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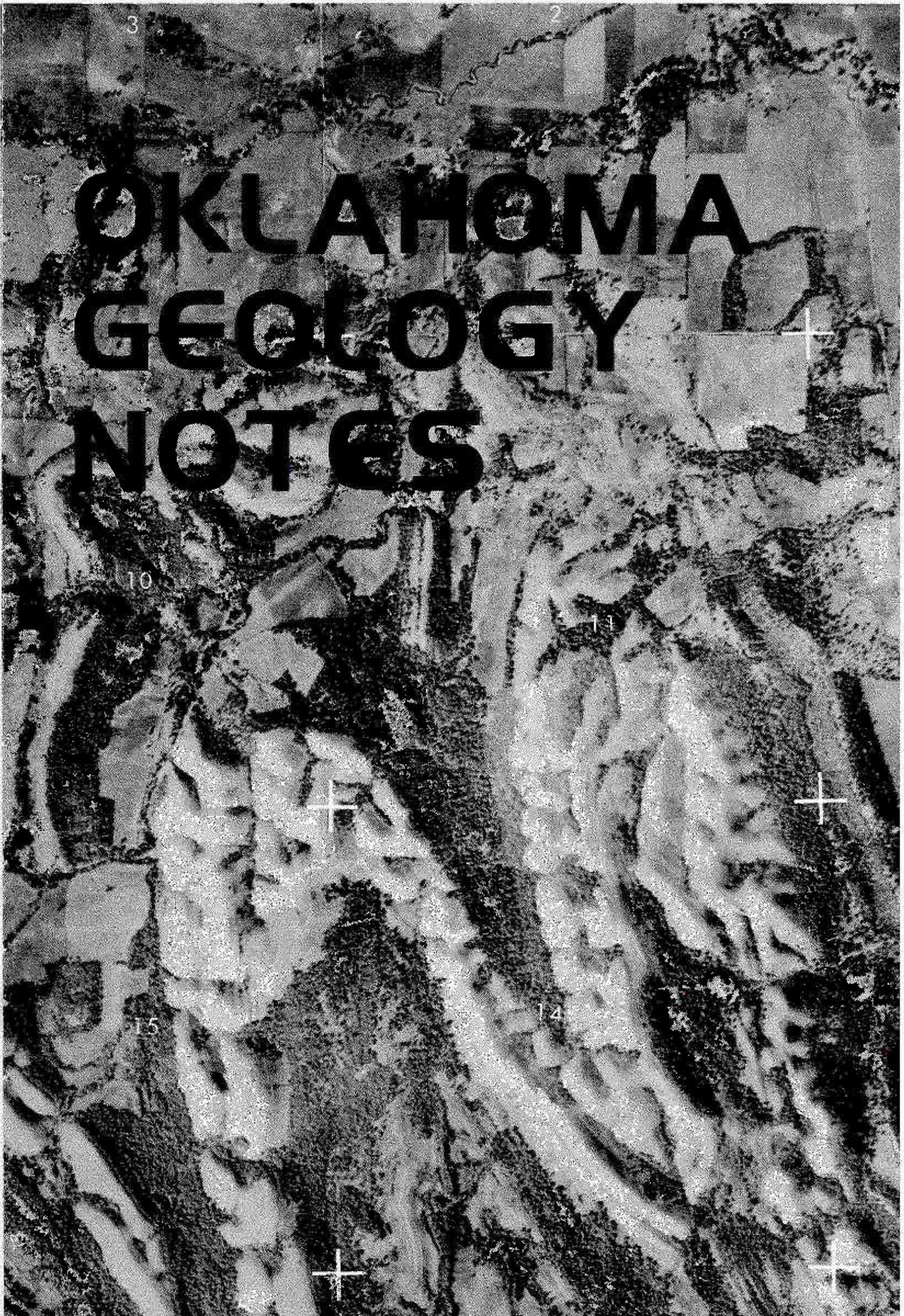

Cover Picture

AREA OF MINERAL PRODUCTION ON NORTH FLANK OF ARBUCKLE ANTICLINE

The cover photograph for this issue shows folded limestones and shales on the north flank of the Arbuckle anticline, 3 miles southwest of Davis. Two north-plunging anticlines are outlined by the prominent, tree-bare ridge of Viola Limestone (Ordovician) visible in the south half of the photograph. The anticlines cover most of secs. 10, 11, 14, and 15, T. 1 S., R. 1 E., in Murray County. The width of the area shown in the photograph is 2 miles.

