

*Entered June 30, 1972*  
*R.F.P.*

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION COMMISSION  
ON ITS OWN MOTION TO CONSIDER  
INSTITUTING GAS PRORATIONING IN  
THE SOUTH CARLSBAD-STRAWN GAS POOL,  
EDDY COUNTY, NEW MEXICO.

RECORDS CENTER

CASE NO. 4694  
Order No. R-1670-M

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 19, 1972, at Hobbs, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 30th day of June, 1972, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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 by Order No. R-3922, dated February 20, 1970, the Commission created the South Carlsbad-Strawn Gas Pool, Eddy County, New Mexico, for the production of gas from the Strawn formation.

(3) That the horizontal limits of said pool have been extended from time to time by order of the Commission.

(4) That the horizontal limits of the South Carlsbad-Strawn Pool, as defined by the Commission, at the time of hearing this case comprise the following described area:

EDDY COUNTY

TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM  
Section 30: S/2  
Section 31: All

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM  
Section 1: E/2

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM  
Section 6: All

-2-

CASE NO. 4694

Order No. R-1670-M

(5) That in February, 1972, there were four wells completed in the Strawn formation within the above-described area and connected to gas transportation facilities.

(6) That in February, 1972, one of the wells was connected to the Transwestern Pipeline Company gas gathering system and that three of the wells were connected to the Llano, Inc. gas gathering system.

(7) That the South Carlsbad Field comprises the South Carlsbad-Atoka, South Carlsbad-Strawn, and South Carlsbad-Morrow Gas Pools.

(8) That the capacity of the Transwestern system serving the South Carlsbad Field is 90,000 MCF of gas per day.

(9) That the capacity of the Llano system serving the South Carlsbad Field is 30,000 MCF of gas per day.

(10) That the Transwestern system that takes gas from the South Carlsbad-Strawn Gas Pool also takes gas from the South Carlsbad-Morrow and South Carlsbad-Atoka Gas Pools.

(11) That the Llano system that takes gas from the South Carlsbad-Strawn Gas Pool also takes gas from the South Carlsbad-Morrow Gas Pool.

(12) That at the time of this hearing, the most recent month for which production figures were available was February, 1972.

(13) That there is evidence that additional wells have been connected to gas transportation facilities in the South Carlsbad-Morrow Gas Pool and South Carlsbad-Strawn Gas Pool after February 1, 1972, and prior to the time of this hearing.

(14) That there is no substantial evidence that the manner of producing the wells in the South Carlsbad-Strawn Gas Pool has been substantially altered after February, 1972.

(15) That it can reasonably be inferred that the manner of producing the wells in the South Carlsbad-Strawn Gas Pool is substantially the same as it was in February, 1972.

(16) That at the time of the hearing of this case, the Transwestern system was purchasing approximately 41,000 MCF of gas per day from the three pools combined.

(17) That in February, 1972, the Transwestern system purchased an average of 1815 MCF of gas per day from the one well in the South Carlsbad-Strawn Gas Pool connected to its system.

(18) That at the time of this hearing Transwestern was

-3-  
CASE NO. 4694  
Order No. R-1670-M

purchasing gas from thirteen wells producing from the South Carlsbad-Morrow Gas Pool, three wells producing from the South Carlsbad-Strawn Gas Pool, and one well producing from the South Carlsbad-Atoka Gas Pool.

(19) That considering the fact that Transwestern's system is taking gas from thirteen wells in the South Carlsbad-Morrow Gas Pool and from one well in the South Carlsbad-Atoka Gas Pool, its capacity to take gas from the South Carlsbad-Strawn Gas Pool is substantially less than 90,000 MCF of gas per day.

(20) That in February, 1972, the Llano system purchased 10,393 MCF of gas per day from three wells producing from the South Carlsbad-Strawn Gas Pool.

(21) That at the time of this hearing Llano was purchasing gas from three wells producing from the South Carlsbad-Strawn Gas Pool and three wells producing from the South Carlsbad-Morrow Gas Pool.

(22) That considering the fact that Llano's system is presently connected to three wells in the South Carlsbad-Morrow Gas Pool, its capacity to take gas from the South Carlsbad-Strawn Gas Pool is substantially less than 30,000 MCF of gas per day.

