

**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. 10572
Order No. R-9847**

**APPLICATION OF TEXACO EXPLORATION
& PRODUCTION INC. FOR WATERFLOOD
EXPANSION, LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 4, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 17th day of February, 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) Division Case Nos. 10572 and 10573 were consolidated at the time of the hearing for the purpose of testimony.

(3) By Order No. R-2748 dated July 29, 1964, the Division authorized Texaco Inc. to institute a waterflood project on its W. H. Rhodes "B" Federal (NCT-1) Lease, comprising portions of Sections 26 and 27, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico, by the injection of water into the Rhodes Yates-Seven Rivers Pool through two initial injection wells.

(4) The applicant, Texaco Exploration & Production Inc., seeks authority to expand its W. H. Rhodes "B" Federal Waterflood Project by converting the W. H. Rhodes "B" Federal (NCT-1) Well Nos. 6 and 13 located, respectively, 1980 feet from the South line and 660 feet from the East line (Unit I), and 990 feet from the South line and 1650 feet from the East line (Unit O), both in Section 27, Township 26 South, Range 37 East, NMPM, Rhodes Yates-Seven Rivers Pool, Lea County, New Mexico, from producing oil wells to water injection wells.

(5) The application to expand the W. H. Rhodes "B" Federal Waterflood Project was originally filed on August 31, 1992, for Division administrative approval; however, an objection to the proposed expansion from Doyle Hartman, Oil Operator, necessitated the placement of this application on the Division Examiner Docket.

(6) Doyle Hartman, Oil Operator, appeared through counsel at the hearing but presented no evidence or testimony in this case.

(7) The W. H. Rhodes "B" Federal Waterflood Project is located directly adjacent to the applicant's Rhodes Yates Unit Waterflood Project, approved by Division Order No. R-4521 and located in portions of Sections 21, 27 and 28, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico.

(8) Within the W. H. Rhodes "B" Federal (NCT-1) Well No. 6, the applicant proposes to inject water into the Rhodes Yates-Seven Rivers Pool through the perforated and open hole interval from approximately 3,048 feet to 3,300 feet.

(9) Within the W. H. Rhodes "B" Federal (NCT-1) Well No. 13, the applicant proposes to inject into the Rhodes Yates-Seven Rivers Pool through the perforated and open hole interval from approximately 3,050 feet to 3,327 feet.

(10) The proposed waterflood expansion, effectively carried out in conjunction with the drilling of infill producing wells, will enable the applicant to establish an efficient production and injection pattern which should result in the recovery of additional oil reserves from the project area, thereby preventing waste.

(11) The applicant should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(12) The injection of water into the W. H. Rhodes "B" Federal (NCT-1) Well Nos. 6 and 13 should be accomplished through 2 3/8-inch internally cement-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation; the casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(13) Prior to commencing injection operations into the W. H. Rhodes "B" Federal (NCT-1) Well Nos. 6 and 13, the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(14) The injection wells or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 610 psi.

(15) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described in Finding No. (14) above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(16) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(17) The proposed waterflood expansion should be approved and waterflood operations should be governed by the provisions of Division Order No. R-2748 and Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Texaco Exploration & Production Inc., is hereby authorized to expand its W. H. Rhodes "B" Federal Waterflood Project by converting the W. H. Rhodes "B" Federal (NCT-1) Well Nos. 6 and 13 located, respectively, 1980 feet from the South line and 660 feet from the East line (Unit I), and 990 feet from the South line and 1650 feet from the East line (Unit O), both in Section 27, Township 26 South, Range 37 East, NMPM, Rhodes Yates-Seven Rivers Pool, Lea County, New Mexico, from producing oil wells to water injection wells.

(2) Injection into the W. H. Rhodes "B" Federal (NCT-1) Well No. 6 shall occur into the perforated and open hole interval from approximately 3,048 feet to 3,300 feet, and injection into the W. H. Rhodes "B" Federal (NCT-1) Well No. 13 shall occur into the perforated and open hole interval from approximately 3,050 feet to 3,327 feet.

(3) The applicant shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(4) Injection into the W. H. Rhodes "B" Federal (NCT-1) Well Nos. 6 and 13 shall be accomplished through 2 3/8-inch internally cement-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation; the casing-tubing annulus shall be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(5) Prior to commencing injection operations into the W. H. Rhodes "B" Federal (NCT-1) Well Nos. 6 and 13, the casing in each well shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(6) The injection wells or pressurization system shall be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 610 psi.

(7) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(8) The operator shall give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

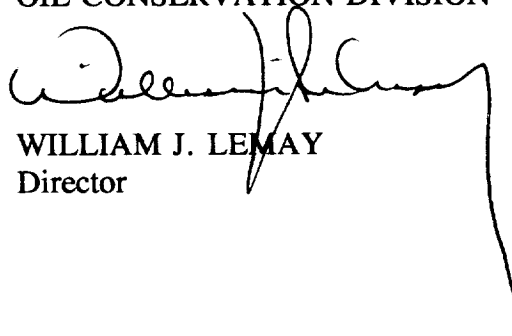
(9) Waterflood operations shall be governed by the provisions of Division Order No. R-2748 and Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(10) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

CASE NO. 10572
Order No. R-9847
Page -5-

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read 'William J. Lemay', is written over the printed name and title. The signature is fluid and cursive, with a long, sweeping tail that extends downwards and to the right.

WILLIAM J. LEMAY
Director

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