1068
 O'Connell, Daniel P 1236
 Odin, G. S. OP- 896,
 897, 898, 899, 900, 901, 902,
 903, 904, 905
 Odland, S. K. MF-1511-A
 Odom, A. L. P 1241-E
 O'Donnell, T. H. OF 81-0638,
 83-0134
 Odum, J. K. OF 83-0078
 O'Hara, C. J. MF-1537;
 OP- 853
 O'Hara, N. W. OP- 539
 Ohlen, D. O. OF 82-0814
 Ohlin, H. N. MF-1544-A
 OP- 406
 Ojakangas, R. W. OP- 288
 Okamura, A. T. OP- 790
 Okulewicz, Steven OF 83-0460
 Oldale, R. F. OP- 906,
 907
 O'Leary, D. W. OP- 129,
 908
- O'Leary, R. M. OF 80-0811-I,
 80-0811-L
 Olhoeft, G. R. OP- 909
 Oliver, H. W. MF-1159-B,
 1161-C; OF 83-0096; OP- 910
 Oliver, J. E. P 1313
 Oliver, W. A., Jr. B 1529-H;
 OP- 911
 Olmsted, F. H. OF 80-0335;
 OP- 1282; P 1044-A
 Olsen, C. R. OP- 310
 Olsen, H. W. OF 82-0841
 Olson, C. G. OP- 912
 Olson, J. A. OP- 343
 Olson, J. C. J-1425
 Oman, C. L. OP- 913
 Omang, R. J. WRI 82-4092,
 83-4046, 83-4147
 O'Neill, J. M. I-1291;
 MF-1590-A, 1590-B;
 OF 83-0168; OP- 411, 914,
 915
 O'Neill, K. J. OF 83-0051
 O'Neill, M. E. OP- 693
 O'Neill, W. A. OP- 916
 Oppenheimer, D. H. OP- 331,
 917, 1119
 Oremland, R. S. OP- 918,
 919, 920, 982
 Oriel, S. S. I-1127
 Orkild, P. P. OF 83-0377
 Orr, B. R. OF 82-1013
 Orr, D. G. OF 82-0801;
 OP- 921
 Orsini, N. A. OP- 346
 Ort, K. M. OF 83-0001
 Oscarson, R. L. MF-1544-A
 Osmonson, L. M. OP- 153
 Ostena, D. A. OP- 242
 Osterkamp, W. R. OF 81-0128;
 OP- 922; P 1288; W 2193
 O'Sullivan, R. B. OC-0119,
 0122
 O'Toole, M. M. OP- 923
 Otton, J. K. MF-1162-H;
 OP- 407, 924, 925; OP- 153,
 300, 536
 Ovenshine, A. T. OF 83-0091;
 OP- 68
 Owens, J. P. OP- 763,
 926; P 1028, 1067-F
- P
- Pabst, M. E. OF 81-1001,
 82-1010, 83-0528, 83-0762
 Packard, F. A. OF 82-0172,
 83-0205
 Padgett, Nigel OP- 495
 Padgett, E. T. OP- 1195
 Page, N. J. MF-1240-D,
 1383-C, 1383-D, 1383-E,
 1423-A; OF 82-0976;
 OP- 927, 928; P 0999
 Page, R. A. OF 83-0319,
 83-0744; OP- 929, 1181
 Page, R. W. OF 83-0273,
 83-0697; OP- 930;
 WRI 83-4000
 Page, S. S. OF 82-0825
 Paillet, F. L. OP- 931,
 932
 Pakiser, L. C. P 1236
 Pallister, J. S. OF 83-0332;
 OP- 547, 933
 Palluconi, F. D. OP- 934
- Palmer, Pamela MR-0071
 Pamić, J. J. OP- 667
 Pampeyan, E. H. I-1257-A;
 MF-1070, 1488
 Pankratz, L. W. OF 82-1065,
 83-0604
 Papadopoulos, S. S. OP- 143
 Papp, J. E. OF 82-0300-J,
 82-0300-K, 82-0300-L,
 83-0300-A, 83-0300-B,
 83-0300-C, 83-0300-D,
 83-0300-E, 83-0300-F,
 83-0300-G, 83-0300-H
 Parker, G. W. WRI 83-4020
 Parker, J. M. OP- 300,
 536
 Parker, R. S. WRI 82-4076,
 83-4084
 Parkhurst, D. L. OP- 512,
 974
 Parks, Bruce WRI 83-4173
 Parlman, D. J. OF 83-0039;
 WRI 82-4004
 Parrett, Charles WRI 82-4092,
 83-4046, 83-4147
 Parrish, J. T. C 0822;
 OP- 935
 Parsons, K. J. OP- 536
 Pascale, C. A. OF 81-1121
 Passmore, K. T. C 0822
 Patchett, P. J. OP- 936,
 937, 1217
 Pate, D. L. OF 82-0650
 Patmont, C. R. OF 82-0907
 Patneude, A. L. OF 83-0026
 Patt, R. O. OF 82-0696
 Patterson, D. J. OF 82-0866
 Patterson, G. L. WRI 82-4047
 Patterson, S. H. B 1551;
 MF-1470, 1479, 1505-A,
 1505-B, 1572-B; OP- 938, 939
 Patton, W. W., Jr. B 1529-H;
 OF 80-0811-G, 82-1071
 Paull, C. K. P 1313
 Paulson, Q. F. W 2236
 Paulson, R. W. OF 83-0126
 Pavich, M. J. OP- 739
 Pavlides, Louis OP- 159
 Payne, D. D. OF 82-0351
 Payne, G. A. OF 83-0212
 Payne, R. L. C 0895-F
 Payne, T. G. OF 82-1054;
 OP- 940
 Peacock, B. S. WRI 82-4108
 Pearson, F. J., Jr. OP- 1063;
 W 1535-P
 Peart, D. B. OF 81-0636;
 WRI 83-4090
 Pease, M. H., Jr. B 1529-H
 Peck, D. L. GQ-1570;
 I-0325; OF 83-0126; P 1170-D
 Peddie, N. W. C 0873
 Pederson, D. T. OP- 583
 Peebles, W. J. OP- 257
 Pelton, J. R. OF 83-0319
 Penner, E. N. OF 83-0585
 Peper, J. D. OP- 1190
 Perez, Roberto OF 83-0035
 Perez, Virgilio OF 83-0166;
 OP- 941; P 1254
 Perkins, D. M. OF 83-0358
 Perkins, J. A. OF 83-0511;
 OP- 1138
 Pernokas, M. A. MF-1602-A;
 OP- 553
 Perry, W. J., Jr. C 0902-A-P;
 OF 82-1030; OP- 749, 942,
 943
- Perryman, G. R. OF 81-1016
 Persky, J. H. OP- 710
 Person, W. J. OP- 944
 Peryman, G. R. OF 82-0766
 Peselnick, Louis OP- 698
 Pessagno, E. A., Jr. OP- 945
 Pessl, F., Jr. OP- 946
 Petering, G. W. OP- 1149
 Peterman, Z. E. OP- 947,
 1152
 Petermann, Z. E. OP- 1344
 Peters, D. OP- 719
 Peters, D. A. OP- 817
 Peters, D. C. OP- 948
 Peters, N. E. OP- 59
 Peters, T. J. MF-1322-C,
 1547-A, 1653-A
 Petersen, J. C. OF 82-0761
 Peterson, D. M. MF-1406,
 1544-A; OF 83-0232
 Peterson, D. S. OP- 949
 Peterson, D. W. GQ-1559;
 OP- 950
 Peterson, Fred OP- 110,
 951, 952; OP- 186, 187, 188,
 189, 953
 Peterson, J. OP- 346
 Peterson, J. A. C 0885;
 MF-1340-C, 1381-B, 1381-D,
 1383-D, 1529-A, 1529-B,
 1529-C; OF 82-0906, 83-0013,
 83-0598, 83-0711, 83-0712,
 83-0801
 Peterson, Jon OF 82-1087
 Peterson, W. L. OP- 406
 Petsch, H. E., Jr. OF 83-0693
 Pettijohn, R. A. OF 82-0502
 Pettinger, L. R. OF 82-0814
