

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. 11459  
ORDER NO. R-10581

APPLICATION OF CONOCO, INC. TO AMEND DIVISION ADMINISTRATIVE  
ORDER DHC-1170, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 8 and March 7, 1996, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 22nd day of April, 1996 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) Conoco, Inc. ("Conoco") is the owner and operator of the Warren Unit Well No. 95 (API No. 30-025-30659), located 660 feet from the South and East lines (Unit P) of Section 28, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico, which was drilled in 1989 to a total depth ("TD") of 7,448 feet and dually completed with two strings of tubing as an oil well in the Blinebry Oil and Gas Pool and the Warren-Drinkard Pool.

(3) The Warren-Drinkard Pool is subject to an oil depth bracket allowable of 142 barrels of oil per day and a special gas-oil ratio limit of 8,000 cubic feet of gas per barrel of oil or 1,136 MCF of gas per day (as provided for by Division Order No. R-8909, dated April 11, 1989).

(4) By Division Order No. R-10068, issued in Case 10897 and dated March 8, 1994, as amended by Division Order No. R-10068-A, the SE/4 of said Section 20 containing the Warren Unit Well No. 65 was:

- (a) deleted from the Blinebry Oil and Gas Pool;
- (b) placed in the Warren-Blinebry Tubb Oil and Gas Pool;
- (c) incorporated into the Conoco Warren Blinebry-Tubb Waterflood Project, which was effectively created by Division Order No. R-6906-B, dated March 15, 1991; and,
- (d) subject thereafter to the "*Special Rules and Regulations for the Warren-Blinebry Tubb Oil and Gas Pool*", as promulgated by Division Order No. R-9467, as amended, which provides for a capacity oil allowable and exempts oil wells from a casinghead gas allowable.

(5) In June 1995, Conoco discovered that the packer separating both the Warren-Drinkard and Warren Blinebry-Tubb Oil and Gas Pools in the dually completed wellbore was leaking and communication between both zones was occurring. Attempts to repair the problem were unsuccessful. As a solution Conoco requested in September 1995 that both zones be commingled.

(6) By Division Administrative Order DHC-1170, dated November 30, 1995, as corrected on December 21, 1995, the commingling of production from both pools within the wellbore of said Warren Unit Well No. 95 was granted, provided however that:

- (a) the total commingled oil production from the subject well not exceed 40 barrels per day;
- (b) total water production from the well not exceed 80 barrels per day;
- (c) total casinghead gas production not exceed 1,136 MCF per day;
- (d) 98% of the commingled oil and 27% of the commingled casinghead gas production be allocated to the Warren-Blinebry Tubb Oil and Gas Pool; and,

- (e) 2% of the commingled oil and 73% of the commingled casinghead gas production be allocated to the Warren-Drinkard Pool.

(7) At this time Conoco, Inc. seeks to amend the provisions of said Administrative Order DHC-1170 by terminating the current limitations on casinghead gas and oil production and allow said well to continue producing at unrestricted rates and to adopt a new method for allocating production from both intervals.

(8) The subject well is within an area comprising 14 wells all operated by Conoco, Inc. which were the subject of Division Order No. R-10335, issued in Case 11212 and dated March 31, 1995, which order authorized the downhole commingling of Warren-Drinkard Pool and Warren-Blinebry Tubb Oil and Gas Pool production within the 14 wellbores and limited total casinghead gas production to 1,136 MCF per day, and adopted an allocation factor that changes on an annual basis for each well based on decline curve analysis conducted on both pools in 10 of the 14 wells.

(9) Evidence indicates that the commingled production from the Warren Unit Well No. 95 is capable of casinghead gas production in excess of 1,136 MCF per day and that its concurrent oil production is capable of exceeding the allowed 40 barrels of oil per day limit. However, the individual production rates from either zone are not capable of exceeding the set limits imposed on said well by Division Administrative Order DHC-1170.

(10) During a recent test authorized by the Supervisor of the Hobbs District Office of the Division the well produced at an absolute open flow rate of approximately 2,100 MCF per day while oil production was in excess of 40 barrels per day. When the well was choked back to the set 1,136 MCF of gas per day limit, oil flow declined to 8 barrels per day.

