

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. 11128  
ORDER NO. R-10277*

**APPLICATION OF ENRE CORPORATION FOR A HIGH ANGLE/HORIZONTAL  
DIRECTIONAL DRILLING PILOT PROJECT, SPECIAL OPERATING RULES  
THEREFOR, AND AN UNORTHODOX OIL WELL LOCATION, RIO ARRIBA  
COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 27, 1994, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 14<sup>th</sup> day of December, 1994 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, EnRe Corporation, seeks authority to initiate a high angle/horizontal directional drilling pilot project in the West Puerto Chiquito-Mancos Oil Pool underlying a proposed project area comprising all of Section 15, Township 27 North, Range 1 West, NMPM, Rio Arriba County, New Mexico, thereby creating a standard 640-acre oil spacing and proration unit for said pool.

(3) The proposed pilot project area is within the boundaries of the West Puerto Chiquito-Mancos Oil Pool and, as such, is subject to the Special Rules and Regulations for said pool as promulgated by Division Order No. R-6469-B, as amended, which provides for 640-acre spacing and proration units with an allowable of 800 barrels of oil per day and for all wells to be no closer than 1650 feet to the outer boundary of a proration unit nor closer than 330 feet to an inner quarter-quarter section line of sub-division inner boundary.

(4) The applicant further seeks authority to horizontally drill its Los Indios Canyon "15N" Well No. 1 from an unorthodox surface location 1295 feet from the South line and 1360 feet from the West line (Unit N) of said Section 15 in the following unconventional manner:

Drill vertically to a depth of approximately 6145 feet. Kick off from the vertical at this depth and drill in an easterly direction building angle at a rate of 8 degrees/100 feet to a depth of approximately 7270 feet at the top of the Mancos "B" interval. Continue drilling up dip or horizontally within the Mancos "B" interval a distance of approximately 2100 feet.

(5) The applicant further seeks the adoption of special operating provisions and rules within the pilot project area including the designation of a prescribed area limiting the horizontal or producing portion of the wellbore such that it can be no closer than 330 feet from the outer boundary of the project area.

(6) The applicant presented geologic evidence which indicates that the target zone within the proposed wellbore is the Mancos "B" interval. The Mancos "B" interval is characterized by a major fracture system which predominantly runs north-south and a minor fracture system which runs both north-south and east-west in this area.

(7) Through its evidence and testimony, the applicant demonstrated that the proposed high angle/horizontal wellbore should encounter a greater number of natural fractures within the Mancos "B" interval than would a conventional wellbore, which should significantly increase the recovery of oil and gas from the project area, thereby preventing waste.

(8) Due to extensive fracturing in the Mancos formation, the proposed Los Indios Canyon "15N" Well No. 1 should be capable of draining the entire project area.

(9) The project area and the immediate eight surrounding sections to said Section 15 are composed of a single Jicarilla Apache Tribal Lease which is currently under lease to the applicant.

(10) No offset operator and/or interest owner appeared at the hearing in opposition to the proposed high angle/horizontal wellbore.

(11) In the interest of conservation and prevention of waste, the application of EnRe Corporation for a high angle/horizontal drilling pilot project should be approved.

(12) The applicant should be required to determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(13) The applicant should notify the supervisor of the Aztec district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(14) The applicant should be required to submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Aztec offices of the Division.

(15) The Division Director should be authorized to administratively approve the drilling of an additional high angle/horizontal wellbore within the project area should mechanical difficulties preclude the completion of horizontal drilling operations on the Los Indios Canyon "15N" Well No. 1. Such application should include the proposed surface location, direction and extent of the lateral, and the proposed bottomhole location. In addition, a copy of the application should be furnished to each operator offsetting the project area by certified or registered mail, and the application should state that such notice has been given. The Division Director may approve the application upon receipt of waivers from all offset operators or if no offset operator has entered an objection to the proposed horizontal wellbore within 20 days after the Director has received the application.

IT IS THEREFORE ORDERED THAT:

(1) The applicant EnRe Corporation, is hereby authorized to initiate a high angle/horizontal directional drilling pilot project in the West Puerto Chiquito-Mancos Oil Pool underlying all of Section 15, Township 27 North, Range 1 West, NMPM, Rio Arriba County, New Mexico, thereby forming a standard 640-acre oil spacing and proration unit for said pool.

(2) The applicant is further authorized to drill its Los Indios Canyon "15N" Well No. 1 from an unorthodox surface location 1295 feet from the South line and 1360 feet from the West line (Unit N) of Section 15 in the following unconventional manner:

Drill vertically to a depth of approximately 6145 feet. Kick off from the vertical at this depth and drill in an easterly direction building angle at a rate of 8 degrees/100 feet to a depth of approximately 7270 feet at the top of the Mancos "B" interval. Continue drilling horizontally within the Mancos "B" interval a distance of approximately 2100 feet.

(3) The horizontal or producing portion of the wellbore shall be located no closer than 330 feet from the outer boundary of the project area.

(4) The applicant shall determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(5) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

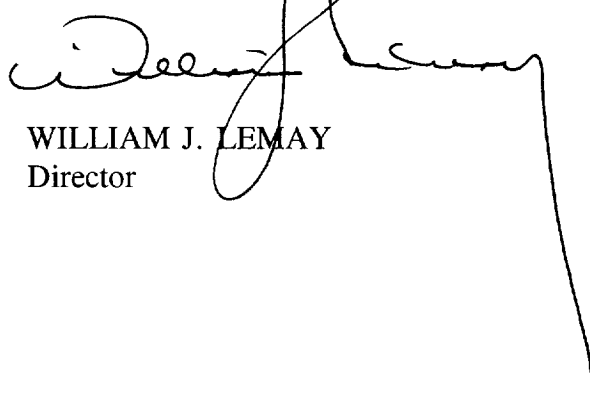
(6) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Aztec offices of the Division.

(7) The Division Director shall be authorized to administratively approve the drilling of an additional high angle/horizontal wellbore within the project area should mechanical difficulties preclude the completion of horizontal drilling operations on the Los Indios Canyon "15N" Well No. 1. Such application shall include the proposed surface location, direction and extent of the lateral, and the proposed bottomhole location. In addition, a copy of the application shall be furnished to each operator offsetting the project area by certified or registered mail, and the application shall state that such notice has been given. The Division Director may approve the application upon receipt of waivers from all offset operators or if no offset operator has entered an objection to the proposed horizontal wellbore within 20 days after the Director has received the application.

(2) Jurisdiction 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 downwards from the end of the name.

WILLIAM J. LEMAY  
Director

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