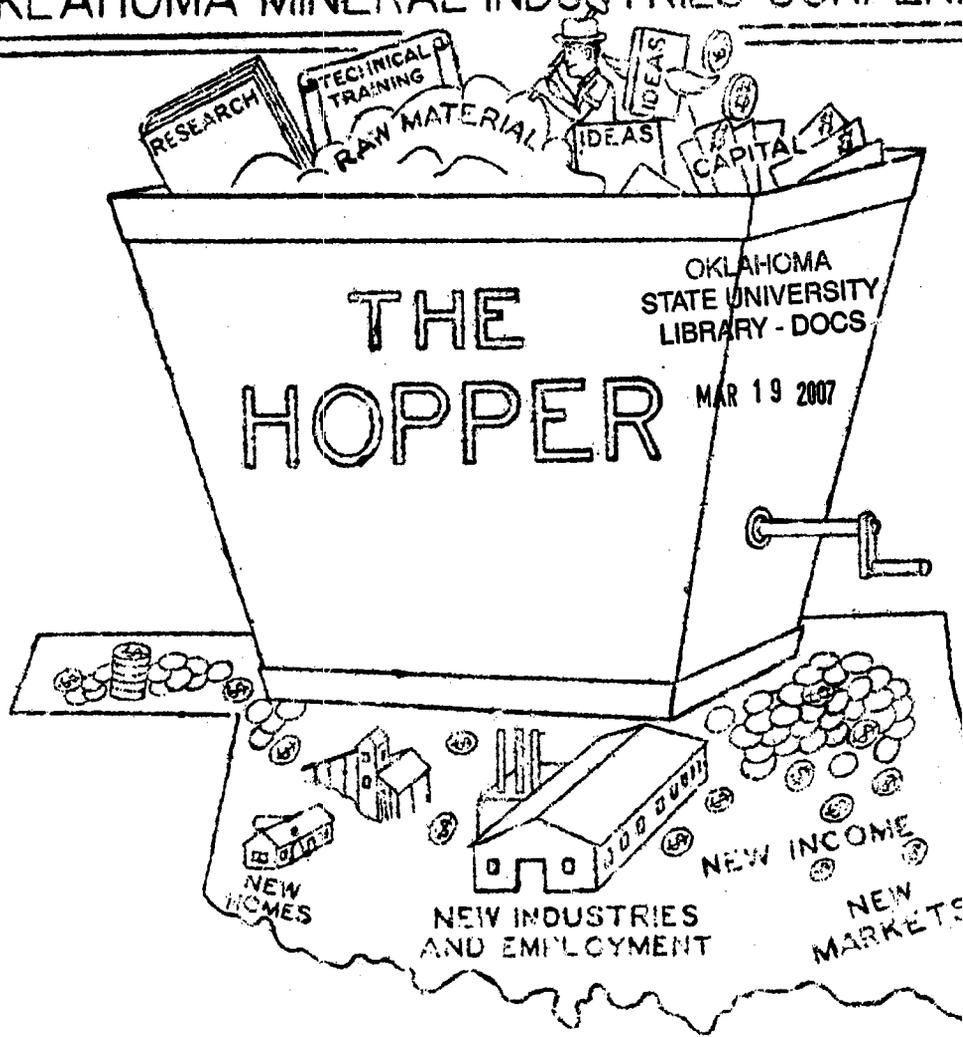


OKLAHOMA MINERAL INDUSTRIES CONFERENCE



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OKLAHOMA INDUSTRIAL AND MINERAL INDUSTRIES CONFERENCE

Program of the joint Oklahoma Industrial and Mineral Industries Conference to be held in Oklahoma City October 12 and 13 will bring together prominent national and state leaders for discussions on various phases of industry. The Tuesday afternoon and Wednesday morning sessions will be devoted primarily to mineral industries; the Wednesday afternoon session to all phases of Oklahoma industry.

Governor Roy J. Turner is scheduled to officiate at the grand opening of the Made in Oklahoma Manufacturers' exposition, and to deliver the address at the noon luncheon of the Oklahoma Industrial and Mineral Industries Conference Tuesday. Earl Wells, president, Starr Coal Company, Henryetta, will be toastmaster at the luncheon and preside at the afternoon session Tuesday.

