

Entered September 20, 1978
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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6248
Order No. R-5801

APPLICATION OF MOBIL OIL CORPORATION
FOR A PRESSURE MAINTENANCE PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 7, 1978, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 20th day of September, 1978, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Mobil Oil Corporation, seeks authority to institute a pressure maintenance project in the North Vacuum-Abo Pool in its North Vacuum-Abo East Unit Area, Lea County, New Mexico, by the injection of water into the Abo formation through five wells located in Units N and P of Section 7 and Units F, H and N of Section 18, all in Township 17 South, Range 35 East, NMPM, Lea County, New Mexico.

(3) That the applicant further seeks the designation of the project area and the promulgation of special rules and regulations governing said project including a provision for administrative approval for unorthodox locations for injection wells and producing wells.

(4) That the project area should comprise the following-described area:

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 7: S/2
Section 18: N/2, SW/4, and W/2 SE/4

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(5) That injection should be through corrosion-resistant lined tubing installed in a packer set as near to the uppermost perforation as practicable; that the casing-tubing annulus should be loaded with an inert fluid and equipped with a pressure gauge; and that the injection system or each of the injection wells should be equipped with a pop-off valve or other acceptable device to limit the injection pressure to 3500 psi unless the Division Director shall have approved a higher injection pressure upon showing by the operator that formation fracturing will not result therefrom.

(6) That a pressure maintenance project, designated the Mobil North Vacuum-Abo East Pressure Maintenance Project, comprising the above-described area is in the interest of conservation and should result in greater ultimate recovery of oil, thereby preventing waste.

(7) That an administrative procedure should be established whereby said project area may be expanded for good cause shown and whereby additional injection wells and producing wells at orthodox and unorthodox locations in the project area may be approved without the necessity of notice and hearing.

(8) That special rules and regulations for the operation of the Mobil North Vacuum-Abo East Pressure Maintenance Project should be promulgated and, for operational convenience, such rules should provide certain flexibility in authorizing the production of the project allowable from any well or wells in the project area in any proportion, provided that no well in the project area which directly or diagonally offsets a well on another lease producing from the same common source of supply should be allowed to produce in excess of top unit allowable for the North Vacuum-Abo Pool until such time as the well has experienced a substantial response to water injection. When such a response has occurred, the well should be permitted to produce up to two times top unit allowable for the North Vacuum-Abo Pool. Production of such well at a higher rate should be authorized only after notice and hearing.

IT IS THEREFORE ORDERED:

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to institute a pressure maintenance project in the North Vacuum-Abo Pool in its North Vacuum-Abo East Unit Area, Lea County, New Mexico, to be designated the Mobil North Vacuum Abo East Pressure Maintenance Project, by the injection of water into the Abo formation, through the following-described wells in Township 17 South, Range 35 East, NMPM:

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<u>Operator</u>	<u>Lease</u>	<u>Well No.</u>	<u>Unit</u>	<u>Section</u>
Mobil	State "A" Com	1	N	7
Mobil	State "MM"	1	P	7
Texaco	State "DJ"	3	H	18
Texaco	State "DJ"	4	F	18
Mobil	Elk State Com	1	N	18

(2) That injection into each of the aforesaid wells should be accomplished through corrosion-resistant lined tubing set in a packer as close as is practicable to the uppermost Abo perforation. The casing-tubing annulus in each injection well shall be loaded with an inert fluid and a pressure gauge installed to facilitate detection of leakage in the casing, tubing, or packer.

(3) That the injection system or wells shall be equipped with a pop-off valve or other acceptable device which will limit the surface injection pressure to 3500 psi unless the Division Director shall have administratively authorized a higher injection pressure.

(4) That Special Rules and Regulations governing the operation of the Mobil North Vacuum-Abo East Pressure Maintenance Project, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
MOBIL NORTH VACUUM-ABO EAST PRESSURE MAINTENANCE PROJECT

RULE 1. The project area of the Mobil North Vacuum-Abo East Pressure Maintenance Project, hereinafter referred to as the Project, shall comprise the area described as follows:

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 7: S/2
Section 18: N/2, SW/4, and W/2 SE/4

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. Allowables for injection wells may be transferred to producing wells within the project area, as may the allowables for producing wells which, in the interest of more efficient operation of the Project, are shut-in or curtailed because of high gas-oil ratio or are shut-in for any of the following reasons: pressure regulation, control of pattern or sweep efficiencies,

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or to observe changes in pressures or changes in characteristics of reservoir liquids or progress of sweep.

RULE 4. The allowable assigned to any well which is shut-in or which is curtailed in accordance with the provisions of Rule 3 which allowable is to be transferred to any well or wells in the project area for production, shall in no event be greater than its ability to produce during the test prescribed by Rule 6, below, or greater than the current top unit allowable for the pool during the month of transfer, whichever is less.

RULE 5. The allowable assigned to any injection well on an 80-acre proration unit shall be top unit allowable for the North Vacuum-Abo Pool.

RULE 6. The allowable assigned to any well which is shut-in or curtailed in accordance with Rule 3, 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 Division Rule 502 I (a) and the limiting gas-oil ratio (2,000 to 1) for the pool shall be waived during such tests. The project operator shall notify all operators offsetting the well, as well as the Division, of the exact time such tests are to be conducted. Tests may be witnessed by representatives of the offsetting operators and the Division, if they so desire.

RULE 7. The basic 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 pool, whichever is less. Wells capable of producing more than top unit allowable may also receive transfer allowable, provided however, that no producing well in the project area which directly or diagonally offsets a well on another lease producing from the same common source of supply shall receive an allowable or produce in excess of two times top unit allowable for the pool. Each producing well shall be subject to the limiting gas-oil ratio (2,000 to 1) for the pool.

RULE 8. Each month the project operator shall submit to the Division a Pressure Maintenance Project Operator's Report, on a form prescribed by the Division, outlining thereon the data required, and requesting allowables for each of the several wells in the Project as well as the total project allowable based upon the pool's depth bracket allowable and the market demand percentage factor in effect. The aforesaid Pressure Maintenance Project Operator's Report shall be filed in lieu of Form C-120 for the Project.

RULE 9. The Division shall, upon review of the report and after any adjustments deemed necessary, calculate the allowable for each well in the Project for the next succeeding month in accordance with these rules. The sum of the allowables so calculated shall be assigned to the Project and may be produced from the wells in the Project in any proportion except that no well in the Project which directly or diagonally offsets a well on another lease producing from the same common source of supply shall produce in excess of two times top unit allowable for the pool.

RULE 10. The Director of the Division is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of the North Vacuum-Abo East Unit Area as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 460 feet to the outer boundary of said unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary. To obtain such approval, the project operator shall file proper application with the Division, which application, if it seeks authorization to convert additional wells to injection or to drill additional production or injection wells shall include the following:

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

(2) A schematic drawing of the proposed well which fully describes the casing, tubing, perforated interval, and depth.

(3) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

The Director may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The 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 Director of the Division administratively when good cause is shown therefor.

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

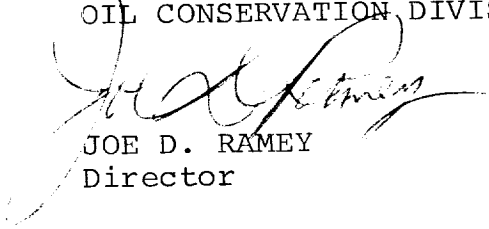
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DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



JOE D. RAMEY
Director

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