

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. 10403
Order No. R-9606*

**APPLICATION OF AMERICAN HUNTER EXPLORATION,
LTD. FOR A HIGH ANGLE/HORIZONTAL DIRECTIONAL
DRILLING PILOT PROJECT, SPECIAL OPERATING
RULES THEREFOR, A NON-STANDARD OIL PRORATION
UNIT, AN UNORTHODOX OIL WELL LOCATION, AND
TO RESCIND DIVISION ORDER NO. R-9536, 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 17, 1991, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 1st day of November, 1991, 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) By Order No. R-9536 issued in Case No. 10286 on June 27, 1991, American Hunter Exploration, Ltd. was authorized to drill its Jicarilla 4-A Well No. 1 at an unorthodox surface location 330 feet from the North and East lines (Unit A) of Section 4, Township 27 North, Range 1 West, NMPM, West Puerto Chiquito-Mancos Oil Pool, Rio Arriba County, New Mexico, in the following unconventional manner:

Drill vertically to a depth of approximately 7,100 feet to evaluate the pay zone. Plug back to approximately 6,300 feet, deviate from the vertical in a westerly direction with the angle being increased so as to reach an angle of approximately 80 degrees from the vertical at the top of Niobrara formation (about 6,800 feet TVD). Continue drilling in the Niobrara formation at an angle of approximately 80 degrees for a lateral distance of approximately 2,500 feet.

(3) All of said Section 4 was to be dedicated to the subject well forming a standard 651.76-acre oil spacing and proration unit. In addition, both the vertical and horizontal (80 degree) portions of the wellbore would be kept inside a target window described as a rectangle 330 to 1,830 feet from the North line and 330 to 3,230 feet from the East line of said Section 4.

(4) In lieu of drilling the Jicarilla 4-A Well No. 1, the applicant, American Hunter Exploration, Ltd., seeks the formation of a 650.05-acre non-standard oil spacing and proration unit in the West Puerto Chiquito-Mancos Oil Pool comprising Lots 3 and 4, S/2 NW/4, and SW/4 (W/2 equivalent) of Section 3 and Lots 1 and 2, S/2 NE/4, and SE/4 (E/2 equivalent) of Section 4, both in Township 27 North, Range 1 West, NMPM, Rio Arriba County, New Mexico, for the purpose of initiating a high angle/horizontal directional drilling pilot project.

(5) The applicant proposes to drill its Jicarilla 3-F Well No. 1 at an unorthodox surface location 1650 feet from the North line and 2000 feet from the West line (Unit F) of said Section 3 in the following unconventional manner:

Drill vertical to a depth of approximately 6,084 feet, kick off from vertical in a westerly direction building angle to approximately 76 degrees so as to encounter the top of the Niobrara formation at approximately 6,640 feet TVD. Continue drilling a high angle hole in the Mancos formation a lateral distance of approximately 3400 feet.

(6) The applicant further requests that special operating provisions be established for said project including the designation of a prescribed area limiting the horizontal extent of said wellbore to a target window described as a rectangle 330 feet to 2330 feet from the North line of Sections 3 and 4 with the eastern side of the drilling window 2000 feet from the West line of Section 3, and the western side 2000 feet from the East line of Section 4.

(7) According to applicant's testimony, subsequent to the issuance of Division Order No. R-9536, additional seismic data within the subject area was obtained. The results of the seismic data indicate that the newly proposed location should penetrate the Niobrara formation in an area of greater natural fracturing than would a well located at the previously approved location (described in Finding No. (2) above).

(8) Further testimony indicates that as per joint venture agreement with the Jicarilla Tribe, this well location must be approved by the Jicarilla Tribal Council. As of the date of the hearing, the applicant did not know if the newly proposed location would be approved by said body.

(9) Applicant testified that if the newly proposed location is not approved by the Jicarilla Tribal Council, it will seek Division approval to reverse the surface and bottomhole locations of the previously approved Jicarilla 4-A Well No. 1, said reversal being necessary to encounter a greater number of natural fractures within the Niobrara formation as per the geophysical data recently obtained.

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

(11) The evidence presented in this case indicates that the newly proposed location is justified by geologic conditions and that a well at the proposed location should adequately drain and develop the proposed non-standard proration unit, should recover additional oil reserves, and will not violate correlative rights.

(12) The proposed bottomhole target window (described in Finding No. (6) above) is reasonable and should be approved.

(13) The applicant should be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that direction, extent and terminus of said wellbore may be determined to be in compliance with the terms of this order.

(14) The applicant should further be required to submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

(15) The applicant should notify the supervisor of the Aztec district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

(16) Applicant's request to rescind Division Order No. R-9536 should be dismissed.

(17) Should the newly proposed location not be approved by the Jicarilla Tribal Council, this order should terminate and therefore be of no further effect.

IT IS THEREFORE ORDERED THAT:

(1) The application of American Hunter Exploration, Ltd. for a high angle/horizontal directional drilling pilot project within a 650.05-acre non-standard oil spacing and proration unit comprising Lots 3 and 4, S/2 NW/4, and SW/4 (W/2 equivalent) of Section 3 and Lots 1 and 2, S/2 NE/4, and SE/4 (E/2 equivalent) of Section 4, both in Township 27 North, Range 1 West, NMPM, West Puerto Chiquito-Mancos Oil Pool, Rio Arriba County, New Mexico, is hereby approved.

(2) The applicant is further authorized to drill its Jicarilla 3-F Well No. 1 at an unorthodox surface location 1650 feet from the North line and 2000 feet from the West line (Unit F) of said Section 3 in the following unconventional manner:

Drill vertical to a depth of approximately 6,084 feet, kick off from vertical in a westerly direction building angle to approximately 76 degrees so as to encounter the top of the Niobrara formation at approximately 6,640 feet TVD. Continue drilling a high angle hole in the Mancos formation a lateral distance of approximately 3400 feet.

(3) From the surface location to total depth, the Jicarilla 3-F Well No. 1 shall be kept inside a target window described as a rectangle 330 feet to 2330 feet from the North line of Sections 3 and 4 with the eastern side of the drilling window 2000 feet from the West line of Section 3, and the western side 2000 feet from the East line of Section 4.

(4) The applicant shall conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that direction, extent and terminus of said wellbore may be determined to be in compliance with the terms of this order.

(5) The applicant shall submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

(6) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

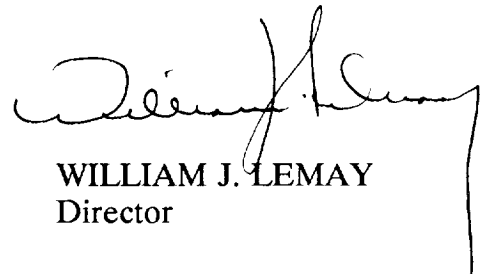
(7) Applicant's request to rescind Division Order No. R-9536 is hereby dismissed.

(8) Should the proposed horizontal directional drilling pilot project and well location not be approved by the Jicarilla Tribal Council, this order shall terminate and therefore be of no further effect.

(9) Jurisdiction of this cause is 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


WILLIAM J. LEMAY
Director