Mineral Survey Of State Planned

Democrat 12-25-37

A statewide mineral survey, financed with WPA funds and to be used as a means of attracting outside industries to Arkansas, will begin next Thursday, according to George C. Branner, state geologist. Approval of the project was announced yesterday by Floyd Sharp, state WPA administrator, who said $50,000 had been set aside for it. Certified WPA workers will be employed on the project, which is expected to require six months.

R. C. Beckstrom, who recently supervised a mineral survey in Oklahoma, has been engaged to direct the Arkansas survey. He will come here Monday to begin details of the project with Dr. Branner and WPA officials. The first part of the survey will consist of training supervisors and project leaders.

The need of a survey was emphasized by Mr. Branner, who declared countless inquiries were received in his office for information on minerals in the state. He said he was not able to supply the information because of a lack of knowledge. It is proposed to make maps showing the various mineral properties, water drainage, caves and other natural phenomena so that the information will be available at a glance.

Co-operation of several agencies has been promised in determining results of the survey. The state Health Department laboratories will test water, the Highway Department will test highway materials and clay samples will be tested by the Niloak Pottery Company at Benton.

WPA Mineral Survey Begins Thursday

Gazette 12-25-37

Approval of a statewide mineral survey project to be financed with more than $50,000 in Works Progress Administration funds was announced yesterday by Floyd Sharp, state WPA administrator. Work on the project is scheduled to begin Thursday.

Mr. Sharp said that approximately 60 workers would be employed during the first stages of the project and that others probably would be added. All workers, he said, will be transferred from certified WPA lists. The project is set up for six months.

Will Aid Industry.

State Geologist George C. Branner said the project would be the means of attracting outside industry to the state. Data to be catalogued will furnish detailed information on the state's vast mineral and water resources.

He said his department continually was receiving queries from out-of-state firms. He said he had been unable to supply information because of a lack of accurate data.

"These industries don't want to know what minerals we think we have," Mr. Branner said. "They want definite facts and the state which is in a position to submit these immediately is the one which will be most likely to receive the industry."

Dr. Branner said that a similar project recently had been completed in Oklahoma and that the state was beginning to realize in monetary values more than the cost of the project.

Supervisor Experienced.

R. C. Beckstrom, who supervised the Oklahoma project, has been engaged to direct the Arkansas survey. He will come to Little Rock Monday to work out details for the project with Mr. Branner and WPA officials.

The state geologist said that in addition to minerals the project would provide for the cataloguing of water resources, caves and other natural phenomena.

"The project will entail making of township ranges showing the location of water drainage. This indirectly will be of assistance in drawing up flood control maps."

All information will be plotted on a map in order that it may be determined at a glance where and in what quantities the minerals exist.

Co-Operation Promised.

Several state agencies have offered the use of their facilities in carrying out the project. Samples of water will be tested in the state Health Department laboratories and highway materials will be inspected in the state Highway Department laboratories. The Niloak Pottery Company near Benton has volunteered the use of its facilities for testing clay samples.

Procedure Explained.

Mr. Branner said that the first few weeks of the survey would be given to training of supervisors and project leaders. Workers then will be sent out into highland and lowland districts in counties surrounding Little Rock for collection of samples. These samples will be brought to state headquarters at Little Rock for testing. He said it originally had been planned to assign two workers to each three miles of territory in the state.

An estimate report completed last July by the Arkansas Geological Survey under direction of Mr. Branner estimated that the value of mineral production in Arkansas in 1936 was [illegible] items were produced by 270 mineral producing companies operating in 51 counties. Leading minerals produced in Arkansas are oil, coal, bauxite and sand and gravel.

Mr. Branner said there undoubtedly were deposits of additional minerals about which little is known.

Survey of State Minerals To Start Thursday.

Democrat 12-28-37

If Arkansas is as fortunate as Oklahoma, the state will make a substantial savings in its annual road building material bill from a state-wide mineral survey to start Thursday, George C. Branner, state geologist, said yesterday.

Many new sources of road building materials were discovered in Oklahoma during the survey in that state, he said. "In several instances the sources were located within a short distance of the highway projects under construction.

Workers employed in the survey will obtain data on road materials in each county, recording the location and extent of the deposits. Past and present uses of the materials will be set out together with suggestions for new uses for the materials. The various materials discovered in the survey will be forwarded to the state Highway Department laboratories for testing.

The survey of road and building materials is one of four divisions of the project to be financed with more than $50,000 in WPA funds. Other divisions are a general mineral survey and inventory; survey of caves and other natural phenomena, and survey of underground water resources.

R. C. Beckstrom, director of the project, said a tentative plan of procedure had been set up whereby workers would receive a brief period of instructions into the purposes of the project. Experimental surveys then would be made in Pulaski, Lonoke, Saline, Grant and Hot Spring counties. All the approximately 60 workers to be employed in the project will be taken from certified WPA lists.

State Will Launch Survey of Minerals

Democrat 12-28-37

Survey of Arkansas's mineral resources will start Thursday under direction of Dr. George C. Branner, state geologist. Approximately 60 workers will be employed on the project which is being financed by WPA. Many of the workers will receive preliminary instruction in purposes of the survey before advance work is begun in Pulaski, Lonoke, Saline, Grant and Hot Spring counties.

Dr. Branner predicted findings of the survey might save the state many dollars by uncovering new supplies of minerals in the state.

State Mineral Survey Limited To 50 Counties.

Gazette 1-1-38

The WPA financed mineral survey project, began Thursday, which had been scheduled to be statewide in scope has been reduced to include the 50 leading mineral producing counties to come within the appropriation, State Geologist George C. Branner said yesterday.

Counties in which an inventory will be taken of minerals and water resources include tiers of counties in north and west Arkansas and those in eastern Arkansas situated on Crowley's Ridge.

Classwork to acquaint workers with the aims and procedure for the project will be started on the fourth floor of the capitol next week, R. C. Beckstrom, supervisor of the project, said.

Mr. Beckstrom appealed to residents of the counties included in the project to assist workers in the collections of materials and data.

"The whole purpose in this project," he said, "is to help residents of Arkansas to become acquainted with the resources in their vicinity so that they may make use of the building materials and other resources in their immediate vicinities without having to bring them in from distant points."

More than 60 workers will be employed in the project estimated to cost approximately $100,000. The project has been set up for six months.

Districts Set Up for Survey Of Minerals

Gazette 1-9-38

The 50 counties of the state which will be included in a WPA financed mineral survey have been divided into eight geological districts for purposes of the survey, R. C. Beckstrom, director of the project, reported yesterday.

The 50 counties will embrace 24,570 square miles or 46 per cent of the total area of the state. Because of limited finances the project has been restricted to the 50 counties which appear to offer the greatest possibilities for the discovery of little known or unknown deposits. Other counties of the state may be included in the project later, Mr. Beckstrom said.

Areas Defined.

The districts are as follows:

1. Wilcox area, 2,880 square miles in Pulaski, Saline, Grant, Hot Spring, Dallas, Ouachita, Clark Nevada Miller and Hempstead counties.
2. Cretaceous area, 1,828 miles in Hempstead, Clark, Nevada, Howard, Sevier and Little River counties.
3. Central Ozark area, 3,384 miles in Boone, Marion, Newton and Searcy counties.
4. Crowley's Ridge area, 1,214 miles in Clay, Greene, Craighead, Poinsett, Cross, St. Francis, Lee and Phillips counties.
5. Western Ozark area, 3,456 miles in Benton, Carroll, Washington, Madison, Crawford, Franklin and Johnson counties.
6. Coal district area, 2,448 miles in Sebastian, Franklin, Logan, Pope, Yell and Scott counties.
7. Ouachita area, 5,040 miles in Polk, Montgomery, Garland, Saline, Hot Spring, Clark, Pike, Howard, Sevier, Scott Yell Perry and Pulaski counties.
8. Eastern Ozark area 4,320 miles in Fulton, Izard, Sharp, Independence and Stone counties.

Headquarters for the project will be set up this week in the Hoffman hotel, 115 North Victory street. Field work is expected to start within the next two weeks. More than 60 workers from certified WPA lists will be employed on the project six months.

Reports Headway In Survey

Capitol News-Herald 1-13-38

Dr. George C. Branner, state geologist, reported that steady progress is being made on te state-wide mineral survey to be conducted under supervision of his department.

Offices for the project will be opened in the Hoffman Hotel this week in charge of R. C. Beckstrom. Plans are almost complete for the training school to be conducted for supervisors on the project and 12 workers already have been assigned to duty.

Dr. Branner said the project, within the near future, will be operating in 50 per cent of the state's area in all or parts of 50 counties.

Mineral Survey Staff To Prepare for Duties

Democrat 1-16-38

Dr. George C. Branner, state geologist, announced yesterday a training school for approximately 35 supervisors for a state-wide mineral survey will begin January 31. R. C. Beckstrom, in charge of the project, which will be carried on with WPA funds, will direct the school and Dr. Branner and other officials will outline work to be done.

Supervisors for the survey are being selected through the WPA, and offices for the project will be opened soon in the Hoffman hotel.

100 Persons Enroll in Mineral Survey School.

Gazette 2-2-38

Approximately 100 persons were enrolled in a training school in the House chamber at the capitol yesterday for a 50-county mineral survey started several weeks ago. The survey is a WPA project.

Persons attending the school will compete in examinations prepared by the state Personnel Division at conclusion of the school next Tuesday for positions as supervisors.

Field work on the project will start next week. Headquarters for the survey have been set up in the Hoffman hotel, 115 North Victory street.

Democrat 2-3-38

Mineral Survey School Under Way at Capitol

Training school for supervisors for a statewide mineral survey continued today in the House chamber at the capitol. Tests will be given those taking part in the course next Tuesday with the highest ranking persons being appointed supervisors. More than 100 are taking the course and about 35 will receive appointments.

The survey, financed by the WPA, will be conducted under sponsorship of the state Geology Department. Field work will start immediately after selection of supervisors.

Examinations Tomorrow For Survey Supervisors.

Gazette 2-10-38

Examinations will be conducted at the capitol tomorrow for approximately 55 candidates for jobs as supervisors in the 50-county mineral survey being conducted by the Arkansas Geological Survey with WPA funds. State Geologist George C. Branner said up to about 40 supervisors would be selected.

Candidates have been attending a school in the House chamber at the capitol for the past 10 days. The group was taken on a field trip Monday to acquaint it with features of mapping. Active field work will start next Tuesday, Mr. Branner said, with more than 100 workers being assigned to the tasks of collecting minerals to be sent to headquarters in the Hoffman hotel, 105 Victory street, for testing.

The state geologist said the Niloak Pottery Company of near Benton had volunteered use of its laboratories for making tests of clay. The Arkansas-Louisiana Gas Company has volunteered to supply gas for the tests. Tests of sand, stones and gravel will be made in the state Highway Department shops and tests of waters will be made in state Health Department laboratories.

WPA Board Of Appraisers Appointed

Gazette 2-11-38

Three Arkansans have accepted appointment as members of a state Appraisal committee to evaluate work done by federal agencies in Arkansas, Floyd Sharp, state WPA administrator, said yesterday.

Committee members are: Mrs. Elwood Baker of Dermott, president of the Arkansas Federation of Women's Clubs; L. A. Henry of Little Rock, engineer-director of the state Planning Board, and A. Howard Stebbins Sr. of Little Rock.

The WPA, in conjunction with nine national agencies devoted to public improvement, is making a nation-wide survey of benefits obtained through various work programs. County judges ad mayors of approximately 300 cities and incorporated towns in Arkansas have been asked to submit reports on projects carried out in their communities.

On receipt of the reports, the Appraisal Committee will consolidate them and make a report for the entire state. A national committee, composed of representatives of co-operating agencies, will compile a report for the nation.

Drilling for Limestone Begun In Pulaski County.

Gazette 2-13-38

Drilling of test holes to discover limestone deposits in Pulaski county has been started near the Lim Rock Dairy, a short distance from the county line, state Geologist George C. Branner said yesterday.

The project is financed by the WPA and is sponsored by the Arkansas Geological Survey. It was set up for 12 employes and is scheduled to run until July 1. Joe Barnes is foreman of the project.

Mr. Branner said that a 30-foot bed had been discovered near Collegeville. A preliminary survey by the Arkansas Geological Survey several years ago indicated there was enough limestone in the county to supply south Arkansas's agricultur l needs many years.

