

BEFORE THE OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

CASE NO. 67

IN THE MATTER OF THE APPLICATION OF THE POTASH  
COMPANY OF AMERICA FOR AN ORDER OF APPROVAL OF  
ROCKY ARROYO UNIT AGREEMENT WHOSE UNIT AREA  
COVERS 23,040.29 ACRES SITUATED IN TOWNSHIPS  
20, 20½, 21 AND 22 SOUTH, RANGES 23 and 24 EAST,  
EDDY COUNTY, NEW MEXICO.

Pursuant to notice by the Commission, duly made and published  
setting December 8, 1945 at 10 o'clock A. M., for hearing in the  
above entitled matter, said hearing was convened on said day, at  
said hour, in the New Mexican Room of the La Fonda, Santa Fe, New  
Mexico, the Commission sitting as follows:

HON. JOHN E. MILES, State Land Commissioner, Member  
HON. R. R. SPURRIER, State Geologist, Secretary  
HON. CARL B. LIVINGSTON, Chief Clerk & Legal Adviser

R E G I S T E R

<u>NAME</u>	<u>COMPANY</u>	<u>ADDRESS</u>
Glenn Staley	Lea County Operators	Hobbs, N. M.
Clarence Hinkle	Potash Company of America, Atty.	Roswell, N.M.
Geo. D. Riggs	Geologist	Carlsbad, N.M.
George W. Selinger	Skelly Oil Company	Tulsa, Okla.
E. J. Gallagher	Gulf Oil Corporation	Hobbs, N. M.
Paul C. Evans	Gulf Oil Corporation	Hobbs, N. M.
Harry A. Aurand	Potash Company of America	Carlsbad, N.M.
M. W. Phelan	Richfield Oil Corporation	Los Angeles,
George K. Gibson	Richfield Oil Corporation	Midland, Texas
Thomas F. Rico	Richfield Oil Corporation	Los Angeles
T. P. Ellsworth	Richfield Oil Corporation	Bakersfield, Cal
Lewis Finch, Jr.	Stanolind Oil & Gas Company	Ft. Worth, Tex.
J. O. Seth, Atty	Stanolind Oil & Gas Company	Santa Fe, N.M.
John M. Kelly	Geologist	Roswell, N.M.
C. S. Rose	Repollo Oil Company	Midland, Texas
G. H. Gray	Repollo Oil Company	Midland, Texas
Robert A. Pierce	Potash Company of America	Carlsbad, N.M.
L. W. Lodwick	Independent	Roswell, N. M.
Roy O. Yarbrough	Oil Conservation Commission	Hobbs, N. M.
Foster Morrell	U. S. Geological Survey	Roswell, N. M.
Chack Aston	Consulting Geologist	Artesia, N. M.
Robert L. Bates	State Bureau of Mines & Mineral Resources	Socorro, N. M.

"NOTICE FOR PUBLICATION  
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

The Oil Conservation Commission as provided by law hereby  
gives notice of the following hearing to be held at Santa Fe,

New Mexico, at 10 o'clock A. M., December 8, 1945:

CASE NO. 67.

IN THE MATTER OF THE APPLICATION OF THE POTASH  
COMPANY OF AMERICA FOR AN ORDER OF APPROVAL OF  
ROCKY ARROYO UNIT AGREEMENT WHOSE UNIT AREA  
COVERS 23,040.29 ACRES SITUATED IN TOWNSHIPS  
20, 20½, 21 AND 22 SOUTH, RANGES 23 and 24 EAST,  
EDDY COUNTY, NEW MEXICO.

Given under the seal of said Commission at Santa Fe, New  
Mexico, on November 21, 1945.

