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. 12638
ORDER NO. R-11608

APPLICATION OF TEXACO EXPLORATION & PRODUCTION, INC. FOR APPROVAL OF A PRESSURE MAINTENANCE PROJECT FOR ITS NEW MEXICO "O" STATE NCT-1 LEASE AND ITS STATE "BA" LEASE, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on April 5, 2001, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 22nd day of June, 2001, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Texaco Exploration & Production, Inc. ("Texaco"), seeks authority to institute a pressure maintenance project within the North Vacuum-Abo Pool, Vacuum-Wolfcamp Pool, and Vacuum Upper-Pennsylvanian Pool on its New Mexico "O" State NCT-1 and State "BA" Leases comprising the N/2, SE/4 and S/2 SW/4 of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, by the injection of water into the Abo, Wolfcamp and Upper-Pennsylvanian formations through the following-described three initial injection wells, all located within Section 36:

Well Name & Number	API Number	Well Location
State "BA" No. 6	30-025-20057	660' FNL & 860' FWL (Unit D)
State "BA" No. 8	30-025-20986	766' FNL & 2086' FEL (Unit B)
New Mexico "O"	30-025-33148	2085' FSL & 710' FEL (Unit I)

State NCT-1 No. 38

(3) Texaco testified that the State "BA" Lease comprises the N/2 N/2 of Section 36, and that the New Mexico "O" State NCT-1 Lease comprises the S/2 N/2, SE/4 and S/2 SW/4 of Section 36. Within the proposed project area, Texaco owns 100% of the working interest.

(4) Texaco presented geologic evidence that demonstrates that:

(a) the Abo formation is present in this area at a depth of approximately 7,900 feet to 9,200 feet. Injection into the Abo formation will occur within a 15-25 foot interval in the Lower-Abo section;

(b) the Wolfcamp formation is present in this area at a depth of approximately 9,200 feet to 9,950 feet. The porosity within the 150-200 foot pay section ranges from 6-14%;

(c) the Upper-Pennsylvanian formation is present in this area at a depth of approximately 9,950 feet to 10,250 feet. The porosity within the 100-150 foot pay section ranges from 6-12%; and

(d) the Abo, Wolfcamp and Upper Pennsylvanian formations are present and continuous throughout the proposed project area.

(5) Texaco presented engineering evidence that demonstrates that:

(a) the three proposed injection wells are currently completed as downhole commingled producing wells within the Abo, Wolfcamp and Upper-Pennsylvanian formations;

(b) within the project area, Texaco will initially utilize three injection wells and four producing wells. The producing wells are identified as the State "BA" Well No. 15, and the New Mexico "O" State NCT-1 Wells No. 11, 14 and 39;

(c) the New Mexico "O" State NCT-1 Well No. 11 is currently completed as a downhole commingled producing well in the Abo, Wolfcamp, and Upper-Pennsylvanian formations, and is currently producing at a rate of 10 BOPD. The State "BA" Well No. 15 and the New Mexico "O" State NCT-1 Wells No. 14 and 39 are currently completed as downhole commingled producing wells in the Wolfcamp and Upper-Pennsylvanian formations, and are currently producing at rates of 40 BOPD, 10 BOPD and 60 BOPD, respectively; thus the proposed project area has not reached the advanced or "stripper" state of depletion;

(d) Texaco's proposed plan of operation includes adding additional Abo perforations within the State "BA" Well No. 15 and the New Mexico "O" State NCT-1 Wells No. 14 and 39; and

(e) the project may be expanded by drilling additional producing and injection wells based upon the results of injection into these formations.

(6) Approval of the proposed pressure maintenance project should result in the recovery of additional hydrocarbons from the Abo, Wolfcamp, and Upper-Pennsylvanian formations within the project area, which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(7) The operator 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.

(8) Injection should be accomplished through 2 7/8 inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation in each well. 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.

(9) The injections wells or pressurization system should be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 1805 psi.

