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. 10548
ORDER NO. R-9762

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION FOR A HIGH ANGLE/ HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT, RIO ARRIBA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 3, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 12th day of November, 1992 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) At the time of the hearing, this matter was consolidated with Case No. 10547 for purposes of testimony.

(3) The applicant, Benson-Montin-Greer Drilling Corporation, seeks to initiate a high angle/horizontal directional drilling pilot project within a standard 640-acre oil spacing and proration unit in the West Puerto Chiquito-Mancos Oil Pool comprising all of Section 10, Township 27 North, Range 1 West, NMPM, Rio Arriba County, New Mexico.

(4) 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 subdivision inner boundary.

(5) The Niobrara interval of the Mancos shale is the productive zone of the West Puerto Chiquito-Mancos Oil Pool, which is characterized by tight, low permeability blocks interconnected by a high capacity fracture system.

(6) Past experience in said pool has shown that unless a conventionally drilled (vertical) well intersects such a fracture, the chance of obtaining commercial production is severely curtailed.

(7) By drilling a horizontal wellbore, the applicant is attempting to increase the probability of encountering several of these fractures, which may ultimately result in the recovery of a greater amount of oil, thereby preventing waste.

(8) The applicant proposes to drill vertically from a well to be located at a standard surface oil well location 2060 feet from the South line and 2130 feet from the West line (Unit K) of said Section 10 to a depth sufficient to penetrate the base of the Mesaverde formation at which point the applicant will select the proper direction for a lateral extension into said pool. Further, the applicant proposes to keep the horizontal displacement of said well's producing interval within the allowed 1650-foot offset provisions for said pool, pursuant to said Order No. R-6469-B, as amended.

(9) Because the proposed wellbore will not encroach outside the allowed offset limits for said pool, correlative rights are protected.

(10) No offset operator appeared and objected to the proposed horizontal drilling project; however, American Hunter Exploration, Ltd., an operator in the subject pool, appeared through counsel and expressed concern about management of the reservoir.

(11) The applicant should be required to determine the actual location of the kick-off point prior to directional drilling operations. Also, the applicant should notify the supervisor of the Aztec District Office of the Division of the proposed direction of the deviated hole and of the date and time of the commencement of directional drilling operations in order that the same may be witnessed.

(12) The applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of the drilling operations on the horizontal wellbore and submit a copy of said survey to both the Santa Fe and Aztec Offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The application of Benson-Montin-Greer Drilling Corporation for a high angle/horizontal directional drilling pilot project within a standard 640-acre oil spacing and proration unit in the West Puerto Chiquito-Mancos Oil Pool comprising all of Section 10, Township 27 North, Range 1 West, NMPM, Rio Arriba County, New Mexico, is hereby approved.

(2) The applicant is further authorized to drill vertically from a well to be located at a standard surface oil well location 2060 feet from the South line and 2130 feet from the West line (Unit K) of said Section 10 and continue drilling in the unconventional manner as described in Finding Paragraph No. (8) in this order.

(3) The lateral extent of the horizontal wellbore in the producing interval shall be limited to an area which extends no closer than 1650 feet to the outer boundary of the spacing and proration unit.

(4) The subsurface location of the kick-off point for the proposed horizontal well shall be determined prior to directional drilling. Also, the operator shall notify the supervisor of the Aztec District of the Division of the proposed direction of the deviated hole and of the date and time of the directional drilling in order that the same may be witnessed.

(5) The applicant shall conduct a directional drilling survey on the well during or after completion of horizontal drilling operations.

(6) Upon completion of the horizontal drilling operations on the well, the applicant shall file a copy of said directional drilling survey along with a final report specifying the depth and location of the terminus of said horizontal wellbore to both the Santa Fe and Aztec Offices of the Division.

(7) 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 DIVISION

WILLIAM J. LEMAY
Director

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