Survey For Minerals To Begin Today

Gazette 3-1-38

A state-wide mineral survey to be made by the Works Progress Administration through sponsorship by the Arkansas Geological Survey will be started in 31 counties today, Floyd Sharp, state WPA administrator, said yesterday.

Headquarters for the project, said to be one of the largest white collar projects ever undertaken by the WPA, will be at 117 Victory street. Robert C. Beckstrom will be supervisor. Purpose of the project is to "locate, measure, estimate, describe, test and map the accessible resources of the state, such as construction materials, minerals and water tables for use in determining their adaptability for economic use."

A total of 450 workers will be employed in the 31 counties. The work will be extended to include 55 counties later, Mr. Sharp said. Total employment in all counties will be 600 with approximately 15 workers to each county.

Supervisors for the counties were selected by Mr. Sharp with the co-operation of Kenneth O. Warner, state personnel director and Dr. George C. Branner, state geologist. A two-week school was conducted and persons with the highest grades were selected, Mr. Sharp said. Additional supervisors in the counties to be included later will be selected from applicants with a "preferred" classification.

County Supervisors.

Supervisors for the 31 counties are as follows:

Robert C. Waggener, Boone.
Dana M. Greer, Benton.
E. E. Mitchell, Baxter.
Robert W. Osborne, Clark.
Charles S. Litte, Carroll.
William M. Tucker, Dallas.
Tom D. Rogers, Franklin.
James K. Riffel, Garland.
Robert E. Cargile, Howard.
Rex E. Moon and Louis M. Hannum, Hot Spring.
Cecil Driver, Izard.
William G. Rinehart, Independence.
Edward Bowman, Lawrence.
Ira W. Merritt, Lee.
Richard F. Duncan, Montgomery.
Claude M. Huddleston, Marion.
James T. Smith, Madison.
Donald S. Tedford, Newton.
Arlington Waggner, Pike.
Allen C. Pipkin, Polk.
Eugene B. Badinelli, Phillips.
Carl C. Burkett, Pulaski.
Walter E. Glascow, Perry.
Lytella McIlroy, Randolph.
Walter E. Womble Jr., Sebastian.
Ralph Huddleston, Stone.
John H. Tait, Saline.
Samuel H. Cole, Sharp.
Lewis C. Crutchfield, Scott.
Lester Hall, Searcy.
Roy Monroe Ward, Washington.

State Mineral Survey Starts

Democrat 3-1-38

WPA Project, Employing 450 Workers, Embraces 31 Counties.

A state-wide mineral survey, employing 450 workers, was initiated in 31 counties today by the state Works Progress Administration under sponsorship of the Arkansas Geological Survey. Headquarters are at 117 Victory street, with Robt. C. Beckstrom as supervisor.

Work will be extended to embrace 55 counties to give employment to 600 workers with approximately 15 in each county as one of the largest white-collar projects yet undertaken in the state, state WPA Administrator Floyd Sharp announces. Purpose of the project is to "locate, measure, estimate, describe, test and map the accessible resources of the state for determining economic uses of construction materials, minerals and water tables."

Supervisors for the 31 counties, selected after a two-week school with co-operation by state Personnel Director Kenneth O. Warner and state Geologist Dr. George C. Branner are:

Robert C. Waggener, Boone; Dana M. Greer, Benton; E. E. Mitchell, Baxter; Robert W. Osborne, Clark; Charles S. Litte, Carroll; William M. Tucker, Dallas; Tom D. Rogers, Franklin; James K. Riffel, Garland; Robert E. Cargile, Howard; Rex E. Moon and Louis M. Hannum, Hot Spring; Cecil Driver, Izard; William G. Rinehart, Independence; Edward Bowman, Lawrence; Ira W. Merritt, Lee; Richard F. Duncan, Montgomery; Claude M. Huddleston, Marion; James T. Smith, Madison; Donald S. Tedford, Newton; Arlington Waggner, Pike; Allen C. Pipkin, Polk; Eugene B. Badinelli, Phillips; Carl C. Burkett, Pulaski; Walter E. Glascow, Perry; Lytella McIlroy, Randolph; Walter E. Womble Jr., Sebastian; Ralph Huddleston, Stone; John H. Tait, Saline; Samuel H. Cole, Sharp; Lewis C. Crutchfield, Scott; Lester Hall, Searcy; Roy Monroe Ward, Washington.

Survey Finds Huge Beds Of Oyster Shells

By CORINNE HODGES.

Special to the Gazette.

Forrest City, April 22.—Oyster beds containing millions of fossil shells have been found on Crow creek, a small stream in St. Francis county, it was revealed here today following work of the state Mineral Survey.

The shell deposit at Crow creek has a thickness of five feet and extends for considerable distance back into the bank. A similar deposit was reported found at a depth of 250 feet in a well dug at Forrest City.

While they were on a recent tour of the South, Dr. Gilbert D. Harris and Mr. and Mrs. E. Lawrence Palmer, paleontologists from Cornell University, visited the area and estimated the deposit as being millions of years old. They took various specimens home with them for further study.

A report of the survey asserts:

"Ever since the Gulf of Mexico receded from this part of the continent these oyster beds containing untold millions of fossil shells have been lying there, three and one-half miles east of Forrest City and plainly visible from the bridge over Crow creek. In the exposed banks of the stream glisten tiny particles of mother-of-pearl. Stretches of sandy beach along the water's edge are strewn with broken pre-historic shells, some of which are of remarkable size.

Shells Unusually Large.

"Whole oyster shells are occasionally found, measuring four inches across the hinge and 12 inches in length. From exposure to the atmosphere and the elements most of the shells have become brittle and crumble at the touch or pull apart like wet paper. Oyster shells taken from the Atlantic Coast between Long Island Sound and Florida are very similar in appearance to these shells which contained living organisms millions of years ago."

"Many articles made of shell have been recovered from Indian mounds, villages and burial grounds in eastern Arkansas. Early archeologists and historical writers assumed that these Indians had come from, or had visited the Gulf Coast country, bringing the shells with them. But is it unlikely that they were taken from the region adjacent to the Crow Creek fossil shell beds?"

The surveying crew in St. Francis county, under Lewis Bohlinger, district supervisor of the state Mineral Survey, measured the deposit's extent and sent samples of the shells and the soil impregnated with shell decomposition to the state laboratory for analysis. The amount of this deposit has been estimated by the survey at 6,833,000 cubic yards.

The chemical analysis, according to survey report, shows this shell deposit to contain calcium, carbonate, magnesium carbonate, iron oxide, phosphorus penta oxide, aluminum oxide, sodium oxide, potassium ovide and a relatively high per cent of insoluble.

"This composition should prove beneficial for liming the sour soil to the east and west of Crowley's Ridge," the report asserts.

As to how the oyster beds came to be located in eastern Arkansas, the survey report states:

Origin of Deposits.

"Millions of years ago a part of the Gulf of Mexico extended inland as far north as Cairo, Ill. That this period lasted for millions of years is indicated by the thickness of the clay which was deposited as sediment on the bottom of the sea.

"Fresh water streams from the North flowed into this embayment, which covered all the land now known as the Gulf Coastal Plain, in which are now included Florida, Mississippi, Louisiana, the southern half of Georgia and Alabama, eastern Arkansas and parts of Texas and Oklahoma. As the Gulf waters receded southward, the clay beds were exposed and became dry land, and the hardening sediment contained the remains of various forms of marine life.

"The withdrawal of the sea occupied an immense period of time and the land drainage from the north extended slowly. Eventually, the drainage, principally the Mississippi and Ohio rivers, carved out the soft coastal plains and left Crowley's Ridge as an erosial remnant.

Mineral Surveys Undertaken Here

Eugene B. Badinelli County Supervisor; Will Give Complete Information

East Arkansas On Hill Area

Record (Helena) 2-27-38

Eugene B. Badinelli has been appointed county supervisor for a statewide survey of mineral, water and building materials, scheduled to get under way March 1. Headquarters will be established here in the near future, Mr. Badinelli said.

He was one of 33 supervisors selected from among 300 applicants, and recently attended a conference in Little Rock, where procedure under the survey was outlined. It is a WPA project, for which the state of Arkansas has allocated $50,000 as sponsor's share.

Study of mineral resources in Phillips county will be confined to the Crowley Ridge area north of Helena. Specimens of water from all parts of the county will be taken, however and will be sent to Little Rock where tests will be made to determine potability and mineral content.

Area and extent of water strata will be studied, along with depth, and rate of flow.

Procedure under the mineral survey will be thorough. The entire area covered will be sub-divided into ten-acre tracts, and complete records of every tract will be made.

The survey will show, Mr. Badinelli points out, whether or not clays, sands and gravel of more than ordinary value exist in the hill country.

In the upper parts of Crowley's Ridge, where underlying strata are nearer the surface, deposits of sand glass and pottery clays have been found.

Marls, from which fertilizer can be made, have been discovered in Crow Creek, east of Forrest City. Small deposits of lignite coal have been found near Wynne, while working from a quartzite outcrop in Green county have been used for building purposes.

Anyone having information as to deposits of any extent, whether of clay, gravel, or sand, is asked to communicate with Mr. Badinelli.

With the survey completed, Mr. Badinelli says, detailed information will be available in Little Rock for manufacturers, telling them the location, quality and extent of mineral deposits, distance from railroads and highways, quality and amount of water available in a given district.

Specimens of clays found here will be sent to the Niloak pottery plant at Bentonville, where tests will be made to determine whether or not it is usable in the making of pottery of any kind.

structed to start making plans to get the survey under way at once. Although the project starts Tuesday, March 1, Mr. Badinelli said it would be several weeks before the actual work begins.

Offices must be secured and arrangements must be made for transportation for the workers. The local sponsors, for their part, must furnish office space and transportation, Mr. Badinelli said.

The survey will be made along the entire section of the Ridge and adjacent land. Already a similar survey has been made in the northern section of Crowley Ridge.

"Phillips and Lee Counties are about the only states in what is known as the Gulf Coastal basin that will be surveyed. Not even the oil counties in Southwest Arkansas are being surveyed," Mr. Badinelli stated.

The survey will be to find out what minerals can be found in the ridge. "We will especially look for clays, glass sands, pure water supplies and the like," he stated.

The wells and springs in the ridge area will be checked to determine the flow, volume of water available, and the quality and purity of the water. Samples will be taken in each 10-acre area, the county to be blockout out in areas, and these samples will be sent to Little Rock to be analzyed to determine if they have passed thru any minerals deep in the ground.

Efforts will be made to find deposits of clay that will be suitable for making pottery, tile, bricks, stone and earthern ware and other clay products. "The clay samples will be sent to the Niloak Pottery Plant near Benton to be tested. If any clays are found we will soon know what they are best suited for," Mr. Badinelli stated.

He said that deposits of clay have been found in the northern end of the ridge that are excellent for making bricks and other clay products. "There is no reason why there shouldn't be similar deposits in this end of the ridge,' he asserted.

The survey will also be to determine whether there is any gravels and construction materials to be found in the ridge. "Perhaps we may find a stratum of lignite coal which could be mined cheaply and sold right here at a very low cost. Of course this is a very poor grade of coal but it can be used in larger furnaces," said Mr. Badinelli.

The project is scheduled to run until July 1 and perhaps longer. A similar project will be started within the next few weeks in Lee County.

The purpose of this survey is not only to find out what minerals there are in the ridge but to compile this information so that it will be available in Little Rock for anyone who desires it.

Manufacturers often inquire at the State Geological Department for information concerning the various mineral deposits to be found in the state. The available water supply, highways leading to the deposits and other useful information will be included in the reports.

Before actual work can be started Mr. Badinelli will conduct a short school to instruct the workmen in their duties. "They will have to take borings, draw maps or sketches, know how to locate their position on maps and the like before they ever get into the field," he pointed out.

Mineral Survey Will Be Made In Phillips County

E. B. Badinelli To Have Charge of WPA Project in Crowley Ridge Section Here

Helena World 2-27-38

A mineral survey of that part of Crowley Ridge which lies in this county will be started here within a few weeks under the State Geological Department although the survey will be made as a WPA Project.

Eugene B. Badinelli, local engineer, will be supervisor of the Project. Mr. Badinelli was notified of his appointment as supervisor last week and was in-

Geological Formations To Be Checked.

