

BIBLIOGRAPHY AND INDEX OF  
NEW JERSEY GEOLOGY  
1980

Geologic Report Series No. 12

NEW JERSEY GEOLOGICAL SURVEY  
Department of Environmental Protection

# Bibliography and Index of New Jersey Geology 1980

New Jersey Geological Survey  
Geologic Report Series No. 12

compiled by  
GeoRef Information System  
American Geological Institute  
Falls Church, Virginia

State of New Jersey  
Department of Environmental Protection

Thomas H. Kean, *Governor*  
Robert E. Hughey, *Commissioner*  
Frank J. Markewicz, *Acting State Geologist*

Trenton  
1982

## CONTENTS

	Page
Serials List .....	1
Bibliography .....	3
Subject Index .....	13
County Index .....	27
Rock-Unit Index .....	29

## BIBLIOGRAPHY AND INDEX OF NEW JERSEY GEOLOGY

### SERIALS LIST

- Acad. Nat. Sci. Phila., Proc. Academy of Natural Sciences of Philadelphia. Proceedings.
- Am. Mineral. American Mineralogist (Mineralogical Society of America, Journal). Washington, D. C.
- Coastal Eng. Coastal Engineering. Elsevier Scientific Publishing Company, Amsterdam.
- Coastal Zone Management J. Coastal Zone Management Journal. Crane, Russek & Co., New York.
- CRREL Rep. CRREL (Cold Regions Research and Engineering Laboratory) Report. Hanover, New Hampshire.
- Earth Sci. Earth Science. Colorado Springs, Colorado.
- Environ. Geol. Environmental Geology. Springer-Verlag, New York.
- Eos (Am. Geophys. Union, Trans.). Eos (American Geophysical Union, Transactions). Washington, D. C.
- Gems Miner. Gems and Minerals. Mentone, California.
- Geol. Assoc. Can.-Mineral. Assoc. Can., Jt. Annu. Meet., Program Abstr. Geological Association of Canada-Mineralogical Association of Canada, Joint Annual Meeting, Program with Abstracts.
- Geol. Soc. Am., Abstr. Programs. Geological Society of America, Abstracts with Programs. Boulder, Colorado.
- Geol. Soc. Am., Bull. Geological Society of America, Bulletin. Boulder, Colorado.
- Geology (Boulder). Geology (Geological Society of America). Boulder, Colorado.
- Geotherm. Resour. Council, Spec. Rep. Geothermal Resources Council, Special Report. [Davis, California].
- Indian Geotech. J. Indian Geotechnical Journal. New Delhi.
- J. Sediment. Petro. 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.
- Mineral. Rec. Mineralogical Record. Bowie, Maryland.
- N. J., Bur. Geol. Topogr., Bull. New Jersey, Bureau of Geology and Topography, Bulletin. Trenton.
- Nova Hedwigia, Beih. Nova Hedwigia, Beihefte. Lehre.
- Offshore Tech. Conf., Proc. Offshore Technology Conference, Proceedings.
- Palaeontogr., Abt. B. Palaeontographica, Abteilung B. Palaeophytologie. Stuttgart.
- Palynology. Palynology (American Association of Stratigraphic Palynologists). Dallas, Texas.
- Phys. Chem. Earth. Physics and Chemistry of the Earth. Pergamon Press, New York-London-Paris.
- Postilla. Postilla (Yale University, Peabody Museum of Natural History). New Haven, Connecticut.
- Rock Gem. Rock and Gem. Behm-Miller Publishers, Encino, California.
- Rockhound. Rockhound: Where and How to Find Gems and Minerals. Carter/Latnam, Conroe, Texas.
- Rocks Miner. Rocks and Minerals. Washington, D. C.
- Science (AAAS). Science (American Association for the Advancement of Science). Washington, D. C.
- Shore Beach. Shore and Beach (American Shore and Beach Preservation Association, Journal). Miami, Florida.

Soc. Explor. Geophys., Annu. Int. Meet., Abstr.  
Society of Exploration Geophysicists, Annual  
International Meeting, Abstracts.

Southeast. Geol. Southeastern Geology (Duke  
University, Department of Geology). Durham,  
North Carolina.

U. S. Dep. Agric., Soil Conserv. Serv., Soil  
Surv. Invest. Rep. U. S. Department of  
Agriculture, Soil Conservation Service, Soil  
Survey Investigation Report. [Washington, D.  
C.].

U. S. Geol. Surv., Geophys. Invest. Map. U. S.  
Geological Survey, Geophysical Investigations  
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

Va. Polytech. Inst., Dep. Geol. Sci., Mem.  
Virginia Polytechnic Institute, Department of  
Geological Sciences, Memoir. Blacksburg.

BIBLIOGRAPHY AND INDEX OF NEW JERSEY GEOLOGY

BIBLIOGRAPHY

- Adams, G. F. Fault patterns at the Peaback offset of the Ramapo border fault, New Jersey Triassic [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 21, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Adams, J. K. see Dobby, M. P.
- Adinolfi, F.; and Jacobson, S. A. Geologic correlation with other wells: in Geological and operational summary, COST No. B-3 Well, Baltimore Canyon trough area, Mid-Atlantic OCS (Amato, R. V., editor; et al.). U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 32-39, 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Aggarwal, Y. P. Lamont-Doherty network of stations in New York State and adjacent areas: 33 p., illus. (incl. tables, sketch maps), 4 ref., April 17, 1979. available from: U. S. Geol. Surv., United States.
- Alexander, R. H. Central Atlantic Regional Ecological Test Site: a prototype regional environmental information system: variously paginated, illus. (incl. tables, sketch maps), June 1979. available from: Natl. Aeronaut. and Space Admin., Greenbelt, Md., United States. Final report.
- Ali, M. Z. see Ehmann, W. D.
- Allen, J. R. Theoretical model of shore dynamics at Sandy Hook Spit, New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 21, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Anderson, L. see Patrick, R.
- Anderson, M. M. Pennatulaceans: a meagre fossil record [abstr.]: Geol. Assoc. Can.-Mineral. Assoc. Can., Jt. Annu. Meet., Program Abstr., Vol. 4, p. 36, 1979.
- Andrews, G. W. Morphologic variations in the Miocene diatom *Actinoptynchus heliopeneta* Grunow: in Fifth symposium on Recent and fossil diatoms: proceedings (Simonsen, R., editor), Nova Hedwigia, Beih., No. 64, p. 79-98, illus. (incl. plates), 23 ref., 1979.
- Anonymous. Geophysical exploration of geothermal resources in the eastern United States: in Evaluation and targeting of geothermal energy resources in the southeastern United States: progress report, October 1, 1978-March 30, 1979 (Costain, J. K.; et al.), p. C.4-C.12, illus. (incl. sketch maps), 1978. (Rep. No. VPI-SU-5648-5) available from: NTIS, Springfield, Va., United States.
- Anonymous. Minerals in the economy of New Jersey: in the collection State mineral profiles, U. S. Bur. Mines, Pittsburgh, Pa., United States, 16 p., illus. (incl. tables, sketch map), 4 ref., 1979.
- Anonymous. New Jersey [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 109, 1979.
- Ashley, G. M.; Halsey, S. D.; and Farrell, S. C. Evaluation of the suitability of Barnegat Inlet dredge spoil as beach nourishment for the northern end of Long Beach Island, New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 22, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Averill, S. P. Late Woodfordian history of the Hackensack River valley, N.J.-N.Y. [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 22, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Baird, D. *Pneumatoarthrus* Cope, 1870, not a dinosaur but a sea-turtle: Acad. Nat. Sci. Phila., Proc., Vol. 129, No. 4, p. 71-81, illus., 19 ref., 1977 [March 13, 1978].
- Balsam, W. L.; Heusser, L. E.; Pandolfi, R. G.; et al. Estimating paleo-environment from pollen in marine cores: an example from the western North Atlantic [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 11, No. 7, p. 383, August 1979. The Geological Society of America, 92nd annual meeting.
- Beavan, J.; and Bilham, R. Long series of strain observations from an aseismic area [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 60, No. 18, p. 316, May 1, 1979. American Geophysical Union: 1979 spring annual meeting. New Jersey.

Beavan/Costain

- Beavan, J. see also Hauksson, E.
- Bebaut, J. W.; and Lachance, D. J. Depositional environments: in Geological and operational summary, COST No. B-3 Well, Baltimore Canyon trough area, Mid-Atlantic OCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 40-48, chart, 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Behrendt, J. C. see Russ, D. P.
- Berthoud, C. E., Jr. Soil variability over short distances: Master's, 1977, Rutgers Univ., New Brunswick, N.J.
- Bilham, R. see Beavan, J.
- see Hauksson, E.
- Bopp, R. F. The geochemistry of polychlorinated biphenyls in the Hudson River: 207 p., Doctoral, 1979, Columbia Univ., New York, N.Y. available from: Univ. Microfilms.
- Bothner, M. H. see Hathaway, J. C.
- Brice, W. R. Charles Lyell and the geology of the Northeast [abstr.]: Geol. Soc. Am., Abstr. Programs, vol. 12, No. 2, p. 26, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Bukowski, F. Prehistoric residents of Essex County, New Jersey: Earth Sci., Vol. 32, No. 3, p. 111-112, illus., 1979.
- Bukowski, F. Cretaceous fossils from New Jersey and Delaware: Earth Sci., Vol. 39, No. 2, p. 55-60, illus., 1980.
- Butz, B. P. see Eisenstadt, G.
- Cameron, B.; Carreiro, M.; Newman, E.; et al. Algal and fungal shell-borings from the Late Cretaceous and early Tertiary of New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 27-29, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Carlson, G. R. Seismic velocity data and correlation: in Geological and operational summary, COST No. B-3 Well, Baltimore Canyon trough area, Mid-Atlantic OCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 49-56, illus. (incl. sketch map), 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Carreiro, M. see Cameron, B.
- Carvalho, A. V., III. Garnite-franklinite intergrowths at the Sterling Hill zinc deposit, Sussex County, New Jersey: an analytical and experimental study: Master's, 1978, Lehigh Univ., Bethlehem, Pa.
- Charles, R. D. see Demars, K. R.
- Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey: Palynology, Vol. 3, p. 73-121, illus. (incl. plates, strat. col.), 69 ref., 1978.
- Christopher, R. A. The stratigraphic distribution of Normapolles and triporate pollen in zones IV, V, and VII of the Raritan and Magothy formations, Upper Cretaceous, of New Jersey [abstr.]: in Abstracts of the Proceedings of the Tenth annual meeting of the American Association of Stratigraphic Palynologists (Bryant, V. M., editor), Palynology, Vol. 3, p. 281, 1979.
- Chyi, L. L. see Enmann, W. D.
- Cobb, L. B.; Radford, L.; and Glascock, M. Atlantic Coastal Plain geotherms: test holes, New Jersey: hole completion reports: 157 p., illus. (incl. tables, geol. sketch maps), March 1979. (Rep. No. NVD-1558-1) available from: NTIS, Springfield, Va., United States.
- Coch, N. K. see Krauser, R. F.
- Cogbill, A. M. Gravity data in the southeastern United States: in Evaluation and targeting of geothermal energy resources in the southeastern United States: progress report, April 1-June 30, 1978 (Costain, J. K.; et al.), p. C.65-C.110, illus. (incl. tables, sketch maps), 4 ref., 1978. (Rep. No. VPI-SU-5648-3) available from: NTIS, Springfield, Va., United States.
- Collins, A. The Allentown Dolomite: stratigraphy, petrology, and paleontology: Bachelor's, 1978, Bryn Mawr Coll., Bryn Mawr, Pa.
- Cooper, N. F. Trace element geochemistry and origin of the Andover iron deposit, Andover, New Jersey: Master's, June 1978, Univ. of Delaware, Newark, Del. manganese.
- Cornet, B. Angiosperm-like pollen with tectate-columellate wall structure from the Upper Triassic and Jurassic of the Newark Supergroup, U.S.A. [abstr.]: in Abstracts of the Proceedings of the Tenth annual meeting of the American Association of Stratigraphic Palynologists (Bryant, V. M., editor), Palynology, Vol. 3, p. 281-282, 1979.
- Costain, J. K. Geothermal exploration methods and results, Atlantic Coastal Plain: in Evaluation and targeting of geothermal energy resources in the southeastern United States: progress report, October 1, 1978-March 30, 1979 (Costain, J. K.; et al.), p. C.2-C.3, 2 ref., 1978. (Rep. No. VPI-SU-5648-5) available from: NTIS, Springfield, Va., United States.

- Costain, J. K. see also Lambiase, J. J.
- Crawford, W. A. see Spoljanic, N.
- Dashevsky, S. see Lambiase, J. J.
- Demars, K. R.; Charles, R. D.; and Richter, J. A. Geology and geotechnical features of the Mid-Atlantic continental shelf: Offshore Techn. Conf., Proc., No. 11, Vol. 1, p. 343-354, illus. (incl. tables, sects., sketch maps), 1979.
- Demir, I. see Turner, R. S.
- Dobday, M. P.; Adams, J. K.; and Eldridge, K. L. Late Holocene history of the Great Egg Harbor River estuary [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 31, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Dolan, R. see Hayden, E.
- see Hayden, E. P.
- Douglas, L. A.; and Trela, J. J. Mineralogy of Pine Barrens soils: in Pine Barrens: ecosystem and landscape (Forman, R. T. T., editor), Acad. Press, New York, N.Y., United States, p. 95-109, illus., 24 ref., 1979.
- Drake, A. A., Jr. The Taconides, Acadicides, and Alleghenides in the Central Appalachians: in Proceedings of "The Caledonides in the USA" (Wones, D. R., editor), Va. Polytech. Inst., Dep. Geol. Sci., Mem., No. 2, p. 179-187, illus. (incl. geol. maps; geol. map 1:6,000,000; geotech. map 1:31,680), 50 ref., 1980.
- Drake, A. A., Jr. (investigator). Late Alleghenian thrusting in New Jersey [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 60-61, sketch map, 1979.
- Dunn, P. J. Contributions to the mineralogy of Franklin and Sterling Hill, New Jersey: Mineral. Rec., Vol. 10, No. 3, p. 160-165, illus., 11 ref., May 1972.
- Dunn, P. J. The chemical composition of gapeite: an empirical formula: Am. Mineral., Vol. 64, No. 9-10, p. 1055-1058, table, 6 ref., October 1979.
- Dunn, P. J.; and Leavens, P. B. Yeatmanite: new data: Am. Mineral., Vol. 65, No. 1-2, p. 196-199, tables, 6 ref., February 1980.
- Dunn, P. J.; Peacor, D. R.; and Sturman, B. D. Kolicitic, a new manganese zinc silicate arsenate from Sterling Hill, Ogdensburg, New Jersey: Am. Mineral., Vol. 64, No. 7-8, p. 708-712, illus. (incl. tables), 5 ref., August 1979.
- Dunn, P. J.; Peacor, D. R.; and Sturman, B. D. Lawsonbauerite, a new mineral from the Sterling Hill Mine, New Jersey, and new data for torreyite: Am. Mineral., Vol. 64, No. 9-10, p. 949-952, illus. (incl. tables), 7 ref., October 1979.
- Dunn, P. J.; Peacor, D. R.; and Sturman, B. D. Hauckite,  $Fe^{3+}_3(Mg,Mn)_{24}Zn_{18}(SO_4)_4(CO_3)_2(OH)_8$ , a new mineral from Sterling Hill, New Jersey: Am. Mineral., Vol. 65, No. 1-2, p. 192-195, illus. (incl. tables), 2 ref., February 1980.
- Ehmann, W. D.; Chyi, L. L.; Garg, A. N.; et al. The distribution of zirconium and hafnium in terrestrial rocks, meteorites and the Moon: in Origin and distribution of the elements (Ahrens, L. H., editor), Phys. Chem. Earth, Vol. 11, p. 247-259, illus. (incl. tables), 42 ref., 1979.
- Eisenstadt, G.; and Butz, B. P. A computer-based, deterministic, finite-difference model of a barrier-spit, Long Beach Island, New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 33, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Eldridge, K. L. see Dobday, M. P.
- English, J. R. Diagenetic processes in the Oligocene-Miocene sediments: E-2 well, Baltimore Canyon trough: Master's, May 1978, Rutgers State Univ., New Brunswick, N.J.
- Farrell, S. C. see Ashley, G. M.
- Felder, W. see Hayden, E.
- Felder, W. N. see Hayden, E. P.
- Fletcher, S. J. Soil survey of Warren County, New Jersey: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 180 p., illus. (incl. tables, sketch maps; soils maps 1:15,840; colored soils map 1:190,080), 11 ref., April 1979. (Publ. in cooperation with N.J. Agric. Exp. Stn., Cook Coll., Rutgers State Univ.; New Jersey Soil Conserv. Comm., N.J. Dep. Agric.; Warren County Board of Chosen Freeholders).
- Forman, R. T. T. (editor). Pine Barrens: ecosystem and landscape: Akad. Press, New York, N.Y., United States, 601 p., illus. (incl. sketch maps, tables), 1979. Individual papers in scope cited separately.
- Franceschini, T. Incremental strain analysis in the Martinsburg Formation along a section of the Portland Fault near Newton, New Jersey: Master's, October 1978, Rutgers State Univ., New Brunswick, N.J.
- Freeland, G. L. see Swift, D. J. P.
- Fry, C. E. Geothermal gradient: in Geological and operational summary, COST No. E-3 Well,

