

**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. 13022  
ORDER NO. R-11974**

**APPLICATION OF POGO PRODUCING COMPANY FOR APPROVAL OF A  
PILOT PRESSURE MAINTENANCE PROJECT AND TO QUALIFY THE  
PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE  
"ENHANCED OIL RECOVERY ACT," EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on April 10, 2003, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 16th day of June, 2003, 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, Pogo Producing Company ("Pogo"), seeks authority to institute a pilot pressure maintenance project within the Lost Tank-Delaware Pool (Oil - 40299) on its State "2" Lease comprising the SE/4 of Section 2, Township 22 South, Range 31 East, NMPM, Eddy County, New Mexico, by the injection of water into the Brushy Canyon member of the Delaware formation in its State "2" Well No. 5 (API No. 30-015-32440) located at a previously approved unorthodox location (approved by Order No. NSL-4774-SD) 1300 feet from the South and East lines (Unit P) of Section 2, through the perforated interval from approximately 6,742 feet to 7,110 feet.

(3) Pogo presented testimony that the proposed pilot pressure maintenance project area comprises a single state lease (Lease No. LH-1523), and that the interest ownership within the project area is common throughout.

(4) Pogo presented geologic evidence that demonstrates that:

- (a) the proposed pilot pressure maintenance project is located within the Lost Tank-Delaware Pool;
- (b) the main pay within the Lost Tank-Delaware Pool in the area of the pilot pressure maintenance project is located within the Brushy Canyon interval;
- (c) within the Brushy Canyon interval, injection will occur into the "G-3" and "F" zones, located at depths of 6,752'-6,784' and 6,989'-7,020', respectively, in the State "2" Well No. 5; and
- (d) the Brushy Canyon "G-3" and "F" zones are laterally continuous throughout the proposed pilot project area.

(5) The State "2" Well No. 5 was drilled in September, 2002, and has yet to be completed. Applicant presented testimony to the effect that initial drill stem testing of this well shows severe depletion within the Brushy Canyon "F" zone.

(6) The applicant proposes to initially utilize one injection well and four producing wells within the pilot project area. The four producing wells are identified as the Pogo Producing Company:

State "2" Well No. 1	API No. 30-015-26894	330' FSL & 330' FEL (Unit P)
State "2" Well No. 2	API No. 30-015-28416	660' FSL & 2310' FEL (Unit O)
State "2" Well No. 3	API No. 30-015-26877	2310' FSL & 330' FEL (Unit I)
State "2" Well No. 4	API No. 30-015-28456	1780' FSL & 2310' FEL (Unit J)

(7) The current average production from the State "2" Wells No. 1, 2, 3 and 4 is approximately 15 barrels of oil and 30 MCF of gas per day.

(8) Project costs are estimated to be approximately \$200,000.

(9) The implementation of a pressure maintenance project within the pilot project area should result in the recovery of an additional 95 MBO from the Brushy Canyon member of the Delaware formation that would otherwise not be recovered, thereby preventing waste.

(10) The proposed pilot pressure maintenance project should be approved.

(11) As per an agreement with Pogo and Yates Petroleum Corporation, an offset operator, the maximum rate of injection into the State "2" Well No. 5 should be limited to no more than 1200 barrels of water per day.

(12) The project oil allowable should be established at 568 barrels of oil per day. The project allowable may be produced by any producing well in the project area in any proportion.

(13) The applicant seeks to qualify the proposed pilot pressure maintenance project as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (NMSA 1978 Sections 7-29A-1 through 7-29A-5).

(14) The proposed project area has been so far depleted that it is prudent to apply the proposed enhanced recovery techniques at this time to maximize ultimate recovery of crude oil from the project area.

(15) The proposed pilot pressure maintenance project is economically and technically reasonable, and application therefore has not been prematurely filed.

(16) The evidence presented demonstrates that the proposed pilot pressure maintenance project meets all the criteria for approval.

(17) The approved project area should initially comprise the SE/4 of Section 2; provided, however, the "project area" and/or the producing wells eligible for the enhanced oil recovery (EOR) tax rate may be contracted and reduced based upon the evidence presented by the applicant in its demonstration of a positive production response.

**IT IS THEREFORE ORDERED THAT:**

(1) Pogo Producing Company is hereby authorized to institute a pilot pressure maintenance project within the Lost Tank-Delaware Pool on its State "2" Lease comprising the SE/4 of Section 2, Township 22 South, Range 31 East, NMPM, Eddy County, New Mexico, by the injection of water into the Brushy Canyon member of the Delaware formation in its State "2" Well No. 5 (API No. 30-015-32440) located 1300 feet from the South and East lines (Unit P) of Section 2, through the perforated interval from approximately 6,742 feet to 7,110 feet.

(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 at approximately 6,650 feet. 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 well 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 1348 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) Injection into the State "2" Well No. 5 shall not exceed a rate of 1,200 barrels of water per day.

(7) Prior to commencement of injection operations, the casing shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing.

(8) The operator shall give advance notice to the Supervisor of the Division's Artesia District Office of the date and time injection equipment will be installed and the mechanical integrity pressure test conducted on the State "2" Well No. 5 so these operations may be witnessed.

(9) The operator shall immediately notify the Supervisor of the Division's Artesia District Office of the failure of the tubing, casing or packer in the injection well 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.

(10) The project is hereby designated the State "2" Lost Tank-Delaware 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.

(11) The project oil allowable is hereby established at 568 barrels of oil per day. The project allowable may be produced by any producing well in the project area in any proportion.

(12) The State "2" Lost Tank-Delaware Pressure Maintenance Project is hereby certified as an "Enhanced Oil Recovery Project." The project area shall initially

comprise the SE/4 of Section 2; provided, however, the "project area" and/or the producing wells eligible for the enhanced oil recovery (EOR) tax rate may be contracted and reduced based upon the evidence presented by the applicant in its demonstration of a positive production response.

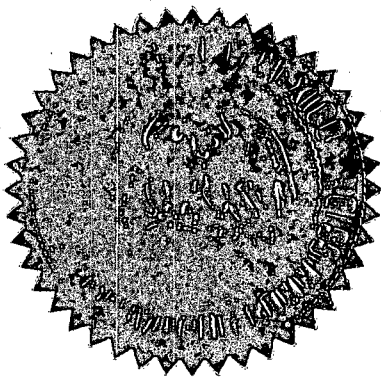
(13) To be eligible for the EOR tax rate, the operator shall advise the Division of the date and time water injection commences within the pressure maintenance project. At that time, the Division will certify the project to the New Mexico Taxation and Revenue Department.

(14) At such time as a positive production response occurs, and within five years from the date the project was certified to the New Mexico Taxation and Revenue Department, the applicant must apply to the Division for certification of a positive production response. This application shall identify the area benefiting from enhanced oil recovery operations and the specific wells eligible for the EOR tax rate. The Division may review the application administratively or set it for hearing. Based upon the evidence presented, the Division will certify to the New Mexico Taxation and Revenue Department those wells that are eligible for the EOR tax rate.

(15) The injection authority granted herein for the State "2" Well No. 5 shall terminate one year after the date of this order if the operator has not commenced injection operations into the well; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

(16) 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.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

*Lori Wrotenbery*  
LORI WROTENBERY  
Director