Gazette 3-13-38

Pulaski county residents knowing of unusual or peculiar geological formation have been requested by R. C. Beckstrom, state director of the mineral survey being conducted by the WPA, to report such features to Carl Burkett, county director, at the courthouse.

Unusual formations will be investigated to determine location of possible mineral deposits. Name of the property owner, section, township and range should be made available to Mr. Burkett. The mineral survey includes an inventory, classification, estimated quantity and potential economic value of known mineral deposits.

Sitton. 3-13-38

Evening Shade—A county-wide survey of minerals has been begun here under the supervision of Hamblein Cole. Fifteen men are employed in the project. A complete survey of the mineral resources of the county will be made.

Mineral Study In North Arkansas

Special to the Gazette. 3-20-38

Mountain Home, Ark., March 20.—One hundred and sixteen men, including the county directors, have started WPA mineral surveys in 16 North Arkansas counties, under the supervision of the State Geological Survey.

Every section of land in each county will be prospected, and it is expected that it will take from eight months to a year and a half to complete the work. North Arkansas counties in which this work is now in progress are Randolph, Lawrence, Sharp, Independence, Fulton, Izard, Stone, Baxter, Marion, Searcy, Newton, Boone, Carroll, Madison, Benton and Washington. There is no doubt but what much new information of both metallic and non-metallic minerals will be uncovered by the surveys.

In an interview, George Branner, state geologist, on the surveys in the North Arkansas counties, said: "We expect the surveys to develop new mineral values, because they take in such a wide scope. The work will be very thorough, covering both metallic and non-metallic minerals that are more or less visible and accessible. These minerals include iron, manganese, zinc, lead, ceramic clays, tripoli, structural materials for road and structural uses, marbles, limestones, dolomite, oil shales, sand, phosphate, and others. Also ground waters, samples of which will be obtained from springs and wells and analyzed for hardness, chlorides and bacterial content.

"Thousands of samples of minerals and water will be gathered and analyzed. We are now building a laboratory at the penetentiary walls for analyzing and testing ceramic clays. All samples in this division will be sent there. The road and structural materials will be analyzed at the state Highway Department's laboratory, and samples of the metallic minerals will be sent direct to the State Geological Survey for testing.

"Not only will the surveys cover field work and analysis, but specific uses for each product will be determined. Besides the mineral survey maps which will be drafted of each county, a report will be printed covering each group of minerals in each region, which will be available to the public."

The final result of these surveys will no doubt present the most vivid picture that has ever been drawn of the mineral resources of this section of the state, and will be an important factor in locating new industries in this locality in the future.

Marshall—Lester Hall has charge of a mineral survey which is under way in Searcy county. Miss Modean Bohannon is typist and the following compose the surveying crew: Eual Griffin, Jasper Newton, James A. Hollis, Dewey F. Horton, Hugh F. Massey, Paul Greenhaw, Howard Sanders, Ralph Coker, Roy Lee Martin, Howard Renfroe and Walter H. Gire. Democrat 3-21-38

SURVEY OF MINERAL WEALTH UNDER WAY IN 32-COUNTY AREA

Gazette 4-3-38

Thirty-two searching parties aggregating more than 450 men moved methodically over 32 Arkansas countise last week, in pursuit of information concerning the structure of the top-earth that's Arkansas.

Before they are finished, the face of Arkansas will have been scoured by trained men, afoot, with experience and keen powers of observation; hundreds of thousands of specimens of rocks, clays, minerals and whatnots will have been collected and carefully analyzed, and everything found will have been accurately located upon a series of maps.

To handle the job the state, through its Geology Department, has turned prospector, largely with the aid of funds made available for the purpose by the Works Progress Administration.

A business man would call the task an inventory of the state's physical properties.

Sponsors of the project call it an effort to discover "all visible and easily accessible minerals, clays and surface waters, make collections thereof, and map them."

Project Well Organized.

Fantastic in scope, the work actually has been made virtually a routine task—as the building of an ant-hill is a routine task, but believable only after one has watched the ants go methodically through their paces.

The workers take the field, with maps and report sheets, three groups to each party, each directed by a trained supervisor. And it's no hit or miss proposition with them. They know what they are looking for. Each group goes over the same territory, one after another, each seeking different things.

What is discovered is located on a map—the prospectors using compasses, and making their locations by measurement from section corners, and other known locations. The parties average 15 square miles a week.

Specimens Collected.

Specimens are collected as the parties proceed. The reports are collected first at district offices. Slowly, the data, maps, specimens and all other information is moved funnel - like through the Geology Department offices, where it will be crystallized, collated finally and published as permanent, public information.

Information Valuable.

The work is costing the federal government about $16,000 a month, but the Arkansas survey was not undertaken until a similar project in Oklahoma had been completed and its results established.

A rough idea of the enormous volume of information of decidedly permanent value is suggested in one phase of the survey which calls for location of all road materials, clays, building materials, surface waters, metallic and non-metallic minerals.

What the survey means to the Geological Department is amply expressed in the words of George C. Branner, state geologist:

"You just can't beat information obtained by men in shoes, using sharp eyes, going over every inch of ground you want to know something about."

Test Holes Drilled.

But to get back to the procedure.

After each party of three groups goes a follow up crew, to do what digging is necessary—with augurs, drills, shovels or whatever the job calls for. About 20 feet is the average maximum depth for work by the follow up crew, but, when extended, they have managed to get down as far as 40 feet several times for a specimen, or to test depth of certain mineral deposits.

There is not much danger of the followup crews striking oil, an official explained.

When the Highway Department first heard rumors that the survey was to be made, officials rushed to Branner's office, with the plea that maps showing locations of sand, gravel and other road materials be sent them.

They'll get them, soon enough.

52 Counties Benefit.

The Geology Department is going about the task as if it were two jobs.

First—now, that is—a survey is being made of the earth in 52 counties, comprising 44 per cent of the surface of the state. In this area chances for discovery of mineral value are considered far greater than in the other section. This area included lies in the northern, northwestern, western sections and parts of southwestern and central Arkansas.

In the second section will be the Arkansas River Valley, except the coal mine areas, which are included in the first, and the flat and rolling portions of the coastal plain in eastern and southeastern Arkansas.

Work is now under way in the following counties: Washington, Benton, Newton, Madison, Carroll, Marion, Searcy, Stone, Izard, Independence, Sharp, Randolph, Pike, Garland, Scott, Saline, Pulaski, Hot Spring, Clark, Howard, Polk, St. Francis, Cross, Lee, Dallas, Perry, Baxter, Boone, Franklin, Fulton, Lawrence and Phillips.

Officials hope to complete the entire job in about a year.

Pictures to Be Used.

Arrangements have been made through volunteers to do a vast deal of picture-taking. It was considered probable that large areas covered by the crews have never before been explored completely by white men.

Officials declined to comment upon effect their work might have upon large numbers of wildlife throughout the state.

"I guess the birds, beasts, fowl, fish and varmints will realize we are not moving into their territories permanently," one official smiled. "At any rate, I hope none of the bob cats, or bears, if many are left, take it upon themselves to discourage the search."

On the human side of the gigantic search for the mineral in the rock-pile, it was observed that the survey will offer not only work but a vast amount of valuable experience to the men and women employed.

Expert draftsmen, mappers, computers and the like will be developed in the course of the survey.

In charge of the survey is R. C. Beckstrom, who directed the mineral survey of Oklahoma. Sponsor is the state Geology Department, headed by Geologist George C. Branner.

Mineral Survey Under Way

Salem Headlight 3-25-38

After a week of instruction local men have been assigned to the State Mineral Survey, which started work in Fulton county March 21, Hardy A. Nash, Supervisor, states. The men started work near Salem and will work in this vicinity until the plans are perfected.

Men who have been appointed Junior Engineer Aides are Lemuel Scott, Dick Weathers, Ray C. Carter, Lee Bowling, J. R, Blevins and P. S. Roberts. Remmel Estes is timekeeper, Oscar Hammond, truck driver, and Miss Ruby Burrow, typist.

Mr. Nash urges that all land owners or persons interested in the survey give information concerning location of samples of mineral or clay should be kept by the land owners or interested parties after the samples have been examined and tested in laboratories in Little Rock and Benton.

Such information as to the nature and value of samples taken may be had without cost by writing to the State Geological Survey, Little Rock. All such reports are filed in the office for information available to any outside interests, interested in the various minerals and resources of the state, thus inviting outside capital into the state and creating more work and better prosperity for the State of Arkansas.

We will greatly appreciate the cooperation of the people of Fulton county, as the more help we receive from you the more thorough our reports can be with the hopes of locating some deposits that will be of great benefit to the people of this section of the state. However, we do not wish to cause any false hopes and will only give out information when the source has been thoroughly tested in our Little Rock laboratory by a specialist in this work.

If you have samples of materials that you wish looked at especially, we will be very glad to take their location for reference in our work. When our crews are working in that neighborhood, we will investigate the dedosit and determine the liklihood of creating a paying enterprise, which is the main object of this work.

The project is under the supervision of Robert O. Beckstrom, State Supervisor, 117 N. Victory St., Little Rock. Mr. Beckstrom, a former Professor of Geology in Colorado School of Mines, has just completed a successful survey of this nature in Oklahoma.

The entire project is sponsored by the Arkansas Geological Survey.

Mineral Survey In Progress

Pike County Tribune Delight 4-1-38

The WPA is furnishing workers for a Mineral Survey of Arkansas. The mineral survey is sponsored by the Geological Survey.

The survey is now being made in Pike County. This includes mapping all roads, water wells, important drainage lines, structural road material and minerals.

The Gypsum and clay areas of the south part of Pike are being mapped now. A car load of Gypsum is shipped daily by the Arkansas Gypsum Company, from Highland to the Okay Cement plant. This mining is done on a very small margin. The amount for mining, crushing and hauling to railroad is $1.15 per ton.

The Arkansas Alumina Company is now being organized to mine Kaolin Clay to use in making alum.

The mineral survey will continue east and north until

the entire county is surveyed.

Special attention will be given the Asphalt deposits in the Delight, Pike City area. The State Highway Department is particulary interested in the Asphalt and other road materials.

The land owners of Pike county are being given the opportunity of having their land mapped and prospected by men trained to prospect for mineral and make maps.

Arlington Waggoner of Amity, a graduate in Engineering Geology, Oklahoma University, is County Project Supervisor for Pike county.

Some of the persons working on this survey are: Ross Wilhite, Delight; Jeff Steed, Pisgah; Doyle McLaughin, Delight; Brooksie Wingfield, Antoine.

SURVEY OF MINERAL WEALTH UNDERWAY IN 32-COUNTY AREA

Batesville Daily Guard 4-7-38

Thirty-two searching parties aggregating more than 450 men moved methodically over 32 Arkansas counties last week in pursuit of information concerning the structure of the top-earth that's Arkansas.

Before they are finished, the face of Arkansas will have been scoured by trained men, afoot, with experience and keen powers of observation; hundreds of thousands of specimens of rocks, clays minerals and whatnots will have been collected and carefully analyzed, and everything found will have been accurately located upon a series of maps.

To handle the job the state, through its Geology Department, has turned prospector, largely with the aid of funds made available for the purpose by the Works Progress Administration.

A business man would call the task an inventory of the state's physical properties.

Sponsors of the project call it an efort to diiscover "all visible and easily accessible minerals, clays and surface waters, make collection therof and map them."

Project Well Organized

Fantastic in scope, the work actually has been made virtually a routine task—as the building of an ant-hill is a routiine task, but believeable only after one has watched the ants go metthodically through their paces.

The workers take the field, with maps and report sheets, three groups to each party, each directed by a trained supervisor. And it's no hit or miss proposition with them. They know what they are looking for. Each group goes over the same territory, one after another, each seeking different things.

What is discovered is located on a map—the prospectors using compasses, and making their locations by measurement from section corners, and other locations. The parties average 15 square miles a week.

Specimens Collected

Specimens are collected as the parties proceed. The reports are collected first at district offices. Slowly, the datta, maps, specimens, and all other information is moved funnel-like through the Geology Department offices, where it will be crystallized, collated finally and publsihetd as permanent, public informatioin.

Information Valuable

The work is costng the federal government about $16,000 a month, but the Arkansas survey was not undertaken until a similar project in Oklahoma had been completed and its results established.

