

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. 11325  
ORDER NO. R-10451*

**APPLICATION OF TEXACO EXPLORATION AND PRODUCTION INC. FOR A HIGH ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT, SPECIAL OPERATING RULES THEREFOR, A NON-STANDARD OIL PRORATION UNIT, AND A SPECIAL PROJECT ALLOWABLE, RIO ARRIBA COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 13, August 10, and August 24, 1995, at Santa Fe, New Mexico, before Examiners Michael E. Stogner and David R. Catanach.

NOW, on this 7<sup>th</sup> day of September, 1995 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) Texaco Exploration and Production, Inc. ("Texaco"), the applicant in this case, owns and operates the C. W. Roberts Well No. 4 (**API No. 30-039-05965**), located at a standard oil well location 660 feet from the South and West lines (Unit M) of Section 17, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico, which is completed into and producing from the West Lindrith Gallup-Dakota Oil Pool and is currently dedicated to the 160-acre oil spacing and proration unit comprising the SW/4 of said Section 17.

(3) All of said Township 25 North, Range 3 West, NMPM, is included within the boundary of the West Lindrith Gallup-Dakota Oil Pool, which is currently governed by special rules and regulations as promulgated by Division Order No. R-4314-A, as amended, which require standard 160-acre oil spacing and proration units (**Rule 2**) with each unit assigned a depth bracket oil allowable of 382 barrels of oil per day, a limiting gas/oil ratio of 2,000 cubic feet of gas per barrel of oil, and the following well location requirements:

- each well is to be located no nearer than 330 feet to the outer boundary of the proration unit or to any governmental quarter-quarter section line nor nearer than 660 feet to the nearest well drilling to or capable of producing from the West Lindrith Gallup-Dakota Pool (**Rule 4**); or,

- within a "buffer" zone comprising a band one-half mile wide extending from the pool boundary inward (**Rule 4.a**), basically no well is to be closer than 790 feet to the pool boundary nor closer than 130 feet to the interior quarter-quarter section line (**Rule 4.b**).

(4) At this time the applicant seeks:

(a) to initiate a high angle/horizontal directional drilling pilot project in the West Lindrith Gallup-Dakota Pool underlying the S/2 of said Section 17 to form a non-standard 320-acre oil spacing and proration unit for said pool;

(b) the promulgation of special operating rules and procedures therefor including the designation of a "target window" or "producing area" such that the horizontal or producing portion of the wellbore shall be no closer than 790 feet to the outer boundary of the project area; and,

(c) the assignment of a special project allowable for the proposed oversized oil spacing and proration unit.

(5) It is Texaco's intention to recomplete its C. W. Roberts Well No. 4 by plugging the current wellbore back and mill out a 40-foot section of the existing production casing, kick-off from the vertical in an easterly direction at an approximate depth of 6900 feet, drill a curved hole at a rate of 57 degrees per 100 feet (100-foot radius) building angle to approximately 90 degrees and continue drilling horizontally a lateral distance of approximately 2,500 feet within the Gallup interval of said pool, thereby traversing the quarter section line that separates the SW/4 equivalent and the SE/4 of said Section 17.

(6) According to the evidence and testimony presented by the applicant horizontal wells within the Gallup interval should serve to intersect and connect natural fractures resulting in increased productivity of wells and should ultimately lead to the recovery of additional reserves which would not otherwise be produced, thereby preventing waste, and prevent the economic loss caused by the drilling of unnecessary wells.

(7) All of said irregular Section 17 lies within Texaco's C. W. Roberts Federal lease (No. SF-079600) with common ownership throughout.

(8) All of said Section 17 is situated well within the interior of the West Lindrith Gallup-Dakota Oil Pool boundary and is therefore subject to the less stringent well location requirement (330-foot off-set to the outer boundary of a proration unit) of said special pool rules (**Rule 4**). Texaco's proposed self-imposed 660-foot set back requirement far exceeds that already in effect for said pool in this general area, therefore the correlative rights of those off-setting tracts operated by others should be adequately protected from drainage.

(9) Since the project area will essentially couple two 160-acre oil spacing and proration units for the West Lindrith Gallup-Dakota Oil Pool, an acreage factor of 2.00 should be assigned the "project area", which is 764 barrels of oil per day being equal to twice the normal allowable assigned a single 160-acre unit for said pool.

(10) The subject 320-acre non-standard oil spacing and proration unit should not become effective until such time as the horizontal wellbore is complete and adequately surveyed to show that the lateral portion does in fact traverse both quarter sections, and that said well is placed on production and will cease at such time as the horizontal wellbore is properly plugged and abandoned. **FURTHER**, at such time as the 320-acre non-standard oil spacing and proration unit becomes effective the existing 160-acre standard unit should be terminated.

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

(12) Approval of this application is in the best interest of conservation, exhibits sound engineering practices, and should further serve to protect correlative rights.

(13) The applicant should further be required to submit to the Aztec district office a Form C-102 showing the appropriate acreage for both wells that are sharing in the non-standard 320-acre unit.

(14) The applicant should be required to determine the actual location of the kick-off point within the C. W. Roberts Well No. 4 prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of said wellbore during or after completion of drilling operations.

(15) 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.

(16) 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 application of Texaco Exploration and Production, Inc. ("Texaco"), to institute a high angle/horizontal directional drilling project in the West Lindrith Gallup-Dakota

Oil Pool on its C. W. Roberts (Federal) lease within an area comprising a 320-acre non-standard oil spacing and proration unit being the S/2 of Section 17, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico, hereinafter referred to as the "project area", is hereby approved.

(2) The applicant is further authorized to utilize its C. W. Roberts Well No. 4 (**API No. 30-039-05965**), located at a standard oil well location 660 feet from the South and West lines (Unit M) of said Section 17, by recompleting said well in such a manner as to plug-back, mill out a 40-foot section of the existing production casing, kick-off from the vertical in an easterly direction at an approximate depth of 6900 feet, drill a curved hole at a rate of 57 degrees per 100 feet (100-foot radius) building angle to approximately 90 degrees and continue drilling horizontally a lateral distance of approximately 2,500 feet within the Gallup interval of said pool, thereby traversing the quarter section line that separates the SW/4 and the SE/4 of said Section 17.

**PROVIDED HOWEVER THAT:**

(3) No portion of the producing interval of the well shall be closer than 660 feet to the outer boundary of the "project area".

(4) The aforementioned 320-acre non-standard oil spacing and proration unit shall be assigned an acreage dedication factor of 2.00 to be assessed toward the standard depth bracket oil allowable for said pool, which is 2.00 times 382 barrels of oil per day or 764 barrels of oil per day.

(5) This 320-acre non-standard oil spacing and proration unit shall not become effective until such time as the horizontal wellbore is completed and placed on production, and shall cease at such time as the horizontal wellbore is properly plugged and abandoned.

(6) The geographic location of the kick-off point for the proposed horizontal shall be determined prior to commencing directional drilling operations. Also, the operator shall conduct a directional survey on the lateral portion of any horizontal wellbore during or after completion of directional drilling operations.

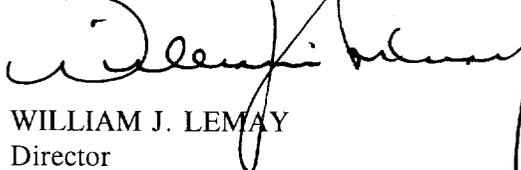
(7) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(8) 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

(9) 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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