# 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. 10854 ORDER NOS. R-10043 and R-9500-A

## APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR THE ASSIGNMENT OF A SPECIAL DEPTH BRACKET OIL ALLOWABLE, EDDY COUNTY, NEW MEXICO

#### ORDER OF THE DIVISION

#### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 21 and on December 16, 1993, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 28th day of December, 1993 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, Phillips Petroleum Company ("Phillips"), seeks a special poolwide depth bracket allowable, pursuant to Division General Rule 505.D, for the Cabin Lake-Delaware Pool currently comprising the following described acreage in Eddy County, New Mexico, whereby the allowable would be based on the deepest perforations rather than the shallowest as provided for in General Rule 505.A in the wells presently completed in this pool:

TOWNSHIP 21 SOUTH,	RANGE 30 EAST, NMPM
Section 34:	
Section 35:	S/2

Section 36:

ŚW/4

Case No. 10854 Order Nos. R-10043 and R-9500-A Page 2

#### TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM

Section 1:	Lots 3 and 4, $S/2$ NW/4, and $S/2$
Section 2:	Lots 3 and 4, S/2 NW/4, and S/2
Section 3:	Lots 1 and 2, S/2 NE/4, and SE/4
Section 11:	NE/4
Section 12:	NW/4.

(3) By Division Order No. R-8455, dated June 15, 1987 and made effective July 1, 1987, the Division created and defined the Cabin Lake-Delaware Pool for the production of oil from the entire Delaware Mountain Group, more commonly known as the "Delaware formation". The discovery well for this pool was the Phillips' James "A" Well No. 2 located in the NW/4 SE/4 (Unit J) of Section 2, Township 22 South, Range 30 East, NMPM, Eddy County, New Mexico, which was completed in the "Delaware formation" on January 15, 1987 through the perforated interval from 5,625 feet to 5,940 feet. The poolwide depth bracket allowable was therefore established pursuant to General Rule 505.A as 107 barrels of oil per day ("BOPD").

(4) Pursuant to said Rule 505.A the pool's assigned depth bracket allowable, as requested by the applicant, would be increased to 187 barrels of oil per day per 40-acre oil spacing and proration unit.

(5) According to the evidence submitted, the vertical limits of this pool are approximately 3,000 feet thick. The two main producing intervals within the pool can be attributed to the shallower Cherry Canyon member of the Delaware formation found in this general area to be between 4,500 feet to 5,800 feet and the deeper Brushy Canyon member found between 5,800 feet to 7,450 feet. The evidence further shows that there are currently twenty-eight producing oil wells within the Cabin Lake-Delaware Pool, one plugged and abandoned well that was deemed to be non-commercial, three inactive producers, and two active water injection wells.

(6) The applicant submitted evidence on these thirty-four wells which indicates that:

- There are only two wells that <u>did not</u> fully penetrate the entire Delaware formation.
- Only four wells are perforated exclusively in the 5000 to 6000 foot range.

• Twenty-eight wells have perforations below 7000 feet.

- Only three wells have perforations exclusively in the Cherry Canyon member.
- Only ten completions are exclusive to the Brushy Canyon member.
- Twenty-one of these wells have perforated intervals across both the Cherry Canyon and Brushy Canyon members.
- There are currently seven wells capable of producing in excess of the 107 BOPD top unit allowable.
  - 27 of the active wells are owned and operated by Phillips Petroleum Company.

(7) Within the interior of the subject pool, comprising 160 acres being the SE/4 of Section 2, Township 21 South, Range 30 East, NMPM, Eddy County, New Mexico, Phillips operates its James "A" State Pressure Maintenance Pilot Project, approved by Division Order No. R-9500, issued in Case No. 10288 and dated May 6, 1991. Said Order No. R-9500 contains a provision that established a pilot project allowable equal to the top allowable for the four proration units making up the 160 acres  $(4 \times 107 \text{ or } 428 \text{ barrels of oil per day})$ .

(8) At the time of the hearing, Phillips suggested the James "A" State Pressure Maintenance Project Area would not be affected by the proposed increased allowable since its current project allowable is not being met even though two of the four producing wells or proration units are capable of producing in excess of the 107 BOPD unit allowable.

(9) Geological and engineering evidence currently available indicates that hydrocarbon production from neither of the two producing Delaware members of said pool is dominate over the other and there appears to be no adverse affect to the pool by producing both Delaware members concurrently.

(10) Further, the evidence presently available indicates that an increased rate of production from said pool will not result in damage to the reservoir nor have an adverse effect on the ultimate recovery from the pool but should instead be improved thereby.

(11) Any order issued in this matter that affects the pool's allowable should remain consistent throughout the entire pool and not just a portion. Such inconsistences that permit allowable assignments of different volumes in a single pool is not in the best

Case No. 10854 Order Nos. R-10043 and R-9500-A Page 4

interest of conservation and would serve to promote the taking of hydrocarbon production in unequal proportion throughout the pool which would result in the violation of correlative rights.

(12) The project allowable for the James "A" State Lease Pressure Maintenance Project Area, as further described in Finding Paragraph No. (7) above, should also be changed to reflect the increased poolwide allowable.

(13) The applicant also requests that any existing overproduction charges against any well in the pool be canceled as of the effective date of this order.

(14) Evidence submitted at the time of the October 21, 1993 hearing suggests that some of the seven wells capable of producing in excess of the current 107 BOPD allowable may be capable of producing in excess of the proposed 187 BOPD allowable.

(15) Cancellation of all overproduction is therefore not warranted in this instance; however, in order to allow any current overproduction on any of the seven wells to be made-up in a timely manner the effective date of this order should be made retroactive to the proceeding month following the date that Phillips first proposed this application to the Division, which was September 27, 1993.

(16) No other operator in the pool or interested party appeared at the hearing in opposition to this application.

(17) Approval of the applicant's request for an increased oil allowable with the appropriate stipulations should serve to prevent waste and will not violate correlative rights.

### IT IS THEREFORE ORDERED THAT:

(1) Effective October 1, 1993, a special depth bracket allowable of 187 barrels of oil per day ("BOPD") is hereby established for the Cabin Lake-Delaware Pool, Eddy County, New Mexico.

(2) The Division Director may, at any time it appears that reservoir damage is apparent or other evidence of waste occurring or correlative rights are not being protected, rescind the provision of the order and cause the top unit allowable for the Cabin Lake-Delaware Pool to revert back to 107 barrels of oil per day. Case No. 10854 Order Nos. R-10043 and R-9500-A Page 5

## IT IS FURTHER ORDERED THAT:

(3) Effective October 1, 1993 Decretory Paragraph No. (3) of Division Order No. R-9500, issued in Case 10288 and dated May 6, 1991, be and the same is hereby amended to read in its entirety as follows:

"(3) The project allowable for the James "A" State Pressure Maintenance Pilot Project in the SE/4 of Section 2, Township 22 South, Range 30 East, NMPM, Eddy County, New Mexico, shall be  $4 \times 187$  or 748 barrels of oil per day which is equal to the amended top allowable for the four 40-acre tracts comprising said 160-acre area and may be produced by any well or combination of wells within said pilot project area."

(4) The Division Director may, at any time it appears that reservoir damage is apparent or other evidence of waste occurring or correlative rights are not being protected, rescind this particular provision of said Order No. R-9500 and cause the project allowable for the pilot project to revert back to the original formula of  $4 \times 107$  or 428 barrels per day.

(5) 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. LEN DIRECTOR

SEAL