 Pettingill, H. S. OP- 73
 Pequet, D. J. OF 82-0816
 Pevear, D. R. OP- 954
 Péwé, T. L. P 0835,
 1262
 Pfaff, C. L. OF 81-0418;
 OP- 520
 Pfeifferkorn, H. W. OP- 347,
 955
 Phelps, G. G. OF 81-0536
 Phillips, J. D. OP- 653,
 956; P 1028, 1313
 Phillips, Jeff OP- 957
 Phillips, R. L. OF 83-0071;
 OP- 958
 Pickering, R. J. OF 83-0126
 Pierce, F. W. OC-0119;
 OP- 959
 Pierce, K. L. I-1450;
 OF 83-0724
 Pierce, M. J. WRI 83-4052
 Pierce, Walter P 1173
 Pierson, C. T. OF 83-0630;
 OP- 444, 445, 446
 Pierson, T. C. OP- 1264
 Pietropaoli, Henry OF 83-0175
 Pike, J. E. MF-1602-A;
 OP- 960, 961
 Pike, R. J. OP- 962,
 963, 964
 Pinet, P. R. OP- 965,
 990
 Piper, A. M. W 1988
 Piper, D. J. OP- 966,
 967
 Piper, D. Z. OP- 100,
 339, 968
 Pipiringos, G. N. MF-0836;
 OC-0122

- Pitkin, J. A. OP- 406
Pitman, J. K. OP- 397,
969, 970
Pitt, A. M. OP- 14,
971
Pittman, G. M. B 1529-D
Place, J. L. OF 82-0815,
83-0118
Plafker, George OC-0120;
OP- 162, 559, 972
Platt, L. B. I-1127
Plouff, Donald MF-1101-D,
1322-B, 1322-C, 1365-B,
1365-C, 1416-B; OF 83-0619
Plumb, R. A. OF 82-1075
Plume, R. W. OF 82-0445
Plummer, L. N. OF 83-0863;
OP- 46, 973, 974, 975
Poag, C. W. OP- 42,
976, 977, 978, 979
Podwysocki, M. H. .. OP- 980
Pohn, H. A. OF 82-0967
Poland, J. F. OP- 981
Polcin, S. OP- 982
Polcin, Sandra OP- 920
Pollard, D. D. OP- 370,
983, 1114, 1115
Pollastro, R. M. OP- 40
Pollock, D. W. OP- 858,
859
Pollock, J. D. OP- 82
Polzer, W. L. W 1535-I
Pomeroy, J. S. OP- 984
Ponce, D. A. OF 82-0931,
82-1041, 83-0096
Ponti, D. J. P 1254
Poole, F. G. OP- 985,
986
Poore, D. M. OF 82-0920
Poore, R. S. OP- 987
Poore, R. Z. C 0822;
OF 83-0083; OP- 179, 748,
771, 988, 1317; P 1213, 1028
Pope, L. M. OF 82-1021
Popenoe, Peter OF 83-0512,
83-0513, 83-0514, 83-0515;
OP- 213, 404, 965, 989, 990;
P 1028, 1313
Poppe, L. J. OF 83-0745
Porcella, R. L. OP- 841;
P 1254
Porter, L. D. P 1254
Posner, Alex. I-1313-D
Posson, D. R. OF 80-0326
Post, Austin C 0850-D;
MF-1456; OF 83-0256;
P 1258-C
Potter, R. W., II OP- 393,
394
Pounce, D. A. PB-83 237 370
Powars, D. S. OP- 991
Powell, R. D. MF-1456
Powell, R. E. MF-1649-A
Powers, P. S. OF 83-0491
Powers, R. B. C 0902-A-P;
OP- 260, 382, 992
Pratt, H. R. OF 82-1075
Pratt, W. P. C 0869;
MF-1339-B, 1494; OF 83-0387
Prescott, G. C., Jr. .. OF 79-1169,
79-1287, 79-1337, 80-0412
Prescott, W. H. OP- 623,
993, 994, 995, 1079, 1340
Presser, T. S. OF 81-0684
Preston, D. J. OF 83-0234,
83-0738
Price, Don I-1235-C,
1235-D; OF 81-0141
Price, J. G. OF 83-0709
Price, L. C. OP- 996
Pride, D. E. C 0909
Priestley, R. D. OP- 300,
536
Prinz, W. C. OP- 997
Prost, G. L. OF 83-0633
Prowell, D. C. MF-1269;
OP- 141, 362
Prudic, D. E. OF 82-0445
Pudsey, C. J. OP- 828
Puente, Celso OF 81-0540
Purdy, T. L. OF 82-0967
- Q**
- Quick, J. E. MF-1529-C;
OF 83-0013, 83-0331
Quiñonas-Marquez,
Ferdinand OP- 1235
Quinones, Ferdinand OF 81-0137
Quinterno, P. J. OF 83-0083,
83-0153; OP- 198, 998
- R**
- Raab, P. PB-83 220 814
Raab, P. V. OF 83-0233,
83-0830; OP- 999
Raab, Paul OF 83-0240,
83-0249
Rabbitt, M. C. OP- 857,
1000
Raber, Ellen OP- 464
Radbruch-Hall, D.
H. P 1183
Rafter, Athol C 0911
Raggett, J. D. P 1254
Ragsdale, J. O. OF 82-0859
Ragsdale, J. T. P 1254
Rahn, P. H. OP- 46
Raines, G. L. MF-1584-A,
1602-A; OF 83-0421;
OP- 1001
Rains, R. L. MF-1317-C,
1361-C
Ramey, B. S. C 0895-A
Ramsey, C. M. OF 83-0408
Randich, P. G. OP- 656,
657
Rankin, D. W. P 1028,
1241-E
Rantz, S. E. W 2175
Ranzau, C. E. OF 83-0150
Rapp, J. B. OF 83-0827
Rapport, A. L. C 0892
Rasmuson, B. D. OF 83-0253
Rasmussen, L. A. P 1258-D;
PB-83 155 614
Rasmussen, N. H. OF 83-0019
Ratcliffe, N. M. p.149;
OP- 1002, 1003, 1175
Ratigan, J. L. OF 82-1075
Ratte, J. C. MF-1463-B,
1463-C, 1666; OF 83-0494;
OP- 1004
Ratzlaff, K. W. MF-1136;
OP- 1005
Rau, W. W. MF-1482;
OC-0120
Raup, O. B. I-1508-A;
MF-1604-A; OP- 1006
Rawlinson, S. E. OF 81-1301,
81-1302
Raymond, W. H. OF 83-0405
Razem, A. C. OP- 1007;
WRI 82-4019, 83-4022,
83-4155
Rea, D. K. OP- 1008,
1249
Reagor, B. G. C 0871-D,
0896-A; MF-1144, 1154, 1225,
1280, 1323, 1346, 1660;
P 1254
Real, C. R. P 1254
Rearic, D. M. OF 83-0493,
83-0706
Reasenber, Paul OF 83-0511
Rechtes, Ze'ev OP- 1009
Redden, J. A. OP- 1010
Reed, B. L. OF 83-0094;
OP- 1011
Reed, B. M. OF 81-0640
Reed, J. OP- 1012
Reed, J. C., Jr. MF-1570-B
Reed, J. C., Sr. C 0911
Reed, J. E. OF 83-0759;
PB-83 151 431
Reed, K. M. C 0867
Reed, M. J. C 0892;
OF 83-0250
Reed, T. B. OF 81-0334
Rees, T. F. OP- 234
Reeves, R. D. OP- 1013
Regan, Janice P 1254
Regan, R. D. OP- 296
Reheis, M. C. OP- 181
Rehn, W. M. MF-1557-A,
1557-B
Reid, G. O. MF-1406
Reilly, T. E. WRI 82-4021,
82-4045
Reimer, G. M. OP- 764,
1014; OP- 406, 1112
Reimnitz, Erk. C 0911;
OF 82-0716, 83-0493; OP- 60,
1015
Reinhardt, Juergen .. OP- 431,
1016
Reiss, Thomas OF 82-0608,
82-0716, 83-0071
