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W. THOMAS KELLAHIN*

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RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

November 20, 2000

HAND DELIVERED

Mr. Michael E. Stogner, Hearing Examiner
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

NOV 20 2000

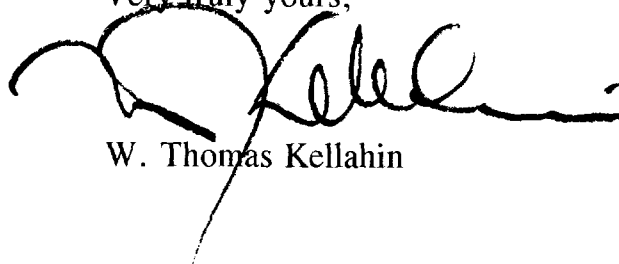
Re: *NMOCD Case No. 12182 and 12532*
Application of Conoco Inc.
North Hardy Strawn Pool

Dear Mr. Stogner:

On behalf of Conoco Inc., please find enclosed a proposed order for your consideration in the referenced case heard on November 16

I have also enclosed a wordperfect 5.1 diskette which contains a copy of the draft order.

Very truly yours,



W. Thomas Kellahin

cc: *Conoco Inc.*
Attn: Kay Maddox

**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:**

Nomenclature
**CASE NO. 12182 (Reopened
Order No. R-11221**

**IN THE MATTER OF CASE 12182 BEING
REOPENED TO CONSIDER THE SPECIAL
RULES AND REGULATIONS FOR THE NORTH
HARDY-STRAWN POOL,
LEA COUNTY, NEW MEXICO**

**CASE NO. 12532
Order No. R-_____**

**APPLICATION OF CONOCO INC. TO
INCREASE THE DEPTH BRACKET OIL
ALLOWABLE FOR THE NORTH
HARDY-STRAWN POOL,
LEA COUNTY, NEW MEXICO.**

**CONOCO INC.'S PROPOSED
ORDER OF THE DIVISION**

BY THE DIVISION:

These cases came on for hearing at 8:15 a.m. on November 16, 2000, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of December, 2000, 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) On May 19, 1999, the Division entered Order R-11183 in Case 12184 and created the South Hardy-Strawn Pool, later redesignated as the North Hardy-Strawn Pool ("the Pool") by Order R-11204.

(3) On July 12, 1999, the Division entered Order R-11221 and granted Conoco Inc.'s application in Case 12182 for temporary special rules for the North Hardy-Strawn Oil Pool including 160-acre oil spacing and proration units and a depth bracket oil allowable of 600 barrels of oil per day.

(4) In addition, upon application by Conoco Inc., the Division has previously issued the following administrative orders granting exceptions to the well locations requirements of the Special Rules and Regulations of the North Hardy-Strawn Pool ("the Pool Rules"):

(a) Administrative Order NSL-4332, dated July 21, 1999, for the SEMU Well No. 134 (API No. 30-025-34382) located 450 feet from the West line and 1650 feet from the South line (Lot 3/Unit L) of Section 30, Township 20 South, Range 38 East, and dedicated to the SW/4 of this section;

(b) Administrative Order NSL-4433, dated July 21, 1999, for the SEMU Well No. 135 (API No. 30-025-34666) located 1330 feet from the South line and 1980 feet from the East line (Unit J) of Section 25, Township 20 South, Range 37 East, and dedicated to the SW/4 of this section;

(c) Administrative Order NSL-4332-A (SD), dated February 18, 2000, for the D. M. Warren Well No. 137 (API No. 30-025-34963) located 400 feet from the South line and 990 feet from the West line (Lot 4/Unit M) of Section 30, Township 20 South, Range 38 East, and dedicated to the SW/4 of this section;

(d) Administrative Order NSL-4412, dated February 18, 2000, for the State 25A Well No. 3 (API No. 30-025-34953) located 1980 feet from the West line and 510 feet from the South line (Unit N) of Section 25, Township 20 South, Range 37 East, and dedicated to the SW/4 of this section and subsequently amended by AMENDED Administrative Order NSL-4412 dated May 23, 2000 to move the location to 330 feet from the South line and 2310 feet from the West line (Unit N) of this section;

