

**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. 12649
ORDER NO. R-11610**

**APPLICATION OF EOG RESOURCES, INC. FOR POOL CREATION, SPECIAL
POOL RULES, AND A DISCOVERY ALLOWABLE, EDDY COUNTY, NEW
MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on May 3, 2001, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 3rd day of July, 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) EOG Resources, Inc. ("EOG"), seeks the creation of a new pool for Strawn production comprising the NW/4 of Section 25, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico.
- (3) EOG further seeks to establish special pool rules for the proposed Strawn Pool, including provisions for:
 - (a) 160-acre spacing and proration units and designated well location requirements such that wells shall be located no closer than 660 feet to the outer boundary of the spacing unit nor closer than 330 feet to any quarter-quarter section line or subdivision inner boundary;

- (b) a gas-oil ratio (“GOR”) limitation of 4,000 cubic feet of gas per barrel of oil; and
- (c) a special depth bracket allowable of 1,120 barrels of oil per day.

(4) EOG further seeks, pursuant to Division Rule No. 509, the assignment of a discovery allowable to its Oak Lake “25” Federal Well No. 1 (**API No. 30-015-31520**) located 850 feet from the North line and 750 feet from the West line (Unit D) of Section 25, Township 17 South, Range 30 East, NMPM, which was completed in the Strawn formation through the perforated interval from 10,240 feet to 10,467 feet.

(5) EOG further seeks to establish the special pool rules retroactively to March 11, 2001, this being the date of first Strawn production from its Oak Lake “25” Federal Well No. 1.

(6) Devon Energy Production Company, L.P. and Devon SFS Operating, Inc. appeared at the hearing through legal counsel.

(7) Division records demonstrate that the proposed Strawn pool is located 1.5 miles or less from: i) the Cedar Lake-Strawn Pool which comprises all of Section 2, Township 18 South, Range 30 East, NMPM; ii) the North Cedar Lake-Strawn Pool which comprises the S/2 of Section 25 and the E/2 of Section 26, Township 17 South, Range 30 East, NMPM; and iii) the Loco Hills-Strawn Pool which comprises the E/2 of Section 14, Township 17 South, Range 30 East, NMPM.

(8) The Cedar Lake-Strawn and North Cedar Lake-Strawn Pools are currently classified as oil pools. The Loco Hills-Strawn Pool is currently classified as a gas pool. The rules governing each of these pools are summarized as follows:

| <u>Pool</u> | <u>Spacing</u> | <u>Well Setback</u> | <u>GOR Limitation</u> |
|-------------------------|----------------|---|-----------------------|
| Cedar Lake-Strawn | 160 acres | 660’-Outer Boundary 330’-Interior Boundaries | 4,000:1 |
| North Cedar Lake-Strawn | 40 acres | 330’-Outer Boundary | 2,000:1 |
| Loco Hills-Strawn | 320 acres | 660’-Outer Boundary 10’-Interior Boundaries | N/A |

(9) The applicant presented geologic and engineering evidence that demonstrates:

- (a) the Oak Lake "25" Federal Well No. 1 is producing from a 250-foot thick carbonate section in the Lower-Strawn interval. This carbonate buildup appears to be limited to an area of approximately 110 acres, the majority of which is contained within the NW/4 of Section 25;
- (b) this carbonate section is not present in the Anadarko Petroleum Corporation Power Federal Com Well No. 2 (**API No. 30-015-27508**) located in Unit I of Section 26, nor in the Yates Petroleum Corporation Laguna Cedro "AOM" Federal Com Well No. 1 (**API No. 30-015-28171**) located in Unit O of Section 25, both of which produce from the North Cedar Lake-Strawn Pool;
- (c) this carbonate section is separate and distinct from the carbonate section present within the Loco Hills-Strawn Gas Pool located to the north in Section 14;
- (d) there is separation between EOG's Oak Lake "25" Federal Well No. 1 and the Power Federal Com Well No. 2 and Laguna Cedro "AOM" Federal Com Well No. 1 by virtue of an east-west trending fault that traverses Sections 25 and 26; and
- (e) bottomhole pressure data provides additional evidence to demonstrate separation between the Oak Lake "25" Federal Well No. 1 and the other Strawn producing wells located in Sections 14, 25 and 26.

(10) The geologic evidence presented by EOG demonstrates that the Oak Lake "25" Federal Well No. 1 has discovered a new common source of supply in the Strawn formation.

(11) A new pool for the production of oil from the Strawn formation should be created and designated the Cedar Lake Reef-Strawn Pool. This pool should be assigned Division Pool Code No. 97099.

(12) EOG presented engineering evidence that demonstrates:

- (a) volumetric calculations show original oil in place ("OOIP") within this Strawn structure to be approximately 1.2 million barrels of oil. Utilizing a recovery factor of 29.7% (based upon similar Strawn oil pools in this area), the estimated ultimate recovery ("EUR") from the Oak Lake "25" Federal Well No. 1 will be approximately 350,000 barrels of oil;
- (b) the Oak Lake "25" Federal Well No. 1 should be capable of draining the entire Strawn structure, or approximately 110 acres;
- (c) during the period from March 28-April 30, 2001, EOG conducted an MER test on the Oak Lake "25" Federal Well No. 1. The results of this test demonstrate that:
 - i) the well initially produced at a GOR of approximately 3,250:1. During the test period, the well was produced at oil rates ranging from 430-1,052 BOPD. The GOR during the test period remained stable at approximately 3,250:1;
 - ii) the Strawn reservoir exhibited only a slight reduction in flowing bottomhole pressure when the oil rate was increased from 500-1000 BOPD; and
 - iii) the Oak Lake "25" Federal Well No. 1 is capable of producing at a rate

considerably higher than the 1,120
BOPD rate requested by EOG.

