

**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. 11782  
Order No. R-10814**

**APPLICATION OF ENRON OIL & GAS  
COMPANY FOR DOWNHOLE COMMINGLING,  
EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on May 15, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 4th day of June, 1997, 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) The applicant, Enron Oil & Gas Company, seeks authority to downhole commingle the Morrow and Chester formations, Sand Tank-Morrow Gas Pool and Sand Tank-Chester Gas Pool, within its Sand Tank "7" Federal Com Well No. 1 located 990 feet from the North and West lines (Unit D) of Section 7, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico.

(3) According to applicant's evidence and testimony, the subject well was drilled in April, 1996, to a total depth of approximately 11,835 feet. The well was dually completed in the Sand Tank-Morrow and Sand Tank-Chester Gas Pools during May-June, 1996. Initial potential in the Sand Tank-Chester Gas Pool was approximately 2.8 MMCFGD and 98 BOPD. Initial potential in the Sand Tank-Morrow Gas Pool was approximately 3.6 MMCFGD and 100 BOPD.

- (4) Production rates as of May, 1997, are summarized as follows:

<u>Pool</u>	<u>Oil</u>	<u>Producing Rates</u>	
		<u>Gas</u>	<u>Water</u>
Sand Tank-Morrow Gas Pool	3 B/D	457 MCF/D	3 B/D
Sand Tank-Chester Gas Pool	14 B/D	750 MCF/D	4 B/D

(5) The applicant seeks authority to downhole commingle the subject well primarily due to liquid loading problems associated with the Morrow completion.

(6) The current wellbore configuration of the Sand Tank "7" Federal Com Well No. 1 is such that the Chester formation is producing through 2 7/8 inch tubing, and the Morrow formation is producing through the tubing/casing annulus.

- (7) Applicant's engineering evidence and testimony indicates that:

- a) the Morrow formation has exhibited a steep decline in production which applicant attributes to liquid loading problems within the casing/tubing annulus;
- b) the Chester zone is marginal in this area both in terms of current producing rate and estimated ultimate gas recovery; and,
- c) producing the well in a downhole commingled configuration will improve the producing efficiency of the Morrow formation and should result in a production increase of 300-500 MCF gas per day from the Morrow formation.

- (8) Applicant's engineering evidence further indicates that:

- a) the bottomhole pressure of the highest pressured commingled zone does not exceed the original reservoir pressure of any other commingled zone in the wellbore, adjusted to a common datum;
- b) commingling will not result in the permanent loss of reserves due to crossflow in the wellbore;
- c) neither zone appears to be fluid sensitive;

- d) the fluids from each zone are compatible with the fluids from the other, and combining the fluids will not result in the formation of precipitates which might damage any of the reservoirs;
  - e) the interest ownership between the zones is common.
- (9) No offset operator appeared at the hearing in opposition to the application.
- (10) Approval of the proposed downhole commingling will allow the applicant the opportunity to recover additional oil and gas reserves from the Morrow and Chester zones which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.
- (11) The applicant proposed that the allocation formula be determined after a stabilized commingled production rate is obtained and after consultation with the supervisor of the Division's Artesia District Office.
- (12) After consultation with the supervisor of the Division's Artesia District Office, the applicant should be required to submit the approved allocation formula to the Santa Fe Office of the Division.

**IT IS THEREFORE ORDERED THAT:**

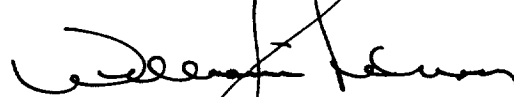
- (1) The applicant, Enron Oil & Gas Company, is hereby authorized to downhole commingle the Morrow and Chester formations, Sand Tank-Morrow Gas Pool and Sand Tank-Chester Gas Pool, within its Sand Tank "7" Federal Com Well No. 1 located 990 feet from the North and West lines (Unit D) of Section 7, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico.
- (2) The applicant shall consult with the supervisor of the Divisions's Artesia District Office in order to determine a formula for the allocation of production from the subject well.
- (3) After consultation with the supervisor of the Division's Artesia District Office, the applicant shall submit the approved allocation formula to the Santa Fe Office of the Division.
- (4) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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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', written over the printed name.

WILLIAM J. LEMAY  
Director

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