Remane, J. OP- 42
ReMillard, M. D. OF 81-0539
Ren, N. K. OF 82-1075
Reneau, D. B. OP- 693
Renner, J. L. C 0892
Renz, G. W. OP- 828
Repenning, C. A. OP- 1017,
1018
Repetski, J. E. OP- 401,
486, 1019, 1020, 1260, 1297
Rettig, S. A. WRI 82-4081
Rettman, P. L. OF 82-0174;
OP- 1021
Reyes, Alfonso P 1254
Reynolds, L. A. OP- 1022,
1023
Reynolds, R. L. C 0911;
OF 83-0194; OP- 173, 435,
713, 1024, 1025, 1111
Rhea, Susan OP- 1026;
P 1313
Rhett, J. M. OF 81-0140
Ricci Lucchi, Franco OP- 855
Rice, C. L. MF-1188;
OP- 1027, 1028
Rice, D. D. B 1529-H;
C 0902-A-P; OF 83-0152;
OP- 1029, 1030, 1031, 1032,
1033
Rice, T. L. OF 82-0841;
OP- 130
Richardson, R. M. OF 82-1075
Richmond, B. M. OP- 560,
1034
Richmond, G. M. OP- 1035
Richmond, W. C. OF 82-0033;
OP- 1036
Richter, D. H. I-1310-B
Rickert, D. A. C 0893
Ridenour, James MF-1462-B
Ridgley, J. L. MF-1496-A,
1496-B, 1496-C, 1523-B,
1523-C; OP- 443, 444, 445,
446
Riggle, F. E. GP-0950;
OF 83-0070
Riggs, H. C. TWI 04-B2
Rightmire, C. T. OP- 46,
1063
Riley, F. S. OP- 295,
1037
Rimmer, S. M. OP- 1038
Rinehart, C. D. P 0989
Rinella, F. A. OF 82-0922
Rinella, J. F. PB-83 188 235
Ripple, C. D. W 2019-A
Risoli, D. A. OF 80-0811-J,
80-0811-L
Risser, D. W. WRI 82-4096
Rite, A. OP- 1039
Riva, J. F. OP- 238
Riva, J. P., Jr. C 0899
Roach, J. T. P 0964
Robb, J. M. OF 83-0353,
83-0673; OP- 131, 477
Robb, J. S. OP- 129
Robbin, D. M. OP- 1126,
1127, 1128
Robbins, C. H. OF 82-0911,
83-0043; WRI 82-4098
Robbins, E. I. OP- 1040,
1041, 1223
Robbins, S. L. OF 83-0244
Roberson, C. E. W 1535-I
Roberts, A. A. C 0911;
OP- 311
Roberts, C. M. OF 82-1008
Roberts, C. W. OP- 573
Roberts, M. E. OF 83-0169
Roberts, R. S. OF 83-0260
Robertson, E. C. OP- 1042
Robertson, J. B. OF 83-0126;
OP- 1043
Robertson, J. F. OP- 443,
444, 445, 446
Robertson, J. M. MF-1570-A
Robertson, J. R. MF-1570-B
Robinove, C. J. OF 82-0014
Robinson, G. R., Jr. B 1529-H;
MF-1561-C; OF 83-0079;
OP- 1044
Robinson, Keith OP- 186,
187, 300, 444, 446
Robinson, L. N. MF-1506,
1509, 1533; OP- 783, 787
Robinson, Peter p.149
Robinson, S. W. OP- 474,
616, 666, 1045, 1046
Robson, S. G. HA-0659
Rodriguez, T. R. OF 83-0090,
83-0525
Roedder, E. W. OF 82-1131;
OP- 1047, 1048, 1049, 1050
Roegiers, J. C. OF 82-1075
Roehler, H. W. I-1500;
OP- 1051

Roan, J. B.	OP- 282	Rymer, M. J.	OF 83-0511;	Schaefer, F. T.	OF 82-0341,	Schwarzman, E. C. ..	OP- 1104
Rogers, A. M.	OP- 1052		OP- 1066,		83-0538	Schweiger, C. E.	OP- 1105
Rogers, G. C.	OF 83-0019		1138; P 1254	Schafer, C. M.	OF 83-0079,	Schweinfurth, S. P. ..	MF-1288-D,
Rogers, J. A.	OF 83-0014,	Rytuba, J. J.	MF-1471,		83-0615	1442-B; OF 83-0005, 83-0022	
	83-0015, 83-0744		1472, 1473; OF 82-1126,	Schafer, F. J.	OP- 1326,	Schwartz, E. L., Jr. ..	B 1600;
Rogers, Kenneth	OF 82-1001		82-1127, 83-0281, 83-0282,		1327		OF 83-0102
Rohne, P. B., Jr.	WRI 83-4043		83-0283, 83-0284, 83-0285	Schafer, J. P.	OP- 1193	Scott, A. G.	OP- 1106
Rojahn, C.	OP- 1053			Scheibe, D. M.	OP- 432	Scott, D. F.	MF-1273-C,
Rojahn, Christopher	P 1254			Scheibner, Erwin	OF 83-0716	1322-C, 1365-C, 1389-B,	
Root, D. H.	OF 83-0728	S		Schenk, C. J.	OP- 1084	1501-B	
Rorabaugh, M. I.	W 1988			Schermer, E. R.	OF 83-0716;	Scott, D. H.	OP- 1107,
Rose, W.	OP- 210,				OP- 590	1108, 1109, 1110	
	211			Schicht, R. J.	OF 82-1001	Scott, E. W.	C 0902-A-P
Roseboom, E. H.,				Schiff, A. J.	OF 83-0157	Scott, G. R.	QO-1073
Jr.	C 0903			Schiffman, Peter	OP- 355	Scott, J. C.	OF 83-0767
Rosenbauer, R. J.	OF 83-0324;			Schilt, F. S.	P 1313	Scott, J. H.	OP- 279,
	OP- 101, 395, 615			Schiner, G. R.	OF 81-0070,		1111
Rosenbaum, J. G.	OF 83-0377				82-0915, 82-1011, 83-0030,	Scott, R. A.	OF 82-0937
Rosenblum, Sam	P 1181				83-0547, 83-0687, 83-0868,	Scott, R. F.	P 1254
Rosenfield, G. H.	OF 83-0566				83-0869; WRI 82-4094	Scott, W. A.	OF 83-0617
Rosenlund, G. C.	MF-0836			Schlee, J. S.	C 0822;	Scott, W. E.	I-1372
Rosenshein, J. S.	OF 83-0126				OP- 454, 979, 1085	Scrivner, P. J.	OF 83-0834
Roshardt, Mary	OP- 300,			Schmauch, S. W.	MF-1361-C,	Secor, D. T., Jr.	OP- 141
	536				1400-C, 1492-B	Seeland, David	OP- 1112
Rosholt, J. N.	OP- 1054,			Schmidt, C. J.	OP- 411	Seeley, J. L.	OP- 1284
	1344			Schmidt, D. L.	C 0911;	Seeley, R. L.	OP- 1111
Ross, D. C.	OF 83-0231,				OF 83-0487, 83-0488, 83-0641;	Segal, D. B.	OP- 980,
	83-0465, 83-0587; OP- 1055				OP- 1086, 1087		1113
Ross, R. B., Jr.	MF-1288-D,			Schmidt, P. W.	I-0847-A	Segall, Paul.	OF 83-0511
	1348-D			Schmidt, R. G.	OF 83-0793;		OP- 983, 1114, 1115
Ross, R. J., Jr.	OF 83-0290				OP- 1059, 1088	Segerstrom, Kenneth	I-1383;
Roth, E. F.	OF 82-0833				C 0895-D		OF 83-0594
Rowan, L. C.	OP- 209			Schmidt, W. E.	C 0895-D	Seiders, V. M.	I-1369;
Rowland, R. W.	OF 82-0975			Schmidt, Walter	MF-1470		MF-1559-A, 1559-B; OP- 1116
Rowley, P. D.	C 0909;			Schmitz, D. R.	C 0911;	Seiders, W. H.	OF 83-0090,