OIL CONSERVATION COMMISSION

BY: (SGD) R. R. SPURRIER

R. R. SPURRIER, SECRETARY.

SEAL"

P R O C E E D I N G S

MR. CLARENCE HINKLE (Attorney for Potash Company of America)

Application has been made by the Potash Company of America for the approval of unit agreement development of Rocky Arroyo, in Eddy County, New Mexico. Copies of unit agreement are filed with the Commission. The form of the agreement in so far as it relates acts to be performed by the Commission, Secretary of Interior and Commissioner of Public Lands, substantially the same as a unit agreement the Commission heretofore approved, known as the Picacho Unit Agreement. The proposed unit area covers approximately 23,000 acres of which 2126.76 are Federal lands, 2619.71 acres State lands, and 298.82 acres patented lands. The area stated is in Townships 20S, 21½, 21, and 22 South, Ranges 23 and 24 East, Eddy County. The unit agreement is believed to be the area that covers the entire structure, it is believed in the event oil or gas in commercial quantities is discovered, it should be conserved under the terms of the agreement, the Potash Company of America agrees within 6 months from the effective date of agreement to begin operations in drilling their test well, to a depth of 4,000 feet unless the oil or gas in commercial quantities is found at a lesser depth.

(After being duly sworn, Mr. George D. Riggs testified as follows)

MR. HINKLE: Your name George D. Riggs?

MR. RIGGS: Yes, sir.

MR. HINKLE: Resident of Carlsbad?

MR. RIGGS: Yes, sir.

MR. HINKLE: What is your profession?

MR. RIGGS: Petroleum Geologist.

MR. HINKLE: Are you a graduate of any college?

MR. RIGGS: Graduate of Colorado School of Mines.

MR. HINKLE: What year?

MR. RIGGS: 1926.

MR. HINKLE: Give to the Commission a brief resume of your professional career.

MR. RIGGS: Since 1926 I have been employed by major oil companies as consulting geologist the entire time.

MR. HINKLE: Have you ever performed any magnetometer work?

MR. RIGGS: I have been engaged in magnetometer work since 1939.

MR. HINKLE: In what areas has your work been?

MR. RIGGS: West Texas and Eastern New Mexico.

MR. HINKLE: The entire eastern and southeastern?

MR. RIGGS: Mostly Southeastern.

MR. HINKLE: Have you made a magnetic survey of the area known as Rocky Arroyo situated in Townships 20, 20½, 21 and 22 South Ranges 23 and 24 East, Eddy County, New Mexico?

MR. RIGGS: I made the survey in 1943.

MR. HINKLE: I hand you herewith plat and ask you to explain to the Commission what it reflects.

MR. RIGGS: This map shows the result of the magnetic survey of the area and it is contoured in 10 gamma interval, covers the unit for that and it shows the magnetic economy, and these contours represent lines of equal magnetic intensity,

MR. HINKLE: What does the red boundary line indicate?

MR. RIGGS: The outline of the unit area.

MR. HINKLE: In your opinion would the contours shown on this map fairly represent the structural condition in that area?

MR. RIGGS: Yes they would. The area includes all acreage in the contour.

MR. HINKLE: Are you familiar with the unit agreement?

MR. RIGGS: Yes, I have read it.

MR. HINKLE: State whether or not in your opinion if it is approved it would improve the conservation of oil and gas in this area.

MR. RIGGS: I think it would in that entire structure.

MR. HINKLE: Does the unit area in your opinion cover substantially all the structure?

MR. RIGGS: Yes it does. Includes all of it. The contour goes well down on the plan.

(After being duly sworn, Mr. Harry A. Aurand testified as follows:)

MR. HINKLE: Your name Harry Aurand?

MR. AURAND: It is.

MR. HINKLE: Where do you reside?

MR. AURAND: Denver, Colorado.

MR. HINKLE: What is your profession?

MR. AURAND: Petroleum geologist and geophysicist.

MR. HINKLE: Are you a graduate geologist?

MR. AURAND: I am.

MR. HINKLE: What school?

MR. AURAND: University of Colorado.

MR. HINKLE: Give the Commission a brief resume of your professional career.

MR. AURAND: Started with working for Colorado Geological Survey after I graduated in 1912. After the last war it was confined entirely to petroleum geology in the Rocky Mountain Area. In 1926 I was, in addition to my geological

duties, placed in charge of all geophysics. Went back to school studied for a year, and have had a considerable part of my work - has been involved in geology and as geophysicist since that time.

MR. HINKLE: Have you performed a good deal of work in New Mexico?

MR. AURAND: In years gone by.

MR. HINKLE: In the entire state?

MR. AURAND: In the Northwestern and Eastern part.

MR. HINKLE: Have you done any work in Southwestern New Mexico?

MR. AURAND: I have.

