

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. 10891
ORDER NO. R-10054*

**APPLICATION OF SOUTHLAND ROYALTY COMPANY FOR A WATERFLOOD
PROJECT AND QUALIFICATION FOR THE RECOVERED OIL TAX CREDIT
PURSUANT TO THE NEW MEXICO OIL RECOVERY ACT, LEA COUNTY, NEW
MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 6, 1994, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 26th day of January, 1994 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) The applicant, Southland Royalty Company ("Southland"), seeks authority to institute a pilot waterflood project on its State "DS" leasehold comprising the SW/4, W/2 SE/4 and SE/4 SE/4 of Section 24, Township 17 South, Range 36 East, NMPM, Lea County, New Mexico, by the re-injection of produced water into the Spencer-San Andres Pool through the perforated interval from approximately 4694 feet to 4994 feet in its existing State "DS" Well No. 4 located 1980 feet from the South line and 660 feet from the West line (Unit L) of said Section 24.

(3) The evidence presented indicates that only one well, the State "DS" Well No. 2 located in Unit "K", is presently producing from the Spencer-San Andres Pool within the State "DS" Lease. Monthly production from this well currently averages between 20 to 25 barrels of oil per day. Under the definition in Division General Rule 701.G(1) for a waterflood project, producing wells in the surrounding area shall have

reached an advanced state of depletion and are considered to be classified as "stripper wells" or wells with an average rate of production of 10 barrels of oil per day or less. While this one well is not considered to be a "stripper well" it can be considered a well that has reached an advanced state of depletion. Division records and data submitted by Southland subsequent to the hearing show only five other wells to have produced from the Spencer-San Andres Pool within Southland's State "DS" Lease. Said records on these five wells demonstrates that prior to abandonment production declined on each well to the point to be considered a "stripper well".

(4) The applicant testified that cumulative primary oil recovery from the six State "DS" Lease wells has been 778,718 barrels and that under the present mode of operations only 36,000 barrels remain as primary recoverable reserves.

(5) Southland is proposing to initiate a peripheral injection pattern utilizing this one injection well and four producing wells, with the projected total cost for the project expected to be approximately \$510,000.00.

(6) At the hearing, the applicant demonstrated that an estimated 500,000 barrels of oil from the Spencer-San Andres Pool could be obtained by institution of the proposed pilot waterflood project, resulting in the recovery of additional oil which would not otherwise be recovered.

(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 into other formations or onto the surface from injection, production or plugged and abandoned wells.

(8) Injection should be accomplished through 2 3/8-inch internally plastic-coated tubing installed in a packer set approximately 100 feet above the uppermost perforated interval; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.

(9) Prior to commencing injection operations, the casing of the subject well should be pressure-tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.

(10) The injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 990 psi.

(11) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the San Andres formation.

(12) 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-test in order that the same may be witnessed.

(13) No offset operator or interested party appeared at the hearing in opposition to this application.

(14) The proposed waterflood project is in the best interest of conservation and will serve to prevent waste and protect correlative rights, therefore this application should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(15) The applicant further requests that the subject waterflood project be approved by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(16) The evidence presented indicates that the subject waterflood project meets all the criteria for approval.

(17) The approved "project area", to be designated the State "DS" Lease Waterflood Project, should initially comprise that area described in Finding Paragraph No. (2), above.

(18) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(19) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(20) The injection authority granted herein for the proposed injection well should terminate one year after the date of this order if the operator has not commenced injection operation into the subject well by that date, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Southland Royalty Company ("Southland"), is hereby authorized to institute a one well waterflood pilot project on its State "DS" leasehold, underlying the following described lands, by the re-injection of produced San Andres formation water into the Spencer-San Andres Pool through the perforated interval from approximately 4694 feet to 4994 feet in its existing State "DS" Well No. 4 located 1980 feet from the South line and 660 feet from the West line (Unit L) of said Section 24, Township 17 South, Range 36 East, NMPM, Lea County, New Mexico:

STATE "DS" LEASE WATERFLOOD PROJECT AREA

LEA COUNTY, NEW MEXICO

TOWNSHIP 17 SOUTH, RANGE 36 EAST, NMPM,
Section 24: SW/4, W/2 SE/4 and SE/4 SE/4

(2) Injection into said well shall be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set at approximately 100 feet above the uppermost perforated interval.

PROVIDED HOWEVER THAT, the casing-tubing annulus in said well shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing or packer.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject well shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Hobbs District Office.

(3) The injection well or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 990 psi.

(4) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the San Andres formation.

(5) The operator shall notify the supervisor of the Hobbs District Office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(6) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(7) The subject waterflood project is hereby designated the State "DS" Lease Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(8) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

FURTHERMORE:

(9) The subject waterflood project is hereby approved as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(10) The approved "project area" shall initially comprise that area described in Decretory Paragraph No. (1) above.

(11) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(12) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells

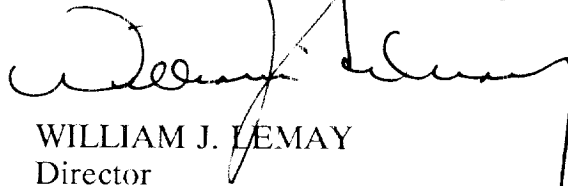
which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(13) The injection authority granted herein for the proposed injection well shall terminate one year after the date of this order if the operator has not commenced injection operation into the subject well by that date, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(14) 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



WILLIAM J. LEMAY
Director

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