	I-1430-A; MF-1163				OP- 183, 1089, 1090, 1091		83-0525
Rowley, P. R.	GQ-1568			Schmoker, J. W.	OF 83-0717,	Seitz, J. F.	MF-1101-D,
Roy, D. L.	OP- 1176,				83-0723; OP- 470, 471, 1092		1453-A
	1177			Schmoll, H. R.	OF 83-0078,	Sembera, G.	OF 83-0511
Rubin, Bruce	OP- 713				83-0479		
Rubin, Claire	OF 83-0157			Schnapp, M. R.	OF 82-1075	Senior, Lisa	MF-1240-D,
Rubin, D. M.	OP- 152,			Schneider, G. B.	OP- 1093,		1381-C, 1381-D
	1056, 1057				1094	Senterfit, R. M.	OF 82-1043,
Rubin, J. M.	OF 83-0126			Schneider, P. A., Jr.	I-0856-J,		83-0340
Rubin, J. S.	OP- 649				0856-K	Sepkoski, J. J., Jr.	OP- 1117
Rubin, Jacob	W 2019-A			Schneider, R. R.	P 1313	Server, G. T., Jr.	MF-1546;
Rubin, Meyer	OF 83-0749;			Schneider, Robert	WRI 83-4105		OF 83-0586
	OP- 46			Schneider, V. R.	OF 82-0871;	Setlow, L. W.	OF 83-0356
Rucker, S. J., IV	HA-0471				OF 83-0671; WRI 83-4065	Sever, C. K.	OP- 1112
Rumenik, R. P.	OF 81-0059			Schnepe, M. M.	OP- 17	Severson, R. C.	OF 83-0190,
Rummel, F.	OF 82-1075			Schneyer, J. D.	OF 83-0725		83-0246
Rumsey, C. M.	MF-1569-A			Schoellhamer, J. E. ..	P 0420-A	Sexton, J. L.	P 1236
Rundle, J. B.	OP- 1221			Schoenberg, M. E.	OP- 1095,	Shacklette, H. T.	OF 83-0330
Ruppel, E. T.	OF 83-0168;				1096	Shank, S. G.	OF 83-0800
	OP- 1058, 1059; P 1031			Scholl, D. W.	OP- 1183	Sharkey, J. D.	OF 83-0173
Ruppert, L. F.	C 0822			Scholle, P. A.	OP- 39,	Sharp, R. P.	OP- 734
Rush, F. E.	OF 83-0141;				40, 1097	Sharp, R. V.	OF 83-0511;
	P 1044-H			Scholten, Robert	OP- 716		OP- 171; P 1254
Russ, D. P.	OP- 401,			Schoonmaker, J. W.,		Sharp, W. N.	MF-1483-A,
	1060; P 1236			Jr.	OP- 1306		1483-B, 1483-C
Russell, J. M.	OF 83-0070			Schroeder, M. L.	OF 82-0533	Shasby, M. B.	C 0911
Rutledge, A. T.	OF 82-0108			Schroeder, R. A.	OF 83-0126;	Shaw, E. G.	OP- 1118
Rutledge, John	HA-0671				OP- 59	Shaw, L. C.	OF 81-0537,
Ryals, G. N.	OP- 1061			Schruben, P. G.	OF 83-0410,		81-0538
Ryan, B. J.	OF 80-0571;				83-0424	Shawe, D. R.	MF-1467
	OP- 1062			Schuenemeyer, J. H.	OP- 1098	Shearer, C. F.	OF 83-0582
Ryan, G. L.	OF 81-0636			Schultejan, P. A.	OP- 451	Shearer, P. M.	OP- 164,
Ryan, G. S.	MF-1377-C,			Schultz, L. G.	OP- 1099,		1119
	1511-A, 1549				1100	Shedlock, K. M.	OP- 1120
Ryan, H. F.	MF-1240-D			Schulz, K. J.	OP- 151,		OP- 1121
Ryan, W. B.	OP- 908				631, 842, 1101	Sheeham, C. A.	OF 81-1358
Ryder, R. T.	C 0902-A-P;			Schulz, S. S.	OF 83-0098	Sheldon, R. P.	OP- 1122,
	OP- 942			Schuster, R. L.	OF 83-0365;		1123
Rye, R. O.	OF 83-0291;				OP- 1102, 1103	Shell, J. D.	OF 81-0059
	OP- 435, 884, 1063			Schwab, W. C.	MF-1424;	Sheppard, R. A.	OF 83-0458;
Ryer, T. A.	OP- 360,				OF 83-0247, 83-0499		OP- 1124
	1064, 1065			Schwarz, L. J.	P 1028		

Sheridan, R. E.	OP- 456, 457	Slade, R. M., Jr.	OF 83-0044	Sonntag, Wayne.....	OP- 786, 1160	Stauder, William	OF 81-0888; P 1236
Sherlock, L. J.	OF 83-0335	Slater, L. E.	OP- 1146	Sorensen, M. L.	MF-1353-C, 1419-B, 1574; OF 83-0175, 83-0393; OP- 848	Stebbins, S. A.	MF-1317-C, 1419-B, 1545
Sherrard, M. S.	OF 83-0595	Sloan, C. E.	C 0911	Sorensen, S. B.	OF 83-0051	Stebbins, Scott	MF-1559-A
Shideler, G. L.	MF-1530	Sloto, R. A.	WRI 82-4020	Sorenson, S. K.	OF 81-0677, 82-0450	Steele, S. R.	P 1236
Shifflet, C. M.	MF-1392	Small, T. A.	OP- 725	Sorey, M. L.	C 0892; OF 83-0250; OP- 1161, 1282; P 1044-A	Steele, W. C.	OF 83-0052, 83-0906
Shijo, L.	OP- 780	Smath, J. A.	OF 83-0261	Sorg, D. H.	OP- 781, 834	Steffy, D. A.	OF 83-0124, 83-0557
Shijo, L. N.	OP- 343	Smith, A. E.	OF 83-0044	Southard, J. B.	OP- 152	Steigerwald, C. H.	OF 83-0382, 83-0516
Shinn, E. A.	OP- 1125, 1126, 1127, 1128	Smith, B. D.	OF 83-0612	Southard, R. B.	C 0911	Stein, R. S.	OF 83-0511; OP- 573, 1180
Shipley, Susan	MF-1435	Smith, B. J.	OF 83-0157	Southworth, C. S.	C 0911; OF 83-0123	Steinbrugge, K. V.	P 1254
Shoemaker, E. M.	OP- 1129, 1130, 1289	Smith, Bruce	OF 83-0613	Spall, Henry	OP- 1162	Steiner, J. W.	OF 82-0768
Short, D. N.	OF 83-0635	Smith, C. C.	OP- 401, 1147; P 1028	Sparkes, A. K.	WRI 82-4108	Steinkampf, W. C.	WRI 82-4052
Shown, L. M.	PB-83 152 223	Smith, C. J.	OF 82-0433	Speckler, R. M.	WRI 82-4109	Stelting, C. E.	OP- 1134
Shride, A. F.	p.149; B 1529-H; MF-1162-H; OF 83-0460	Smith, C. R.	MF-1504	Speckman, W. S.	OF 82-0954, 83-0667, 83-0737	Stephansson, Ove.....	OF 82-1075
Shulters, M. V.	OF 82-0763	Smith, C. W.	OF 83-0672	Spencer, C. W.	C 0902-A-P; OP- 668, 1163, 1164	Stephen, Ellen	MF-1406; OF 83-0635
Shultz, R. A.	OF 82-0351	Smith, Christian.....	C 0892	Spencer, J. E.	OF 83-0614; OP- 1165, 1166	Stephens, C. D.	OF 83-0014, 83-0015, 83-0592, 83-0744; OP- 665, 929, 1181
Shurr, G. W.	B 1529-H; OP- 146, 1031, 1032, 1131, 1132, 1133	Smith, D. B.	MF-1389-B, 1452-B, 1526-B	Spencer, R. J.	OP- 50, 1167	Stephens, J. C.	OP- 1182