- Baltimore Canyon trough area, Mid-Atlantic OCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 64-65, illus., 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Fusillo, T. V. (investigator). Impact of land-use changes on water resources [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 115C, p. 109, 1979.
- Fusillo, T. V.; and Schornick, J. C. (investigators). Relation between pH and fish kills in Oyster Creek, New Jersey [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 115C, p. 221, 1979.
- Garg, A. N. see Enmann, W. D.
- Geiger, F. see Puffer, J. H.
- Geiger, F. J.; Puffer, J. H.; and Lechler, P. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 37, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Geiser, P. A. Cleavage in Lower and Middle Devonian rocks of the Hudson and Delaware River valleys: its implications for Appalachian tectonics [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 37, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Geodata International. Aerial radiometric and magnetic survey; national topographic map; Salisbury, Virginia, New Jersey, Delaware, Maryland; variously paginated, illus. (incl. geol. map 1:500,000; geophys. surv. maps 1:500,000), 1980. (Rep. No. GJ BX-37-80) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, Colo., United States. Includes microfiche.
- Geodata International. Aerial radiometric and magnetic survey, Wilmington National Topographic Map, Delaware/Maryland/New Jersey/Pennsylvania, Southeast U.S. Project; variously paginated, geol. map 1:500,000, geophys. surv. map 1:500,000, 1980. (Rep. No. GJ BX-68-80) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, Colo., United States. Includes microfiche.
- Germaine, M. Collections and displays: Morris Museum of Arts and Sciences: Rocks Mineral., Vol. 54, No. 6, p. 240-243, illus. (incl. sketch map), December 1979.
- Gilbert, F. P. see Zietz, I.
- Glascock, M. see Cobb, L. B.
- Gleason, R. J. see Lambiase, J. J.
- Glover, L., III. Study of the pre-Cretaceous basement below the Atlantic Coastal Plain: in Evaluation and targeting of geothermal energy resources in the southeastern United States; progress report, October 1, 1976-March 30, 1979 (Costain, J. K.; et al.), p. A.60-A.83, illus. (incl. sketch maps), 10 ref., 1978. (Rep. No. VPI-SU-5648-5) available from: NTIS, Springfield, Va., United States.
- Grandstaff, D. E. see Schulz, E. B.
- Grasso, S. V. An analysis of the factors affecting the distribution of heavy metals in a tidal estuary: 286 p., Doctoral, 1979. Rutgers State Univ., New Brunswick, N.J. available from: Univ. Microfilms.
- Grauch, R. I.; and Ludwig, K. R. Precambrian uranium mineralization in the central Appalachians [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 39, table, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Greenberg, M. R. Impact of industrial activity on water quality: in Sourcebook on the environment: a guide to the literature (Hammond, K. A., editor; et al.), Univ. Chic. Press, Chicago, Ill., United States, p. 205-219, table, 90 ref., 1978.
- Grow, J. A.; Klitgord, K.; Schlee, J. S.; et al. The ocean-continent transition zone off southern New Jersey [abstr.]: Soc. Explor. Geophys., Annu. Int. Meet., Abstr., No. 49, p. 93, 1979.
- Grow, J. A.; Klitgord, K.; Schlee, J. S.; et al. The ocean-continent transition zone off southern New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 40, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Grow, J. A.; Klitgord, K. D.; Schlee, J. S.; et al. The ocean-continent transition zone off southern New Jersey [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 60, No. 18, p. 374-375, May 1, 1979. American Geophysical Union; 1979 spring annual meeting.
- Halasi-Kun, G. J. Land oriented reference data system in New Jersey: LORDS: in Proceedings of university seminar on pollution and water resources; Volume IX, 1975-1978 (Halasi-Kun, G. J., editor; et al.), N. J., Bur. Geol. Topogr., Bull., No. 75-C, p. G.1-G.36, illus. (incl. tables, geol. sketch maps), 13 ref., 1978.
- Halsey, S. D. The origin of linear shoals: central Mid-Atlantic coast and inner continental shelf [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 11, No. 7, p. 437, August 1979. The Geological Society of

- America. 92nd annual meeting.
- Haisey, S. D. see also Ashley, G. M.
- 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.
- Harper, D. P. Atlas of aerial photography and satellite imagery: N.J. Bur. Geol. Topogr., Trenton, N.J., United States, 42 p., illus. (incl. sketch maps), February 1977.
- Harper, D. P. Segregation and deposition of particle size-classes by hydrodynamic forces: in Proceedings of university seminar on pollution and water resources: Volume IX, 1975-1978 (Halasi-Kun, G. J., editor; et al.), N. J. Bur. Geol. Topogr., Bull., No. 75-C, p. H.1-H.12, illus. (incl. sketch map), 33 ref., 1978.
- Harris, P. W. "Diamond" hunting by the sea: Gems Miner., No. 497, p. 8, illus., March 1979. quartz.
- Hathaway, J. C.; Poag, C. W.; Valentine, P. C.; et al. U. S. Geological Survey core drilling on the Atlantic shelf: Science (AAAS), Vol. 206, No. 4418, p. 515-527, illus. (incl. tables, sketch maps), 108 ref., November 2, 1979.
- Hauksson, E.; Beavan, J.; and Bilham, R. Improved carbon-fiber extensometers [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 60, No. 46, p. 936, November 13, 1979. American Geophysical Union; 1979 fall annual meeting.
- Hayden, B.; Dolan, R.; and Felder, W. Spatial and temporal analyses of shoreline variations: Coastal Eng., Vol. 2, No. 4, p. 351-361, illus. (incl. tables, sketch map), 4 ref., May 1979.
- Hayden, B. P.; Dolan, R.; Rea, C. C.; et al. Erosion rates: how representative are they?: Shore Beach, Vol. 47, No. 2, p. 25-30, illus. (incl. tables, geol. sketch maps), 2 ref., April 1979.
- Heffner, J. D. Newark 1 degrees X 2 degrees NTMS area, New Jersey, New York, and Pennsylvania: data report: hydrogeochemical and stream sediment reconnaissance: 50 p., illus. (incl. tables; geol. map 1:250,000; econ. geol. maps 1:250,000), 56 ref., April 1980. (Rep. No. DPST-79-146-9) (Rep. No. GJBX-128-80) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, Colo., United States. National Uranium Resource Evaluation Program; includes appendices and microfiche.
- Heusser, C. J. Vegetational history of the Pine Barrens: in Pine Barrens: ecosystem and landscape (Forman, R. T. T., editor), Acad. Press, New York, N. Y., United States, p. 215-227, illus., 65 ref., 1979.
- Heusser, L. E. see Balsam, W. L.
- Hildenbrand, T. G. see Russ, D. P.
- Hole, T. J. F.; and Smith, H. C. Soil survey of Ocean County, New Jersey: U. S. Dep. Agric., Soil Conserv. Serv., Washington, D.C., United States, 102 p., illus. (incl. tables, plates; soils maps 1:20,000; colored soils map 1:253,440), 13 ref., April 1980. (Publ. in cooperation with N.J. Agric. Exp. Stn., Rutgers State Univ., Cook Coll., and N.J. Dep. Agric., Soil Conserv. Serv.).
- Hurtubise, D. D. see Puffer, J. H.
- Jacobson, S. A. see Acinolfi, F.
- Jannik, N. O. Recurved spit development and related beach processes on Horseshoe Spit (bayside), Sandy Hook, New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 43, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Johnson, A. H. Evidence of acidification of headwater streams in the New Jersey Pinelands: Science (AAAS), Vol. 206, No. 4420, p. 834-836, illus. (incl. table), 17 ref., November 16, 1979.
- Johnson, A. H. Acidification of headwater streams in the New Jersey Pine Barrens [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 43, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Jones, B. Franklin revisited: Rock Gem, Vol. 9, No. 12, p. 36-40, 92-94, illus. (incl. plates), December 1979.
- Kaarlela, E. V. Environmental considerations: in Geological and operational summary, COST No. E-3 Well, Baltimore Canyon trough area, Mid-Atlantic DCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 106-108, 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Kastelic, R. L., Jr. Origin of the Washington magnetite deposit, Warren County, New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 44, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Kastelic, R. L., Jr. Precambrian geology and magnetite deposits of the New Jersey highlands in Warren County, New Jersey: U. S. Geol. Surv., Open-File Rep., No. 80-789, 155 p., illus., 1980. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Keenan, E. Sources of fatty acids in sediments from the Hudson Estuary [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p.

- 44-45, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Kirby, J. R., Jr. see Zietz, I.
- Klitgord, K. see Grow, J. A.
- Klitgord, K. D. see Grow, J. A.
- Knebel, M. J. (investigator). An ancestral Hudson River valley of the Continental Shelf off New Jersey [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 142, 1979.
- Kohout, F. A. see Hathaway, J. C.
- Krauser, R. F. The sediment distribution and geomorphology of Brigantine Inlet, New Jersey: Master's, 1977, Queens Coll. (CUNY), Flushing, N.Y.
- Krauser, R. F.; and Coch, N. K. Sediment dynamics and textural facies in the Brigantine Inlet area, New Jersey: in Proceedings of university seminar on pollution and water resources: Volume IX, 1975-1978 (Halasi-Kun, G. J., editor; et al.), N. J. Bur. Geol. Topogr., Bull., No. 75-C, p. J.1-J.47, illus. (incl. table, sketch maps), 41 ref., 1978.
- Lachance, D. J. Lithology: in Geological and operational summary, COST No. E-3 Well, Baltimore Canyon trough area, Mid-Atlantic OCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 13-20, 1979, available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Lachance, D. J. see also Bebout, J. W.
- Lambiase, J. J.; Dashevsky, S.; Costain, J. K.; et al. Geothermal resource potential of the northern Atlantic Coastal Plain: in Evaluation and targeting of geothermal energy resources in the southeastern United States; progress report, October 1, 1978-March 30, 1979 (Costain, J. K.; et al.), p. C.20-C.27, sketch maps, 7 ref., 1978. (Rep. No. VPI-SU-5648-5) available from: NTIS, Springfield, Va., United States.
- Leavens, P. B. see Dunn, P. J.
- Lechler, P. see Puffer, J. H.
- Lechler, P. J. see Geiger, F. J.
- Levy, J. B. Comparison of texture, mineralogy, and organic content of suspended, accumulating, and bottom sediments within a coastal lagoon, Stone Harbor, New Jersey: Master's, 1978, Lehigh Univ., Bethlehem, Pa.
- Libby-French, J. Operational data: in Geological and operational summary, COST No. E-3 Well, Baltimore Canyon trough area, Mid-Atlantic OCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 4-12, illus., 1979, available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- LKB Resources. NURE aerial gamma ray and magnetic detail survey; Reading Prong area; variously paginated, illus. (incl. econ. geol. maps 1:62,500; magn. surv. maps 1:62,500), January 1980. (Rep. No. GJBX-90-80) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, Colo., United States. In two volumes; includes microfiche; National Uranium Resource Evaluation Program.
- Ludwig, K. R. see Grauch, R. J.
- Malinowski, M. J. Core descriptions and analyses: in Geological and operational summary, COST No. E-3 Well, Baltimore Canyon trough area, Mid-Atlantic OCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 66-80, illus. (incl. tables), 1979, available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Manheim, F. T. see Hathaway, J. C.
- Marine Resource Development Corporation. The offshore mining of construction minerals in the greater New York metropolitan area; a feasibility survey: 159 p., illus. (incl. tables, sketch maps), 35 ref., 1979, available from: U. S. Geol. Surv., Menlo Park, Calif., United States.
- Markley, M. L. Soil series of the Pine Barrens: in Pine Barrens; ecosystem and landscape (Forman, R. T. T., editor), Acad. Press, New York, N.Y., United States, p. 81-93, illus. (incl. tables), 13 ref., 1979.
- Mathis, J. M.; and Sclar, C. B. The oxidation and titanium-enrichment mechanism of "altered ilmenite" grains in the Tertiary Kirkwood and Conansy formations of New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 72, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Matson, B. see Patrick, R.
- Mattick, R. E. see Grow, J. A.
- Maurmeyer, E. M. Quantification of overwash threshold conditions, Delaware Bay shoreline [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 72, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- May, F. E. Dinoflagellate cysts of the Gymnodiniaceae, Peridiniaceae, and Gonyaulacaceae from the Upper Cretaceous Monmouth Group, Atlantic Highlands, New Jersey: Palaeontogr., Abt. B, Vol. 172, No. 1-4, p. 10-116, illus. (incl. tables, plates), 215 ref., January 1980.

