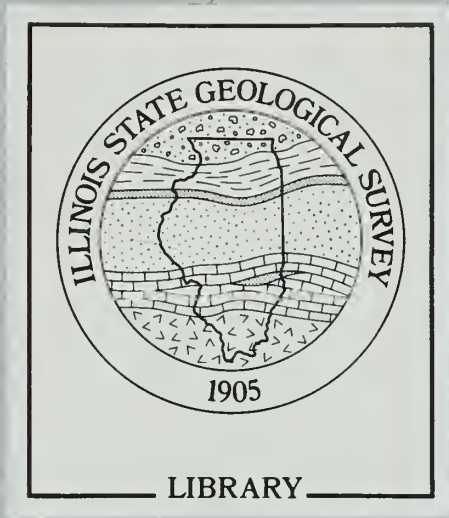


557
IL6of
1980-1

Geol Survey

ILLINOIS GEOLOGICAL
SURVEY LIBRARY



ILLINOIS STATE GEOLOGICAL SURVEY
3 3051 00007 0239


Bibliography and Index of Illinois Geology 1980

Selected from Publications Indexed in GeoRef in 1980

Open File Series 1980-1

Illinois State Geological Survey
615 East Peabody Drive
Champaign, IL 61820

**ILLINOIS GEOLOGICAL
SURVEY LIBRARY**



GeoRef Information System

American Geological Institute
4220 King Street
Alexandria, VA 22302

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

SERIALS LIST

- AAPG Bull. AAPG (American Association of Petroleum Geologists) Bulletin. Tulsa.
- ACS Symp. Ser. ACS (American Chemical Society) Symposium Series. Washington, D. C.
- Ala. Acad. Sci., J. Alabama Academy of Science, Journal. Auburn.
- Am. J. Sci. American Journal of Science. New Haven, Connecticut.
- Am. Mus. Novit. American Museum Novitates (American Museum of Natural History). New York.
- Am. Soc. Civ. Eng., Proc., J. Environ. Eng. Div. American Society of Civil Engineers, Proceedings, Journal of the Environmental Engineering Division. New York.
- Am. Soc. Civ. Eng., Proc., J. Hydraul. Div. American Society of Civil Engineers, Proceedings, Journal of the Hydraulics Division. New York.
- Argonne Natl. Lab., [Rep.] ANL. Argonne National Laboratory, [Report] ANL. Argonne, Illinois.
- Boreas. Boreas; An International Journal of Quaternary Geology. Oslo.
- Can. J. Bot. Canadian Journal of Botany • (National Research Council of Canada). Ottawa.
- Carnegie Mus., Ann. Carnegie Museum, Annals. Pittsburgh, Pennsylvania.
- Clays Clay Miner. Clays and Clay Minerals (Clay Minerals Society, Journal). Pergamon Press, New York-Oxford.
- Congr. Int. Stratigr. Geol. Carbonifere, C.R. Congres International de Stratigraphie et de Geologie du Carbonifere, Compte Rendu.
- Eos (Am. Geophys. Union, Trans.). Eos (American Geophysical Union, Transactions). Washington, D. C.
- Fieldiana: Geol. Fieldiana: Geology (Field Museum of Natural History). Chicago.
- Geol. Soc. Am., Abstr. Programs. Geological Society of America, Abstracts with Programs. Boulder, Colorado.
- Geol. Soc. Am., Map Chart Ser. Geological Society of America, Map and Chart Series. Boulder, Colorado.
- Geol. Soc. Am., Spec. Pap. Geological Society of America, Special Paper. Boulder, Colorado.
- Geology (Boulder). Geology (Geological Society of America). Boulder, Colorado.
- Ground Water. Ground Water (National Water Well Association, Technical Division, Journal). Urbana, Illinois.
- IEEQ Doc. IIEQ (Illinois Institute for Environmental Quality) Document. Chicago.
- Ill. State Acad. Sci., Trans. Illinois State Academy of Science, Transactions. Springfield.
- Ill., State Geol. Surv., Circ. Illinois, State Geological Survey, Circular. Urbana.
- Ill., State Geol. Surv., Environ. Geol. Notes. Illinois, State Geological Survey, Environmental Geology Notes. Urbana.
- Ill., State Geol. Surv., Guide Leaflet. Illinois, State Geological Survey, Guide Leaflet. Urbana.
- Ill., State Geol. Surv., Guideb. Ser. Illinois, State Geological Survey, Guidebook Series. Urbana.
- Ill., State Geol. Surv., Ind. Miner. Notes. Illinois, State Geological Survey, Industrial Minerals Notes. Urbana.
- Ill. State Mus., Rep. Invest. Illinois State Museum, Reports of Investigations. Springfield.
- Ill., Water Surv., Bull. Illinois, Water Survey, Bulletin. Urbana.
- Ill., Water Surv., Circ. Illinois, Water Survey, Circular. Urbana.

- Int. Congr. Carboniferous Stratigr. Geol.**
International Congress on Carboniferous
Stratigraphy and Geology.
- Inventory Collect. - Ill. State Mus.** Inventory
of the Collections - Illinois State Museum.
Springfield.
- J. Paleontol.** Journal of Paleontology. Tulsa,
Oklahoma.
- J. Sediment. Petrol.** Journal of Sedimentary
Petrology. Tulsa, Oklahoma.
- La. Water Resour. Res. Inst., Bull.** Louisiana
Water Resources Research Institute, Bulletin.
Baton Rouge.
- Land Use Land Cover Maps, L-Ser.** Land Use and
Land Cover Maps, L-Series. U. S. Geological
Survey, Reston, Virginia.
- Lapidary J.** Lapidary Journal. San Diego,
California.
- Lethaia.** Lethaia; An International Journal of
Palaeontology and Stratigraphy.
Universitetsforlaget, Oslo.
- Mich., Univ., Mus. Paleontol., Pap. Paleontol.**
Michigan, University, Museum of Paleontology,
Papers on Paleontology. Ann Arbor.
- Miner. Environ.** Minerals and the Environment.
London.
- Minn., Univ., Water Resour. Res. Cent. (WRRC),
Bull.** Minnesota, University, Water Resources
Research Center (WRRC), Bulletin. Minneapolis.
- NSS Bull.** The NSS Bulletin. The National
Speleological Society, Huntsville, Alabama.
- Palaeontogr., Abt. A.** Palaeontographica,
Abteilung A, Palaeozoologie-Stratigraphie.
Stuttgart.
- Palaeontology.** Palaeontology (Palaeontological
Association). London.
- Palynology.** Palynology (American Association of
Stratigraphic Palynologists). Dallas, Texas.
- Pap. - Geol. Surv. Can. Paper - Geological
Survey of Canada.** Ottawa.
- Proc. Int. Conf. Radiocarbon Dating.** Proceedings
of the International Conference [on]
Radiocarbon Dating.
- Rev. Palaeobot. Palynol.** Review of Palaeobotany
and Palynology. Elsevier Sci. Publ. Co.,
Amsterdam.
- Rockhound.** Rockhound; Where and How to Find Gems
and Minerals. Carter/Latham, Conroe, Texas.
- Seismol. Soc. Am., Bull.** Seismological Society
of America, Bulletin. Berkeley, California.
- Soc. Pet. Eng. AIME, Annu. Fall Tech. Conf.
Exhib., Pap.** Society of Petroleum Engineers of
AIME, Annual Fall Technical Conference and
Exhibition, Papers.
- U. S. Geol. Surv., Misc. Field Stud. Map.** U. S.
Geological Survey, Miscellaneous Field Studies
Map. Reston, Virginia.
- U. S. Geol. Surv., Open-File Rep.** U. S.
Geological Survey, Open-File Report. Reston,
Virginia.
- U. S. Geol. Surv., Prof. Pap.** U. S. Geological
Survey, Professional Paper. Reston, Virginia.
- U. S. Geol. Surv., Water-Resour. Invest.** U. S.
Geological Survey, Water-Resources
Investigations. [Reston, Virginia].
- Univ. Ill. Urbana-Champaign, Water Resour.
Cent., Spec. Rep.** University of Illinois at
Urbana-Champaign, Water Resources Center,
Special Report.
- Univ. Louisville Stud. Paleontol. Stratigr.**
University of Louisville Studies in
Paleontology and Stratigraphy. Louisville.
- Water Resour. Res.** Water Resources Research
(American Geophysical Union). Washington, D.C.

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

BIBLIOGRAPHY

- 80-48280: Acker, L. L.; Hodges, M. S.; Keller, G. T.; et al. Soil survey of Ogle County, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 242 p., illus. (incl. tables, plates; soils maps 1:15,840; colored soils maps 1:190,080), 8 ref., April 1980. (Publ. in coop. with Ill. Agric. Exp. Stn.).
- 80-10129: Adams, J. R. Modeling time variable pumping in a regional aquifer for public water supply [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 60, No. 46, p. 830, November 13, 1979. American Geophysical Union; 1979 fall annual meeting. Chicago.
- 80-12170: Ahbe, J. B. Southeastern Illinois magnetic anomaly map and its regional geologic implications: Master's, December 1978, Purdue Univ., West Lafayette, Indiana.
- Algermissen, S. T. see Stover, C. W.
- Allen, H. E. see Lopez, M. A.
- 80-08267: Allen, H. E., Jr.; and Bejcek, R. M. Effects of urbanization on the magnitude and frequency of floods in northeastern Illinois: U. S. Geol. Surv., Water-Resour. Invest., PB-299 65 (WRI 79-36), 48 p., 1979. available from: NTIS, Springfield, Va., United States.
- Anderson, M. P. see Eisen, C.
- 80-32396: Anonymous. Lower Mississippi region comprehensive study: variously paginated, colored land use maps 1:1,900,800, 1974. available from: Lower Miss. Reg. Comp. Stud., Coord. Comm., United States. Includes 22 appendices.
- 80-28888: Anonymous. Thornton Quarry and reef and Indiana Dunes: in Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; et al.), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 31-33, geol. sketch map, 1978.
- 80-12466: Anonymous. Illinois [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 103, 1979.
- 80-12467: Anonymous. Time-of-travel measured in Peoria Pool of the Illinois River [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 103, 1979.
- 80-29293: Anonymous. Roadlog for day nine (May 20, 1979); New Albany, Indiana to Champaign-Urbana, Illinois: in Carboniferous geology from the Appalachian Basin to the Illinois Basin through eastern Ohio and Kentucky (Ettensohn, F. R., editor; et al.), Univ. Ky., Lexington, Ky., United States, Am. Geol. Inst., Falls Church, Va., United States, p. 269-275, plates, 1979.
- 80-31855: Anonymous. Lower Ohio River basin, Ohio, Kentucky, Indiana, Illinois, and Tennessee: 59 p., illus. (incl. tables, sketch maps), December 1979. (Rep. No. FERC-0039) available from: U. S. Fed. Energ. Regulatory Comm., Washington, D.C., United States. Appraisal report; Water resources appraisal for hydroelectric licencing.
- 80-48796: Anonymous. State list of geologic and water-supply reports and maps; Illinois: March 1980. available from: U. S. Geol. Surv., Branch Distrib., Alexandria, Va., United States.
- 80-48192: Awalt, F. L. Soil survey of Clark County, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 104 p., illus. (incl. tables, plates; soils map 1:15,840; colored soils map 1:190,080), 23 ref., September 1979. (Publ. in cooperation with Ill. Agric. Exp. Stn.).
- 80-01898: Baird, D. Studies on Carboniferous freshwater fishes: Am. Mus. Novit., No. 2641, 22 p., illus., 50 ref., January 3, 1978. *Haplolepis (Parahaplolepis) canadensis*, new taxa.
- Baker, R. M. see Nakato, T.
- 80-05207: Bannister, T. A.; West, T. R.; and Harrison, W. Geohydrology of an abandoned strip-mine site, Ottawa, Illinois [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 11, No. 7, p. 383, August 1979. The Geological Society of America, 92nd annual meeting.
- 80-15431: Barrows, M. H.; Cluff, R. M.; and Harvey, R. D. Petrology and maturation of dispersed organic matter in New Albany Shale Group of Illinois Basin [abstr.]: AAPG Bull.,

- Vol. 63, No. 9, p. 1575, September 1979. AAPG Eastern Section and U. S. Department of Energy joint meeting.
- Bauer, J. see Stucky, D. J.
- Bejcek, R. M. see Allen, H. E., Jr.
- 80-28886: Berg, R. C. Stop 3; Major aspects of coastal stability along the Lake Michigan shore: *in* Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; et al.), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 20-24, plate, 1978.
- 80-55546: Berggren, D. A guide to the geology of the Carlinville area, Macoupin County, Illinois: Ill., State Geol. Surv., Guide Leaflet, No. 1979-D, 26 p., illus. (incl. plates, geol. sketch maps), 11 ref., November 1979.
- 80-55548: Berggren, D.; and Hunt, C. S. A guide to the geology of the Farmer City area, De Witt County, Illinois: Ill., State Geol. Surv., Guide Leaflet, No. 1979B, 27 p., geol. sketch maps, 11 ref., May 1979.
- 80-18159: Bernard, D. P. Prime farmland disturbance from coal surface mining in the Corn Belt, 1980-2000: Argonne Natl. Lab., [Rep.] ANL, No. ES-70, 50 p., illus. (incl. tables, sketch maps), September 1979. available from: NTIS, Springfield, Va., United States.
- 80-48643: Bhowmik, N. G. Bank erosion of the Illinois River: *in* Proceedings of the Specialty conference on Conservation and utilization of water and energy resources (Anonymous), Amer. Soc. Civ. Eng., N.Y., N.Y., United States, p. 470-477, illus. (incl. sect., sketch map), 7 ref., 1979. Specialty conference.
- 80-34047: Bhowmik, N. G. Some hydro-geomorphological observations of nine river basins in Illinois [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 61, No. 5, p. 49, January 29, 1980. American Geophysical Union; 1979 Midwest annual meeting.
- 80-42474: Bleuer, N. K. Glacial geology and physiography of field trip area: *in* Indiana portion of guidebook for a field trip on Silurian reefs, interreef facies, and faunal zones of northern Indiana and northeastern Illinois (Shaver, R. H.), West. Mich. Univ., Dep. Geol., Kalamazoo, Mich., United States, p. 29-32, sketch map, 1976.
- 80-25749: Boyle, J. M.; and Saleem, Z. A. Determination of recharge rates using temperature-depth profiles in wells: Water Resour. Res., Vol. 15, No. 6, p. 1616-1622, illus. (incl. tables, sketch map), 38 ref., December 1979.
- 80-24160: Brabets, T. P. (investigator). Illinois [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 273, 1979.
- 80-16607: Bridgett, L. S. Fission track dating of the Tar Springs Formation, a Mississippian Period sandstone of the Illinois Basin: Master's, December 1978, Washington Univ., St. Louis, Mo.
- 80-53959: Bristol, H. M.; and Howard, R. H. Sub-Pennsylvanian valleys in the Chesterian surface of the Illinois Basin and related Chesterian slump blocks: *in* Carboniferous of the southeastern United States (Briggs, G., editor), Geol. Soc. Am., Spec. Pap., No. 148, p. 315-335, illus. (incl. tables, block diags., sect., chart, geol. sketch maps), 1974.
- 80-18895: Broadhead, T. W.; and Strimple, H. L. Hyrtanecrinus, a new Carboniferous camerate crinoid genus from eastern North America: J. Paleontol., Vol. 54, No. 1, p. 35-44, illus. (incl. plate), 22 ref., January 1980.
- 80-12321: Brobst, D. A. Barite in rocks of Mississippian age: *in* Paleotectonic investigations of the Mississippian System in the United States (Craig, L. C., coordinator; et al.), U. S. Geol. Surv., Prof. Pap., No. 1010, p. 457-460, chart, sketch map, 1979.
- Buschbach, T. C. see Kolata, D. R.
- see Palmer, J. E.
- 80-31990: Bushue, L. J. Soil survey of Adams County, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 143 p., illus. (incl. tables, geol. sketch maps; colored soils map 1:253,440; soils map 1:15,840), December 1979. (Publ. in cooperation with Ill. Agric. Exp. Stn.).
- 80-38049: Butts, T. A.; and Evans, R. L. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams: Ill., Water Surv., Circ., No. 132, 153 p., illus. (incl. tables, sects., plates, sketch map), 14 ref., 1978.
- 80-38051: Butts, T. A.; and Evans, R. L. Sediment oxygen demand studies of selected northeastern Illinois streams: Ill., Water Surv., Circ., No. 129, 177 p., illus. (incl. tables, plates, sketch maps), 20 ref., 1978.
- 80-17839: Butzer, K. W. Geomorphology of the lower Illinois Valley as a spatial-temporal context for the Koster archaic site: Ill. State Mus., Rep. Invest., No. 34, 60 p., illus. (incl. tables, strat. cols., geol. sketch maps), 100 ref., 1977.
- 80-05353: Carpenter, G. L.; Nosow, E.; Lindau, R. D.; et al. Developments in East-Central states in 1978: AAPG Bull., Vol. 63, No. 8, p. 1324-1337, tables, sketch maps, August 1979.

- 80-29168: Cartwright, K.; and Hunt, C. S. Hydrogeology of underground coal mines in Illinois: *in* El agua en la minería y trabajos subterráneos; V. I-III (Fernandez-Rubio, R., editor; *et al.*), Asoc. Nac. Ing. Minas, Spain, p. 61-83 (incl. French, Spanish sum.), illus. (incl. strat. cols., sects., sketch map), 10 ref., 1978. SIAMOS-78.
- Cartwright, K. *see also* McKay, E. D.
- 80-15436: Chou, M. I. M.; and Dickerson, D. R. Pyrolysis of Eastern gas shales; effects of temperature and atmosphere [abstr.]: AAPG Bull., Vol. 63, No. 9, p. 1577, September 1979. AAPG Eastern Section and U. S. Department of Energy joint meeting.
- Cluff, R. M. *see* Barrows, M. H.
- 80-00636: Cobb, J. C.; Masters, J. M.; Treworgy, C. G.; *et al.* Abundance and recovery of sphalerite and fine coal from mine waste in Illinois: Ill., State Geol. Surv., Ind. Miner. Notes, No. 71, 11 p., illus. (incl. tables), 9 ref., March 1979.
- Cobb, J. C. *see also* Krausse, H. F.
- 80-40497: Coleman, D. D. The origin of drift-gas deposits as determined by radiocarbon dating of methane: *in* Radiocarbon dating (Berger, R., editor; *et al.*), Proc. Int. Conf. Radiocarbon Dating, No. 9, p. 365-387, illus. (incl. sketch maps, geol. sects., tables), 15 ref., 1979. From about 22,000 to 28,000 BP.
- Conkin, B. M. *see* Conkin, J. E.
- 80-41453: Conkin, J. E.; Conkin, B. M.; and Thurman, E. D. Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance: Univ. Louisville Stud. Paleontol. Stratigr., No. 10, 13 p., illus., 10 ref., 1979.
- 80-20290: Conroy, P. J. Rock mechanics investigation for a longwall panel in the Illinois No. 6 coal: *in* Stability in coal mining, proceedings of the First international symposium on stability in coal mining (Brawner, C. D., editor; *et al.*), Miller Freeman Publ., San Francisco, Calif., United States, p. 158-174, illus. (incl. tables), 2 ref., 1979.
- Crelling, J. C. *see* Harvey, R. D.
- 80-12183: Crown, R. W. Time-trends of chemical constituents in Illinois streams: Master's, August 24, 1978, Northern Illinois Univ., De Kalb, Ill.
- Cunningham, R. S. *see* Jones, M.
- 80-28887: Cyrrier, R. T. Chicago River and Sanitary and Ship Canal: *in* Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; *et al.*), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 25-30, illus. (incl. geol. sketch map), 1978.
- Cyrrier, R. T. *see also* DuMontelle, P. B.
- Damberger, H. H. *see* Treworgy, C. G.
- Daniels, J. J. *see* Scott, J. H.
- 80-15438: Dean, C. S.; and Overbey, W. K., Jr. Exploration strategy for unconventional natural gas resource; Devonian shales [abstr.]: AAPG Bull., Vol. 63, No. 9, p. 1577, September 1979. AAPG Eastern Section and U. S. Department of Energy joint meeting.
- Dean, L. L. *see* Kolata, D. R.
- Dickerson, D. R. *see* Chou, M. I. M.
- 80-22538: DiMichele, W. A.; Mahaffy, J. F.; and Phillips, T. L. Lycopods of Pennsylvanian age coals; Polysporia: Can. J. Bot., Vol. 57, No. 16, p. 1740-1752 (incl. French sum.), illus., 38 ref., August 15, 1979.
- Dingwell, A. G. *see* Samson, I.
- Dixon, J. A. *see* Zielinski, R. E.
- Dixon, W. G. *see* DuMontelle, P. B.
- Douglass, R. C. *see* Rice, C. L.
- 80-32445: Droste, J. B.; and Vitaliano, C. J. Geologic report of the Maquoketa Shale, New Albany Shale, and Borden Group rocks in the Illinois Basin as potential solid waste repository sites: 23 p., illus. (incl. geol. sketch maps), 9 ref., June 1976. (Rep. No. Y/DWI/SUB-7062/1) available from: Union Carbide Corp., Off. Waste Isolation, Oak Ridge, Tenn., United States.
- Duffy, T. L. *see* Golchert, N. W.
- 80-28884: DuMontelle, P. B. Stop 1; Sewage treatment plant and deep tunnel at Stickney: *in* Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; *et al.*), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 6-16, illus. (incl. tables, sketch maps), 1978.
- 80-28882: DuMontelle, P. B.; Dixon, W. G.; and Cyrrier, R. T. (compilers). Engineering geology of the Greater Chicago area and the south shore of Lake Michigan: Chicago Assoc. Commer. Ind., Chicago, Ill., United States, 65 p., illus. (incl. tables, geol. sketch maps), 35 ref., 1978. Papers cited separately; field trip guidebook, annual meeting of the Association of Engineering Geologists, Oct. 2-6, 1979 at Chicago, Ill.
- Dutcher, R. R. *see* Harvey, R. D.