(10) Prior to commencing injection operations, 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.

(11) The operator should give advance notice to the supervisor of the Division's Hobbs District Office of the date and time (i) injection equipment will be installed and (ii) the mechanical integrity pressure tests will be conducted on the proposed injection wells, so that these operations may be witnessed.

(12) The operator should immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in any of the injection wells or the leakage of water, oil or gas from or around any producing or plugged and abandoned well within the project area, and should take all steps as may be timely and necessary to correct such failure or leakage.

(13) The proposed pressure maintenance project should be approved, and the project should be governed by Division Rules No. 701 through 708.

(14) The project oil allowable should be established as follows:

Pool Name	**Project Allowable**
North Vacuum-Abo Pool	1,420 BOPD
Vacuum-Wolfcamp Pool	1,420 BOPD
Vacuum Upper-Pennsylvanian Pool	1,600 BOPD

In the event additional producing wells are drilled on undeveloped proration units within the project area, the project allowable may be increased by the Division's Hobbs District Office upon request by the operator.

(15) The injection authority granted herein for the State "BA" Wells No. 6 and 8 and the New Mexico "O" State NCT-1 Well No. 38 should terminate one year after the date of this order if the operator has not commenced injection operations into the wells; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

IT IS THEREFORE ORDERED THAT:

(1) Texaco Exploration & Production, Inc. is hereby authorized to institute a pressure maintenance project within the North Vacuum-Abo Pool, Vacuum-Wolfcamp Pool and Vacuum Upper-Pennsylvanian Pool on its New Mexico "O" State NCT-1 and State "BA" Leases comprising the N/2, SE/4 and S/2 SW/4 of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, by the injection of water into the Abo, Wolfcamp and Upper-Pennsylvanian formations through the gross interval from approximately 7,900 feet to 10,250 feet within the following-described three injection wells, all located within Section 36:

Well Name & Number	API Number	Well Location
State "BA" No. 6	30-025-20057	660' FNL & 860' FWL (Unit D)
State "BA" No. 8	30-025-20986	766' FNL & 2086' FEL (Unit B)
New Mexico "O" State NCT-1 No. 38	30-025-33148	2085' FSL & 710' FEL (Unit I)

(2) The operator 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.

(3) Injection shall be accomplished through 2 7/8 inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation in each well. The casing-tubing annulus shall be filled with an inert fluid and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(4) The injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 1805 psi.

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

(6) Prior to commencing injection operations, 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.

(7) The operator shall give advance notice to the supervisor of the Division's Hobbs District Office of the date and time (i) injection equipment will be installed and (ii) the mechanical integrity pressure tests will be conducted on the proposed injection wells, so that these operations may be witnessed.

(8) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in any of the injection wells or the leakage of water, oil or gas from or around any producing or plugged and abandoned well within the project area, and shall take all steps as may be timely and necessary to correct such failure or leakage.

(9) The pressure maintenance project is hereby designated the Texaco State "BA" Pressure Maintenance Project, and the applicant shall conduct injection operations in accordance with Division Rules No. 701 through 708, and shall submit monthly progress reports in accordance with Division Rules No. 706 and 1115.

(10) The project oil allowable is hereby established as follows:

Pool Name	**Project Allowable**
North Vacuum-Abo Pool	1,420 BOPD
Vacuum-Wolfcamp Pool	1,420 BOPD
Vacuum Upper-Pennsylvanian Pool	1,600 BOPD

In the event additional producing wells are drilled on undeveloped proration units within the project area, the project allowable may be increased by the Division's Hobbs District Office upon request by the operator.

(11) The injection authority granted herein for the State "BA" Wells No. 6 and 8 and the New Mexico "O" State NCT-1 Well No. 38 shall terminate one year after the date of this order if the operator has not commenced injection operations into the wells; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

(12) Jurisdiction is hereby 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

LORI WROTENBERY
Director

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