- McClung, W. S. see Lambiasi, J. J.
- McKinney, T. F. Regional geomorphology in the inner New Jersey shelf (1975): in Proceedings of University seminar on pollution and water resources; Volume XI, 1975-1978 (Halasi-Kun, G. J., editor; et al.), N. J. Bur. Geol. Topogr. Bull., No. 75-E, p. F.1-F.18, illus. (incl. sect., sketch maps), 27 ref., 1978.
- Miller, K. G. see Olsson, R. K.
- Miller, R. E. see Hathaway, J. C.
- Mock, S. J. Topological properties of some trellis pattern channel networks: CRREL Rep., No. 76-46, 50 p., illus. (incl. tables, geol. sketch map), 27 ref., December 1976.
- Moir, R. see Swift, D. J. P.
- Mulcahy, S. A. see Balsam, W. L.
- Newman, E. see Cameron, B.
- Nichols, R. R. Interpretation of geophysical logs: in Geological and operational summary, COST No. E-3 well, Baltimore Canyon trough area, Mid-Atlantic DCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 57-63, illus. (incl. tables), 1979, available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Nordstrom, K. F. An energy-mobility beach classification system as a basis for the management of beach resources: Coastal Zone Management U., Vol. 5, No. 4, p. 333-351, table, sketch maps, 26 ref., 1979.
- Nordstrom, K. F. The effect of differences in wave climate on swash zone sediments [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 75, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting, New Jersey, Sandy Hook.
- Olsen, C. R. Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary: 263 p., Doctoral, 1979, Columbia Univ., New York, N.Y. available from: Univ. Microfilms.
- Olsen, P. E. A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia: Postilla, No. 176, 14 p., illus. (incl. sketch map, table, stratigr. sect.), 27 ref., May 3, 1979. *Tanytrachelos ahynis*.
- Olsson, R. K.; Miller, K. G.; and Ungrady, T. E. Late Oligocene Piney Point transgression of Atlantic Coastal Plain [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 76, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Paddison, F. C. A prospectus for geothermal energy: the Atlantic Coastal Plain: in A symposium of geothermal energy and its direct uses in the eastern United States (Anonymous), Geotherm. Resour. Council, Spec. Rep., No. 5, p. 99-100, illus. (incl. sketch map), 1 ref., April 1979.
- Pandel, R. G. see Balsam, W. L.
- Patrick, R.; Matson, B.; and Anderson, L. Streams and lakes in the Pine Barrens: in Pine Barrens: ecosystem and landscape (Forman, R. T. T., editor), Acad. Press, New York, N.Y., United States, p. 169-193, illus. (incl. tables), 37 ref., 1979.
- Peacor, D. R. The crystal structure of kalicite,  $Mn_{7/4}(OH)_{1/4}[As_{1/2}Zn_{1/4}Si_{1/2}O_{16}(OH)_{1/4}]$ : Am. Mineral., Vol. 65, No. 5-6, p. 483-487, illus. (incl. tables), 8 ref., June 1980. Univ. Mich., Mineral. Lab.; Contrib. No. 356.
- Peacor, D. R. see also Dunn, P. J.
- Pendleton, M. W. Cemented Pleistocene gravels of northern New Jersey: Master's, 1973, Rutgers State Univ., New Brunswick, N. J.
- Perry, L. D. Heat flow in the Atlantic Coastal Plain: in Evaluation and targeting of geothermal energy resources in the southeastern United States; progress report, October 1, 1978-March 30, 1979 (Costain, J. K.; et al.), p. C.28-C.51, illus. (incl. tables, sketch map), 1978, (Rep. No. VPI-SU-5648-5) available from: NTIS, Springfield, Va., United States.
- Pesceckis, L.; and Sykes, L. R. P-wave residuals in the northeastern United States and their relationship to major structural features [abstr.]: Eos (Am. Geophys. Union, Trans.), Vol. 60, No. 18, p. 311, May 1, 1979. American Geophysical Union; 1979 spring annual meeting.
- Poag, C. W. see Hathaway, J. C.
- Puffer, J. H.; Hurtubise, D. O.; Geiger, F.; et al. A geochemical comparison of the Mesozoic basalt flows of Connecticut with those of New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 78, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Puffer, J. H.; and Lechler, P. Geochemical cross sections through the Watchung Basalt of New Jersey: Geol. Soc. Am., Bull., Vol. 91, No. 1, p. I 7-I 10, II 156-II 191, illus. (incl. tables, geol. sketch map), 50 ref., January 1980, print, microfiche.
- Puffer, J. H.; Russell, E. W. B.; and Rampino, M. R. Distribution and origin of magnetite spherules in air, waters, and sediments of the greater New York City area and the North Atlantic ocean: J. Sediment. Petrol., Vol.

Puffer/Steinkraus

- 50, No. 1, p. 247-256, illus. (incl. tables, sketch map), 30 ref., March 1980.
- Puffer, J. H. see also Geiger, F. J.
- Radford, L. see Cobb, L. B.
- Rampino, M. R.; and Sanders, J. E. Youngest Pleistocene marginal marine unit from the inner shelf off eastern North America; mid-Wisconsinan or early Wisconsinan? [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 78, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Rampino, M. R. see also Puffer, J. H.
- Ratcliffe, N. M. see Russ, D. P.
- Rea, C. C. see Hayden, E. P.
- Rehm, J. M., Jr. Landslide potential in the Atlantic Highlands of New Jersey: Master's, 1977, Rutgers Univ., New Brunswick, N.J.
- Rehmer, J. Petrology of the Esopus Shale: Lower Devonian, New York and adjacent states: Doctoral, 1976, Harvard Univ., Cambridge, Mass.
- Rhodehamel, E. C. Geology of the Pine Barrens of New Jersey: in Pine Barrens: ecosystem and landscape (Forman, R. T. T., editor), Acad. Press, New York, N.Y., United States, p. 39-60, illus., 56 ref., 1979.
- Rhodehamel, E. C. Hydrology of the New Jersey Pine Barrens: in Pine Barrens: ecosystem and landscape (Forman, R. T. T., editor), Acad. Press, New York, N.Y., United States, p. 147-167, illus. (incl. tables), 73 ref., 1979.
- Richter, J. A. see Demars, K. R.
- Robertson, D. K. Hydrologic impact in New Jersey; an analytical model approach: Montclair State Coll., Dep. Geogr. and Urban Stud., Upper Montclair, N.J., United States, 35 p., illus. (incl. tables, sketch maps), 11 ref., 1976.
- Robinson, W. J. see Balsam, W. L.
- Russ, D. P.; Hilderbrand, T. G.; Wentworth, C. M., Jr. (investigators); et al. Eastern United States [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 247-248, 1979.
- Russell, E. W. B. see Puffer, J. H.
- Samsel, W. A. A study of the longitudinal distribution of velocity in the upper Whippany River, New Jersey: Master's, 1973, Rutgers State Univ., New Brunswick, N.J.
- Sanders, J. E. see Rampino, M. R.
- Sangrey, D. A. see Hathaway, J. C.
- Saxena, S. K.; and Singh, H. Instantaneous deformation analysis of gravity structure: Indian Geotech. J., Vol. 8, No. 2, p. 61-80, illus. (incl. tables, sects.), 14 ref., April 1978. New Jersey, nuclear facilities, offshore.
- Schlee, J. S. see Grow, J. A.
- Schornick, J. C. see Fusillo, T. V.
- Schultz, D. M. see Hathaway, J. C.
- Schulz, E. B.; and Grandstaff, D. E. Trace element concentrations in Mercenaria mercenaria from Great Bay, New Jersey [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 81, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Solar, C. B. see Mathis, J. M.
- Shelton, B.; and Webster, B. Mineral collector's field guide: the Northeast: Mineralogy, Wallingford, Conn., United States, 136 p., illus. (incl. sketch maps), 1979.
- Sidar, J. New Jersey geological surveys in the 19th century [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 59, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- Simonis, E. K. Petroleum potential: in Geological and operational summary, COST No. B-3 Well, Baltimore Canyon trough area, Mid-Atlantic DCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 100-105, 1979, available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Singh, H. see Saxena, S. K.
- Smith, H. C. see Hole, T. J. F.
- Smith, M. A. Geochemical analysis: in Geological and operational summary, COST No. B-3 Well, Baltimore Canyon trough area, Mid-Atlantic DCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 31-99, illus. (incl. tables), 1979, available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Spoljaric, N.; and Crawford, W. A. Removal of contaminants from landfill leachates by filtration through glauconitic greensands: Environ. Geol., Vol. 2, No. 6, p. 359-363, illus. (incl. tables, sketch map), 6 ref., 1979.
- Steinkraus, W. E. Biostratigraphy: in Geological and operational summary, COST No. B-3 Well, Baltimore Canyon trough area, Mid-Atlantic DCS (Amato, R. V., editor; et al.), U. S. Geol. Surv., Open-File Rep., No. 79-1159, p. 21-31, 1979, available from: U. S.

- Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- Sturman, B. D. see Dunn, P. J.
- Svetlichny, M. Lithologic analysis of sediment samples from the intermediate drilling program: in Evaluation and targeting of geothermal energy resources in the southeastern United States; progress report, October 1, 1978-March 30, 1979 (Costain, J. K.; e. a.), p. C.52-C.138, tables, 1979. (Rep. No. VPI-SU-5648-5) available from: NTIS, Springfield, Va., United States.
- Swanson, K. A. see Turner, R. S.
- Swift, D. J. P.; Moir, R.; and Freeland, G. L. Quaternary rivers on the New Jersey shelf: relation of seafloor to buried valleys: Geology (Boulder), Vol. 8, No. 6, p. 276-280, illus. (incl. sketch maps), 23 ref., June 1980.
- Sykes, L. R. see Peseckis, L.
- Tedrow, J. C. F. Development of Pine Barrens soils: in Pine Barrens: ecosystem and landscape (Forman, R. T. T., editor), Acad. Press, New York, N.Y., United States, p. 61-79, illus., 23 ref., 1979.
- Thomsen, E. see Cameron, B.
- Trela, J. J. see Douglas, L. A.
- Turner-Peterson, C. (investigator). Organo-clay complexes in uranium deposits [abstr.]: U. S. Geol. Surv., Prof. Pap., No. 1150, p. 44, 1979.
- Turner-Peterson, C. E. Sedimentology and uranium mineralization in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey: in Uranium in sedimentary rocks; application of the facies concept to exploration (Turner-Peterson, C. E., editor), Soc. Econ. Paleontol. Mineral., Rocky Mt. Sect., Denver, Colo., United States, p. 149-171, illus. (incl. sects.), 59 ref., 1980.
- Turner, R. S.; Swanson, K. A.; and Demir, I. Lead retention and movement in a forested watershed in the New Jersey Pine Barrens [abstr.]: Geol. Soc. Am., Abstr. Programs, Vol. 12, No. 2, p. 88-89, January 1980. The Geological Society of America, Northeastern Section, 15th annual meeting.
- U. S. Bureau of Land Management. 1979 outer continental shelf oil and gas lease sale offshore the Mid-Atlantic states: in the collection CCS Sale, U. S. Bur. Land Manage., New York, N.Y., United States, Vol. 49, variously paginated, illus. (incl. tables, sketch maps), 1979. In three volumes; draft environmental impact statement; proposed.
- U. S. Department of Agriculture, Soil Conservation Service. Soil Survey Laboratory data and descriptions for some soils of New Jersey: U. S. Dep. Agric., Soil Conserv. Serv., Soil Surv. Invest. Rep., No. 26, 103 p., tables, August 1974. Prepared in cooperation with New Jersey Agricultural Experiment Station; Rutgers University.
- U. S. Geological Survey. Land use and land cover, 1974, Newark, New Jersey; Pennsylvania; New York: Land Use Land Cover Maps, L-Ser., No. L-33, 1 sheet, colored environ. geol. map 1:250,000, 1979.
- U. S. Geological Survey. Land use and land cover, 1974, Scranton, Pennsylvania; New York: New Jersey: Land Use Land Cover Maps, L-Ser., No. L-25, 1 sheet, colored environ. geol. map 1:250,000, 1979.
- U. S. Geological Survey. Land use and land cover, 1973, Salisbury, Maryland; Delaware; New Jersey; Virginia: Land Use Land Cover Maps, L-Ser., No. L-65, 1 sheet, colored environ. geol. map 1:250,000, 1979.
- U. S. Geological Survey. Land use and land cover, 1970-76, Hartford, Connecticut; New York; New Jersey; Massachusetts: Land Use Land Cover Maps, L-Ser., No. L-79, 1 sheet, colored environ. geol. map 1:250,000, 1979.
- U. S. Geological Survey. Land use and land cover, 1972-73, New York, New York; New Jersey; Connecticut: Land Use Land Cover Maps, L-Ser., No. L-82, 1 sheet, colored environ. geol. map 1:250,000, 1979.
- U. S. Geological Survey. Aeroradioactivity map of parts of Delaware and New Jersey: U. S. Geol. Surv., Open-File Rep., No. 79-1646, 2 sheets, geophys. surv. map, 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- U. S. Geological Survey. Aeromagnetic map of parts of Delaware and New Jersey: U. S. Geol. Surv., Open-File Rep., No. 79-1683, 2 sheets, magn. surv. map, 1979. available from: U. S. Geol. Surv., Open-File Serv. Sect., Branch Distrib., Denver, Colo., United States.
- U. S. Geological Survey. Land use and land cover, 1972, Wilmington, Delaware; New Jersey; Pennsylvania; Maryland: Land Use Land Cover Maps, L-Ser., No. L-38, 1 sheet, colored environ. geol. map 1:250,000, 1979 [1980].
- U. S. Geological Survey. Water resources data for New Jersey, water year 1978; Volume 1, Atlantic slope basins, Hudson River to Cape May: 368 p., 1979. (Rep. No. PE-80 116 52E) available from: NTIS, Springfield, Va., United States.
- U. S. Geological Survey. Water resources data for New Jersey, water year 1978; Volume 2, Delaware River basins and tributaries to Delaware Bay: 311 p., 1979. (Rep. No. PE-80 116 53E) available from: NTIS, Springfield.

U. S. Geological Survey/Zietz

Va., United States.

Ungrady, T. E. see Olsson, R. K.

Valentine, P. C. see Hathaway, J. C.

Webster, B. see Shelton, B.

Wentworth, C. M., Jr. see Russ, D. P.

White, W. A. Influence of glacial meltwater in the Atlantic Coastal Plain. Southeast. Geol., Vol. 19, No. 3, p. 139-156, illus. (incl sketch maps). 22 ref., May 1978.

Williams, R. E., Jr. Remote sensing techniques applied to mineral exploration in the heavily vegetated terrain of the Reading Prong of New York and New Jersey: Master's, 1979, Stanford Univ., Stanford, Calif.

Wright, D. W. Cape May jewels: Rockhound, Vol. 6, No. 3, p. 26-31, plates, sketch map, October 1979.

Wu, J. S. Development and application of a stormwater assessment model (SWAM) 268 p., Doctoral, 1980, Rutgers State Univ., New Brunswick, N.J. available from: Univ. Microfilms.

Yu, Y. K. Groundwater pollution potential of confined land disposal of dredged material: Doctoral, 1979, Univ. of Southern California, Los Angeles, Calif. available from: Univ. Microfilms.

