

Entered December 17, 1980

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7085
Order No. R-6537

APPLICATION OF HARVEY E. YATES
COMPANY FOR DESIGNATION OF A
TIGHT FORMATION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 12, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 17th day of December, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Harvey E. Yates Company, requests that the Division in accordance with Section 107 of the Natural Gas Policy Act, and 18 C.F.R. §271.703 recommend to the Federal Energy Regulatory Commission that the Atoka formation underlying the following lands situated in Lea County, New Mexico, hereinafter referred to as the Atoka formation, be designated as a tight formation in said Federal Energy Regulatory Commission's regulations:

TOWNSHIP 12 SOUTH, RANGE 35 EAST, NMPM
Sections 33 through 36: All

TOWNSHIP 12 SOUTH, RANGE 36 EAST, NMPM
Section 31: All

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TOWNSHIP 13 SOUTH, RANGE 35 EAST, NMPM

Sections 1 through 4: All
Sections 9 through 16: All
Sections 21 through 28: All
Sections 33 through 36: All

TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM

Sections 6 and 7: All
Sections 18 through 20: All
Sections 29 through 32: All

TOWNSHIP 14 SOUTH, RANGE 35 EAST, NMPM

Sections 1 through 4: All
Sections 9 through 16: All
Sections 21 through 24: All

TOWNSHIP 14 SOUTH, RANGE 36 EAST, NMPM

Sections 5 through 7: All
Sections 18 and 19: All

Containing a total of 37,760 acres, more or less.

(3) That the Atoka formation underlies all of the above described lands; that the formation consists of shales interspersed with thin lime and sand sections; that the top of such formation is found at an average depth of 12,200 feet below the surface of the area set out in Finding No. (2) above; and that the thickness of such formation is from 700 to 900 feet within said area.

(4) That the type section for the Atoka formation for the proposed tight formation designation is found at a depth of from approximately 12,230 feet to 12,970 feet on the Gamma Ray-Neutron log dated May 18, 1980, from the Harvey E. Yates Company Betenbough No. 1 Well located in Unit C of Section 32, Township 13 South, Range 36 East, Lea County, New Mexico.

(5) That the following described well produces natural gas from the Atoka formation within the proposed area:

Harvey E. Yates Company
Betenbough #1

660 feet from North line and 1980
feet from West line of Section 32,
Township 13 South, Range 36 East,
N.M.P.M., Lea County, New Mexico.

(6) That the Atoka formation underlying the above described lands has been penetrated by several other wells, none of which produced natural gas in commercial quantities from the Atoka formation.

(7) That the evidence presented in this case demonstrated that no well formerly or currently completed in the Atoka formation within the proposed area exhibited permeability, gas productivity, or crude oil productivity in excess of the following parameters:

- (a) average in situ gas permeability throughout the pay section of 0.1 millidarcy; and
- (b) stabilized production rates, without stimulation, against atmospheric pressure, as found in the table set out in 18 C.F.R. §271.703(c)(2)(B) of the regulations; and
- (c) production of more than five barrels of crude oil per day.

(8) That based on analysis of available data from existing wells within the proposed area and utilizing generally and customarily accepted petroleum engineering techniques and measurements:

- (a) The estimated average in situ gas permeability throughout the pay section of the Atoka formation is expected to be 0.1 millidarcy or less; and
- (b) The stabilized production rate, against atmospheric pressure, of wells completed for production in the Atoka formation, without stimulation, is not expected to exceed production levels determined by reference to well depth, as found in the table set out in 18 C.F.R. §271.703 (c)(2)(B) of the regulations; and
- (c) No well drilled into the formation is expected to produce, without stimulation, more than five barrels of crude oil per day.

(9) That within the proposed area there are two recognized aquifers being the Ogallala, found at depths of from 300 feet to 400 feet, and the Santa Rosa, found at depths of from 900 feet to 1200 feet or approximately 11,000 feet above the Atoka formation.

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(10) That existing State of New Mexico and Federal Regulations relating to casing and cementing of wells will assure that development of the Atoka formation will not adversely affect said aquifers.

(11) That the Atoka formation, or any portion thereof, as described herein, is not currently being developed by infill drilling as defined in 18 C.F.R. §271.703(b)(6) of the regulations.

(12) That the Atoka formation within the proposed area should be recommended to the Federal Energy Regulatory Commission for designation as a tight formation.

IT IS THEREFORE ORDERED:

(1) That it be and hereby is recommended to the Federal Energy Regulatory Commission pursuant to Section 107 of the Natural Gas Policy Act of 1978, and 18 C.F.R. §271.703 of the regulations that the Atoka formation underlying the following described lands in Lea County, New Mexico, be designated as a tight formation:

TOWNSHIP 12 SOUTH, RANGE 35 EAST, NMPM
Sections 33 through 36: All

TOWNSHIP 12 SOUTH, RANGE 36 EAST, NMPM
Section 31: All

TOWNSHIP 13 SOUTH, RANGE 35 EAST, NMPM
Sections 1 through 4: All
Sections 9 through 16: All
Sections 21 through 28: All
Sections 33 through 36: All

TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM
Sections 6 and 7: All
Sections 18 through 20: All
Sections 29 through 32: All

TOWNSHIP 14 SOUTH, RANGE 35 EAST, NMPM
Sections 1 through 4: All
Sections 9 through 16: All
Sections 21 through 24: All

TOWNSHIP 14 SOUTH, RANGE 36 EAST, NMPM
Sections 5 through 7: All
Sections 18 and 19: All

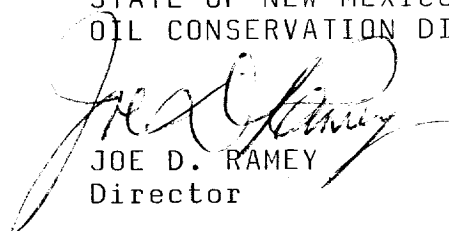
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Containing a total of 37,760 acres, more or less.

(2) That jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



JOE D. RAMEY
Director

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