This area has yielded significant quantities of mineral resources (limestone and petroleum) since the photograph was taken in the 1930's. Sooner Rock and Sand, Inc., opened its Davis quarry on the nose of the east anticline (SE¼ sec. 11) in 1959 and is mining the Viola Limestone for road material, aggregate, and other concrete products, most of which is being sent to Oklahoma City markets. The Davis quarry is closer to Oklahoma City than any other quarries in the Arbuckle Mountains, and its annual production in recent years has been a little over half a million tons.

An important petroleum discovery was made on the east anticline in January 1975. Mapco, Inc., completed the No. 1 Howell in sec. 14 for an initial potential flow (IPF) of 1,392 barrels of oil per day (BOPD) from sands of the Oil Creek Formation (Middle Ordovician) at a depth of 4,172–4,199 feet beneath a series of complex thrust faults. Since then 12 more wells have been completed in the Southwest Davis field (secs. 11 and 14), with IPF's of 130 to 400 BOPD, from upper and lower Oil Creek sands at depths ranging from 3,800 to 4,900 feet; two additional wells have been dry.

The photograph was taken by the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service.

—*Kenneth S. Johnson*

Editorial staff: William D. Rose, Rosemary L. Hardage, Elizabeth A. Ham

Oklahoma Geology Notes is published bimonthly by the Oklahoma Geological Survey. It contains short technical articles, mineral-industry and petroleum news and statistics, an annual bibliography of Oklahoma geology, reviews, and announcements of general pertinence to Oklahoma geology. Single copies, seventy-five cents; yearly subscription, $4.00. All subscription orders should be sent to the address on the front cover.

Short articles on aspects of Oklahoma geology are welcome from contributors. A set of guidelines will be forwarded on request.

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Compiled by **Elizabeth A. Ham**[2]

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INDEX

AAPG Distributes Speaker's Kit

The American Association of Petroleum Geologists' Public Information Committee has assembled a speaker's kit for use by geologists addressing various types of audiences on the subject of energy. The kit contains 49 slides, in addition to comprehensive reference materials, and is intended to provide speakers with factual information on which to base their presentations.

Claude E. McMichael, a geologist with Shell Oil Company in New Orleans, was chiefly responsible for putting the kit together. He explained that the material in the kit covers the energy situation in the United States, including use, current sources, known supplies, outlook for new sources, necessity for conservation, and environmental effects. "It is not a 'canned talk,' " he emphasized. "Each person using the kit is to assemble his presentation according to his own idea of how it should be given."

All the geological societies affiliated with AAPG in this country were recently sent one kit each from the association, free of charge, for loan to their members. Additional kits are available on a loan basis from headquarters or for purchase at $25.00 apiece. For further information, write AAPG Headquarters, P.O. Box 979, Tulsa, Oklahoma 74101.

Greater Seminole Oil Field Commemorated

An 8-foot granite marker was unveiled in a ceremony July 14, 1977, in recognition of the significant petroleum discoveries in 1926 that led to the development of the multipay Greater Seminole oil field. The marker is the 13th to be dedicated in a joint project of the Oklahoma Historical Society and the Oklahoma Petroleum Council. It was placed adjacent to the site of a proposed oil museum near the entrance to Seminole Municipal Park, on State Highway 99 at the north edge of Seminole.