Dutcher/Fuentes

- see Palmer, J. E. Urbana-Champaign, Water Resour. Cent., Spec. Rep., No. 4, p. 46-54, tables, April 1976.
- 80-10116: Ekins, J. E.; Krothe, N. C.; and Schubert, J. P. Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois [abstr.]: *Eos* (Am. Geophys. Union, Trans.), Vol. 60, No. 46, p. 828, November 13, 1979. American Geophysical Union; 1979 fall annual meeting.
- 80-15407: Edwards, M. J.; Langenheim, R. L., Jr.; Nelson, W. J.; et al. Lithologic patterns in the Energy Shale Member and the origin of "rolls" in the Herrin (No. 6) Coal Member, Pennsylvanian, in the Orient No. 6 Mine, Jefferson County, Illinois: *J. Sediment. Petrol.*, Vol. 49, No. 3, p. 1005-1013, illus. (incl. geol. sketch map), 5 ref., September 1979.
- 80-10718: Eisen, C.; and Anderson, M. P. The effects of urbanization on ground-water quality; a case study: *Ground Water*, Vol. 17, No. 5, p. 456-462, illus. (incl. tables), 22 ref., October 1979.
- Elzeftawy, A. see McKay, E. D.
- 80-38052: Emmons, J. T. Groundwater levels and pumpage in the East St. Louis area, Illinois, 1972-1977: *Ill., Water Surv., Circ.*, No. 134, 23 p., illus. (incl. tables, sketch maps), 6 ref., 1979.
- Erickson, J. R. see Foster, J. B.
- Evans, R. L. see Butts, T. A.
- see Gibb, J. P.
- 80-20232: Ferm, J. C. Pennsylvanian cyclothems of the Appalachian region, a retrospective view: in *Carboniferous depositional environments in the Appalachian region* (Ferm, J. C., editor; et al.), Univ. S.C., Dep. Geol.; Carol. Coal Group, Columbia, S.C., United States, p. 284-290, sects., 1979.
- Fertl, W. H. see Rieke, H. H.
- 80-18559: Fetter, C. W. Analysis of drawdown in the Cambrian-Ordovician aquifer of northeastern Illinois and southeastern Wisconsin [abstr.]: *Geol. Soc. Am., Abstr. Programs*, Vol. 11, No. 7, p. 425, August 1979. The Geological Society of America, 92nd annual meeting.
- 80-07869: Fisher, D. C.; and Nitecki, M. H. Morphology and arrangement of meromes in *Ischadites dixonensis*, an Ordovician receptaculitid: *Fieldiana: Geol.*, Vol. 39, No. 2, 15 p., illus., 11 ref., May 26, 1978.
- 80-17844: Flemal, R. C.; Meyer, D. F.; and McBroom, M. N. Investigations into the sources of dissolved materials in Illinois stream waters; a progress report: in *Proceedings of the Illinois River workshop* (Stout, G. E., director), Univ. Ill.
- 80-32711: Follmer, L. R. A historical review of the Sangamon Soil: in *Wisconsinan, Sangamonian, and Illinoian* (Follmer, L. R., leader; et al.), *Ill., State Geol. Surv., Guideb. Ser.*, No. 13, p. 79-91, illus. (incl. sketch map), 1979.
- 80-32709: Follmer, L. R.; McKay, E. D.; Lineback, J. A. (leaders); et al. Wisconsinan, Sangamonian, and Illinoian: *Ill., State Geol. Surv., Guideb. Ser.*, No. 13, 139 p., illus. (incl. tables), 94 ref., 1979. Individual papers are cited separately; Midwest Friends of the Pleistocene 26th field conference May 4-6, 1979.
- 80-46940: Follmer, L. R.; McKay, E. D.; Lineback, J. A. (leaders); et al. Wisconsinan, Sangamonian, and Illinoian stratigraphy in central Illinois: *Ill., State Geol. Surv., Guideb. Ser.*, No. 13, 134 p., illus. (incl. tables, geol. sketch maps), 95 ref., May 6, 1979. Individual papers cited separately; Guidebook for Midwest Friends of the Pleistocene 26th field conference, at Urbana, Ill., USA; May 4-6, 1979.
- Ford, C. K. see Keeney, R. L.
- Ford, D. C. see Moran, J. M.
- 80-45928: Foster, J. B.; and Erickson, J. R. Preliminary report on the hydrogeology of a low-level radioactive waste disposal site near Sheffield, Illinois: *U. S. Geol. Surv., Open-File Rep.*, No. 79-1545, 90 p., illus., 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- 80-24110: Foster, J. B.; and Erickson, J. R. (investigators). Tunnel aids investigation near Sheffield, Illinois [abstr.]: *U. S. Geol. Surv., Prof. Pap.*, No. 1150, p. 264, 1979.
- 80-37503: Fraunfelter, G. H. Lower Pennsylvanian limestones in southern Illinois: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers* (Palmer, J. E., editor; et al.), *Ill., State Geol. Surv., Guideb. Ser.*, No. 15, Part 2, p. 73-75, sects., 9 ref., 1979.
- 80-37524: Fraunfelter, G. H.; Utgaard, J.; Mansfield, C. F. (leaders); et al. Day 6: South-central Illinois: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 1, Road log and descriptions of stops* (Palmer, J. E., editor; et al.), *Ill., State Geol. Surv., Guideb. Ser.*, No. 15, Part 1, p. 82-95, illus. (incl. sects., plates, geol. sketch map), 1979.
- 80-12468: Fuentes, R. F.; and Patterson, G. L. (investigators). Sludge-irrigation hydrology

- [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 103, 1979.
- 80-18189: **Gamer, R. L.** Engineering geology of the tunnel and reservoir plan (TARP), Chicago, Illinois [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 11, No. 7, p. 429, August 1979. The Geological Society of America, 92nd annual meeting.
- Ganguli, P. S.** see **Hsu, G. C.**
- 80-10910: **Gastaldo, R. A.** Morphological plasticity in the Upper Carboniferous form genus *Pecopteris* Brongniart [abstr.]: in Papers presented at the 56th annual meeting, Alabama Academy of Science (Mason, W. H., editor), Ala. Acad. Sci., J., Vol. 50, No. 3, p. 132-133, July 1979.
- Gavalas, G. R.** see **Hsu, G. C.**
- 80-27858: **Gibb, J. P.**; and **Evans, R. L.** Reconnaissance study of final cut impoundments: IIEQ Doc., No. 78/25, 101 p., illus. (incl. tables, sects.), 15 ref., June 1978.
- 80-38050: **Gibb, J. P.**; and **Evans, R. L.** Preliminary evaluation of final cut lakes: Ill., Water Surv., Circ., No. 130, 87 p., illus. (incl. tables, sects., sketch map), 15 ref., 1978.
- Gilkeson, R. H.** see **Perry, E. C., Jr.**
- 80-13460: **Goddard, T. M.** Soil survey of Kane County, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 179 p., illus. (incl. tables, geol. sketch maps; soils maps 1:15,840; colored soils map 1:100,000), 16 ref., April 1979. (Publ. in cooperation with Ill. Agric. Exp. Stn.).
- 80-00151: **Golchert, N. W.**; **Duffy, T. L.**; and **Sedlet, J.** Environmental monitoring at Argonne National Laboratory; annual report for 1978: Argonne Natl. Lab., [Rep.] ANL, No. 79-24, 94 p., illus. (incl. tables), March 1979. (Rep. No. ANL-79-24).
- Gottlieb, P.** see **Keeney, R. L.**
- 80-42968: **Goulter, I. C.** A technique for watershed land use planning under uncertainty: 185 p., Doctoral, 1979, Univ. of Illinois, Urbana, Ill. available from: Univ. Microfilms.
- 80-48277: **Grantham, D. R.** Soil survey of Winnebago and Boone counties, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 279 p., illus. (incl. tables, plates; soils maps 1:15,840; colored soils maps 1:190,080), 7 ref., March 1980. (Publ. in coop. with Ill. Agric. Exp. Stn.).
- 80-08366: **Grason, D.**; and **Healy, R. W.** Chemical analyses of surface water in Illinois, 1975-77; Volume 1, Des Plaines River basin and Lake Michigan: U. S. Geol. Surv., Water-Resour. Invest., No. PB-299 912 (WRI 79-23), 222 p., 1979. available from: NTIS, Springfield, Va., United States.
- 80-08367: **Grason, D.**; and **Healy, R. W.** Chemical analyses of surface water in Illinois, 1975-77; Volume 2, Illinois River basin and Mississippi River tributaries north of Illinois River basin: U. S. Geol. Surv., Water-Resour. Invest., No. PB-299 913 (WRI 79-24), 287 p., 1979. available from: NTIS, Springfield, Va., United States.
- 80-08368: **Grason, D.**; and **Healy, R. W.** Chemical analyses of surface water in Illinois, 1975-77, Volume 3, Ohio River tributaries and Mississippi River tributaries south of Illinois River basin: U. S. Geol. Surv., Water-Resour. Invest., No. PB-299 914 (WRI 79-25), 246 p., 1979. available from: NTIS, Springfield, Va., United States.
- Gross, D. L.** see **Follmer, L. R.**
- Grundl, T. J.** see **Perry, E. C., Jr.**
- 80-60177: **Hardy, G. W., III.** Handbook of basic water law (with special reference to Louisiana): La. Water Resour. Res. Inst., Bull., No. 1, 77 p., June 1966.
- 80-60382: **Harlin, J. M.** The effect of precipitation variability on drainage basin morphometry: Am. J. Sci., Vol. 280, No. 8, p. 812-825, illus. (incl. sketch maps), 33 ref., October 1980.
- 80-17842: **Harmeson, R.** Chemical data and trends: in Proceedings of the Illinois River workshop (Stout, G. E., director), Univ. Ill. Urbana-Champaign, Water Resour. Cent., Spec. Rep., No. 4, p. 36-37, tables, April 1976.
- Harmon, R. S.** see **Moran, J. M.**
- 80-37512: **Harris, S. E., Jr.** The influence of the Carboniferous rocks on the topography of the Illinois Basin: in Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 121-126, geol. sketch maps, 8 ref., 1979.
- 80-37525: **Harris, S. E., Jr.**; **Utgaard, J.**; **Jacobson, R. J.** (leaders); et al. Day 6; Carbondale, Illinois to southwestern Illinois area: in Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 1, Road log and descriptions of stops (Palmer, J. E., editor; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 1, p. 95-112, illus. (incl. tables, plates, geol. sketch maps), 1979.
- Harrison, W.** see **Bannister, T. A.**
- 80-37513: **Harvey, R. D.**; **Crelling, J. C.**; **Dutcher, R. R.**; et al. Petrology and related

- chemistry of coals in the Illinois Basin: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 127, illus. (incl. tables, plates, geol. sketch maps), 55 ref., 1979.
- Harvey, R. D. *see also* Barrows, M. H.
- *see also* Harris, S. E., Jr.
- *see also* Palmer, J. E.
- 80-59314: Hays, R. G. State science in Illinois; the scientific surveys, 1850-1978: South. Ill. Univ. Press, Carbondale, Ill., United States, 257 p., 1980.
- 80-56726: Healy, R. W. River mileages and drainage areas for Illinois streams; Volume 1, Illinois except Illinois River basin: U. S. Geol. Surv., Water-Resour. Invest., No. ADA-082 472 (WRI 79-110), 355 p., 1979. *available from*: NTIS, Springfield, Va., United States.
- 80-56727: Healy, R. W. River mileages and drainage areas for Illinois streams; Volume 2, Illinois River basin: U. S. Geol. Surv., Water-Resour. Invest., No. ADA-082 473 (WRI 79-111), 307 p., 1979. *available from*: NTIS, Springfield, Va., United States.
- Healy, R. W. *see also* Grason, D.
- Helfinstine, R. J. *see* Cobb, J. C.
- Herrmann, R. B. *see* Stauder, W. S.
- 80-17039: Hoare, R. D.; and Sturgeon, M. T. Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America: *in* Paleontologicheskaya kharakteristika osnovnykh podrazdeleniy karbona (Meyen, S. V., editor; *et al.*), Int. Congr. Carboniferous Stratigr. Geol., No. 8, Vol. 3, p. 176-183, strat. col., sketch map, 14 ref., 1979.
- Hodges, M. S. *see* Acker, L. L.
- 80-37514: Hopkins, M. E.; Nance, R. B.; and Treworgy, C. G. Mining geology of Illinois coal deposits: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 142-151, illus. (incl. tables, sects., geol. sketch maps), 15 ref., 1979.
- Hopkins, M. E. *see also* Palmer, J. E.
- 80-37498: Howard, R. H. The Mississippian-Pennsylvanian unconformity in the Illinois Basin; old and new thinking: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 34-42, illus. (incl. geol. sketch maps), 27 ref., 1979.
- 80-45172: Howard, R. H. Carboniferous cyclicity related to the development of the Mississippian-Pennsylvanian unconformity in the Illinois: *in* Uglensosnyye formatsii (Timofeyev, P. P., editor; *et al.*), Congr. Int. Stratigr. Geol. Carbonifere, C.R., No. 8, Vol. 5, p. 32-41, strat. cols., geol. sketch maps, 31 ref., 1979.
- Howard, R. H. *see also* Bristol, H. M.
- 80-11213: Hsu, G. C.; Kalvinskas, J. J.; Ganguli, P. S.; *et al.* Coal desulfurization by low-temperature chlorinolysis: *in* Coal desulfurization, chemical and physical methods; a symposium sponsored by the Division of Fuel Chemistry, 173rd meeting of the ACS (Gould, R. F., editor), ACS Symp. Ser., No. 64, p. 206-217, illus. (incl. tables), 18 ref., 1977.
- 80-12143: Huang, S. L. The influence of the dispersion method on peak intensity of kaolinite, montmorillonite and illite clay standards: Master's, 1978, Univ. of Kentucky, Lexington, Ky.
- Hunt, C. S. *see* Berggren, D.
- *see* Cartwright, K.
- 80-32254: Hutchison, M. D. Preservation values of the Big Creek watershed in Hardin County, Illinois: Ill. Nat. Preserv. Comm., Rockford, Ill., United States, 65 p., plates, geol. sketch maps, 47 ref., May 1976.
- 80-06260: Illinois Environmental Protection Agency. Sediment and soil loss in Illinois: summary: IIEQ Doc., No. 78/24, 20 p., tables, sketch map, 4 ref., June 1978. Summary of a 420-page report on a study conducted by the Ill. State Water Surv. as Project 20.085.
- Jacobson, R. J. *see* Fraunfelner, G. H.
- *see* Harris, S. E., Jr.
- *see* Palmer, J. E.
- Jayko, B. D. *see* Roth, P. L.
- 80-22064: Jenkins, W. A. M.; and Legault, J. A. Stratigraphic ranges of selected Chitinozoa: Palynology, Vol. 3, p. 235-264, illus. (incl. strat. cols.), 127 ref., 1979. *Ordovician, Silurian, Devonian.*
- 80-36446: Jennings, J. R.; and Millay, M. A. Morphology of fertile Pecopteris unita from the Middle Pennsylvanian of Illinois: Palaeontology, Vol. 22, Part 4, p. 913-920, plates, 31 ref., November 1979.

- 80-02829: Johnson, J. R. Reclamation of abandoned mine site: *Am. Soc. Civ. Eng., Proc., J. Environ. Eng. Div., Vol. 105, No. EE3, p. 597-603, June 1979.*
- Johnson, W. H. see Wickham, S. S.
- Jones, D. S. see Thompson, I.
- 80-48469: Jones, M.; and Cunningham, R. S. Sludge used for strip mine restoration at Palzo; project development and compliance water quality monitoring: *in Utilization of municipal sewage effluent and sludge on forest and disturbed land (Sopper, W. E., editor; et al.), Pa. State Univ., Philadelphia, Pa., United States, p. 369-377, illus. (incl. tables, sketch map), 16 ref., 1979.*
- Kalvinskas, J. J. see Hsu, G. C.
- 80-06560: Keeney, R. L.; Kirkwood, C. W.; Ford, C. K.; et al. An evaluation and comparison of nuclear powerplant siting methodologies: 214 p., illus. (incl. tables), March 1979. (Rep. No. NUREG/CR-0407) (Rep. No. SAND78-1284) available from: NTIS, Springfield, Va., United States.
- Kehn, T. M. see Rice, C. L.
- 80-39412: Keifer and Associates. Lake Michigan water allocation study: variously paginated, illus. (incl. tables, sketch maps), August 1976. available from: Ill. Dep. Transp., Div. Water Resour., Chicago, Ill., United States.
- Keller, G. T. see Acker, L. L.
- 80-28883: Kempton, J. P. Geologic setting of northeastern Illinois and description of geologic materials: *in Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; et al.), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 1-3, illus., 1978.*
- Kennedy, J. F. see Nakato, T.
- 80-32715: King, F. B. Plant macrofossils from the Athens North Quarry: *in Wisconsinan, Sangamonian, and Illinoian (Follmer, L. R., leader; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 13, p. 114-115, 1979.*
- King, F. B. see also Follmer, L. R.
- 80-32714: King, J. E. Pollen analysis of some Farmdalian and Woodfordian deposits, central Illinois: *in Wisconsinan, Sangamonian, and Illinoian (Follmer, L. R., leader; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 13, p. 109-113, illus., 1979.*
- King, J. E. see also Follmer, L. R.
- Kirkwood, C. W. see Keeney, R. L.
- Koch, D. L. see Moran, J. M.
- 80-05314: Koch, W. F., II. Brachiopod paleoecology, paleobiogeography, and biostratigraphy in the upper Middle Devonian of eastern North America; an ecofacies model for the Appalachian, Michigan, and Illinois basins: 143 p., Doctoral, 1978, Oregon State Univ., Corvallis, Oreg. available from: Univ. Microfilms.
- 80-37504: Koeninger, C. A.; and Mansfield, C. F. Earliest Pennsylvanian depositional environments in central southern Illinois: *in Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 76-80, illus. (incl. sects., sketch map), 15 ref., 1979.*
- Koeninger, C. A. see also Fraunfelder, G. H.
- 80-45016: Kolata, D. R.; Buschbach, T. C.; and Treworgy, J. D. The Sandwich fault zone of northern Illinois: Ill., State Geol. Surv., Circ., No. 505, 26 p., illus. (incl. sects., geol. sketch maps), 25 ref., 1978.
- 80-28889: Kolata, D. R.; and Dean, L. L. Stop 1; Thornton Quarry and reef: *in Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; et al.), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 33-46, illus. (incl. plates, geol. sketch map), 1978.*
- 80-33844: Kopsick, D. A. Leaching behavior of selected fly ashes and bottom ashes [abstr.]: *Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 1, p. 5, January 1980. The Geological Society of America, South-Central Section, 14th annual meeting.*
- 80-42491: Krausse, H. F.; Cobb, J. C.; and Treworgy, C. G. Surface coal mine; major coals of the Carbondale Formation: Ill. State Geol. Surv., Urbana, Ill., United States, 12 p., illus. (incl. sects., plates, geol. sketch maps), 17 ref., May 1979. One day field trip J, May 27, 1979; prepared for the Ninth international Congress of Carboniferous stratigraphy and geology.
- 80-42490: Krausse, H. F.; Nelson, W. J.; Popp, J. T.; et al. Underground coal mine; Herrin (No. 6) Coal Member; stratigraphy, deformational structures, and roof stability: Ill. State Geol. Surv., Urbana, Ill., United States, 14 p., illus. (incl. tables, sects., geol. sketch maps), 16 ref., May 1979. One day field trip D, May 20, 1979; prepared for the Ninth international conference of Carboniferous stratigraphy and geology.
- 80-37511: Krausse, H. F.; and Treworgy, C. G. Major structures of the southern part of the Illinois Basin: *in Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p.*

