

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. 4271
Order No. R-2748-A

APPLICATION OF TEXACO INC. FOR A
WATERFLOOD EXPANSION AND AMENDMENT
OF ORDER NO. R-2748, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 25, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 3rd day of December, 1969, 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, Texaco Inc., is the operator of the Texaco Rhodes "B" Federal Waterflood Project in the Rhodes (Yates-Seven Rivers) Pool, Lea County, New Mexico, approved by Commission Order No. R-2748.

(3) That the applicant now seeks authority to expand said waterflood project by the injection of water into the Yates and Seven Rivers formations through three additional wells in Units B, H, and P of Section 27, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico.

(4) That the applicant further seeks to institute an additional waterflood project in said pool by the injection of

water into the Yates and Seven Rivers formations through one well located in Unit N of Section 22 of said Township and Range.

(5) That the wells in the project areas are in an advanced state of depletion and should properly be classified as "stripper" wells.

(6) That the proposed expansion of the Rhodes "B" Federal Waterflood Project authorized by said Order No. R-2748 and the institution of the proposed new waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(7) That the applicant further seeks the establishment of an administrative procedure whereby said projects could be expanded to include additional lands and injection wells in the area of said projects as may be necessary in order to complete an efficient injection pattern; that said administrative procedure should provide for administrative approval for conversion to water injection in exception to the well response requirements of Rule 701 E-5 of the Commission Rules and Regulations.

(8) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to expand its Rhodes "B" Federal Waterflood Project in the Rhodes (Yates-Seven Rivers) Pool, authorized by Order No. R-2748, by the injection of water into the Yates and Seven Rivers formations through the following-described three additional wells in Section 27, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico:

W. H. Rhodes "b" (NCT-1) Well No. 5 located in Unit B
W. H. Rhodes "b" (NCT-1) Well No. 4 located in Unit H
W. H. Rhodes "b" (NCT-1) Well No. 9 located in Unit P

(2) That the applicant, Texaco Inc., is hereby authorized to institute a waterflood project in the Rhodes (Yates-Seven Rivers)

Pool, to be designated the Texaco Rhodes "A" Federal Waterflood Project, by the injection of water into the Yates and Seven Rivers formations through its W. H. Rhodes "A" Federal Well No. 4 located in Unit N of Section 22, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the above-described waterflood projects to include such additional lands and injection wells in the area of said projects as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

S E A L

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

esr/

**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.

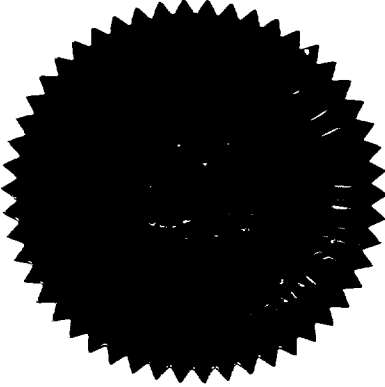
(8) The operator shall give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(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.

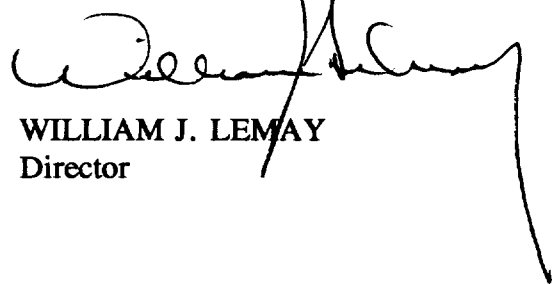
CASE NO. 10572
Order No. R-9847
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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
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February 19, 1993

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& SHERIDAN
Attorneys at Law
P. O. Box 2208
Santa Fe, New Mexico 87504

RE: CASE NO. 10672
ORDER NO. R-9847

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

Sally E. Leichtle
Sally E. Leichtle
Administrative Secretary

cc: BLM Carlsbad Office
Rick Brown, OCD
J. E. Gallegos