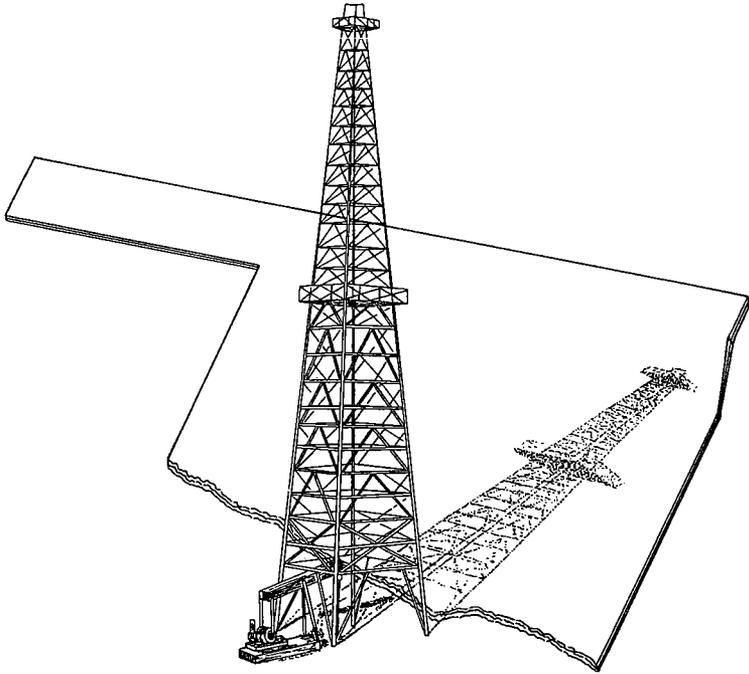


Oklahoma Geology Notes



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STATUS OF OKLAHOMA GEOLOGICAL SURVEY PUBLICATIONS

- Bulletin 74. Geology of Seminole County, Oklahoma. By William F. Tanner. 175 pages, colored geologic map, subsurface cross sections.
Released February 1, 1956. Price \$4.00 (bound in blue cloth \$4.75).
- Circular 32. Pennsylvanian Plant Microfossils of the Croweburg Coal in Oklahoma. By L. R. Wilson and W. S. Hoffmeister. In press. Available in April, 1956.
- Mineral Report 30. Asphaltite in the Ouachita Mountains of Southeastern Oklahoma. By William E. Ham. 12 pages. Folded-in map. Released February 7, 1956. Price \$0.25 postpaid.
- Mineral Report 31. The Mineral Industries of Oklahoma. Part I, Final Advance Summary for 1954. By F. F. Netzeband, P. E. Tribble, and William E. Ham. Part II, Preliminary Annual Figures for 1955. By F. F. Netzeband and William E. Ham. Released in March. Price \$0.25 postpaid.
- Map 72-3. Tectonic Map of Oklahoma. By J. Kaspar Arbenz. Ready for press. Available in June, 1956.

MAJOR INCREASE IN CONSUMPTION OF PORTLAND CEMENT IN OKLAHOMA

Consumption of portland cement in Oklahoma increased 29 percent in October, 1955, compared with October, 1954, according to information just released by the U. S. Bureau of Mines. During the same period the average consumption in Texas, Louisiana, Arkansas, Missouri, and Colorado increased only 23 percent, whereas consumption in New Mexico, Kansas, Nebraska, and Iowa decreased an average of 11 percent.

Shipments of portland cement to Oklahoma destinations approximately equalled production from the two Oklahoma plants—Ideal Portland Cement Co. at Ada and Dewey Portland Cement Co. at Dewey. In this gain in both consumption and production Oklahoma thus compares well with surrounding states, and the gain reflects a high rate of construction as well as an abundance of raw materials for the manufacture of portland cement.

On a comparative basis, Oklahoma stood high above the large cement-producing states of New York, Pennsylvania, Ohio, Illinois, and California, all of which in the same period either showed a loss in consumption or a gain not exceeding 4 percent. W.E.H.

The glass container business is certain to establish an all-time yearly record in 1955, and the demand is still growing. (Nat. Glass Budget) This should sound good to Sand Springs, Sapulpa, Muskogee, Okmulgee, and Ada.