(11) The evidence further indicates that this well can efficiently and effectively produce at the requested unrestricted rate without causing reservoir damage or creating waste.

(12) The allocation of such unrestricted production is to be based on a 4% decline curve for gas and a 25% decline curve for oil established on this well's Warren-Drinkard Pool production history and that any production in excess of this established curve is to be attributed to the Warren-Blinebry Tubb Oil and Gas Pool. The following table is Conoco's proposed allocation which changes annually to conform to the history

curve:

**WARREN-DRINKARD POOL PRODUCTION ALLOCATION RATES**

Date	Oil @ 25% Decline BOPD	Gas @ 4% Decline MCFPD
1996	1.1	780
1997	0.8	747
1998	0.6	713
1999	0.4	681
2000	0.3	653
2001	0.3	622
2002	0.2	594
2003	0.1	568
2004	0.1	542
2005	0.1	518
2006	0.1	495
2007	0	483
2008	Conversion to Blinbry/Tubb Waterflood	

(13) Applicant does not expect to initiate secondary recovery operations (active water injection) within Section 28 until the year 2007. Applicant's plan of operation prior to that time includes producing the subject wells as downhole commingled producers until depletion. At such time as waterflood operations commence, the Drinkard formation will be plugged off.

(14) Due to differences in the Participating Areas (PA's) within the Warren Unit, ownership between the Warren Blinbry-Tubb and Warren-Drinkard Pools is not common.

(15) The applicant has notified all interest owners in the Warren Unit of its proposed commingling. No interest owner and/or offset operator appeared at the hearing in opposition to the application.

(16) The evidence indicates that the proposed downhole commingling is necessary in order to economically recover the remaining oil and gas reserves in the Drinkard formation as well as the remaining primary oil and gas reserves in the Blinebry-Tubb formations.

(17) Approval of the subject application will allow the applicant the opportunity to recover additional oil and gas reserves from the Drinkard formation which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(18) The proposed allocation factor is reasonable and should be adopted in this case.

(19) The operator should immediately notify the supervisor of the Hobbs District Office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(20) Any overproduction that this well may have accrued since November 30, 1995 should be canceled at this time.

(21) Division Administrative Order DHC-1170, as corrected, is to be placed in abeyance until further notice.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Conoco, is hereby authorized to continue to downhole commingle Warren-Drinkard Pool and Warren-Blinebry Tubb Oil and Gas Pool production within the wellbore of the existing Warren Unit Well No. 95 (API No. 30-025-30659), located 660 feet from the South and East lines (Unit P) of Section 28, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

(2) Commingled Warren-Drinkard Pool and Warren-Blinebry Tubb Oil and Gas Pool production from this well shall not be subject to any casinghead gas allowable or to any oil production limitations.

(3) The allocation of production from each zone shall conform to the following Warren-Drinkard Pool table whereby any and all daily production in excess of the rates for the Warren-Drinkard Pool shown below is to be distributed to the Warren-Blinebry Tubb Oil and Gas Pool:

**WARREN-DRINKARD POOL PRODUCTION ALLOCATION RATES**

Date	Oil @ 25% Decline BOPD	Gas @ 4% Decline MCFPD
1996	1.1	780
1997	0.8	747
1998	0.6	713
1999	0.4	681
2000	0.3	653
2001	0.3	622
2002	0.2	594
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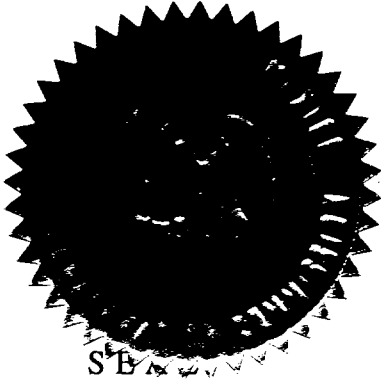
(4) Any overproduction that this well may have accrued since November 30, 1995 shall be canceled at this time.

(5) The operator should immediately notify the supervisor of the Hobbs District Office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(6) Division Administrative Order DHC-1170, as amended, shall be placed in abeyance until further notice.

(7) 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

A handwritten signature in black ink, appearing to read "William J. Lemay", is written over the printed name and extends downwards with a long, thin vertical stroke.

WILLIAM J. LEMAY  
Director