- 115-119, geol. sketch map, 39 ref., 1979.
- Krausse, H. F. see also Palmer, J. E.
- Krothe, N. C. see Edkins, J. E.
- Kunz, K. L. see Woller, D. M.
- 80-16069: Kurten, B. The stilt-legged deer Sangamona of the North-American Pleistocene: Boreas, Vol. 8, No. 3, p. 313-321, illus. (incl. tables), 9 ref., September 1, 1979.
- Langenheim, R. L., Jr. see Edwards, M. J.
- Lanyon, R. see Polls, I.
- Larson, C. L. see Moore, I. D.
- 80-45174: Leary, R. L. Namurian paleogeography of the western margin of the Eastern Interior (Illinois) Basin; USA: in Uglensnyye formatsii (Timofeyev, P. P., editor; et al.), Congr. Int. Stratigr. Geol. Carbonifere, C.R., No. 8, Vol. 5, p. 49-56, sects., plates, sketch map, 6 ref., 1979.
- 80-26011: Leary, R. L. Lacoeca with sporangia and Calamospora spores from Rock Island, Illinois: Rev. Palaeobot. Palynol., Vol. 29, No. 1-2, p. 23-28, illus. (incl. plate), 10 ref., February 1980.
- 80-39697: Leary, R. L.; and Sipiara, P. P. Inventory of meteorites in the collection of the Illinois State Museum: Inventory Collect. - Ill. State Mus., No. 2, Part 3, 9 p., plates, 6 ref., 1977.
- Ledvina, C. see Edwards, M. J.
- 80-34048: Lee, M. T.; and Stall, J. B. Sedimentation of backwater lakes along the Illinois River [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 61, No. 5, p. 49, January 29, 1980. American Geophysical Union; 1979 Midwest annual meeting.
- Legault, J. A. see Jenkins, W. A. M.
- Lindau, R. D. see Carpenter, G. L.
- 80-32710: Lineback, J. A. The status of the Illinoian glacial stage: in Wisconsinan, Sangamonian, and Illinoian (Follmer, L. R., leader; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 13, p. 69-78, illus. (incl. table, sketch map), 1979.
- 80-31214: Lineback, J. A. (compiler). Quaternary deposits of Illinois: Ill. State Geol. Surv., Urbana, Ill., United States, colored strat. map 1:500,000, 1979.
- Lineback, J. A. see also Follmer, L. R.
- 80-40914: Loftis, J. C.; and Ward, R. C. Regulatory water quality monitoring networks; statistical and economic considerations: 90 p., illus. (incl. tables), 42 ref., August 1979. (Rep. No. EPA-600/4-79-055) available from: Environ. Protec. Agency, Washington, D.C., United States.
- 80-12650: Lopez, M. A.; and Allen, H. E. (investigators). Flood frequency [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 136-137, 1979.
- Lue-Hing, C. see Peterson, J. R.
- see Polls, I.
- 80-01883: Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda): Carnegie Mus., Ann., Vol. 47, Article 4, p. 53-79, illus., 21 ref., March 10, 1978. Aornerpeton mazonense, Sillerpeton permianum.
- Mahaffy, J. F. see DiMichele, W. A.
- Mansfield, C. F. see Fraunfelder, G. H.
- see Koeninger, C. A.
- Masters, J. M. see Cobb, J. C.
- 80-17843: Mathis, B. J. Heavy metals in the Illinois River and some of its tributaries: in Proceedings of the Illinois River workshop (Stout, G. E., director), Univ. Ill. Urbana-Champaign, Water Resour. Cent., Spec. Rep., No. 4, p. 38-45, illus. (incl. table), April 1976.
- McBroom, M. N. see Flemal, R. C.
- 80-31611: McGinely, F. E. (chairperson). Chattanooga Shale conference: Nov. 14-15, 1978, Oak Ridge, Tenn., United States. 81 p., illus. (incl. tables, sketch maps), November 1979. (Rep. No. GJBX-170(79)) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, Colo., United States. National uranium resource evaluation; individual papers are cited separately herein.
- 80-25101: McGovney, J. E. Deposition and diagenesis of the Thornton Reef (Silurian, northeastern Illinois) [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 11, No. 7, p. 475, August 1979. The Geological Society of America, 92nd annual meeting.
- 80-22789: McGovney, J. E. E. Deposition, porosity evolution, and diagenesis of the Thornton Reef (Silurian), northeastern Illinois: 531 p., Doctoral, 1978, Univ. of Wisconsin, Madison, Wis. available from: Univ. Microfilms.
- McGrain, P. see Trace, R. D.
- McIver, R. D. see Zielinski, R. E.
- 80-32713: McKay, E. D. Wisconsinan loess stratigraphy of Illinois: in Wisconsinan, Sangamonian, and Illinoian (Follmer, L. R., leader; et al.), Ill., State Geol. Surv.,

- Guideb. Ser., No. 13, p. 95-108, illus. (incl. tables, sketch maps), 1979.
- 80-55132: McKay, E. D. Stratigraphy of Wisconsinan and older loesses in southwestern Illinois: in *Geology of western Illinois* (Treworgy, J. D., leader; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 14, p. 37-67, illus. (incl. tables, sketch maps), 22 ref., October 1979.
- 80-46861: McKay, E. D.; Elzeftawy, A.; and Cartwright, K. Ground-water geology of selected wetlands in Union and Alexander counties, Illinois: Ill., State Geol. Surv., Environ. Geol. Notes, No. 85, 32 p., illus. (incl. tables, geol. sketch maps), 15 ref., July 1979.
- McKay, E. D. see also Follmer, L. R.
- see also Treworgy, J. D.
- 80-36305: Merrill, G. K. A new locality for the Cramer(?) Member in northwestern Illinois: Ill. State Acad. Sci., Trans., Vol. 72, No. 1, p. 84-85, illus., 3 ref., 1979.
- 80-31113: Merrill, G. K. Removal of pyrite from microfossil samples by means of sodium hypochlorite: J. Paleontol., Vol. 54, No. 3, p. 633-634, 5 ref., May 1980.
- Meyer, D. F. see Flegal, R. C.
- Millay, M. A. see Jennings, J. R.
- 80-27747: Miller, E. Our search for the Keokuk geode: Lapidary J., Vol. 33, No. 10, p. 2192-2196, January 1980.
- 80-32716: Miller, N. G. Paleoeological comments on fossil mosses in a buried organic bed near Peoria, Tazewell County, Illinois: in *Wisconsinan, Sangamonian, and Illinoian* (Follmer, L. R., leader; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 13, p. 116, 1979.
- Miller, N. G. see also Follmer, L. R.
- 80-22779: Miller, S. D. Chemistry of a pyritic strip-mine spoil: 201 p., Doctoral, 1979, Yale Univ., New Haven, Conn. available from: Univ. Microfilms.
- Mitchell, B. J. see Stauder, W. S.
- 80-13984: Moore, I. D.; and Larson, C. L. Effects of drainage projects on surface runoff from small depressional watersheds in the North Central region: Minn., Univ., Water Resour. Res. Cent. (WRRRC), Bull., No. 99, 225 p., illus. (incl. tables, sketch map), 110 ref., January 1979.
- 80-35519: Moran, J. M.; Stieglitz, R. D.; Harmon, R. S.; et al. An isotopic paleotemperature record for late Wisconsinan time in Northeast Iowa; discussion and reply: *Geology* (Boulder), Vol. 8, No. 6, p. 263-265, 18 ref., June 1980. For reference to paper by Harmon, R. S., et al., see *Geology* (Boulder), Vol. 7, p. 430, 1979.
- 80-12177: Morgan, B. E. The role of the atmosphere as the major source of sulfate in Illinois surface water: Master's, August 1978, Northern Illinois Univ., De Kalb, Ill.
- 80-54335: Mori, J. Utica jewelstone of Illinois: *Rockhound*, Vol. 9, No. 3, p. 24-26, plates, sketch map, June 1980.
- Morrow, L. R. see Palmer, J. E.
- 80-31614: Mountain States Research and Development; and Troups Corporation. Engineering assessment and feasibility study of Chattanooga Shale as a future source of uranium: in *Chattanooga Shale conference* (McGinely, F. E., chairperson), p. 15-54, illus. (incl. tables, charts, sketch map), November 1979. (Rep. No. GJBX-170(79)) available from: U.S. Dep. Energy, Grand Junction Aff., Grand Junction, Colo., United States.
- 80-11212: Murray, H. H. Magnetic desulfurization of some Illinois Basin coals: in *Coal desulfurization, chemical and physical methods; a symposium sponsored by the Division of Fuel Chemistry, 173rd meeting of the ACS* (Gould, R. F., editor), ACS Symp. Ser., No. 64, p. 112-120, illus. (incl. tables), 15 ref., 1977.
- 80-28313: Nakato, T.; Baker, R. M.; and Kennedy, J. F. Mississippi River shoaling; a diagnostic study: Am. Soc. Civ. Eng., Proc., J. Hydraul. Div., Vol. 105, No. HY11, p. 1375-1391, illus. (incl. tables, sketch maps), 14 ref., November 1979.
- Nance, R. B. see Hopkins, M. E.
- see Krausse, H. F.
- 80-15460: Nance, S. W.; Seabaugh, P. W.; and Zielinski, R. E. Devonian shale characterization; evaluation of some significant exploitation properties [abstr.]: AAPG Bull., Vol. 63, No. 9, p. 1584, September 1979. AAPG Eastern Section and U. S. Department of Energy joint meeting.
- 80-37515: Nelson, W. J. Geologic effects of the Walshville channel on coal mining conditions in southern Illinois: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers* (Palmer, J. E., editor; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 151-158, illus. (incl. plates, geol. sketch maps), 4 ref., 1979.
- Nelson, W. J. see also Edwards, M. J.
- see also Krausse, H. F.

- 80-57817: Nesbitt, H. W. Characterization of mineral-formation water interactions in Carboniferous sandstones and shales of the Illinois sedimentary basin: *Am. J. Sci.*, Vol. 280, No. 7, p. 607-630, illus. (incl. table, sketch map), 46 ref., 1980.
- Nitecki, M. H. see Fisher, D. C.
- Nosow, E. see Carpenter, G. L.
- Olimpio, J. C. see Sherrill, M. G.
- Overbey, W. K., Jr. see Dean, C. S.
- 80-37507: Palmer, J. E.; Jacobson, R. J.; and Trask, C. B. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin*; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 92-102, illus. (incl. sects., sketch map), 8 ref., 1979.
- 80-37491: Palmer, J. E.; and Dutcher, R. R. (editors). Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers: Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, 158 p., illus. (incl. plates, sects., geol. sketch maps), 1979. Invited papers of the Ninth International congress of Carboniferous stratigraphy and geology; May 26-June 1, 1979; individual papers are cited separately.
- 80-37516: Palmer, J. E.; and Dutcher, R. R. (editors). Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 1, Road log and descriptions of stops: Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 1, 112 p., illus. (incl. tables, plates, geol. sketch maps), 132 ref., 1979. Field trip of the Ninth International congress of Carboniferous stratigraphy and geology, May 26-June 1, 1979.
- 80-37523: Palmer, J. E.; Trask, C. B.; Morrow, L. R. (leaders); *et al.* Day 4; Cave in Rock, Illinois, to Carbondale, Illinois: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin*; Part 1, Road log and descriptions of stops (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 1, p. 58-82, illus. (incl. plates, sects., geol. sketch maps), 1979.
- Palmer, J. E. see also Treworgy, C. G.
- 80-06760: Paschke, J. E. Soil survey of Kankakee County, Illinois: U. S. Dep. Agric.; Soil Conserv. Serv., Washington, D.C., United States, 84 p., illus. (incl. tables, sketch maps; soils maps 1:15,840; colored soils map 1:190,080), 12 ref., June 1979. (Publ. in cooperation with Ill. Agric. Exp. Stn.).
- Patterson, G. L. see Fuentes, R. F.
- 80-31612: Patterson, J. A. Possible role of shale in uranium supply: in *Chattanooga Shale conference* (McGinley, F. E., chairperson), p. 1-12, illus., November 1979. (Rep. No. GJBX-170(79)) available from: U.S. Dep. Energy, Grand Junction Aff., Grand Junction, Colo., United States.
- 80-02311: Peck, S. B. Stalactites and helictites of marcasite, galena, and sphalerite in Illinois and Wisconsin: *NSS Bull.*, Vol. 41, No. 1, p. 27-29, illus., 5 ref., January 1979.
- 80-37494: Peppers, R. A. Development of coal-forming floras during the early part of the Pennsylvanian in the Illinois Basin: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin*; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 8-13, table, 85 ref., 1979.
- 80-37502: Peppers, R. A.; and Popp, J. T. Stratigraphy of the lower part of the Pennsylvanian System in southeastern Illinois and adjacent portions of Indiana and Kentucky: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin*; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 65-71, table, sects., sketch map, 51 ref., 1979.
- Peppers, R. A. see also Fraunfelder, G. H.
- 80-43221: Perry, E. C., Jr.; Gilkeson, R. H.; and Grundl, T. J. Stable isotope relations in water of the Cambrian-Ordovician aquifer of northern Illinois [abstr.]: *Eos (Am. Geophys. Union, Trans.)*, Vol. 61, No. 17, p. 230, April 22, 1980. American Geophysical Union; 1980 spring annual meeting.
- 80-48468: Peterson, J. R.; Pietz, R. I.; and Lue-Hing, C. Water, soil, and crop quality of Illinois coal mine spoils amended with sewage sludge: in *Utilization of municipal sewage effluent and sludge on forest and disturbed land* (Sopper, W. E., editor; *et al.*), Pa. State Univ., Philadelphia, Pa., United States, p. 359-368, illus. (incl. tables), 18 ref., 1979.
- 80-12176: Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties: *Master's*, August 23, 1978, Northern Illinois Univ., De Kalb, Ill. Temperatures of 50-65.5 degrees Fahrenheit.
- 80-37493: Phillips, T. L. Paleobotanical studies in the Pennsylvanian System of the Illinois Basin: in *Depositional and structural history of the Pennsylvanian System of the Illinois Basin*; Part 2, Invited papers

- (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 4-6, sketch map, 51 ref., 1979.
- Phillips, T. L. *see also* DiMichele, W. A.
- Pietz, R. I. *see* Peterson, J. R.
- 80-48716: Pinckney, D. M. Continental rifting under the Illinois Basin and Mississippi River embayment: U. S. Geol. Surv., Open-File Rep., No. 80-622, 59 p., 1980. *available from*: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- 80-55551: Polls, I.; Lanyon, R.; and Lue-Hing, C. Water quality investigation of Upper Salt Creek, northeastern Illinois: Ill. State Acad. Sci., Trans., Vol. 72, No. 2, p. 64-73, tables, sketch map, 10 ref., 1979.
- Popp, J. T. *see* Fraunfelter, G. H.
- *see* Krausse, H. F.
- *see* Peppers, R. A.
- 80-37497: Potter, P. E. Terrigenous sedimentation above unconformities: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 27-33, illus. (incl. tables), 30 ref., 1979.
- 80-29985: Preston, R. E. Late Pleistocene cold-blooded vertebrate faunas from the mid-continental United States; I, Reptilia; Testudines, Crocodylia: Mich., Univ., Mus. Paleontol., Pap. Paleontol., No. 19, 53 p., illus. (incl. sketch maps, tables), 169 ref., May 15, 1979. Claude W. Hibbard Memorial Volume 6. *new taxa*, *Chrysemys* (*Pseudemys*) *hibbardi*.
- 80-25905: Price, F. T.; and Shieh, Y. N. An isotopic study of sulfur in Illinois Basin coals [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 11, No. 7, p. 499, August 1979. The Geological Society of America, 92nd annual meeting.
- Reager, B. G. *see* Stover, C. W.
- Rehner, R. *see* Acker, L. L.
- 80-27857: Reilly, P. C. Environmental quality profile, 1972-1976, Winnebago County, Illinois: IIEQ Doc., No. 78/26, 105 p., illus. (incl. tables), August 1978.
- 80-48275: Reineback, L. M. Soil survey of Grundy County, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 131 p., illus. (incl. tables, plates; soils maps 1:15,840; colored soils map 1:190,080), 9 ref., May 1980. (Publ. in coop. with Ill. Agric. Exp. Stn.).
- 80-55547: Reinertsen, D. L. An introduction to the geology of the Evergreen Park-Thornton area, Cook County, Illinois: Ill., State Geol. Surv., Guide Leaflet, No. 1979-C, 27 p., illus. (incl. tables, plates), 18 ref., October 1979.
- 80-55549: Reinertsen, D. L. A guide to the geology of the Westfield-Casey area; Clark, Coles, Cumberland counties, Illinois: Ill., State Geol. Surv., Guide Leaflet, No. 1979A, 21 p., illus. (incl. tables, geol. sketch maps), 22 ref., April 1979.
- 80-19281: Rexroad, C. B.; and Thompson, T. L. A spathognathodont lineage of Mississippian conodonts: *Lethaia*, Vol. 12, No. 3, p. 235-243, chart, 24 ref., July 15, 1979. *Illinois Basin*.
- 80-29255: Rice, C. L.; and Kehn, T. M. Stratigraphic relations of Pennsylvanian rocks of the eastern interior (Illinois) and Appalachian basins in Kentucky: *in* Carboniferous geology from the Appalachian Basin to the Illinois Basin through eastern Ohio and Kentucky (Ettensohn, F. R., editor; *et al.*), Univ. Ky., Lexington, Ky., United States, Am. Geol. Inst., Falls Church, Va., United States, p. 77-80, sects., sketch map, 1979.
- 80-37508: Rice, C. L.; Kehn, T. M.; and Douglass, R. C. Pennsylvanian correlations between the Eastern Interior and Appalachian basins: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 103-105, illus. (incl. table), 21 ref., 1979.
- 80-31106: Richardson, E. S., Jr. *Howellitubus* is not a worm tube: *J. Paleontol.*, Vol. 54, No. 3, p. 587, 4 ref., May 1980.
- 80-36025: Rieke, H. H.; Rightmire, C. T.; and Fertl, W. H. Evaluation of gas-bearing coal seams: Soc. Pet. Eng. AIME, Annu. Fall Tech. Conf. Exhib., Pap., No. 54, p. 1-12, illus. (incl. tables, sketch map), 10 ref., 1979. SPE 8359.
- Rightmire, C. T. *see* Rieke, H. H.
- 80-26139: Roberts, A. C. Paralstonite; a new mineral from the Minerva No. 1 mine, Cave-in-Rock, Illinois: *in* Current research, Part C, Pap. - Geol. Surv. Can., No. 79-1C, p. 99-100, illus. (incl. tables), 3 ref., 1979.
- Robinson, J. *see* Keeney, R. L.
- 80-04722: Rockaway, J. D. Geotechnical evaluation of subcoal strata for coal pillar support: *in* International symposium; The geotechnics of structurally complex formations (Anonymous), Assoc. Geotec. Ital., Capri, Italy, p. 407-414, strat. cols., plates, 4 ref., 1977.

- 80-48471: Roth, P. L.; Jayko, B. D.; and Weaver, G. T. Initial survival and performance of woody plant species on sludge-treated spoils of the Palzo Mine: *in* Utilization of municipal sewage effluent and sludge on forest and disturbed land (Sopper, W. E., editor; *et al.*), Pa. State Univ., Philadelphia, Pa., United States, p. 389-394, illus. (incl. tables), 6 ref., 1979.
- Roth, P. L. *see also* Svoboda, D.
- Saleem, Z. A. *see* Boyle, J. M.
- 80-00637: Samson, I.; and Dingwell, A. G. Illinois mineral industry in 1976 and review of preliminary mineral production data for 1977: Ill., State Geol. Surv., Ind. Miner. Notes, No. 70, 38 p., illus. (incl. tables, sketch maps), March 1979.
- Sanderson, E. W. *see* Woller, D. M.
- Schleicher, J. A. *see* Harvey, R. D.
- 80-37492: Schopf, J. M. Pennsylvanian paleoclimate of the Illinois Basin: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 1-3, 22 ref., 1979.
- Schubert, J. P. *see* Edkins, J. E.
- Schwarcz, H. P. *see* Moran, J. M.
- 80-23878: Scott, J. H.; and Daniels, J. J. (investigators). Detailed lithology near coal seams indicated by borehole and hole-to-hole logging [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 171, 1979.
- Seabaugh, P. W. *see* Nance, S. W.
- 80-37505: Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 81-86, illus. (incl. tables, sects.), 5 ref., 1979.
- Sedlet, J. *see* Golchert, N. W.
- 80-42473: Shaver, R. H. Indiana portion of guidebook for a field trip on Silurian reefs, interreef facies, and faunal zones of northern Indiana and northeastern Illinois: West. Mich. Univ., Dep. Geol., Kalamazoo, Mich., United States, 32 p., illus. (incl. sketch maps), 50 ref., 1976. Paper on glacial geology by Bleuer, N. K. cited separately; 10th annual meeting, Geol. Soc. of Am., North-Central Section; April 30-May 2, 1976.
- 80-24106: Sherrill, M. G.; and Olimpio, J. C. (investigators). Waste tritium migration in ground water, Cook County, Illinois [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 264, 1979.
- 80-11320: Shieh, Y. N.; and Suter, T. G. Formation conditions of authigenic kaolinite and calcite in coals by stable isotope determinations: Clays Clay Miner., Vol. 27, No. 2, p. 154-156, illus. (incl. sketch map), April 1979.
- Shieh, Y. N. *see also* Price, F. T.
- Sipiera, P. P. *see* Leary, R. L.
- 80-37509: Sloss, L. L. Plate-tectonic implications of the Pennsylvanian System in the Illinois Basin: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 107-111, geol. sketch maps, 15 ref., 1979.
- Smout, G. *see* Svoboda, D.
- Stall, J. B. *see* Lee, M. T.
- 80-59336: Stauder, W. S.; Herrmann, R. B.; and Mitchell, B. J. Earthquake hazard studies in Southeast Missouri: 97 p., illus. (incl. tables, sketch maps), 6 ref., November 30, 1979. available from: U. S. Geol. Surv., Menlo Park, Calif., United States. Semiannual technical report; individual papers are cited separately.
- 80-59568: Steinkamp, J. F. Soil survey of Sangamon County, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 139 p., illus. (incl. tables, plates; soils maps 1:15,840; colored soils maps 1:253,440), 9 ref., May 1980. (Publ. in cooperation with Ill. Agric. Exp. Stn.).
- 80-28705: Stephenson, R. W. Ground surface subsidence due to coal mine collapse: *in* Evaluation and prediction of subsidence (Saxena, S. K., editor), Am. Soc. Civil Eng., New York, N.Y., United States, p. 113-128, illus. (incl. plates), 8 ref., January 1978.
- 80-20884: Stidd, B. M. A new species of *Heterangium* from the Illinois Basin of North America: Rev. Palaeobot. Palynol., Vol. 28, No. 3-4, p. 249-257, plates, 10 ref., November 1979.
- Stieglitz, R. D. *see* Moran, J. M.
- 80-17840: Stout, G. E. (director). Proceedings of the Illinois River workshop: Nov. 18, 1975, Peoria, Ill., United States. Univ. Ill. Urbana-Champaign, Water Resour. Cent., Spec. Rep., No. 4, 68 p., illus. (incl. tables, sketch maps), April 1976. Selected papers are cited separately.

