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April 30, 2002

HAND-DELIVERED

Mr. Michael Stogner
New Mexico Oil Conservation Director
1220 South St. Francis
Santa Fe, New Mexico 87505

Re: NMOCD Case No. 12838; Application of Energen Resources Corporation for Pool Extension, Special Pool Rules and Amendment to the Depth Bracket Allowable for the Saunders-San Andres Pool, Lea County, New Mexico

Dear Mr. Stogner:

Enclosed in hard-copy and on a disk is a draft order for your review in connection with the above-referenced matter. Please feel free to edit as you deem appropriate.

On a related matter, since the time of the March 21st hearing, the Applicant drilled and placed on production the State "T" No. 3 well located in Unit P in Section 5 within the proposed pool expansion area. The T-3 is currently producing at rates in excess of 200 BOPD and under the current pool rules, will have to be shut-in within the next few days in order to avoid exceeding the current 80 BOPD allowable production limitation. I'm sorry I didn't get a draft order over to you before now, but in view of the situation, I'm sure Energen would appreciate any expedited consideration that might be given to its application.

Please let me know if there is anything more I can do to assist.

Very truly yours,

MILLER, STRATVERT & TORGERSON, P.A.

J. Scott Hall

J. Scott Hall

JSH/glb

Enclosures

cc: Mr. Barney Kahn

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**BEFORE THE
OIL CONSERVATION DIVISION**

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:**

**CASE NO. 12838
ORDER NO. R-_____**

**APPLICATION OF ENERGEN RESOURCES CORPORATION FOR POOL EXTENSION,
SPECIAL POOL RULES, AND AMENDMENT OF THE DEPTH-BRACKET ALLOWABLE
FOR THE SAUNDERS-SAN ANDRES POOL, LEA COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 21, 2002, at Santa Fe, New Mexico, before Examiner Michael Stogner.

NOW, on this ____ day of April, 2002, 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) By Order No. R-10091 dated March 28, 1994, the Division created the Saunders-San Andres pool with horizontal limits comprising the SW/4 of Section 4, Township 15 South, Range 33 East, NMPM, Lea County, New Mexico. According to Order No. R-10091, Division records, the discovery well for said pool was the Charles B. Gillespie, Jr. State Q Well No. 2 completed in the San Andres formation in 1994. The State Q Well No. 2 is located 1760' FSL (Unit K) of said Section 4. The top perforations in the well are located at 4,956 feet. The State Q Well No. 2 was preceded by the drilling of the State Q Well No. 1 completed in the San Andres formation on June 4, 1991 at a well location 1980' FSL and 660' FWL (Unit L) of said Section 4.

(3) The Applicant, Energen Resources Corporation, ("Energen"), acquired the State Q No. 1 and No. 2 wells on December 1, 2000. Energen assumed actual operations of the wells on March 1, 2001. Subsequently, on January 8, 2002, Energen drilled and completed the State S No.

1 Well located 1980' FSL and 660' FEL (Unit I) in Section 5, Township 15 South, Range 33 East, NMPM, Lea County, New Mexico. As of the date of the hearing, the State Q Well No. 1, the State Q Well No. 2 and the State S Well No. 1 were the only wells currently producing from the pool.

(4) The Saunders-San Andres Pool currently comprises the SW/4 of Section 4, Township 15 South, Range 33 East, NMPM in Lea County. The Saunders-San Andres Pool is currently governed by Division Rule 104.B which requires standard 40 acre spacing and proration units with wells to be located no closer than 330 feet to the outer boundary of the unit with each unit having a top unit depth-bracket allowable of 80 barrels of oil per day and limiting gas-oil ratio of 2000 cubic feet of gas per barrel of oil.

(5) The Applicant, Energen Resources Corporation, seeks the extension of the horizontal limits of the Saunders-San Andres Pool to include the S/2 NE/4 and the SE/4 of Section 5, Township 15 South, Range 33 East, NMPM, Lea County, New Mexico.

(6) The Applicant also seeks the establishment of special pool rules for the Saunders-San Andres Pool to increase the depth-bracket allowable for oil production to 160 barrels of oil per day with a limiting gas-oil ratio at the current level of 2000 cubic feet of gas per barrel of oil. The Applicant further requested that the Division establish these special pool rules for the Saunders-San Andres Pool effective retroactively to December 1, 2000 being the date it acquired the State Q No. 1 and No. 2 wells.

(7) The Applicant testified that at the time of the hearing two additional wells were being completed or would commence drilling in Section 5, Township 15 South, Range 33 East, NMPM, to test the Saunders-San Andres Pool: The Energen Resources Corporation State T No. 2 well located in Unit D; and the Energen Resources Corporation State T No. 3 well located in Unit P.

(8) The Applicant presented well log, stratigraphic cross section and geologic contour data, including well log data from the State S No. 1 well located in Unit I of Section 5 and the State T No. 1 well located in Unit H of said Section 5 supporting its contention that the common source of supply comprising the Saunders-San Andres Pool extends beyond the current horizontal boundaries of the Pool comprised of the SW/4 of Section 4 to include the S/2 NE/4 and the SE/4 of the adjacent Section 5 in said Township 15 South, Range 33 East.

(9) Further geologic evidence presented by the Applicant establishes that the wells currently drilling or scheduled to commence drilling in Section 5 are projected to be completed in the San Andres formation at approximately the same structural position within the Saunders-San Andres Pool as the Energen wells in the SW/4 of Section 4.

