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. 9439 Order No. R-8770

APPLICATION OF UNION PACIFIC RESOURCES COMPANY FOR POOL EXTENSION AND SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 17, 1988, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this <u>26th</u> day of October, 1988, 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) Division Case Nos. 9439 and 9440 were consolidated at the time of the hearing for the purpose of testimony.

(3) By Order No. R-8667 dated June 10, 1988, the Division created and defined the Vada-Devonian Pool with horizontal limits consisting of the SW/4 of Section 26, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico.

(4) The applicant, Union Pacific Resources Company, seeks to extend the horizontal limits of the Vada-Devonian Pool to include the NW/4 of Section 35, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, and further seeks the promulgation of temporary special rules and regulations for said pool, including a provision for 80-acre -2-Case No. 9439 Order No. R-8770

spacing and proration units, designated well locations, and a poolwide exception to Division Rule No. 111 allowing for directional drilling or well deviations of more than five degrees in any 500-foot interval.

(5) The applicant is the owner and operator of the discovery well for said pool, the State "26" Well No. 1 located 330 feet from the South line and 2310 feet from the West line of said Section 26.

(6) The applicant is also the owner and operator of the State "26" Well No. 2 located 1910 feet from the South line and 1980 feet from the East line (Unit J) of said Section 26, which was spudded on April 21, 1988, was drilled to a depth of 12,953 feet and is currently being sidetracked to an unorthodox subsurface location within a 150-foot radius of a point 1910 feet from the South line and 2580 feet from the East line (Unit J) of said Section 26, (being the subject of companion Case No. 9440).

(7) The applicant has also proposed the drilling of the State "35" Well No. 1 to be located 725 feet from the North line and 2040 feet from the West line (Unit C) of said Section 35.

(8) It is the policy of the Division to extend pools only after wells have been drilled and completed and inasmuch as the State "35" Well No. 1 has not been drilled, that portion of the application requesting extension of the subject pool to include the NW/4 of said Section 35 should be <u>denied</u>.

(9) With little production history available from the State "26" Well No. 1, the applicant presented reservoir volumetric calculations and recovery rates which indicate that 80-acre spacing should be appropriate for the subject pool.

(10) In order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells and to otherwise protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the subject pool. -3-Case No. 9439 Order No. R-8770

(11) The temporary special rules and regulations should also provide for restrictive well locations in order to assure orderly development of the pool and protect correlative rights.

(12) Although the applicant requested that the temporary rules and regulations for the subject pool remain in effect for a period of two years, a period of 18 months should allow sufficient time for the operators in the subject pool to gather reservoir information to show that an 80-acre unit in the area can be efficiently and economically drained and developed by one well.

(13) The applicant further seeks to incorporate into the special rules and regulations for the subject pool a provision allowing a well to be directionally drilled or to unintentionally deviate more than five degrees in any 500foot interval, provided that the cumulative displacement is not greater than 410 feet from the center of a governmental quarter-quarter section and provided that the subsurface location is no closer than 250 feet to the outer boundary of the spacing and proration unit when it encounters the top of the Devonian formation.

(14) In support of its proposal, the applicant presented evidence which indicates that due to geologic circumstances in the area, substantial drift has been enountered during the drilling of the State "26" Wells Nos. 1 and 2 at depths below approximately 9,500 feet.

(15) The applicant seeks approval of said provision to avoid the additional time and expense incurred in directionally drilling wells back toward the vertical.

(16) The deviation surveys from the State "26" Wells Nos. 1 and 2, presented as evidence in this case, indicate a maximum cumulative bottomhole displacement of 322 feet and 310 feet, respectively.

(17) Approval of the subject proposal will allow operators in the subject pool to economically drill wells to test the Devonian formation and will protect correlative rights provided that the bottomhole set back distance proposed by the applicant be adjusted to require that the cumulative displacement is not greater than 330 feet from the center of a governmental quarter-quarter section and -4-Case No. 9439 Order No. R-8770

provided that the bottomhole location is no closer than 330 feet to the outer boundary of the spacing and proration unit.

(18) This case should be reopened at an examiner hearing in April, 1990, at which time the operators in the subject pool should be prepared to appear and show cause why the temporary pool rules for the Vada-Devonian Pool should not be rescinded.

IT IS THEREFORE ORDERED THAT:

(1) The portion of the application requesting the extension of the horizontal boundary of the Vada-Devonian Pool to include the NW/4 of Section 35, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, is hereby denied.

(2) Temporary Special Rules and Regulations for the Vada-Devonian Pool, Lea County, New Mexico, previously created and defined by Division Order No. R-8667 dated June 10, 1988, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE VADA-DEVONIAN POOL

<u>RULE 1</u>. Each well completed or recompleted in the Vada-Devonian Pool or in the Devonian formation within one mile thereof, and not nearer to or within the limits of another designated Devonian pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section being a legal subdivision of the United States Public Lands Survey, provided however, nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarterquarter sections in the unit.

RULE 3. For good cause shown, the Director may grant an exception to the requirements of Rule 2 without hearing when an application has been filed for a non-standard unit comprising one or more governmental quarter-quarter sections or lots, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States -5-Case No. 9439 Order No. R-8770

Public Lands Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.

<u>RULE 5</u>. The Division Director may grant an exception to the requirements of Rule 4 without hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at a standard or approved non-standard location for such original horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

RULE 6. During drilling operations, an operator shall not be required to deviate a well back towards the vertical when the deviation of the well exceeds more than five degrees in any 500-foot interval provided that:

(a) At total depth the cumulative bottomhole displacement is not greater than 330 feet from the center of a governmental quarter-quarter section or lot and provided further that the wellbore at total depth is no closer than 330 feet from the outer boundary of the well's proration unit.

(b) Should it be determined from deviation surveys that the bottomhole location of the subject well may be located closer than 330 feet to the outer boundary of the proration unit, the operator shall conduct a directional survey on the well and submit a copy of said survey to the Hobbs district office of the Division. -6-Case No. 9439 Order No. R-8770

<u>RULE 7</u>. The allowable for a standard proration unit (79 through 81 acres) shall be based on a depth bracket allowable of 490 barrels per day and, in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED THAT:

(3) The locations of all wells presently drilling to or completed in the Vada-Devonian Pool or in the Devonian formation within one mile thereof are hereby approved; the operator of any well having an unorthodox location shall notify the Hobbs district office of the Division in writing of the name and location of the well within 30 days from the date of this order.

(4) Pursuant to Paragraph A. of Section 70-2-18, N.M.S.A. 1978 Comp., contained in Laws of 1969, Chapter 271, existing oil wells in the Vada-Devonian Pool shall have dedicated thereto 80 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 80 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable until a non-standard spacing unit has been approved and, subject to said 60-day limitation, each well presently drilling to or completed in the Vada-Devonian Pool shall receive no more than one-half of a standard allowable for said pool.

(5) This case shall be reopened at an examiner hearing in April, 1990 at which time the operators in the subject pool may appear and show cause why the temporary rules for the Vada-Devonian Pool promulgated herein should not be rescinded. -7-Case No. 9439 Order No. R-8770

(6) 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 00 WILLIAM J. LEMA Director

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