- 80-13756: Stover, C. W.; Reagor, B. G.; and Algermissen, S. T. Seismicity map of the State of Illinois: U. S. Geol. Surv., Misc. Field Stud. Map, No. MF-1143, 1 sheet, seism. map 1:1,000,000, 1979.
- 80-43150: Street, R. L. The southern Illinois earthquake of September 27, 1891: Seismol. Soc. Am., Bull., Vol. 70, No. 3, p. 915-920, table, sketch map, June 1980. Letter; Univ. Ky., Dep. Geol., Contrib.
- Strimple, H. L. see Broadhead, T. W.
- 80-48470: Stucky, D. J.; and Bauer, J. Establishment, yield, and ion accumulation of several forage species on sludge-treated spoils of the Palzo Mine: in Utilization of municipal sewage effluent and sludge on forest and disturbed land (Sopper, W. E., editor; et al.), Pa. State Univ., Philadelphia, Pa., United States, p. 379-387, tables, 15 ref., 1979.
- Sturgeon, M. T. see Hoare, R. D.
- Suter, T. G. see Shieh, Y. N.
- 80-48472: Svoboda, D.; Smout, G.; Weaver, G. T.; et al. Accumulation of heavy metals in selected woody plant species on sludge-treated strip mine spoils at the Palzo site, Shawnee National Forest: in Utilization of municipal sewage effluent and sludge on forest and disturbed land (Sopper, W. E., editor; et al.), Pa. State Univ., Philadelphia, Pa., United States, p. 395-405, tables, 12 ref., 1979.
- 80-59875: Texas Instruments. Aerial radiometric and magnetic reconnaissance survey of portions of Arkansas, Illinois, Indiana, Kentucky, Missouri, and Tennessee, Dyersburg, Paducah, Poplar Bluff, and Rolla quadrangles; final report: variously paginated, illus. (incl. econ. geol. maps 1:500,000; geophys. surv. maps 1:500,000), December 1979. (Rep. No. GJBX-41-80) (Rep. No. GJBX-44-80) available from: U. S. Dep. Energy, Grand Junction Dff., Grand Junction, Colo., United States. In four volumes; includes microfiche; National Uranium Resource Evaluation Program.
- 80-02581: Thompson, I. Errant polychaetes (Annelida) from the Pennsylvanian Essex fauna of northern Illinois: Palaeontogr., Abt. A, Vol. 163, No. 4-6, p. 169-199 (incl. German sum.), illus. (incl. tables, plates), 31 ref., 1979.
- 80-31107: Thompson, I.; and Jones, D. S. A possible onychophoran from the Middle Pennsylvanian Mazon Creek beds of northern Illinois: J. Paleontol., Vol. 54, No. 3, p. 588-596, illus. (incl. plates), 24 ref., May 1980.
- Thompson, T. L. see Rexroad, C. B.
- Thurman, E. D. see Conkin, J. E.
- 80-17841: Toler, L. G. U. S. Geological Survey activities in the Illinois River basin, 1975: in Proceedings of the Illinois River workshop (Stout, G. E., director), Univ. Ill. Urbana-Champaign, Water Resour. Cent., Spec. Rep., No. 4, p. 20-23, table, 3 ref., April 1976.
- 80-48855: Toler, L. G. Some chemical characteristics of mine drainage in Illinois: U. S. Geol. Surv., Open-File Rep., No. 80-416, 52 p., 1980. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- 80-31615: Toups Corporation. Environmental implications of development of the Chatanooga Shale as a future source of uranium: in Chattanooga Shale conference (McGinley, F. E., chairperson), 22 p., illus. (incl. charts), November 1979. (Rep. No. GJBX-170(79)) available from: U.S. Dep. Energy, Grand Junction Aff., Grand Junction, Colo., United States.
- Toups Corporation see also Mountain States Research and Development
- 80-37522: Trace, R. D.; and McGrain, P. (leaders). Day 4: En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district: in Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 1, Road log and descriptions of stops (Palmer, J. E., editor; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 1, p. 53-57, illus. (incl. plates, geol. sketch map), 1979.
- Trask, C., B. see Palmer, J. E.
- 80-33728: Treworgy, C. G.; Damberger, H. H.; and Palmer, J. E. Desirable characteristics of a statewide coal reserve evaluation program [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 11, No. 7, p. 530, August 1979. The Geological Society of America, 92nd annual meeting. Illinois.
- Treworgy, C. G. see also Cobb, J. C.
- see also Hopkins, M. E.
- see also Krausse, H. F.
- 80-55131: Treworgy, J. D. Structure and Paleozoic stratigraphy of the Cap au Gres faulted flexure in western Illinois: in Geology of western Illinois (Treworgy, J. D., leader; et al.), Ill., State Geol. Surv., Guideb. Ser., No. 14, p. 1-35, illus. (incl. geol. sketch map), 17 ref., October 1979.
- 80-55130: Treworgy, J. D.; McKay, E. D.; and Wickham, J. T. (leaders). Geology of western Illinois: Ill., State Geol. Surv., Guideb. Ser., No. 14, 90 p., illus. (incl. geol.

- sketch map). 15 ref., October 5, 1979. 43rd annual tri-state geological field conference, Oct. 5-7, 1979; individual field trips are cited separately.
- Treworgy, J. D. *see also* Kolata, O. R.
- 80-05556: U. S. Geological Survey. Land use and land cover and associated maps for Quincy, Illinois, Missouri: U. S. Geol. Surv., Open-File Rep., No. 79-266, 4 sheets, environ. geol. maps 1:250,000, 1979. *available from*: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- 80-10339: U. S. Geological Survey. Land use and land cover, 1973, Paducah, Kentucky; Illinois; Missouri; Indiana: Land Use Land Cover Maps, L-Ser., No. L-63, 1 sheet, colored environ. geol. map 1:250,000, 1979.
- 80-10361: U. S. Geological Survey. Land use and land cover and associated maps for Chicago, Illinois, Indiana, Michigan: U. S. Geol. Surv., Open-File Rep., No. 79-1053, 1 sheet, environ. geol. map 1:250,000, 1979. *available from*: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- 80-48776: U. S. Geological Survey. Land use and land cover and associated maps for Burlington, Iowa, Illinois, Missouri: U. S. Geol. Surv., Open-File Rep., No. 79-1550, 5 sheets, environ. geol. maps 1:250,000, 1979. *available from*: U. S. Geol. Surv., Mid-Continent Mapp. Cent., Rolla, Mo., United States.
- 80-48779: U. S. Geological Survey. Land use and land cover and associated maps for Peoria, Illinois: U. S. Geol. Surv., Open-File Rep., No. 80-154, 1 sheet, environ. geol. map 1:250,000, 1980. *available from*: U. S. Geol. Surv., Mid-Continent Mapp. Cent., Rolla, Mo., United States.
- 80-37506: Utgaard, J. Paleogeology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 86-91, tables, sects., 12 ref., 1979.
- Utgaard, J. *see also* Fraunfelder, G. H.
- *see also* Harris, S. E., Jr.
- van den Berg, J. *see* Carpenter, G. L.
- 80-12174: Vendl, L. J. Relationships between water discharge and the chemical constituents of Illinois streams: Master's, July 14, 1978, Northern Illinois Univ., De Kalb, Ill.
- 80-17175: Visocky, A. P.; and Wehrmann, H. A. Assessing public ground-water supplies in Illinois: Ground Water, Vol. 17, No. 6, p. 538-543, geol. sketch maps, 2 ref., December 1979.
- Vitaliano, C. J. *see* Droste, J. B.
- 80-28885: Waldo, P. Stop 2; Ned Brown Forest Preserve: *in* Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; *et al.*), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 17-20, illus. (incl. plates, sketch maps), 1978.
- 80-20918: Wanless, H. R.; and Wright, C. R. Paleoenvironmental maps of Pennsylvanian rocks, Illinois Basin and northern midcontinent region: Geol. Soc. Am., Map Chart Ser., No. MC-23, 32 p., geol. map 1:3,937,000, 74 ref., 1978.
- Ward, R. C. *see* Loftis, J. C.
- Weaver, G. T. *see* Roth, P. L.
- *see* Svoboda, D.
- Wehrmann, H. A. *see* Visocky, A. P.
- West, T. R. *see* Bannister, T. A.
- 80-26496: Whittecar, G. R., Jr. Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois: 211 p., Doctoral, 1979, Univ. of Wisconsin, Madison, Wis. *available from*: Univ. Microfilms.
- 80-11379: Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois: Ill., State Geol. Surv., Circ., No. 506, 30 p., illus. (incl. tables, geol. sketch maps), 25 ref., 1979.
- 80-55133: Wickham, J. T. Pre-Illinoian till stratigraphy in the Quincy, Illinois, area: *in* Geology of western Illinois (Treworgy, J. O., leader; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 14, p. 69-90, illus. (incl. tables, sketch maps), 15 ref., October 1979.
- Wickham, J. T. *see also* Treworgy, J. O.
- 80-34060: Wickham, S. S.; and Johnson, W. H. Origin of the Tiskilwa Till, northern Illinois [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 61, No. 5, p. 50, January 29, 1980. American Geophysical Union; 1979 Midwest annual meeting.
- 80-22587: Wilkey, M.; and Zellmer, S. Land reclamation at abandoned deep coal mine: Am. Soc. Civ. Eng., Proc., J. Environ. Eng. Div., Vol. 105, No. EE5, p. 843-853, illus. (incl. tables), 6 ref., October 1979.
- Wilkey, M. *see also* Zellmer, S.
- Williamson, H. *see* Palmer, J. E.

- 80-32712: Willman, H. B. Comments on the Sangamon Soil: *in* Wisconsinan, Sangamonian, and Illinoian (Follmer, L. R., leader; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 13, p. 92-94, 1979.
- Willman, H. B. *see also* Follmer, L. R.
- 80-44108: Woller, D. M.; Kunz, K. L.; and Sanderson, E. W. Public groundwater supplies in Pike County: Ill., Water Surv., Bull., No. 60-26, 20 p., table, sketch maps, 1979.
- 80-44104: Woller, D. M.; and Sanderson, E. W. Public groundwater supplies in Pulaski County: Ill., Water Surv., Bull., No. 60-24, 9 p., tables, sketch maps, 1978.
- 80-44105: Woller, D. M.; and Sanderson, E. W. Public groundwater supplies in Henderson County: Ill., Water Surv., Bull., No. 60-23, 20 p., tables, strat. col., sketch map, 1978.
- 80-44106: Woller, D. M.; and Sanderson, E. W. Public groundwater supplies in Kane County: Ill., Water Surv., Bull., No. 60-22, 92 p., illus. (incl. sketch map, strat. colum.), 1978.
- 80-44107: Woller, D. M.; and Sanderson, E. W. Public groundwater supplies in Edwards County: Ill., Water Surv., Bull., No. 60-21, 8 p., illus. (incl. sketch map), 1978.
- 80-44109: Woller, D. M.; and Sanderson, E. W. Public groundwater supplies in Morgan and Scott counties: Ill., Water Surv., Bull., No. 60-27, 20 p., tables, sketch maps, 1979.
- 80-28890: Wood, W. L. An introduction to shoreline problems of the southern shore of Lake Michigan: *in* Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B., compiler; *et al.*), Chicago Assoc. Commer. Ind., Chicago, Ill., United States, p. 47-55, illus. (incl. tables, geol. sketch maps), 1978.
- 80-37496: Wright, C. R. Depositional history of the Pennsylvanian System in the Illinois Basin; a summary of work by Dr. Harold R. Wanless and associates: *in* Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E., editor; *et al.*), Ill., State Geol. Surv., Guideb. Ser., No. 15, Part 2, p. 21-27, sects., geol. sketch maps, 8 ref., 1979.
- Wright, C. R. *see also* Wanless, H. R.
- 80-05040: Yochelson, E. L. Airlog; Dulles International Airport, Virginia to Willard Airport, Champaign-Urbana, Illinois: Privately published, United States, unpaginated, illus. (incl. geol. sketch maps), 1979.
- 80-27463: Zellmer, S.; and Wilkey, M. A reclamation demonstration project at an abandoned deep mine: *Miner. Environ.*, Vol. 1, No. 2, p. 57-63, illus. (incl. tables, sketch maps), 16 ref., July 1979.
- Zellmer, S. *see also* Wilkey, M.
- 80-15485: Zielinski, R. E.; Dixon, J. A.; and McIver, R. D. Projection of favorable gas-producing areas from paleoenvironmental data [abstr.]: AAPG Bull., Vol. 63, No. 9, p. 1591-1592, September 1979. AAPG Eastern Section and U. S. Department of Energy joint meeting.
- Zielinski, R. E. *see also* Nance, S. W.

INTENTIONAL BLANK PAGE

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

SUBJECT INDEX

- absolute age** *see also*
geochronology; isotopes
- absolute age--dates**
peat: Geomorphonic history
and Pleistocene
stratigraphy of the
Pecatonica River valley,
Wisconsin and Illinois
(Whittecar, G. R., Jr.)
80-26496
- sandstone: Fission track
dating of the Tar Springs
Formation, a Mississippian
Period sandstone of the
Illinois Basin (Bridgett,
L. S.) 80-16607
- soils: The origin of
drift-gas deposits as
determined by radiocarbon
dating of methane
(Coleman, D. D.) 80-40497
- aeromagnetic surveys** *see*
magnetic surveys *under*
geophysical surveys
- Amphibia--Lepospondyli**
Pennsylvanian: Anatomy and
relationships of the
family Phlegethontiidae
(Amphibia, Aistopoda)
(Lund, R.) 80-01883
- Permian*: Anatomy and
relationships of the
family Phlegethontiidae
(Amphibia, Aistopoda)
(Lund, R.) 80-01883
- Annelida--Polychaeta**
Pennsylvanian: Errant
polychaetes (Annelida)
from the Pennsylvanian
Essex fauna of northern
Illinois (Thompson, I.)
80-02581
- Howellitubus is not a
worm tube (Richardson, E.
S., Jr.) 80-31106
- areal geology**
guidebook: A guide to the
geology of the Carlinville
area, Macoupin County,
Illinois (Berggren, D.)
80-55546
- A guide to the geology
of the Farmer City area,
De Witt County, Illinois
(Berggren, D.) 80-55548
- A guide to the geology
of the Westfield-Casey
area; Clark, Coles,
Cumberland counties,
Illinois (Reinertsen, D.
L.) 80-55549
- An introduction to the
geology of the Evergreen
Park-Thornton area, Cook
County, Illinois
(Reinertsen, D. L.)
80-55547
- Day 4; Cave in Rock,
Illinois, to Carbondale,
Illinois (Palmer, J. E.)
80-37523
- Day 4; En route,
Kentucky Dam Village State
Resort Park to
Cave-in-Rock Ferry,
including western Kentucky
fluorspar district (Trace,
R. D.) 80-37522
- Day 6; Carbondale,
Illinois to southwestern
Illinois area (Harris, S.
E., Jr.) 80-37525
- Day 6; South-central,
Illinois (Fraunfelder, G.
H.) 80-37524
- Depositional and
structural history of the
Pennsylvanian System of
the Illinois Basin; Part
1, Road log and
descriptions of stops
(Palmer, J. E.) 80-37516
- Engineering geology of
the Greater Chicago area
and the south shore of
Lake Michigan (DuMontelle,
P. B.) 80-28882
- Roadlog for day nine
(May 20, 1979); New
Albany, Indiana to
Champaign-Urbana, Illinois
(Anonymous) 80-29293
- Stop 1; Thornton Quarry
and reef (Kolata, D. R.)
80-28889
- regional*: Airlog; Dulles
International Airport,
Virginia to Willard
Airport, Champaign-Urbana,
Illinois (Yochelson, E.
L.) 80-05040
- western Illinois*: Geology
of western Illinois
(Treworgy, J. D.) 80-55130
- Structure and Paleozoic
stratigraphy of the Cap au
Gres faulted flexure in
western Illinois
(Treworgy, J. D.) 80-55131
- Arthropoda--miscellanea**
Pennsylvanian: A possible
onychophoran from the
Middle Pennsylvanian Mazon
Creek beds of northern
Illinois (Thompson, I.)
80-31107
- associations--general**
State science in Illinois;
the scientific surveys,
1850-1978 (Hays, R. G.)
80-59314
- atmosphere--composition**
contamination: The role of
the atmosphere as the
major source of sulfate in
Illinois surface water
(Morgan, B. E.) 80-12177
- automatic data**
processing--hydrogeology
digital simulation:
Analysis of drawdown in
the Cambrian-Ordovician
aquifer of northeastern
Illinois and southeastern
Wisconsin (Fetter, C. W.)
80-18559
- models*: Flood frequency
(Lopez, M. A.) 80-12650
- barite** *see also* *under* economic
geology; *see also* *under*
economic geology *under*
Mississippi Valley
- bibliography** *see also* *under*
general
- biogeography--Brachiopoda**
Devonian: Brachiopod
paleoecology,
paleobiogeography, and
biostratigraphy in the
upper Middle Devonian of
eastern North America; an
ecofacies model for the
Appalachian, Michigan, and
Illinois basins (Koch, W.
F., II) 80-05314

Brachiopoda--Articulata

Devonian: Brachiopod paleoecology, paleobiogeography, and biostratigraphy in the upper Middle Devonian of eastern North America; an ecofacies model for the Appalachian, Michigan, and Illinois basins (Koch, W. F., II) 80-05314

bryophytes--paleoecology

assemblages: Paleoecological comments on fossil mosses in a buried organic bed near Peoria, Tazewell County, Illinois (Miller, N. G.) 80-32716

Canada see also Great Lakes; Great Lakes region; Great Plains

carbon--isotopes

C-13/C-12: Formation conditions of authigenic kaolinite and calcite in coals by stable isotope determinations (Shieh, Y. N.) 80-11320

carbonate rocks see under sedimentary rocks

carbonates see under minerals

Carboniferous see also under stratigraphy

catalogs--petrology

meteorites: Inventory of meteorites in the collection of the Illinois State Museum (Leary, R. L.) 80-39697

caves see under solution features under geomorphology

Chitinozoa see under palynomorphs

clastic rocks see under sedimentary rocks

clastic sediments see under sediments

clay mineralogy--areal studies

Formation conditions of authigenic kaolinite and calcite in coals by stable isotope determinations (Shieh, Y. N.) 80-11320

clay mineralogy--experimental studies

diagenesis: Characterization of mineral-formation water interactions in Carboniferous sandstones and shales of the Illinois sedimentary basin (Nesbitt, H. W.) 80-57817
dispersion: The influence of the dispersion method on peak intensity of kaolinite, montmorillonite and illite clay standards (Huang, S. L.) 80-12143

coal see also under economic geology; see also under economic geology under Midwest; see also under organic residues under sedimentary rocks

coal--production

desulfurization: Coal desulfurization by low-temperature chlorinolysis (Hsu, G. C.) 80-11213

congresses see symposia

conodonts--biostratigraphy

Pennsylvanian: A new locality for the Cramer(?) Member in northwestern Illinois (Merrill, G. K.) 80-36305

conodonts--evolution

lineages: A spathognathodont lineage of Mississippian conodonts (Rexroad, C. B.) 80-19281

conservation see also under environmental geology

crystal chemistry see also minerals

crystal growth see also minerals

crystal structure see also minerals

crystallography see also mineralogy

dams see also under engineering geology

deuterium--isotopes

D/H: Stable isotope relations in water of the Cambrian-Ordovician aquifer of northern Illinois (Perry, E. C., Jr.) 80-43221

Devonian see also under stratigraphy; see also under stratigraphy under North America

diagenesis see also sedimentation

diagenesis--environment

reefs: Deposition and diagenesis of the Thornton Reef (Silurian, northeastern Illinois) (McGovney, J. E.) 80-25101
-- Deposition, porosity evolution, and diagenesis of the Thornton Reef (Silurian), northeastern Illinois (McGovney, J. E.) 80-22789

diagenesis--materials

sandstone: Characterization of mineral-formation water interactions in Carboniferous sandstones and shales of the Illinois sedimentary basin (Nesbitt, H. W.) 80-57817

dinosaurs see Archosauria under Reptilia

earthquakes see also engineering geology; seismology

Echinodermata--Crinoidea

Carboniferous:

Hyrtanecrinus, a new Carboniferous camerate crinoid genus from eastern North America (Broadhead, T. W.) 80-18895

ecology see also under environmental geology

economic geology

barite: Barite in rocks of Mississippian age (Brobst, D. A.) 80-12321

coal: Abundance and recovery of sphalerite and fine coal from mine waste in Illinois (Cobb, J. C.) 80-00636

-- An isotopic study of sulfur in Illinois Basin coals (Price, F. T.) 80-25906

-- Carboniferous cyclicity related to the development of the Mississippian-Pennsylvanian unconformity in the Illinois (Howard, R. H.) 80-45172

-- Desirable characteristics of a statewide coal reserve evaluation program (Treworgy, C. G.) 80-33728

-- Detailed lithology near coal seams indicated by borehole and hole-to-hole logging (Scott, J. H.) 80-23878

-- Geologic effects of the Walshville channel on coal mining conditions in southern Illinois (Nelson, W. J.) 80-37515

-- Magnetic desulfurization of some Illinois Basin coals (Murray, H. H.) 80-11212

-- Mining geology of Illinois coal deposits (Hopkins, M. E.) 80-37514

-- Petrology and related chemistry of coals in the Illinois Basin (Harvey, R. D.) 80-37513