A rough idea of the enormous volume of informaton of decidedly permanent value is suggested in one phase of the survey, which calls for location of all road materials, clays, building materials, surface waters, metallic and nonmetallic minerals.

What the survey means to the Geological Department is amply expressed in the words of George C. Branner, state geologist.

"Yeu just can't beat informatiion obtained by men in shoes using sharp eyes, going over every inch of ground you want to know something about."

Test Holes Drilled

But to get back to the procedure.

After each party of three groups goes a follow up crew, to do what digging is necessary—with augurs, drills, shovels or whatever the job calls for. About 20 feet is the average depth for work by the follow up crew, but, when extended, they have managed to get down as far as 40 feet several times for a specimen, or to test depth of certaiin mineral deposits.

There is not much danger of the followup crews strike oil, an offcial explained.

When the Highway Department first heard rumors that the survey was to be made, officials rushed to Branner's office, with the plea that maps showing locations of sand, gravel and other road materials be sent them.

They'll get them, soon enough.

52 Counties Benefit

The Geology Department is going about the task as if it were two jobs.

First—now, that is—survey is being made of the earth in 52 counties, comprising 44 per cent of the surface of the state. In this area chances for discovery of mineral value are considered for greater than in the other section. This area included lies in the northern northwestern, western sectiions and parts of southwestern and central Aramsas.

In the second section will be the Arkansas River Valley, except the coal mine areas, which are included in the first, and the flat and rolling portions of the coastal plain in eastern and southeastern Arkansas.

Work is now under way in the following counties: Washington, Benton, Newton, Madison, Carroll, Marion, Searcy, Stone, Izard, Independence, Sharp, Randolph, Pike, Garland, Scott, Saline, Pulaski, Hot Springs, Clark, Howard, Polk, St. Francis, Cross, Lee, Dallas, Perry, Baxter, Boone, Franklin, Fulton, Lawrence, and Phillips.

Officials hope to complete the entire job in about a year.

Pictures to Be Used

Arrangements have been made through volunteers to do a vast deal of picture-taking. It was considered probable that large areas covered by the crews have never before been explored completely by white men.

Officials declined to comment upon effect their work might have upon large numbers of wildlife throughout the state.

"I guess the birds, beasts, fowl, fish and varments will realize we are not moving into their territories permanently," one official smiled. "Aat any rate I hope none of the bob cats, or bears, if many are left, take it upon themselves

The State Mineral Survey

Marshall Republican 4-8-38

This survey is sponsored by the Arkansas Geological Survey out of P. W. A. funds appropriated for this purpose.

This is the first attempt ever made by the state to cover the county, mile by mile, in search of minerals that may have a future as well as present economic use.

Samples of building materials sent in will be analyzed by the State Highway Department, to determine their possible adaption to future use in road building.

Samples from water wells and springs will be analyzed by the State Health Department, and samples will be assayed and analyzed by a staff of competent men. All this information will be compiled and recorded on a base map so that one may readily see the resources the county may contain and the extent to which they are found.

We want the people of the county to feel that this is their survey. After all, you are the ones to be benefitted by any outcome of our work. The success of our work depends largely on the cooperation we receive from the people of the county. So far in our work we have found the majority of the people willihg to co-operate in any way possible. We appreciate this as it helps simplify and speed up our work.

You have the assurance of the State Geological Survey, that should anything of value be found the owner of the property will be the first to be notified after a careful analyses and investigation has been made by the state office.

Should anyone have a particular tract of land that they would like to have investigated, we will be glad to do so at the earliest possible date. Just leave the land numbers at my office which adjoins Mr. Mills' law office.

I have a competent crew of men in the field. Each trained for a particular job on our survey. Any assistance given these men will be greatly appreciated.

Thanking you for your co-operation,

Lester Hall,
County Supervisor.

MINERAL SURVEY NOW PROGRESSING IN IZARD COUNTY

Valuable Deposits of Phosphate Manganese, Limestone, Etc. Being Discovered

15 WORKERS ON FORCE

Melborne Times 4-8-38

Approximately Section of Land Per Day Is Being Checked And Mapped

A force of men began scouring Izard county March 10 in an effort to locate "all visible and easily accessible minerals, clays and surface waters, make collections thereof, and map them."

This survey, under the supervision of the State Geology Department, is made possible with the aid of funds made available for the purpose by the WPA, and by the time the work is completed, it is hoped that all deposits of whatever minerals, clays and stone in the county will have been located, their adaptibility to commercial use made available, and the whole mapped out.

These men, armed with picks, shovels, hammers and other necessary implements, take the field and go into every nick and cranny in an effort to locate, not only the known deposits of minerals, but others which might be of value. On the average, a crew covers approximately a section of land per day.

While only a small per cent of the entire county has been covered to date, valuable deposits of manganese, phosphate, limestone, silica, road surfacing materials, etc., have been located, many of them in inexhaustible quantities. Specimens of many kinds have been collected, and as the work progresses these will be analyzed and assayed, their location noted on a map and when the work is completed we will know exactly what we have in the way of minerals and have all data at our finger tips.

The work is under the supervision of Robert C. Beckstrom, who recently completed a similar survey in Oklahoma. Cecil Driver, county supervisor, is being aided by Delma Kerr, Ernest Smart, Troy Hall, E. A. Smith, Charles Wiseman, M. H. Weathers, Roy Pinkston, W. B. Landers, Ermil Rodman, W. F. Smith, Leslie Clift and Chris Wiles. Kenneth Humphries is timekeeper and Uen Walker truck driver.

Residents of the county are urged to cooperate with the survey in every way possible. If you know of any deposit of minerals the supervisor would appreciate it if you would get in touch with him and he will look into the matter when working your section.

Many requests have already come in to the office for locations of deposits of clays, and similar deposits which might be of interest to outside capital.

The survey is expected to be completed within a year.

Mineral Survey Now in Progress

Mountain Home 4-15-38

One hundred and sixteen men, including the county directors, have started WPA mineral surveys in 16 North Arkansas counties, under the supervision of the State Geological Survey.

Every section of land in each county will be prospected, and it is expected that it will take from eight months to a year and a half to complete the work. North Arkansas counties in which this work is now in progress are Randolph, Lawrence, Sharp, Independence, Fulton, Izard, Stone, Baxter, Marion, Searcy, Newton, Boone, Carroll, Madison, Benton and Washington. There is no doubt but what much new information of both metallic and non-metallic minerals will be uncovered by the surveys.

In an interview, George Branner, state geologist, on the surveys in the North Arkansas counties, said: "We expect the surveys to develop new mineral values, because they take in such a wide scope. The work will be very thorough, covering both metallic and non-metallic minerals that are more or less visible and accessible. These minerals include iron, manganese, zinc, lead, ceramic clays, tripoli, structural materials for road and structural uses, marbles, limestones, dolomite, oil shales, sand, phosphate, and others. Also ground waters, samples of which will be obtained from springs and wells and analyzed for hardness, chlorides and bacterial content.

"Thousands of samples of minerals and water will be gathered and analyzed. We are now building a laboratory at the penitentiary walls for analyzing and testing ceramic clays. All samples in this division will be sent there. The road and structural materials will be analyzed at the state Highway Department's laboratory, and samples of the metallic minerals will be sent direct to the State Geological Survey for testing.

"Not only will the surveys cover field work and analysis, but specific uses for each product will be determined. Besides the mineral survey maps which will be drafted of each county, a report will be printed covering each group of minerals in each region, which will be available to the public."

The final result of these surveys will no doubt present the most vivid picture that has ever been drawn of the mineral resources of this section of the state, and will be an important factor in locating new industries in this locality in the future.

SURVEY OF MINERAL WEALTH UNDER WAY IN 32-COUNTY AREA

Baxter County Citizen 4-9-38

The following was taken from the Arkansas Gazette of last Sunday:

Thirty-two searching parties aggregating more than 450 men moved methodically over 32 Arkansas counties last week, in pursuit of information concerning the structure of the top-earth that's Arkansas.

Before the are finished, the face of Arkansas will have been scoured by trained men, afoot, with experience and keen powers of observation, hundreds of thousands of specimens of rocks, clays, minerals and whatnots will have been collected and carefully analyzed, and everything found will have been accurately located upon a series of maps.

To handle the job the state, through its Geology Department, has turned prospector, largely with the aid of funds made available for the purpose by the Works Progress Administration.

A business man would call the task an inventory of the state's physical properties.

Sponsors of the project cal it an effort to discover "all visible and easily accessible minerals, clays, and surface waters, make collections thereof, and map them."

Fantastic in scope, the work actually has been made virtually a routine task—as the building of an ant-hill is a routine task, but believable only after one has watched the ants go methodically through their paces.

The workers take the field, with maps and report sheets three groups to each party, each directed by a trained supervisor. And it's no hit or miss proposition with them.. They know what they are looking for. Each group goes over the same territry, one after another, each seeking different things.

What is discovered is located on a map—the prospectors us-

ing compasses, and making their locations by measuring from section corners, and other known lcations. The parties average 15 square miles a week.

Specimens are collected as the parties proceed. The reports are collected first at district offices. Slowly, the data maps, specimens and all other information is moved funnel-like through the Geology Department offices, where it will be crytallized, collated finally and published as permanent, public information.

The work is costing the federal government about $16,000 a month, but the Arkansas survey was not undertaken until a similar project in Oklahoma had been completed and its results established.

A rough idea if the enormous volume of information of decidedly permanent value is suggested in one phase of the survey which calls for location of all road materials, clays, building materials, surface waters, metallic and non-metallic minerals.

What the survey means to the Geological Department is amply expressed in the words of George C. Branner, state geologist:

"You just can't beat information by men in shoes, using sharp eyes, going over every inch of ground you want to know something about."

But to get back to the procedure.

After each party of three groups goes a follow up crew to do what digging is necessary —with augurs, drills, shovels or whatever the job calls for. About 20 feet is the average maximum depth for work by the follow up crew, but, when extended, they have managed to get down as far as 40 feet several times for a specimen, or to test depth of certain mineral deposits.

There is not much danger of the followup crews striking oil, an official explained.

When the Highway Department first heard rumors that the survey was to be made, officials rushed to Branner's office, with the plea that maps showing locations of sand, gravel and other road materials be sent them.

They'll get them, soon enough.

The Geology Department is going about the task as if it were two jobs.

First—now, that is—a survey is being made of the earth in 52 counties, comprising 44 per cent of the surface of the state. In this area chances for discovery of mineral value are considered far greater than in the other section. This area included lies in the northern, northwestern, western sections and parts of southwestern and central Arkansas.

In the second section will be the Arkansas River Valley, except the cail mine areas, which are included in the first, and the flat and rolling portions of the coastal plain in eastern and southeastern Arkansas.

Work is now under way in the following counties: Washington, Benton, Newton, Madison, Carroll, Marion, Searcy, Stone, Izard, Independence, Sharp, Randolph, Pike, Garland, Scott, Saline, Pulaski, Hot Springs, Clark, Howard, Polk, St. Francis, Cross, Lee, Dallas, Perry, Baxter, Boone, Franklin, Fulton, Lawrence and Phillips.

Officials hope to complete the entire job in about a year.

Arrangements have been made through volunteers to do a vast deal of picture-taking. It was considered probable that large areas covered by the crews have never before been explored completely by white men.

Offficials declined to comment upon effect their work might have upon large numbers of wildlife throughout the state.

"I guess the birds, beasts, fowl, fish and varmints will realize we are not moving into their territories permanently," one official smiled. "At any rate I hope none of the bob cats, or bears,, if many are left, take it upon themselves to discourage the search."

On the human side of the gigantic search for the mineral in the rock-pile, it was observed that the survey will offer not only work but a vast amount of valuable experience to the men and women employed.

Expert draftsmen, mappers, computers and the like will be developed in the course of the survey.

In charge of the survey is R. S. Beckstrom, who directed the mineral survey of Oklahoma. Sponsor is the state Geology Department, headed by Geologist George C. Branner.