The granite monument was unveiled by Governor David L. Boren and by representatives of the sponsoring organizations, the Seminole Historical Society, and the city of Seminole. Also assisting was D. A. McGee, chairman of the board of Kerr-McGee Corp., Oklahoma City, who spoke at a forum luncheon preceding the dedication.

Production from the greater Seminole field reached its peak of 527,400 barrels on July 30, 1927. By 1977 cumulative production had reached an impressive 201,246,000 barrels.

Taking part in the dedication of the granite marker commemorating the Greater Seminole oil field were, left to right, D. A. McGee, board chairman of Kerr-McGee Corp., Oklahoma City; Governor David L. Boren; and Warren L. Jensen, vice-president of the Oklahoma Petroleum Council and vice-president of Continental Oil Co., Ponca City.

New AAPG Executive Committee Takes Charge

Edwin P. Kerr, AAPG vice-president

John W. Shelton, AAPG editor

Edd R. Turner, a geologist with Getty Oil Co. in Houston, took the helm of The American Association of Petroleum Geologists as president on July 1. Joining the executive committee as president-elect was Robert D. Gunn, independent oil operator from Wichita Falls, Texas.

Oklahoma is well represented on this year's executive committee by Edwin P. Kerr, vice-president, and John W. Shelton, editor. Ed, who lives in Oklahoma City, is a graduate of The University of Oklahoma and has been an independent exploration geologist since 1973. John, a professor of geology at Oklahoma State University, Stillwater, has just begun his second 2-year term as editor.

Other officers are John J. Amoruso, consulting geologist and independent, Houston, the new secretary, and George S. Galbraith, independent geologist, Abilene, Texas, who is serving his second and final term as treasurer of the 18,500-member organization.

New Theses Added to OU Geology Library

The following M.S. theses have been added to The University of Oklahoma Geology and Geophysics Library:

Altitude of Magnetic Measurement: An Important Factor in Aeromagnetic Survey, by Jose Gabriel Paz.

Relative Mechanical Durabilities of Quartz and Feldspar, by James Harrell.

OGS Releases New Coal-Mine Map of Oklahoma

An updated version of a map showing coal-mining operations in Oklahoma has just been published by the Oklahoma Geological Survey. Compiled by S. A. Friedman, the Survey's coal geologist, the map depicts all coal mines, preparation plants, and loading facilities in the eastern Oklahoma coal field as of January 1 of this year.

The 32- by 28-inch map sheet, printed at a scale of 1:500,000 (1 inch = 8 miles), shows 69 mining operations in all, a substantial increase over the 42 shown in last year's version. All active mines are at the surface. The region's one underground mine, Kerr-McGee's deep Choctaw Mine southeast of Stigler, is idle.

A comprehensive table lists the individual mines and plants, the seams mined and their thickness, thickness of overburden, sulfur content, and annual production range. The principal seams are the Croweburg, Iron Post, Stigler, and upper and lower Hartshorne. Production during 1976 amounted to approximately 3.6 million short tons.

A green overprint on the map shows the regional extent of the coal field. Also shown are railroads, highways, and waterways, including the Arkansas River Navigation System.

Map of Eastern Oklahoma Showing Active Coal Mines (January 1, 1977) is available from the Survey for $2.00 by writing to the address on the front cover.

Two Colorado Coal Publications Issued

The Colorado Geological Survey has recently published two volumes on coal. Both can be ordered by writing to the survey at the following address: Room 715, 1313 Sherman Street, Denver, Colorado 80203. Prepayment is requested.

Resource Series 1, *Geology of Rocky Mountain Coal, Proceedings of the 1976 Symposium*, contains 14 papers plus abstracts of 5 papers that were presented at a symposium held in April 1976 at the Colorado School of Mines. In addition to Rocky Mountain coal deposits in Colorado, Montana, New Mexico, Utah, and Wyoming, the publication covers basic coal geology and geochemistry, coal-exploration techniques, and geologic aspects of coal mining and utilization. Edited by D. Keith Murray, the 175-page volume is available for $4.00.

