

**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

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

**CASE NO. 10793
Order No. R-9976**

**APPLICATION OF YATES PETROLEUM
CORPORATION FOR A PILOT GAS
ENHANCED RECOVERY PROJECT, CHAVES
COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 12, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 24th day of September, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Yates Petroleum Corporation, seeks authority to implement a pilot infill drilling program within portions of the Pecos Slope-Abo Gas Pool, Chaves County, New Mexico, by drilling an additional gas well within the following described standard 160-acre gas spacing and proration units in order to gather data to determine if additional infill drilling is necessary to effectively and efficiently drain the Abo formation:

**BEFORE THE
OIL CONSERVATION DIVISION
Roswell, New Mexico**

Case Nos. 10793, 10981 and 11004 (Reopened)
and 11421 and 11422 Consolidated

Exhibit No. 1

Submitted by: Yates Petroleum Corporation

Hearing Date: November 2, 1995

TOWNSHIP 6 SOUTH, RANGE 25 EAST, NMPM

Section 8: NE/4
Section 11: SE/4
Section 15: SW/4
Section 24: SW/4
Section 26: NE/4
Section 35: NE/4

(3) In addition, the applicant seeks to include all of Irregular Section 1, Township 6 South, Range 25 East, NMPM, within the proposed pilot infill drilling area. Section 1 is a non-standard gas spacing and proration unit comprising some 201.29 acres.

(4) Within the subject gas proration units, the applicant proposes to produce both wells unrestricted for a temporary period of two years in order to gather geologic and engineering data.

(5) At the time of the hearing the applicant requested that the SW/4 of Section 15, Township 6 South, Range 25 East, NMPM, not be included within the proposed pilot infill drilling area.

(6) The Pecos Slope-Abo Gas Pool is currently governed by Division General Rules and Regulations which require 160-acre standard gas proration units and designated well locations. In addition, Division Rules and/or Policy currently generally prohibit the drilling of additional gas wells within standard proration units in non-prorated gas pools.

(7) According to evidence and testimony, Yates Petroleum Corporation drilled a number of infill wells in the Pecos Slope-Abo Gas Pool during 1992. Several of the wells encountered bottomhole pressures in the Abo formation in the range of 85-90 percent of original bottomhole reservoir pressure.

(8) Geologic evidence presented by the applicant indicates that the Abo formation in this area is comprised of three producing zones, each containing numerous distinct sand intervals. The sand intervals are generally vertically segregated and some are laterally discontinuous.

(9) Because of the nature of the sand intervals in this area, the applicant contends that some of the existing wells in the pool cannot efficiently and effectively drain the gas reserves in the Abo formation underlying their proration units.

(10) Engineering evidence presented by the applicant indicates that the drainage area for wells within the Pecos Slope-Abo Gas Pool varies considerably, and the average drainage area for wells within the specific area analyzed by the applicant is approximately 120 acres.

TOWNSHIP 6 SOUTH, RANGE 25 EAST, NMPM

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Hearing Date: November 2, 1995

(11) The preliminary geologic and engineering evidence presented by the applicant indicates that there may be some areas within the Pecos Slope-Abo Gas Pool where infill drilling would be appropriate or necessary in order to efficiently and effectively recover gas reserves which would otherwise not be recovered.

(12) In selecting the proration units and well locations for the pilot project area, the applicant utilized the following criteria:

- a) the location must have good sand thickness as per Yates' geologic interpretation;
- b) the location must be on trend with good cumulative production; and,
- c) the location must be outside the calculated drainage areas of the existing wells.

(13) All of the proration units proposed to be included in the pilot project area, with the exception of the NE/4 of Section 8 and the SW/4 of Section 24, are completely offset by acreage owned or controlled by Yates Petroleum Corporation.

(14) The NE/4 of Section 8 is offset to the northeast by the Quail Federal Well No. 8, and the SW/4 of Section 24 is offset to the northwest by the Quail Federal Well No. 2, both Pecos Slope-Abo Gas Pool producing wells currently operated by Great Western Drilling Company.

(15) Notice of this application was provided to all operators in the Pecos Slope-Abo Gas Pool, including Great Western Drilling Company, and no operator and/or interest owner appeared in opposition to the application.

(16) Approval of the application will afford the applicant the opportunity to gather geologic and engineering data to:

- a) confirm its geologic interpretation of the reservoir;
- b) determine the extent of drainage within each respective proration unit by analyzing reservoir pressure and production data.

(17) Approval of the application should further enable the applicant to determine if the criteria it is using to select infill well locations is effective.

(18) Approval of the subject application and the implementation of the proposed pilot infill drilling project should result in the acquisition of information about the Pecos Slope-Abo Gas Pool which may aid in the ultimate determination as to the most effective method of developing the reservoir, thereby preventing waste.

(19) This case should be reopened at an examiner hearing in August, 1995, unless reopened at an earlier date at the request of the applicant or upon motion of the Division, at which time the applicant should be required to appear and present the geologic and engineering data it has acquired from the pilot project and make recommendations to the Division concerning amendments, if any are applicable, to the rules which currently govern the Pecos Slope-Abo Gas Pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to implement a pilot infill drilling program within portions of the Pecos Slope-Abo Gas Pool, Chaves County, New Mexico, by drilling an additional gas well within each of the following described standard 160-acre gas spacing and proration units:

TOWNSHIP 6 SOUTH, RANGE 25 EAST, NMPM

Section 8: NE/4
Section 11: SE/4
Section 24: SW/4
Section 26: NE/4
Section 35: NE/4

(2) In addition, the applicant is authorized to include within the pilot project area and drill an additional well within Irregular Section 1, Township 6 South, Range 25 East, NMPM, being a non-standard gas spacing and proration unit comprising some 201.29 acres.

(3) The applicant is further authorized to produce both wells within each of the proration units described above unrestricted for a temporary period of two years for the purpose of gathering geologic and engineering data.

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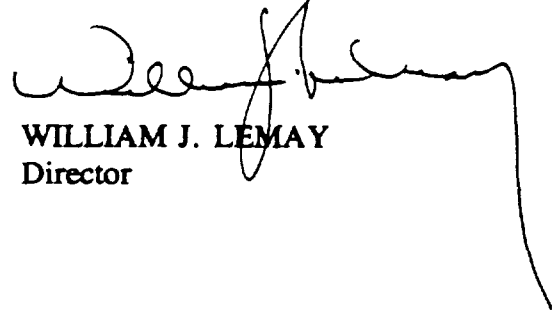
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- b) determine the extent of drainage within each respective proration unit by analyzing reservoir pressure and production data.

(17) Approval of the application should further enable the applicant to determine if the criteria it is using to select infill well locations is effective.

(5) 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 hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read 'William J. Lemay', is written over the printed name and title. The signature is fluid and cursive, with a long, sweeping line extending from the end of the name.

WILLIAM J. LEMAY
Director

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