OIL & GAS CONSERVATION COMMISSION Meeting: April 16, 1971 Mr. John Bannister, Exec. Sec.



OFFICE OF

Gil and Cas Conservation Commission

STATE OF ARIZONA 4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

AGENDA

Meeting
April 16, 1971
4515 N. 7th Avenue, Phoenix, Arizona

10:00 a.m.

Call to order

- Approval of minutes of meeting of March 19, 1971
- 12. Executive Secretary report
- 2. Enforcement Section activity report
- A. Geology Section activity report
- .8. Old business
- 16. New business
- ∴ Adjourn

IF YOU ARE UNABLE TO ATTEND THIS MEETING, PLEASE NOTIFY THIS OFFICE AS SOON AS POSSIBLE.

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OIL AND GAS CONSERVATION COMMISSION 4515 N. 7th Avenue Phoenix, Arizona 85013

> Minutes of Meeting March 19, 1971

Present:

Mr. Ralph W. Bilby, Chairman Mr. Lucien B. Owens, Member Mr. W. Roger Hafford, Member Mr. Frank E. Moore, Member Mr. Robert A. Bledsoe, Member

The regular Commission meeting for the month of March, 1971 was called to order by Chairman Ralph Bilby at 10:00 a.m.

The minutes of the meeting of February 19, 1971 were approved as written.

Réports of Executive Secretary, Enforcement Section and Geology Section were accepted.

Executive Secretary reported that, acting on instructions given at the last regular meeting, various states were contacted regarding any incentive programs they may have offered and whether they were successful. All reports received were negative. Canada does have incentive awards but has a different leasing setup and the incentives used there would not be applicable. The Interstate Oil Compact Commission has advised that furnishing geology information is the best incentive; bonus incentive does not accomplish the purpose.

Mr. Conley advised that Dr. Martin Van Courvering has prepared a review of Bulletin 182 "Coal, Oil, Natural Gas, Helium, and Uranium in Arizona", prepared by the Arizona Bureau of Mines. The review will be published some time this summer in the American Association of Petroleum Geologists Bulletin and mention will be made of the Commission's assistance in compilation of Bulletin 182.

Mr. Conley reported that Monsanto Company has allowed the Commission to select pertinent information which might be of benefit from their files.

Mr. Conley further reported that Arkla Exploration Company has agreed to turn over to the Commission all its cores from the Holbrook basin. These cores will be kept confidential for eighteen months. The necessary storage space will have to be located.

Executive Secretary was instructed to see if a meeting can be

Minutes of Meeting March 19, 1971 Page 2

arranged with Pemex geologists in Juarez, Mexico (El Paso) to obtain information from Pemex wells drilling in the Pedregosa basin in Mexico, since they would reveal much information as to southeastern Arizona.

APPROVED

Ralph W. Bilby, Chairman



Oil and Gas Conservation Commission

STATE OF ARIZONA 4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

April 6, 1971

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Memo: Commissioners From: John Bannister

Re: Report of Activity

As of today, H.B. 147 (the rules bill) has passed the House and is now in the Senate, assigned to the Natural Resources Committee. H.B. 290 (the money bill) has passed the Natural Resources, Governmental Relations, and is currently in the House Rules Committee. This committee publishes no agenda and I do not know when the bill will be considered. To date Kerr-McGee is the only one who has expressed concern as to H.B. 290 and the only change they care to make is to take all gasses and make the levy at 2 mils per MCF. Their comments have been forwarded to Representative Stan Turley.

We have issued a permit to Cecil E. Cope to drill a well on the Bradshaw Ranch in the NW/4 NE/4 of Section 34, Township 18 North, Range 4 East, Yavapai County. Mr. Allen will make further comments on this well in his report.

Earl Huggins of Sedona contacted this office April 5th and advised that he has an application to drill in the mail. This well will be in the Sedona area and will be on what Mr. Huggins considered a geological high, projected depth 1,000 feet. He indicated that this test should commence within the next two weeks, pending, of course, our issuing the permit.

The butane storage project in Holbrook will apparently change hands with a subsidiary of Williams Brothers (a large engineering corporation) to buy out Aritex, the current operator of the project. Suburban (Williams Brothers subsidiary) will be the new operator and intends to put in two additional storage caverns, the first of which is scheduled to begin operating by July 15th. Mr. Allen and I met with a representative of Williams Brothers and with their contractor, Phenix & Scisson, and considered their proposed operation in detail. We anticipate issuing the necessary permits to commence the first two wells, by which the caverns will be established, in the near future. At the time of our meeting, everything was

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Page 2 Executive Secretary Report 4-6-71

ready to go except that the final contract between Williams Brothers and Aritex had not been executed by Aritex. There is no reason why this project will not be commenced soon.