The second study is entitled *Colorado Coal Analyses, 1975 (Analyses of 64 Samples Collected in 1975)* and was prepared by Donna L. Boreck, David C. Jones, D. Keith Murray, Janet E. Schultz, and Denise C. Suek. Issued as Information Series 7, the 112-page report contains the most detailed chemical analyses ever published on Colorado coals. The beds sampled range in age from Late Cretaceous to early Tertiary. The report sells for $3.00.

Coal-Geology Course Offered at OU

The fourth annual short course in Coal Geology Fundamentals will be given October 24-26 at the Oklahoma Center for Continuing Education on The University of Oklahoma campus in Norman. Sponsored by the Oklahoma Geological Survey and OU's Management Development Programs, the 3-day course will focus on applied coal geology and will offer an optional 1-day field trip to the eastern Oklahoma coal field.

The course has been organized by the Survey's coal geologist, S. A. Friedman, and follows the general format of those given in the past. In addition to Friedman, the faculty consists of P. A. Hacquebard, coal geologist with the Geological Survey of Canada, Dartmouth, Nova Scotia; C. G. Groat, chairman of the Department of Geology, The University of Texas at El Paso; M. Deul, research geologist with the U.S. Bureau of Mines, Pittsburgh, Pennsylvania; E. C. Beaumont, consultant, Albuquerque, New Mexico; and R. L. Fuchs, president of Geosystems, Inc., Westport, Connecticut.

The course is directed toward scientists, engineers, and administrators who are not formally trained in the principles or practice of coal geology. General topics to be covered are the origin, occurrence, and geographic distribution of coal; principal coal regions of the United States and their remaining coal resources; types of coal mining; and trends in coal production. Selected aspects of these topics will include coal economics, coal exploration, sulfur in coal, current and future uses of coal, applied coal petrology, and methane in coal.

Tuition for the course is $150.00, plus an additional $75.00 for the field trip. For further details, contact John Boardman, Director, Management Development Programs, The University of Oklahoma, 1700 Asp Avenue, Norman, Oklahoma 73037 (phone 405—325-1931).

Mining Engineers to Meet in St. Louis

The fall meeting and exhibit of the Society of Mining Engineers (SME) of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) is scheduled for October 19-21 in St. Louis' convention center.

Among the session topics are underground coal mining, coal utilization, mineral resources and the environment, open-pit mining, chemical processing, and rock mechanics. Besides coal, mineral commodities dealt with specifically are lithium, bauxite-alumina, limestone, clay, lead, and zinc.

Two pre-meeting short courses are planned (on longwall and shortwall mining and on economic principles for coal-property valuation), as are several 1-day field trips.

For further information on the meeting, contact Ruth M. Orologio, SME Meetings Manager, P.O. Box 8800, Salt Lake City, Utah 84108 (phone, 801—582-2744).

Gem and Mineral Show Scheduled for Oklahoma City

The General Exhibits Building at the State Fairgrounds in Oklahoma City will be the locale October 15 and 16 for the Oklahoma Mineral and Gem Society's biennial show. Billed as an October Festival of Gems and Minerals, the show promises to be an extravaganza of specimens, working displays, and other exhibits. A swap area also will be provided.

For further information on the show, contact the chairman, Les Wagner, 3400 Preston Drive, Oklahoma City, Oklahoma 73122.

Oklahoma APGS Members to Meet in October

The annual meeting of the Oklahoma Section of the Association of Professional Geological Scientists has been scheduled for October 14 and 15 at the new Sheraton-Century Center Hotel in downtown Oklahoma City. Section president Henry Trattner, Oklahoma City independent, will preside.

For details on the meeting, contact John W. Erickson, Michigan Wisconsin Pipe Line Co., Fidelity Plaza, Suite 1400, Oklahoma City, Oklahoma 73102 (phone 405—239-7031).

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Volume 37 August 1977 Number 4