-- Surface coal mine; major coals of the Carbondale Formation (Krausse, H. F.) 80-42491

gems: Dur search for the Keokuk geode (Miller, E.) 80-27747

-- Utica jewelstone of Illinois (Mori, J.) 80-54335

- maps*: Aerial radiometric and magnetic reconnaissance survey of portions of Arkansas, Illinois, Indiana, Kentucky, Missouri, and Tennessee, Dyersburg, Paducah, Poplar Bluff, and Rolla quadrangles; final report (Texas Instruments) 80-59875
- mineral resources*: Illinois mineral industry in 1976 and review of preliminary mineral production data for 1977 (Samson, I.) 80-00637
- natural gas*: Developments in East-Central states in 1978 (Carpenter, G. L.) 80-05353
- Devonian shale characterization; evaluation of some significant exploitation properties (Nance, S. W.) 80-15460
 - Evaluation of gas-bearing coal seams (Rieke, H. H.) 80-36025
 - Exploration strategy for unconventional natural gas resource; Devonian shales (Dean, C. S.) 80-15438
 - Petrology and maturation of dispersed organic matter in New Albany Shale Group of Illinois Basin (Barrows, M. H.) 80-15431
 - Projection of favorable gas-producing areas from paleoenvironmental data (Zielinski, R. E.) 80-15485
 - Pyrolysis of Eastern gas shales; effects of temperature and atmosphere (Chou, M. I. M.) 80-15436
- petroleum*: Deposition and diagenesis of the Thornton Reef (Silurian, northeastern Illinois) (McGovney, J. E.) 80-25101
- Deposition, porosity evolution, and diagenesis of the Thornton Reef (Silurian), northeastern Illinois (McGovney, J. E.) 80-22789
 - Developments in East-Central states in 1978 (Carpenter, G. L.) 80-05353
- uranium*: Aerial radiometric and magnetic reconnaissance survey of portions of Arkansas, Illinois, Indiana, Kentucky, Missouri, and Tennessee, Dyersburg, Paducah, Poplar Bluff, and Rolla quadrangles; final report (Texas Instruments) 80-59875
- Chattanooga Shale conference (McGinley, F. E.) 80-31611
 - Engineering assessment and feasibility study of Chattanooga Shale as a future source of uranium (Mountain States Research and Development) 80-31614
 - Possible role of shale in uranium supply (Patterson, J. A.) 80-31612
- water resources*: Modeling time variable pumping in a regional aquifer for public water supply (Adams, J. R.) 80-10129
- Public groundwater supplies in Henderson County (Woller, D. M.) 80-44105
- zinc*: Abundance and recovery of sphalerite and fine coal from mine waste in Illinois (Cobb, J. C.) 80-00636
- electrical logging** *see* well-logging
- engineering geology** *see also* environmental geology; ground water; mining geology; nuclear facilities; rock mechanics; soil mechanics
- engineering geology**
- dams*: Stop 2; Ned Brown Forest Preserve (Waldo, P.) 80-28885
 - earthquakes*: Earthquake hazard studies in Southeast Missouri (Stauder, W. S.) 80-59336
 - land subsidence*: Ground surface subsidence due to coal mine collapse (Stephenson, R. W.) 80-28705
 - mining geology*: Underground coal mine; Herrin (No. 6) Coal Member; stratigraphy, deformational structures, and roof stability (Krausse, H. F.) 80-42490
 - rock mechanics*: Geotechnical evaluation of subcoal strata for coal pillar support (Rockaway, J. D.) 80-04722
 - shorelines*: An introduction to shoreline problems of the southern shore of Lake Michigan (Wood, W. L.) 80-28890
 - Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B.) 80-28882
 - Stop 3: Major aspects of coastal stability along the Lake Michigan shore (Berg, R. C.) 80-28886
 - Thornton Quarry and reef and Indiana Dunes (Anonymous) 80-28888
- slope stability*: Rock mechanics investigation for a longwall panel in the Illinois No. 6 coal (Conroy, P. J.) 80-20290
- tunnels*: Engineering geology of the tunnel and reservoir plan (TARP), Chicago, Illinois (Gamer, R. L.) 80-18189
- underground installations*: Chicago River and Sanitary and Ship Canal (Cyrier, R. T.) 80-28887
- waste disposal*: Geologic report of the Maquoketa Shale, New Albany Shale, and Borden Group rocks in the Illinois Basin as potential solid waste repository sites (Droste, J. B.) 80-32445
- Stop 1: Sewage treatment plant and deep tunnel at Stickney (DuMontelle, P. B.) 80-28884
- engineering geology--petroleum engineering**
- reservoir properties*: Evaluation of gas-bearing coal seams (Rieke, H. H.) 80-36025
- environmental geology** *see also* engineering geology
- environmental geology**
- conservation*: Preservation values of the Big Creek watershed in Hardin County, Illinois (Hutchison, M. D.) 80-32254
 - ecology*: Environmental quality profile, 1972-1976, Winnebago County, Illinois (Reilly, P. C.) 80-27857
 - geologic hazards*: Effects of urbanization on the magnitude and frequency of floods in northeastern Illinois (Allen, H. E., Jr.) 80-08267
 - Flood frequency (Lopez, M. A.) 80-12650
 - impact statements*: Prime farmland disturbance from coal surface mining in the Corn Belt, 1980-2000 (Bernard, D. P.) 80-18159

environmental geology/geochemistry

- land use*: Land use and land cover and associated maps for Burlington, Iowa, Illinois, Missouri (U. S. Geological Survey) 80-48776
- Land use and land cover and associated maps for Chicago, Illinois, Indiana, Michigan (U. S. Geological Survey) 80-10361
- Land use and land cover and associated maps for Peoria, Illinois (U. S. Geological Survey) 80-48779
- Land use and land cover and associated maps for Quincy, Illinois, Missouri (U. S. Geological Survey) 80-05556
- Land use and land cover, 1973, Paducah, Kentucky; Illinois; Missouri; Indiana (U. S. Geological Survey) 80-10339
- maps*: Land use and land cover and associated maps for Burlington, Iowa, Illinois, Missouri (U. S. Geological Survey) 80-48776
- Land use and land cover and associated maps for Chicago, Illinois, Indiana, Michigan (U. S. Geological Survey) 80-10361
- Land use and land cover and associated maps for Peoria, Illinois (U. S. Geological Survey) 80-48779
- Land use and land cover and associated maps for Quincy, Illinois, Missouri (U. S. Geological Survey) 80-05556
- Land use and land cover, 1973, Paducah, Kentucky; Illinois; Missouri; Indiana (U. S. Geological Survey) 80-10339
- Lower Mississippi region comprehensive study (Anonymous) 80-32396
- pollution*: Environmental implications of development of the Chatanooga Shale as a future source of uranium (Toups Corporation) 80-31615
- Environmental monitoring at Argonne National Laboratory; annual report for 1978 (Golchert, N. W.) 80-00151
- Illinois (Brabets, T. P.) 80-24160
- Leaching behavior of selected fly ashes and bottom ashes (Kopsick, D. A.) 80-33844
- Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois (Edkins, J. E.) 80-10116
- Sediment and soil loss in Illinois; summary (Illinois Environmental Protection Agency) 80-06260
- Sludge-irrigation hydrology (Fuentes, R. F.) 80-12468
- Some chemical characteristics of mine drainage in Illinois (Toler, L. G.) 80-48855
- The role of the atmosphere as the major source of sulfate in Illinois surface water (Morgan, B. E.) 80-12177
- Water quality investigation of Upper Salt Creek, northeastern Illinois (Polls, I.) 80-55551
- reclamation*: A reclamation demonstration project at an abandoned deep mine (Zellmer, S.) 80-27463
- Accumulation of heavy metals in selected woody plant species on sludge-treated strip mine spoils at the Palzo site, Shawnee National Forest (Svoboda, D.) 80-48472
- Establishment, yield, and ion accumulation of several forage species on sludge-treated spoils of the Palzo Mine (Stucky, D. J.) 80-48470
- Geohydrology of an abandoned strip-mine site, Ottawa, Illinois (Bannister, T. A.) 80-05207
- Initial survival and performance of woody plant species on sludge-treated spoils of the Palzo Mine (Roth, P. L.) 80-48471
- Land reclamation at abandoned deep coal mine (Wilkey, M.) 80-22587
- Reclamation of abandoned mine site (Johnson, J. R.) 80-02829
- Sludge used for strip mine restoration at Palzo; project development and compliance water quality monitoring (Jones, M.) 80-48469
- Water, soil, and crop quality of Illinois coal mine spoils amended with sewage sludge (Peterson, J. R.) 80-48468
- waste disposal*: Preliminary report on the hydrogeology of a low-level radioactive waste disposal site near Sheffield, Illinois (Foster, J. B.) 80-45928
- Tunnel aids investigation near Sheffield, Illinois (Foster, J. B.) 80-24110
- Waste tritium migration in ground water, Cook County, Illinois (Sherrill, M. G.) 80-24106
- faults--distribution*
- fault zones*: The Sandwich fault zone of northern Illinois (Kolata, D. R.) 80-45016
- fission-track dating see under* geochronology
- foraminifera--biostratigraphy*
- Pennsylvanian*: Pennsylvanian correlations between the Eastern Interior and Appalachian basins (Rice, C. L.) 80-37508
- foraminifera--Textulariina*
- Paleozoic*: Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance (Conkin, J. E.) 80-41453
- fossil man--habitat*
- valleys*: Geomorphology of the lower Illinois Valley as a spatial-temporal context for the Koster archaic site (Butzer, K. W.) 80-17839
- fossils, problematic see* problematic fossils
- foundations see also* rock mechanics; soil mechanics
- gems see also under* economic geology
- general*
- associations*: State science in Illinois; the scientific surveys, 1850-1978 (Hays, R. G.) 80-59314
- bibliography*: State list of geologic and water-supply reports and maps; Illinois (Anonymous) 80-48796
- geochemistry--properties*
- physicochemical properties*: Devonian shale characterization; evaluation of some

- significant exploitation properties (Nance, S. W.) 80-15460
- geochronology** *see also*
 absolute age
- geochronology**
Mississippian: Fission track dating of the Tar Springs Formation, a Mississippian Period sandstone of the Illinois Basin (Bridgett, L. S.) 80-16607
- geochronology--fission-track dating**
 dates: Fission track dating of the Tar Springs Formation, a Mississippian Period sandstone of the Illinois Basin (Bridgett, L. S.) 80-16607
- geologic hazards** *see also*
 under environmental geology
- geomorphology** *see also* glacial geology
- geomorphology**
fluvial features:
 Geomorphology of the lower Illinois Valley as a spatial-temporal context for the Koster archaic site (Butzer, K. W.) 80-17839
- The effect of precipitation variability on drainage basin morphometry (Harlin, J. M.) 80-60382
- glacial geology*: Glacial geology and physiography of field trip area (Bleuer, N. K.) 80-42474
- Glacial geology of north-central and western Champaign County, Illinois (Wickham, J. T.) 80-11379
- The status of the Illinoian glacial stage (Lineback, J. A.) 80-32710
- landform description*:
 Geologic setting of northeastern Illinois and description of geologic materials (Kempton, J. P.) 80-28883
- geomorphology--fluvial features**
drainage basins: Some hydro-geomorphological observations of nine river basins in Illinois (Bhowmik, N. G.) 80-34047
- The effect of precipitation variability on drainage basin morphometry (Harlin, J. M.) 80-60382
- watersheds*: Geomorphology of the lower Illinois Valley as a spatial-temporal context for the Koster archaic site (Butzer, K. W.) 80-17839
- geomorphology--landform description**
guidebook: Geologic setting of northeastern Illinois and description of geologic materials (Kempton, J. P.) 80-28883
- geomorphology--solution features**
caves: Stalactites and helictites of marcasite, galena, and sphalerite in Illinois and Wisconsin (Peck, S. B.) 80-02311
- geophysical surveys** *see*
 magnetic surveys under geophysical surveys
- geophysical surveys**
magnetic surveys:
 Southeastern Illinois magnetic anomaly map and its regional geologic implications (Ahbe, J. B.) 80-12170
- geophysics** *see also*
 engineering geology
- geotechnics** *see* engineering geology
- glacial geology** *see also*
 geomorphology
- glacial geology--glacial features**
buried soils: A historical review of the Sangamon Soil (Follmer, L. R.) 80-32711
- Comments on the Sangamon Soil (Willman, H. B.) 80-32712
- drift*: Wisconsinan, Sangamonian, and Illinoian (Follmer, L. R.) 80-32709
- loess*: Wisconsinan loess stratigraphy of Illinois (McKay, E. D.) 80-32713
- till*: Pre-Illinoian till stratigraphy in the Quincy, Illinois, area (Wickham, J. T.) 80-55133
- The status of the Illinoian glacial stage (Lineback, J. A.) 80-32710
- glacial geology--glaciation deposition**: Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois (Whittecar, G. R., Jr.) 80-26496
- Glacial geology and physiography of field trip area (Bleuer, N. K.) 80-42474
- Glacial geology of north-central and western Champaign County, Illinois (Wickham, J. T.) 80-11379
- Origin of the Tiskilwa Till, northern Illinois (Wickham, S. S.) 80-34060
- loess*: Stratigraphy of Wisconsinan and older loesses in southwestern Illinois (McKay, E. D.) 80-55132
- glacial geology--periglacial features**
fossil ice wedges: An isotopic paleotemperature record for late Wisconsinan time in Northeast Iowa; discussion and reply (Moran, J. M.) 80-35519
- glaciation** *see under* glacial geology
- Great Lakes--engineering geology**
shorelines: Engineering geology of the Greater Chicago area and the south shore of Lake Michigan (DuMontelle, P. B.) 80-28882
- Great Lakes--hydrogeology**
hydrology: Lake Michigan water allocation study (Keifer and Associates) 80-39412
- Great Lakes region--engineering geology**
waste disposal: Engineering geology of the tunnel and reservoir plan (TARP), Chicago, Illinois (Gamer, R. L.) 80-18189
- Great Lakes region--environmental geology**
pollution: Waste tritium migration in ground water, Cook County, Illinois (Sherrill, M. G.) 80-24106
- Great Lakes region--hydrogeology**
ground water: Analysis of drawdown in the Cambrian-Ordovician aquifer of northeastern Illinois and southeastern Wisconsin (Fetter, C. W.) 80-18559
- Determination of recharge rates using temperature-depth profiles in wells (Boyle, J. M.) 80-25749
- hydrology*: Chemical analyses of surface water in Illinois, 1975-77; Volume 1, Des Plaines River basin and Lake Michigan (Grason, D.) 80-08366

Great Lakes region/hydrogeology

Great Lakes region--sedimentary petrology

reefs: Deposition and diagenesis of the Thornton Reef (Silurian, northeastern Illinois) (McGovney, J. E.) 80-25101

Great Plains--paleontology

Reptilia: Late Pleistocene cold-blooded vertebrate faunas from the mid-continental United States; I. Reptilia; Testudines, Crocodilia (Preston, R. E.) 80-29985

ground water see also hydrogeology; hydrology

ground water--models

legislation: Handbook of basic water law (with special reference to Louisiana) (Hardy, G. W., III) 80-60177

ground water--surveys

Analysis of drawdown in the Cambrian-Ordovician aquifer of northeastern Illinois and southeastern Wisconsin (Fetter, C. W.) 80-18559

-- Assessing public ground-water supplies in Illinois (Visocky, A. P.) 80-17175

-- Determination of recharge rates using temperature-depth profiles in wells (Boyle, J. M.) 80-25749

-- Geohydrology of an abandoned strip-mine site, Ottawa, Illinois (Bannister, T. A.) 80-05207

-- Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties (Peterson, K. A.) 80-12176

-- Ground-water geology of selected wetlands in Union and Alexander counties, Illinois (McKay, E. D.) 80-46861

-- Groundwater levels and pumpage in the East St. Louis area, Illinois, 1972-1977 (Emmons, J. T.) 80-38052

-- Hydrogeology of underground coal mines in Illinois (Cartwright, K.) 80-29168

-- Lake Michigan water allocation study (Keifer and Associates) 80-39412

-- Modeling time variable pumping in a regional aquifer for public water supply (Adams, J. R.) 80-10129

-- Preliminary report on the hydrogeology of a low-level radioactive waste disposal site near Sheffield, Illinois (Foster, J. B.) 80-45928

-- Public groundwater supplies in Edwards County (Woller, D. M.) 80-44107

-- Public groundwater supplies in Henderson County (Woller, D. M.) 80-44105

-- Public groundwater supplies in Kane County (Woller, D. M.) 80-44106

-- Public groundwater supplies in Morgan and Scott counties (Woller, D. M.) 80-44109

-- Public groundwater supplies in Pike County (Woller, D. M.) 80-44108

-- Public groundwater supplies in Pulaski County (Woller, D. M.) 80-44104

-- Stable isotope relations in water of the Cambrian-Ordovician aquifer of northern Illinois (Perry, E. C., Jr.) 80-43221

-- The effects of urbanization on ground-water quality; a case study (Eisen, C.) 80-10718

-- Waste tritium migration in ground water, Cook County, Illinois (Sherrill, M. G.) 80-24106

gymnosperms--Coniferales

Pleistocene: Plant macrofossils from the Athens North Quarry (King, F. B.) 80-32715

gymnosperms--floral studies

Pennsylvanian: Paleobotanical studies in the Pennsylvanian System of the Illinois Basin (Phillips, T. L.) 80-37493

gymnosperms--Pteridospermae

Pennsylvanian: A new species of Heterangium from the Illinois Basin of North America (Stidd, B. M.) 80-20884

Holocene see also under stratigraphy

hydrocarbons see under organic materials

hydrogen see also deuterium hydrogeology see also ground water; hydrology

hydrogeology

ground water: Analysis of drawdown in the Cambrian-Ordovician aquifer of northeastern Illinois and southeastern Wisconsin (Fetter, C. W.) 80-18559

-- Assessing public ground-water supplies in Illinois (Visocky, A. P.) 80-17175

-- Determination of recharge rates using temperature-depth profiles in wells (Boyle, J. M.) 80-25749

-- Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties (Peterson, K. A.) 80-12176

-- Ground-water geology of selected wetlands in Union and Alexander counties, Illinois (McKay, E. D.) 80-46861

-- Groundwater levels and pumpage in the East St. Louis area, Illinois, 1972-1977 (Emmons, J. T.) 80-38052

-- Hydrogeology of underground coal mines in Illinois (Cartwright, K.) 80-29168

-- Public groundwater supplies in Edwards County (Woller, D. M.) 80-44107

-- Public groundwater supplies in Henderson County (Woller, D. M.) 80-44105

-- Public groundwater supplies in Kane County (Woller, D. M.) 80-44106

-- Public groundwater supplies in Morgan and Scott counties (Woller, D. M.) 80-44109

-- Public groundwater supplies in Pike County (Woller, D. M.) 80-44108

-- Public groundwater supplies in Pulaski County (Woller, D. M.) 80-44104

-- Stable isotope relations in water of the Cambrian-Ordovician aquifer of northern Illinois (Perry, E. C., Jr.) 80-43221

-- The effects of urbanization on ground-water quality; a case study (Eisen, C.) 80-10718

- hydrology*: Bank erosion of the Illinois River (Bhowmik, N. G.) 80-48643
- Chemical analyses of surface water in Illinois, 1975-77; Volume 1, Des Plaines River basin and Lake Michigan (Grason, D.) 80-08366
 - Chemical analyses of surface water in Illinois, 1975-77; Volume 2, Illinois River basin and Mississippi River tributaries north of Illinois River basin (Grason, D.) 80-08367
 - Chemical analyses of surface water in Illinois, 1975-77, Volume 3, Ohio River tributaries and Mississippi River tributaries south of Illinois River basin (Grason, D.) 80-08368
 - Chemical data and trends (Harmeson, R.) 80-17842
 - Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams (Butts, T. A.) 80-38049
 - Heavy metals in the Illinois River and some of its tributaries (Mathis, B. J.) 80-17843
 - Illinois (Anonymous) 80-12466
 - Investigations into the sources of dissolved materials in Illinois stream waters; a progress report (Flemal, R. C.) 80-17844
 - Lower Ohio River basin, Ohio, Kentucky, Indiana, Illinois, and Tennessee (Anonymous) 80-31855
 - Mississippi River shoaling; a diagnostic study (Nakato, T.) 80-28313
 - Preliminary evaluation of final cut lakes (Gibb, J. P.) 80-38050
 - Proceedings of the Illinois River workshop (Stout, G. E.) 80-17840
 - Reconnaissance study of final cut impoundments (Gibb, J. P.) 80-27858
 - Regulatory water quality monitoring networks; statistical and economic considerations (Loftis, J. C.) 80-40914
 - Relationships between water discharge and the chemical constituents of Illinois streams (Vendl, L. J.) 80-12174
 - River mileages and drainage areas for Illinois streams; Volume 1, Illinois except Illinois River basin (Healy, R. W.) 80-56726
 - River mileages and drainage areas for Illinois streams; Volume 2, Illinois River basin (Healy, R. W.) 80-56727
 - Sediment oxygen demand studies of selected northeastern Illinois streams (Butts, T. A.) 80-38051
 - Sedimentation of backwater lakes along the Illinois River (Lee, M. T.) 80-34048
 - Some hydro-geomorphological observations of nine river basins in Illinois (Bhowmik, N. G.) 80-34047
 - Time-of-travel measured in Peoria Pool of the Illinois River (Anonymous) 80-12467
 - Time-trends of chemical constituents in Illinois streams (Crown, R. W.) 80-12183
 - U. S. Geological Survey activities in the Illinois River basin, 1975 (Toler, L. G.) 80-17841
- hydrology** *see also* ground water; hydrogeology
- hydrology--methods**
- automatic data processing*: Flood frequency (Lopez, M. A.) 80-12650
- hydrology--rivers and streams watersheds**: A technique for watershed land use planning under uncertainty (Goulter, I. C.) 80-42968
- hydrology--surveys**
- Chemical analyses of surface water in Illinois, 1975-77; Volume 1, Des Plaines River basin and Lake Michigan (Grason, D.) 80-08366
 - Chemical analyses of surface water in Illinois, 1975-77; Volume 2, Illinois River basin and Mississippi River tributaries north of Illinois River basin (Grason, D.) 80-08367
 - Chemical analyses of surface water in Illinois, 1975-77, Volume 3, Ohio River tributaries and Mississippi River tributaries south of Illinois River basin (Grason, D.) 80-08368
 - River mileages and drainage areas for Illinois streams; Volume 1, Illinois except Illinois River basin (Healy, R. W.) 80-56726
 - River mileages and drainage areas for Illinois streams; Volume 2, Illinois River basin (Healy, R. W.) 80-56727
 - Sediment oxygen demand studies of selected northeastern Illinois streams (Butts, T. A.) 80-38051
 - Sludge-irrigation hydrology (Fuentes, R. F.) 80-12468
 - Some hydro-geomorphological observations of nine river basins in Illinois (Bhowmik, N. G.) 80-34047
 - Time-trends of chemical constituents in Illinois streams (Crown, R. W.) 80-12183
 - Water quality investigation of Upper Salt Creek, northeastern Illinois (Polls, I.) 80-55551
- Illinois River*: Bank erosion of the Illinois tributaries south of Illinois River basin (Grason, D.) 80-08368
- Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams (Butts, T. A.) 80-38049
 - Effects of urbanization on the magnitude and frequency of floods in northeastern Illinois (Allen, H. E., Jr.) 80-08267
 - Geohydrology of an abandoned strip-mine site, Ottawa, Illinois (Bannister, T. A.) 80-05207
 - Illinois (Anonymous) 80-12466
 - Illinois (Brabets, T. P.) 80-24160
 - Preliminary evaluation of final cut lakes (Gibb, J. P.) 80-38050
 - Reconnaissance study of final cut impoundments (Gibb, J. P.) 80-27858
 - Regulatory water quality monitoring networks; statistical and economic considerations (Loftis, J. C.) 80-40914
 - Relationships between water discharge and the chemical constituents of Illinois streams (Vendl, L. J.) 80-12174
 - River mileages and drainage areas for Illinois streams; Volume 1, Illinois except Illinois River basin (Healy, R. W.) 80-56726
 - Sediment oxygen demand studies of selected northeastern Illinois streams (Butts, T. A.) 80-38051
 - Sludge-irrigation hydrology (Fuentes, R. F.) 80-12468
 - Some hydro-geomorphological observations of nine river basins in Illinois (Bhowmik, N. G.) 80-34047
 - Time-trends of chemical constituents in Illinois streams (Crown, R. W.) 80-12183
 - Water quality investigation of Upper Salt Creek, northeastern Illinois (Polls, I.) 80-55551
- Illinois River*: Bank erosion of the Illinois

