

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. 10110  
Order No. R-9340

APPLICATION OF GIANT EXPLORATION AND  
PRODUCTION COMPANY FOR A HORIZONTAL  
DIRECTIONAL DRILLING PILOT PROJECT,  
SPECIAL OPERATING RULES THEREFOR, NON-  
STANDARD OIL PRORATION UNIT AND AN  
UNORTHODOX OIL WELL LOCATION FOR GIANT'S  
DEBRA GEIGER WELL NO. 1, BISTI-LOWER GALLUP  
OIL POOL, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 3, 1990, at Santa Fe, New Mexico, before Examiner Jim Morrow.

NOW, on this 1st day of November, 1990, 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, Giant Exploration and Production Company, seeks the formation of a 482.64-acre non-standard oil spacing and proration unit comprising Lots 1 through 4, S/2 N/2 and N/2 S/2 of Section 4, Township 24 North, Range 11 West, NMPM, San Juan County, New Mexico, for the purpose of initiating a horizontal directional drilling pilot project in the Undesignated Bisti-Lower Gallup Oil Pool. The applicant proposes to drill from a tentative non-standard surface location 105 feet from the South line and 125 feet from the East line (Unit P) of Section 32, Township 25 North, Range 11 West, NMPM, San Juan County, New Mexico, kick-off from vertical in a southeasterly direction until a ninety degree angle is achieved and continue drilling horizontally for approximately 4000 feet. Applicant

further seeks special rules and provisions 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 330 feet to the outer boundary of its assigned spacing and proration unit and for special allowable provisions for the multi-sized oil proration unit ultimately established.

(3) The proposed pilot project area is within one-half mile of the Bisti-Lower Gallup Oil Pool and is therefore subject to the special Rules and Regulations for said pool which provide for 80-acre spacing and proration units which consist of either the North half or South half of a single governmental quarter section and for well locations no closer than 330 feet to any quarter-quarter section boundary. Top allowable for an 80-acre proration unit is 160 barrels per day.

(4) The proposed project area is located inside the boundaries of the Federal De-Na-Zin Wilderness Area. Applicant's witness testified that the Bureau of Land Management will not approve surface well locations within the wilderness area boundaries. Directional drilling from outside the area is required to develop De-Na-Zin Wilderness Area oil and gas leases.

(5) Giant proposes to drill its Debra Geiger Well No. 1 from a surface location 105 feet from the South line and 125 feet from the East line (Unit P) of Section 32, Township 25 North, Range 11 West, NMPM, San Juan County, New Mexico. Applicant testified that the surface location is outside the Wilderness Area on Navajo Tribal Trust Surface; that the location overlies State minerals; that Giant is operator of the State lease and has permission from the Navajo tribe to use the surface location.

(6) The applicant proposes to drill to 350 feet, set 13 3/8-inch casing, kick off in a South direction and build angle at 3 degrees per 100 feet to 9 degrees in a due South direction until a measured depth of 4,133 feet is reached. From that point, the well would be deviated in a Southeasterly direction, building angle to 91 degrees at 8 degrees per 100 feet. The Gallup producing formation would be contacted at approximately 620 feet from the North line and 470 feet from the West line (Unit D) of Section 4, Township 24 North, Range 11 West, NMPM, San Juan County, New Mexico, at which point 9 5/8-inch casing would be set and cemented back to surface. From there drilling would continue at 91 degrees from the vertical for approximately 4,000 feet terminating in Unit H of Section 4. A slotted liner would be set in the horizontal section of the well.

(7) Giant's witness testified that Giant obtained its lease of Section 4 through a farm-out from Union Pacific Resources Company et al. and that ownership of Section 4, the entire length of the wellbore, and the proposed non-standard proration unit is common.