Zietz, I.; Gilbert, F. P.; and Kirby, J. R., Jr. Aeromagnetic map of Delaware, Maryland, Pennsylvania, West Virginia, and parts of New Jersey and New York: U. S. Geol. Surv., Geophys. Invest. Map, No. GP-927, 1 sheet, aeromagn. map 1:1,000,000, 1980.

BIBLIOGRAPHY AND INDEX OF NEW JERSEY GEOLOGY

SUBJECT INDEX

- absolute age** *see also*  
geochronology: isotopes
- absolute age--dates**  
*metamorphic rocks:*  
Precambrian uranium  
mineralization in the  
central Appalachians  
(Grauch, R. I.)
- peat:** Late Holocene history  
of the Great Egg Harbor  
River estuary (Dobay, M.  
P.)
- Late Woodfordian history  
of the Hackensack River  
valley, N.J.-N.Y.  
(Averill, S. P.)
- sediments:** Youngest  
Pleistocene marginal  
marine unit from the inner  
shelf off eastern North  
America: mid-Wisconsinan  
or early Wisconsinan?  
(Rampino, M. R.)
- aeromagnetic surveys** *see*  
magnetic surveys *under*  
geophysical surveys
- algae--diatoms**  
*Miocene:* Morphologic  
variations in the Miocene  
diatom *Actinoptychus*  
*heliopelta* Grunow  
(Andrews, G. W.)
- algae--nanofossils**  
*Tertiary:* Biostratigraphy  
(Stainkrais, W. E.)
- algae--occurrence**  
*endolithic taxa:* Algal and  
fungal shell-borings from  
the Late Cretaceous and  
early Tertiary of New  
Jersey (Cameron, B.)
- Appalachians--economic geology**  
*uranium:* Precambrian  
uranium mineralization in  
the central Appalachians  
(Grauch, R. I.)
- Appalachians--general**  
*history:* Charles Lyell and  
the geology of the  
Northeast (Brice, W. R.)
- Appalachians--structural  
geology**  
*foliation:* Cleavage in  
Lower and Middle Devonian  
rocks of the Hudson and  
Delaware River valleys:  
its implications for  
Appalachian tectonics  
(Geiser, P. A.)
- tectonics:* The Taconides,  
Acadocides, and Alleghenides  
in the Central  
Appalachians (Drake, A.  
A., Jr.)
- arsenates** *see under* minerals
- associations--seismology**  
*Lamont-Doherty Geological  
Observatory:*  
Lamont-Doherty network of  
stations in New York State  
and adjacent areas  
(Aggarwal, Y. P.)
- Atlantic Coastal  
Plain--economic geology**  
*geothermal energy:* A  
prospectus for geothermal  
energy: the Atlantic  
Coastal Plain (Paddison,  
F. C.)
- Atlantic Coastal Plain  
geothermal test holes, New  
Jersey: hole completion  
reports (Cobb, L. B.)
- Geophysical exploration  
of geothermal resources in  
the eastern United States  
(Anonymous)
- Geothermal exploration  
methods and results,  
Atlantic Coastal Plain  
(Costain, J. K.)
- Geothermal resource  
potential of the northern  
Atlantic Coastal Plain  
(Lambiase, J. J.)
- heavy minerals:** The  
oxidation and  
titanium-enrichment  
mechanism of "altered  
ilmenite" grains in the  
Tertiary Kirkwood and  
Cohansey formations of New  
Jersey (Mathis, J. M.)
- petroleum:** Petroleum  
potential (Simonis, E. K.)
- Atlantic Coastal  
Plain--engineering geology**  
**earthquakes:** Eastern United  
States (Russ, D. P.)
- Atlantic Coastal  
Plain--environmental geology**  
**geologic hazards:**  
*Environmental  
considerations* (Kaariela,  
E. V.)
- land use:** Land use and land  
cover, 1972, Wilmington,  
Delaware; New Jersey;  
Pennsylvania; Maryland (U.  
S. Geological Survey)
- Land use and land cover,  
1973, Salisbury, Maryland;  
Delaware; New Jersey;  
Virginia (U. S. Geological  
Survey)
- maps:** Land use and land  
cover, 1972, Wilmington,  
Delaware; New Jersey;  
Pennsylvania; Maryland (U.  
S. Geological Survey)
- Land use and land cover,  
1973, Salisbury, Maryland;  
Delaware; New Jersey;  
Virginia (U. S. Geological  
Survey)
- pollution:** Distribution and  
origin of magnetite  
spherules in air, waters,  
and sediments of the  
greater New York City area  
and the North Atlantic  
ocean (Puffer, J. H.)
- Atlantic Coastal  
Plain--geochemistry**  
**organic materials:**  
*Geochemical analysis*  
(Smith, M. A.)
- Atlantic Coastal  
Plain--geochronology**  
*Pleistocene:* Youngest  
Pleistocene marginal  
marine unit from the inner  
shelf off eastern North  
America: mid-Wisconsinan  
or early Wisconsinan?  
(Rampino, M. R.)
- Atlantic Coastal  
Plain--geomorphology**  
**changes of level:** The  
origin of linear shoals;  
central Mid-Atlantic coast  
and inner continental  
shelf (Halsey, S. D.)

Atlantic Coastal Plain/automatic data processing

- glacial geology: Influence of glacial meltwater in the Atlantic Coastal Plain (White, W. A.)
- processes: Quantification of overwash threshold conditions, Delaware Bay shoreline (Maurmeyer, E. M.)
- Atlantic Coastal Plain--geophysical surveys**
- heat flow: Geophysical exploration of geothermal resources in the eastern United States (Anonymous)
- Geothermal gradient (Fry, C. E.)
  - Heat flow in the Atlantic Coastal Plain (Perry, L. D.)
- seismic surveys: Seismic velocity data and correlation (Carlson, G. R.)
- well-logging: Core descriptions and analyses (Malinowski, M. J.)
- Interpretation of geophysical logs (Nichols, R. R.)
  - Lithology (Lachance, D. J.)
  - Operational data (Libby-French, J.)
  - Study of the pre-Cretaceous basement below the Atlantic Coastal Plain (Glover, L., III)
- Atlantic Coastal Plain--oceanography**
- continental shelf: The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
- U. S. Geological Survey core drilling on the Atlantic shelf (Hathaway, J. C.)
- marine geology: Quaternary rivers on the New Jersey shelf; relation of seafloor to buried valleys (Swift, D. J. P.)
- Atlantic Coastal Plain--seismology**
- crust: The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
- The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
- Atlantic Coastal Plain--stratigraphy**
- Cenozoic: Lithologic analysis of sediment samples from the intermediate drilling program (Svetlichny, M.)
- U. S. Geological Survey core drilling on the Atlantic shelf (Hathaway, J. C.)
- Oligocene: Late Oligocene Piney Point transgression of Atlantic Coastal Plain** (Olsson, R. K.)
- Quaternary: Estimating paleo-environment from pollen in marine cores; an example from the western North Atlantic** (Balsam, W. L.)
- Tertiary: Biostratigraphy** (Steinkraus, W. E.)
- Depositional environments (Bebaut, J. W.)
  - Geologic correlation with other wells (Adinolfi, F.)
- Atlantic Ocean--economic geology**
- petroleum: Operational data (Libby-French, J.)
- Petroleum potential (Simonis, E. K.)
- Atlantic Ocean--engineering geology**
- materials, properties: Geology and geotechnical features of the Mid-Atlantic continental shelf (Demars, K. R.)
- Atlantic Ocean--environmental geology**
- pollution: Distribution and origin of magnetite spherules in air, waters, and sediments of the greater New York City area and the North Atlantic ocean (Puffer, J. H.)
- Environmental considerations (Kaarlela, E. V.)
- Atlantic Ocean--geochemistry**
- organic materials: Geochemical analysis (Smith, M. A.)
- Atlantic Ocean--geophysical surveys**
- heat flow: Geothermal gradient (Fry, C. E.)
- seismic surveys: Quaternary rivers on the New Jersey shelf; relation of seafloor to buried valleys (Swift, D. J. P.)
- Seismic velocity data and correlation (Carlson, G. R.)
  - The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
  - The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
- J. A.)
- The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
- well-logging: Core descriptions and analyses (Malinowski, M. J.)
- Interpretation of geophysical logs (Nichols, R. R.)
  - Lithology (Lachance, D. J.)
- Atlantic Ocean--oceanography**
- continental shelf: U. S. Geological Survey core drilling on the Atlantic shelf (Hathaway, J. C.)
- Atlantic Ocean--seismology**
- crust: The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
- Atlantic Ocean--stratigraphy**
- Holocene: Regional geomorphology in the inner New Jersey shelf (1975) (McKinney, T. F.)
- Mesozoic: Biostratigraphy (Steinkraus, W. E.)
- Depositional environments (Bebaut, J. W.)
  - Geologic correlation with other wells (Adinolfi, F.)
- Quaternary: Estimating paleo-environment from pollen in marine cores; an example from the western North Atlantic** (Balsam, W. L.)
- Atlantic region--tectonophysics**
- plate tectonics: The ocean-continent transition zone off southern New Jersey (Grow, J. A.)
- automatic data processing--engineering geology**
- shorelines: Theoretical model of shore dynamics at Sandy Hook Spit, New Jersey (Allen, J. R.)
- automatic data processing--environmental geology**
- data bases: Land oriented reference data system in New Jersey: LORDS (Malasi-Kun, G. J.)
- land use: Central Atlantic Regional Ecological Test Site: a prototype regional environmental information system (Alexander, R. P.)
- pollution: Development and application of a stormwater assessment

- model (SWAM) (Wu, J. S.)  
 automatic data processing--hydrogeology  
 data bases: Land oriented reference data system in New Jersey: LORDS (Halasi-Kun, G. J.)  
 beaches see under shore features under geomorphology  
 biogeography--palynomorphs  
 Quaternary: Estimating paleo-environment from pollen in marine cores: an example from the western North Atlantic (Balsam, W. L.)  
 biogeography--Reptilia  
 Triassic: A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia (Glsen, P. E.)  
 biography--general  
 Lyell, Charles: Charles Lyell and the geology of the Northeast (Brice, W. R.)  
 Canada see also Appalachians; Atlantic Coastal Plain  
 carbonate rocks see under sedimentary rocks  
 Cenozoic see also under stratigraphy; see also under stratigraphy under Atlantic Coastal Plain  
 changes of level see also under geomorphology; stratigraphy; see also under geomorphology under Atlantic Coastal Plain  
 clastic rocks see under sedimentary rocks  
 clastic sediments see under sediments  
 cleavage see under style under foliation  
 construction materials see also under economic geology  
 continental shelf see also under oceanography; see also under oceanography under Atlantic Coastal Plain  
 continental slope see also under oceanography; see also under oceanography under Atlantic Ocean  
 Cretaceous see also under stratigraphy  
 crust see also under seismology under Atlantic Coastal Plain; Atlantic Ocean  
 crystal chemistry see also crystal growth; minerals  
 crystal chemistry--framework silicates  
 gageite: The chemical composition of gageite; an empirical formula (Dunn, P. J.)  
 crystal chemistry--silicates  
 yeatmanite: Yeatmanite: new data (Dunn, P. J.)  
 crystal chemistry--sulfates  
 lawsonbauerite: Lawsonbauerite, a new mineral from the Sterling Hill Mine, New Jersey, and new data for tonneyite (Dunn, P. J.)  
 crystal growth see also crystal chemistry; minerals  
 crystal growth--oxides  
 intergrowths: The oxidation and titanium-enrichment mechanism of "altered ilmenite" grains in the Tertiary Kirkwood and Cohansy formations of New Jersey (Mathis, J. M.)  
 crystal structure see also crystal chemistry; minerals  
 crystal structure--arsenates  
 kolicite: The crystal structure of kolicite,  $Mn_7(OH)_4[As_2Zn_4Si_7/2O_{16}(OH)_4]$  (Peacor, D. R.)  
 crystal structure--silicates  
 yeatmanite: Yeatmanite: new data (Dunn, P. J.)  
 crystallography see also mineralogy  
 deformation see also structural analysis  
 deformation--field studies  
 strain: Improved carbon-fiber extensometers (Hauksson, E.)  
 -- Long series of strain observations from an aseismic area (Beavan, J.)  
 diagenesis see also sedimentation  
 diagenesis--materials  
 organic materials: Geochemical analysis (Smith, M. A.)  
 diagenesis--processes  
 cementation: Diagenetic processes in the Oligocene-Miocene sediments: B-2 well, Baltimore Canyon trough (English, J. R.)  
 diastrophism see orogeny  
 diatoms see under algae  
 Dinoflagellata see under palynomorphs  
 dinosaurs see Archosauria under Reptilia  
 dolostone see also under carbonate rocks under sedimentary rocks  
 earthquakes see also engineering geology; seismology; see also under engineering geology under Atlantic Coastal Plain; Mississippi Valley  
 Eastern Hemisphere see also Atlantic Ocean  
 ecology--Mollusca  
 estuaries: Trace element concentrations in Mercenaria mercenaria from Great Bay, New Jersey (Schulz, E. B.)  
 ecology--observations  
 streams: Acidification of headwater streams in the New Jersey Pine Barrens (Jonsson, A. H.)  
 ecology--Pisces  
 streams: Relation between pH and fish kills in Oyster Creek, New Jersey (Fusillo, T. V.)  
 economic geology  
 construction materials: The offshore mining of construction minerals in the greater New York metropolitan area: a feasibility survey (Marine Resource Development Corporation)  
 gems: Franklin revisited (Jones, B.)  
 geothermal energy: Atlantic Coastal Plain geothermal test holes, New Jersey: hole completion reports (Cobb, L. B.)  
 -- Geophysical exploration of geothermal resources in the eastern United States (Anonymous)  
 -- Geothermal exploration methods and results, Atlantic Coastal Plain (Costain, J. K.)  
 -- Geothermal resource potential of the northern Atlantic Coastal Plain (Lambiase, J. J.)  
 industrial minerals: Removal of contaminants from landfill leachates by filtration through glauconitic greensands (Spoljaric, N.)  
 iron: Origin of the Washington magnetite deposit, Warren County, New Jersey (Kastelic, R. L., Jr.)  
 -- Precambrian geology and magnetite deposits of the New Jersey highlands in Warren County, New Jersey (Kastelic, R. L., Jr.)  
 -- Trace element geochemistry and origin of the Andover iron deposit, Andover, New Jersey (Cooper, N. F.)  
 maps: Aerial radiometric and magnetic survey,