- River (Bhowmik, N. G.) 80-48643
- Chemical data and trends (Harmeson, R.) 80-17842
 - Heavy metals in the Illinois River and some of its tributaries (Mathis, B. J.) 80-17843
 - Investigations into the sources of dissolved materials in Illinois stream waters; a progress report (Flemal, R. C.) 80-17844
 - Proceedings of the Illinois River workshop (Stout, G. E.) 80-17840
 - Sedimentation of backwater lakes along the Illinois River (Lee, M. T.) 80-34048
 - Time-of-travel measured in Peoria Pool of the Illinois River (Anonymous) 80-12467
 - U. S. Geological Survey activities in the Illinois River basin, 1975 (Toler, L. G.) 80-17841
- Illinois River basin:* River mileages and drainage areas for Illinois streams; Volume 2, Illinois River basin (Healy, R. W.) 80-56727
- Lake Michigan:* Lake Michigan water allocation study (Keifer and Associates) 80-39412
- Midwest:* Effects of drainage projects on surface runoff from small depressional watersheds in the North Central region (Moore, I. D.) 80-13984
- The effect of precipitation variability on drainage basin morphometry (Harlin, J. M.) 80-60382
- Mississippi River:* Mississippi River shoaling; a diagnostic study (Nakato, T.) 80-28313
- Ohio River:* Lower Ohio River basin, Ohio, Kentucky, Indiana, Illinois, and Tennessee (Anonymous) 80-31855
- igneous rocks** *see also* phase equilibria
- impact statements** *see also* under environmental geology; *see also* under environmental geology *under* Midwest
- incertae sedis** *see* problematic fossils
- Invertebrata** *see also* Annelida; Arthropoda; Brachiopoda; Echinodermata; foraminifera; Mollusca; problematic fossils
- isotope dating** *see* absolute age
- isotopes** *see also* absolute age; geochronology
- isotopes--ground water ratios:** Stable isotope relations in water of the Cambrian-Ordovician aquifer of northern Illinois (Perry, E. C., Jr.) 80-43221
- isotopes--ratios** *coal:* Formation conditions of authigenic kaolinite and calcite in coals by stable isotope determinations (Shieh, Y. N.) 80-11320
- isotopes--sulfur** S-34/S-32: An isotopic study of sulfur in Illinois Basin coals (Price, F. T.) 80-25906
- lakes** *see under* environment *under* sedimentation
- land use** *see also* under environmental geology
- land use--planning** *watersheds:* A technique for watershed land use planning under uncertainty (Goulter, I. C.) 80-42968
- landform description** *see under* geomorphology
- limestone** *see also under* carbonate rocks *under* sedimentary rocks
- magnetic surveys** *see under* geophysical surveys
- Mammalia--Artiodactyla** *Pleistocene:* The stilt-legged deer Sangamona of the North-American Pleistocene (Kurten, B.) 80-16069
- man, fossil** *see* fossil man
- maps** *see also under* economic geology; environmental geology; seismology; soils; stratigraphy; *see also under* stratigraphy *under* Midcontinent
- mathematical geology** *see also* automatic data processing
- meetings** *see* symposia
- metals--abundance** *trace elements:* Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois (Edkins, J. E.) 80-10116
- metals--geochemistry** *vegetation:* Accumulation of heavy metals in selected woody plant species on sludge-treated strip mine spoils at the Palzo site, Shawnee National Forest (Svoboda, D.) 80-48472
- water:* Heavy metals in the Illinois River and some of its tributaries (Mathis, B. J.) 80-17843
- meteor craters** *see also* meteorites
- meteorites--collections** *Illinois State Museum:* Inventory of meteorites in the collection of the Illinois State Museum (Leary, R. L.) 80-39697
- micropaleontology--techniques** *sample preparation:* Removal of pyrite from microfossil samples by means of sodium hypochlorite (Merrill, G. K.) 80-31113
- Midcontinent--stratigraphy** *maps:* Paleoenvironmental maps of Pennsylvanian rocks, Illinois Basin and northern midcontinent region (Wanless, H. R.) 80-20918
- Midwest--economic geology** *coal:* Namurian paleogeography of the western margin of the Eastern Interior (Illinois) Basin; USA (Leary, R. L.) 80-45174
- oil and gas fields:* Developments in East-Central states in 1978 (Carpenter, G. L.) 80-05353
- uranium:* Chattanooga Shale conference (McGinley, F. E.) 80-31611
- Engineering assessment and feasibility study of Chattanooga Shale as a future source of uranium (Mountain States Research and Development) 80-31614
 - Possible role of shale in uranium supply (Patterson, J. A.) 80-31612
- Midwest--environmental geology** *impact statements:* Prime farmland disturbance from coal surface mining in the Corn Belt, 1980-2000 (Bernard, D. P.) 80-18159
- pollution:* Environmental implications of development of the Chattanooga Shale as a future source of uranium (Toups Corporation)

- 80-31615
- Midwest--hydrogeology**
hydrology: Effects of drainage projects on surface runoff from small depressional watersheds in the North Central region (Moore, I. D.) 80-13984
- Midwest--paleontology**
Reptilia: Late Pleistocene cold-blooded vertebrate faunas from the mid-continental United States; I, Reptilia; Testudines, Crocrodilia (Preston, R. E.) 80-29985
- Midwest--sedimentary petrology**
sedimentation: Sub-Pennsylvanian valleys in the Chesterian surface of the Illinois Basin and related Chesterian slump blocks (Bristol, H. M.) 80-53959
- Midwest--stratigraphy**
Mississippian: Barite in rocks of Mississippian age (Brobst, D. A.) 80-12321
Pennsylvanian: Namurian paleogeography of the western margin of the Eastern Interior (Illinois) Basin; USA (Leary, R. L.) 80-45174
Pleistocene: An isotopic paleotemperature record for late Wisconsinan time in Northeast Iowa; discussion and reply (Moran, J. M.) 80-35519
- mineral**
exploration--geophysical methods
uranium: Aerial radiometric and magnetic reconnaissance survey of portions of Arkansas, Illinois, Indiana, Kentucky, Missouri, and Tennessee, Dyersburg, Paducah, Poplar Bluff, and Rolla quadrangles; final report (Texas Instruments) 80-59875
- mineral prospecting** *see* mineral exploration
- mineral resources** *see also* under economic geology
- mineralogy**
carbonates: Paralstonite; a new mineral from the Minerva No. 1 mine, Cave-in-Rock, Illinois (Roberts, A. C.) 80-26139
sulfides: Stalactites and helictites of marcasite, galena, and sphalerite in Illinois and Wisconsin (Peck, S. B.) 80-02311
- minerals--carbonates**
paralstonite: Paralstonite; a new mineral from the Minerva No. 1 mine, Cave-in-Rock, Illinois (Roberts, A. C.) 80-26139
- minerals--occurrence**
mineral collecting: Utica jewelstone of Illinois (Mori, J.) 80-54335
speleothems: Stalactites and helictites of marcasite, galena, and sphalerite in Illinois and Wisconsin (Peck, S. B.) 80-02311
- minerals--phase equilibria**
transformations: Characterization of mineral-formation water interactions in Carboniferous sandstones and shales of the Illinois sedimentary basin (Nesbitt, H. W.) 80-57817
- minerals--sheet silicates, clay minerals**
analysis: The influence of the dispersion method on peak intensity of kaolinite, montmorillonite and illite clay standards (Huang, S. L.) 80-12143
- mining geology--practice**
strip mining: Surface coal mine; major coals of the Carbondale Formation (Krausse, H. F.) 80-42491
- mining geology--production control**
ground water: Hydrogeology of underground coal mines in Illinois (Cartwright, K.) 80-29168
mines: Rock mechanics investigation for a longwall panel in the Illinois No. 6 coal (Conroy, P. J.) 80-20290
stability: Underground coal mine; Herrin (No. 6) Coal Member; stratigraphy, deformational structures, and roof stability (Krausse, H. F.) 80-42490
- Mississippi Valley--economic geology**
barite: Barite in rocks of Mississippian age (Brobst, D. A.) 80-12321
- Mississippi Valley--hydrogeology**
hydrology: Chemical analyses of surface water in Illinois, 1975-77; Volume 2, Illinois River basin and Mississippi River tributaries north of Illinois River basin (Grason, D.) 80-08367
- Chemical analyses of surface water in Illinois, 1975-77, Volume 3, Ohio River tributaries and Mississippi River tributaries south of Illinois River basin (Grason, D.) 80-08368
- Mississippi Valley--tectonophysics**
plate tectonics: Continental rifting under the Illinois Basin and Mississippi River embayment (Pinckney, D. M.) 80-48716
- Mississippian** *see also* under geochronology; stratigraphy; *see also* under stratigraphy under Midwest
- Mollusca--Polyplacophora**
Carboniferous: Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America (Hoare, R. D.) 80-17039
- museums--general**
Illinois State Museum: Inventory of meteorites in the collection of the Illinois State Museum (Leary, R. L.) 80-39697
- natural gas** *see also* under economic geology
- nonmetals** *see also* sulfur
- North America** *see also* Great Lakes; Great Lakes region; Great Plains
- North America--paleontology**
Echinodermata: Hyrtanecrinus, a new Carboniferous camerate crinoid genus from eastern North America (Broadhead, T. W.) 80-18895
Mammalia: The stilt-legged deer Sangamona of the North-American Pleistocene (Kurten, B.) 80-16069
- North America--stratigraphy**
Devonian: Brachiopod paleoecology, paleobiogeography, and biostratigraphy in the upper Middle Devonian of eastern North America; an ecofacies model for the Appalachian, Michigan, and Illinois basins (Koch, W. F., II) 80-05314
- Northern Hemisphere** *see also* North America
- nuclear facilities--site exploration**
methods: An evaluation and comparison of nuclear powerplant siting methodologies (Keeney, R.

nuclear facilities/paleontology

- L.) 80-06560
- oil and gas fields see also
under economic geology under
Midwest
- organic
materials--distribution
shale: Petrology and
maturation of dispersed
organic matter in New
Albany Shale Group of
Illinois Basin (Barrows,
M. H.) 80-15431
- organic
materials--hydrocarbons
methane: Pyrolysis of
Eastern gas shales;
effects of temperature and
atmosphere (Chou, M. I.
M.) 80-15436
- The origin of drift-gas
deposits as determined by
radiocarbon dating of
methane (Coleman, D. D.)
80-40497
- oxygen--isotopes
O-18/O-16: Formation
conditions of authigenic
kaolinite and calcite in
coals by stable isotope
determinations (Shieh, Y.
N.) 80-11320
- Stable isotope relations
in water of the
Cambrian-Ordovician
aquifer of northern
Illinois (Perry, E. C.,
Jr.) 80-43221
- paleobotany
gymnosperms: A new species
of Heterangium from the
Illinois Basin of North
America (Stidd, B. M.)
80-20884
- Morphological plasticity
in the Upper Carboniferous
form genus Pecopteris
Brongniart (Gastaldo, R.
A.) 80-10910
- Paleobotanical studies
in the Pennsylvanian
System of the Illinois
Basin (Phillips, T. L.)
80-37493
- palynomorphs: Morphology of
fertile Pecopteris unita
from the Middle
Pennsylvanian of Illinois
(Jennings, J. R.) 80-36446
- pteridophytes: Lacoeca with
sporangia and Calamospora
spores from Rock Island,
Illinois (Leary, R. L.)
80-26011
- Lycopods of
Pennsylvanian age coals;
Polysporia (DiMichele, W.
A.) 80-22538
- Paleobotanical studies
in the Pennsylvanian
System of the Illinois
Basin (Phillips, T. L.)
80-37493
- paleoclimatology--Pennsylvani-
an
Pennsylvanian paleoclimate
of the Illinois Basin
(Schopf, J. M.) 80-37492
- Stratigraphy of the
lower part of the
Pennsylvanian System in
southeastern Illinois and
adjacent portions of
Indiana and Kentucky
(Peppers, R. A.) 80-37502
- paleoclimatology--Pleistocene
An isotopic paleotemperature
record for late
Wisconsinan time in
Northeast Iowa; discussion
and reply (Moran, J. M.)
80-35519
- paleoecology--Brachiopoda
Devonian: Brachiopod
paleoecology,
paleobiogeography, and
biostratigraphy in the
upper Middle Devonian of
eastern North America; an
ecofacies model for the
Appalachian, Michigan, and
Illinois basins (Koch, W.
F., II) 80-05314
- paleoecology--Devonian
Projection of favorable
gas-producing areas from
paleoenvironmental data
(Zielinski, R. E.)
80-15485
- paleoecology--gymnosperms
Pennsylvanian: Development
of coal-forming floras
during the early part of
the Pennsylvanian in the
Illinois Basin (Peppers,
R. A.) 80-37494
- paleoecology--Pennsylvanian
Paleoecology and
depositional history of
rock strata associated
with the Herrin (No. 6)
Coal Member, Delta Mine,
southern Illinois
(Utgaard, J.) 80-37506
- paleoecology--Pleistocene
Paleoecological comments on
fossil mosses in a buried
organic bed near Peoria,
Tazewell County, Illinois
(Miller, N. G.) 80-32716
- Plant macrofossils from
the Athens North Quarry
(King, F. B.) 80-32715
- paleogeography--Carboniferous
The
Mississippian-Pennsylvani-
an unconformity in the
Illinois Basin; old and
new thinking (Howard, R.
H.) 80-37498
- paleogeography--Devonian
Projection of favorable
gas-producing areas from
paleoenvironmental data
(Zielinski, R. E.)
80-15485
- paleogeography--Pennsylvanian
Depositional history of the
Pennsylvanian System in
the Illinois Basin; a
summary of work by Dr.
Harold R. Wanless and
associates (Wright, C. R.)
80-37496
- Earliest Pennsylvanian
depositional environments
in central southern
Illinois (Koeninger, C.
A.) 80-37504
- Terrigenous
sedimentation above
unconformities (Potter, P.
E.) 80-37497
- The influence of the
Carboniferous rocks on the
topography of the Illinois
Basin (Harris, S. E., Jr.)
80-37512
- The stratigraphy and
sedimentation of the
Abbott and lower portion
of the Spoon formations in
the outcrop belt of
southern Illinois
(Searight, T. K.) 80-37505
- Midwest: Namurian
paleogeography of the
western margin of the
Eastern Interior
(Illinois) Basin; USA
(Leary, R. L.) 80-45174
- paleontology
Amphibia: Anatomy and
relationships of the
family Phlegethontiidae
(Amphibia, Aistopoda)
(Lund, R.) 80-01883
- Annelida: Errant
polychaetes (Annelida)
from the Pennsylvanian
Essex fauna of northern
Illinois (Thompson, I.)
80-02581
- Arthropoda: A possible
onychophoran from the
Middle Pennsylvanian Mazon
Creek beds of northern
Illinois (Thompson, I.)
80-31107
- Echinodermata:
Hyrtanecrinus, a new
Carboniferous camerate
crinoid genus from eastern
North America (Broadhead,
T. W.) 80-18895
- Mammalia: The stilt-legged
deer Sangamona of the
North-American Pleistocene
(Kurten, B.) 80-16069

- Pisces:** Studies on Carboniferous freshwater fishes (Baird, D.) 80-01898
- problematic fossils:** Morphology and arrangement of meromes in *Ischadites dixonensis*, an Ordovician receptaculitid (Fisher, D. C.) 80-07869
- Paleozoic** see also under stratigraphy
- palynomorphs--Chitinozoa**
Devonian: Stratigraphic ranges of selected Chitinozoa (Jenkins, W. A. M.) 80-22064
- palynomorphs--miospores**
Pennsylvanian: Morphology of fertile *Pecopteris unita* from the Middle Pennsylvanian of Illinois (Jennings, J. R.) 80-36446
- Namurian paleogeography of the western margin of the Eastern Interior (Illinois) Basin; USA (Leary, R. L.) 80-45174
- Pleistocene:** Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois (Whittecar, G. R., Jr.) 80-26496
- Pollen analysis of some Farmdalian and Woodfordian deposits, central Illinois (King, J. E.) 80-32714
- spores:** *Lacoea* with sporangia and *Calamospora* spores from Rock Island, Illinois (Leary, R. L.) 80-26011
- Pennsylvanian** see also under stratigraphy; see also under stratigraphy under Midwest
- periglacial features** see under glacial geology
- petroleum** see also under economic geology
- petrology**
meteorites: Inventory of meteorites in the collection of the Illinois State Museum (Leary, R. L.) 80-39697
- phase**
- equilibria--interpretation**
diagenesis: Characterization of mineral-formation water interactions in Carboniferous sandstones and shales of the Illinois sedimentary basin (Nesbitt, H. W.) 80-57817
- Pisces--faunal studies**
Carboniferous: Studies on Carboniferous freshwater fishes (Baird, D.) 80-01898
- Pisces--morphology**
bones: Howellitubus is not a worm tube (Richardson, E. S., Jr.) 80-31106
- Plantae** see also bryophytes; gymnosperms; palynomorphs; problematic fossils; pteridophytes
- plate tectonics** see also under tectonophysics; see also under tectonophysics under Mississippi Valley
- Pleistocene** see also under stratigraphy; see also under stratigraphy under Midwest
- pollution** see also under environmental geology; see also under environmental geology under Great Lakes region; Midwest
- pollution--waste disposal**
acid mine drainage: Chemistry of a pyritic strip-mine spoil (Miller, S. D.) 80-22779
- problematic**
fossils--miscellanea
Ordovician: Morphology and arrangement of meromes in *Ischadites dixonensis*, an Ordovician receptaculitid (Fisher, D. C.) 80-07869
- pteridophytes--Filicopsida**
Carboniferous: Morphological plasticity in the Upper Carboniferous form genus *Pecopteris Brongniart* (Gastaldo, R. A.) 80-10910
- Pennsylvanian: Morphology of fertile *Pecopteris unita* from the Middle Pennsylvanian of Illinois (Jennings, J. R.) 80-36446
- pteridophytes--floral studies**
Pennsylvanian: *Lacoea* with sporangia and *Calamospora* spores from Rock Island, Illinois (Leary, R. L.) 80-26011
- Paleobotanical studies in the Pennsylvanian System of the Illinois Basin (Phillips, T. L.) 80-37493
- pteridophytes--Lycoposida**
Pennsylvanian: Lycopods of Pennsylvanian age coals; *Polysporia* (DiMichele, W. A.) 80-22538
- Quaternary** see also under stratigraphy
- radioactive dating** see absolute age
- reclamation** see also under environmental geology
- reefs** see also under sedimentary petrology; see also under sedimentary petrology under Great Lakes region
- Reptilia--Anapsida**
Pleistocene: Late Pleistocene cold-blooded vertebrate faunas from the mid-continental United States; I, Reptilia; Testudines, Crocodylia (Preston, R. E.) 80-29985
- Reptilia--Archosauria**
Pleistocene: Late Pleistocene cold-blooded vertebrate faunas from the mid-continental United States; I, Reptilia; Testudines, Crocodylia (Preston, R. E.) 80-29985
- rock mechanics** see also soil mechanics
- rock mechanics--experimental studies**
stress: Rock mechanics investigation for a longwall panel in the Illinois No. 6 coal (Conroy, P. J.) 80-20290
- rock mechanics--materials, properties**
stress: Geotechnical evaluation of subcoal strata for coal pillar support (Rockaway, J. D.) 80-04722
- sandstone** see also under clastic rocks under sedimentary rocks
- sedimentary petrology**
clay mineralogy: Formation conditions of authigenic kaolinite and calcite in coals by stable isotope determinations (Shieh, Y. N.) 80-11320
- diagenesis:** Characterization of mineral-formation water interactions in Carboniferous sandstones and shales of the Illinois sedimentary basin (Nesbitt, H. W.) 80-57817
- reefs:** Deposition, porosity evolution, and diagenesis of the Thornton Reef (Silurian), northeastern Illinois (McGovney, J. E. E.) 80-22789
- Indiana portion of guidebook for a field trip on Silurian reefs, interreef facies, and faunal zones of northern Indiana and northeastern Illinois (Shaver, R. H.)