Sideler, G. L.	OP- 1134	Smith, E. P.	OF 83-0455, 83-0476	Spicker, F. A.	MF-1177-C	Stephens, T. A.	OF 81-0496
Sidle, W. C.	OF 81-1014	Smith, E. T.	OF 81-0317	Spiesman, D. L., Jr....	OF 80-0811-H, 80-0811-K	Stephens, W. E.	OP- 472
Siegel, D. I.	OP- 1135, 1136	Smith, G. I.	C 0911; OP- 1148; P 1256	Spiker, E. C.	MF-1462-A; OP- 291, 430, 1168	Stern, R. J.	OP- 517
Sieh, K. E.	P 1254	Smith, G. L.	OF 82-1090	Spinazola, J. M.	OF 81-0333, 82-0868	Stern, T. W.	P 1241-E
Siems, D. F.	MF-0900-C; OF 83-0088	Smith, J. F., Jr.	B 1536; OF 83-0303	Spivak, C. S.	OF 83-0056; OP- 445, 1285	Steven, T. A.	I-0764, 1430-A, 1445; OF 83-0583; OP- 354, 1218
Sigleo, W. R.	MF-1271-E	Smith, J. G.	MF-1383-C, 1507-A, 1507-B	Sprague, S. B.	OP- 536	Stewart, J. A.	OF 82-1007
Sikkink, P. G.	OP- 443, 444, 445, 446	Smith, J. H.	MF-1188	Sprinkle, C. L.	OP- 1169	Stewart, J. H.	MF-1382-A; OP- 985, 1184, 1185, 1186
Silber, C. C.	OP- 17	Smith, J. L.	OF 83-0834	Spruill, T. B.	OF 83-0263	Stewart, J. W.	OP- 1187
Silberling, N. J.	OF 83-0011; OP- 591; P 1207	Smith, M. B.	MR-0049	Spudich, Paul	OP- 41, 264, 1170	Stiles, N. T.	OF 82-0036
Silverman, S. A.	OP- 586	Smith, M. C.	MF-1578, 1579, 1599; OF 83-0301, 83-0303	Spudis, P. D.	OP- 1171	Still, J. C.	MF-1476-B
Simmons, C. E.	WRI 82-4083	Smith, R. A.	C 0910; OF 82-1019	Spydell, D. R.	OF 82-1080, 83-0584	Stock, J. M.	OP- 1188
Simmons, D. L.	OF 81-0420; WRI 82-4017	Smith, R. E.	OF 79-1635, 80-0742, 80-0745, 80-0746, 80-1191	Staatz, M. H.	OP- 1172; P 1049-D	Stoeser, D. B.	OF 83-0296, 83-0369
Simmons, G. C.	OF 83-0397; PB-83 255 059	Smith, R. L.	I-1091-E	Stacey, J. S.	OF 83-0291, 83-0296; OP- 447, 448, 516, 1173, 1174	Stoker, Y. E.	OF 83-0127
Simmons, K. R.	OP- 10	Smith, R. M.	MF-0873	Stallcup, E. E.	OF 83-0157	Stollenwerk, K. G.	WRI 82-4076
Simon, Andrew	OF 83-0043; WRI 82-4098	Smith, T. N.	OP- 1149	Stallman, R. W.	W 1988	Stone, B. D.	OP- 1189, 1190
Simon, F. O.	OF 83-0620, 83-0626; OP- 17	Smith, W. H.	P 1254	Stamer, J. K.	OF 82-0645, 82-0693	Stone, C. G.	OP- 467, 468, 1191, 1192
Simoneit, B. R.	OP- 1168	Smith, Winchell	W 2213	Stanley, G. D., Jr.	OP- 1338	Stone, J. R.	OP- 1193
Simons, F. S.	MF-1569-A	Snavely, D. S.	WRI 82-4000	Stanley, K. O.	OP- 916	Stone, Paul	OP- 553, 1194
Simons, R. S.	P 1254	Snavely, P. D., Jr.	MF-1482; OF 83-0020, 83-0591	Stanley, R. S.	OP- 1175, 1176, 1177	Stone, R. B.	WRI 82-4069
Simons, Richard	P 1254	Snee, L. W.	MF-1585-A	Stanley, W. D.	MF-1462-A, 1462-B; OF 83-0085; OP- 1178	Stone, R. B., Jr.	WRI 82-4109
Simpson, R. W.	MF-1584-A, 1602-A; OF 82-1089, 83-0460, 83-0806; OP- 1137	Snell, L. J.	OF 82-0516, 82-0517, 82-0518, 82-0519, 82-0520, 82-0521, 82-0522, 82-0523, 82-0524	Stanton, M. R.	OF 83-0315; OP- 444	Stone, S. M.	OF 83-0083
Simpson, R. W., Jr.	MF-1603-A; OP- 596	Snyder, D. B.	OP- 1150, OF 82-1041; OP- 145, 1151	Stanton, R. W.	OF 83-0081	Stone, W. J.	OP- 1195
Sims, J. D.	OF 83-0384; OP- 7, 1045, 1138	Snyder, G. L.	OP- 1152; OP- 263	Stapleton, J. A.	C 0902-A-P	Stoner, J. D.	OF 81-1187; OP- 1196; WRI 82-4099
Sims, P. K.	OP- 1139, 1140	Snyder, J. P.	B 1532; I-1402	Stark, J. R.	WRI 83-4002	Stotelmeyer, R. B.	MF-1462-B
Sinclair, W. C.	OP- 1141	Snyder, S. L.	OF 83-0070	Starkey, H. C.	OP- 418	Stover, C. W.	C 0871-D, 0896-A; MF-1144, 1154, 1225, 1280, 1323, 1346, 1660; P 1254
Singer, D. A.	MF-1383-C; OF 83-0089, 83-0313, 83-0623, 83-0902	Sobashinski, J. R.	OF 83-0033	Stauber, D. A.	OP- 1179	Strange, Anne	OF 82-0813
Sinha, A. K.	OP- 45	Soderblom, L. A.	OP- 281, 772, 1153	Staubitz, W. W.	OF 83-0033	Stranton, R. W.	C 0822
Sipkin, S. A.	OP- 226, 1142	Sohl, N. F.	OF 83-0451; OP- 637, 1154, 1155; P 1028, 1285			Strause, J. L.	OF 82-0676, 83-0150, 83-0529
Skibitzke, H. E.	W 1536-I	Sohn, J. E.	OF 83-0045; W 2196-A			Stricker, G. D.	C 0911; OP- 5
Skipp, B. A.	OP- 1143; P 1183	Sohn, I. G.	OP- 1156, 1157; OP- 1158			Stricker, V. A.	W 2207
Slack, J. F.	MF-1415-A; OP- 1144, 1145	Soller, D. R.	OP- 740			Strobell, M. E.	OF 81-1300
Slack, J. R.	OF 83-0550	Solley, W. B.	C 1001; OF 83-0207			Stuckless, J. S.	OF 83-0287, 83-0323, 83-0486; OP- 1344
Slack, L. J.	OF 79-1254; WRI 83-4075	Solomon, B. J.	MF-1546			Sturchio, N. C.	OP- 1197
		Solomon, G. C.	OP- 1159			Sturmer, Wilhelm.....	OP- 1198
		Sonenshein, R. S.	OF 82-0920				

- Sultan, M. OP- 1197
 Sumioka, S. S. OF 82-0172
 Summers, R. OP- 820
 Sundquist, E. T. C 0822;
 OP- 975
 Suneson, N. H. B 1529-H;
 OP- 1199
 Surcouf, R. M. OF 82-0034
 Sushyar, R. OF 83-0068
 Sutcliffe, Horace, Jr. OF 82-0700
 Sutherland, P. K. OP- 438
 Sutikno OF 83-0596
 Sutley, S. J. MF-1201-C;
 OF 82-0283, 82-0954, 82-0984,
 82-0996, 82-1050, 83-0003,
 83-0077, 83-0403, 83-0643,
 83-0646, 83-0647, 83-0649;
 PB-83 255 059
 Sutter, J. F. OP- 916,
 1200, 1201
 Sutton, G. H. OP- 1238
 Svitek, J. OP- 528
 Swadley, W. C. I-1361;
 OF 83-0608
 Swanberg, C. A. P 1236
 Swanson, D. A. I-1311;