As you may have seen, Arizona Helium has recently completed its bankruptcy procedure and all its assets ordered to be liquidated. The prime asset, of course, is its plant at Navajo, which had a bankruptcy value of 1.3 million dollars. As you know, Western Helium Corporation had been attempting to operate this plant under a lease arrangement, however Western did not renew its lease, saying that the plant did not have sufficient capacity to be operated at a profit. Western Helium has made an offer to purchase the plant. It is not known at this time whether the referee in bankruptcy will accept this offer or not. I don't know what price Western has offered for the plant. I am advised that if Western is successful it will at least double the producing capacity of the plant and do extensive reworking to the existing facilities.

Pursuant to the instructions given to me at our last meeting, I have met with Mr. Arsenio Navarro, geology exploration chief of Pemex, and with Mr. Jorge Tovar, district geologist, in Juarez. I am pleased to report that the meeting was quite successful and I was given much information concerning drilling of two of their wells located approximately 30 miles south of Columbus, New Mexico. These wells are deep tests lying within the Pedregosa Basin and the information gained will be of value to our efforts in Cochise County. Pemex has indicated that in addition to the information given to me they will forward additional geological maps to the Commission and will, on appointment, take our geologists to the well sites and let them see logs, samples, cores, etc. This will be valuable knowledge applied to Arizona's portion of the Pedregosa. We will set up this meeting in the not too distant future. Prior to this time, however, I want to send some information from wells in southeastern Arizona to Pemex to show our "good faith".



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Oil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

ACTIVITY REPORT

April 7, 1971

Memo from W. E. Allen, Director Enforcement Section

Suburban Gas Company, a subsidiary of William Brothers Engineering Company, the pipeline construction people, has plans to build underground LPG storage in the Holbrook area. Their present plans are to acquire the gallery that Aritex Development Company has developed and to add two more galleries. These two galleries will require the drilling of four or possibly five wells together with related facilities. The entire project will be quite large accounting for a total storage of some 4 to 500,000 barrels of LPG products. An estimated seven to eight full-time employees will be required to operate the project.

Phenix and Scissons, Incorporated, of Tulsa will be the prime contractor. The target date for completion of the first gallery is July 15, 1971.

John and I spent two days with representatives of Williams Brothers and Phenix and Scissons discussing the project and detailing the Commission's requirements. We found these people to be very knowledgeable in underground LPG storage projects and also very cooperative. I look forward to working with this group.

Southwest Salt has finally started mining salt at their project west of Phoenix. The operation seems to be proceeding very well. The inspection reports furnished by Southwest Salt on the fissure east of the salt ponds indicate no extension of this faulting.

The following paragraph is taken from the Petroleum Information bulletin and may be of some interest to you.

"An inorganic, high temperature mechanism may be responsible for the origin of some of our largest currently-producing natural gas fields, Dr. T. J. Weismann, Gulf Research and

Page 2 W. E. Allen-Activity Report April 7, 1971

> Development Company told the AAPG meeting in Houston Tuesday. Gases obtained from the Sacramento basin in California and deep horizons in the Delaware-Val Verde basins in West Texas are thought to be associated with high temperature--primarily igneous--sources, according to Gulf findings. Indications are that molten rock, surging into a carbon-bearing rock layer, purged carbon dioxide from the layer to react with its own hydrogen to form methane, the principal component of natural gas. The igneous rock is thought to be an effective catalyst for the reaction. Extensive research by Gulf scientists indicates that some gases from the fields under study were formed at temperatures much higher than normally exist in sedimentary rock, where organically-produced methane usually forms at less than 100 degrees C. This indicates to Gulf scientists that some sort of geologic catastrophe, such as intrusion of molten rock, must have occurred at the time the gases were created.

If Gulf Research and Development Company studies prove correct, their findings could effectively change the thinking of oil operators and geologists as far as the geology of this State is concerned.

The writer attended Tuesday's session of the symposium sponsored by the College of Engineering, University of Arizona, on "Energy, Environment and Education". Tuesday's session was devoted to fossil fuel and its effects on the environment. It appears that stationary fuel burning equipment and primarily generating plants are responsible for almost 50% of the harmful emissions polluting our atmosphere. These emissions are mainly the sulphur oxides, nitrogen oxides, and particulate matter.