Dr. Howard E. Fritz, vice-president and director of research for the B. F. Goodrich Tire and Rubber Company, Akron, Ohio, will deliver the address at the annual banquet to be held in the Silver Glade Room, Skirvin Tower Hotel, Tuesday evening, October 12, it has been announced by Roland V. Rodman, general chairman. Dr. Fritz is recognized as one of the nation's leading industrial research scientists. John Collyer, president, James Pedlar, vice-president, and Herb Maxson, director of public relations of the Goodrich organization will accompany Dr. Fritz to Oklahoma City and be present at the Conference. Senator Bill Logan, Lawton, will be toastmaster at the dinner.

S. B. Ireland, president, Cities Service Gas Company, Oklahoma City, will be principal speaker at the afternoon session Tuesday. Mr. Ireland will talk on the subject "Oklahoma Minerals--the Life

Blood of Key Industries." Following Ireland's address, groups of discussions will be given under the general themes of "Why Oklahoma Mineral Industries Prosper", and "Why not More?"

Following the Wednesday morning program of the Oklahoma Industrial Conference, the group will adjourn to Tinker Field, where they will be guests of Maj. Gen. F. S. Borum, commanding general of Tinker Air Force Base (Oklahoma City Air Depot). Following the luncheon they will tour the industrial facilities of the sprawling military installation, which is Oklahoma's largest industrial plant.

Final event of the conference will be a reunion of those who made the industrial tour in 1947. Oklahoma City's representatives will be hosts at a dinner-dance in the Continental Room of the Skirvin Hotel at 7 p.m.

PROGRAM

Tuesday, October 12.

- 8:00 a.m. Registration, Skirvin Tower Hotel.
No registration fee.
- 10:00 a.m. Grand opening, Made in Oklahoma Manufacturers' Exposition. Municipal Auditorium. Paul Andres, Master of Ceremonies; Governor R. J. Turner officiating.
- 12:00 noon Luncheon. Hall of Mirrors, Municipal Auditorium. Toastmaster, Earl Wells, President of Starr Coal Co., Henryetta. Address by Governor Roy J. Turner.
- 2:30 p.m. Ninth Annual Oklahoma Mineral Industries Conference. Earl Wells presiding. Convention Hall, Skirvin Tower Hotel.

"Oklahoma Minerals—the Life Blood of Key Industries", S. B. Irelan, President, Cities Service Gas Co., Oklahoma City.

"Why Oklahoma Mineral Industries Prosper"

"Brick and Tile", Otto Pluess, Manager-Engineer, Brick and Tile Association of Oklahoma, Oklahoma City.

"Glass", Jay Randolph, Liberty Glass Co., Sapulpa.

"Cement", D. M. Tyler, First Vice President, Dewey Portland Cement Co., Dewey.

"Zinc", Color Film, Mining, Smelting, and Byproducts. F. G. McCutcheon, Plant Manager, Eagle-Picher Mining and Smelting Co., Henryetta.

"Petroleum Refining", James J. Kelly, Manager, Refining Division Kerr-McGee Oil Industries, Oklahoma City.

"Why not More?" Panel discussion of possibilities of new industries based on Oklahoma minerals not now being utilized. Leader, Robert H. Dott, Director, Oklahoma Geological Survey.

"Recent Field Work by the Survey on Industrial Minerals", Gerald W. Chase, Assistant Geologist, Oklahoma Geological Survey.

"Ideas, New and Old, from the Survey's Industrial Research Laboratory", A. L. Burwell, Industrial Chemist, Oklahoma Geological Survey.

"New and Interesting Developments in Chemicals from Petroleum", H. P. Hohenadel, General Superintendent, Chemical

Division, Cities Service Oil Company,
Bartlesville.

"Oklahomans Should Carve Their Own Future", E. J. O'Conner, Executive Vice President, Associated Industries, Oklahoma City.

4:45 p.m. Adjournment.

6:30 p.m. Dinner, Silver Glade Room, Skirvin Tower Hotel. Senator Bill Logan, Lawton, Toastmaster. Dr. Howard E. Fritz, Vice President & Director of Research, B. F. Goodrich Tire and Rubber Co., Speaker.

Wednesday, October 13.

9:00 a.m. Oklahoma Industrial Conference. Skirvin Tower Hotel.

11:45 a.m. Adjourn to take buses to Oklahoma City Air Depot, (Tinker Field) for lunch.