(10) The Applicant presented engineering evidence demonstrating that the State S No. 1 well was completed in January 2002 when bottom hole pressure testing recorded a pressure of 2340

psi at the perforations. Production also commenced in January 2002 and averaged 145 barrels of oil per day with a maximum rate for the month of 168 BOPD. In February, the well was produced for seventeen days and was shut-in for the remainder of the month. Production during February 2002 averaged 155 BOPD with a maximum rate of 173 BOPD. During the first half of March 2002 production averaged 162 BOPD with a maximum rate of 174 BOPD.

(11) Cumulative production and historic reservoir pressure data presented by the Applicant shows that the reservoir has experienced only a minimal pressure drop over time, indicating the presence of a water drive.

(12) The Applicant presented additional historic production data for the State Q No. 1 well and the State S No. 1 well establishing that those wells are capable of producing at rates in excess of the 160 BOPD limit. The Applicant's petroleum engineering witness further testified that producing the wells in the reservoir at the requested 160 BOPD rate is well below the maximum rate which the wells are capable of producing and is a reasonable producing rate for the reservoir.

(13) The Applicant presented further evidence that production at an increased 160 BOPD allowable will not result in the premature dissipation of reservoir energy.

(14) The Applicant's petroleum engineering witness testified that the reservoir can be more efficiently and economically produced at the 160 BOPD rate and, further, that the improved economics brought about by a higher producing rate will accelerate development of the reservoir, resulting in an increase in the ultimate recovery of reserves.

(15) The evidence indicates that the State Q No. 2 well may be capable of producing at the 160 BOPD rate and that the improved economics resulting from an allowable increase may justify further operations to rework the well.

(16) The historic production data for the wells and their current producing rates establish that the Saunders-San Andres reservoir is larger than the current 160 acres located in the SW/4 of Section 4.

(17) Engineering evidence established that at the present 80 BOPD allowable rate, the three existing wells in the reservoir would recover an estimated 556,000 barrels of oil, approximately 22 percent of the oil in place. However, if the wells are produced at the increased 160 BOPD rate, the economics will support the drilling of three additional wells, yielding an estimated recovery for six wells in the reservoir of approximately 1,027,000 barrels of oil, or 40 percent of the oil in place.

(18) Additional engineering testimony established that increasing the allowable producing rate to 160 BOPD would not result in any change to the current gas-oil ratio and, further, that the bubble point pressure of the reservoir is well below abandonment pressure.

(19) Evidence presented by the Applicant established that subsequent to March 1, 2001, when Energen became operator of the State Q No. 1 and State Q No. 2 wells, miscommunications between the pumper in the field and regulatory compliance personnel in Energen's Midland office resulted in the State Q No. 1 well becoming overproduced for a period. Further testimony established that the periods of overproduction did not result in any harm to the reservoir or to the impairment of correlative rights, as Energen operates the entire pool, including the proposed expansion area.

(20) Rule 502.C (1)(A) of the Division's rules provides an exception to the monthly allowable limits where overproduction results from "mistake or error". The miscommunication between Applicant's field and regulatory staff that resulted in the brief periods of overproduction constitutes mistake within the meaning of Rule 502.C (1)(A). Moreover, making the increased allowable for the pool retroactive to the date when Energen assumed actual operations of the wells in the pool on March 1, 2001 would resolve the overproduction issue and would avoid the otherwise unnecessary economic loss incurred from temporarily shutting-in the wells to make up the overproduction.

(21) The geologic and engineering evidence presented demonstrates that it is reasonable and appropriate to increase the depth-bracket allowable for the Saunders-San Andres Pool to 160 barrels of oil per day.

(22) The evidence presented demonstrates that increasing the allowable to 160 barrels of oil per day will enable the operators in the pool to efficiently produce the hydrocarbons within this reservoir. The Applicant's request to increase the oil allowable for the Saunders-San Andres Pool to 160 barrels of oil per day is reasonable and should be granted.

(23) The geologic and engineering evidence establishes that the Saunders-San Andres common source of supply is larger than the SE/4 of Section 4, Township 15 South, Range 33 East, and therefore, Applicant's request to extend the boundaries of the Saunders-San Andres Pool to include the S/2 NE/4 and the SE/4 of Section 5 in said Township should be approved.

(24) The Applicant provided notice in this case to all operators within the Saunders-San Andres Pool and to all operators of San Andres wells within one mile of the pool boundaries which have not been placed in another Division designated San Andres Pool.

(25) No offset operator or interest owner appeared at the hearing in opposition to the Application.

(26) Increasing the depth-bracket allowable for the Saunders-San Andres Pool will enable the operators in the pool to efficiently produce the hydrocarbons within this reservoir, will not result

in the excessive waste of reservoir energy, should not reduce the ultimate recovery of oil from this reservoir, and will not violate correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The Application of Energen Resources Corporation to increase the depth-bracket allowable for the Saunders-San Andres Pool as established by Order No. R-10091 to 160 barrels of oil per day is approved.

(2) The Application of Energen Resources Corporation to extend the horizontal limits of the Saunders-San Andres Pool to include the S/2 NE/4 and SE/4 of Section 5, Township 15 South, Range 33 East, NMPM in Lea County, New Mexico is approved.

(3) Pursuant to the Application of Energen Resources Corporation, special pool rules for the Saunders San-Andres Pool are hereby established as follows:

SPECIAL POOL RULES
FOR THE
SAUNDERS-SAN ANDRES POOL

RULE 1. The allowable for a standard 40 acre oil proration unit shall be based on a special dept bracket allowable of 160 barrels of oil per day. In the event there is more than one well on a 40 acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

RULE 2. The Saunders-San Andres Pool shall be produced at a limiting gas oil ratio of 2000 cubic feet of gas per barrel of oil.

(4) Jurisdiction is hereby retained for 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