Mineral Survey Is Splendid But

Apr -38

Baxter County Citizen

The present mineral survey being conducted by the WPA in 52 counties in the state, included in which are all the North Arkansas counties in the mountain section, is one of the best pieces of work ever started in this section. Way back yonder, John C. Branner, father of the present State Geologist gave us a very comprehenible picture of our metallic minerals, but the present survey reaches further, taking in all non-metallic minerals and building material. The survey when completed will no doubt add millions to the potential undeveloped mineral wealth of the state. But---what are we going to do with it? Who is going to utilize it? We already know that we have raw materials in enormous quantities for at least 10 basic industries in North-Arkansas alone, but very little of it is being utilized. Why? Because we have no workman's act. Because industries in the state are constantly being heckled by back tax suits. Because certain concerns were discriminated against when the severance tax law was passed. Because damage suit rackets exist in several sections of the state. Because we have no Board of Commerce and Industry. Because those who have guided our political destinies for years are looking at the visible penny and not at the future dollar. Because other Southern states, are welcoming outside capital with open arms, and making it easy for them to locate there. Arkansas hasn't got the capital to develop the raw material it has, but it has the labor. If our big basic industries ever develop they will be developed with outside capital. Outside capital will not enter the state under existing conditions. If these conditions could be changed the entire picture of Arkansas would be changed. The political leaders in the state have it in their power to change it.

DEVELOPMENTS IN MINERAL SURVEY

Yellville Mountain Echo 4-13-38

(By J. H. Hand)

As workers in the field become more acquainted with their duties, the mineral survey in Marion county moves forward with results that are beginning to command more interest in the objectives of the project.

The two townships to south and north of Yellville in Range 16 are about covered by the workers.

As these examinations reach out from town into the Hall mountain and Lee mountain areas, notations of zinc and some lead deposits began to feature the returns on daily work sheets. To illustrate what this survey may mean in the way of bringing to light the greater importance of zinc deposits in the Ozark district.

One worker who has for some time interested himself in local mining work, inspected a well known zinc development east of Yellville in the Hall mountain area. He had been there on previous occasions, but only took notice of mineral features that were exposed in the workings. On this occasion, he made explorations to ascertain the probable thickness and width of the ore bearing stratum, in compliance with instructions from state headquarters. Result, it was found that the mineralization extends several feet below the floor of the present workings which produced several car loads of or This condition would indicate that the best part of that mine has been passed over. Exploration of width discloses that this ore deposit extends almost continuously for more than a quarter of a mile along the mountain side. Similar results doubtless will be found at many other mines and prospects in this district.

Another point of interest is a deposit of iron, sulphur and pyrites near Yellville railroad station. While that has been known of locally for several years, it has not been regarded as being of commercial importance. However, more thorough examination of the ground conditions at the deposit and conditions extending out from it for quite a distance, disclose the possibility of a large mineralized area there which probably will be found to warrant establishment of an industry for mining this ore and manufacture of sulphuric acid.

Also a spring near Summit is claiming special attention. Older residents recall that many years ag people who were afflicted with various ills would come for many miles and camp at this spring to partake of its healing waters, and some claimed to have been benefitted from their use. Analyses of this water are to be made by the laboratory connected with this survey at Little Rock.

There are other springs in Marion county that have attained notoriety for health giving qualities, notably the DeSoto springs near the site of the State Park which is being established some 15 miles east of Yellville.

WPA Workers Start Compilation Of Forest Data.

Gazette 5-3-38

Twenty WPA workers began compilation of data on Arkansas forests yesterday in the state Forestry Department offices. The project, sponsored by the state Planning Board in co-operation with the state Forestry Department, is set up for six months.

Purpose of the project is to bring up to date all known information about the state's forests and timber industry. Similar projects are being carried out in other states in the Southern region of the National Resources Committee.

The reports to be made up in the survey will show the status of forest land ownership; forest land taxation; valuation of the lumber industry including number of employes, income and housing conditions; forest resources of the state and progress of forest protection.

R. L. Baugh is supervising the project.

State Geologist In Harrison To Supervise Survey

Harrison Daily Times 6-15-38

Visitors in Harrison today were Dr. Geo. C. Branner, State Geologist, and Robert C. Beckstrom, State Supervisor of the State Mineral Survey. The purpose of the visit was to hold a meeting in the office of R. G. Waggener, Boone County Supervisor of the State Mineral Survey. At this meeting, in addition to Dr. Branner and Mr. Beckstrom, were Lester Hall, Searcy County Supervisor, Claude Huddleston, Marion County Supervisor and D. S. Tedford, Newton County Supervisor, as well as Mr. Waggener, Boone County Supervisor.

Reports were made by the county supervisors showing the progress that has been made in this work. In the four counties mentioned interesting material which has possible economic value has been found, as follows: Oil shale, asphaltic sand, asphaltic limestone, black marble, red marble, white pottery clay, Fuller's earth.

In Boone County 85 square miles have been surveyed, amounting to 14% of the area of the county.

In Searcy county 240 square miles have been surveyed, or 35% of the area.

In Marion county 176 square miles have been surveyed, covering 26% of the county.

In Newton county 92 square miles have been surveyed, amounting to 10% of the county.

Dr. Branner and Mr. Beckstrom expressed great pleasure and satisfaction at the progress that has been made. It can hardly be questioned that the results of the State Mineral Survey will be of great economic value to the state as a whole and the counties in which the work is being done. It is expected that the work will be carried on for at least one year before the area being studied will be completely surveyed.

At the present time the Boone County payroll amounts to between $800.00 and $1,000.00 per month.

[illegible] to enable her to go east for the Joe Louis-Max Schmeling world's heavyweight championship prizefight. Her father is Grantland Rice the sports writer.

Miss Lillian Fischer, internationally known authority in fashions, was en route from Paris to the

Batesville [illegible]

Dr. George C. Branner And R. C. Beckstrom Meet With Supervisors

6-15-38

Dr. George C. Branner, state geologist, and R. C. Beckstrom, state supervisor, conferred here today with eight county supervisors of a statewide mineral survey. This meeting, the last of three held in North Arkansas, was for the purpose of exchanging ideas and discussing future plans for the work which is now being carried out in 33 counties in western and northern Arkansas, Dr. Branner said.

Supervisors who attended the meeting included: William G. Rinehart, Batesville; Hardy Nash, Salem; George F. Wiegart, Mtn. View Eldridge Smith, Melbourne; Everett R. Bowman, Black Rock; E. E. Mitchell Jr., Mountain Home; Lytell McElroy, Pocahontas; and Calvin B. Whitney, Hardy. Several of their assistants also attended the session which was held here at the Mineral Service office across the street from the County Jail.

Miss Koleta Walker, assistant in the local office, also attended the session.

Similar meetings have been held at Fayetteville and Harrison.

Visit White Lime Quarry

The officials visited the Batesville White Lime Quarry this afternoon to witness a demonstration in making "rock wool," which if put into commercial use on a large scale here, may open a brand new industry for Batesville and Independence county.

"That," Dr. Branner explained, "is the purpose of the survey. We hope to discover just what minerals are here and how they may be developed for commercial purposes. In this manner we will aid Arkansas in developing new possible industries."

An area of 1,170 sqaure miles has been covered so far in this immediate section of eight counties with approximately 110 men engaged in the work. It is estimated that the work will take from 10 to 12 months to complete.

Mineral Discovery Listed

The counties, number of square miles completed, per cent of county completed and types of minerals discovered so far follows:

INDEPENDENCE —200—33 per cent—Tripoli, phosphates, chert for road construction, marbles, dalomite, manganese.

STONE—118—2 per cent—marble, limestone.

BAXTER—112—20 per cent—Iron, Zinc, Lead, Limestones.

IZARD—150—27 per cent—Phospates, Zinc, Manganese, Marble.

SHARP—104—17 per cent—Iron, Dolomite.

LAWRENCE—110—20 per cent—Kaolin, Lead, Zinc.

RANDOLPH—176—31 per cent—Kaolin, Iron, Lead.

FULTON—180—28 per cent—Kaolin, Iron, Tripoli, Dolomite.

Progress in Mapping Mineral Deposits Summarized.

7-14-38

Progress in mapping mineral deposits of the state in a WPA project under supervision of Dr. George C. Branner, state geologist, and R. C. Beckstrom, WPA supervisor, was summarized by Dr. Branner yesterday in a progress report covering 1,557 square miles in 10 counties. There are 154 persons employed in making the survey.

Group county meetings of mineral survey workers have been held recently at Arkadelphia and Hot Springs. Progress was reported as follows:

List gives name of county, name of supervisor, number of square miles completed, per cent complete and minerals mapped.

Garland county, Jas. K. Riffle Jr., 159 square miles, 22 per cent complete; novaculite, quartzite, clays, fullers earth, tripoli.

Polk, Compere Pipkin, 216 square miles, 25 per cent complete; slates, novaculite, tripoli, building stone, gravel, clays.

Scott, Lewis C. Crutchfield, 175 square miles, 58 per cent complete; limestone, sandstone, slates, clays, building stone.

Saline, Francis M. Gribble, 163 square miles, 22 per cent complete; Bentonite, bauxite, ochre, clays, fullers earth, soapstone, gravel.

Hot Spring, Lewis M. Hannum, 97 square miles, 16 per cent complete; titanium, barite, fullers earth, building stone, lead, tripoli.

Sebastian, W. E. Womble, 220 square miles, 47 per cent complete; building stone, clays, shales, coals.

Howard, Joseph Rankin, 145 square miles, 29 per cent complete; quicksilver, antimony, chalk, marl, greensand, clays, gravel.

Pike, Arlington Waggoner, 155 square miles, 25 per cent complete; quicksilver, gypsum, clays, gravels, asphalt, building stone.

Clark, Robert W. Osborne, 156 square miles, 18 per cent complete; clays, marl, gravel, quicksilver, building stone.

Dallas, Oscar Suggs, 71 square miles, 20 per cent complete; clays, fullers earth, sand and gravel.

Survey Finds Valuable Minerals

Ark. Gazette 7-17-38

Special to the Gazette.

Hot Springs, July 16.—Asphalt in quantities sufficient to pave many miles of road were revealed in the mineral survey being made in nine counties in the southwestern section of the state by. Rex E. Mhoon, diserict supervisor, who returned to his headquarters in the courthouse here today. Mapping of the mineral deposits of the state is being conducted under the supervision of the Arkansas state Geological Department. It is a WPA project, employing about 600 men.

Many Discoveries Reported.

"We went into an abandoned asphalt mine in Pike county," Mr. Mhoon said, "and found a deposit of pure asphalt of from four to five feet in thickness. In Pike county there were great outcroppings of manganese. In the same county one of the most important of the newly discovered deposits is that of red, green and black slate. It is our impression that there is at least a half-million tons of that product, which is valuable for roofing, panel boards and other uses.

"In Garland county we discovered new outcroopings of novaculite. This is commercial whetstone and has been produced in commercial quantities. Some of the Garland county whetstones, because of their perfection, for years have been imported into Germany."

Mr. Mhoon said that possibly one of the most important discoveries was that of antimony, a rare mineral, which previously has been found in Europe, South America and Canada. It is used extensively in the preparation of alloys, especially type metal. This, he said, was found in Howard county.

Mineral Test Laboratory Planned

8-21-38

Construction of a laboratory for testing materials obtained in the statewide mineral survey being conducted under sponsorship of the Arkansas Geological Survey will start within a few weeks, Dr. George C. Branner, state geologist, said yesterday.

It will be located at the west end of the old penitentiary walls in Little Rock, and will be built as a WPA project sponsored by the Geological Survey. Brick from the "walls" will be utilized in the construction.

Plans for the building are being prepared by Ross E. Vandruff, assistant director of the mineral inventory project. It will contain a clay-burning kiln for the testing of clays, an analytical laboratary for the analyzing of limestone and other deposits, and facilities for testing well water. There will be a large storeroom for the storing of samples of minerals and building stone located by the Survey.

3,000 Samples Assembled.

Dr. Branner said more than 3,000 samples had been assembled from 32 counties by workers on the survey project, organized last January.

R. C. Beckstrom, director of the project, which will include a survey of 52 counties either in part or whole, covering 35,515 square miles, reported last week that 14 per cent or 5,192 square miles of the area had been studied.

In the 32 counties surveyed, reports have been made on a total of 3,745 water wells, of which 1,969 or about 53 per cent are "soft" water wells, and 1,752 are "hard" water wells. Average cost of the survey per square mile, Mr. Beckstrom said, has been about $15.60.

Survey Finds Clark County's Rich Deposits

8-28-38

Special to the Gazette.

