

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. 10818*  
*ORDER NO. R-9969*

**APPLICATION OF PETROLEUM DEVELOPMENT COMPANY FOR A SHORT  
RADIUS HORIZONTAL DIRECTIONAL DRILLING PROJECT AREA AND  
SPECIAL OPERATING RULES THEREFOR, CHAVES COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 9, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 22<sup>nd</sup> 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) Division Case Nos. 10818, 10819, 10820 and 10821 were consolidated at the time of the hearing for the purpose of testimony.
- (3) The applicant, Petroleum Development Company, seeks authority to institute a short radius horizontal directional drilling project in the Tomahawk-San Andres Pool on its Strange Federal Lease comprising the S/2 of Section 25, Township 7 South, Range 31 East, NMPM, Chaves County, New Mexico, hereinafter referred to as the "project area".
- (4) Within the project area the applicant seeks authority to:

- a) horizontally drill the existing Strange Federal Well No. 1 located 660 feet from the South and East lines (Unit P), the Strange Federal Well No. 2 located 660 feet from the South line and 1980 feet from the East line (Unit O), and the Strange Federal Well No. 3 located 2100 feet from the South line and 1980 feet from the East line (Unit J), all in Section 25, in a direction and lateral distance to be determined by the applicant;
- b) traverse quarter and quarter-quarter section lines within the project area by any of its proposed horizontal wellbores;
- c) drill the proposed horizontal wellbores to within 100 feet of the outer boundary of the project area; and,
- d) administratively receive an adjustable project allowable based upon the number of standard 40-acre proration units within the project area which are developed or traversed by a horizontal wellbore.

(5) The applicant further seeks the promulgation of special operating rules and procedures within the project area including provisions for administrative authorization of further horizontal wellbores, the formation of non-standard or irregular sized spacing units, and the assignment of special oil allowables.

(6) At the time of the hearing, the applicant requested that its proposal for the establishment of administrative authorization procedures within the project area be dismissed.

(7) By Order No. R-9876 issued in Case No. 10696 on April 15, 1993, the Division authorized Petroleum Development Corporation to initiate a horizontal directional drilling project within the S/2 SW/4 of Section 25, Township 7 South, Range 31 East, NMPM, by horizontally drilling its Strange Federal Well No. 5 located 660 feet from the South line and 1980 feet from the West line (Unit N).

(8) By Order No. R-9897 issued in Case No. 10713 on May 19, 1993, the Division authorized Petroleum Development Corporation to initiate a horizontal directional drilling project within the NE/4 SE/4 of Section 25, Township 7 South, Range 31 East, NMPM, by horizontally drilling its existing Strange Federal Well No. 4 located 1980 feet from the South line and 660 feet from the East line (Unit I).

(9) The proposed project area is located within the Tomahawk-San Andres Pool which is currently governed by Statewide Rules and Regulations which require standard 40-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit, a standard oil allowable of 80 barrels of oil per day, and a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

(10) Testimony by the applicant indicates that it has successfully horizontally drilled its Strange Federal Well Nos. 4 and 5 as described above.

(11) The applicant now seeks approval to continue developing the Strange Federal Lease with additional horizontal wellbores.

(12) The procedures proposed by the applicant are more flexible and lenient than previously approved by the Division.

(13) According to applicant's testimony, it has tentatively determined that the Strange Federal Well Nos. 1, 2 and 3 will be drilled in a northeast, northeast and west-southwest direction, respectively; however, the applicant seeks the flexibility to alter the proposed direction of any given wellbore in the project area when technological or geological data warrant such alteration.

(14) The applicant further seeks the flexibility to traverse quarter or quarter-quarter section lines within the project area with any of its proposed horizontal wellbores in order to remove unnecessary restrictions on lateral wellbore distances which may restrict applicant's ability to test the limits of horizontal drilling technology.

(15) Horizontal drilling within the S/2 of Section 25 should result in the recovery of a significant volume of oil and gas which was not recovered by the existing conventional vertical wellbores, thereby preventing waste.

(16) The S/2 of Section 25 is a single Federal lease which is commonly owned throughout. Approval of the subject application as proposed should not result in the violation of the correlative rights of any interest owner within the project area.

(17) According to applicant's testimony, the proposed 100 foot setback will allow for additional drilling flexibility; however, applicant further testified that it will attempt to maintain a reasonable distance from the outer boundary of the project area within its proposed horizontal wellbores.

(18) Murphy Operating Corporation, Yates Petroleum Corporation, and Yates Energy Corporation, the only offset operators to the proposed project, were notified of the application in this case but did not appear in protest.

(19) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.

(20) The applicant's plan of development for the S/2 of Section 25 is reasonable and based upon good engineering principles.

(21) In the interest of conservation and prevention of waste, the application of Petroleum Development Company for a short radius horizontal directional drilling project within the S/2 of Section 25 should be approved.

(22) The allowable assigned to the project area should be assigned by the supervisor of the Hobbs district office of the Division and should be based upon the number of standard 40-acre proration units within the project area which are developed or traversed by a horizontal wellbore.

(23) The applicant should be authorized to produce the project allowable from any of the wells within the project area in any proportion.

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

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

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

(27) The project areas, non-standard oil proration units and oil allowables previously established for the Strange Federal Well Nos. 5 and 4 by Division Order Nos. R-9876 and R-9897, respectively, should be superseded by this order.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Petroleum Development Company, is hereby authorized to institute a short radius horizontal directional drilling project in the Tomahawk-San Andres Pool on its Strange Federal Lease comprising the S/2 of Section 25, Township 7 South, Range 31 East, NMPM, Chaves County, New Mexico, hereinafter referred to as the "project area".

(2) Within the project area, the applicant is further authorized to horizontally drill the existing Strange Federal Well No. 1 located 660 feet from the South and East lines (Unit P), the Strange Federal Well No. 2 located 660 feet from the South line and 1980 feet from the East line (Unit O), and the Strange Federal Well No. 3 located 2100 feet from the South line and 1980 feet from the East line (Unit J), all in Section 25, in a direction and lateral distance to be determined by the applicant.

(3) The horizontal wellbores may traverse quarter and quarter-quarter section lines within the project area provided that the horizontal or producing portion of each wellbore shall be located no closer than 100 feet from the outer boundary of the project area.

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

(5) The applicant shall notify the supervisor of the Hobbs 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 Hobbs offices of the Division.

(7) The allowable assigned to the project area in the Tomahawk-San Andres Pool shall be assigned by the supervisor of the Division's Hobbs district office and shall be equal to 80 BOPD X the number of standard 40-acre proration units within the project area which are developed or traversed by a horizontal wellbore.

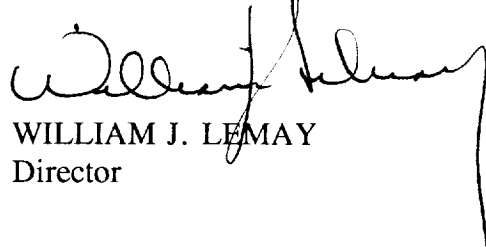
(8) The project areas, non-standard oil proration units and oil allowables previously established for the Strange Federal Well Nos. 5 and 4 by Division Order Nos. R-9876 and R-9897, respectively, are hereby superseded by this order.

(9) The portion of the application requesting the establishment of administrative authorization procedures within the project area is hereby dismissed.

(10) 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



WILLIAM J. LEMAY  
Director

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