Entered June 30,

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. 7591 Order No. R-7010

APPLICATION OF TEXACO, INC. FOR AMENDMENT OF DIVISION ORDER NO. R-4442 AND APPROVAL OF A TERTIARY OIL RECOVERY PROJECT UNDER THE CRUDE OIL WINDFALL PROFITS TAX ACT OF 1980, LEA COUNTY, NEW MEXICO.

## ORDER OF THE DIVISION

## BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 26, 1982, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>30th</u> day of June, 1982, 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, Texaco, Inc., seeks authority to convert its Vacuum Grayburg-San Andres pressure maintenance project to a polymer-augmented waterflood, and pursuant to Section 212.78 of the United States Department of Energy Regulations and Section 4993 of the Internal Revenue Code seeks certification of said project as a Qualified Tertiary Oil Recovery Project.

(3) That said pressure maintenance project lies within the Vacuum Grayburg-San Andres Pool, Lea County, New Mexico.

(4) That said pool was discovered in May, 1929, by Socony Vacuum Oil Company, experienced substantial development thereafter with waterflooding being initiated during 1973.

(5) That Texaco, Inc., Vacuum Grayburg-San Andres Pressure Maintenance Project, consisting of approximately 1486 acres was

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approved by said Division Order No. R-4442 on November 27, 1972, and water injection was commenced within said Project beginning in 1973.

(6) That the applicant now seeks approval for the installation of tertiary recovery polymer-augmented waterflood by the injection of polyacrylamide polymers into 25 project wells, and the designation of a qualifying tertiary recovery project area covering said pressure maintenance project.

(7) That the New Mexico Oil Conservation Division has been designated by the Governor of the State of New Mexico as the appropriate agency to approve Qualified Tertiary Recovery Projects in New Mexico for purpose of the Crude Oil Windfall Profits Tax Act of 1980.

(8) That the proposed Qualifying Tertiary Project Area (QTP Area) lies wholly within said Vacuum Grayburg-San Andres Pressure Maintenance Project in the Texaco Vacuum Grayburg San Andres Unit Area and consists of the following described acreage:

> TOWNSHIP 17 SOUTH, RANGE 34, EAST, NMPM Section 35: E/2 SW/4

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM Sections 1 and 2: All Section 11: NE/4 NE/4 Section 12: N/2 NW/4

containing 1486 acres more or less.

(9) The proposed project is a tertiary recovery method described in Section 212.78(c) of the Department of Energy Regulations, and as defined in Section 4993(d)(1) of the Internal Revenue Code, and Section 150.4933-1(c).

(10) The proposed Tertiary Recovery Project is expected to result in the recovery of an additional 1,700,000 barrels of crude oil which the Division finds is more than an insignificant increase in the ultimate recovery of crude oil.

(11) The injection of polyacrylamide polymers will improve mobility ratio and vertical conformance, and the Texaco QTP Area project is designed, and will be operated, in accordance with sound engineering principles.

(12) The entire Vacuum Grayburg-San Andres Pressure Maintenance Project will be affected and it is adequately delineated. -3-Case No. 7591 Order No. R-7010

(13) That the QTP Area tertiary recovery operations beginning date is after May, 1979, as scheduled polymer injection will begin during July, 1982.

(14) That past production from the Vacuum Grayburg-San Andres Pool underlying the Vacuum Grayburg-San Andres Unit Area is 33,440,000 barrels through June 30, 1982. Future recovery without the proposed tertiary recovery project is estimated to be 30,390,000 barrels of oil. With the proposed tertiary recovery project an additional 1,700,000 barrels of oil will be recovered resulting in a total production of 32,090,000 barrels of oil.

(15) The Vacuum Grayburg-San Andres Unit presently has thereon 46 producing wells, 13 injection wells and 3 shut-in production wells, and 1 water supply well. Twelve production wells will be converted to injection wells which will change the injection pattern from an inverted nine spot to a five spot with 40 acre injection patterns. In addition, lease line injections are also planned along the northwestern unit boundary. All injection wells located in the Vacuum Grayburg-San Andres Unit will receive polymer-augmented injection.

(16) The projected future expense for the proposed tertiary project is nine million six hundred forty thousand dollars (\$9,640,000) for the cost of the polymer and ninety thousand dollars (\$90,000) for polymer handling equipment.

(17) That the proposed tertiary recovery operations within said QTP Area meet all requirements of Section 4993 of the Internal Revenue Code.

(18) That the approval of this application will prevent waste, protect correlative rights and promote conservation, provided however, that the production limitation provisions of Rules 2 through 6 of Division Order No. R-4442, dated November 27, 1972, as amended by Division Order No. R-6094, dated September 1, 1979, should remain in effect.

## IT IS THEREFORE ORDERED:

(1) That effective July 1, 1982, the Qualifying Tertiary Recovery Project Area, described in Finding No. (8) of this Order, being The Texaco Inc. Vacuum Grayburg-San Andres Unit Area, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico, is hereby approved as a Qualified Tertiary Recovery Project under the Crude Oil Windfall Profits Tax Act of 1980.

(2) That the applicant, Texaco Inc., is hereby authorized to inject water and polyacrylamide polymers into the approved

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injection wells in this unit, and that Division Order No. R-4442 dated November 27, 1972, is hereby amended to allow the injection of said polymers.

IT IS FURTHER ORDERED:

(1) That the production limitation provisions of Rules 2 through 6 of Division Order No. R-4442, as amended by Division Order No. R-6094, shall remain in full force and effect until further order of the Division.

(2) That 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 nen JOE D. RAMEY, Director

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