1:30 p.m. Tour of Tinker Field.

7:00 p.m. Reunion, Oklahoma Industrial Tour of 1947.

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HAM ON A.I.M.M.E. PROGRAM
FOR ST. LOUIS MEETING

W. E. Ham, associate geologist on the staff of the Oklahoma Geological Survey, is to speak on the subject of "New Development in Oklahoma's Industrial Minerals", at St. Louis, Friday, October 15. The talk will be given before a meeting of the Industrial Minerals Division of the American Institute of Mining and Metallurgical Engineers, to be held in St. Louis, October 13-16.

OKLAHOMA INDUSTRY ON PARADE,
OKLAHOMA CITY, OCTOBER 12-17

Many phases of Oklahoma industry will be on display at the first "Made in Oklahoma" Manufacturers' Exposition ever to be held in Oklahoma. The Exposition doors will open at Oklahoma City Municipal Auditorium, Tuesday, October 12, at which time displays from more than 125 manufacturing establishments in Oklahoma will be in readiness. Clarence Burch, Chairman, Oklahoma Planning and Resources Board, is director of the Exposition, which will last for a week. The Oklahoma Industrial and Mineral Industries Conference will hold a two-day meeting October 12 and 13, in conjunction with the Exposition.

Paul Strasbaugh of the Oklahoma City Chamber of Commerce reports that most of the available space in the two huge exhibit halls has been contracted, and the remaining booths requested. Both in number and variety of exhibits and in expected attendance, estimated at about a quarter of a million people, this will be the largest exposition of its kind ever held in Oklahoma.

The Exposition has been developed on the theme "Build Industry and Build Oklahoma", and manufacturers from many parts of the state are taking advantage of the opportunity to display Oklahoma-made products to Oklahoma people. Several manufacturers are planning "live" or "action" exhibits, in which something of the processes used in making the products are demonstrated.

Included in the displays will be an exhibit of some of Oklahoma's industrial raw materials collected by the Oklahoma Geological Survey, for use in the booths on minerals and fuel sponsored by the Oklahoma Natural Gas Company.

"The wide scope of the exhibition--which far removes it from anything ever before attempted in the state--will range from heavy oil field equipment and portable well drilling rigs in full operation to the manufacture of pillow cases and sheets, fine table pottery, glass, automobile tires and envelopes, to mention only a few.

Burch pointed out that the exposition will, for the first time on a large scale statewide basis, show Oklahoma-made products and manufacturing facilities to thousands of potential customers, as well as other manufacturers from all over the country.

"We want the people of Miami, where the B. F. Goodrich Company manufactures automobile tires and tubes, to know about Commander Mills, Inc., of Sand Springs, the only cotton spinning and weaving mill in the state.

"And we want the people of Enid, where George E. Failing Supply Company builds portable oil well drilling rigs to become acquainted with the Oklahoma Paper Company in Oklahoma City which turns out paper boxes, bags and envelopes by the millions.

"In short, we want all Oklahomans to know all Oklahoma Industry", Burch said.

The exposition will run from October 12 through October 17, with the doors open free to the public from 2 p.m. until 10:30 p.m. daily.

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"True mineral conservation may be defined as energetic discovery, maximum extraction, and minimum waste in utilization." --Dean Edward Steidle, Pennsylvania State College.

INVESTIGATION OF KIOWA COUNTY CLAYS

During 1943 and again in 1944, representatives of the U. S. Bureau of Mines did considerable test drilling and collected samples of clays in Kiowa County, Oklahoma. The samples were given experimental tests to determine whether these clays would be suitable for extracting alumina. Results of the work are given in a report of the Bureau of Mines entitled "Investigation of Kiowa County Clays, Kiowa County, Oklahoma", by C. C. Knox, U. S. Bureau of Mines Report of Investigations 4329, August 1948.

The following excerpts are taken from this report:

"In Kiowa County, Okla., extensive deposits of clay are closely associated with pre-Cambrian anorthosites and gabbros.

"Investigation by the Bureau of Mines, including 1,723 feet of auger drilling, has shown the presence of very large quantities of clay containing between 20 and 25 percent alumina. All of the material contains large amounts of impurities, and even the best clays, selected for their relatively low content of iron, titanium, and magnesium, are unsuitable for the production of alumina by the sulfuric-acid process. The soda-lime process gave somewhat better results, the product being nearer specification for commercial alumina.