(e) Administrative Order NSL-4413, dated February 18, 2000, for the SEMU Well No. 139 (API No. 30-025-35043) located 990 feet from the North line and 330 feet from the East line (Unit A) of Section 25,

Township 20 South, Range 37 East, and dedicated to the NE/4 of this section;

(f) Administrative Order NSL-4429, dated April 5, 2000 for the Meyer B "31" Well No. 5 (API No. 30-025-34960) located 1850 feet from the West line and 2310 feet from the South line (Unit K) of Section 31, Township 20 South, Range 38 East, and dedicated to the SW/4 of this section;

(g) Administrative Order NSL-4430, dated April 5, 2000 for the Hardy "36" State Well No. 27 (API No. 30-025-34794) located 2200 feet from the South line and 1650 feet from the East line (Unit J) of Section 36, Township 20 South, Range 37 East, and dedicated to the SE/4 of this section;

(h) Administrative Order NSL-4450, dated May 23, 2000, for the State "KL" 36 Well No. 29 (API No. 30-025-34999) located 330 feet from the North line and 2310 feet from the West line (Unit C) of Section 36, Township 20 South, Range 37 East, and dedicated to the NW/4 of this section;

(5) In addition, the Division has pending the following administrative applications filed by Conoco Inc. for approval unorthodox locations for wells subject to the Pool Rules:

(a) application filed October 3, 2000, for the Hardy "36" State Well No. 27 (API No. 30-025-34794) to amend Administrative Order NSL-4430 so that Conoco can re-enter this wellbore at the previously approved unorthodox surface location 1650 feet from the East line and 2200 feet from the South line (Unit J) of Section 36, Township 20 South Range 37 East (Administrative Order NSL-4430 dated April 5, 2000) and drill a 1000 foot horizontal sidetrack in the Strawn formation to an unorthodox subsurface location 1900 feet from the South line and 700 feet from the East line of this section to be dedicated to a standard 160-acre spacing unit consisting of the SE/4 of this section;

(b) application filed November 18, 2000, for the SEMU Well No. 154 to be drilled 1760 feet from the South line and 2310 feet from the East line (Unit J) of Section 30, Township 20 South Range 38 East and to be dedicated to a standard 160-acre spacing unit consisting of the SE/4 of this section;

(6) This Pool is located within portions of Sections 25 and 36, T20S, R37E, and Sections 30 and 31, T20S, R38E, NMPM and is approximately 12 miles south southwest from Hobbs, New Mexico.

(7) Conoco presented oil & gas ownership and other evidence which demonstrates that:

(a) Conoco is the only operator of wells in the Pool and the only other working interest owners are Atlantic Richfield Company (ARCO") and Chevron USA Production Company ("Chevron") who have interests in some of the wells.

(b) both ARCO and Chevron support granting Conoco's application and making the Pool Rules permanent;

(c) Conoco is the operator or lessee of existing or prospective spacing units towards which unorthodox well locations encroach; and

(d) Conoco has complied with the notification requirements of Division Rule 1207(4)(b)(ii)

(8) Conoco presented geologic and geophysical evidence which demonstrates that:

(a) this is a complex Strawn reservoir where the location of high capacity producing wells is highly dependent upon lithology and influenced by structural position; (See Exhibits 4-7)

(b) even with the use of 3-D seismic data, it is difficult to locate wells where the lithology is favorable and consists of thick portions of net Dolomite with good permeability; (See Exhibits 6 and 7).

(c) the current well location requirements for the Pool restrict standard well locations to four (4) 2.5 acre drill blocks within a 160-acre spacing unit; (See Exhibit 28)

(d) it has been necessary and will continue to be necessary to consider unorthodox well location exceptions from the Pool Rules which is best accomplished on a well by well basis; (See Exhibit 6)

(e) 160-acre spacing units expedited the orderly development of the pool by the drilling of the fewest necessary wells to define the probable limits of the Pool; (See Exhibit 6)

(f) 160-acre spacing units continue to be the most appropriate sized spacing unit for the Pool;

(9) Evidence submitted administratively and in conjunction with the evidence presented at hearing demonstrates that:

(a) approval of an unorthodox well location for the SEMU 154 well is appropriate in order to locate that well at the point of greatest potential thickness of clean dolomite at the best structural position within its spacing unit;

(b) approval of an unorthodox subsurface location for the Hardy "36" State Well No 27 to be re-entered and drilled horizontally will provide an opportunity to test the feasibility of linking the various clean dolomite portions of the reservoir within its spacing unit in a single wellbore which could substantially increase ultimate recovery from the Pool.

