

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 4665
Order No. R-4263

APPLICATION OF TENNECO OIL
COMPANY FOR A PRESSURE MAINTENANCE
PROJECT, MCKINLEY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 16, 1972, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 28th day of February, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Tenneco Oil Company, seeks authority to institute a pressure maintenance project in the Lone Pine Dakota "D" Pool by the injection of gas and water into the Dakota "D" zone through five wells located in Sections 7 and 19 of Township 17 North, Range 8 West and Sections 12 and 13 of Township 17 North, Range 9 West, McKinley County, New Mexico.
- (3) That the applicant also seeks the designation of a project area and promulgation of rules for the project including a procedure whereby additional injection wells may be approved administratively.
- (4) That the proposed pressure maintenance project is in the interest of conservation and should result in greater ultimate recovery of oil, thereby preventing waste.

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(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tenneco Oil Company, is hereby authorized to institute a pressure maintenance project in the Lone Pine Dakota "D" Pool by the injection of gas and water into the Dakota "D" zone through five wells located in McKinley County, New Mexico, as follows:

Well	Unit	Section	Township	Range	Injection
SFPRR No. 12	I	7	17N	8W	gas
Lone Pine No. 1	D	19	17N	8W	water
Hospah No. 44	P	12	17N	9W	gas
SFPRR No. 6	H	13	17N	9W	gas
SFPRR No. 10	B	13	17N	9W	gas

PROVIDED HOWEVER, that each of said wells shall be equipped for injection in accordance with Exhibits Numbers 11 and 12 submitted at the hearing of Case Number 4665.

(2) That the subject pressure maintenance project is hereby designated the Lone Pine Dakota "D" Pressure Maintenance Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations insofar as said rules are not inconsistent with this order.

(3) That Special Rules and Regulations governing the operation of the Lone Pine Dakota "D" Pressure Maintenance Project, McKinley County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
TENNECO OIL COMPANY
LONE PINE DAKOTA "D" PRESSURE MAINTENANCE PROJECT

RULE 1. The project area of the Lone Pine Dakota "D" Unit Pressure Maintenance Project, hereinafter referred to as the Project, shall comprise all of the area included within the Lone Pine Dakota "D" Unit.

RULE 2. The allowable for the Project shall be the sum of the allowables of the several wells within the project area, including those wells which are shut-in, curtailed, or used as injection wells. Allowables for all wells shall be determined in a manner hereinafter prescribed.

RULE 3. The allowable assigned to each producing well in the Project shall be equal to the well's ability to produce or to top unit allowable for the Lone Pine Dakota "D" Pool, whichever is less; the allowable assigned to each injection well in the Project shall be the top unit allowable for the Lone Pine Dakota "D" Pool.

RULE 4. An allowable may be assigned to any well which is curtailed or shut-in because of high gas-oil ratio, pressure regulation, control of pattern or sweep efficiencies, or to observe changes in pressure or changes in characteristics of reservoir liquids or progress of sweep.

RULE 5. The allowable assigned to any well which is shut-in or curtailed in accordance with Rule 4 above shall be determined by a 24-hour test at a stabilized rate of production which shall be the final 24-hour period of a 72-hour test throughout which the well should be produced in the same manner and at a constant rate. The daily tolerance limitation set forth in Commission Rule 502 I (a) and the limiting gas-oil ratio (2000 : 1) for the Lone Pine Dakota "D" Pool shall be waived during such tests. The project operator shall notify the Commission and all operators offsetting the well of the exact time such tests are to be conducted in order that the tests may be witnessed.

RULE 6. The project allowable may be produced from any well or wells in the project area, provided that any producing well in the project area which directly or diagonally offsets a well outside the project area producing from the same common source of supply shall not produce in excess of two times the top unit allowable for the Lone Pine Dakota "D" Pool.

RULE 7. Each producing well shall be subject to the limiting gas-oil ratio (2000 : 1) for the Lone Pine Dakota "D" Pool, except that any well within the project area producing with a gas-oil ratio in excess of 2000 cubic feet of gas per barrel of oil may be produced on a "net" gas-oil ratio basis, which net gas-oil ratio shall be determined by applying credit for daily average

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gas injected into the Lone Pine Dakota "D" Pool within the project area to such well. The daily adjusted oil allowable for any well receiving gas injection credit shall be determined in accordance with the following formula:

$$A_{adj} = \frac{TUA \times F_a \times 2,000}{\frac{P_g - I_g}{P_o}}$$

Where:

- A_{adj} = the well's daily adjusted allowable
- TUA = top unit allowable for the pool
- F_a = the well's acreage factor
- P_g = average daily volume of gas produced by the well during the preceding month, cubic feet
- I_g = the well's allocated share of the daily average gas injected during the preceding month, cubic feet
- P_o = average daily volume of oil produced by the well during the preceding month, barrels

In no event shall the amount of injected gas being credited to a well be such as to cause the net gas-oil ratio, $\frac{P_g - I_g}{P_o}$,

to be less than 2000 : 1.

RULE 8. Each month the project operator shall, within three days after the normal unit allowable for Northwest New Mexico has been established, submit to the Commission a Pressure Maintenance Project Operator's Report, on a form prescribed by the Commission, outlining thereon the data required, and requesting allowables for each of the several wells in the Project as well as the total Project allowable. The aforesaid Pressure Maintenance Project Operator's Report shall be filed in lieu of Form C-120 for the Project.

RULE 9. The conversion of producing wells to injection, the drilling of additional wells for injection, and expansion of the project area shall be accomplished only after approval of the same by the Secretary-Director of the Commission. To obtain such approval, the Project operator shall file application with the Commission, which application, if it seeks authorization to convert additional wells to injection or to drill additional injection wells shall include the following:

(1) A plat showing the location of proposed injection well, all wells within the project area, and offset operators, locating wells which offset the project area.

(2) A schematic drawing of the proposed injection well which fully describes the casing, tubing, perforated interval, and depth showing that the injection of gas or water will be confined to the Dakota "D" formation.

(3) A letter stating that all offset operators within one-half mile of the proposed injection well have been furnished a complete copy of the application and the date of notification.

The Secretary-Director may approve the proposed injection well, if within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

Expansion of the project area may be approved by the Secretary-Director of the Commission administratively when good cause is shown therefor.

RULE 10. Wells may be located anywhere within the unit area. However producing wells shall not be located within 330 feet of the outer boundaries of the unit area. The Secretary-Director of the Commission shall have authority to grant permission to drill any well within the provisions of this rule without notice and hearing.

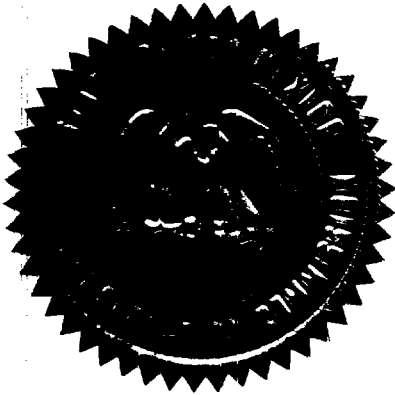
(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Bruce King
BRUCE KING, Chairman

Alex J. Armijo
ALEX J. ARMIJO, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

S E A L

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