economic geology/environmental geology

- Wilmington National Topographic Map, Delaware/Maryland/New Jersey/Pennsylvania, Southeast U.S. Project (Geodata International)
- Newark 1 degrees X 2 degrees NTMS area, New Jersey, New York, and Pennsylvania; data report; hydrogeochemical and stream sediment reconnaissance (Heffner, J. D.)
  - NURE aerial gamma ray and magnetic detail survey; Reading Prong area (LKE Resources)
  - mineral resources: Minerals in the economy of New Jersey (Anonymous)
  - natural gas: U. S. Geological Survey core drilling on the Atlantic shelf (Hathaway, J. C.)
  - uranium: Aerial radiometric and magnetic survey; national topographic map; Salisbury, Virginia, New Jersey, Delaware, Maryland (Geodata International)
  - Aerial radiometric and magnetic survey, Wilmington National Topographic Map, Delaware/Maryland/New Jersey/Pennsylvania, Southeast U.S. Project (Geodata International)
  - Newark 1 degrees X 2 degrees NTMS area, New Jersey, New York, and Pennsylvania; data report; hydrogeochemical and stream sediment reconnaissance (Heffner, J. D.)
  - NURE aerial gamma ray and magnetic detail survey; Reading Prong area (LKE Resources)
  - Organo-clay complexes in uranium deposits (Turner-Peterson, C.)
  - Sedimentology and uranium mineralization in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey (Turner-Peterson, C. E.)
  - water resources: Water resources data for New Jersey, water year 1973; Volume 1, Atlantic slope basins, Hudson River to Cape May (U. S. Geological Survey)
  - Water resources data for New Jersey, water year 1978; Volume 2, Delaware
- River basins and tributaries to Delaware Bay (U. S. Geological Survey)
- elastic waves *see under* seismology
- electrical logging *see* well-logging
- engineering geology *see also* deformation; environmental geology; geodesy; ground water; mining geology; soil mechanics
- engineering geology
- earthquakes: Eastern United States (Russ, D. P.)
  - foundations: Instantaneous deformation analysis of gravity structure (Saxena, S. K.)
  - geologic hazards: Eastern United States (Russ, D. P.)
  - marine installations: Instantaneous deformation analysis of gravity structure (Saxena, S. K.)
  - nuclear facilities: Instantaneous deformation analysis of gravity structure (Saxena, S. K.)
  - shorelines: A computer-based, deterministic, finite-difference model of a barrier-spit, Long Beach Island, New Jersey (Eisenstadt, G.)
  - An energy-mobility beach classification system as a basis for the management of beach resources (Nordstrom, K. F.)
  - Evaluation of the suitability of Barnegat Inlet dredge spoil as beach nourishment for the northern end of Long Beach Island, New Jersey (Ashley, G. M.)
  - Spatial and temporal analyses of shoreline variations (Hayden, B.)
  - Theoretical model of shore dynamics at Sandy Hook Spit, New Jersey (Allen, J. R.)
  - slope stability: Landslide potential in the Atlantic Highlands of New Jersey (Rahn, J. M., Jr.)
- engineering geology--materials, properties
- sediments: Geology and geotechnical features of the Mid-Atlantic continental shelf (Demars, K. R.)
- environmental geology *see also* ecology; engineering geology
- environmental geology
- impact statements: The offshore mining of construction minerals in the greater New York metropolitan area; a feasibility survey (Marine Resource Development Corporation)
  - 1979 outer continental shelf oil and gas lease sale offshore the Mid-Atlantic states (U. S. Bureau of Land Management)
  - land use: Central Atlantic Regional Ecological Test Site; a prototype regional environmental information system (Alexander, R. H.)
  - Impact of land-use changes on water resources (Fusillo, T. V.)
  - Land oriented reference data system in New Jersey; LORDS (Halasi-Kun, G. J.)
  - Land use and land cover, 1970-76, Hartford, Connecticut; New York; New Jersey; Massachusetts (U. S. Geological Survey)
  - Land use and land cover, 1972, Wilmington, Delaware; New Jersey; Pennsylvania; Maryland (U. S. Geological Survey)
  - Land use and land cover, 1972-73, New York, New York; New Jersey; Connecticut (U. S. Geological Survey)
  - Land use and land cover, 1973, Salisbury, Maryland; Delaware; New Jersey; Virginia (U. S. Geological Survey)
  - Land use and land cover, 1974, Newark, New Jersey; Pennsylvania; New York (U. S. Geological Survey)
  - Land use and land cover, 1974, Scranton, Pennsylvania; New York; New Jersey (U. S. Geological Survey)
  - maps: Land use and land cover, 1970-76, Hartford, Connecticut; New York; New Jersey; Massachusetts (U. S. Geological Survey)
  - Land use and land cover, 1972, Wilmington, Delaware; New Jersey; Pennsylvania; Maryland (U. S. Geological Survey)
  - Land use and land cover, 1972-73, New York, New York; New Jersey; Connecticut (U. S.

- Geological Survey)
- Land use and land cover, 1973, Salisbury, Maryland; Delaware; New Jersey; Virginia (U. S. Geological Survey)
- Land use and land cover, 1974, Newark, New Jersey; Pennsylvania; New York (U. S. Geological Survey)
- Land use and land cover, 1974, Scranton, Pennsylvania; New York; New Jersey (U. S. Geological Survey)
- pollution:** Acidification of headwater streams in the New Jersey Pine Barrens (Johnson, A. H.)
- An analysis of the factors affecting the distribution of heavy metals in a tidal estuary (Grasso, S. V.)
- Development and application of a stormwater assessment model (SWAM) (Wu, J. S.)
- Distribution and origin of magnetite spherules in air, waters, and sediments of the greater New York City area and the North Atlantic ocean (Puffer, J. H.)
- Evidence of acidification of headwater streams in the New Jersey Pinebarrens (Johnson, A. H.)
- Impact of industrial activity on water quality (Greenberg, M. R.)
- Lead retention and movement in a forested watershed in the New Jersey Pine Barrens (Turner, R. S.)
- Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary (Olson, C. R.)
- Relation between pH and fish kills in Oyster Creek, New Jersey (Fusillo, T. V.)
- Sources of fatty acids in sediments from the Hudson Estuary (Keenan, E.)
- The geochemistry of polychlorinated biphenyls in the Hudson River (Bopp, R. F.)
- waste disposal:** Removal of contaminants from landfill leachates by filtration through glauconitic greensands (Spoljaric, N.)
- Sources of fatty acids in sediments from the Hudson Estuary (Keenan, E.)
- epeirogeny** see also orogeny
- estuaries** see under environment under sedimentation
- faults--displacements**
  - overthrust faults:** The Taconides, Acadides, and Alleghenides in the Central Appalachians (Drake, A. A., Jr.)
  - thrust faults:** Late Alleghenian thrusting in New Jersey (Drake, A. A., Jr.)
- faults--extent**
  - border faults:** Fault patterns at the Peapack offset of the Ramapo border fault, New Jersey Triassic (Adams, G. F.)
- foliation** see also structural analysis
- foliation--style**
  - cleavage:** Cleavage in Lower and Middle Devonian rocks of the Hudson and Delaware River valleys; its implications for Appalachian tectonics (Geiser, P. A.)
- foraminifera--biostratigraphy**
  - Oligocene:** Late Oligocene Piney Point transgression of Atlantic Coastal Plain (Olsson, R. K.)
  - Tertiary:** Biostratigraphy (Steinkraus, W. E.)
- foraminifera--paleoecology**
  - paleobathymetry:** Depositional environments (Bebaut, J. W.)
- fossils, problematic** see problematic fossils
- foundations** see also under engineering geology; soil mechanics
- framework silicates** see under minerals
- fungi--occurrence**
  - enolitic taxa:** Algal and fungal shell-borings from the Late Cretaceous and early Tertiary of New Jersey (Cameron, B.)
- gems** see also under economic geology
- general**
  - history:** Charles Lyell and the geology of the Northeast (Brice, W. R.)
  - New Jersey geological surveys in the 19th century (Sican, J.)
- genesis of ore deposits** see mineral deposits, genesis
- geochemistry**
  - trace elements:** Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin (Geiger, F. J.)
  - Geochemical cross sections through the Watchung Basalt of New Jersey (Puffer, J. H.)
  - Trace element concentrations in Mercenaria mercenaria from Great Bay, New Jersey (Schulz, E. E.)
  - Trace element geochemistry and origin of the Andover iron deposit, Andover, New Jersey (Cooper, N. F.)
  - weathering:** The oxidation and titanium-enrichment mechanism of "altered ilmenite" grains in the Tertiary Kirkwood and Cohansy formations of New Jersey (Mathis, J. M.)
- geochemistry--cycles**
  - lead:** Lead retention and movement in a forested watershed in the New Jersey Pine Barrens (Turner, R. S.)
- geochemistry--surveys**
  - Newark 1 degree X 2 degree NTMS area, New Jersey, New York, and Pennsylvania; data report; hydrogeochemical and stream sediment reconnaissance (Heffner, J. D.)
  - NURE aerial gamma ray and magnetic detail survey; Reading Prong area (LKE Resources)
- geochronology** see also absolute age
- geochronology**
  - Holocene:** Late Holocene history of the Great Egg Harbor River estuary (Dobday, M. P.)
  - Proterozoic:** Precambrian uranium mineralization in the central Appalachians (Grauch, R. I.)
- geodesy--surveys**
  - Long series of strain observations from an aseismic area (Beavan, J.)
- geologic hazards** see also under engineering geology; see also under environmental geology under Atlantic Coastal Plain

geomorphology see also glacial geology

**geomorphology**

changes of level: The origin of linear shoals; central Mid-Atlantic coast and inner continental shelf (Halsey, S. D.)

glacial geology: Cemented Pleistocene gravels of northern New Jersey (Pendleton, M. W.)

-- Influence of glacial meltwater in the Atlantic Coastal Plain (White, W. A.)

-- Vegetational history of the Pine Barrens (Heusser, C. J.)

lacustrine features: Topological properties of some trellis pattern channel networks (Mock, S. J.)

landform description: Geology of the Pine Barrens of New Jersey (Rnodehamel, E. C.)

-- Pine Barrens: ecosystem and landscape (Forman, R. T. T.)

processes: Quantification of overwash threshold conditions, Delaware Bay shoreline (Maurmeyer, E. M.)

shore features: Recurved spit development and related beach processes on Horseshoe Spit (bayside), Sandy Hook, New Jersey (Jannik, N. D.)

**geomorphology--lacustrine features**

trellis drainage: Topological properties of some trellis pattern channel networks (Mock, S. J.)

**geomorphology--landform evolution**

drainage patterns: Quaternary rivers on the New Jersey shelf; relation of seafloor to buried valleys (Swift, D. J. P.)

rivers: An ancestral Hudson River valley of the Continental Shelf off New Jersey (Knebel, H. J.)

**geomorphology--processes**

sedimentation: Quantification of overwash threshold conditions, Delaware Bay shoreline (Maurmeyer, E. M.)

**geomorphology--shore features**

barrier spits: A computer-based, deterministic,

finite-difference model of a barrier-spit, Long Beach Island, New Jersey (Eisenstadt, G.)

beaches: Evaluation of the suitability of Barnegat Inlet dredge spoil as beach nourishment for the northern end of Long Beach Island, New Jersey (Ashley, G. M.)

correlation: Geology of the Pine Barrens of New Jersey (Rnodehamel, E. C.)

erosion: Spatial and temporal analyses of shoreline variations (Hayden, E.)

estuaries: Influence of glacial meltwater in the Atlantic Coastal Plain (White, W. A.)

inlets: The sediment distribution and geomorphology of Brigantine Inlet, New Jersey (Krauser, R. F.)

landform description: Pine Barrens: ecosystem and landscape (Forman, R. T. T.)

salt marshes: Late Holocene history of the Great Egg Harbor River estuary (Dobday, M. P.)

shoals: The origin of linear shoals; central Mid-Atlantic coast and inner continental shelf (Halsey, S. D.)

spits: Recurved spit development and related beach processes on Horseshoe Spit (bayside), Sandy Hook, New Jersey (Jannik, N. D.)

-- Theoretical model of shore dynamics at Sandy Hook Spit, New Jersey (Allen, J. R.)

**geophysical surveys see gravity surveys under geophysical surveys; see gravity surveys under geophysical surveys under Georgia; see magnetic surveys under geophysical surveys; see radioactivity surveys under geophysical surveys; see seismic surveys under geophysical surveys under Atlantic Coastal Plain; Atlantic Ocean; see surveys under geophysical surveys**

**geophysical surveys**

geodesy: Long series of strain observations from an aseismic area (Beavan, J.)

gravity surveys: Gravity data in the southeastern United States (Cobbill, A. H.)

heat flow: Heat flow in the Atlantic Coastal Plain (Perry, L. D.)

magnetic surveys: Aeromagnetic map of Delaware, Maryland, Pennsylvania, West Virginia, and parts of New Jersey and New York (Zietz, I.)

-- Aeromagnetic map of parts of Delaware and New Jersey (U. S. Geological Survey)

maps: Aeromagnetic map of Delaware, Maryland, Pennsylvania, West Virginia, and parts of New Jersey and New York (Zietz, I.)

-- Aeromagnetic map of parts of Delaware and New Jersey (U. S. Geological Survey)

-- Aeroradioactivity map of parts of Delaware and New Jersey (U. S. Geological Survey)

radioactivity surveys: Aeroradioactivity map of parts of Delaware and New Jersey (U. S. Geological Survey)

remote sensing: Atlas of aerial photography and satellite imagery (Harper, D. P.)