(23) That the combined capacity of the two systems for gas from the South Carlsbad-Strawn Gas Pool is substantially less than 120,000 MCF of gas per day.

(24) That the shut-in pressures of the four wells in the South Carlsbad-Strawn Gas Pool connected to gas transportation facilities in February, 1972, ranges from a low of 3421 psi to a high of 3955 psi; that the average of said pressures is 3742 psi.

(25) That considering the nature of the South Carlsbad-Strawn Gas Pool reservoir and the high pressures existing in the pool, the daily deliverability of a well at 850 psi is essentially the same as it would be at 870 psi or 900 psi.

(26) That the producing capacity of the one South Carlsbad-Strawn well connected to the Transwestern system in February, 1972, at 850 psi is approximately 22,500 MCF of gas per day; that the capacity of said well at absolute open flow is approximately 23,012 MCF of gas per day.

(27) That the combined producing capacity of the three South Carlsbad-Strawn wells connected to the Llano system in February, 1972, at 850 psi is approximately 51,500 MCF of gas per day; that the capacity of said wells at absolute open flow is approximately 59,350 MCF of gas per day.

(28) That the combined producing capacity of the four South Carlsbad-Strawn wells connected to gas transportation facilities in February, 1972, at 850 psi is approximately 74,000 MCF of gas per day; that the capacity of said wells at absolute open flow is approximately 82,362 MCF of gas per day.

(29) That since February, 1972, Transwestern has connected to its system two additional wells producing from the South Carlsbad-Strawn Gas Pool.

(30) That wells in the subject pool connected to the Transwestern system and as described in Findings (26) and (29), above, are capable of producing gas substantially in excess of Transwestern's capacity to take gas from the South Carlsbad-Strawn Gas Pool.

(31) That wells in the subject pool connected to the Llano system as described in Finding No. 22, above, are capable of producing gas substantially in excess of Llano's capacity to take gas from the South Carlsbad-Strawn Gas Pool.

(32) That the combined capacity of the wells connected to both systems is substantially in excess of the capacity of the combined gas transportation facilities in the pool.

(33) That the Transwestern system is currently purchasing approximately 41,000 MCF of gas per day at an average pipeline pressure of 870 psi from the seventeen wells in the South Carlsbad-Atoka, South Carlsbad-Strawn and South Carlsbad-Morrow Gas Pools connected to its system.

(34) That the Llano system is currently purchasing from the South Carlsbad-Strawn and South Carlsbad-Morrow Gas Pools substantially less than 25,000 MCF of gas per day at an average pipeline pressure of 900 psi.

(35) That in February, 1972, Transwestern purchased approximately 1815 MCF of gas per day from the one well connected to its system producing from the South Carlsbad-Strawn Gas Pool.

(36) That at the time of this hearing Transwestern was purchasing gas from thirteen wells producing from the South Carlsbad-Morrow Gas Pool, three wells producing from the South Carlsbad-Strawn Gas Pool, and one well producing from the South Carlsbad-Atoka Gas Pool.

(37) That in February, 1972, Llano purchased approximately 10,393 MCF of gas per day from the three wells connected to its system producing from the South Carlsbad-Strawn Gas Pool.

(38) That at the time of this hearing Llano was connected to three wells producing from the South Carlsbad-Morrow Gas Pool and three wells producing from the South Carlsbad-Strawn Gas Pool.

(39) That considering the fact that Transwestern is taking gas from thirteen wells in the South Carlsbad-Morrow Gas Pool and one well in the South Carlsbad-Atoka Gas Pool, it must be taking substantially less than 41,000 MCF of gas per day from the South Carlsbad-Strawn Gas Pool.

(40) That considering the fact that Llano is connected to three wells in the South Carlsbad-Morrow Gas Pool, it must be taking substantially less than 25,000 MCF of gas per day from the South Carlsbad-Strawn Gas Pool.

(41) That both systems combined are currently purchasing substantially less than 66,000 MCF of gas per day from the South Carlsbad-Strawn Gas Pool.

(42) That the reasonable market demand for gas from the wells in the South Carlsbad-Strawn Gas Pool connected to the Transwestern system is substantially less than 41,000 MCF of gas per day.

