

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. 10166
Order No. R-9390

APPLICATION OF NEARBURG PRODUCING
COMPANY FOR DIRECTIONAL DRILLING
AND FOR AN UNORTHODOX OIL WELL LOCATION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on November 28, 1990, at Santa Fe, New Mexico, before Examiner Jim Morrow.

NOW, on this 19th day of December, 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, Nearburg Producing Company seeks authority to directionally drill from its existing Western State 17-F Well No. 1 located at a previously approved unorthodox surface oil well location (NSL-2855 dated August 30, 1989) 2130 feet from the North and West lines (Unit F) of Section 17, Township 16 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to bottom the well in the Northeast Lovington-Pennsylvanian Pool at an unorthodox bottomhole location within 50 feet of a point 1980 feet from the North line and 2300 feet from the West line (Unit F) of said Section 17.

(3) BTA Oil Producers appeared at the hearing in opposition to the application. BTA operates two wells in the NE/4 of said Section 17 which produce from the Northeast Lovington-Pennsylvanian Pool.

(4) The applicant's Western State 17-F Well No. 1 was a dry hole in the Northeast Lovington-Pennsylvanian Pool at the existing bottomhole location, which is two feet South and 98 feet West of the surface location.

(5) The applicant proposes to re-enter the Western State 17-F Well No. 1, drill out existing plugs, set a 200 sack cement plug from 10,600 feet to 10,000 feet, kick off from vertical at 10,000 feet and directionally drill in a Northeasterly direction to a productive bottomhole location in the Northeast Lovington-Pennsylvanian Pool (as described in Finding (2) above). The bottomhole location would be approximately 340 feet from BTA Oil Producers' West lease line.

(6) Witness for the applicant estimated that the project would cost \$484,880 and would recover 140,000 to 200,000 barrels of oil depending on the amount of penalty assessed against the allowable of the well.

(7) Special Rules and Regulations for the Northeast Lovington-Pennsylvanian Pool provide for 80-acre spacing and proration units, wells to be located within 150 feet of the center of a governmental quarter-quarter section (normally no nearer than 510 feet to an outside boundary), and a top allowable of 534 barrels (6.67 barrels per acre).

(8) Nearburg plans to dedicate the S/2 NW/4 of said Section 17 to the above-described well forming a standard 80-acre oil spacing and proration unit for said pool.

(9) The applicant presented exhibits based on seismic and geologic information to describe the "Algal Mound" porosity development which is productive in said Section 17. The exhibits show that only the Northeast portion of the proposed 80-acre spacing and proration unit (described in Finding (8) above) is underlain by "Algal Mound" porosity.

(10) Nearburg's exhibits also showed that none of the other 80-acre spacing and proration units in said Section 17 are completely underlain by the "Algal Mound" porosity development.

(11) Nearburg proposes that a penalty of 25 percent be assessed against the allowable of the proposed well.

(12) BTA presented calculations at the hearing in support of an 82.5 percent penalty. This was based on their estimate that only 17.5 percent of the proposed 80-acre spacing and proration unit is underlain by "Algal Mound" porosity development.

(13) Nearburg's oil reserves under the proposed 80-acre spacing and proration unit will either be unrecovered or will be recovered by offset producing wells unless a well is completed on the tract. This

application should therefore be approved to allow the applicant to recover its reserves.

(14) A production penalty should be assessed against the allowable of the proposed well and the spacing and proration unit on which it is located. The penalty should be determined as follows:

$$\begin{aligned} & \text{(Standard distance to outside boundary - unorthodox} \\ & \text{distance to outside boundary) / standard distance to outside} \\ & \text{boundary} \\ & = (510 - 340) / 510 = 1/3 \text{ or } 33.33\% \end{aligned}$$

(15) The penalty should be assessed against the top allowable rate of 534 barrels of oil per day. Resulting top allowable for the proposed well would be 356 barrels per day if the actual bottomhole location is 340 feet from the outside boundary.

(16) In the event the actual bottomhole location differs from the proposed location, the penalty should be recalculated using the procedure set out above.

(17) Approval of this application, subject to a production and allowable penalty calculated in the manner set out above, will enable the applicant to recover the oil under the S/2 NW/4 of said Section 17, will prevent waste, and will protect the correlative rights of offset operators.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Nearburg Producing Company, is hereby authorized to directionally drill from its existing Western State 17-F Well No. 1 located 2130 feet from the North and West lines (Unit F) of Section 17, Township 16 South, Range 37 East, NMPM, Lea County, New Mexico, so as to bottom the well in the Northeast Lovington-Pennsylvanian Pool at an unorthodox bottomhole location within 50 feet of a point 1980 feet from the North line and 2300 feet from the West line (Unit F) of said Section 17.

(2) A top allowable rate of 356 barrels of oil per day shall be assigned to the Western State 17-F Well No. 1 upon completion if the bottomhole location is 340 feet from the East line of the S/2 NW/4 of said Section 17. This rate shall be determined by subtracting an allowable penalty (33.33% x 534) from the top pool allowable of 534 barrels of oil per day.

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(3) If the actual bottomhole location is not 340 feet from the East line of the S/2 NW/4 of said Section 17, the top allowable rate shall be recalculated for the actual bottomhole location using the procedures set out in Findings (14) and (15) of this order.

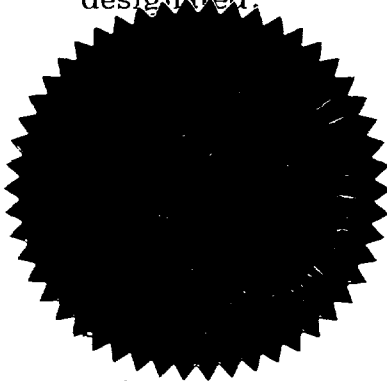
(4) The S/2 NW/4 of said Section 17 shall be dedicated to the above-described well forming a standard 80-acre oil spacing and proration unit for said pool.

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

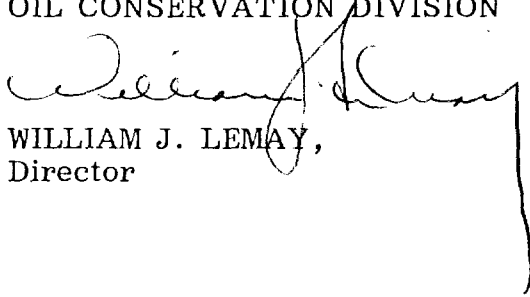
(6) Upon completion of drilling operations, the applicant shall file a copy of a directional survey of the entire wellbore with both the Santa Fe and the Hobbs office of the Division.

(7) 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/