 MF-1536, 1653-A;
 OF 83-0297, 83-0357, 83-0374;
 OP- 216, 1202, 1203, 1204,
 1205, 1206; P 0890
 Swartley, W. A. OF 82-0773
 Swayze, L. J. OF 81-0225,
 81-0327
 Sweeney, J. W. MF-1479
 Sweeney, R. E. GP-0955
 Swift, B. A. OP- 1207
 Swift, C. H., III. WRI 82-4125
 Switzer, J. OF 83-0511
 Swolfs, H. S. OF 83-0401;
 OP- 1208
 Sylla, D. A. WRI 82-4009
 Sylvester, A. G. OF 82-0893;
 OP- 328
 Sylvester, M. A. WRI 82-4100
 Sylvester, R. E. PB-83 215 731
 Sylwester, R. E. OF 83-0023;
 OP- 543
 Symonds, R. OP- 211
 Szabo, B. J. C 0822;
 OP- 763
 Szabo, M. W. MF-1505-A
 Szajgin, John OF 82-0814
 T
 Taber, J. J. OP- 1209
 Tabor, R. W. MF-1380-B,
 1418-B; OF 83-0001, 83-0342
 Tabor, W. I-1311
 Taggart, J. E. OP- 214
 Taggart, James OP- 1210
 Tailleux, I. L. C 0793;
 OF 83-0183, 83-0184, 83-0185,
 83-0505, 83-0779; OP- 442
 Takahashi, K. I. OP- 418
 Takasaki, K. J. OF 82-0628;
 P 0813-M
 Talwani, Pradeep P 1028
 Tam, Roy OF 83-0014,
 83-0015
 Tanaka, K. L. OP- 1110,
 1211, 1212
 Tang, R. W. OF 83-0096
 Tanigawa, W. R. OP- 288
 Tardy, Marc OP- 828
 Tarr, A. C. P 1028,
 1313
 Tasker, G. D. OF 80-0583;
 OP- 1213, 1214, 1215, 1216
 Tatsumoto, M. OP- 122,
 937, 1217
 Tauvers, P. R. OP- 1177
 Taylor, David OF 83-0023
 Taylor, F. A. I-1257-B;
 OF 83-0582
 Taylor, H. P. OP- 1159
 Taylor, L. E. OP- 84
 Taylor, O. J. WRI 82-4076
 Taylor, R. B. OP- 1218;
 OP- 300
 Teaford, N. K. MF-1271-E
 Terlecki, G. M. OF 82-0568
 Terman, M. J. OP- 1219
 Terry, J. E. WRI 82-4063
 Terstriep, M. L. OF 82-1001
 Thaden, R. E. OP- 443,
 444, 445, 446
 Thatcher, W. OP- 1220,
 1221
 Thatcher, W. R. OF 83-0511
 Thatcher, Wayne OP- 573,
 1222
 Thayer, P. A. OP- 1223;
 P 1273-C
 Theis, C. V. OF 82-1008;
 W 1536-I, 1988
 Thenhaus, P. C. OF 83-0358
 Theobald, P. K. MF-1162-E,
 1162-H; OF 83-0651, 83-0734
 Theobald, P. K., Jr. OP- 369
 Theobald, S. M. OF 82-0916,
 83-0208, 83-0252
 Theodore, T. G. OF 82-1052;
 OP- 1224
 Thiede, Jörn OP- 1249
 Thomas, J. M. OF 82-0445
 Thomas, Nancy WRI 83-4090
 Thomas, R. E. OF 83-0628,
 83-0637
 Thomas, W. O., Jr. OF 83-0261;
 W 2207
 Thompson, C. L. C 0894;
 OP- 500
 Thompson, D. W. OP- 642
 Thompson, G. A. OP- 751
 Thompson, J. M. OF 83-0311;
 OP- 396, 602, 1225
 Thompson, J. R. MF-1560-A
 Thompson, K. R. WRI 82-4104
 Thompson, R. M. MF-1405-C,
 1565-C
 Thompson, T. H. OF 82-0119,
 82-0700
 Thomson, E. A. OF 80-0341
 Thomson, K. C. MF-1494
 Thordarson, William OF 82-0346,
 83-0141
 Thorman, C. H. I-1480
 Thornber, C. R. OP- 1226
 Thorpe, R. I. OP- 1227
 Thorson, R. M. OF 83-0019
 Thorstenson, D. C. OP- 462,
 974, 1228
 Thrasher, G. P. OF 83-0104
 Threlkeld, C. N. OF 83-0152;
 OP- 1033
 Throckmorton, M. L. MF-1529-C
 Thurmond, C. J. OF 82-0569
 Tibbals, C. H. OF 81-0681,
 82-0516, 82-0517, 82-0518,
 82-0519, 82-0520, 82-0521,
 82-0522, 82-0523, 82-0524
 Tichacek, Gregg OF 82-1001
 Till, A. B. OF 83-0408
 Tilling, R. I. OP- 1229,
 1230
 Tinkler, R. D. OF 83-0085
 Tinsley, E. J. C 0834
 Tinsley, J. C. OP- 1052,
 1332; P 1254
 Tippens, C. OF 83-0340
 Tippens, C. L. OF 83-0612,
 83-0613
 Tobin, R. L. WRI 82-4076
 Todd, V. R. MF-1547-A;
 OP- 1231
 Toler, L. G. OF 82-1001
 Tomaszewski, D. J. OF 81-0546,
 82-0503
 Tooker, E. W. MF-1101-D;
 OP- 1232, 1233
 Tooley, J. E. OF 81-0141
 Torak, L. J. WRI 82-4025
 Toran, Laura OP- 1234
 Tornes, L. H. ADA-114 818
 Torrence, L. Y. OF 82-0300-J,
 82-0300-K, 82-0300-L,
 83-0300-A, 83-0300-B,
 83-0300-C, 83-0300-D,
 83-0300-E, 83-0300-F,
 83-0300-G, 83-0300-H
 Torres-González, Arturo OP- 1235
 Tortorelli, R. L. OF 83-0026
 Tosdal, R. M. MF-1378,
 1395-A; OP- 1236
 Toth, M. I. MF-1495-A,
 1495-B, 1495-C; OF 83-0054,
 83-0473; OP- 1237
 Tourtelot, H. A. C 0822;
 OP- 1100
 Townsend, D. R. OF 83-0377
 Townshend, J. B. OF 82-0300-J,
 82-0300-K, 82-0300-L,
 83-0300-A, 83-0300-B,
 83-0300-C, 83-0300-D,
 83-0300-E, 83-0300-F,
 83-0300-G, 83-0300-H
 Towse, Donald OF 82-1075
 Tracey, J. I., Jr. OP- 1238
 Trapp, Henry, Jr. OF 82-1015
 Trask, N. J. WRI 83-4105
 Trautwein, C. M. OF 82-0801,
 83-0387; OP- 81, 921
 Triplehorn, D. M. OP- 124
 Tripp, R. B. MF-1162-E;
 OF 80-0811-I, 80-0811-J,
 80-0811-M, 83-0170-B
 Trombley, T. J. WRI 82-4062
 Trousdale, William .. OP- 1299
 Troutman, B. M. OP- 1239
 Truesdell, A. H. OP- 1240
 Tsukahara, Hiroaki .. OF 82-1075
 Tucci, Patrick OF 82-1006;
 OP- 1241
 Tucker, R. E. OF 83-0738
 Turk, J. T. OP- 1242;
 W 2249; WRI 82-4076
 Turner-Peterson, C. E. OP- 1243
 Turner, R. D. OF 83-0614;
 OP- 1166
 Turner, R. F. OF 83-0124,
 83-0557
 Turner, R. M. OF 83-0075,
 83-0155
 Turnross, J. OF 83-0233,
 83-0830
 Tuttle, M. L. OF 83-0378
 Twenter, F. R. OF 82-0567;
 WRI 83-4002
 Tweto, Ogden B 1529-G;
 I-1416; MF-0556, 1163
 Twichell, D. C. OF 83-0746;
 OP- 477
 Tyler, T. F. MF-1044-A
 Tyner, R. L. OP- 80;
 OP- 1244
 Tysdal, R. G. I-1480;
 OP- 1245
