

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. 11052
ORDER NO. R-10188

**APPLICATION OF AMOCO PRODUCTION COMPANY FOR A HIGH
ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT AND
SPECIAL OPERATING RULES THEREFOR, SAN JUAN COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 4, 1994, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 19th day of September, 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) At the time of the hearing Division Case Nos. 11051, 11052, 11053, 11054, 11055, and 11056 were consolidated for purposes of testimony.

(3) The applicant in this matter, Amoco Production Company ("Amoco"), is the operator of a standard 320-acre gas spacing and proration unit in the Blanco-Mesaverde Pool comprising the S/2 of Section 9, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, which is currently simultaneously dedicated to the applicant's Moore Well No. 5 (API No. 30-045-13225), located at a standard gas well location 990 feet from the South line and 1805 feet from the West line (Unit N) of said Section 9, and to its Moore Well No. 5A (API No. 30-045-22019), located at a standard gas well location 890 feet from the South line and 1515 feet from the East line (Unit O) of said Section 9.

(4) The subject 320-acre GPU is located within the boundaries of the Blanco-Mesaverde Gas Pool and is therefore subject to the Special Rules and Regulations for said pool and the General Rules for the Prorated Gas Pools of New Mexico, both contained within Division Order No. R-8170, as amended.

(5) Amoco, in this application, seeks to initiate a high angle/horizontal directional drilling pilot project within said 320-acre standard gas spacing and proration unit ("GPU") in the Blanco-Mesaverde Pool and the promulgation of special rules and provisions therein including authorization to cross quarter-quarter section lines and the designation of a prescribed area limiting the horizontal displacement of the producing portion of the wellbore within the allowed 790 foot setback requirements from the outer boundary of the subject GPU.

(6) Originally the applicant proposed to recomplete said Moore Well No. 5 by plugging off its existing Mesaverde perforations and kick-off from the vertical in an easterly direction by milling a window in the existing casing at a depth of approximately 4600 feet, drill a medium radius curve hole to approximately 90 degrees so as to encounter the Blanco-Mesaverde Pool and continue drilling horizontally a distance of approximately 1600 feet.

(7) At the time of the hearing however Amoco requested it be allowed to replace the Moore Well No. 5 with a new well to be designated the Moore Well No. 5-R, which would be drilled vertically from a standard surface gas well location in the SW/4 of said Section 9 to an approximate depth of 4575 feet after which a long string of 5 1/2-inch casing would be set, from underneath this casing shoe the applicant is proposing to kick-off in an easterly direction with a medium radius curve hole and build to an angle of approximately 90 degrees so as to encounter the Blanco-Mesaverde Pool and continue drilling horizontally a distance of approximately 1600 feet.

(8) According to the testimony presented at the hearing such well replacement is necessary because the casing in the Moore Well No. 5 does not appear to be mechanically sound to withstand re-entry and subsequent drilling operations.

However, nothing should be included within this order, if approved, prohibiting the operator from simultaneously producing all three wells within the subject GPU, provided such simultaneous dedication/production be governed by all applicable provisions of said special pool rules and related Division policies.

(9) Said requested change does not affect the original intent of the application, which is to initiate a high angle/horizontal directional drilling pilot project within the S/2 of said Section 9.

(10) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore should encounter a substantially greater number of natural fractures within said pool than would a conventional wellbore, which should substantially increase the productivity of the subject well and which should ultimately result in the recovery of a significantly greater amount of gas from the proposed project area, thereby preventing waste.

(11) No offset operator and/or interest owner appeared at the hearing in opposition to the proposed horizontal directional drilling pilot project.

(12) The application, as proposed, exhibits sound engineering practices, promotes the conservation of gas underlying the unit, and serves to prevent waste and protect correlative rights. This application would therefore be approved provided however that:

- (a) no part of the horizontal wellbore should be located closer than 790 feet from the outer boundary of the project area;
- (b) the applicant 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;
- (c) the applicant further be required to submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division; and,
- (d) the applicant 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 Amoco Production Company for a high angle/horizontal directional drilling pilot project within an existing standard 320-acre gas spacing and proration unit ("GPU") in the Blanco-Mesaverde Pool comprising the S/2 of Section 9, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, is hereby approved.

(2) Amoco shall be permitted to drill its Moore Well No. 5-R, as a replacement well for the existing Moore Well No. 5 (API No. 30-045-13225), located at a standard gas well location 990 feet from the South line and 1805 feet from the West line (Unit N) of said Section 9, from a standard surface gas well location in the SW/4 of said Section 9 and in the following unconventional manner:

Drill vertically to a depth of approximately 4575 feet, set a long string of 5 1/2-inch casing, kick-off from underneath the casing shoe in a northerly direction with a medium radius curve hole, build to an angle of approximately 90 degrees so as to encounter the Blanco-Mesaverde Pool and continue drilling horizontally a distance of approximately 1600 feet.

PROVIDED HOWEVER THAT, no portion of the horizontal displacement of said well's producing interval be closer than 790 feet from the outer boundary of the subject proration unit.

(3) The S/2 of said Section 9 shall be simultaneously dedicated to the above-described well and to the existing Moore Well No. 5A (API No. 30-045-22019), located at a standard gas well location 890 feet from the South line and 1515 feet from the East line (Unit O) of said Section 9.

HOWEVER, the operator of the subject GPU shall be permitted to include production from said Thompson "LS" Well No. 2, thereby permitting the simultaneous dedication of all three wells (the Moore Well Nos. 5, 5A, and 5-R) to the subject 320-acre GPU.

PROVIDED HOWEVER THAT, the operator of the subject GPU abide to all applicable Special Rules and Regulations for the Blanco-Mesaverde Pool and the General Rules for the Prorated Gas Pools of New Mexico, both contained within Division Order No. R-8170, as amended, and to any related Division policies covering such simultaneous dedication.

(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.

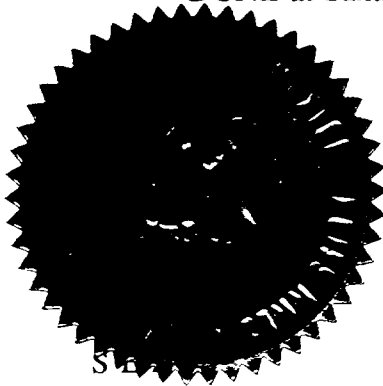
(5) The applicant shall submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

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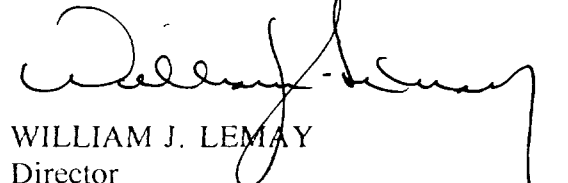
(6) The applicant shall notify the supervisor of the Aztec District Office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

(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