-- Remote sensing techniques applied to mineral exploration in the heavily vegetated terrain of the Reading Prong of New York and New Jersey (Williams, R. E., Jr.)

surveys: Aerial radiometric and magnetic survey; national topographic map; Salisbury, Virginia, New Jersey, Delaware, Maryland (Geodata International)

well-logging: Study of the pre-Cretaceous basement below the Atlantic Coastal Plain (Glover, L., III)

**geophysics see also deformation; engineering geology**

**Georgia--geophysical surveys**

gravity surveys: Gravity data in the southeastern United States (Cobbill, A. H.)

well-logging: Study of the pre-Cretaceous basement below the Atlantic Coastal Plain (Glover, L., III)

- geosynclines see also orogeny
- geotechnics see engineering geology
- geothermal energy see also under economic geology; see also under economic geology under Atlantic Coastal Plain
- glacial geology see also geomorphology
- glacial geology--glacial features
- glacial lakes: Late Woodfordian history of the Hackensack River valley, N.J.-N.Y. (Averill, S. F.)
- gravel: Cemented Pleistocene gravels of northern New Jersey (Pendleton, M. W.)
- glacial geology--glaciation
- deglaciation: Influence of glacial meltwater in the Atlantic Coastal Plain (White, W. A.)
- evolution: Vegetational history of the Pine Barrens (Heusser, C. J.)
- glaciation see under glacial geology
- glacial surveys see under geophysical surveys; see under geophysical surveys under Georgia
- ground water see also hydrogeology; hydrology
- ground water--contamination
- waste disposal: Groundwater pollution potential of confined land disposal of dredged material (Yu, Y. K.)
- ground water--models
- legislation: Handbook of basic water law (with special reference to Louisiana) (Hardy, G. W., III)
- ground water--surveys
- Hydrology of the New Jersey Pine Barrens (Rhodhamel, E. C.)
- Lead retention and movement in a forested watershed in the New Jersey Pine Barrens (Turner, R. S.)
- Newark 1 degree X 2 degrees NTMS area, New Jersey, New York, and Pennsylvania: data report: hydrogeochemical and stream sediment reconnaissance (Heffner, J. D.)
- hafnium--geochemistry
- igneous rocks: The distribution of zirconium and hafnium in terrestrial rocks, meteorites and the Moon (Ehmann, W. D.)
- heat flow see also under geophysical surveys; see also under geophysical surveys under Atlantic Coastal Plain; Atlantic Ocean
- heavy minerals see also under economic geology under Atlantic Coastal Plain
- Holocene see also under geochronology; see also under stratigraphy under Atlantic Ocean
- hydrocarbons see under organic materials
- hydrogeology see also ground water; hydrology
- hydrogeology
- data bases: Land oriented reference data system in New Jersey: LDRDS (Halasi-Kun, G. J.)
- ground water: Hydrology of the New Jersey Pine Barrens (Rhodhamel, E. C.)
- hydrology: A study of the longitudinal distribution of velocity in the upper Whippany River, New Jersey (Samsel, W. A.)
- Hydrologic impact in New Jersey: an analytical model approach (Robertson, D. K.)
- Hydrology of the New Jersey Pine Barrens (Rhodhamel, E. C.)
- New Jersey (Anonymous)
- Streams and lakes in the Pine Barrens (Patrick, R.)
- thermal waters: Geophysical exploration of geothermal resources in the eastern United States (Anonymous)
- hydrology see also ground water; hydrogeology
- hydrology--surveys
- A study of the longitudinal distribution of velocity in the upper Whippany River, New Jersey (Samsel, W. A.)
- Acidification of headwater streams in the New Jersey Pine Barrens (Johnson, A. H.)
- Development and application of a stormwater assessment model (SWAM) (Wu, J. S.)
- Evidence of acidification of headwater streams in the New Jersey Pinelands (Johnson, A. H.)
- Hydrologic impact in New Jersey: an analytical model approach (Robertson, D. K.)
- Hydrology of the New Jersey Pine Barrens (Rhodhamel, E. C.)
- Impact of land-use changes on water resources (Fusillo, T. V.)
- New Jersey (Anonymous)
- Relation between pH and fish kills in Dyster Creek, New Jersey (Fusillo, T. V.)
- Streams and lakes in the Pine Barrens (Patrick, R.)
- Water resources data for New Jersey, water year 1978: Volume 1. Atlantic slope basins, Hudson River to Cape May (U. S. Geological Survey)
- Delaware River basin: Water resources data for New Jersey, water year 1978: Volume 2, Delaware River basins and tributaries to Delaware Bay (U. S. Geological Survey)
- Hackensack River: An analysis of the factors affecting the distribution of heavy metals in a tidal estuary (Grasso, S. V.)
- Hudson River: Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary (Olsen, C. R.)
- Sources of fatty acids in sediments from the Hudson Estuary (Keenan, E.)
- The geochemistry of polychlorinated biphenyls in the Hudson River (Bopp, R. F.)
- ichnofossils--faunal studies
- Mesozoic: Prehistoric residents of Essex County, New Jersey (Bukowski, F.)
- ichnofossils--miscellaneous
- Phanerozoic: Pennatulaceans: a meagre fossil record (Anderson, M. M.)
- ichnofossils--occurrence
- shells: Algal and fungal shell-borings from the Late Cretaceous and early Tertiary of New Jersey (Cameron, E.)
- igneous rocks see also magmas
- igneous rocks--basalt family
- geochemistry: A geochemical comparison of the Mesozoic basalt flows of Connecticut with those of New Jersey (Puffer, J. H.)
- Geochemical cross sections through the Watchung Basalt of New Jersey (Puffer, J. H.)

## igneous rocks/mineralogy

### igneous rocks--geochemistry

**zirconium:** The distribution of zirconium and hafnium in terrestrial rocks, meteorites and the Moon (Ehmann, W. D.)

### igneous rocks--volcanic rocks

**geochemistry:** Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin (Geiger, F. J.)

**impact statements** see also *under* environmental geology  
**incertae sedis** see problematic fossils

**industrial minerals** see also *under* economic geology

### intrusions--genesis

**emplacement:** Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin (Geiger, F. J.)

### Invertebrata see also

foraminifera; Ichnofossils; Mollusca; problematic fossils

**iron** see also *under* economic geology

**isotope dating** see absolute age

**isotopes** see also absolute age; geochronology

### isotopes--abundance

**radioactive isotopes:** Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary (Olsen, C. R.)

**Jurassic** see also *under* stratigraphy

**land use** see also *under* environmental geology; see also *under* environmental geology *under* Atlantic Coastal Plain; automatic data processing

**lava** see also igneous rocks; magmas

### lava--geochemistry

**basalt:** A geochemical comparison of the Mesozoic basalt flows of Connecticut with those of New Jersey (Puffer, J. H.)  
**trace elements:** Geochemical cross sections through the Watchung Basalt of New Jersey (Puffer, J. H.)

### lead--geochemistry

**water:** Lead retention and movement in a forested watershed in the New Jersey Pine Barrens (Turner, R. S.)

**lineation** see also foliation; structural analysis

**lunar studies** see Moon

**magmas** see also igneous rocks; intrusions; lava

### magmas--geochemistry

**trace elements:** Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin (Geiger, F. J.)

-- Geochemical cross sections through the Watchung Basalt of New Jersey (Puffer, J. H.)

**magnetic surveys** see *under* geophysical surveys

**maps** see also *under* economic geology; environmental geology; geophysical surveys; soils; see also *under* environmental geology *under* Atlantic Coastal Plain

**marine geology** see also oceanography; see also *under* oceanography *under* Atlantic Coastal Plain

**marine installations** see also *under* engineering geology

**mathematical geology** see also automatic data processing

**Mesozoic** see also *under* stratigraphy; see also *under* stratigraphy *under* Atlantic Ocean

**metals** see also lead

**metals--abundance**  
**sediments:** An analysis of the factors affecting the distribution of heavy metals in a tidal estuary (Grasso, S. V.)

-- Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary (Olsen, C. R.)

**metamorphic rocks** see also igneous rocks

**meteor craters** see also meteorites

### meteorites--geochemistry

**zirconium:** The distribution of zirconium and hafnium in terrestrial rocks, meteorites and the Moon (Ehmann, W. D.)

### mineral deposits,

**genesis--controls:** geochemical controls: Organo-clay complexes in uranium deposits (Turner-Peterson, C.)

**mineral deposits,**  
**genesis--processes**  
**metamorphism:** Origin of the Washington magnetite deposit, Warren County, New Jersey (Kastelic, R. L., Jr.)

**mineral deposits,**  
**genesis--uranium**  
**age:** Precambrian uranium mineralization in the central Appalachians (Grauch, R. I.)

### mineral exploration--geochemical methods

**stream sediments:** Newark 1 degrees X 2 degrees NTMS area, New Jersey, New York, and Pennsylvania: data report; hydrogeochemical and stream sediment reconnaissance (Heffner, J. D.)

### mineral exploration--geophysical methods

**surveys:** Aerial radiometric and magnetic survey, Wilmington National Topographic Map, Delaware/Maryland/New Jersey/Pennsylvania, Southeast U.S. Project (Geodata International)  
**uranium:** Aerial radiometric and magnetic survey; national topographic map; Salisbury, Virginia, New Jersey, Delaware, Maryland (Geodata International)  
-- NURE aerial gamma ray and magnetic detail survey; Reading Prong area (LKB Resources)

### mineral exploration--remote sensing

**tectonics:** Remote sensing techniques applied to mineral exploration in the heavily vegetated terrain of the Reading Prong of New York and New Jersey (Williams, R. E., Jr.)

### mineral prospecting see

mineral exploration  
**mineral resources** see also *under* economic geology

### mineralogy

**arsenates:** Kolicite, a new manganese zinc silicate arsenate from Sterling Hill, Ogdensburg, New

- Jersey (Dunn, P. J.)  
 -- The crystal structure of kolicite.  
 $Mn/7_{(OH)/4} [As/2_{Zn}/4_{Si}/2_{O}/16_{(OH)/4}]$  (Peacor, D. R.)  
 collecting: Mineral collector's field guide: the Northeast (Shelton, B.)  
 framework silicates: The chemical composition of gageite: an empirical formula (Dunn, P. J.)  
 framework silicates, silica minerals: Cape May jewels (Wright, D. W.)  
 -- "Diamond" hunting by the sea (Harris, P. W.)  
 miscellaneous minerals: Contributions to the mineralogy of Franklin and Sterling Hill, New Jersey (Dunn, P. J.)  
 --- Franklin revisited (Jones, E.)  
 oxides: Gahnite-franklinite intergrowths at the Sterling Hill zinc deposit, Sussex County, New Jersey: an analytical and experimental study (Carvalho, A. V., III)  
 silicates: Yeatmanite: new data (Dunn, P. J.)  
 sulfates: Hauckite,  $Fe/3+_{/3} (Mg, Mn)/24_{Zn}/18_{(SO/4_{/4})}/4_{(CO/3_{/2})}/2_{(OH)-/7B1_{/}}$ , a new mineral from Sterling Hill, New Jersey (Dunn, P. J.)  
 -- Lawsonbauerite, a new mineral from the Sterling Hill Mine, New Jersey, and new data for torreyite (Dunn, P. J.)  
**mineralogy--practice**  
 collecting: Mineral collector's field guide: the Northeast (Shelton, B.)  
 minerals see also crystal chemistry; crystal growth; crystal structure  
**minerals--arsenates**  
 kolicite: Kolicite, a new manganese zinc silicate arsenate from Sterling Hill, Dgdensburg, New Jersey (Dunn, P. J.)  
 -- The crystal structure of kolicite.  
 $Mn/7_{(OH)/4} [As/2_{Zn}/4_{Si}/2_{O}/16_{(OH)/4}]$  (Peacor, D. R.)  
**minerals--framework silicates**  
 gageite: The chemical composition of gageite: an empirical formula (Dunn, P. J.)  
 minerals--framework silicates, silica minerals  
 collecting: Cape May jewels (Wright, D. W.)  
 quartz: "Diamond" hunting by the sea (Harris, P. W.)  
**minerals--miscellaneous minerals**  
 inventory: Contributions to the mineralogy of Franklin and Sterling Hill, New Jersey (Dunn, P. J.)  
**minerals--occurrence**  
 mineral collecting: Franklin revisited (Jones, E.)  
**minerals--oxides**  
 franklinite:  
 Gahnite-franklinite intergrowths at the Sterling Hill zinc deposit, Sussex County, New Jersey: an analytical and experimental study (Carvalho, A. V., III)  
 ilmenite: The oxidation and titanium-enrichment mechanism of "altered ilmenite" grains in the Tertiary Kirkwood and Conahsey formations of New Jersey (Mathis, J. M.)  
**minerals--silicates**  
 yeatmanite: Yeatmanite; new data (Dunn, P. J.)  
**minerals--sulfates**  
 hauckite: Hauckite,  $Fe/3+_{/3} (Mg, Mn)/24_{Zn}/18_{(SO/4_{/4})}/4_{(CO/3_{/2})}/2_{(OH)-/7B1_{/}}$ , a new mineral from Sterling Hill, New Jersey (Dunn, P. J.)  
 lawsonbauerite:  
 Lawsonbauerite, a new mineral from the Sterling Hill Mine, New Jersey, and new data for torreyite (Dunn, P. J.)  
**mining geology--methods**  
 offshore: The offshore mining of construction minerals in the greater New York metropolitan area: a feasibility survey (Marine Resource Development Corporation)  
**Mississippi Valley--engineering geology**  
 earthquakes: Eastern United States (Russ, D. P.)  
**Mollusca--Bivalvia**  
 Holocene: Trace element concentrations in Mercenaria mercenaria from Great Bay, New Jersey (Schulz, E. B.)  
**Mollusca--faunal studies**  
 Cretaceous: Cretaceous fossils from New Jersey and Delaware (Bukowski, F.)  
**Moon--geochemistry**  
 zirconium: The distribution of zirconium and hafnium in terrestrial rocks, meteorites and the Moon (Ehmann, W. D.)  
**museums--general**  
 Morris Museum of Arts and Sciences: Collections and displays: Morris Museum of Arts and Sciences (Germine, M.)  
 natural gas see also under economic geology  
**North America see also**  
 Appalachians: Atlantic Coastal Plain  
 Northern Hemisphere see also Atlantic Ocean  
 nuclear facilities see also under engineering geology  
**oceanography**  
 continental shelf: An ancestral Hudson River valley of the Continental Shelf off New Jersey (Knebel, H. J.)  
 -- Quaternary rivers on the New Jersey shelf: relation of seafloor to buried valleys (Swift, D. J. P.)  
 -- Regional geomorphology in the inner New Jersey shelf (1975) (McKinney, T. F.)  
 -- The ocean-continent transition zone off southern New Jersey (Grow, J. A.)  
 -- The ocean-continent transition zone off southern New Jersey (Grow, J. A.)  
 -- Youngest Pleistocene marginal marine unit from the inner shelf off eastern North America: mid-Wisconsinan or early Wisconsinan? (Rampino, M. R.)  
 continental slope: Operational data (Libby-French, J.)  
 -- Petroleum potential (Simonis, E. K.)  
 -- The ocean-continent transition zone off southern New Jersey (Grow, J. A.)  
 sedimentation: Sediment dynamics and textural facies in the Brigantine Inlet area, New Jersey (Krauser, R. F.)  
 -- Segregation and deposition of particle size-classes by hydrodynamic forces (Harper, D. P.)

oceanography/pollution.