 U
 U. S. Geological Survey p. 11, 63;
 B 1529-H; C 0878-B, 0880,
 0908, 0911; I-0961, 1341,
 1426, 1432, 1448, 1451, 1452,
 1453, 1454, 1464, 1465, 1466,
 1467, 1468, 1469, 1470, 1471,
 1476, 1477, 1478, 1486, 1494,
 1495, 1497, 1521, 1525;
 L-0104, 0105, 0135, 0168,
 0173, 0186; MF-1070;
 OF 81-1161, 82-0001, 82-0002,
 82-0003, 82-0235, 82-0243,
 82-0244, 82-0245, 82-0246,
 82-0247, 82-0248, 82-0249,
 82-0289, 82-0368, 82-0801,
 82-0804, 82-0805, 82-0806,
 82-1009, 83-0055, 83-0059,
 83-0060, 83-0106, 83-0107,
 83-0109, 83-0111, 83-0112,
 83-0195-A, 83-0195-B,
 83-0377, 83-0552, 83-0553,
 83-0561, 83-0603, 83-0610,
 83-0611, 83-0632, 83-0652,
 83-0653, 83-0654, 83-0655,
 83-0656, 83-0663, 83-0664,
 83-0729, 83-0837; P1200-NJ,
 1254
 Ulrich, G. E. MF-1555-A,
 1555-B, 1558-A; OF 83-0165,
 83-0731; OP- 1246; OP- 1285
 Unruh, D. M. OP- 122,
 1217
 Urban, T. C. OP- 509,
 1247
 Uyeda, S. OP- 1259
 V
 Vaccaro, J. J. OF 82-0769
 Valent, P. J. OP- 1248
 Valentine, P. C. P 1028
 Vallier, T. L. OF 83-0325;
 OP- 605, 782, 1008, 1183,
 1249
 Van Alstine, J. L. OF 82-0501
 Van Gaalen, G. OF 82-0996
 van Hylckama, T. E. W 2019-A
 Van Kooten, G. K. P 1170-D
 Van Loenen, R. E. MF-1569-A,
 1604-A; OF 83-0088, 83-0629
 Vance, J. A. OF 83-0019
 Vander Meulen, D. B. OF 82-1126,
 82-1127, 83-0281, 83-0282,
 83-0283, 83-0284, 83-0285
 VanTrump, G., Jr. OF 83-0287,
 83-0323, 83-0343,
 83-0486
 Varnes, D. J. OP- 1250,
 1251; P 1183

- Vaughan, P. R. MF-1396
 Vaughn, Robert OF 83-0705
 Vecchioli, John OP- 527
 Vedder, J. G. P 0420-A
 Veenhuis, J. E. OF 82-0873,
 83-0044
 Velnich, A. J. OF 82-0572
 Verbeek, E. R. MF-1136;
 OP- 1285
 Vercoutere, T. L. OF 82-1126,
 82-1127
 Verdes, A. N. OP- 1252
 Vernon, F. L., III ... P 1254
 Viets, J. G. MF-1004-B;
 PB-83 255 059
 Visvanathan, T. R. .. P 1028
 Voegele, M. D. OF 82-1075
 Vogel, T. M. OF 82-1253
 Voight, Barry OP- 1264
 von der Borch, C. C. OP- 1238
 Von Gruenewaldt,
 Gerhard OP- 928
 Von Guerard, Paul .. WRI 82-4046
 Von Herzen, R. P. OP- 1303
 von Huene, Roland .. MF-1457;
 OF 83-0052; OP- 204, 663,
 1254, 1255, 1256, 1257, 1258,
 1259
 Voorhees, B. J. OP- 110
 Votaw, R. B. OP- 1260
- W
- Waddell, K. M. OF 82-0916,
 83-0208, 83-0252
 Waddell, R. K. WRI 82-4085
 Wadsworth, Gail OF 83-0088
 Wagner, C. R. OP- 1261
 Wagner, H. C. MF-1482;
 OF 83-0019, 83-0020
 Wagner, J. R. OF 81-1121
 Wahl, K. L. HA-0471
 Wahl, R. R. OP- 406
 Wait, R. L. WRI 82-4045
 Waite, L. A. WRI 83-4141
 Waitt, R. B., Jr. I-1311;
 OF 83-0671; OP- 1262, 1263,
 1264
 Wald, J. D. OF 83-0219
 Walker, Donald I-1443
 Walker, G. W. OF 82-0822,
 83-0100, 83-0375
 Walker, Kim-Marie .. OF 83-0387
 Walker, L. D. OF 82-0014
 Wallace, A. R. MF-1577-A;
 OF 83-0364, 83-0417;
 OP- 1265; OP- 536
 Wallace, C. A. MF-1469-A;
 OP- 1059
 Wallace, J. C. OF 82-0758
 Wallace, R. E. OF 83-0098
 Wallace, R. H., Jr. OP- 1267,
 1268; OP- 1266
 Waller, B. G. WRI 82-4093
 Waller, J. A. OP- 929
 Waller, R. M. OF 82-0553;
 OP- 1269
 Walter, A. W. OP- 428,
 1270
 Walter, S. R. OP- 1271
 Walther, L. S. OF 83-0264
 Walton, R. J. OP- 1272
 Wampler, J. M. P 1313
 Wandle, S. W., Jr. OF 81-1199,
 82-0632, 82-0633, 82-0634,
 82-0635; W 2214
- Wandless, G. A. OP- 833
 Wandless,
 Mary-Virginia OP- 877
 Wang En-fu OF 82-1075
 Wang, F. F. OF 83-0153
 Wangsness, D. J. OF 81-0498,
 82-1005, 83-0215, 83-0532
 Ward, F. N. OP- 484
 Ward, L. W. OF 83-0513;
 OP- 401
 Ward, P. E. OF 82-1001
 Wardlaw, B. R. OP- 943,
 1273, 1274
 Waring, G. A. P 0492
 Warren, A. D. P 1213
 Warwick, P. D. OP- 1275
 Washburne, J. C. OF 83-0198
 Wasson, B. E. OF 81-1051,
 81-1053
 Waters, B. C. OF 83-0672
 Watkins, S. A. WRI 82-4083
 Watson, Ken OP- 243
 Watson, Kenneth OP- 1276
 Watterson, J. R. C 0911
 Watts, K. C. MF-0900-C,
 1344-D, 1425-B, 1425-C;
 OF 83-0494; PB-83 220 863
 Watts, K. C., Jr. MF-1521-B
 Wawro, T. J. MF-1527-D
 Wayland, R. G. MR-0049
 Weaver, C. S. OP- 735,
 793, 1205, 1209, 1277, 1278,
 1279
 Webber, E. E. OF 80-0016;
 WRI 82-4044
 Weber, F. R. OP- 181
 Weber, J. C. OF 83-0628,
 83-0637
 Weber, W. M. I-1380
 Webster, J. D. OF 83-0008
 Wedow, Helmuth,
 Jr. OF 83-0352
 Weed, E. G. p. 149;
 B 1529-H
 Weed, R. B. MF-1544-A
 Weeks, E. P. OP- 462,
 1228
 Weeks, J. B. OP- 460
 Weems, R. E. B 1529-H
 Weichert, D. H. OF 83-0019
 Weigel, J. F. OF 82-0164
 Weiland, E. F. OF 81-0673
 Weir, A. H. OP- 588
 Weir, G. W. MF-1319-B
 Weir, J. E., Jr. OF 82-0346
 Weis, P. L. OP- 1280
 Weissenborn, A. E. .. OP- 1281
 Welch, A. H. OF 81-0918,
 82-0445; OP- 1282
 Welder, F. A. OP- 1283;
 WRI 82-4076
 Welder, G. E. OF 81-0218
 Wells, D. K. OF 82-0856
 Wells, F. G. I-0325
 Wells, J. G. OF 83-0772;
 WRI 82-4111, 82-4118,
 83-4124
 Wells, R. E. OF 83-0591;
 OP- 1137
 Welsh, R. A., Jr. MF-1510-C
 Wennerberg, L. OF 83-0511
- Wenrich-Verbeek, K.