MR. HINKLE: In Eddy County?

MR. AURAND: Yes.

MR. HINKLE: Have you been consulting geologist for the Potash Company of America:

MR. AURAND: I have.

MR. HINKLE: Recently?

MR. AURAND: The last three years.

MR. HINKLE: Have you had occasion to go over the Rocky Arroyo Unit area in Eddy County?

MR. AURAND: I went over certain work with Mr. Riggs in the field.

MR. HINKLE: Mr. Aurand I hand you herewith the Potash Company of America's Exhibit "A", and ask you whether you are familiar with this map?

MR. AURAND: I am.

MR. HINKLE: State whether or not in your opinion the map correctly reflects the magnetic condition shown by the survey of Mr. George Riggs.

MR. AURAND: It does.

MR. HINKLE: Do the contours as shown on the map reflect the structural condition existing in that area?

MR. AURAND: I believe they do.

MR. HINKLE: The red boundary line is the outline of the unit area, state whether or not in your opinion the unit covers all the structure involved.

MR. AURAND: I believe it does.

MR. HINKLE: Mr. Aurand, are you familiar with the Rocky Arroyo Unit Agreement?

MR. AURAND: Yes, I am.

MR. HINKLE: State whether or not in your opinion the unit would be effective in oil-gas commercial quantities to control the area in which the unit area is located.

MR. AURAND: I believe it would.

MR. HINKLE: Would it be in the interest of conservation?

MR. AURAND: It would.

MR. HINKLE: That is all.

MR. JOHN KELLY: Mr. Hinkle, in Section 12 of the agreement, which is entitled "For the Development and operation of the Rocky Arroyo Unit Area" - Development or Operation on Non-Participating Land, would it be agreeable to the Potash Company of America to have the approved land for development as it produces set as a hearing before the Commission?

MR. HINKLE: I believe so, I believe that would be the proper construction of it.

COMMISSIONER MILES: Under Section 12, after production is obtained, a plan of development and operation must be set up. Some operators have not joined the unit agreement and I would like to have the approved well location set up at an approved hearing rather than executive meeting of the Commission.

MR. HINKLE: I believe you are referring to the wrong section, another section which provides for the selection of the participating area for submitting of land for development of the participating area.

Section 9, I believe, Plan of Further Development and Operation. Under that after 60 days after completion a plan is submitted by the operator for approval of the Supervisor, the Commissioner of Public Lands and the Oil Conservation Commission. If that plan is acceptable the unit goes ahead with the development as outlined. That plan can be changed from time to time as conditions change. Probably only approved for a year or two at the time. Probably be changed so as to reflect the true condition of production. I think that is what you have in mind.

MR. KELLY: That is on participating area, I have in mind the known participating area. Any operation in the near participating area will be prohibited.

MR. HINKLE: Naturally the unit operator is going to develop the participating area first, after that is fully developed and drilling is justified it will be expanded so that at all times it will include what is reasonably known or proven by the drilling. It will include lands first in the known participating area. Under Section 12, anybody dissatisfied with the development would have a right, in the event the unit operator refused to do so, to drill a well of his own accord. If the well proved to be suitable for the participating area the operator would have to reimburse the person that drilled the well to the extent of 150%.

MR. KELLY: It will have to be drilled under regular well location, established unit or plan of development.

MR. HINKLE: That means the 40 acres.

MR. KELLY: If it means 40 acres that is satisfactory to us, we have no objections to this agreement as drawn.

MR. SPURRIER: In consideration of the testimony offered, and the evidence presented here at this hearing, the Commission does approve this case.

C E R T I F I C A T E

I, Vastie Fowler, Reporter for the Oil Conservation Commission, hereby certify that I took down the statements made at the hearing held before the Commission on December 8, 1945, in the matter of the application of the Potash Company of America for an order of approval of Rocky Arroyo Unit Agreement whose unit area covers 23,040.29 acres situated in townships 20, 20½, 21 and 22 South, ranges 23 and 24 east, Eddy County, New Mexico, Case No. 67, and that the foregoing transcript constitutes, to the best of my knowledge and belief, a true and correct copy of all the oral statements and exhibits presented before the Commission.

Vastie Fowler  
Vastie Fowler, Reporter