# 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. 10459 Order No. R-9676

APPLICATION OF BRIGHT & COMPANY FOR A HIGH ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT, SPECIAL OPERATING RULES THEREFOR, AND AN EXCEPTION TO THE POOL'S GAS/OIL RATIO LIMITATION FACTOR, SANDOVAL COUNTY, NEW MEXICO.

## ORDER OF THE DIVISION

#### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 2 and 30 and May 14, 1992, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner.

NOW, on this 22nd day of May, 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) The applicant, Bright & Company, seeks to initiate a high angle/horizontal directional drilling pilot project in the Undesignated Rio Puerco-Mancos Oil Pool by drilling its Cuba Mesa Unit Well No. 1 at a standard surface oil well location 730 feet from the South line and 1000 feet from the West line (Unit M) of Section 35, Township 21 North, Range 2 West, NMPM, Sandoval County, New Mexico, in the following unconventional manner:

Drill vertically to a depth of approximately 4,950 feet, run logs and evaluate the pay zone. Plug back and kick off from vertical at an approximate depth of 3,940 feet drilling a short radius curve in a north-northwest direction building angle to approximately 86.25 degrees from the vertical. Drill horizontally a distance of approximately 3,000 feet bottoming said wellbore at a location approximately 1250 feet from the North line and 660 feet from the West line (Unit D) of said Section 35.

- (3) The W/2 of said Section 35 is proposed to be dedicated to the above-described well forming a standard 320-acre oil spacing and proration unit for said pool.
- (4) The applicant further seeks the adoption of special operating provisions and rules within the pilot project area including a special gas/oil ratio limitation of 1,000 cubic feet of gas per barrel of oil.
- (5) The proposed well and project are located within one mile of the Rio Puerco-Mancos Oil Pool, and as such, are subject to the Special Rules and Regulations for said pool as promulgated by Division Order No. R-7471, as amended, which require 320-acre spacing and proration units with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any governmental quarter-quarter section line nor closer than 1800 feet to any well completed in or drilling to the Mancos formation, and which further prohibit the drilling of more than one well on a standard proration unit, and which further establish an oil allowable of 320 barrels of oil per day per standard proration unit and a limiting gas-oil ratio of 500 cubic feet of gas per barrel of oil.
- (6) At the time of the hearing, the applicant requested that its proposal for a special gas/oil ratio limitation of 1,000 cubic feet of gas per barrel of oil be dismissed.
- (7) The proposed well is located within the applicant's proposed Cuba Mesa Federal Unit comprising Sections 25, 26, 35 and 36, Township 21 North, Range 2 West, NMPM, Sandoval County, New Mexico.
- (8) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore, which is experimental in nature, should encounter a substantially greater number of natural fractures within the Mancos formation than would a conventional wellbore, which may ultimately result in the recovery of a greater amount of oil from the proposed project area, thereby preventing waste.
- (9) No offset operator and/or interest owner appeared at the hearing in opposition to the proposed horizontal directional drilling pilot project.

- (10) No part of the horizontal wellbore should be located closer than 660 feet from the outer boundary of the project area.
- (11) 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.
- (12) The applicant should further be required to submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.
- (13) 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.

# **IT IS THEREFORE ORDERED THAT:**

- (1) The application of Bright & Company for a horizontal directional drilling pilot project in the W/2 of Section 35, Township 21 North, Range 2 West, NMPM, Sandoval County, New Mexico, is hereby approved.
- (2) The applicant is further authorized to drill its Cuba Mesa Unit Well No. 1 at a standard surface oil well location 730 feet from the South line and 1000 feet from the West line (Unit M) of Section 35, Township 21 North, Range 2 West, NMPM, Sandoval County, New Mexico, in the following unconventional manner:

Drill vertically to a depth of approximately 4,950 feet, run logs and evaluate the pay zone. Plug back and kick off from vertical at an approximate depth of 3,940 feet drilling a short radius curve in a north-northwest direction building angle to approximately 86.25 degrees from the vertical. Drill horizontally a distance of approximately 3,000 feet bottoming said wellbore at a location approximately 1250 feet from the North line and 660 feet from the West line (Unit D) of said Section 35.

<u>PROVIDED HOWEVER THAT</u>, no portion of the horizontal wellbore shall be located closer than 660 feet from the outer boundary of the project area.

(3) The W/2 of said Section 35 shall be dedicated to the above-described well forming a standard 320-acre oil spacing and proration unit for said pool.

- (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) 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

SEAL