 J. OP- 1284;
 OP- 445, 1285
 Wentworth, C. M. OP- 757,
 1286; P 1313
- Werschky, R. S. OF 83-0242,
 83-0343
 Wershaw, R. L. OF 82-1004
 Wesselman, J. B. HA-0654
 Wesson, R. L. OP- 1287
 West, G. J. OP- 3,
 4
 West, W. S. OP- 526
 Westerlund, R. E. OP- 699,
 700
 Westgate, J. A. OP- 1288
 Weston, Suzanne OF 83-0061
 Westphal, J. A. OP- 329
 Wetherill, G. W. OP- 1289
 Whan, W. J. OP- 1290
 Wheeler, M. C. MF-1456
 Wheeler, R. L. OP- 125,
 1291, 1292, 1293, 1294
 Whelan, J. F. OF 83-0338
 Whipple, J. W. I-1300;
 OF 83-0502
 White, D. E. OP- 1295
 White, J. M. OP- 1296
 White, L. D. OF 81-0684
 White, M. K. OF 83-0129
 White, R. R. OF 83-0772
 Whitebread, D. H. MF-1343-B;
 OF 83-0393
 Whitehead, R. L. OF 82-1022
 Whiteman, C. D., Jr. OP- 196
 Whiteman, K. J. OF 82-0172
 Whitfield, M. S., Jr. OF 82-0346
 Whitlow, J. W. B 1549
 Whitmore, F. C., Jr. OF 83-0488;
 OP- 1297
 Whitney, C. G. OP- 884
 Whitney, Gene OF 83-0838;
 OP- 1298
 Whitney, J. W. OF 83-0749;
 OP- 1299
 Wi Qing-yun OF 82-1075
 Wiche, G. WRI 82-4119
 Wiecezorek, G. F. OF 83-0635;
 OP- 1300; P 1254
 Wiggins, V. D. OP- 403
 Wilber, W. G. WRI 82-4013
 Wilcox, L. A. OP- 314,
 327
 Wilde-Katz,
 Francesca WRI 82-4056
 Wiley, M. C. OF 83-0019
 Wilhelms, D. E. OP- 169,
 1301
 Wilke, K. R. OF 82-1025
 Willard, C. C. OF 83-0027
 Willett, S. L. MF-1515,
 1569-A
 Willey, R. E. OF 80-0583
 William, E. J. OF 83-0599
 Williams, B. B. B 1510
 Williams, C. T. P 1313
 Williams, D. L. MF-1653-A;
 OP- 1302, 1303
 Williams, G. P. OP- 1304
 Williams, J. R. OF 80-0583,
 83-0457; OP- 365
 Williams, O. O. OF 83-0049
 Williams, P. L. C 0909,
 0911; I-0360, 0591-A, 0591-B,
 1450
 Williams, R. J. OF 83-0294
 Williams, R. P. OF 82-0755
 Williams, R. S., Jr. .. C 0911;
 OF 82-0874; OP- 1305, 1306
 Williams, T. R. OF 83-0751
 Williamson, A. D. B 1529-H
- Willis, M. E. OP- 828
 Willison, W. R. OF 83-0342
 Wilshire, H. C. OP- 1104
 Wilshire, H. G. MF-1602-A
 Wilson, D. M. MF-1162-H
 Wilson, Douglas OP- 828
 Wilson, E. D. p. 149
 Wilson, F. A. OF 83-0093;
 OP- 1307
 Wilson, F. H. MF-1539-A;
 OF 83-0783
 Wilson, J. F., Jr. OF 83-0545
 Wilson, J. R. OF 83-0019
 Wilson, K. V. W 2207
 Wilson, R. C. OF 83-0511;
 OP- 1308
 Wiltshire, D. A. OF 83-0270;
 OP- 1309
 Windolph, J. F., Jr. .. OF 83-0446,
 83-0628, 83-0637
 Wing, S. L. OP- 1310
 Wingate, F. H. OF 83-0325
 Winkler, G. R. OC-0120
 Winograd, I. J. C 0822
 Winter, D. R. OF 82-1020
 Winterer, E. L. OP- 561
 Winters, R. A. MF-1400-C;
 OF 83-0375
 Winters, W. J. OF 83-0404
 Wise, D. U. OP- 1294
 Wise, R. A. OP- 20
 Witkind, I. J. I-1380;
 OP- 1311, 1312, 1313
 Witmer, R. E. P 0964
 Witmer, R. J. P 1028
 Wittenberg, L. A. WRI 83-4096
 Wobus, R. A. OP- 1314
 Wolansky, R. M. PB-83 215 731;
 WRI 82-4089
 Wold, R. J. OP- 538,
 539, 1316; OP- 1315
 Wolf, Heidi P 1282
 Wolfe, E. W. MF-1394-A,
 1394-B, 1394-C, 1577-A;
 OP- 1285
 Wolfe, J. A. C 0822;
 OP- 781, 834, 1317
 Wolff, F. C. OP- 1318
 Wollitz, L. E. OF 82-0346
 Wones, D. R. p. 149;
 B 1529-H; OP- 45
 Wong, F. L. OF 83-0293,
 83-0782
 Wong, George OF 82-1100,
 83-0095, 83-0719, 83-0720,
 83-0721, 83-0722
 Wood, C. M. OF 81-0491
 Wood, G. H., Jr. C 0891;
 OF 83-0741; OP- 1319
 Wood, P. R. P 1254
 Wood, R. H., II MF-1525,
 1562
 Wood, S. H. OP- 1320
 Wood, W. D. OF 82-0516,
 82-0517, 82-0518, 82-0519,
 82-0520, 82-0521, 82-0522,
 82-0523, 82-0524
 Wooden, J. L. OP- 842
 Woodham, W. M. PB-83 171 884
 Woodside, P. R. OF 83-0280
 Woodward, D. G. OP- 1321
 Woollorton, B. A. OF 82-1075
 Worl, R. G. OF 83-0330,
 83-0672
 Wosser, T. D. P 1254
 Wotruba, N. J. MR-0071

- Wray, J. R. OP- 1322
Wray, James..... I-1443
Wright, A. A. OP- 828
Wright, J. E. OP- 1323
Wright, N. A. C 0886
Wright, T. L. MF-1536;
OF 83-0297, 83-0326, 83-0374;
P 0890
Wrucke, C. T. MF-1162-H
Wu, S. S. OP- 1324,
1325, 1326, 1327
Wunderman, R. OP- 211
Wynn, J. C. OP- 1001,
1328
- Y
- Yamashita, K. M. OP- 288,
1329
Yancey, T. E. OP- 1330
Yang, I. C. OP- 1331
Yantis, B. R. P 1313
- Yeend, W. E. OF 83-0170-B;
P 0722
Yeend, Warren..... OF 83-0279
Yehle, L. A. OF 83-0078
Yelin, T. S. OF 83-0019
Yerkes, R. F. OP- 1332;
P 0420-A
Yin Hong-fu..... OP- 1333,
1334
Yobbi, D. K. WRI 82-4086
Yochelson, E. L. OP- 1117,
1198, 1333, 1334, 1335, 1336,
1337, 1338; P 1282
Yordy, Laura C 0834
York, J. E. C 0911
Youd, T. L. OP- 1339
Young, E. J. OP- 536
Young, H. W. OF 82-0755,
83-0225; WRI 82-4006
Young, S. B. OP- 1105
Yount, J. C. MF-1396;
OF 83-0019; P 1254
Yount, M. E. MF-1539-A
Yu, S. B. OP- 1340
- Z
- Zablocki, C. J. OF 83-0066
Zartman, R. E. OP- 307,
353, 524, 651, 1010; P 1241-E
Zech, R. S. OF 83-0056;
OP- 443, 444, 445, 446
Zellweger, G. W. OP- 90
Zen, E-An p. 149;
OP- 1341
Zenone, Chester I-1313-D,
1473
Zepeda, R. L. MF-1396
Zhai Qing-shan OF 82-1075
Zhang-Jun OF 82-1075
Zhao Shi-Guang..... OF 82-1075
Zhou, Liyi OP- 218
Ziagos, J. P. P 1028
Ziegler, D. G. OP- 1223
Zielinski, R. A. OF 83-0480;
OP- 1284, 1342, 1343, 1344
- Zietz, Isidore GP-0950;
OP- 854; P 1028, 1313
Zilka, N. T. MF-1161-C,
1231-E, 1495-A
Zimbelman, D. R. OP- 1345
Zimmerman, E. A. OF 82-0758
Zirbes, Madeleine..... P 1254
Zoback, M. D. OF 82-1075;
OP- 528, 776, 777, 832, 1346,
1347, 1348, 1349, 1350, 1351;
P 1236
Zoback, M. L. OP- 21,
1351, 1352, 1353, 1354
Zohdy, A. A. B 1313-E;
OP- 1355
Zollweg, J. E. OP- 1278,
1279
Zuehls, E. E. OF 81-0636
Zunde, A. K. C 0873

