

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. 10415  
ORDER NO. R-9669*

**APPLICATION OF SAMUEL GARY, JR. AND ASSOCIATES FOR A HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT, SPECIAL OPERATING RULES THEREFOR, AN UNORTHODOX SURFACE OIL WELL LOCATION, AN EXCEPTION TO THE POOL'S GAS/OIL RATIO LIMITATION FACTOR, SIMULTANEOUS DEDICATION AND POSSIBLY A NON-STANDARD OIL PRORATION UNIT, SANDOVAL COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on December 5, 1991, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 6th 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, Samuel Gary, Jr. and Associates, seeks authority to institute a high angle/horizontal directional drilling pilot project in the Rio Puerco-Mancos Oil Pool by drilling vertically from a tentative unorthodox surface oil well location 330 feet from the South line and 1650 feet from the West line (Unit N) of Section 4, Township 20 North, Range 2 West, NMPM, Sandoval County, New Mexico, to a depth of approximately 3250 feet, kick-off in a northerly direction, build angle to approximately 83 degrees and then drill horizontally for approximately 3850 feet. The applicant is proposing to establish a window in the W/2 equivalent of said Section 4 whereby a horizontal displacement of said well's producing interval will be no closer than 660 feet from the W/2 boundary.

(3) Further, the applicant seeks the adoption of special operating provisions within the pilot project area including a special gas/oil ratio of 1000 to 1 and the flexibility to dedicate up to the 597.28 acres comprising all of said Section 4 to the horizontal well. Also to be considered in this matter is the simultaneous dedication of the proposed horizontal well with the existing Johnson "4" Well No. 14 located 860 feet from the South line and 1650 feet from the West line (Unit N) which has dedicated to it the S/2 of said Section 4.

(4) The proposed well and project area are located within the boundaries 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 no closer than 660 feet to the outer boundary of the proration unit nor closer than 330 feet to 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 prohibits the drilling of more than one well on a standard proration unit, and which further establishes an oil allowable of 320 barrels of oil per day per standard proration unit and a limiting gas/oil ratio of 500 cubic feet per barrel of oil.

(5) The existing Johnson "4" Well No. 14, as described above, was drilled and completed in the Rio Puerco-Mancos Oil Pool but has been shut-in since 1984. The applicant proposed at the hearing to leave the No. 14 well shut-in as long as the horizontal well produces; therefore the simultaneous dedication portion of this application is no longer an issue and should be dismissed.

(6) The applicant at the time of the hearing also requested the dedication of only the W/2 equivalent (Lots 3 and 4, S/2 NW/4, and SW/4) of said Section 4, comprising 298.82 acres, to the proposed horizontal well. Since said request is in line with the special pool rules and the call in this matter sought the formation of a larger non-standard oil spacing and proration unit to be dedicated to the subject horizontal well, the applicant's request for the formation of the above-described non-standard 298.82-acre oil spacing and proration unit should be granted.

(7) The W/2 equivalent of said Section 4 is immediately offset to the north and west by the San Isidro (Shallow) Unit Area where several high angle/horizontal drilling projects have been initiated, under authority of special provisions for said unitized area as promulgated by Division Order No. R-9330, as amended. Similar to those horizontal wells in the San Isidro Unit, the proposed well should also 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.

(8) The applicant's request for an increased GOR for this well of 1000 to 1 is based, according to the testimony, to parallel with "the same ruling that was granted in the San Isidro Unit." However, the applicable provision limiting the gas/oil ratio in said pool (Rule 4 of Order No. R-7471, as amended) and the unit area (Rule 12 of Order No. R-9330, as amended), is 500 cubic feet of gas per barrel of oil.

(9) No other evidence was submitted to support an increased GOR limit for the subject well and project, therefore, the applicant's request for a 1000 to 1 GOR limit should be denied.

(10) The proposed drilling window for said horizontal wellbore does not extend beyond the allowed set-back requirements from the outer boundary of a standard 320-acre oil proration unit in the Rio Puerco-Mancos Oil Pool. Further the prescribed area limiting the horizontal displacement of the wellbore still allows for flexibility yet serves to minimize risk and maximize the success of such a completion.

(11) There was no objection to the subject application by any interested party.

(12) In the interest of conservation, the prevention of waste, and the protection of correlative rights, the application of Samuel Gary, Jr. and Associates for this horizontal drilling project should be approved.

(13) The 298.82-acre non-standard proration unit, as described above, should not become effective until such time as the horizontal wellbore is completed and placed on production and will cease at such time as the horizontal wellbore is properly plugged and abandoned.

(14) The applicant should be required to determine the actual location of the kick-off point prior to directional drilling operations. Also, the applicant should notify the supervisor of the Aztec District Office of the Division of the proposed direction of the deviated hole and of the date and time of the commencement of directional drilling in order that the same may be witnessed.

(15) The applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of the drilling operations on the well and submit a copy of said survey to both the Santa Fe and Aztec Offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The application of Samuel Gary, Jr. and Associates for a horizontal/high angle directional drilling project comprising Lots 3 and 4, S/2 NW/4 and SW/4 (W/2 equivalent) of Section 4, Township 20 North, Range 2 West, NMPM, Rio Puerco-Mancos Oil Pool, Sandoval County, New Mexico, forming a non-standard 298.82-acre oil spacing and proration unit, is hereby approved.

(2) The applicant is further authorized to drill from a tentative unorthodox surface oil well location 330 feet from the South line and 1650 feet from the West line (Unit N) of said Section 4 in the unconventional manner as described in Finding Paragraph No. (2) of this order.

(3) The lateral extent of the horizontal wellbore shall be such that its producing interval be limited to an area that extends no closer than 660 feet to the outer boundary of said non-standard proration unit.

(4) Said proration unit shall be assigned an appropriate acreage factor reflecting the 298.82 acres comprising the unit to be assessed toward the depth bracket allowable for said pool.

(5) This non-standard 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 well is properly plugged and abandoned.

(6) The geographic location of the kick-off point for the proposed horizontal well shall be determined prior to directional drilling. Also, the operator shall notify the supervisor of the Aztec District Office of the Division of the proposed direction of the deviated hole and of the date and time of the directional drilling in order that the same may be witnessed.

(7) The applicant shall conduct a directional drilling survey on the well during or after completion of horizontal drilling operations.

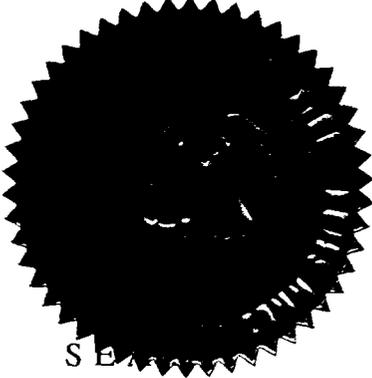
(8) Upon completion of the horizontal drilling operations on the well, the applicant shall file a copy of said directional drilling survey along with a final report specifying the depth and location of the terminus of said horizontal wellbore to both the Santa Fe and Aztec Offices of the Division.

(9) The applicant's request for an increased gas/oil ratio of 1000 cubic feet of gas per barrel of oil for said well is hereby *denied*.

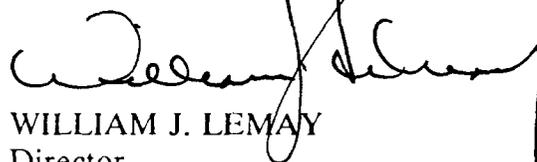
(10) All applicable rules governing the Rio Puerco-Mancos Oil Pool, as promulgated by Division Order No. R-7471, as amended, shall be in effect for this project unless otherwise in conflict with this order.

(11) 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