(8) Testimony was presented to compare the economics of drilling the horizontal well to a program of development with conventional directional

wells for development on 80-acre spacing and proration units. The data presented shows that only three of the 80-acre units could be economically developed with conventional directional wells. The three wells would recover 89,000 barrels of oil compared to a recovery of approximately 158,000 barrels for the proposed horizontal well. The present value of cash flow from the three well project would be \$170,000 compared to \$1,159,000 for the horizontal well.

(9) Applicant's witness testified that the proposed horizontal wellbore will adequately and completely drain the 482.64-acre proration unit.

(10) Applicant requested a maximum allowable of 960 barrels of oil per day which is 160 barrels for each 80 acres included in the non-standard unit.

(11) The 482.64-acre non-standard proration unit should not become effective until such time as the horizontal wellbore is completed and placed on production and should cease when the horizontal wellbore is plugged and abandoned.

(12) No operator or interest owner objected to the proposed project.

(13) Approval of the proposed horizontal well would prevent waste by recovering 69,000 barrels of oil that would not be recovered with conventional directional wells.

IT IS THEREFORE ORDERED THAT:

(1) The application of Giant Exploration and Production Company for a horizontal drilling project, a non-standard spacing and proration unit, a special allowable, and a non-standard surface location for the Debra Geiger Well No. 1, Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, is hereby approved.

(2) Surface location is 105 feet from the South line and 125 feet from the East line (Unit P) of Section 32, Township 25 North, Range 11 West, NMPM, San Juan County, New Mexico.

(3) The 482.64-acre non-standard spacing and proration unit for the well shall consist of Lots 1 through 4, S/2 N/2 and N/2 S/2 of Section 4, Township 24 North, Range 11 West, NMPM, Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico.

(4) Applicant is authorized to directionally drill from the surface location and to encounter the Gallup producing formation at approximately 620 feet from the North line and 470 feet from the West line (Unit D) of Section 4, Township 24 North, Range 11 West and from that point to drill horizontally approximately 4,000 feet in a Southeasterly direction to Unit H, Section 4, Township 24 North, Range 11 West, NMPM, San Juan County, New Mexico.

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Mexico. No part of the horizontal wellbore shall be nearer than 330 feet to outside boundaries of the 482.64-acre spacing and proration unit.

(5) Surface casing (13 5/8-inch) shall be set at approximately 350 feet, 9 5/8-inch casing at approximately 5,271 feet (measured depth) and a slotted liner will be placed in the horizontal portion of the wellbore.

(6) A top allowable of 960 barrels shall be assigned to the unit.

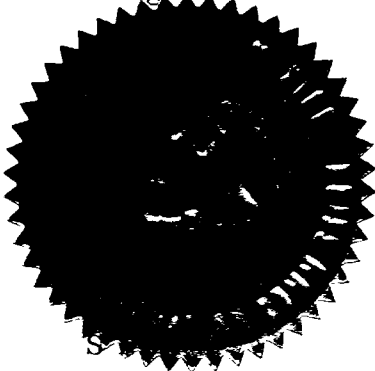
(7) The 482.64-acre spacing and proration unit shall not become effective until such time as the horizontal wellbore is completed and placed on production and shall cease when the well is plugged and abandoned.

(8) The applicant shall conduct directional drilling surveys during drilling operations and shall notify the supervisor of the Aztec district of the Division of the progress of the deviated well so that operations may be witnessed.

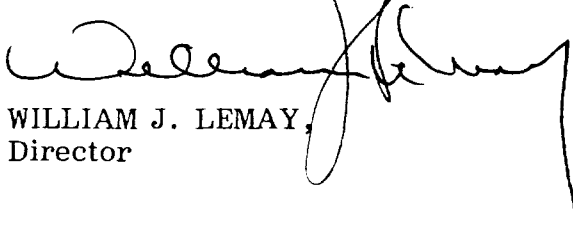
(9) Upon completion of the horizontal drilling operations, the applicant shall file a copy of a directional drilling survey of the entire wellbore with both the Santa Fe and Aztec offices of the Division.

(10) 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

dr/