- The sediment distribution and geomorphology of Brigantine Inlet, New Jersey (Krauser, R. F.)
- sediments: Comparison of texture, mineralogy, and organic content of suspended, accumulating, and bottom sediments within a coastal lagoon, Stone Harbor, New Jersey (Levy, J. B.)
- The effect of differences in wave climate on swash zone sediments (Nordstrom, K. F.)
- Oligocene see also under stratigraphy; see also under stratigraphy under Atlantic Coastal Plain
- organic materials--fatty acids distribution: Sources of fatty acids in sediments from the Hudson Estuary (Keenan, E.)
- organic materials--geochemistry clay: Organic-clay complexes in uranium deposits (Turner-Peterson, C.)
- sediments: U. S. Geological Survey core drilling on the Atlantic shelf (Hathaway, J. C.)
- organic materials--hydrocarbons analysis: Geochemical analysis (Smith, M. A.)
- orogeny--absolute age Grenvillian Orogeny: Precambrian uranium mineralization in the central Appalachians (Grauch, R. I.)
- orogeny--extent Allegheny Orogeny: Late Alleghenian thrusting in New Jersey (Drake, A. A., Jr.)
- orogeny--periodicity Appalachian Phase: The Taconides, Acadides, and Alleghenides in the Central Appalachians (Drake, A. A., Jr.)
- oxides see under minerals
- paleobotany algae: Morphologic variations in the Miocene diatom *Actinopteryx heliopelta* Grunow (Andrews, G. W.)
- palynomorphs: Dinoflagellate cysts of the Gymnodiniaceae, Peridiniaceae, and Gonyaulacaceae from the Upper Cretaceous Monmouth Group, Atlantic Highlands, New Jersey (May, F. E.)
- paleoclimatology--Pleistocene Late Woodfordian history of the Hackensack River valley, N.J.-N.Y. (Averill, S. P.)
- paleoclimatology--Quaternary Atlantic Coastal Plain: Estimating paleo-environment from pollen in marine cores: an example from the western North Atlantic (Balsam, W. L.)
- paleoecology--palynomorphs Quaternary: Estimating paleo-environment from pollen in marine cores: an example from the western North Atlantic (Balsam, W. L.)
- paleoecology--Pleistocene Late Woodfordian history of the Hackensack River valley, N.J.-N.Y. (Averill, S. P.)
- paleontology ichnofossils: Algal and fungal shell-borings from the Late Cretaceous and early Tertiary of New Jersey (Cameron, E.)
- Pisces: Cretaceous fossils from New Jersey and Delaware (Bukowski, F.)
- Reptilia: A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia (Olson, P. E.)
- Pneumatophanthus Cope, 1870, not a dinosaur but a sea-turtle (Baird, D.)
- Prehistoric residents of Essex County, New Jersey (Bukowski, F.)
- paleontology--history Pneumatophanthus Cope, 1870, not a dinosaur but a sea-turtle (Baird, D.)
- palynomorphs--biostratigraphy Mesozoic: Biostratigraphy (Steinkraus, W. E.)
- palynomorphs--Dinoflagellata Cretaceous: Dinoflagellate cysts of the Gymnodiniaceae, Peridiniaceae, and Gonyaulacaceae from the Upper Cretaceous Monmouth Group, Atlantic Highlands, New Jersey (May, F. E.)
- palynomorphs--miospores Cretaceous: Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey (Christopher, R. A.)
- The stratigraphic distribution of Normapolles and triporate pollen in zones IV, V, and VII of the Raritan and Magothy formations, Upper Cretaceous, of New Jersey (Christopher, R. A.)
- Jurassic: Angiosperm-like pollen with tectate-columellate wall structure from the Upper Triassic and Jurassic of the Newark Supergroup, U.S.A. (Cornet, E.)
- Quaternary: Estimating paleo-environment from pollen in marine cores: an example from the western North Atlantic (Balsam, W. L.)
- Vegetational history of the Pine Barrens (Hausser, C. J.)
- Triassic: Angiosperm-like pollen with tectate-columellate wall structure from the Upper Triassic and Jurassic of the Newark Supergroup, U.S.A. (Cornet, E.)
- Pelacypoda see Bivalvia under Mollusca
- petroleum see also under economic geology under Atlantic Coastal Plain; Atlantic Ocean
- Pisces--Chondrichthyes Cretaceous: Cretaceous fossils from New Jersey and Delaware (Bukowski, F.)
- planetology see also Moon
- Plantae see also algae; fungi; ichnofossils; palynomorphs; problematic fossils
- plate tectonics see also under tectonophysics; see also under tectonophysics under Atlantic region
- Pleistocene see also under stratigraphy; see also under geochronology under Atlantic Coastal Plain
- pollution see also under environmental geology; see also under environmental geology under Atlantic Coastal Plain; Atlantic Ocean; automatic data processing
- pollution--water ground water: Groundwater pollution potential of confined land disposal of dredged material (Yu, Y. K.)

- problematic fossils--miscellanea**  
*Phanerozoic:*  
 Pennatulaceans; a meagre fossil record (Anderson, M. M.)  
**Proterozoic** see also under geochronology  
**quartz** see under framework  
 silicates, silica minerals under: minerals  
**Quaternary** see also under stratigraphy; see also under stratigraphy under Atlantic Coastal Plain; Atlantic Ocean  
**radioactive dating** see absolute age  
**radioactivity surveys** see under geophysical surveys  
**remote sensing** see also under geophysical surveys  
**Reptilia--Anapsida**  
*Cretaceous:* Pneumatophanthrus Cope, 1870, not a dinosaur but a sea-turtle (Baird, D.)  
**Reptilia--Archosauria**  
*Mesozoic:* Prehistoric residents of Essex County, New Jersey (Bukowski, F.)  
**Reptilia--Lepidosauria**  
*Triassic:* A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia (Olsen, P. E.)  
**rock mechanics** see also soil mechanics  
**sandstone** see also under clastic rocks under sedimentary rocks  
**sedimentary petrology**  
 sedimentary rocks:  
 Diagenetic processes in the Oligocene-Miocene sediments; B-2 well, Baltimore Canyon trough (English, J. R.)  
 -- Petrology of the Esopus Shale: Lower Devonian, New York and adjacent states (Renner, J.)  
 -- The Allentown Dolomite: stratigraphy, petrology, and paleontology (Collins, A.)  
**sedimentary rocks** see also sedimentation; sediments  
**sedimentary rocks--carbonate rocks**  
*oolostone:* Diagenetic processes in the Oligocene-Miocene sediments; B-2 well, Baltimore Canyon trough (English, J. R.)  
 -- The Allentown Dolomite: stratigraphy, petrology, and paleontology (Collins, A.)  
**sedimentary rocks--clastic rocks**  
*lithology:* Core descriptions and analyses (Malinowski, M. J.)  
 -- Interpretation of geophysical logs (Nichols, R. R.)  
 -- Lithology (Lachance, D. J.)  
**sandstone:** Sedimentology and uranium mineralization in the Triassic-Jurassic Newark Basin, Pennsylvania and New Jersey (Turner-Peterson, C. E.)  
**shale:** Petrology of the Esopus Shale: Lower Devonian, New York and adjacent states (Renner, J.)  
**sedimentary rocks--geochemistry**  
 organic materials:  
 Geochemical analysis (Smith, M. A.)  
**sedimentary structures** see also sedimentary rocks;  
 sediments  
**sedimentation--cyclic processes**  
*transgression:* Late Oligocene Piney Point transgression of Atlantic Coastal Plain (Olsson, R. K.)  
**sedimentation--environment**  
*coastal environment:*  
 Sediment dynamics and textural facies in the Brigantine Inlet area, New Jersey (Krauser, R. F.)  
 -- Spatial and temporal analyses of shoreline variations (Hayden, E.)  
 -- The origin of linear shoals: central Mid-Atlantic coast and inner continental shelf (Halsey, S. D.)  
**estuaries:** Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary (Olsen, C. R.)  
**inlets:** The sediment distribution and geomorphology of Brigantine Inlet, New Jersey (Krauser, R. F.)  
*marine environment:*  
 Depositional environments (Bebaut, J. W.)  
**sedimentation--flow regime**  
 grain size: Segregation and deposition of particle size-classes by hydrodynamic forces (Harper, D. P.)  
**sedimentation--rates**  
*salt marshes:* Late Holocene history of the Great Egg Harbor River estuary (Dobday, M. P.)  
**sedimentation--transport**  
*marine transport:* A computer-based, deterministic, finite-difference model of a barrier-spit, Long Beach Island, New Jersey (Eisenstadt, G.)  
 -- Evaluation of the suitability of Barnegat Inlet dredge spoil as beach nourishment for the northern end of Long Beach Island, New Jersey (Asniely, G. M.)  
 -- Quantification of overwash threshold conditions, Delaware Bay shoreline (Maurmeyer, E. M.)  
 -- The effect of differences in wave climate on swash zone sediments (Nordstrom, K. F.)  
 -- Theoretical model of shore dynamics at Sandy Hook Spit, New Jersey (Allen, J. R.)  
**sediments** see also sedimentary rocks; sedimentation  
**sediments--clastic sediments**  
*sand:* Segregation and deposition of particle size-classes by hydrodynamic forces (Harper, D. P.)  
**sediments--composition**  
*magnetite:* Distribution and origin of magnetite spherules in air, waters, and sediments of the greater New York City area and the North Atlantic ocean (Puffer, J. H.)  
**sediments--environmental analysis**  
*lagoons:* Comparison of texture, mineralogy, and organic content of suspended, accumulating, and bottom sediments within a coastal lagoon, Stone Harbor, New Jersey (Levy, J. B.)  
*lakes:* Late Woodfordian history of the Hackensack River valley, N.J.-N.Y. (Averill, S. P.)  
**sediments--geochemistry**  
 organic materials: Sources of fatty acids in sediments from the Hudson Estuary (Keenan, E.)

## sediments/structural analysis

- trace elements:**  
Radionuclides,  
sedimentation and the  
accumulation of pollutants  
in the Hudson Estuary  
(Disen, C. R.)
- sediments--lithostratigraphy**  
cores: Lithologic analysis  
of sediment samples from  
the intermediate drilling  
program (Svetlichny, M.)
- sediments--properties**  
engineering properties: U.  
S. Geological Survey core  
drilling on the Atlantic  
shelf (Hathaway, J. C.)
- sediments--textures**  
grain size: Sediment  
dynamics and textural  
facies in the Brigantine  
Inlet area, New Jersey  
(Krauser, R. F.)  
-- The effect of  
differences in wave  
climate on swash zone  
sediments (Nordstrom, K.  
F.)
- seismic surveys see under**  
geophysical surveys under  
Atlantic Coastal Plain;  
Atlantic Ocean
- seismology see also**  
engineering geology
- seismology**  
elastic waves: P-wave  
residuals in the  
northeastern United States  
and their relationship to  
major structural features  
(Peseckis, L.)  
observatories:  
Lamont-Doherty network of  
stations in New York State  
and adjacent areas  
(Aggarwal, Y. P.)
- seismology--crust**  
structure: The  
ocean-continent transition  
zone off southern New  
Jersey (Grow, J. A.)
- seismology--elastic waves**  
P-waves: P-wave residuals  
in the northeastern United  
States and their  
relationship to major  
structural features  
(Peseckis, L.)
- seismology--instruments**  
extensometers: Improved  
carbon-fiber extensometers  
(Hauksson, E.)
- seismology--observatories**  
networks: Lamont-Doherty  
network of stations in New  
York State and adjacent  
areas (Aggarwal, Y. P.)
- shale see under** elastic rocks  
under sedimentary rocks
- shore features see under**  
geomorphology
- shorelines see also under**  
engineering geology; see also  
under engineering geology  
under automatic data  
processing
- shorelines--erosion**  
rates: Erosion rates; how  
representative are they?  
(Hayden, B. P.)
- silicates see under** minerals
- slope stability see also**  
engineering geology;  
geomorphology
- soil mechanics--foundations**  
loading: Instantaneous  
deformation analysis of  
gravity structure (Saxena,  
S. K.)
- soil mechanics--materials,**  
**properties**  
sediments: U. S. Geological  
Survey core drilling on  
the Atlantic shelf  
(Hathaway, J. C.)
- soils**  
classification: Soil Survey  
Laboratory data and  
descriptions for some  
soils of New Jersey (U. S.  
Department of Agriculture,  
Soil Conservation Service)
- maps:** Soil survey of Ocean  
County, New Jersey (Hole,  
T. J. F.)  
-- Soil survey of Warren  
County, New Jersey  
(Fletcher, S. J.)
- moraines:** Soil variability  
over short distances  
(Berthoud, C. E., Jr.)
- Podzols:** Development of  
Pine Barrens soils  
(Tedrow, J. C. F.)  
-- Mineralogy of Pine  
Barrens soils (Douglas, L.  
A.)  
-- Soil series of the Pine  
Barrens (Markley, M. L.)
- soils--surveys**  
Development of Pine Barrens  
soils (Tedrow, J. C. F.)  
-- Mineralogy of Pine  
Barrens soils (Douglas, L.  
A.)  
-- Soil series of the Pine  
Barrens (Markley, M. L.)  
-- Soil Survey Laboratory  
data and descriptions for  
some soils of New Jersey  
(U. S. Department of  
Agriculture, Soil  
Conservation Service)
- Soil survey of Ocean  
County, New Jersey (Hole,  
T. J. F.)  
-- Soil survey of Warren  
County, New Jersey  
(Fletcher, S. J.)  
-- Soil variability over  
short distances (Berthoud,
- C. E., Jr.)
- Southern Hemisphere see also**  
Atlantic Ocean
- springs see also** ground water
- stratigraphy**  
Cenozoic: Lithologic  
analysis of sediment  
samples from the  
intermediate drilling  
program (Svetlichny, M.)  
changes of level: Youngest  
Pleistocene marginal  
marine unit from the inner  
shelf off eastern North  
America; mid-Wisconsinan  
or early Wisconsinan?  
(Rampino, M. R.)  
Cretaceous: Normapolles and  
triporate pollen  
assemblages from the  
Raritan and Magothy  
formations (Upper  
Cretaceous) of New Jersey  
(Christopher, R. A.)  
-- The stratigraphic  
distribution of  
Normapolles and triporate  
pollen in zones IV, V, and  
VII of the Raritan and  
Magothy formations, Upper  
Cretaceous, of New Jersey  
(Christopher, R. A.)  
Jurassic: Angiosperm-like  
pollen with  
tectate-columellate wall  
structure from the Upper  
Triassic and Jurassic of  
the Newark Supergroup,  
U.S.A. (Cornet, B.)  
Mesozoic: A geochemical  
comparison of the Mesozoic  
basalt flows of  
Connecticut with those of  
New Jersey (Puffer, J. H.)  
Oligocene: Late Oligocene  
Piney Point transgression  
of Atlantic Coastal Plain  
(Olsson, R. K.)  
Pleistocene: Late  
Woodfordian history of the  
Hackensack River valley,  
N.J.-N.Y. (Averill, S. P.)  
Quaternary: Estimating  
paleo-environment from  
pollen in marine cores; an  
example from the western  
North Atlantic (Balsam, W.  
L.)  
-- Geology of the Pine  
Barrens of New Jersey  
(Rhodehamel, E. C.)  
Triassic: Angiosperm-like  
pollen with  
tectate-columellate wall  
structure from the Upper  
Triassic and Jurassic of  
the Newark Supergroup,  
U.S.A. (Cornet, B.)
- structural analysis see also**  
foliation

- structural analysis--foliation**  
 cleavage: Cleavage in Lower and Middle Devonian rocks of the Hudson and Delaware River valleys; its implications for Appalachian tectonics (Geiser, P. A.)
- structural geology**  
 foliation: Cleavage in Lower and Middle Devonian rocks of the Hudson and Delaware River valleys; its implications for Appalachian tectonics (Geiser, P. A.)
- tectonics: Fault patterns at the Peapack offset of the Ramapo border fault, New Jersey Triassic (Adams, G. F.)
- Incremental strain analysis in the Martinsburg Formation along a section of the Portland Fault near Newton, New Jersey (Franceschini, T.)
- Late Alleghenian thrusting in New Jersey (Drake, A. A., Jr.)
- structural petrology** see structural analysis
- sulfates see under minerals
- surveys see also under geophysical surveys
- surveys--current research**  
 U. S. Geological Survey: U. S. Geological Survey core drilling on the Atlantic shelf (Hathaway, J. C.)
- surveys--history**  
 New Jersey Geological Survey: New Jersey geological surveys in the 19th century (Sisar, J.)
- tectonics** see also faults;  
 orogeny: structural analysis: structural geology: see also under structural geology under Appalachians
- tectonophysics**  
 plate tectonics: P-wave residuals in the northeastern United States and their relationship to major structural features (Peseckis, L.)
- tektites see also meteorites
- Tertiary see also under stratigraphy under Atlantic Coastal Plain
- thermal waters see also under hydrogeology
- thrust faults see under displacements under faults
- trace elements see under geochemistry: see under geochemistry under lava;  
 magmas; sediments
- Triassic see also under stratigraphy
- underground water see ground water
- uranium see also under economic geology: see also under economic geology under Appalachians
- varves see lacustrine features under geomorphology
- Vertebrata see also ichnofossils; Pisces; problematic fossils; Reptilia
- waste disposal see also under environmental geology
- waste disposal--pollution**  
 ground water: Groundwater pollution potential of confined land disposal of dredged material (Yu, Y. K.)
- water resources see also under economic geology
- weathering see also under geochemistry
- well-logging--interpretation**  
 cores: U. S. Geological Survey core drilling on the Atlantic shelf (Hathaway, J. C.)  
 lithology: Core descriptions and analyses (Malinowski, M. J.)  
 -- Interpretation of geophysical logs (Nichols, R. R.)  
 -- Lithology (Lachance, D. J.)
- well-logging--techniques**  
 drilling: Operational data (Libby-French, J.)
- Western Hemisphere see also Atlantic Ocean
- zirconium--geochemistry**  
 igneous rocks: The distribution of zirconium and hafnium in terrestrial rocks, meteorites and the Moon (Ehmann, W. D.)

