

**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. 10595
Order No. R-9768**

**APPLICATION OF SOUTHLAND ROYALTY
COMPANY FOR A HIGH ANGLE/HORIZONTAL
DIRECTIONAL DRILLING PILOT PROJECT,
SPECIAL OPERATING RULES THEREFOR,
AND AN UNORTHODOX OIL WELL LOCATION,
RIO ARriba COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on November 5, 1992, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 16th 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) The applicant, Southland Royalty Company, seeks authority to initiate a high angle/horizontal directional drilling pilot project in the Gavilan-Mancos Oil Pool underlying all of Section 16, Township 26 North, Range 2 West, NMPM, Rio Arriba County, New Mexico, being a standard 640-acre spacing and proration unit for said pool.

(3) The applicant further seeks authority to re-enter its Tapacitos Well No. 3 located at an unorthodox surface location 1540 feet from the North line and 995 feet from the East line (Unit H) of Section 16 and drill in the following unconventional manner:

Plug the lower portion of the wellbore to a depth of approximately 6,950 feet and mill a 70-foot section of casing from 6,827 feet to 6,897 feet. Kick off from the vertical at a depth of 6,877 feet and drill in a westerly direction building angle so as to penetrate the top of the Niobrara "B" interval at a true vertical depth of 7,150 feet. Continue drilling a distance of 1,800 feet at such an angle so as to bottom said wellbore at the base of the Niobrara "C" interval at a true vertical depth of 7,475 feet.

(4) The applicant further seeks the adoption of special operating provisions and rules within the pilot project area including the designation of a prescribed area limiting the horizontal displacement of said well's producing interval such that it can be no closer than 790 feet from the outer boundary of the project area.

(5) The Tapacitos Well No. 3 was originally drilled in 1988 as a Gavilan-Mancos Oil Pool test. Testimony by the applicant indicates that the subject well tested non-commercial in said pool.

(6) The subject well does not have Division approval for the unorthodox surface location in the Gavilan-Mancos Oil Pool.

(7) The subject well is located within the Gavilan-Mancos Oil Pool and is therefore subject to the special rules and regulations for said pool as promulgated by Division Order No. R-7407, as amended, which require standard 640-acre spacing and proration units with wells to be located no closer than 790 feet from the outer boundary of the spacing unit nor closer than 330 feet from any governmental quarter-quarter section line.

(8) The Niobrara "B" and "C" members of the Gallup formation are the potentially productive zones within the pilot project area and are characterized by low permeability and interconnected fracture systems.

(9) Through its evidence and testimony, the applicant demonstrated that the proposed high angle wellbore should encounter a substantially greater number of natural fractures within the Niobrara "B" and "C" members of the Gallup formation 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 greater amount of oil and gas from the proposed project area, thereby preventing waste.

(10) All of Section 16 is owned and controlled solely by Southland Royalty Company.

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

(12) In the interest of conservation and prevention of waste, the application of Southland Royalty Company for a high angle/horizontal directional drilling project should be approved.

(13) The applicant should be required to determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(14) The applicant should notify the supervisor of the Aztec district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(15) The applicant should be required to submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Aztec offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Southland Royalty Company, is hereby authorized to initiate a high angle/horizontal directional drilling pilot project in Section 16, Township 26 North, Range 2 West, NMPM, Gavilan-Mancos Oil Pool, Rio Arriba County, New Mexico, by re-entering its Tapacitos Well No. 3 located at an unorthodox surface location 1540 feet from the North line and 995 feet from the East line (Unit H) of Section 16 and drilling in the following unconventional manner:

Plug the lower portion of the wellbore to a depth of approximately 6,950 feet and mill a 70-foot section of casing from 6,827 feet to 6,897 feet. Kick off from the vertical at a depth of 6,877 feet and drill in a westerly direction building angle so as to penetrate the top of the Niobrara "B" interval at a true vertical depth of 7,150 feet. Continue drilling a distance of 1,800 feet at such an angle so as to bottom said wellbore at the base of the Niobrara "C" interval at a true vertical depth of 7,475 feet.

(2) All of Section 16 shall be dedicated to the above-described well forming a standard 640-acre spacing and proration unit in the Gavilan-Mancos Oil Pool.

(3) The horizontal or producing portion of the subject wellbore shall be located no closer than 790 feet from the outer boundary of the project area.

(4) The applicant shall determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.


(5) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(6) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Aztec offices of the Division.

(7) Jurisdiction is hereby 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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