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

(14) The engineering evidence currently available demonstrates that approval of EOG's request for 160-acre spacing, a limiting GOR of 4000:1, and a special depth bracket allowable of 1,120 barrels of oil per day for the Cedar Lake Reef-Strawn Pool will not result in the excessive waste of reservoir energy, will not reduce the ultimate recovery of oil from this Strawn reservoir, and will not violate correlative rights.

(15) EOG requested that the special pool rules established by this order for the Cedar Lake Reef-Strawn Pool be made retroactive to March 11, 2001, being the date of first production from the Oak Lake "25" Federal Well No. 1. EOG testified that the reason for this request is that the subject well has produced, for testing purposes, at a rate that exceeds the standard 40-acre depth bracket allowable, and as a result, the Oak Lake "25" Federal Well No. 1 is currently overproduced.

(16) The evidence presented in this case demonstrates that approval of EOG's request to establish the special pool rules for the Cedar Lake Reef-Strawn Pool effective March 11, 2001 will not cause waste, nor violate correlative rights and should therefore be approved.

(17) Pursuant to Division Rule No. 509.A., the Oak Lake "25" Federal Well No. 1 should be assigned a discovery allowable of 51,115 barrels of oil. Pursuant to Division Rules No. 509.E. and 509.F, this discovery allowable should be assigned at 7:00 a.m. on August 1, 2001 and shall be produced over a two-year period at a rate not to exceed 70.02 barrels of oil per day.

(18) The special pool rules for the Cedar Lake Reef-Strawn Pool established by this order should remain in effect for a temporary period of eighteen months in order to allow the operators in the pool the opportunity to obtain additional engineering data to support the permanent adoption of these rules.

(19) This case should be reopened at an examiner hearing in January, 2003, at which time the operators in the Cedar Lake Reef-Strawn Pool should appear to show cause why the temporary special pool rules established by this order should not be rescinded.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the application of EOG Resources, Inc., a new pool for the production of oil from the Strawn formation is hereby created and designated the Cedar Lake Reef-Strawn Pool, with vertical limits comprising the Strawn formation and horizontal limits comprising the NW/4 of Section 25, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico.

(2) Effective March 11, 2001, "*Temporary Special Pool Rules for the Cedar Lake Reef-Strawn Pool*" are hereby established as follows:

TEMPORARY SPECIAL POOL RULES
FOR THE
CEDAR LAKE REEF-STRAWN POOL

RULE 1. Each well completed in or recompleted in the Cedar Lake Reef-Strawn Pool, or in the Strawn formation within one mile thereof and not nearer to or within the limits of another designated Strawn pool, shall be spaced, drilled, operated, and produced in accordance with the special rules hereinafter set forth.

RULE 2. Each well completed or recompleted in the Cedar Lake Reef-Strawn Pool shall be located on a unit containing 160 acres, more or less, which consists of a single governmental quarter section.

RULE 3. The Director may grant an exception to the requirements of Rule 2 in accordance with the procedure set forth by Division Rule No. 104.D.(2).

RULE 4. Each well shall be located no closer than 660 feet to the outer boundary of the spacing unit, nor closer than 330 feet to any quarter-quarter section line or subdivision inner boundary.

RULE 5. The Director may grant an exception to the requirements of Rule 4 in accordance with the procedure set forth by Division Rule No. 104.F.

RULE 6. The allowable for a standard 160-acre proration unit shall be 1,120 barrels of oil per day. In the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

RULE 7. The limiting gas-oil ratio shall be 4,000 cubic feet of gas per barrel of oil.

IT IS FURTHER ORDERED THAT:

(3) The location of all wells presently drilling to, or completed in, the Cedar Lake Reef-Strawn Pool, or in the Strawn formation within one mile thereof, are hereby approved. The operator of any well having an unorthodox location shall notify the Division's Artesia District Office, in writing, of the name and location of the well within 30 days from the date of this order.

(4) Existing wells in the Cedar Lake Reef-Strawn Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, existing wells may have non-standard spacing and proration units established by the Division and dedicated thereto.

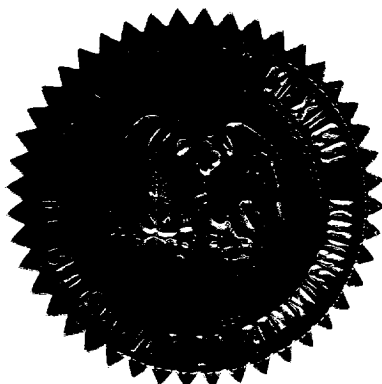
Failure to file new Form C-102 with the Division dedicating 160 acres to a well, or to obtain a non-standard unit approved by the Division within 60 days from the date of this order, shall subject the well to cancellation of allowable until a non-standard unit has been approved.

(5) The EOG Resources Inc. Oak Lake "25" Federal Well No. 1 is hereby assigned a discovery allowable of 51,115 barrels of oil. Pursuant to Division Rules No. 509.E. and 509.F, this discovery allowable shall be assigned at 7:00 a.m. on August 1, 2001 and shall be produced over a two-year period at a rate not to exceed 70.02 barrels of oil per day.

(6) This case shall be reopened at an examiner hearing in January, 2003, at which time the operators in the Cedar Lake Reef-Strawn Pool shall appear and present evidence to show cause why the temporary special pool rules established by this order should not be rescinded.

(7) 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