

**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. 12940
ORDER NO. R-11856**

**APPLICATION OF MEWBOURNE OIL COMPANY FOR POOL CREATION
AND SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on October 10, 2002, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 28th day of October, 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) The applicant, Mewbourne Oil Company ("Mewbourne"), seeks the creation of a new pool for production of oil from the Strawn formation comprising the NE/4 of Section 8, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) Mewbourne 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) Gruy Petroleum Management Company, Harvey E. Yates Company, Oxy USA WTP L.P., and Oxy USA, Inc. appeared at the hearing through legal counsel.

(5) Division records show that the proposed Strawn pool is located approximately 2.5 miles east-southeast of the Cedar Lake-Strawn Pool, which comprises all of Section 2, Township 18 South, Range 30 East, NMPM; approximately 2.5 miles southeast of 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 approximately 3 miles southeast of the Cedar Lake Reef-Strawn Pool, which comprise the NW/4 of Section 25, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico.

(6) The Cedar Lake-Strawn, North Cedar Lake-Strawn and Cedar Lake Reef-Strawn Pools are currently classified as oil pools. 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
Cedar Lake Reef-Strawn	160 acres	660'-Outer Boundary 330'-Interior Boundaries	4,000:1

(7) In June/July, 2001, Mewbourne drilled its Fren "8" Federal Com Well No. 2 (API No. 30-015-31794) at a standard gas well location 1170 feet from the North line and 750 feet from the East line (Unit A) of Section 8, Township 18 South, Range 31 East, NMPM, to test the North Shugart-Morrow Gas Pool. The well was drilled to a total depth of 11,935 feet and was completed in the Morrow formation through perforations from 11,686 feet to 11,846 feet. In September, 2002 the Morrow interval was abandoned and the well was plugged back and completed in the Strawn formation through the perforated interval from 10,692 feet to 10,884 feet.

(8) In June/July, 2002, Mewbourne drilled its Fren "8" Federal Com Well No. 3 (API No. 30-015-32313) at an unorthodox gas well location 2276 feet from the North line and 1471 feet from the East line (Unit G) of Section 8, to test the Atoka formation. The well was drilled to a total depth of approximately 11,342 feet. In August, 2002 the well was completed in the Strawn formation through the perforated interval from 10,462 feet to 10,942 feet.

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

- (a) the Fren "8" Federal Com Wells No. 2 and 3 are producing from a thick carbonate buildup in the Strawn interval that averages approximately 505 feet thick. This carbonate buildup appears to be limited to a small area that is contained within Section 8 and a portion of Section 5;
- (b) this carbonate section is separate and distinct from the carbonate sections present within the Cedar Lake-Strawn, North Cedar Lake-Strawn, and Cedar Lake Reef-Strawn Pools;
- (c) the porosity within the Fren "8" Federal Com Well No. 2 appears to be better than the porosity found within the EOG Resources, Inc. Oak Lake "25" Federal Well No. 1, located in Unit D of Section 25, Township 17 South, Range 30 East, NMPM, being the discovery well for the Cedar Lake Reef-Strawn Pool; and
- (d) bottomhole pressure data provides additional evidence to demonstrate separation between Mewbourne's wells in Section 8 and the other Strawn producing wells located in the Cedar Lake-Strawn, North Cedar Lake-Strawn and Cedar Lake Reef-Strawn Pools.

(10) The geologic evidence presented by Mewbourne demonstrates that the Fren "8" Federal Com Wells No. 2 and 3 have 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 Shugart-Strawn Pool.

(12) The Shugart-Strawn Pool should initially comprise the NE/4 of Section 8, Township 18 South, Range 31 East, NMPM.

(13) Preliminary engineering data demonstrate that the Shugart-Strawn Pool exhibits similar reservoir characteristics to those found within the Cedar Lake-Strawn and Cedar Lake Reef-Strawn Pools.

(14) The preliminary engineering data further demonstrate that:

- (a) the Shugart-Strawn Pool appears to be a volatile oil reservoir;
- (b) the estimated ultimate oil recovery from the Shugart-Strawn Pool, based upon a recovery factor of 30%, will be approximately 739,000 barrels of oil;
- (c) the Fren "8" Federal Com Well No. 2 is currently capable of producing at a rate greater than 1,350 barrels of oil per day. The Fren "8" Federal Com Well No. 3 is currently capable of producing at a rate of approximately 200-300 barrels of oil per day;
- (d) wells in the Shugart-Strawn Pool should be capable of draining an area in excess of 40-acres; and
- (e) during the period from September 12-October 7, 2002, Mewbourne conducted a production test on the Fren "8" Federal Com Well No. 2. The results of the test demonstrate that the well initially produced at a GOR of approximately 2,250:1. During the test period, the well was produced at oil rates ranging from approximately 300-1,350 BOPD. The GOR during the test period remained relatively stable at approximately 3,000:1

(15) Gruy Petroleum Management Company and Harvey E. Yates Company both voiced concern at the hearing over the proposed 4000:1 gas-oil ratio limitation; however, neither party presented any geologic or engineering evidence.

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

(17) The engineering evidence currently available demonstrates that approval of Mewbourne'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 Shugart-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.

(18) The special pool rules for the Shugart-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 March, 2004, at which time the operators in the Shugart-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 Mewbourne Oil Company, a new pool for the production of oil from the Strawn formation is hereby created and designated the Shugart-Strawn Pool, with vertical limits comprising the Strawn formation and horizontal limits comprising the NE/4 of Section 8, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(2) "*Temporary Special Pool Rules for the Shugart-Strawn Pool*" are hereby established as follows:

TEMPORARY SPECIAL POOL RULES
FOR THE
SHUGART-STRAWN POOL

RULE 1. Each well completed in or recompleted in the Shugart-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 Shugart-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 Shugart-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 Shugart-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) This case shall be reopened at an examiner hearing in March, 2004, at which time the operators in the Shugart-Strawn Pool shall appear and present evidence to show cause why the temporary special pool rules established by this order should not be rescinded.

(6) 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
LORI WROTENBERY
Director