Gurdon, Aug. 27.—The mineral survey of Clark county, conducted by the Arkansas Geological Survey under the supervision of Robert W. Osborne of Arkadelphia, is investigating the southeast portion of the county and uncovering a great variety of mineral deposits.

For the past few months the survey has been made over the area south of Arkadelphia to the Little Missouri river and is now being extended to the east, toward the Vaden community.

In the Gurdon area the most important finds to date have been a huge deposit of kaolin and silica sand. The kaolin is used in the manufacture of high grade pottery and earthenware.

The silica sand is used in the manufacture of glass and has a good market value. It is identical with the high grade sand found in Independence county from which hundreds of cars are shipped to glass plants over the entire south. In addition to this, great quantities of lignite and peat have been found, which are valuable as fuel.

Numerous other prospects for various minerals such as tripoli, aluminum, silica sand, asphalt, ochre, bauxite and bentonite have been found. Prospects for bentonite are particularly favorable and a thorough investigation is being made.

Road Materials.

Clay gravel for road surfacing material has been found all over this territroy in unlimited quantities. Quantities of asphalt sand and aluminum silicate have been found. The asphalt sand, used for paving and water proofing, was found southwest of Arkadelphia. The aluminum silicate, used for the making of aluminum, was found at Whelen Springs, six miles west of Gurdon. Tripoli, used in commercial work as an abrasive, has been found southeast of Whelen.

Large Industries Attracted By Newly Found Minerals.

8-28-38

Special to the Gazette.

Hot Springs, Aug. 27.—The increase in valuable mineral deposits discovered in Arkansas since the mineral survey of the state, sponsored by the Arkansas Geologic Department, got under way, has attracted attention of large industries in other states, Rex. E. Mhoon, district supervisor for eight counties, said here today.

Mr. Mhoon exhibited letters from large corporations inquiring concerning the recent discovery of kaolin in Howard county. The letters asked for detailed information and cost of shipment in carload lots.

Mr. Mhoon said that 14 men had been put to work the past week in Montgomery county at a point where that county, Howard, Pike and Polk counties meet. A slight vein of lead has been discovered, which, it is believed, may lead to a big deposit. The Montgomery county work is supervised by Dean Chaddock.

The present mineral survey, it was said, has been valuable not alone for the extent of known deposits of minerals but also for new minerals that have been discovered. One large company has been formed to carry on development of minerals discovered.

Supervisor Mhoon said that he intended to place a large exhibit of minerals found in the eight counties when the annual southwest Arkansas fair opens in Oaklawn park here, September 25.

Mineral Surveys Aiding Arkansas

Democrat 9-4-38

Valuable deposits of sand and gravel available for road construction and rich showings of fossil oysters of high value in liming soils have been uncovered in the statewide mineral survey sponsored by the state Geological Department, Dr. George C. Branner, state geologist, reported yesterday upon his return from the Crowley's Ridge section in eastern Arkansas.

The deposits, he said, lie mainly in St. Francis county, north of Forrest City. The fossil oyster beds are being mapped by the mineral survey to definitely determine their length and depth.

A two-day trip over the Crowley's Ridge area, in Craighead, Poinsett and St. Francis counties, was made by Dr. Branner in company with H. A. Nash, Craighead county survey supervisor; I. W. Merritt, Poinsett county supervisor, and Lewis Bohlinger, supervisor for St. Francis county, in the extensive survey program.

In addition to the fossil and sand and gravel showings, the survey has found valuable clays, Fuller's earth, lignyte and ochre.

The state's mineral survey is now extended into 35 counties with 565 persons employed, The survey is 25 to 30 per cent complete, Mr. Branner said.

Limestone, Zinc and Lead Found In Lawrence County.

Special to the Gazette. 9-4-38

Walnut Ridge, Sept. 3.—Paying quantities of zinc and lead and unlimited quantities of limestone have been found in the western district of Lawrence county in the mineral survey conducted by the Arkansas Geological Department, which will conclude its work in the western sector next week and move to the eastern district.

The survey is being made with Everett Bowman, county supervisor. Among other deposits found were such nonmetallic minerals such as kaolin, sandstone, quartzite, chert, sand and gravel.

WPA May Establish Magnetic Stations in Counties.

10-14-38

Washington, Oct. 13 (AP).—President Roosevelt has approved a $88,260 Works Progress Administration project to establish permanent magnetic stations in each Arkansas county to compute plane co-ordinate positions.

Members of the Arkansas congressional delegation today were notified of the president's approval of that undertaking and five other WPA projects in the state involving expenditure of $92,021, as follows:

Pulaski county, $48,726 to operate a production project to make articles for the needy.

Little Rock, $16,034, for binding and repairing books and other work at the Little Rock Public Library.

Phillips county, $2,544, library book repair work.

Sharp county, $13,327 for sewing rooms.

Faulkner county, $11,390, to repair and renovate furniture for the needy.

Presidential approval does not necessarily mean the projects will be carried out. Execution is left to the discretion of the state WPA administrator.

New Mineral Deposits Located In Stone County.

10-16-3

Special to the Gazette.

Mountain View, Oct. 15. — Two new mineral discoveries have recently been made in Stone county by the state mineral survey. One is a large body of ferro-phosphate in the east part of the county. The other a big deposit of dessimated manganese in the south part of the county. The ferro-phosphate runs in a vein about a foot and one-half thick. The manganese is associated with the Atoka sandstone and runs in a blanket vein from 10 to 30 feet thick. It is a continuation of the vein located last month by the survey in Independence county. There is an unlimited quantity of the ore, but an electrolytic reduction plant will be necessary to recover the mineral from the sandstone, it was said.

Many Counties Interested In Water Testing.

12-24-38 Gazette

Many counties have expressed interest in the state geological survey's ground water testing project, state Geologist George C. Branner said yesterday.

The department has been making tests of ground water in the state to determine its hardness and chloride and iron content. The department hopes ultimately to have a "complete picture of ground water throughout the state, Dr. Branner said.

Polk, Craighead and Stone counties have provided money for department testing work, looking toward possible future municipal waterworks development.

Ouachita Mineral Survey to Be Started Monday.

1-7-39

Special to the Gazette.

Camden, Jan. 5.—O. F. Suggs of Little Rock, supervisor for the state mineral survey, opened headquarters for the Ouachita county project here today. Eighteen Ouachita county residents will be employed under direction of Dr. George C. Branner, state geologist, with Robert C. Beckstrom, in charge. R. E. Vandruff, field engineer, will be in charge of field operations here. Work will start Monday.

Laboratory Completed for Use Of Geological Survey.

Construction of a laboratory for use by the Arkansas Geological Survey has been completed, Dr. George C. Branner, state geologist, said yesterday. The building contains a kiln for testing ceramic materials, laboratory equipment for analyzing limestone and minerals and facilities for applying 19 quantitive tests to well water.

The laboratory was built by WPA workers just outside the old penitentiary walls in Little Rock. The wall forms one side of the structure, and 30,000 bricks from other wall sections were used in the remainder. Building is 70 feet long and 20 feet wide. The penitentiary is now being used by the state Highway Department and State Police.

Experienced technicians test clay samples, which are sent in by WPA Mineral Survey Project workers.

Survey Discloses Many Minerals In Randolph County.

2-15-39

Special to the Gazette.

Pocahontas, Feb. 14.—Many important mineral deposits have been found in Randolph county by a WPA mineral survey sponsored by the state Geological Survey. The survey covers 548 square miles. The most important minerals found in paying quantities are kaolinite, sandstone, iron, limestone, dolomite and road building material. Most of the rock of the upland regions of Randolph county are limestone and dolomite.

Deposits near the highways and railroads have been the only ones surveyed. A total of 39 good deposits has been located, and estimated to contain from 3,000 cubic yards to more than 50,000 cubic yards per deposit. Texture of the material renders some of it excellent building material and much would make good fertilizer, it was said. Vast deposits of both stones have been located in the more inaccessible parts of the county.

Iron oxide or limonite has been found in some places. Some of the samples have assayed as high as 60 per cent iron. Transportation costs prohibit use of these deposits at present.

Much gravel and sand was located in the western part of the county, in stream beds and in hilltop terrace deposits. Much of the gravel is mixed with red clay or adjoins clay deposits, and is excellent road material.

Sandstone is found in many places, and ranges in color from almost pure white through the various shades of yellow and red to a dark reddish brown. These deposits are accessible and have been used extensively in Pocahontas and the surrounding territory for homes and business buildings.

The most important deposits commercially are the kaolinite deposits found in the western part of the county. This material is being used now as base for boll weevil poison.

Carroll County Mineral Survey Well Underway

Democrat 2-26-39

WPA Crews Find Large Quantities of Sandstone in Ozarks.

A mineral survey in Carroll county is two-thirds complete and a wide variety of minerals have been located during the past 10 months since the work was started in this county as a part of a state-wide WPA project carried on under the direction of Dr. George C. Branner, state geologist, and sponsored by the state geological survey, it was announced yesterday.

The project includes tabulation of data on water sources, caves, railroads, highways, power transmission lines, bridges and dams, Charles S. Little, county supervisor said. Mr. Little has headquarters in Eureka Springs.

Of the 641 square miles in the county, the WPA survey crews have checked 422 square miles.

Minerals which have been located and mapped thus far, in commercial quantities are limestone, sandstone, dolomite and road materials. Members of the survey also report small deposits of galena, iron pyrites, Mexican onyx and clays. Of the 206 samples of specimens submitted to the Little Rock office, 179 have been identified and classified.

Limestone has been located in large quantities in the northwestern part of the county. Crushed limestone is valuable as a fertilizing agent. Estimates of the survey indicate that millions of tons of this fertilizer are present in Carroll county and much of it is easily accessible by highway. Six crushers are now in operation in Carroll county.

Sandstone is found in the sections adjacent to those in which limestone is found in the northern part of the county. The St. Peter sandstone, which is a high purity silica sandstone useful as a supply of glass sand, is present in very large quantities.

Much Sandstone Found.

Dolomite is a magnesian limestone used principally for building and road construction; it is also used in the manufacture of rock wool. A single deposit of dolomite two miles south of Eureka Springs is 20 feet thick and estimated to contain 1,000,000 cubic yards. It is found in thickness ranging to 100 feet.

Carroll county has an abundance of road making material in the sand, river gravel, and clay gravel found in many sections.

The water wells and springs of Carroll county are receiving particular attention by the survey. The workers record on their field sheets every well, spring, stream, creek and branch in every section. So far the crew has investigated 526 wells and 136 springs, including municipal water supply systems.

This survey also records the location of all highways, county roads, improved and unimproved, and the trails made by CCC. All power transmission lines have been mapped. This information will be used in correcting county maps now in use.

On the completion of the work, all samples, field sheets and records taken by the field workers in Carroll county will become the property of the Geological Survey. Robert C. Beckstrom is the state supervisor for Works Progress Administration and R. E. Vandruff is the technical supervisor of the statewide projects.

WPA MINERAL SURVEY LISTS HOWARD COUNTY MINERALS AND ORES

3-26-39

Special to the Gazette.

Nashville, Mar. 25.—Search for hitherto unknown mineral, ore, gravel and clay deposits in Howard county has been unusually fruitful since the statewide Mineral Survey started its survey in this county in April, 1938.

With much ground yet to be covered, the survey workers, under direction of J. K. Rankin, county survey supervisor, have discovered deposits of kaolin clay, ilmenite, antimony ore, gypsum, barite, cinnabar and bentonite.

Nineteen workers engaged on the survey project were taken from Howard county WPA rolls.

In addition to seeking new deposits, the survey is attempting to compile accurate information on the location and extent of all known deposits. Samples of all minerals located are sent to the survey laboratory in Little Rock for testing.

All data collected by field workers, together with records of analysis of samples, will become the property of the state Geological Survey. Upon completion of the state survey, the information gained will be printed in bulletin form under direction of Dr. George C. Branner, state geologist.

Discussing the various deposits discovered in Howard county to date, Supervisor Rankin said colored kaolin had been found about three and one-half miles north of Nashville and one-fourth mile from a railroad. Test holes indicate this material extends to a depth of 13 feet over an area of about one-fourth square mile.