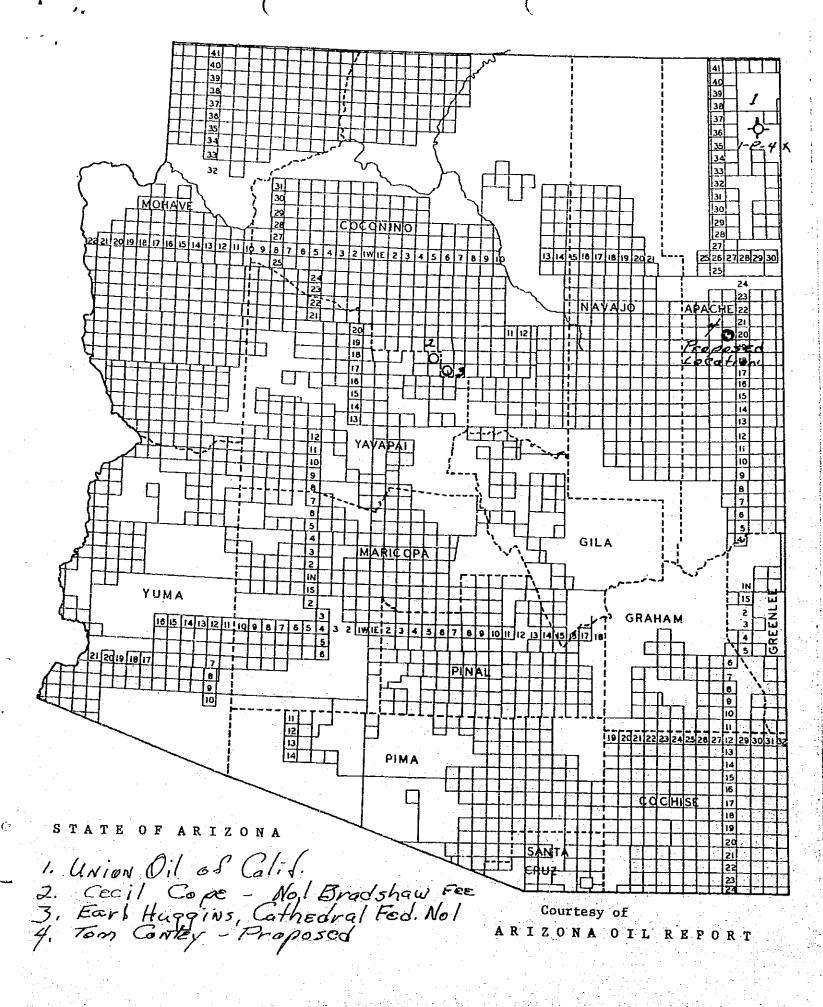
The Union Oil Company of California well located in the SE SE Section 4-T36N-R29E Apache County and drilled to a total depth of 3021' has been plugged and abandoned.

Permit 550 has been issued to Cecil E. Cope to drill a 3500' test in the NW NE Section 34-T18N-R4E Yavapai County, Arizona.

An application has been received from Mr. Earl Huggins to drill a well in the NE SW Section 16-T17N-R5E Yavapai County.

Tom Conley, a lease broker from Denver, has indicated he intends to drill a Shinarump test in Section 36-T20N-R27E Apache County, Arizona. This well will be on a farmout from Kerr-McGee. The Kerr-McGee lease will Page 3
W. E. Allen-Activity Report
April 7, 1971

be communitized with the remainder of the section presently held by Western Helium Corporation in order to form an acceptable drilling unit for a gas well.



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Gil and Gas Conservation Commission

STATE OF ARIZONA 4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

April 7, 1971

ACTIVITY REPORT

TO: COMMISSIONERS

FROM: GEOLOGICAL STAFF

James Scurlock

We are still concentrating on our compilation project working closely with Wes Peirce who is director and editor. All the data has been compiled in rough form; but, we will be busy for some time in editing, assembling, and fitting the material to format.

Edward Koester

The trip of the writer to Riverside, California included attendance at the Cordilleran Section Meeting of the Geological Society of America. In addition to the contacts made personally with a number of geologists of major oil companies who have leases in Arizona, considerable data was assembled regarding wells in nearby areas in southeastern California west of Yuma County. A by-product of the trip was information regarding hydrothermal activity in the Salton Sea vicinity, which although not presently feasible, is still receiving a great amount of attention by both oil companies and public utilities. This is indicated by the attendance of many geologists working in this field. A two-day field trip to the Imperial Valley included a study of the Salton Sea Geotherman Field.