BIBLIOGRAPHY AND INDEX OF NEW JERSEY GEOLOGY

COUNTY INDEX

**Atlantic County**

- Dobday, M. P. Late Holocene history of the Great Egg Harbor River estuary  
 Schulz, E. E. Trace element concentrations in Mercenaria mercenaria from Great Bay, New Jersey

**Bergen County**

- Averill, S. F. Late Woodfordian history of the Hackensack River valley, N.J.-N.Y.  
 Grasso, S. V. An analysis of the factors affecting the distribution of heavy metals in a tidal estuary  
 Olsen, C. R. Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary

**Burlington County**

- Johnson, A. H. Acidification of headwater streams in the New Jersey Pine Barrens

**Cape May County**

- Dobday, M. P. Late Holocene history of the Great Egg Harbor River estuary  
 Nordstrom, K. F. An energy-mobility beach classification system as a basis for the management of beach resources  
 Wright, D. W. Cape May jewels

**East Baton Rouge Parish**

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

**Essex County**

- Beavan, J. Long series of strain observations from an aseismic area  
 Bukowski, F. Prehistoric residents of Essex County, New Jersey  
 Geiger, F. J. Geochemical and petrographic evidence of the former extent of the

Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin

- Puffer, J. H. Geochemical cross sections through the Watchung Basalt of New Jersey  
 U. S. Geological Survey. Land use and land cover, 1974. Newark, New Jersey; Pennsylvania: New York

**Hudson County**

- Bopp, R. F. The geochemistry of polychlorinated biphenyls in the Hudson River  
 Grasso, S. V. An analysis of the factors affecting the distribution of heavy metals in a tidal estuary  
 Olsen, C. R. Radionuclides, sedimentation and the accumulation of pollutants in the Hudson Estuary

**Monmouth County**

- Allen, J. R. Theoretical model of shore dynamics at Sandy Hook Spit, New Jersey  
 Baird, D. Pneumatocanthrus Cope, 1870, not a dinosaur but a sea-turtle  
 Jannik, N. D. Recurved spit development and related beach processes on Horseshoe Spit (bayside), Sandy Hook, New Jersey  
 May, F. E. Dinoflagellate cysts of the Gymnodiniaceae, Peridiniaceae, and Gonyaulacaceae from the Upper Cretaceous Monmouth Group, Atlantic Highlands, New Jersey  
 Nordstrom, K. F. The effect of differences in wave climate on swash zone sediments  
 Saxena, S. K. Instantaneous deformation analysis of gravity structure

**Morris County**

- Puffer, J. H. Geochemical cross sections through the Watchung Basalt of New Jersey  
 Samsel, W. A. A study of the longitudinal distribution of velocity in the upper Whippany River, New Jersey

**Ocean County**

- Ashley, G. M. Evaluation of the suitability of Barnegat Inlet dredge spoil as beach nourishment for the northern end of Long Beach Island, New Jersey  
 Eisenstadt, G. A. computer-based, deterministic, finite-difference model of a barrier-spit, Long Beach Island, New Jersey  
 Hole, T. J. F. Soil survey of Ocean County, New Jersey  
 Johnson, A. H. Evidence of acidification of headwater streams in the New Jersey Pinelands  
 Johnson, A. H. Acidification of headwater streams in the New Jersey Pine Barrens  
 Saxena, S. K. Instantaneous deformation analysis of gravity structure  
 Schulz, E. B. Trace element concentrations in Mercenaria mercenaria from Great Bay, New Jersey

**Passaic County**

- Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin  
 Grauch, R. I. Precambrian uranium mineralization in the central Appalachians

Somerset County/Warren County

Somerset County

Adams, G. F. Fault patterns at the Peaback offset of the Ramapo border fault, New Jersey Triassic

Sussex County

Carvalho, A. V., III. Gahnite-franklinite intergrowths at the Sterling Hill zinc deposit, Sussex County, New Jersey: an analytical and experimental study

Dunn, P. J. Contributions to the mineralogy of Franklin and Sterling Hill, New Jersey

Dunn, P. J. Kolicite, a new manganese zinc silicate arsenate from Sterling Hill, Ogdensburg, New Jersey

Dunn, P. J. Lawsonbauerite, a new mineral from the Sterling Hill Mine, New Jersey, and new data for tonreyite

Dunn, P. J. The chemical composition of gageite: an empirical formula

Dunn, P. J. Hauckite,  $Fe/3+_{/3} (Mg, Mn)/24_{/24} Zn/18_{/18} (-SO/4_{/4})/4_{/4} (CO/3_{/3})/2_{/2} (OH)/8_{/8}$ , a new mineral from Sterling Hill, New Jersey

Dunn, P. J. Yeatmanite; new data

Franceschini, T. Incremental strain analysis in the Martinsburg Formation along a section of the Portland Fault near Newton, New Jersey

Jones, B. Franklin revisited

Peacor, D. R. The crystal structure of kolicite,  $Mn/7_{/7} (OH)/4_{/4} [As/2_{/2} Zn/4_{/4} Si/2_{/2} O/16_{/16} (OH)/4_{/4}]$

Warren County

Fletcher, S. J. Soil survey of Warren County, New Jersey

Kastelic, R. L., Jr. Origin of the Washington magnetite deposit, Warren County, New Jersey

Kastelic, R. L., Jr. Precambrian geology and magnetite deposits of the New Jersey highlands in Warren County, New Jersey

BIBLIOGRAPHY AND INDEX OF NEW JERSEY GEOLOGY

ROCK-UNIT INDEX

- Allentown Dolomite**  
Collins, A. The Allentown Dolomite: stratigraphy, petrology, and paleontology
- Arundel Formation**  
Christopher, R. A. Normapollens and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey
- Beacon Hill Formation**  
Douglas, L. A. Mineralogy of Pine Barrens soils  
Heusser, C. J. Vegetational history of the Pine Barrens  
Rhodenamel, E. C. Geology of the Pine Barrens of New Jersey
- Bergen County**  
Grasso, S. V. An analysis of the factors affecting the distribution of heavy metals in a tidal estuary
- Bridgeton Formation**  
Douglas, L. A. Mineralogy of Pine Barrens soils  
Heusser, C. J. Vegetational history of the Pine Barrens  
Rhodenamel, E. C. Geology of the Pine Barrens of New Jersey
- Brunswick Formation**  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin
- Calvert Formation**  
Andrews, G. W. Morphologic variations in the Miocene diatom *Actinocyclus heliopeneta* Grunow  
Disson, R. K. Late Oligocene Piney Point transgression of Atlantic Coastal Plain
- Cape May Formation**  
Douglas, L. A. Mineralogy of Pine Barrens soils  
Heusser, C. J. Vegetational history of the Pine Barrens  
Rhodenamel, E. C. Geology of the Pine Barrens of New Jersey
- Cohansey Formation**  
Douglas, L. A. Mineralogy of Pine Barrens soils  
Heusser, C. J. Vegetational history of the Pine Barrens  
Mathis, J. M. The oxidation and titanium-enrichment mechanism of "altered ilmenite" grains in the Tertiary Kirkwood and Cohansey formations of New Jersey  
Rhodenamel, E. C. Geology of the Pine Barrens of New Jersey  
Rhodenamel, E. C. Hydrology of the New Jersey Pine Barrens
- Cow Branch Formation**  
Olson, P. E. A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia
- Dan River Group**  
Olson, P. E. A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia
- Englishtown Formation**  
Christopher, R. A. Normapollens and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey
- Esopus Shale**  
Rehmer, J. Petrology of the Esopus Shale; Lower Devonian, New York and adjacent states
- First Watchung Basalt**  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin  
Puffer, J. H. A geochemical comparison of the Mesozoic basalt flows of Connecticut with those of New Jersey  
Puffer, J. H. Geochemical cross sections through the Watchung Basalt of New Jersey
- Helderberg Group**  
Geiser, P. A. Cleavage in Lower and Middle Devonian rocks of the Hudson and Delaware River valleys; its implications for Appalachian tectonics
- Hornerstown Formation**  
Heusser, C. J. Vegetational history of the Pine Barrens
- Kirkwood Formation**  
Douglas, L. A. Mineralogy of Pine Barrens soils  
Heusser, C. J. Vegetational history of the Pine Barrens  
Mathis, J. M. The oxidation and titanium-enrichment mechanism of "altered ilmenite" grains in the Tertiary Kirkwood and Cohansey formations of New Jersey  
Disson, R. K. Late Oligocene Piney Point transgression of Atlantic Coastal Plain  
Rhodenamel, E. C. Geology of the Pine Barrens of New Jersey  
Rhodenamel, E. C. Hydrology of the New Jersey Pine Barrens
- Ladentown Diabase**  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the

Ladentown Diabase/Second Watchung Basalt

- Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin
- Littleton Formation**  
Enmann, W. D. The distribution of zirconium and hafnium in terrestrial rocks, meteorites and the Moon
- Lockatong Formation**  
Disen, P. E. A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia
- Magothy Formation**  
Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey  
Christopher, R. A. The stratigraphic distribution of Normapolles and triporate pollen in zones IV, V, and VII of the Raritan and Magothy formations, Upper Cretaceous, of New Jersey
- Manasquan Formation**  
Heusser, C. J. Vegetational history of the Pine Barrens
- Marshalltown Formation**  
Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey
- Martinsburg Formation**  
Franceschini, T. Incremental strain analysis in the Martinsburg Formation along a section of the Portland Fault near Newton, New Jersey
- Merchantville Formation**  
Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey
- Monmouth Group**  
May, F. E. Dinoflagellate cysts of the Gymnodiniaceae, Peridiniaceae, and Gonyaulacaceae from the Upper Cretaceous Monmouth Group, Atlantic Highlands, New Jersey
- Mount Laurel Formation**  
Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey
- Navesink Formation**  
May, F. E. Dinoflagellate cysts of the Gymnodiniaceae, Peridiniaceae, and Gonyaulacaceae from the Upper Cretaceous Monmouth Group, Atlantic Highlands, New Jersey
- New Germantown Basalt**  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin
- Newark Supergroup**  
Cornet, E. Angiosperm-like pollen with tectate-columellate wall structure from the Upper Triassic and Jurassic of the Newark Supergroup, U.S.A.  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin  
Disen, P. E. A new aquatic eosuchian from the Newark Supergroup (Late Triassic-Early Jurassic) of North Carolina and Virginia
- Orondaga Limestone**  
Geiser, P. A. Cleavage in Lower and Middle Devonian rocks of the Hudson and Delaware River valleys; its implications for Appalachian tectonics
- Palisades Sill**  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin
- Putapsco Formation**  
Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey
- Patuxent Formation**  
Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey
- Pensauken Formation**  
Douglas, L. A. Mineralogy of Pine Barrens soils  
Heusser, C. J. Vegetational history of the Pine Barrens  
Rhoadenamel, E. C. Geology of the Pine Barrens of New Jersey
- Piney Point Formation**  
Olsson, R. K. Late Oligocene Piney Point transgression of Atlantic Coastal Plain
- Pocono Formation**  
Geiser, P. A. Cleavage in Lower and Middle Devonian rocks of the Hudson and Delaware River valleys; its implications for Appalachian tectonics
- Raritan Formation**  
Christopher, R. A. Normapolles and triporate pollen assemblages from the Raritan and Magothy formations (Upper Cretaceous) of New Jersey  
Christopher, R. A. The stratigraphic distribution of Normapolles and triporate pollen in zones IV, V, and VII of the Raritan and Magothy formations, Upper Cretaceous, of New Jersey
- Red Bank Sand Formation**  
Rehm, J. M., Jr. Landslide potential in the Atlantic Highlands of New Jersey
- Sand Brook Basalt**  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption of the Palisades magma onto the floor of the Newark Basin
- Second Watchung Basalt**  
Geiger, F. J. Geochemical and petrographic evidence of the former extent of the Watchung Basalts of New Jersey and of the eruption

of the Palisades magma onto  
the floor of the Newark  
Basin

Puffer, J. H. A geochemical  
comparison of the Mesozoic  
basalt flows of Connecticut  
with those of New Jersey

Puffer, J. H. Geochemical  
cross sections through the  
Watchung Basalt of New  
Jersey

#### Severn Formation

Christopher, R. A. Nonapollen  
and triporate pollen  
assemblages from the Raritan  
and Magothy formations  
(Upper Cretaceous) of New  
Jersey

#### Shrewsbury Member

Rehm, J. M., Jr. Landslide  
potential in the Atlantic  
Highlands of New Jersey

#### Third Watchung Basalt

Puffer, J. H. A geochemical  
comparison of the Mesozoic  
basalt flows of Connecticut  
with those of New Jersey

Puffer, J. H. Geochemical  
cross sections through the  
Watchung Basalt of New  
Jersey

#### Vincetown Formation

Heusser, C. J. Vegetational  
history of the Pine Barrens

#### Watchung Basalt

Puffer, J. H. A geochemical  
comparison of the Mesozoic  
basalt flows of Connecticut  
with those of New Jersey

Puffer, J. H. Geochemical  
cross sections through the  
Watchung Basalt of New  
Jersey

#### Wenonah Formation

Christopher, R. A. Nonapollen  
and triporate pollen  
assemblages from the Raritan  
and Magothy formations  
(Upper Cretaceous) of New  
Jersey

#### West Falls Group

Geiser, P. A. Cleavage in  
Lower and Middle Devonian  
rocks of the Hudson and  
Delaware River valleys; its  
implications for Appalachian  
tectonics

