

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. 11375
ORDER NO. R-10109-A

APPLICATION OF ENRON OIL & GAS COMPANY TO AMEND DIVISION
ORDER NO. R-10109, WHICH ORDER PROMULGATED SPECIAL RULES AND
REGULATIONS FOR THE RED HILLS-BONE SPRING POOL, AND FOR THE
ASSIGNMENT OF A SPECIAL DEPTH BRACKET ALLOWABLE, LEA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 5, 1995 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 31st day of October, 1995 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) By Order No. R-9792, dated December 3, 1992 and made effective December 1, 1992, the Division created and defined the Red Hills-Bone Spring Pool for the production of oil from the Bone Spring formation. The horizontal limits for said pool, as currently designated, comprise the following described acreage in Lea County, New Mexico:

TOWNSHIP 25 SOUTH, RANGE 33 EAST, NMPM

Section 1:	NE/4 and S/2
Section 12:	S/2
Section 13:	N/2

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TOWNSHIP 25 SOUTH, RANGE 34 EAST, NMPM

Section 6:	S/2
Section 7:	All
Section 8:	SW/4
Section 17:	N/2
Section 18:	NE/4.

(3) By Division Order No. R-10109, dated April 26, 1994, special rules and regulations were promulgated for the Red Hills-Bone Spring Pool, which included provisions for 80-acre spacing and proration units (see **RULE 2**) and designated well location requirements where each well completed in said pool is to be within 150 feet of the center of a governmental quarter-quarter section or lot (see **RULE 4**). Further, the allowable for a standard 80-acre spacing and proration unit in the Red Hills-Bone Spring Pool is currently 490 barrels of oil per day with a limiting gas/oil ratio of 2,000 cubic feet of gas per barrel of oil or 980 MCF per day (**RULE 6**).

(4) The applicant in this matter, Enron Oil & Gas Company ("Enron"), seeks to amend the provisions of the *"Special Rules and Regulations for the Red Hills-Bone Spring Pool"* so as to:

- (a) permit a well in each quarter-quarter section or lot of a standard 80-acre spacing and proration unit;
- (b) enlarge the "standard drilling window" so that wells can be drilled no closer than 330 feet to any quarter-quarter section line; and,
- (c) increase the depth bracket oil allowable for the pool, pursuant to Division General Rule 505(d), to 660 barrels of oil per day per 80-acre unit.

(5) There are currently 34 producing oil wells within the subject pool, all of which are operated by Enron. The majority of the acreage comprising the pool is "federal" and is therefore subject to United States Bureau of Land Management drilling requirements and surface use restrictions. In developing this pool Enron has requested numerous exceptions to the current location requirements for topographic and archeological reasons.

(6) According to the geologic and engineering evidence presented at the hearing current development of the pool has established the horizontal limits of this pool to that area described-above in Finding Paragraph No. (2), and any additional drilling

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would essentially be for "infill" development. Additionally, the reservoir data presented indicated little or no pressure differential on offsetting wells from initial completions. Further, drainage calculations indicate that within this pool an average well can effectively drain only 60 acres and unless a second well is drilled on many of the existing proration units adequate drainage of the reservoir will not occur.

(7) Enron has been most successful in completing wells in this pool with massive fracture stimulation by applying a volume of approximately 2,000 barrels of fracture fluid into the relatively "tight" producing formation. The best results are observed when the injected liquids are quickly cleaned out of the formation. Production volumes as high as 400 to 500 barrels of oil per day have been recorded in wells during the first few months of production just prior to experiencing a rapid decline into a stabilized rate of production, being 150 to 200 barrels of oil per day in some instances.

(8) The current pool rules in essence provide for a second well on a proration unit. **RULE 6** states in part, "In the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion". **RULE 2** should be amended to more accurately reflect such interpretation.

(9) The applicant is requesting the proposed change in the location requirements to allow greater flexibility in locating well sites within this general area, thereby alleviating the need for exceptions to the existing rules and regulations.

(10) The requested allowable adjustment would enable an infill well to produce such larger volumes during the initial production/clean-up phase while an existing well on the unit is simultaneously producing at its stabilized rate.

(11) The evidence presented indicates the subject reservoir can produce at the higher allowable without inhibiting reservoir energy and adversely affecting the capability of the reservoir to produce.

(12) No off-set operator or interested party appeared at the hearing in opposition to the proposed amendments to the "*Special Rules and Regulations for the Red Hills-Bone Spring Pool*".

(13) Approval of this application is in the best interest of conservation, will enable the operator to produce his just and fair share of production from the reservoir in a prudent manner, will serve to prevent waste, will afford the applicant the continued opportunity to produce its just and equitable share of the oil in the subject reservoir and will otherwise serve to prevent waste and protect correlative rights.

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IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the application of Enron Oil & Gas Company ("Enron"), an operator with producing wells in the Red Hills-Bone Spring Pool in Lea County, New Mexico, the "*Special Rules and Regulations for the Red Hills-Bone Spring Pool*", as promulgated by Division Order No. R-10109, dated April 26, 1994, are hereby amended justifying two wells on a standard 80-acre oil spacing and proration unit, to enlarge the "standard drilling window" requirements, and to increase the poolwide oil depth bracket allowable.

(2) "RULE 2" of said special pool rules is hereby amended to read in its entirety as follows:

" **RULE 2:** Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2 or W/2 of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in that unit."

(3) Further, "RULE 4" of said special pool rules is hereby amended to read in its entirety as follows:

" **RULE 4:** Each well shall be located no nearer than 330 feet to any governmental quarter-quarter section or lot."

(4) Also, "RULE 6" of said special pool rules is hereby amended to read in its entirety as follows:

" **RULE 6:** The allowable for a standard oil spacing and proration unit (79 through 81 acres) shall be subject to a special depth bracket allowable of 660 barrels of oil per day and a limiting gas/oil ratio of 2,000 cubic feet of gas per barrel of oil which results in a casinghead gas allowable of 1,320 MCF per day. In the event there are two wells on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from both wells in any proportion. The allowable assigned to a non-standard oil spacing and proration unit shall bear the same

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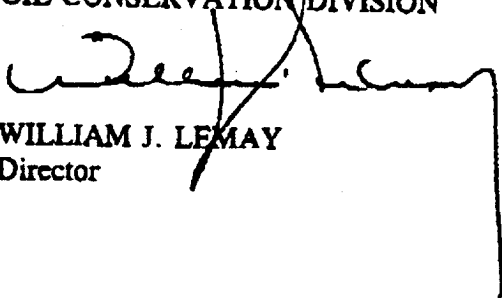
ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres".

(5) The above amendments to said special rules governing the Red Hills-Bone Spring Pool in Lea County, New Mexico are hereby made permanent and said Order No. R-10109, as amended, shall continue in full force and effect until further notice.

(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


WILLIAM J. LEMAY
Director

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