sedimentary petrology/sedimentation

- 80-42473
sedimentary structures:
Lithologic patterns in the Energy Shale Member and the origin of "rolls" in the Herrin (No. 6) Coal Member, Pennsylvanian, in the Orient No. 6 Mine, Jefferson County, Illinois (Edwards, M. J.) 80-15407
- sedimentation:*
Pennsylvanian cyclothems of the Appalachian region, a retrospective view (Ferm, J. C.) 80-20232
- sedimentary rocks see also sedimentary structures; sedimentation; sediments*
- sedimentary rocks--carbonate rocks*
limestone: Lower Pennsylvanian limestones in southern Illinois (Fraunfelter, G. H.) 80-37503
- lithofacies:* Deposition and diagenesis of the Thornton Reef (Silurian, northeastern Illinois) (McGovney, J. E.) 80-25101
- Deposition, porosity evolution, and diagenesis of the Thornton Reef (Silurian), northeastern Illinois (McGovney, J. E.) 80-22789
- sedimentary rocks--chemically precipitated rocks*
chert: Utica jewelstone of Illinois (Mori, J.) 80-54335
- sedimentary rocks--clastic rocks*
black shale: Devonian shale characterization; evaluation of some significant exploitation properties (Nance, S. W.) 80-15460
- Pyrolysis of Eastern gas shales; effects of temperature and atmosphere (Chou, M. I. M.) 80-15436
- sandstone:* Characterization of mineral-formation water interactions in Carboniferous sandstones and shales of the Illinois sedimentary basin (Nesbitt, H. W.) 80-57817
- shale:* Lithologic patterns in the Energy Shale Member and the origin of "rolls" in the Herrin (No. 6) Coal Member, Pennsylvanian, in the Orient No. 6 Mine, Jefferson County, Illinois (Edwards, M. J.) 80-15407
- Petrology and maturation of dispersed organic matter in New Albany Shale Group of Illinois Basin (Barrows, M. H.) 80-15431
- Projection of favorable gas-producing areas from paleoenvironmental data (Zielinski, R. E.) 80-15485
- sedimentary rocks--organic residues*
coal: Formation conditions of authigenic kaolinite and calcite in coals by stable isotope determinations (Shieh, Y. N.) 80-11320
- Petrology and related chemistry of coals in the Illinois Basin (Harvey, R. D.) 80-37513
- sedimentary structures see also sedimentary rocks; sediments*
- sedimentary structures--bedding plane irregularities*
fossil ice wedges: An isotopic paleotemperature record for late Wisconsinan time in Northeast Iowa; discussion and reply (Moran, J. M.) 80-35519
- sedimentary structures--planar bedding structures*
cyclothems: Pennsylvanian cyclothems of the Appalachian region, a retrospective view (Ferm, J. C.) 80-20232
- sedimentary structures--soft sediment deformation*
slump structures:
Lithologic patterns in the Energy Shale Member and the origin of "rolls" in the Herrin (No. 6) Coal Member, Pennsylvanian, in the Orient No. 6 Mine, Jefferson County, Illinois (Edwards, M. J.) 80-15407
- sedimentation--deposition*
shoaling: Mississippi River shoaling; a diagnostic study (Nakato, T.) 80-28313
- sedimentation--environment*
glacial environment:
Geomorphic history and Pleistocene stratigraphy of the Peconic River valley, Wisconsin and Illinois (Whittecar, G. R., Jr.) 80-26496
- lakes:* Sediment and soil loss in Illinois; summary (Illinois Environmental Protection Agency) 80-06260
- marine environment:*
Pennsylvanian cyclothems of the Appalachian region, a retrospective view (Ferm, J. C.) 80-20232
- Projection of favorable gas-producing areas from paleoenvironmental data (Zielinski, R. E.) 80-15485
- reefs:* Deposition and diagenesis of the Thornton Reef (Silurian, northeastern Illinois) (McGovney, J. E.) 80-25101
- Deposition, porosity evolution, and diagenesis of the Thornton Reef (Silurian), northeastern Illinois (McGovney, J. E.) 80-22789
- shallow-water environment:*
Namurian paleogeography of the western margin of the Eastern Interior (Illinois) Basin; USA (Leary, R. L.) 80-45174
- terrestrial environment:*
Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois (Palmer, J. E.) 80-37507
- Earliest Pennsylvanian depositional environments in central southern Illinois (Koeninger, C. A.) 80-37504
- Paleoecology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois (Utgaard, J.) 80-37506
- Terrigenous sedimentation above unconformities (Potter, P. E.) 80-37497
- The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois (Searight, T. K.) 80-37505
- sedimentation--processes*
slumping: Sub-Pennsylvanian valleys in the Chesterian surface of the Illinois Basin and related Chesterian slump blocks (Bristol, H. M.) 80-53959
- sedimentation--rates*
drainage basins: The effect of precipitation variability on drainage basin morphometry (Harlin,

ILLINOIS GEOLOGICAL
SURVEY LIBRARY

- J. M.) 80-60382
- lakes:** Sedimentation of backwater lakes along the Illinois River (Lee, M. T.) 80-34048
- sedimentation--transport**
- glacial transport:* Origin of the Tiskilwa Till, northern Illinois (Wickham, S. S.) 80-34060
- stream transport:* Sediment and soil loss in Illinois; summary (Illinois Environmental Protection Agency) 80-06260
- sediments** see also *sedimentary rocks; sedimentary structures; sedimentation*
- sediments--clastic sediments**
- till:* Stratigraphy of Wisconsinan and older loesses in southwestern Illinois (McKay, E. D.) 80-55132
- Wisconsinan loess stratigraphy of Illinois (McKay, E. D.) 80-32713
- till:* Origin of the Tiskilwa Till, northern Illinois (Wickham, S. S.) 80-34060
- Pre-Illinoian till stratigraphy in the Quincy, Illinois, area (Wickham, J. T.) 80-55133
- sediments--environmental analysis**
- glacial environment:* Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois (Whittecar, G. R., Jr.) 80-26496
- seismology** see also *engineering geology*
- seismology**
- earthquakes:* The southern Illinois earthquake of September 27, 1891 (Street, R. L.) 80-43150
- maps:* Seismicity map of the State of Illinois (Stover, C. W.) 80-13756
- seismology--earthquakes**
- magnitude:* The southern Illinois earthquake of September 27, 1891 (Street, R. L.) 80-43150
- seismology--seismicity**
- arrays:* Earthquake hazard studies in Southeast Missouri (Stauder, W. S.) 80-59336
- maps:* Seismicity map of the State of Illinois (Stover, C. W.) 80-13756
- shale** see *under* **clastic rocks**
under **sedimentary rocks**
- shorelines** see also *under* **engineering geology; see also under** **engineering geology**
under **Great Lakes**
- slope stability** see also **engineering geology; geomorphology**
- soil mechanics** see also **rock mechanics**
- soil mechanics--case studies**
- slope stability:* Bank erosion of the Illinois River (Bhowmik, N. G.) 80-48643
- soils**
- maps:* Soil survey of Adams County, Illinois (Bushue, L. J.) 80-31990
- Soil survey of Clark County, Illinois (Awalt, F. L.) 80-48192
- Soil survey of Grundy County, Illinois (Reineback, L. M.) 80-48275
- Soil survey of Kane County, Illinois (Goddard, T. M.) 80-13460
- Soil survey of Kankakee County, Illinois (Paschke, J. E.) 80-06760
- Soil survey of Ogle County, Illinois (Acker, L. L.) 80-48280
- Soil survey of Sangamon County, Illinois (Steinkamp, J. F.) 80-59568
- Soil survey of Winnebago and Boone counties, Illinois (Grantham, D. R.) 80-48277
- soils--surveys**
- Sediment and soil loss in Illinois; summary (Illinois Environmental Protection Agency) 80-06260
- Soil survey of Adams County, Illinois (Bushue, L. J.) 80-31990
- Soil survey of Clark County, Illinois (Awalt, F. L.) 80-48192
- Soil survey of Grundy County, Illinois (Reineback, L. M.) 80-48275
- Soil survey of Kane County, Illinois (Goddard, T. M.) 80-13460
- Soil survey of Kankakee County, Illinois (Paschke, J. E.) 80-06760
- Soil survey of Ogle County, Illinois (Acker, L. L.) 80-48280
- Soil survey of Sangamon County, Illinois (Steinkamp, J. F.)
- 80-59568
- Soil survey of Winnebago and Boone counties, Illinois (Grantham, D. R.) 80-48277
- springs** see also **ground water**
- standard materials--minerals analysis:** The influence of the dispersion method on peak intensity of kaolinite, montmorillonite and illite clay standards (Huang, S. L.) 80-12143
- stratigraphy**
- Carboniferous:* Carboniferous cyclicity related to the development of the Mississippian-Pennsylvanian unconformity in the Illinois (Howard, R. H.) 80-45172
- Roadlog for day nine (May 20, 1979); New Albany, Indiana to Champaign-Urbana, Illinois (Anonymous) 80-29293
- Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America (Hoare, R. D.) 80-17039
- Devonian:* Brachiopod paleoecology, paleobiogeography, and biostratigraphy in the upper Middle Devonian of eastern North America; an ecofacies model for the Appalachian, Michigan, and Illinois basins (Koch, W. F., II) 80-05314
- Holocene:* Geomorphology of the lower Illinois Valley as a spatial-temporal context for the Koster archaic site (Butzer, K. W.) 80-17839
- maps:* Quaternary deposits of Illinois (Lineback, J. A.) 80-31214
- Mississippian:* A spathognathodont lineage of Mississippian conodonts (Rexroad, C. B.) 80-19281
- The Mississippian-Pennsylvanian unconformity in the Illinois Basin; old and new thinking (Howard, R. H.) 80-37498

stratigraphy/surveys

- Paleozoic:* Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance (Conkin, J. E.) 80-41453
- Structure and Paleozoic stratigraphy of the Cap au Gres faulted flexure in western Illinois (Treworgy, J. D.) 80-55131
- The Sandwich fault zone of northern Illinois (Kolata, D. R.) 80-45016
- Pennsylvanian:* A new locality for the Cramer(?) Member in northwestern Illinois (Merrill, G. K.) 80-36305
- Depositional and structural history of the Pennsylvanian System of the Illinois Basin; Part 2, Invited papers (Palmer, J. E.) 80-37491
- Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois (Palmer, J. E.) 80-37507
- Depositional history of the Pennsylvanian System in the Illinois Basin; a summary of work by Dr. Harold R. Wanless and associates (Wright, C. R.) 80-37496
- Development of coal-forming floras during the early part of the Pennsylvanian in the Illinois Basin (Peppers, R. A.) 80-37494
- Earliest Pennsylvanian depositional environments in central southern Illinois (Koeninger, C. A.) 80-37504
- Lower Pennsylvanian limestones in southern Illinois (Fraunfelter, G. H.) 80-37503
- Paleoecology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois (Utgaard, J.) 80-37506
- Paleoenvironmental maps of Pennsylvanian rocks, Illinois Basin and northern midcontinent region (Wanless, H. R.) 80-20918
- Pennsylvanian correlations between the Eastern Interior and Appalachian basins (Rice, C. L.) 80-37508
- Pennsylvanian paleoclimate of the Illinois Basin (Schopf, J. M.) 80-37492
- Stratigraphic relations of Pennsylvanian rocks of the eastern interior (Illinois) and Appalachian basins in Kentucky (Rice, C. L.) 80-29255
- Stratigraphy of the lower part of the Pennsylvanian System in southeastern Illinois and adjacent portions of Indiana and Kentucky (Peppers, R. A.) 80-37502
- Sub-Pennsylvanian valleys in the Chesterian surface of the Illinois Basin and related Chesterian slump blocks (Bristol, H. M.) 80-53959
- Terrigenous sedimentation above unconformities (Potter, P. E.) 80-37497
- The influence of the Carboniferous rocks on the topography of the Illinois Basin (Harris, S. E., Jr.) 80-37512
- The Mississippian-Pennsylvanian unconformity in the Illinois Basin; old and new thinking (Howard, R. H.) 80-37498
- The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois (Searight, T. K.) 80-37505
- Pleistocene:* A historical review of the Sangamon Soil (Follmer, L. R.) 80-32711
- An isotopic paleotemperature record for late Wisconsinan time in Northeast Iowa; discussion and reply (Moran, J. M.) 80-35519
- Comments on the Sangamon Soil (Willman, H. B.) 80-32712
- Geomorphic history and Pleistocene stratigraphy of the Pecos River valley, Wisconsin and Illinois (Whittecar, G. R., Jr.) 80-26496
- Origin of the Tiskilwa Till, northern Illinois (Wickham, S. S.) 80-34060
- Paleocological comments on fossil mosses in a buried organic bed near Peoria, Tazewell County, Illinois (Miller, N. G.) 80-32716
- Plant macrofossils from the Athens North Quarry (King, F. B.) 80-32715
- Pollen analysis of some Farmdalian and Woodfordian deposits, central Illinois (King, J. E.) 80-32714
- Pre-Illinoian till stratigraphy in the Quincy, Illinois, area (Wickham, J. T.) 80-55133
- Stratigraphy of Wisconsinan and older loesses in southwestern Illinois (McKay, E. D.) 80-55132
- The status of the Illinoian glacial stage (Lineback, J. A.) 80-32710
- Wisconsinan loess stratigraphy of Illinois (McKay, E. D.) 80-32713
- Wisconsinan, Sangamonian, and Illinoian (Follmer, L. R.) 80-32709
- Wisconsinan, Sangamonian, and Illinoian stratigraphy in central Illinois (Follmer, L. R.) 80-46940
- Quaternary:* Quaternary deposits of Illinois (Lineback, J. A.) 80-31214
- structural geology**
- faults:* The Sandwich fault zone of northern Illinois (Kolata, D. R.) 80-45016
- tectonics:* Major structures of the southern part of the Illinois Basin (Krause, H. F.) 80-37511
- sulfur--isotopes**
- S-34/S-32: An isotopic study of sulfur in Illinois Basin coals (Price, F. T.) 80-25906
- sulphur see Sulfur**
- surveys--current research**
- U. S. Geological Survey:* U. S. Geological Survey activities in the Illinois River basin, 1975 (Toler, L. G.) 80-17841
- surveys--history**
- Illinois State Geological Survey:* State science in Illinois; the scientific surveys, 1850-1978 (Hays, R. G.) 80-59314
- surveys--research**
- Illinois State Geological Survey:* Desirable characteristics of a statewide coal reserve

- evaluation program
(Treworgy, C. G.) 80-33728
- symposia--economic geology**
 - uranium: Chattanooga Shale
conference (McGinely, F.
E.) 80-31611
- tectonics** see also faults;
structural geology
- tectonophysics**
 - plate tectonics:
 - Continental rifting under
the Illinois Basin and
Mississippi River
embayment (Pinckney, D.
M.) 80-48716
 - Plate-tectonic
implications of the
Pennsylvanian System in
the Illinois Basin (Sloss,
L. L.) 80-37509
- tektites** see also meteorites
- trace elements** see under
abundance under metals
- tritium** see also deuterium
- tunnels** see also under
engineering geology
- underground installations** see
also under engineering
geology
- underground water** see ground
water
- uranium** see also under
economic geology; see also
under economic geology under
Midwest; symposia
- Vertebrata** see also Amphibia;
fossil man; Mammalia;
Pisces; problematic fossils;
Reptilia
- waste disposal** see also under
engineering geology;
environmental geology; see
also under engineering
geology under Great Lakes
region
- waste disposal--pollution**
 - acid mine drainage:
 - Chemistry of a pyritic
strip-mine spoil (Miller,
S. D.) 80-22779
- water resources** see also under
economic geology
- well-logging--interpretation**
 - lithology: Detailed
lithology near coal seams
indicated by borehole and
hole-to-hole logging
(Scott, J. H.) 80-23878
- Western Hemisphere** see also
North America
- zinc** see also under economic
geology

INTENTIONAL BLANK PAGE

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

COUNTY INDEX

Adams County

- Bushue, L. J. Soil survey of Adams County, Illinois
U. S. Geological Survey. Land use and land cover and associated maps for Quincy, Illinois, Missouri
Wickham, J. T. Pre-Illinoian till stratigraphy in the Quincy, Illinois, area

Alexander County

- McKay, E. D. Ground-water geology of selected wetlands in Union and Alexander counties, Illinois

Beaver County

- Baird, D. Studies on Carboniferous freshwater fishes

Boone County

- Conkin, J. E. Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance
Grantham, D. R. Soil survey of Winnebago and Boone counties, Illinois

Bureau County

- Foster, J. B. Preliminary report on the hydrogeology of a low-level radioactive waste disposal site near Sheffield, Illinois

Caldwell County

- Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district

Calhoun County

- Treworgy, J. D. Structure and Paleozoic stratigraphy of the Cap au Gres faulted flexure in western Illinois

Cass County

- Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian

Champaign County

- Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois

Christian County

- Chou, M. I. M. Pyrolysis of Eastern gas shales; effects of temperature and atmosphere

Clark County

- Awalt, F. L. Soil survey of Clark County, Illinois
Conkin, J. E. Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance
Reinertsen, D. L. A guide to the geology of the Westfield-Casey area; Clark, Coles, Cumberland counties, Illinois

Clinton County

- Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois

Coles County

- Reinertsen, D. L. A guide to the geology of the Westfield-Casey area; Clark, Coles, Cumberland counties, Illinois

Comanche County

- Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda)

Cook County

- Adams, J. R. Modeling time variable pumping in a regional aquifer for public water supply

- Anonymous. Thornton Quarry and reef and Indiana Dunes
Berg, R. C. Stop 3; Major aspects of coastal stability along the Lake Michigan shore

- Butts, T. A. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams

- Butts, T. A. Sediment oxygen demand studies of selected northeastern Illinois streams

- Cyrier, R. T. Chicago River and Sanitary and Ship Canal
DuMontelle, P. B. Stop 1;

- Sewage treatment plant and deep tunnel at Stickney

- Gamer, R. L. Engineering geology of the tunnel and reservoir plan (TARP), Chicago, Illinois

- Grason, D. Chemical analyses of surface water in Illinois, 1975-77; Volume 1, Des Plaines River basin and Lake Michigan

- Keifer and Associates, Lake Michigan water allocation study

- Kempton, J. P. Geologic setting of northeastern Illinois and description of geologic materials

- Kolata, D. R. Stop 1; Thornton Quarry and reef

- McGovney, J. E. Deposition and diagenesis of the Thornton Reef (Silurian, northeastern Illinois)

- McGovney, J. E. E. Deposition, porosity evolution, and diagenesis of the Thornton Reef (Silurian), northeastern Illinois

- Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties

- Polls, I. Water quality

Cook County/Jackson County

investigation of Upper Salt Creek, northeastern Illinois
Reinertsen, D. L. An introduction to the geology of the Evergreen Park-Thornton area, Cook County, Illinois

Sherrill, M. G. Waste tritium migration in ground water, Cook County, Illinois

U. S. Geological Survey. Land use and land cover and associated maps for Chicago, Illinois, Indiana, Michigan

Waldo, P. Stop 2; Ned Brown Forest Preserve

Wood, W. L. An introduction to shoreline problems of the southern shore of Lake Michigan

Cooper County

Conkin, J. E. Inauris and *Sorosphaerella*, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance

Crittenden County

Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district

Cumberland County

Reinertsen, D. L. A guide to the geology of the Westfield-Casey area; Clark, Coles, Cumberland counties, Illinois

De Kalb County

Kolata, D. R. The Sandwich fault zone of northern Illinois

De Witt County

Berggren, D. A guide to the geology of the Farmer City area, De Witt County, Illinois

Du Page County

Butts, T. A. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams

Butts, T. A. Sediment oxygen demand studies of selected northeastern Illinois streams

Golchert, N. W. Environmental monitoring at Argonne National Laboratory; annual report for 1978

Grason, D. Chemical analyses of surface water in Illinois, 1975-77; Volume 1,

Des Plaines River basin and Lake Michigan
Keifer and Associates. Lake Michigan water allocation study

DuPage County

Polls, I. Water quality investigation of Upper Salt Creek, northeastern Illinois

East Baton Rouge Parish

Hardy, G. W., III. Handbook of basic water law (with special reference to Louisiana)

Edgar County

Stidd, B. M. A new species of *Heterangium* from the Illinois Basin of North America

Edwards County

Woller, D. M. Public groundwater supplies in Edwards County

Effingham County

Chou, M. I. M. Pyrolysis of Eastern gas shales; effects of temperature and atmosphere

Fountain County

DiMichele, W. A. Lycopods of Pennsylvanian age coals; *Polysporia*

Franklin County

Conroy, P. J. Rock mechanics investigation for a longwall panel in the Illinois No. 6 coal

Fulton County

Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian

Gibb, J. P. Reconnaissance study of final cut impoundments

Peterson, J. R. Water, soil, and crop quality of Illinois coal mine spoils amended with sewage sludge

Gallatin County

Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois

Greene County

Butzer, K. W. Geomorphology of the lower Illinois Valley as a spatial-temporal context for the Koster archaic site

Grundy County

Baird, D. Studies on Carboniferous freshwater fishes

Gibb, J. P. Reconnaissance study of final cut impoundments

Kolata, D. R. The Sandwich fault zone of northern Illinois

Lund, R. Anatomy and relationships of the family *Phlegethontiidae* (Amphibia, Aistopoda)

Reineback, L. M. Soil survey of Grundy County, Illinois

Hamilton County

Street, R. L. The southern Illinois earthquake of September 27, 1891

Hancock County

Miller, E. Dur search for the Keokuk geode

Hardin County

Hutchison, M. D. Preservation values of the Big Creek watershed in Hardin County, Illinois

Henderson County

Chou, M. I. M. Pyrolysis of Eastern gas shales; effects of temperature and atmosphere

Woller, D. M. Public groundwater supplies in Henderson County

Iowa County

Whittecar, G. R., Jr. Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois

Jackson County

Fraunfelder, G. H. Day 6; South-central Illinois

Harris, S. E., Jr. Day 6; Carbondale, Illinois to southwestern Illinois area
Palmer, J. E. Day 4; Cave in Rock, Illinois, to Carbondale, Illinois

Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois

Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois

Jefferson County

- Conkin, J. E. Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance
- Edwards, M. J. Lithologic patterns in the Energy Shale Member and the origin of "rolls" in the Herrin (No. 6) Coal Member, Pennsylvanian, in the Orient No. 6 Mine, Jefferson County, Illinois
- Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda)

Jersey County

- McKay, E. D. Stratigraphy of Wisconsinan and older loesses in southwestern Illinois
- Treworgy, J. D. Structure and Paleozoic stratigraphy of the Cap au Gres faulted flexure in western Illinois

Johnson County

- Fraunfelter, G. H. Day 6; South-central Illinois

Kane County

- Butts, T. A. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams
- Butts, T. A. Sediment oxygen demand studies of selected northeastern Illinois streams
- Goddard, T. M. Soil survey of Kane County, Illinois
- Keifer and Associates. Lake Michigan water allocation study
- Woller, D. M. Public groundwater supplies in Kane County

Kankakee County

- Gibb, J. P. Reconnaissance study of final cut impoundments
- Paschke, J. E. Soil survey of Kankakee County, Illinois

Kankatee County

- Thompson, I. A possible onychophoran from the Middle Pennsylvanian Mazon Creek beds of northern Illinois

Kendall County

- Butts, T. A. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois

streams

- Kolata, D. R. The Sandwich fault zone of northern Illinois

Knox County

- Gibb, J. P. Reconnaissance study of final cut impoundments

La Salle County

- Bannister, T. A. Geohydrology of an abandoned strip-mine site, Ottawa, Illinois
- Kolata, D. R. The Sandwich fault zone of northern Illinois
- Mori, J. Utica jewelstone of Illinois

Lafayette County

- Whittecar, G. R., Jr. Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois

Lake County

- Boyle, J. M. Determination of recharge rates using temperature-depth profiles in wells
- Butts, T. A. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams
- Butts, T. A. Sediment oxygen demand studies of selected northeastern Illinois streams
- Keifer and Associates. Lake Michigan water allocation study
- Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties

Lee County

- Kolata, D. R. The Sandwich fault zone of northern Illinois

Livingston County

- Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district

Lyon County

- Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district

Macoupin County

- Berggren, D. A guide to the geology of the Carlinville area, Macoupin County, Illinois
- Wilkey, M. Land reclamation at abandoned deep coal mine
- Zellmer, S. A reclamation demonstration project at an abandoned deep mine

Madison County

- McKay, E. D. Stratigraphy of Wisconsinan and older loesses in southwestern Illinois
- Treworgy, J. D. Structure and Paleozoic stratigraphy of the Cap au Gres faulted flexure in western Illinois

Martin County

- Zielinski, R. E. Projection of favorable gas-producing areas from paleoenvironmental data

Mason County

- Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian

McCracken County

- U. S. Geological Survey. Land use and land cover, 1973, Paducah, Kentucky; Illinois; Missouri; Indiana

McHenry County

- Butts, T. A. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams
- Butts, T. A. Sediment oxygen demand studies of selected northeastern Illinois streams
- Keifer and Associates. Lake Michigan water allocation study

Menard County

- Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian
- King, F. B. Plant macrofossils from the Athens North Quarry
- King, J. E. Pollen analysis of some Farmdalian and Woodfordian deposits, central Illinois

Monroe County

- Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois

Montgomery County/Wayne County

Montgomery County

Hsu, G. C. Coal desulfurization by low-temperature chlorinolysis

Morgan County

Woller, D. M. Public groundwater supplies in Morgan and Scott counties

Ogle County

Acker, L. L. Soil survey of Ogle County, Illinois
Kolata, D. R. The Sandwich fault zone of northern Illinois

Ozaukee County

Eisen, C. The effects of urbanization on ground-water quality; a case study

Peoria County

Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian U. S. Geological Survey. Land use and land cover and associated maps for Peoria, Illinois

Perry County

Gibb, J. P. Reconnaissance study of final cut impoundments
Harris, S. E., Jr. Day 6; Carbondale, Illinois to southwestern Illinois area
Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois
Zielinski, R. E. Projection of favorable gas-producing areas from paleoenvironmental data

Pike County

Conkin, J. E. Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance
Woller, D. M. Public groundwater supplies in Pike County

Pulaski County

Palmer, J. E. Day 4; Cave in Rock, Illinois, to Carbondale, Illinois
Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district
Woller, D. M. Public groundwater supplies in

Pulaski County

Randolph County

Harris, S. E., Jr. Day 6; Carbondale, Illinois to southwestern Illinois area
Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois
Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois

Rock Island County

Leary, R. L. Lacoeca with sporangia and Calamospora spores from Rock Island, Illinois

Saint Clair County

Emmons, J. T. Groundwater levels and pumpage in the East St. Louis area, Illinois, 1972-1977
Gibb, J. P. Reconnaissance study of final cut impoundments
McKay, E. D. Stratigraphy of Wisconsinan and older loesses in southwestern Illinois

Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois

Saline County

DiMichele, W. A. Lycopods of Pennsylvanian age coals; Polysporia
Fraunfelder, G. H. Day 6; South-central Illinois
Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois

Sangamon County

Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian
Steinkamp, J. F. Soil survey of Sangamon County, Illinois

Scott County

Woller, D. M. Public groundwater supplies in Morgan and Scott counties

Stephenson County

Whittecar, G. R., Jr. Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois

Tazewell County

Chou, M. I. M. Pyrolysis of Eastern gas shales; effects of temperature and atmosphere
Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian
Miller, N. G. Paleocological comments on fossil mosses in a buried organic bed near Peoria, Tazewell County, Illinois
U. S. Geological Survey. Land use and land cover and associated maps for Peoria, Illinois

Union County

Conkin, J. E. Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance
McKay, E. D. Ground-water geology of selected wetlands in Union and Alexander counties, Illinois
Palmer, J. E. Day 4; Cave in Rock, Illinois, to Carbondale, Illinois

Vermilion County

Stidd, B. M. A new species of Heterangium from the Illinois Basin of North America

Vermillion County

Stidd, B. M. A new species of Heterangium from the Illinois Basin of North America

Washington County

Eisen, C. The effects of urbanization on ground-water quality; a case study
Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois

Waukesha County

Eisen, C. The effects of urbanization on ground-water quality; a case study

Wayne County

Bristol, H. M. Sub-Pennsylvanian valleys in the Chesterian surface of

the Illinois Basin and related Chesterian slump blocks

Webster County

DiMichele, W. A. Lycopods of Pennsylvanian age coals; Polysporia

Will County

- Baird, D. Studies on Carboniferous freshwater fishes
- Butts, T. A. Effects of channel dams on dissolved oxygen concentrations in northeastern Illinois streams
- Butts, T. A. Sediment oxygen demand studies of selected northeastern Illinois streams
- Gibb, J. P. Reconnaissance study of final cut impoundments
- Grason, D. Chemical analyses of surface water in Illinois, 1975-77; Volume 1, Des Plaines River basin and Lake Michigan
- Keifer and Associates. Lake Michigan water allocation study
- Kolata, D. R. The Sandwich fault zone of northern Illinois
- Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda)
- Thompson, I. A possible onychophoran from the Middle Pennsylvanian Mazon Creek beds of northern Illinois

Williamson County

- Fraunfelder, G. H. Day 6; South-central Illinois
- Jones, M. Sludge used for strip mine restoration at Palzo; project development and compliance water quality monitoring
- Miller, S. D. Chemistry of a pyritic strip-mine spoil
- Roth, P. L. Initial survival and performance of woody plant species on sludge-treated spoils of the Palzo Mine
- Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois
- Stephenson, R. W. Ground surface subsidence due to coal mine collapse

Stucky, D. J. Establishment, yield, and ion accumulation of several forage species on sludge-treated spoils of the Palzo Mine

- Svoboda, D. Accumulation of heavy metals in selected woody plant species on sludge-treated strip mine spoils at the Palzo site, Shawnee National Forest
- Utgaard, J. Paleocology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois

Winnebago County

- Grantham, D. R. Soil survey of Winnebago and Boone counties, Illinois
- Reilly, P. C. Environmental quality profile, 1972-1976, Winnebago County, Illinois
- Whittecar, G. R., Jr. Geomorphic history and Pleistocene stratigraphy of the Pecatonica River valley, Wisconsin and Illinois

Wise County

- Zielinski, R. E. Projection of favorable gas-producing areas from paleoenvironmental data

Woodford County

- Follmer, L. R. Wisconsinan, Sangamonian, and Illinoian U. S. Geological Survey. Land use and land cover and associated maps for Peoria, Illinois

INTENTIONAL BLANK PAGE

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

ROCK-UNIT INDEX

- Abbott Formation**
 Fraunfelter, G. H. Day 6; South-central Illinois
 Fraunfelter, G. H. Lower Pennsylvanian limestones in southern Illinois
 Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois
- Allegheny Group**
 Baird, D. Studies on Carboniferous freshwater fishes
 Ferm, J. C. Pennsylvanian cyclothems of the Appalachian region, a retrospective view
- Alpena Formation**
 Jenkins, W. A. M. Stratigraphic ranges of selected Chitinozoa
- Ancell Group**
 Kolata, D. R. The Sandwich fault zone of northern Illinois
- Anna Shale**
 Gastaldo, R. A. Morphological plasticity in the Upper Carboniferous form genus *Pecopteris Brongniart*
 Utgaard, J. Paleogeology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois
- Arbuckle Limestone**
 Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda)
- Bankston Fork Limestone**
 Utgaard, J. Paleogeology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois
- Batestown Till Member**
 Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois
- Berry Clay Member**
 Lineback, J. A. The status of the Illinoian glacial stage
- Brereton Limestone**
 Utgaard, J. Paleogeology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois
- Burlington Formation**
 Woller, D. M. Public groundwater supplies in Henderson County
- Bush Creek Shale**
 Hoare, R. D. Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America
- Carbondale Formation**
 Baird, D. Studies on Carboniferous freshwater fishes
 Edkins, J. E. Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois
 Gastaldo, R. A. Morphological plasticity in the Upper Carboniferous form genus *Pecopteris Brongniart*
 Krausse, H. F. Surface coal mine; major coals of the Carbondale Formation
 Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda)
 Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois
- Caseyville Formation**
 Fraunfelter, G. H. Day 6; South-central Illinois
 Fraunfelter, G. H. Lower Pennsylvanian limestones in southern Illinois
 Harris, S. E., Jr. Day 6; Carbondale, Illinois to southwestern Illinois area
 Howard, R. H. The Mississippian-Pennsylvanian unconformity in the Illinois Basin; old and new thinking
 Koeninger, C. A. Earliest Pennsylvanian depositional environments in central southern Illinois
- Cedar City Formation**
 Jenkins, W. A. M. Stratigraphic ranges of selected Chitinozoa
- Cedar Valley Formation**
 Woller, D. M. Public groundwater supplies in Henderson County
- Cedar Valley Limestone Formation**
 Jenkins, W. A. M. Stratigraphic ranges of selected Chitinozoa
- environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois**
 Rice, C. L. Stratigraphic relations of Pennsylvanian rocks of the eastern interior (Illinois) and Appalachian basins in Kentucky
 Utgaard, J. Paleogeology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois

Cerro Gordo Moraine/Herrin Coal Member

Cerro Gordo Moraine

Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois

Chattanooga Shale

McGinley, F. E. Chattanooga Shale conference

Mountain States Research and Development. Engineering assessment and feasibility study of Chattanooga Shale as a future source of uranium

Patterson, J. A. Possible role of shale in uranium supply Touts Corporation.

Environmental implications of development of the Chattanooga Shale as a future source of uranium

Columbus Limestone Formation

Jenkins, W. A. M.

Stratigraphic ranges of selected Chitinozoa

Conant Limestone

Utgaard, J. Paleogeology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois

Cramer Limestone Member

Merrill, G. K. A new locality for the Cramer(?) Member in northwestern Illinois

Danville Bonebed

Baird, D. Studies on Carboniferous freshwater fishes

Duncan Mills Member

Lineback, J. A. The status of the Illinoian glacial stage

Duvernay Formation

Jenkins, W. A. M.

Stratigraphic ranges of selected Chitinozoa

Eau Claire Formation

Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties

Woller, D. M. Public groundwater supplies in Kane County

Elmhurst Formation

Woller, D. M. Public groundwater supplies in Kane County

Elwood Formation

Woller, D. M. Public groundwater supplies in Kane County

Eminence Formation

Woller, D. M. Public groundwater supplies in Kane County

Energy Shale

Utgaard, J. Paleogeology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois

Energy Shale Member

Edwards, M. J. Lithologic patterns in the Energy Shale Member and the origin of "rolls" in the Herrin (No. 6) Coal Member, Pennsylvanian, in the Drient No. 6 Mine, Jefferson County, Illinois

Fairgrange Till Member

Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois

Francis Creek Shale

Baird, D. Studies on Carboniferous freshwater fishes

Jennings, J. R. Morphology of fertile Pecopteris unita from the Middle Pennsylvanian of Illinois

Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda)

Thompson, I. Errant polychaetes (Annelida) from the Pennsylvanian Essex fauna of northern Illinois

Thompson, I. A possible onychophoran from the Middle Pennsylvanian Mazon Creek beds of northern Illinois

Franconia Formation

Woller, D. M. Public groundwater supplies in Kane County

Franconia Formation

Visocky, A. P. Assessing public ground-water supplies in Illinois

Freeport Formation

Lund, R. Anatomy and relationships of the family Phlegethontiidae (Amphibia, Aistopoda)

Galena Formation

Woller, D. M. Public groundwater supplies in Henderson County

Woller, D. M. Public groundwater supplies in Kane County

Galena Group

Fisher, D. C. Morphology and arrangement of meromes in Ischadites dixonensis, an Ordovician receptaculitid
Kolata, D. R. The Sandwich fault zone of northern Illinois

Galesville Formation

Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties

Woller, D. M. Public groundwater supplies in Kane County

Glasford Formation

Butzer, K. W. Geomorphology of the lower Illinois Valley as a spatial-temporal context for the Koster archaic site

Glenwood Formation

Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties

Woller, D. M. Public groundwater supplies in Henderson County

Woller, D. M. Public groundwater supplies in Kane County

Grindstaff Sandstone

Fraunfelder, G. H. Lower Pennsylvanian limestones in southern Illinois

Gunter Formation

Woller, D. M. Public groundwater supplies in Kane County

Hamilton Formation

Jenkins, W. A. M. Stratigraphic ranges of selected Chitinozoa

Herrin Coal Member

Edkins, J. E. Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern

Illinois

Herrin (No. 6) Coal

Krausse, H. F. Underground coal mine; Herrin (No. 6) Coal Member; stratigraphy, deformational structures, and roof stability

Herrin (No. 6) Coal Member

Edkins, J. E. Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois
 Edwards, M. J. Lithologic patterns in the Energy Shale Member and the origin of "rolls" in the Herrin (No. 6) Coal Member, Pennsylvanian, in the Orient No. 6 Mine, Jefferson County, Illinois

Hulick Till Member

Lineback, J. A. The status of the Illinoian glacial stage

Hume Formation

Jenkins, W. A. M. Stratigraphic ranges of selected Chitinozoa

Illinois No. 6 Coal

Conroy, P. J. Rock mechanics investigation for a longwall panel in the Illinois No. 6 coal

Ironton Formation

Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties
 Woller, D. M. Public groundwater supplies in Kane County

Jeffersonville Limestone

Conkin, J. E. Inauris and Sorosphaerella, new genera of Paleozoic agglutinate foraminifera, and their stratigraphic significance

Joliet Formation

Woller, D. M. Public groundwater supplies in Kane County

Kanka Kee Formation

Woller, D. M. Public groundwater supplies in Kane County

Kellerville Till Member

Lineback, J. A. The status of the Illinoian glacial stage

Keokuk Formation

Woller, D. M. Public groundwater supplies in Henderson County

Kewanee Group

Gastaldo, R. A. Morphological plasticity in the Upper Carboniferous form genus Pecopteris Brongniart
 Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois
 Utgaard, J. Paleocology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois

Kinkaid Formation

Howard, R. H. Carboniferous cyclicity related to the development of the Mississippian-Pennsylvanian unconformity in the Illinois

Kittanning Formation

Baird, D. Studies on Carboniferous freshwater fishes

Lawson Shale

Utgaard, J. Paleocology and depositional history of rock strata associated with the Herrin (No. 6) Coal Member, Delta Mine, southern Illinois

Louisiana Limestone

Hoare, R. D. Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America

Maquoketa Formation

Woller, D. M. Public groundwater supplies in Henderson County
 Woller, D. M. Public groundwater supplies in Kane County

Maquoketa Group

Kolata, D. R. The Sandwich fault zone of northern Illinois

Maquoketa Shale

Droste, J. B. Geologic report of the Maquoketa Shale, New Albany Shale, and Borden Group rocks in the Illinois Basin as potential solid waste repository sites

Marcus Formation

Woller, D. M. Public groundwater supplies in Henderson County

McCormick Group

Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois

Menard Formation

Howard, R. H. Carboniferous cyclicity related to the development of the Mississippian-Pennsylvanian unconformity in the Illinois

Menard Limestone

Hoare, R. D. Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America

Mount Simon Aquifer

Keifer and Associates. Lake Michigan water allocation study

Mount Simon Formation

Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties
 Woller, D. M. Public groundwater supplies in Kane County

New Albany Formation

Woller, D. M. Public groundwater supplies in Henderson County

New Albany Shale

Barrows, M. H. Petrology and maturation of dispersed organic matter in New Albany Shale Group of Illinois Basin
 Droste, J. B. Geologic report of the Maquoketa Shale, New Albany Shale, and Borden Group rocks in the Illinois Basin as potential solid

New Albany Shale/Toulon Member

waste repository sites

New Richmond Formation

Woller, D. M. Public groundwater supplies in Kane County

Niagara Dolomite

Eisen, C. The effects of urbanization on ground-water quality; a case study

Oakland Till Member

Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois

Oneota Formation

Woller, D. M. Public groundwater supplies in Kane County

Palestine Limestone

Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district

Pearl Formation

Lineback, J. A. The status of the Illinoian glacial stage

Peoria Loess

King, F. B. Plant macrofossils from the Athens North Quarry
McKay, E. D. Wisconsinan loess stratigraphy of Illinois

Petersburg Silt

Lineback, J. A. The status of the Illinoian glacial stage

Piatt Till Member

Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois

Pine Point Formation

Jenkins, W. A. M. Stratigraphic ranges of selected Chitinozoa

Platteville Formation

Woller, D. M. Public groundwater supplies in Henderson County
Woller, D. M. Public groundwater supplies in Kane County

Platteville Group

Kolata, D. R. The Sandwich fault zone of northern Illinois

Potosi Formation

Woller, D. M. Public groundwater supplies in Kane County

Prairie du Chien Group

Kolata, D. R. The Sandwich fault zone of northern Illinois

Racine Formation

Woller, D. M. Public groundwater supplies in Henderson County
Woller, D. M. Public groundwater supplies in Kane County

Radnor Till Member

Lineback, J. A. The status of the Illinoian glacial stage

Rantoul Moraine

Wickham, J. T. Glacial geology of north-central and western Champaign County, Illinois

Roxana Silt

McKay, E. D. Wisconsinan loess stratigraphy of Illinois

Saint Peter Formation

Woller, D. M. Public groundwater supplies in Henderson County

Saint Peter Sandstone

Peterson, K. A. Geologic interpretations of ground water conditions in the Silurian and Cambrian-Ordovician aquifers of western Lake and western Cook counties

Sainte Genevieve Limestone

Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district

Salem Limestone

Hoare, R. D. Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America

Sangamon Soil

Follmer, L. R. A historical review of the Sangamon Soil

Sellers Limestone

Fraunfelter, G. H. Lower Pennsylvanian limestones in southern Illinois

Shakopee Formation

Woller, D. M. Public groundwater supplies in Kane County

Silica Shale Formation

Jenkins, W. A. M. Stratigraphic ranges of selected Chitinozoa

Spoon Formation

Palmer, J. E. Depositional environments of strata of late Desmoinesian age overlying the Herrin (No. 6) Coal Member in southwestern Illinois
Searight, T. K. The stratigraphy and sedimentation of the Abbott and lower portion of the Spoon formations in the outcrop belt of southern Illinois

St. Peter Formation

Woller, D. M. Public groundwater supplies in Kane County

Staunton Formation

Stidd, B. M. A new species of Heterangium from the Illinois Basin of North America

Sugar Run Formation

Woller, D. M. Public groundwater supplies in Kane County

Tar Springs Formation

Bridgett, L. S. Fission track dating of the Tar Springs Formation, a Mississippian Period sandstone of the Illinois Basin
Howard, R. H. Carboniferous cyclicity related to the development of the Mississippian-Pennsylvanian unconformity in the Illinois

Tar Springs Sandstone

Trace, R. D. Day 4; En route, Kentucky Dam Village State Resort Park to Cave-in-Rock Ferry, including western Kentucky fluorspar district

Teneriffe Silt

Lineback, J. A. The status of the Illinoian glacial stage

Tiskilwa Till Member

Wickham, S. S. Origin of the Tiskilwa Till, northern Illinois

Toulon Member

Lineback, J. A. The status of the Illinoian glacial stage

Vanport Limestone

Hoare, R. D. Stratigraphic
distribution of
Polyplacophora in the
Mississippian and
Pennsylvanian of North
America

Wapsipinican Formation

Jenkins, W. A. M.
Stratigraphic ranges of
selected Chitinozoa

Wapsipinicon Formation

Woller, D. M. Public
groundwater supplies in
Henderson County

Wedron Formation

Wickham, S. S. Origin of the
Tiskilwa Till, northern
Illinois

Wilhelmi Formation

Woller, D. M. Public
groundwater supplies in Kane
County