A deposit of ilmenite 12 feet thick and covering more than 50 acres was located about eight miles southwest of Nashville and three miles north of Mineral Springs. Ilmenite occurs as a fine sand and is used in the manufacture of steel. Samples sent to the mineral survey laboratory in Little Rock show the content to be iron and titanium, which are the principal components of ilmenite. While this deposit is of easy accessibility, located on the Center Point and Mineral Springs highway, there is no record of any attempt to develop it.

Antimony Deposits.

Antimony is a metal used principally to alloy with lead in order to increase hardness. It is also used in the manufacture of rubber, enamel ware and chemicals. Veins of antimony ore 100 feet deep were found seven miles northwest of Dierks on Saline river. Veins were found in nine other sections. As a result of the survey, renewed interest is being shown in a mine started at this site some years ago.

Many Uses for Gypsum.

Deposits of gypsum have been located by the survey in the extreme eastern part of the county and in the central part, within five miles of Center Point. Gypsum is used as a fertilizer, in making crayons, as a filler for cotton materials, as a base for paint and wall plaster, in making various grades of paper, as an ingredient of certain disinfectants and in the manufacture of cement.

Barite has been found in two locations in Howard county within the last two months, one about eight miles north of Nashville, the other about three miles south of Dierks on the Dierks and Possum Hollow road. This material, which looks somewhat like quartz, is used in the manufacture of paint to give a gloss, for refining and bleaching sugar, to add weight to paper pulp and as a base for rat poison.

Cinnabar Valuable.

Deposits of cinnabar have been found in the northeastern part of the county near Muddy creek. Similar deposits in Pike and Clark counties now are being developed. Cinnabar is the mineral from which mercury (quicksilver) is made. Principal uses are: For drugs and chemicals, recording instruments and guages and germicides. The present market price of quicksilver is $93 for a flask of 76 pounds, an advance of $3 within the last week, Mr. Rankin said.

The benonite deposits located by the survey are in the eastern part of the county near highways 4 and 26. This clay has been used principally for thickening mud used in rotary drilling in the oil industry. It also is used extensively as a bleaching earth. Recent investigations at the Massachusetts Institute of Technology indicate that it can be used for making a paper-like substance.

Other ores and minerals located in Howard county by the survey include copper and zinc, limestone, lignite and several good gravel deposits, none of which has been worked.

Wells, Springs Studied.

Workers on the project have collected data on 575 water wells and 63 springs. In the extreme southern parts of the county wells are drilled to depths of 290 to 612 feet. Twelve of the wells investigated are artesian wells; average depth of which is 418 feet. The daily flow ranges from 600 gallons to 52,420 gallons. The water generally is soft. Ordinary wells are from eight to 60 feet deep, the water of some of these containing lime and sulphur. These wells are, for the most part, in the central part of the county in regions adjacent to Center Point and Dierks.

Of the 63 springs examined the most important are in the famous group at old Center Point camp meeting ground. Eleven of these springs flow soft water; one flows sulphur water. Their combined flow is 10,000 gallons a day. There are 26 springs in this township.

Mr. Rankin said the survey had received excellent co-operation from land owners. The Dierks Lumber Company is contributing financial aid each month for the transportation of the field crew. The Nashville Chamber of Commerce is co-operating by paying office rent and maintaining a display of samples found by the survey. Nashville citizens have provided funds for installing a water testing station by public subscription.

The supervisor has received requests from the Warne Steel Company of Oklahoma and the A. D. Green Fire Brick Company of Missouri for information on any deposits of manganese the survey may locate. Other requests for information have been received from concerns interested in clays and antimony ore.

Mysterious Stone Wall Found In Pope County Forest.

Special to the Gazette. 4-12-39

Russellville, April 11.—A mysterious stone wall, apparently several hundred years old, has been discovered in the vicinity of Lost Corners, 40 miles north of here, in an almost inaccessible ravine inside the boundaries of the Ozark National Forest, Joe Meek of Russellville, supervisor of the Arkansas state mineral survey, revealed here today.

Mr. Meek said the wall is more than 400 feet long, nine feet high and four feet wide. Some of the sandstone in the wall weigh four or five tons. It is in a ravine at the foot of a 600-foot bluff, and apparently was constructed to serve as a water break from a mountain stream which flows through the valley.

The wall is located just below a 150-foot waterfall and runs parallel with the stream. It has a sharp break about the middle, where signs of what may have been an old mine shaft were found.

Mr. Meek said that samples of ore from the vicinity of the wall had been assayed, but nothing of value had been found.

The wall is within a half-mile of a highway. The depth of the ravine and a mist which rises from the waterfall keeps the wall well hidden even on a clear day, Mr. Meek said.

The find has been reported to Robert C. Beckstrom, stationed in Little Rock in charge of the state minerals survey. Mr. Beckstrom, formerly with the Geological Department of the Colorado School of Mines, will come here soon to inspect it.

WPA Mineral Survey Gets $483,000

Gazette 4-30-39

A $483,000 WPA fund with which the state hopes to develop industry in counties this year was released to the Arkansas Geological Survey's mineral study project yesterday.

The mineral survey, designed to determine quantities of each mineral available for commercial development and to provide an accurate record of the state's deposit, began January 7, 1938. It cost approximately $413,000 last year.

The first period for which the original appropriation was made, expired April 15. The new fund is available immediately.

"Approval of the second appropriation was an expression of confidence in the Arkansas Geological Survey's work," said Floyd Sharp, state WPA administrator.

Work for 1939 will include field surveys, analyses of minerals discovered in the 30 counties and mapping of the areas for use of industrial organizations and state and private agencies State Geologist George C. Branner said.

Laboratory Tests.

Minerals collected will be tested in a new laboratory erected by the WPA at the old penitentiary walls at a cost of $5,000. It embraces a clay-burning kiln and facilities for chemical and physical analyses. More than 14,000 specimens, 4,000 of which are clay samples, have been gathered for testing.

Information will be made available to industries which manufacture bricks, phosphates and lime products, and to sand and gravel, stone and marble companies.

Water tests to determine supplies adaptable to industrial uses will be made at special laboratories situated at Mena, Jonesboro, Mountain View, Waldron, Marshall, Melbourne, Danville, Paragould, Salem, Camden and Hardy, Dr. Branner announced

Other laboratories are contemp this year in Crawford, Madison, Mon gomery, Marion, Sebastian and Newton counties.

690 Persons Employed.

The survey personnel of 690 persons completed an investigation of 18,546 square miles in the state during the first year. The work was approximately 70 per cent finished when the last report was compiled March 29.

Each county included in the project has an independent organization composed of a county supervisor and a staff of 16 field workers, members of which were obtained from WPA rolls.

Report To Be Published.

"The survey has not discovered many minerals new to Arkansas," Dr. Branner said. "The workers don't claim credit for discovering deposits already known to exist. But the detailed information and the analyses of samples collected will constitute a permanent reference work for those interested in the commercial development of the state's minerals."

Results of the survey, when completed, will be published in a bulletin under Dr. Branner's direction.

State offices of the work are at 117 North Victory street. Robert C. Beckstrom is state supervisor. R. E. Vandruff is technical supervisor.

Nine Specialists Sought For Geological Laboratory.

5-17-39

Nine specialists would be assigned to the Arkansas Geological Survey's new testing laboratory at the old penitentiary Walls to aid industries in the development of the states mineral resources under provisions of a project filed with the WPA yesterday.

Chemical and physical properties of metallic and non-metallic minerals and water in Arkansas may be determined at the laboratory, Dr. George C. Branner, state geologist, said in outlining plans for the new set-up.

The program calls for appointment of a mineralogist and two assistants, a ceramist and two aides, a water chemist and two assistants and a typist. The work would become a part of the present state mineral survey.

More than 8,000 samples of minerals, including clay, are awaiting analyses, Dr. Branner said. Results of the tests would be used to map commercial deposits of road building materials and other resources that might attract industry.

The laboratory also would be the central depot for analyzing water supplies. Fifteen counties already have laboratories at which water from four wells and springs in each township is tested. Samples of the water will be sent to the Little Rock laboratory, where they will be subjected to analyses for 20 minerals.

Survey Lists Deposits In Fulton County

6-11-39

Gazette

By TOM SHIRAS.

Salem, June 10.—The Fulton county mineral survey, conducted as part of the state-wide WPA mineral survey sponsored by the state Geology Department, has located large deposits of tripoli, dolomite and road building materials, particularly gravel.

The survey, under direction of Richard Brewer, county supervisor, has extended pretty well over the 465 square miles designated for study.

Besides mineral and road building material deposits, the survey has recorded the location of streams, lakes, water wells and springs and has analyzed their waters.

Until this survey was started, the known deposits of tripoli in Arkansas were in the western and northwestern sections. Deposits discovered recently in Fulton county are in the extreme western and southwestern sections, near Mammoth Spring, Elizabeth, Viola, Bexar, Wild Cherry and Argosy.

Many Uses for Tripoli.

Tripoli is a form of finely divided silicia. The action of water has dissolved the calcide in the rock, leaving soft, porous, white silica. This material is easily crushed and is used extensively as a polishing cement. It also is used in the manufacture of cement, the making of soap powder and as a filler for certain grades of paint.

A deposit of this material 11 miles south of Mammoth Spring, is being utilized for the manufacture of a household cleaner by a company in Hardy. This deposit is about 18 feet thick and covers an area of about 20 acres. The cleaner manufactured from it is recommended for cleaning and polishing glass, metal surfaces and painted surfaces.

Tripoli deposits near Bexar and Wild Cherry were located by outcroppings along road ditches. At Bexar the exposed surface of one deposit extends about 30 feet, the thickness of the deposit being about 20 feet. The outcropping near Wild Cherry has a 300-foot "face" and the deposit covers about 200 acres.

About eight miles north of this deposit, near Viola and Argosy, is a deposit ranging in depth from six to 10 feet. It has an overburden of sandy soil, about six feet thick.

Dolomite Plentiful.

Fulton county has large deposits of dolomite, which is valuable as a building stone and for other uses. It is a good mineral fertilizer, is used as a flux in smelters in the manufacture of lime calcimine and in stucco. This valuable stone is found in nearly all sections of the county, the thickness of the beds being estimated at more than 2,000 feet.

In the vicinity of Mammoth Spring, the rock occurs in bluffs from 10 to 60 feet high. Some of the deposits are crumbly and brittle, sandy and porous. Others are hard, light colored and fine grained. Across the county near Vidette, in the extreme western part, dolomite has been found in bluffs from 20 to 300 feet in height. There the stone is pink and is believed to be the first of this color found in the county.

Some fine gravel, valuable for road building purposes, has been located near Viola, the deposit being 900 feet long, 80 feet wide and nine feet deep. It is estimated to contain 20,000 cubic yards. In an adjoining section another fine deposit of gravel was found covering about four acres, the estimated amount being 480,000 tons.

Considerable information concerning Mammoth Spring has been accumulated by the survey. It is one of the largest springs in the United States. Its flow varies from about 250 to 350 cubic feet per second. The water is "hard" containing about 158 parts per 1,000,000 of lime and 139 parts per 1,000,000 of magnesia. The summer temperature of the water is about 58 degrees.

Besides Mammoth Spring, the survey examined and listed 286 water wells and 118 springs. The average depth of the wells is 60 feet. In the western and southwestern parts of the county dug wells range in depth from 10 to 42 feet. Only in rare instances is soft water found. In this same section the drilled wells have a range in depth from 60 to 190 feet. The water in almost all wells is hard.

Survey Finds New Coal Outcroppings

6-25-39

Special to the Gazette.

Ozark, June 24.—Eliminating "proved" coal mining areas from its investigation at the outset, the statewide Geological Survey-sponsored WPA Mineral Survey has located outcrops of coal in almost every section of the 377 square miles covered in Franklin county. Tom D. Rogers, whose headquarters is here, is cunty supervisor for the survey.

Shallow test holes were put down in fields not "proved." Most of the outcrops investigated are veins of a thickness of two feet or less, but, some are much more important.

The survey may prove the presence of coal in sufficient quantities to cause mining interests to make further investigation.

A deposit of coal located near Mulberry creek had an outcropping 22 inches thick with an overburden of less than 25 feet in most places. Another deposit, with a 14-inch outcrop, is estimated to cover 30 acres. Particularly good coal outcroppings were found in a bluff in the vicinity of Cecil. Samples indicated the deposit is of good grade.