**PUBLISHED PAPERS ON OKLAHOMA GEOLOGY
IN THE YEAR 1955**

Compiled by Francis Taaffe

- Allen, F. W., Weatherford water. Okla. Acad. Science, Proc. for 1953, vol. 34, Jan., 1955, pp. 139-143, 2 figs. A report on the groundwater levels and potentialities of the Rush Springs sandstone of the Weatherford, Oklahoma, area.
- Amsden, Thomas W., Lithofacies map of Lower Silurian deposits in central and eastern United States and Canada. Amer. Assoc. Petroleum Geologists, Bull., vol. 39, no. 1, pp. 60-74, 3 figs., Jan., 1955. The relationships of the Chimneyhill formation (Hunton group, south central Oklahoma) on a regional facies map of the Lower Silurian.
- Arbenz, Kaspar, Restless forces within the earth. Shale Shaker, vol. 5, no. 9, May, 1955, pp. 28-30. A brief discussion of the forces responsible for the deformation of the earth's crustal shell.
- Bradfield, H. H., Geology and oil development of Grayson County, Texas. Tulsa Geol. Society Digest, vol. 23, pp. 58-69, 6 figs. The Muenster Arch, Marietta Basin, Ouachita facies and extensive faulting comprise the complex geology of the Grayson County region.
- Branson, Carl C., Burwell, A. L., and Chase, G. W., Uranium in Oklahoma, 1955. Okla. Geol. Survey, Mineral Report 27, 22 pp., 2 maps. Advice to uranium seekers, discussion of known radioactive occurrences.
- Branson, Carl C., Notes on some Oklahoma formation names. Hopper, vol. 15, nos. 10-11, Oct.-Nov., 1955, pp. 126, 129, 131. Names and descriptions of six formations omitted from original preliminary list (1954).
- Branson, Carl C., Oklahoma stratigraphic names of recent date. Hopper, vol. 15, no. 12, Dec., 1955, pp. 135-138. Names and recent information on eleven Oklahoma formations and members.
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A survey by the Structural Clay Products Institute reveals that thirty-three percent of the one-family houses being built today have brick walls, representing an increase of 14% over last year's figures (*Ceramic Age*, Dec. 1955). It is hard to beat a good brick home. Twelve brick and tile plants are located in Oklahoma, operating in Creek, Custer, Garfield, Greer, Oklahoma, Pittsburg, Pontotoc, Seminole, and Tulsa Counties.

A.L.B.

NEW LIGHTWEIGHT AGGREGATE PLANT AT TULSA

A new lightweight aggregate plant, using as raw material a shale that expands and bloats on heating, was put in operation in October, 1954, by the Chandler Materials Co. of Tulsa. This plant is at Garnett, about 12 miles east of Tulsa, on the site where Chandler Materials Co. for many years has been producing crushed limestone from the Oologah formation. The company also is a producer of sand from the Arkansas River, and thus it now is able to supply its concrete block and pipe plant in Tulsa with all the required aggregates.

A description of the expanded shale operation is given in the October, 1955, issue of **Rock Products** (vol. 58, no. 10, pp. 198-200, 201). According to this description the shale is expanded in a 6-foot by 70-foot gas-fired rotary kiln, rotating at 2 rpm, at a temperature of about 2,300° F. Expanded clinker is cooled 24 hours and then screened into three products, the finer two of which are used in the manufacture of lightweight concrete blocks. Daily production is 120 cu. yds., nearly all of which is used by the company. Already the company is considering erection of a second kiln because of expanding markets.

James M. Chandler, vice-president and secretary, in charge of expanded clay aggregates for the company, reports that the shale is obtained from the McNabb Coal Co. pits near Catoosa in southwestern Rogers County, where McNabb has extensive coal-stripping operations. The shale used for lightweight aggregate is in the Senora formation of middle Pennsylvanian age, and lies above the Broken Arrow (Croweburg) coal. Mr. Chandler reports that although this shale makes excellent lightweight aggregate, new sources are being investigated closer to the Garnett plant, including the Labette shale, which underlies the Oologah limestone at the company quarry.

The Oklahoma Geological Survey congratulates the Chandler Materials Co. on their new and important development in the field of nonmetallic products. The Survey is proud to have played a part in this development by conferring with company officials early in their investigation of raw materials, and by recommending prospective sites. Results of investigations on bloating properties of shales in eastern and central Oklahoma have been published and are available as Oklahoma Geological Survey, Mineral Report 24, "Lightweight Aggregate from Certain Oklahoma Shales," by A. L. Burwell, September, 1954. This report is on sale for \$0.35 by mail or over the counter at the Survey office on the campus of the University of Oklahoma at Norman.

Chandler Materials Co. is the second producer of lightweight aggregate from expanded clay or shale in Oklahoma. Oklahoma Lightweight Aggregate Co. was the first producer in the state, opening a clay pit and an expanding plant at Choctaw, Oklahoma County, in 1953.

W.E.H.