

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. 10340
ORDER NO. R-9563*

**APPLICATION OF MERIDIAN OIL, INC. FOR A
HIGH ANGLE/HORIZONTAL DIRECTIONAL DRILLING
PILOT PROJECT, SPECIAL OPERATING RULES THEREFOR,
A NON-STANDARD GAS PRORATION UNIT, AN UNORTHODOX
GAS WELL LOCATION AND AN EXCEPTION TO DIVISION
ORDER NO. R-5459, AS AMENDED, SAN JUAN COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 27, 1991, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 9th day of August, 1991 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, Meridian Oil, Inc., seeks to initiate a high angle/horizontal directional drilling pilot project in the Chacra formation underlying the E/2 of Section 34, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, forming a non-standard 320-acre gas spacing and proration unit.
- (3) The applicant proposes to drill from a tentative unorthodox surface gas well location 2040 feet from the North line and 2030 feet from the East line (Unit G) of said Section 34, kick off from vertical in a southeasterly direction until an angle of approximately 90 degrees is achieved and continue drilling horizontally for approximately 1600 feet.

(4) The applicant also seeks an exception to the provisions of Division Order No. R-5459, as amended, to exclude the E/2 of said Section 34 from the vertical limits of the Blanco-Mesaverde Pool as defined by said Order.

(5) By Order No. R-5459, entered on June 14, 1977, the Division redefined the vertical limits of the Blanco-Mesaverde Pool in Rio Arriba and San Juan Counties, New Mexico. Such redefinition resulted in the inclusion of "Chacra equivalent fractured shales or siltstone zones within the vertical limits of said pool" in approximately one-half of the pool's aerial extent. Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico fell within this area of inclusion; however, by Order Nos. R-5512 and R-5772 the Division created and defined the Navajo City-Chacra Pool underlying the NW/4 of Section 35, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico for the production of gas from the Chacra formation found within the interval from 3650 feet to 3750 feet in the Lively Exploration Company's Lively Well No. 7-Y located in Unit E of said Section 35.

(6) Such request for an exception to said Order No. R-5459 is somewhat unnecessary since the proposed high angle/horizontal drainhole project area is adjacent to the western boundary of the Navajo City-Chacra Pool and should the proposed wellbore encounter the correlated Chacra interval of the Navajo City-Chacra Pool, said well and unit would therefore be included into and governed by the provisions for the pool, which is currently under the general statewide rules in effect for non-prorated gas pools in Northwest New Mexico.

(7) The Navajo City-Chacra Pool is characterized as a low interangular permeability, naturally fractured sandstone/siltstone reservoir.

(8) Past experience in said pool has shown that unless a conventionally drilled (vertical) well intersects natural fractures, the chance of obtaining commercial production is severely curtailed.

(9) By drilling a horizontally deviated wellbore, the applicant is attempting to increase the probability of encountering these fractures, which may ultimately result in the recovery of a greater amount of gas thereby preventing waste.

(10) Inasmuch as the exact distance and direction of the lateral portion of the wellbore is not known at this time 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 to the outer boundary of the aforementioned 320-acre non-standard gas spacing and proration unit.

(11) The aforementioned prescribed area limiting the horizontal displacement of the wellbore would allow for flexibility, serve to minimize risk and maximize the success of such a completion.

(12) The E/2 of said Section 34 would consist of two standard 160-acre gas spacing and proration units for said pool which are both owned wholly by Meridian Oil, Inc. and with both 160-acre tracts having common royalty and overriding royalty interests.

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

(14) In the interest of conservation, the prevention of waste, and the protection of correlative rights, the application of Meridian Oil, Inc. for this horizontal drainhole project should be approved.

(15) The non-standard gas 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.

(16) 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.

(17) 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 Meridian Oil, Inc. for a high angle/horizontal directional drilling pilot project consisting of the E/2 of Section 34, Township 30 North, Range 8 West, NMPM, Undesignated Navajo City-Chacra Pool, San Juan County, New Mexico, forming a non-standard 320-acre gas spacing and proration unit, is hereby approved.

(2) The applicant is further authorized to drill a well at an unorthodox surface gas well location 2040 feet from the North line and 2030 feet from the East line (Unit G) of said Section 34 in the unconventional manner as described in Finding Paragraph No. (3) of this order.

(3) The lateral extent of the horizontal wellbore shall be such that the producing interval be limited to an area which extends no closer than 790 feet to the outer boundary of the project area.

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

(5) 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.

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

(7) 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.

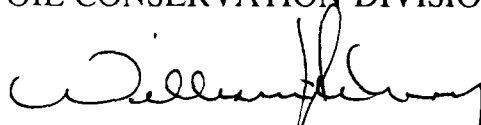
(8) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director