Importance was attached to the fact that practically all deposits located are within a short distance, some of them within one-fourth mile, of good gravel roads. The northern boundary of the "coal measure beds" as shown in the state geological map of 1929 lacks several miles of extending far enough north in Franklin county, according to survey reports.

"Proved" coal mining areas near Charleston, Alix, Denning, Branch and Philpott Valley were eliminated from consideration because they already had been gone over by coal mining companies.

No metallic minerals have been found in the part of the county being studied by the survey, but, several large deposits of sandstone, a deposit of limestone and a large quantity of black shale suitable for road building have been located. Gravel deposits located have been reported to County Judge W. M. Jones Jr. and the county supervisor of WPA road projects.

A bed of limestone was located on Fane's creek, near Cass, and an effort is being made to have a lime crusher placed in operation in the vicinity to furnish this fertilizing agent to farmers, a few of whom have used it with good results. Fayetteville is the source of supply of limestone now used in this area.

Sandstone has been found in deposits of from 20 to 75 feet thickness, several of them with a maximum overburden of eight feet. This material has been used in many Charleston buildings and in local bridge construction but the amount available for use has hardly been scratched, one of the deposits alone covering more than 20 acres.

The survey in this county has been conducted by 15 field workers selected from local WPA rolls. Samples of rocks and minerals have been sent to the Little Rock laboratory for analysis, as have samples of ground water from various sources.

Of 924 wells examined, the average depth was 47 feet, dug wells ranging from 12 to 30 feet in depth and drilled wells from 40 to 180 feet. Of 43 springs examined, 21 contained iron minerals, four sulphur, one alum. The remaining ones were comparatively free of minerals in solution.

The Ozark Rotary Club and the Charleston Chamber of Commerce made contributions toward expenses of truck operation and a water testing station. Ozark merchants also contributed for the water station. County officials made personal contributions to aid the survey project.

Geological Laboratory at Old Penitentiary Walls Completed.

7-13-39 Gazette

The Work Projects Administration has completed construction of a new $5,000 brick laboratory at the old penitentiary Walls for use by the Arkansas Geological Survey in testing minerals collected in a 40-county mineral survey during the last 18 months, Dr. George C. Branner, state geologist, said yesterday.

The laboratory embraces a clay-burning kiln and facilities for chemical and physical analyses.

Dr. Branner said H. B. Grace of Atlanta, Ga., will report here Saturday to take over duties as assistant ceramist in charge of clay-testing projects. He is a graduate of Georgia Tech.

The mineral survey, designed to determine quantities of each mineral available for commercial quantities and to provide an accurate record of the state's deposits, began January 7, 1938. It cost approximately $413,000 in 1938. The WPA appropriated $483,000 for the work this year.

E. E. Castleberry of the state WPA office has been appointed state supervisor of the project succeeding Robert C. Beckstrom, who resigned July 1 to return to Oklahoma.

Dr. Branner said Clayton H. Johnson of Columbia, Mo., had been appointed assistant supervisor in charge of writing reports of the survey and Raymond Wismer, formerly with the United States District Engineers' Office here, had been named liaison officer to co-ordinate the divisions of the project.

Results of the survey, when completed, will be published in a bulletin under Dr. Branner's direction. The information will be used in an effort to attract industry to the state.

Drill Tests Will Be Made In Pike County for Gypsum.

Gazette 10-3-39

An effort to locate gypsum beds in Pine county will be made immediately by the state Mineral Survey of the Geology Department, Dr. George C. Branner said yesterday. Drilling tests will be made south of Murfreesboro, J. C. Childress is the driller in charge.

The state geologist said gypsum is associated with the De Queen limestone extending from southwest of Plaster Bluff, Pike county, in a northwesterly direction into Howard county.

Gypsum, he said, is used in making plaster board, plaster of paris and as a retarder for Portland cement.

"Drilling tests are among the department's most important jobs," Dr. Branner said. "In that manner we locate mineral deposits which otherwise might not become known for years."

He said a company recently was organized by P. A. Smith of Pine Bluff to quarry limestone in southwest Pulaski county after drilling tests revealed deposits of more than 1,000,000 tons.

Mineral Find At Mabelvale Is Soil Boon

Arkansas Democrat

Pulaski County Survey Reveals Cheap Source of Fertilizer.

1-8-40

A huge limestone deposit near Mabelvale estimated at 1,000,000 cubic yards, which was discovered some years ago, and then apparently forgotten, has been relocated and should be a boon to Pulaski county farmers, Robert C. Beckstrom, state WPA mineral survey supervisor, said yesterday.

The "quarry" lies about two and one-half miles west of Mabelvale on Fourche creek, and near highway 70 and is easily accessible. New analyses show it to contain more than 10 per cent calcium carbonate, making it quitable for agricultural purposes, particularly in rendering land usable for alfalfa and the like.

"At the present time, Pulaski farmers are paying $2.65 a ton for crushed limestone brought in from the northern part of the state, but by using the material found within their own county, considerable money would no doubt be saved on cost of material, with the shipping cost virtually eliminated," Beckstrom said.

The WPA mineral survey office at 117 North Victory street, Little Rock, will be glad to furnish farmers with information as to ownership and the like, if requested.

The mineral survey of Pulaski county has brought forth some other interesting facts.

Good for Roads.

In the west central area of Big Rock township, in and near Geyer Springs, have been found several deposits of quartzitic gravel, a material well adapted to road surfacing because it breaks down slowly and forms its own binder. This gravel runs about 80 per cent metal and 20 per cent clay. The largest deposit of this road-making material is owned and operated by Pulaski county.

In the extreme southwestern part of the township—four miles from Mabelvale—there is a large amount of kaolin clay which, while of low grade, is fairly plastic, suitable for earthenware pottery. The west central area of this township holds some of the best kaolin yet found in Pulaski county. A sample of this was analyzed by the chief soil chemist of the State Highway Department, who pronounced the alumina percent present to be exceptionally high. In a well drilled by Sam Parker at Mabelvale, strata of kaolin were found to a depth of 86 feet.

Slate Near Ferndale.

In the regions lying between Ferndale and Pinnacle are large deposits of slate mixed with sandstone and quartz. About three miles north of this village is a dike of sandstone 1,500 feet in length and 20 feet high. Shinall mountain, which covers several sections of land is composed of shale with a covering of sandstone. Pinnacle mountain (one of the four points called Maumelle pinnacles) is composed of sandstone, and Blue mountain is of the same formation.

The survey of the water situation in this part of Pulaski county has been one of interesting discoveries. In many instances the people, on hearing of the work of the project, urge the workers to come and inspect a peculiar well on their property. There is the one from which the water when taken is clear until boiled, when it produces a thick sediment.

Large Area Inspected.

Of the 779 square miles within the bounds of Pulaski county, 337 are to be investigated by the field workers under the direction of Carl C. Burkett, county supervisor. This territory includes seven townships, all lying south of the Arkansas river. Up to this time, approximately 200 square miles have been covered by the surveying crew.

Minerals located thus far in the survey in Pulaski county are lignite, limestone, quartzitic gravel, slate and kaolin clays.

One of the first tests made was on the grounds of the Confederate Home near Sweet Home, where lignite was found at a depth ranging between 15 and 20 feet, and in thickness from 15 to 30 feet. About five miles southeast of Mabelvale, near U. S. highway No. 167, lignite was also located in land owned by Sam Parker, who states that the stratum is 56 feet thick. Because of the abundance of other fuels in Arkansas, lignite has never been produced commercially, although it is used in small quantities for domestic purposes in some localities.

Minerals Of Pike County Are Surveyed

Democrat 6-7-40

The Polk county mineral report, first of a series to be compiled and published on all of the 75 Arkansas counties, was released yesterday by the Arkansas Geological Survey. The reports are being compiled as a WPA project under the supervision of Dr. George C. Branner, state geologist.

The report, a 41-page pamphlet well bound, has treatises on the description and sequence on Polk county geology, the economic mineral resources, and the rocks and other non-metallic minerals.

All contain descriptions as to the amounts of the product, location, uses and economic importance and prices. Studies of copper, iron, lead, manganese, and zinc are included in the mineral report, and barite, building stone, clay, novaculite, road materials slate, tripoli, fuel minerals and springs are summarized in the remaining sections.

Mineral reports on 21 counties and water reports on two counties have been completed but not published, and work is under way on mineral reports on seven counties and water reports on 22 counties.

Also, special investigations are under way on minerals contributing to national defense value. These probes are being made on stibnite, in Sevier and Howard counties, manganese in Independence county, gypsum in Howard and Pike counties, and lignite in Saline, Grant, Hot Spring, Dallas, Clark and Ouachita counties.

Mineral Survey Report Issued For Polk County.

Democrat 7-7-40

A mineral survey report on Polk county was issued yesterday by Dr. George C. Branner, state geologist. This is the first of a series of county mineral and water resources surveys by the WPA Mineral Survey in conjunction with the Arkansas Geological Survey. The report gave detailed information on the geological and topographical features of Polk county and provides an accurate measure of the location, extent and value of various minerals.

Surveys for minerals in 21 counties and water resources in two have been completed, Dr. Branner said. Work is in progress in 29 other counties. In addition, special surveys are being carried on for stibnite (antimony ore) in Sevier, Howard and Polk counties, for manganese in Independence county, for gypsum in Polk and Howard, and for lignite in Saline, Grant, Hot Spring, Dallas, Clark and Ouachita counties.

Minerals In Randolph Of Importance

8-18-40

Special to the Gazette.

Pocahontas, Aug. 17.—Many of Randolph county's mineral deposits are taking on added importance with the completion of new county and state highways and with the increased national defense program.

Minerals disclosed in a WPA state Geological Survey check of the mineral possibilities of the county include several of importance. Several large deposits of iron oxide, or limonite, were found in the northwest section of the county. Some of the samples assayed as high as 60 per cent iron.

New Roads Needed.

At the present time the distance from hard-surfaced highways and railroad prohibits the use of these deposits, but they constitute valuable reserves in case of emergency.

Other valuable minerals disclosed include limestone, sandstone, dolomite, kaolinite, and vast deposits of sand and gravel.

The sandstone deposits are located in several parts of the hill section of the county and are of commercial value as building material. The stone ranges in color from pale yellow to a rich red-brown. Some of the deposits have pure white and grey stone. The easiness of cutting the sandstone when quarried makes it very desirable as a building material.

Limestone deposits in the county total several million cubic yards. The 39 deposits located near highways and the railroads of the county have deposits of from 10,000 to more than 50,000 cubic yards. Other larger deposits were located in the extreme northwest part of the county, and will become accessible on completion of the Pocahontas-West Plains (Mo.) highway.

The limestone is used extensively for building material and is ground for fertilizer.

Mineral Survey Completed In Boone County.

Special to the Gazette. 12-8-40

Harrison, Dec. 7.—The state mineral survey in Boone county, sponsored by the Arkansas Geological Survey, was completed this week, Mrs. Lucille Moore, laboratory assistant, announced. While the county has been explored by the survey as to its mineral deposits, no published report has been made public. Recently the work in Boone and Searcy counties has been combined under the direction of Lester Hall, whose headquarters were maintained at Marshall. James Hill Jr. has been field foreman in Boone county.

$25,000 Mineral Survey Set Up in Johnson County.

Special to the Gazette. 12-8-40

Clarksville, Dec. 7.—Roy D. Sharrock, supervisor of a WPA mineral survey project set up in Johnson county this week, said it will include about 20 workers. The offices are located in the Kolb building here. L. C. Critchfield, district supervisor of survey projects, said that approximately $25,000 will be spent on the survey.

Mineral Survey Resumed In Howard County.

Special to the Gazette. 1-19-41

Nashville, Jan. 18.—The mineral survey of Howard county, started in 1938 and stopped before completion, will be completed, Parks Hunter of Murfreesboro, county supervisor, announced. A crew of 15 men started work Thursday. On completion of the mineral survey a water survey, and gypsum survey will be made.

Mineral Survey Started In Little River County.

Special to the Gazette 9-14-41

Ashdown, Sept. 13.—L. C. Crutchfield of the state mineral office in Little Rock has begun a mineral survey of Little River county. The project is sponsored by Foreman and the county. An office has been opened in the city hall at Foreman where Mr. Crutchfield is conducting schools to acquaint workers with their duties.

A crew of approximately 15 men will be employed on the projects.