

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. 11055
ORDER NO. R-10175*

**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 25th day of August, 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 ("GPU") in the Blanco-Mesaverde Pool comprising the W/2 of Section 34, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, which is currently simultaneously dedicated to the applicant's Thompson "LS" Well No. 2 (API No. 30-045-08918), located at a standard gas well location 990 feet from the South and West lines (Unit M) of said Section 34, and to its Thompson "LS" Well No. 2A (API No. 30-045-22385), located at a standard gas well location 1130 feet from the North line and 945 feet from the West line (Unit D) of said Section 34.

(4) Said proration unit is located within the boundaries of the Blanco-Mesaverde 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) At this time the applicant seeks to initiate a high angle/horizontal directional drilling pilot project within said 320-acre GPU by drilling its proposed Thompson "LS" Well No. 2-R, initially as a replacement well for the existing Thompson "LS" Well No. 2 in the SW/4 of said Section 34. *However, nothing should be included within this order, if approved, prohibiting the operator to simultaneously produce 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.*

(6) Further, the applicant seeks special rules and provisions within the project area 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 proration unit.

(7) At this time the applicant proposes to drill said Thompson "LS" Well No. 2-R at a standard surface gas well location in the SW/4 of said Section 34 in the following unconventional manner:

Drill vertically to a depth of approximately 4900 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.

(8) The applicant's evidence indicates that there are some producing wells in this area that exhibit significantly greater producing rates and ultimate gas recoveries than others. Applicant contends that such difference in rates and recoveries is due primarily to some wells intersecting natural fracture systems within the Blanco-Mesaverde Pool.

(9) 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.

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

(11) 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 W/2 of Section 34, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, is hereby approved.

(2) Amoco shall be permitted to drill its Thompson "LS" Well No. 2-R, as a replacement well for the existing Thompson "LS" Well No. 2 (API No. 30-045-08918), located at a standard gas well location 990 feet from the South and West lines (Unit M) of said Section 34, from a standard surface gas well location in the SW/4 of said Section 34 and in the following unconventional manner:

Drill vertically to a depth of approximately 4900 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 W/2 of said Section 34 shall be simultaneously dedicated to the above-described well and to the existing Thompson "LS" Well No. 2A (API No. 30-045-22385), located at a standard gas well location 1130 feet from the North line and 945 feet from the West line (Unit D) of said Section 34.

HOWEVER, the operator of the subject GPU shall be permitted to include production from said Thompson "LS" Well No. 2 (API No. 30-045-08918), thereby permitting the simultaneous dedication of all three wells (the Thompson "LS" Well Nos. 2, 2A, and 2-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.

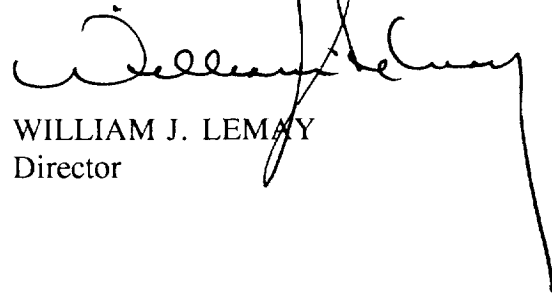
(5) The applicant shall submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

(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

A handwritten signature in black ink, appearing to read 'William J. Lemay', is written over the printed name and title. The signature is fluid and cursive, with a long, sweeping tail that extends downwards and to the right.

WILLIAM J. LEMAY
Director

S E A L