

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 4078  
Order No. R-3741

APPLICATION OF J. GREGORY MERRION  
FOR DOWNHOLE COMMINGLING, RIO ARRIBA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 23, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 28th day of April, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, J. Gregory Merrion, is the owner and operator of the NCRA State Well No. 3, located in Unit L of Section 16, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(3) That the subject well was originally completed for production from the Devils Fork-Gallup Pool, but production was lost during remedial work and treatment has not restored production.

(4) That the well was subsequently perforated in an undesignated Mesaverde oil pool and marginal production achieved.

(5) That the applicant proposes to set a single string of 2-inch tubing opposite the Devils Fork-Gallup perforations and

attempt to produce both of the subject zones through said tubing, commingling production from the subject zones in the 4 1/2-inch casing.

(6) That the proposed method of production may restore the producing capability of the subject well in the Devils Fork-Gallup Pool.

(7) That the reservoir characteristics of each of the two zones are such that underground waste would not be caused by the proposed commingling in the well-bore.

(8) That the proposed commingling may result in the recovery of additional oil and gas from the Devils Fork-Gallup Pool, thereby preventing waste, and will not violate correlative rights.

(9) That production tests should be conducted, prior to commingling and periodically thereafter, to determine the production from each zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, J. Gregory Merrion, is hereby authorized to complete his NCRA State Well No. 3, located in Unit L of Section 16, Township 24 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to produce oil and gas from an undesignated Mesaverde oil pool through perforations from 4541 feet to 4629 feet and to produce oil and gas from the Devils Fork-Gallup Pool through perforations from 5774 feet to 5796 feet, commingling the production from each of said zones in the well-bore until further order of the Commission;

PROVIDED HOWEVER, that the production of each zone shall be established and future production allocated to the Mesaverde and Gallup zones of the subject well in accordance with the following procedure:

1. Prior to commingling, the productivity, gravity, and gas-oil ratio of the Mesaverde zone shall be determined from a 72-hour gas-oil ratio test flowing through the casing.
2. Determine the rate of Gallup oil production by means of an 8-hour swab test of said zone. (Swab rate #1.)

3. Determine the rate of the commingled oil production by means of an 8-hour swab test of the commingled Gallup and Mesaverde zones. (Swab rate #2.)
4. Determine the Mesaverde allocation of production factor as follows:

$$(MV_f) = \frac{\text{Swab rate \#2} - \text{Swab rate \#1}}{\text{Swab rate \#2}}$$

5. Determine the monthly allocation of production as follows:
  - a. Mesaverde oil production =  $MV_f$  x commingled production.
  - b. Mesaverde gas production = Mesaverde oil production x Mesaverde GOR.
  - c. Gallup oil production = commingled oil production less Mesaverde oil production.
  - d. Gallup gas production = commingled gas production less Mesaverde gas production.

(2) The operator shall take gas-oil ratio tests quarterly in accordance with the special rules and regulations governing the Devils Fork-Gallup Pool and the results thereof used in subsequent computations of allocation of production.

(3) That should production curves indicate on February 1, 1970, that the productivity of the well has increased, the aforementioned swab tests shall be repeated and allocation to the various zones adjusted retroactively, as warranted.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

S E A L

ALEX J. ARMIJO, Member

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