Later I attended the 56th Annual Meeting of the American Association of Petroleum Geologists at Houston, one of the largest meetings in the history of that organization with a registration of nearly 4300 members and guests. The technical program included papers on Sandstone Reservoirs, Origin of Natural Gas, Ocean History, Worldwide Frontier Areas of Exploration, and New Exploration Methods.

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Page 2 Activity Report Geological Staff April 7, 1971

Jack Conley

Re: Sample Catalog Project

This project is "on schedule".

Preliminary tabulations by counties of all wells drilled in the State for oil, flammable gas, and stratigraphic information have been completed. These tabulations list such information as the name of the well, the Oil and Gas Conservation Commission permit number (if permitted), geographic location, number of box(es) containing well-cuttings and/or cores and respective depth intervals, and total depths.

The tabulations are not complete yet as to information concerning the depth intervals of the well-cuttings and cores in our library and in the one maintained by the Arizona Bureau of Mines in Tucson. I am currently working on this phase of the catalog project.

Apache County, where the bulk of drilling in the State has occurred, is almost completed. The tabulation contains 406 listings, 312 of which are holes drilled for oil, flammable gas, or helium gas. We have in this library approximately 270 sets of samples for the oil, gas, and stratigraphic holes drilled in Apache County. These figures indicate that we lack samples on approximately 33 percent of the holes drilled.

The final tabulations for Navajo and Coconino Counties have also been commenced. The balance of the counties contain very few wells, and present no serious problems time-wise.

Re: Map Project

This project entails the preparation of maps showing the location of wells drilled for oil, gas, and stratigraphic information, keyed to a list of the wells on the margin of the maps.

Considerable progress has been made on this project. The tabulations prepared for the sample catalog project contain data that will be used for the map project.

One of the principal un-resolved problems pertaining to this project has to do with acquiring suitable base maps. Originally, I thought that we could use the 1:500,000 scale bases available from the Bureau of Mines. These bases would be satisfactory for most of the counties with few wells, but not for the more densely drilled areas in the gross Black

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Page 3 Activity Report Geological Staff April 7, 1971

Jack Conley (Cont.)

Mesa Basin in Apache, Navajo and portions of adjacent counties. These areas will require map scales sufficiently large to show sections.

It presently appears that such maps may be available through Ammann International Corporation very reasonably. Normally the copyright charge for such base maps is at the rate of 15¢ to 25¢ per square mile. Ammann is currently offering base map coverage throughout the Rocky Mountain states to governmental agencies at a basic rate of about 1¢ per square mile plus film and reproduction costs. The Wyoming Highway Department and the Colorado Geological Survey have purchased complete coverage for their respective states.

I have purchased and used Ammann maps covering various areas. They are excellent maps, accurately constructed. I have requested Mr. James V. Remsen, President of Ammann, to submit a firm proposal to Mr. John Bannister. He will also send us some samples of the maps he has in Arizona.

Re: Airborne Magnetometer Survey, Yuma County, Arizona

I have been advised, confidentially, that Windward Oil Company has completed recently an airborne magnetometer survey of the gross area encompassing its area of interest in Yuma County. Highly sophisticated equipment was used. I do not know anything concerning the results of the survey.

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50,484 37	7112.0	² Salaries, wages: employees ²	6.4393
117 39	7151.0	3 Industrial Insurance 3	
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	7342.2	46 Rental Equipment 40	
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780 06		48 Capital Outlay: Typewriter 48	
2,470 95		49 Desks, Tables, Chairs, etc. 49	
772/4	7431.5	50 Files, Storage Cabinets, etc50	
4,51441	7436.1	51 Passenger Cars 51	
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C MONTHLY FINANCIAL REPORT 3

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CLAIMS PAID MONTH OF	EXPENDITURES FUND TITLES	TOTAL AMOUNT AVAILABLE YEAR TO DATE	CLAIMS PAID YEAR TO DATE	OUTSTANDING ENCUMBRANCES	UNENCUMBERED BALANCE
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6,64932	1 Personal Services	60277 54	52,484 32		7,793 18
656 81	2 Emp. Related Exp.	60277 50 5,466 75	4,665 05	†	801 70
2,410,26	1 Personal Services 2 Emp. Related Exp. 3 Other Operating Exp.	2/ 722 50	24223 85	2,20/45	297 20
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4/0 53	6 Travel - Out of State	2,625 00	1978 13	582 16	6471
	7 Cap. Outlay - Equip.	8,700 00			188
	8 Conserv. Fund - Other	1,770 00			85/58
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