"The clays are not amenable to beneficiation by simple sedimentation processes, and the alumina content could not easily be increased to produce material suitable for any alumina process.

"The clays have little value in the ceramic industry. They fuse at a low temperature, which precludes their use as refractories, and swell considerably on fusion.

"Some of the material with a low alumina content could be used locally as a drilling mud or as a binder for foundry sand.

"The deposits were first brought to the attention of the Oklahoma Geological Survey in 1939 by F. C. Wood. Several shallow auger holes were drilled and sampled, and numerous samples also were obtained from outcrops and exposures in highway and railway cuts by the Oklahoma Geological Survey. No further work was done until the Bureau of Mines examined the area in 1943."

GEOLOGY

"The Raggedy Mountains are a low western extension of the Wichita Range and are a series of low hills and ridges of pre-Cambrian igneous rock, which crops out through the Permian "Red Beds" of a nearly level plain. Most of the Raggedy Mountains consist of gabbros and anorthosites, although several smaller areas of granite and granodiorite are known. Locally, the rocks have been subjected to hydrothermal alteration, and this action, together with weathering, has disintegrated the gabbros and anorthosites. In areas of low topographic relief on the flanks of the hills and at other places protected from erosion, deposits of residual claylike material were formed. The material ranges from altered anorthosite to a varicolored beidellite clay, which generally retains the granular structure of the original rock. Near the surface there has been some transportation and classification of the material, but bedding is not well-developed, and there has been no pronounced separation of the heavy iron minerals.

"Along the south flank of the main range of hills the depth to solid rock is usually less than 100 feet, but farther south in the broad valley between the main range and the outliers of igneous

rock the deposits are considerably deeper. Undoubtedly much of the clay here was transported from the Raggedy Mountain area. Wells reported to be 400 feet deep failed to reach solid rock.

"The decomposed material is uniformly high in impurities, containing 6 to 7 percent Fe_2O_3 , 1 to 2 percent TiO_2 , and 5 to 12 percent MgO and CaO . Much of the material has an alumina content in excess of 20 percent, but very little of it contains as much as 25 percent. Altered anorthosite has virtually the same composition as the more decomposed clays.

"No definite conclusions have been reached as to the age of the deposits. In protected areas, such as those overlain by the Tepee Creek formation, tentatively classified as pre-Cambrian, the clays formed by decomposition of the gabbros and anorthosites in place may very well be of pre-Cambrian age. The slightly sorted material near the surface is probably of fairly recent origin. The deeper transported clays of the large valleys are very probably of post-Permian age, or may, in part, be actual phases of the Permian formation."

(Editor's note: Recent work by graduate students of the University of Oklahoma School of Geology has led to the conclusion that the Tepee Creek formation is younger than pre-Cambrian.)

"The investigations demonstrated that the Raggedy Mountain area contains enormous deposits of shallow clay that will average over 20 percent alumina, but none of the material contains as much as 30 percent alumina. Except in the small area northwest of Cold Springs and possibly other similarly confined deposits, very little of the clay will average over 25 percent alumina.

"Most of the clay encountered in the drilling was formed by decomposition of the anorthosites and gabbros in place, and even the poorly defined,

near-surface bedding of the clays showed very little sorting action. All the material contains the accessory minerals and most of the decomposition products of the original rock. Table 1 presents data pertinent to the power auger drilling....."

TABLE I. DRILL DATA
Selected sections over 20 percent Al_2O_3

Hole	Total depth, feet	Sample depth, feet	Percent Al_2O_3
1	64	14 - 44	20.61
2	72	0.5 - 72	22.33
3	74	54 - 74	23.76
4	80	10 - 80	26.71
5	48	33 - 48	20.10
6	91	50 - 85	20.12
7	20	No samples	
8	60	15 - 60	20.12
9	52	15 - 52	22.24
10	97	10 - 97	22.78
11	49	23 - 49	20.46
12	60	3 - 60	20.83
13	24	3 - 24	22.20
14	18	No samples	
15	59	10 - 59	23.14
16	14	No samples	
17	87	34 - 87	21.05
18	72	16 - 72	22.88
19	30	None	
20	42.5	13 - 42.5	24.88
21	40	26 - 40	22.66
22	81	10 - 77	26.95
23	28	No samples	
24	18	No samples	