Purpose

This informal flyer is intended to assist the public in selecting published Oklahoma coal information, especially maps. Recently, the topics in greatest demand are coal resources, coal structure, coaled methane, and abandoned mine maps. Other topics are coal stratigraphy, coal rank (maturity), coal petrography, chemical analyses of coal, water chemistry of coal-mine ponds, and bibliography of abandoned coal-mine lands. This is not a bibliography of everything on coal that was ever published. Very old maps and reports by the U.S. Geological Survey, although out-of-print, may be available in the Youngblood Library on the second floor of the Sarkeys Energy Center. Refer to the bibliography of Oklahoma coal in OGS Open-File Report 9-2002, appendix 3.

Introduction to the Coalfield

Identified coal resources are present in an area of approximately 8,000 square miles in 20 counties in eastern Oklahoma. This area is within the southern part of the Western Region of the Interior Coal Province of the United States. The coal beds are of Middle and Late Pennsylvanian age, 0.8–10 ft thick, 0.4–6.5% in sulfur content, coking or non-coking, contain 11,400–15,000 Btu/lb, and are low (2–7%) in inherent moisture. Oklahoma contains the most significant deposits of bituminous coal west of the Mississippi River and east of the Rocky Mountains. Although the McClellan-Kerr Arkansas River Navigation System is available for barging coal to international ports, most of the coal production is shipped by truck or rail.

As of January 1, 1994, 8.1 billion short tons of remaining coal resources have been identified; 76% are in the Arkoma basin and 24% are in the northeast Oklahoma shelf area. About 41% of the State’s coal resources are low- and medium-volatile bituminous in rank and are present in the Arkoma basin. About 1.7 million tons of coal was produced in 2001 by four mining companies at 10 mines in seven counties. In 2001, slightly more than half of this coal was used by one non-utility electric power plant and one utility electric power plant in Oklahoma. Oklahoma coal also was used in the State during 2001 at lime and cement kilns.
Selected Publications

Coal Resources


Bulletin 67.—Geology and mineral resources of Haskell County, Oklahoma, by M. C. Oakes and M. M. Knechtel. 134 pages, 8 figures, 6 plates. 1948. (Photocopy*)

Bulletin 68.—Geology and coal and natural gas resources of northern Le Flore County, Oklahoma, by M. M. Knechtel. 76 pages, 1 figure, 7 plates, 3 tables. 1949. (Photocopy*)

Bulletin 140.—Coal geology of Craig County and eastern Nowata County, Oklahoma, by LeRoy A. Hemish. 131 pages, 17 figures, 8 plates, 2 tables. 1986. $22.00.

Bulletin 144.—Coal geology of Rogers County and western Mayes County, Oklahoma, by LeRoy A. Hemish. 118 pages, 12 figures, 8 plates, 2 tables. 1989. Clothbound, $30.00; paperbound, $24.00.

Map GM-33.—Coal geology of Tulsa, Wagoner, Creek, and Washington Counties, Oklahoma, by LeRoy A. Hemish. 3 sheets (plates 1–5), scale 1:63,360 (shows mined areas in gray), accompanying text. 1990. $13.00, folded in envelope.


Special Publication 98-6.—Coal geology of McIntosh County, Oklahoma, by LeRoy A. Hemish. 74 pages, 8 figures, 2 color plates, 2 tables. 1998. $16.00.

Map GM-23.—Map showing potentially strippable coal beds in eastern Oklahoma, by Samuel A. Friedman. 4 color sheets (plates 1–4), scale 1:125,000 (shows mined areas in gray). Prepared in cooperation with Oklahoma Department of Mines. 1982. $5.00, folded in envelope.

Map GM-24.—Map of eastern Oklahoma showing locations of active coal mines, 1977–79, compiled by Samuel A. Friedman. Includes tabulation of coal mines and coal data. Scale 1:500,000. 1982. $3.00, folded in envelope.


Coalbed Methane Resources

Special Publication 82-3.—Determination of reserves of methane from coal beds for use in rural communities in eastern Oklahoma, by Samuel A. Friedman. 32 pages, 7 figures, 2 tables. 1982; 2nd printing, 1989. $4.00.