(10) Based upon data from all ten (10) wells in the Pool, Conoco presented petroleum engineering evidence which demonstrated that:

(a) the pool is a solution gas drive reservoir with no water drive, and no primary or secondary gas cap; (See Exhibits 14, 15)

(b) reservoir waste will not occur by increasing the depth bracket oil allowable because ultimate oil recovery will not be affected by the rates at which wells are produced; (See Exhibits 8-15)

(c) there has been no pressure depletion between wells and thus even with the various unorthodox well locations, wells in the Pool have not been drilled on too dense a pattern; (See Exhibit 9)

(d) drainage areas range from 80 acres to 190 acres and therefore 160-acre spacing units are appropriate for this pool; (See Exhibit 10)

(e) production step rate tests on the Meyer B-31 Well No. 5, the D. M. Warren Well No. 137 and the SEMU No. 139, conducted with the approval of the Hobbs Supervisor of the Division, demonstrate that wells can be produced at rates up to 900 barrels of oil per day with little affect on the producing GOR which is consistently at or below 2,000 cubic feet of gas per barrels of oil; (See Exhibits 16-27)

(f) four of the seven wells in the pool are capable of effectively and efficiently producing Strawn formation oil at rates of up to 900 barrels of oil per day which is in excess of this pool's current maximum oil allowable of 600 barrels of day; (See Exhibit 10)

(g) once liquid load up occurs, wells have the capacity to produce on artificial lift at optimum economic rates up to 900 BOPD. (See Exhibits 18, 22, 26)

(11) The Division finds that:

(a) Conoco Inc is the only operator in the Pool or of Strawn oil wells within one mile of the pool and in accordance with Division notice rules, Rule 1207.A(4)(b), notification of this application is not required to any other operator.

(b) approval of this application and making the Special Rules for the North Hardy-Strawn Pool permanent will not cause the waste of reservoir energy, reduce ultimate recovery or impair correlative rights.

(c) increasing the depth bracket oil allowable from 600 BOPD to 900 BOPD provides the necessary incentive to most economically produce the wells in this pool and can be accomplished without waste or violation of correlative rights;

(d) there are reserves underlying the spacing units which might not otherwise be recovered unless greater flexibility is provided for non-standard well locations which is best accomplished on a case by case basis rather than by relaxing the current well locations requirements for the Pool.

IT IS THEREFORE ORDERED THAT:

(1) Effective July 1, 2000, the application of Conoco Inc. seeking an order increasing the depth bracket oil allowable per standard 160-acre spacing unit **is hereby granted.**

(2) Effective July 1, 2000, all allowables established for the Pool, including any accumulated under or over production shall be adjusted based upon the increase in oil allowable.

(3) The Special Rules and Regulations for the North Hardy-Strawn Pool, including the increase in depth bracket oil allowable to 900 BOPD, are hereby made permanent

(4) Conoco's administrative application for the Hardy "36" State Well No. 27 (API No. 30-025-34794) to amend Administrative Order NSL-4430 so that Conoco can re-enter this wellbore at the previously approved unorthodox surface location 1650 feet from the East line and 2200 feet from the South line (Unit J) of Section 36, Township 20 South Range 37 East (Administrative Order NSL-4430 dated April 5, 2000) and to drill a 1000 foot horizontal sidetrack in the Strawn formation to an unorthodox subsurface location 1900 feet from the South line and 700 feet from the East line of this section to be dedicated to a standard 160-acre spacing unit consisting of the SE/4 of this section **is hereby approved;**

(5) Conoco's administrative application filed November 18, 2000, for the SEMU Well No. 154 to be drilled 1760 feet from the South line and 2310 feet from the East line (Unit J) of Section 30, Township 20 South Range 38 East and to be dedicated to a standard 160-acre spacing unit consisting of the SE/4 of this section **is hereby approved;**

(6) 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

LORI WROTENBERY
Director

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