Coal Rank (Maturity)


Coal Stratigraphy and Structure

Circular 24.—Broken Arrow coal and associated strata, western Rogers, Wagoner, and southeastern Tulsa Counties, Oklahoma, by M. C. Oakes. 40 pages, 2 plates. 1944. (Photocopy*)

Circular 50.—Geology of northern Latimer County, Oklahoma, by D. T. Russell. 57 pages, 12 figures, colored geologic map (scale 1½ in. = 1 mi), accompanying text. 1960. (Photocopy*)

Circular 51.—Geology of the Cavanal syncline, Le Flore County, Oklahoma, by P. K. Webb. 65 pages, 1 figure, colored geologic map (scale 1½ in. = 1 mi). 1960. (Photocopy*)

Circular 53.—Geology of the Featherston area, Pittsburg County, Oklahoma, by R. E. Vanderpool. Includes xerox text and colored map (scale 1½ in. = 1 mi) that shows boundary of Secor coal in Ts. 6–8 N., Rs. 17–18 E., in parts of Haskell, Latimer, and Pittsburg Counties, Oklahoma. 1960. (Photocopy*)


Special Publication 90-2.—Lithostratigraphy and core-drilling, upper Atoka Formation through lower Senora Formation (Pennsylvanian), northeastern Oklahoma shelf area, by LeRoy A. Hemish. 54 pages, 7 figures, 2 plates, 1 appendix. 1990. $8.00.


Open-File Report 4-96.—Geology of the Sans Bois syncline along the proposed route of State Highway 82, Haskell and Latimer Counties, Oklahoma, by LeRoy A. Hemish. 1 sheet; scale 1:24,000. 1996. $3.00, folded in envelope.

Open-File Report 7-96.—Map showing the distribution of underground mines in the Hartshorne and McAlester coalfields in the Hartshorne 7.5′ Quadrangle, Pittsburg and Latimer Counties, Oklahoma, by Samuel A. Friedman. 1 sheet; scale 1:24,000. 1996. $3.00, rolled.


Coalescence of the Secor and Secor rider coal beds in the Shady Grove Creek area, northeastern McIntosh County, Oklahoma, with interpretations concerning depositional environments, by LeRoy A. Hemish. Oklahoma Geology Notes, vol. 48, no. 3, 1988, p. 100–119. $1.50.


Desmoinesian coal deposits in part of the Arkoma basin, eastern Oklahoma, by S. A. Friedman. Published by the Oklahoma City Geological Society (unnamed number guidebook) for field trip no. 2 of the 1978 annual meeting of the American Association of Petroleum Geologists, April 8–9, 1978. 62 pages, 24 figures, 2 tables. (Photocopy*)


Order from: Environmental and Coal Associates, P.O. Box 3168, Reston, VA 22090; (703) 648-6412. $10, plus postage.

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Coal Petrography


Order from: Environmental and Coal Associates, P.O. Box 3168, Reston, VA 22090; (703) 648-6412. $10, plus postage.

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Chemical Analyses of Coal

Mineral Report 12.—Carbonizing properties of Henryetta bed coal from Atlas No. 2 Mine, Henryetta, Okmulgee County, Oklahoma (preliminary report), by Joseph D. Davis and D. A. Reynolds. 8 pages, 7 tables. 1941. $1.00 (photocopy).

Mineral Report 15.—Carbonizing properties of McAlester bed coal from Dow No. 10 mine, Dow, Pittsburg County, Okla. (preliminary report), by Joseph D. Davis and D. A. Reynolds. 10 pages, 7 tables, 1 map. 1942. $1.00 (photocopy).

Bulletin 51.—A chemical study of Oklahoma coals, by J. E. Moose and V. C. Searle. 112 pages, 1 figure, 7 plates. 1929. (Photocopy*)

Also see under Coal Resources: 2001 Keystone Manual; OGS Bulletins 67, 68, 140, 144; GMs 24, 33; and SPs 94-3, 98-2, 98-6.

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Water Chemistry of Coal-Mine Ponds


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Abandoned Coal-Mine Lands

Bibliography


* Out of print. Contact the OGS Publications Sales Office for photocopy cost (Phone: 405-360-2886; Fax: 405-366-2882; E-mail: ogssales@ou.edu).