(43) That the reasonable market demand for gas from the wells in the South Carlsbad-Strawn Gas Pool connected to the Llano system is less than 25,000 MCF of gas per day.

(44) That the reasonable market demand for gas from the wells in the South Carlsbad-Strawn Gas Pool connected to both systems is less than 66,000 MCF of gas per day.

(45) That the wells in the South Carlsbad-Strawn Gas Pool connected to the Transwestern system are capable of producing gas in excess of Transwestern's reasonable market demand for gas from those wells.

(46) That the wells in the South Carlsbad-Strawn Gas Pool connected to the Llano system are capable of producing gas in excess of Llano's reasonable market demand for gas from those wells.

(47) That the wells in the South Carlsbad-Strawn Gas Pool are capable of producing gas in excess of the combined reasonable market demand for gas from the South Carlsbad-Strawn Gas Pool.

(48) That the daily deliverability of the wells connected to Llano's system in February, 1972, ranges from a low of 10,500 MCF of gas per day to a high of 21,000 MCF of gas per day; that the deliverability of the well connected to Transwestern's system in February, 1972, is 22,500 MCF of gas per day.

(49) That in February, 1972, gas was taken from the well in the South Carlsbad-Strawn Gas Pool connected to Transwestern's system at an average take per connection day of 1815 MCF.

(50) That in February, 1972, gas was taken from the wells in the South Carlsbad-Strawn Gas Pool connected to Llano's system at an average take per connection day of 3464 MCF.

(51) That gas is being taken from the wells in the subject pool at a rate varying from approximately 14.9% of the monthly market for gas from the pool to 29.2% of the monthly market for gas from the pool.

(52) That in February, 1972, gas was taken from the well in the subject pool connected to Transwestern's system at a rate of 8.1% of its daily deliverability.

(53) That in February, 1972, gas was taken from the wells in the subject pool connected to Llano's system at a rate varying from 16.3% of a well's daily deliverability to 32.5% of a well's daily deliverability.

(54) That in February, 1972, gas was taken from the wells in the subject pool at a rate varying from 8.1% of a well's daily deliverability to 32.5% of a well's daily deliverability.

(55) That the reasonable market demand for gas from a well is that well's fair share of the total market demand for gas from that pool that can be produced without waste.

(56) That gas is being produced from some wells in the subject pool in excess of the reasonable market demand for gas from those wells.

(57) That gas is being produced from some wells in the subject pool in an amount less than the reasonable market demand for gas from those wells.

(58) That gas is not being taken ratably from the various producers in the pool.

(59) That there are owners of property in the subject pool who are being denied the opportunity to produce without waste their just and equitable share of the gas in the pool.

(60) That there are owners of property in the subject pool that are producing more than their just and equitable share of the gas in the pool.

(61) That drainage is occurring between tracts in the pool which is not equalized by counter drainage.

(62) That the correlative rights of some producers in the pool are being violated.

(63) That waste is occurring in the subject pool.

(64) That in order to prevent waste and to ensure that all owners of property in the subject pool have the opportunity to produce their share of the gas, the subject pool should be prorated in order to limit the amount of gas to be recovered from each tract to the reasonable market demand for gas from that tract that can be produced without waste.

(65) That to ensure that each owner of property in the subject pool has the opportunity to produce that amount of gas that can be practicably obtained without waste substantially in the proportion that the recoverable gas under his tract bears to the total recoverable gas in the pool, the subject pool should be prorated in order to limit the amount of gas to be produced from the pool to the reasonable market demand and the capacity of the gas transportation facilities.

(66) That the subject pool has not been completely developed.

(67) That no cores of the Strawn formation are available in the South Carlsbad-Strawn Gas Pool.

(68) That there are logs available of said wells and that the logs indicate a marked and sometimes rapid variation between wells in thickness of pay, porosity, net effective feet of pay, and water saturation.

(69) That due to the above-described variations the effective feet of pay, porosity, and water saturation underlying each developed tract cannot be practically determined from the data available at the wellbore.

(70) That there are recoverable gas reserves underlying each of the developed 320-acre tracts within the horizontal limits of the subject pool; that there are 6 developed 320-acre tracts in the pool as defined by the Commission.

(71) That due to the nature of the reservoir the amount of recoverable gas under each producer's tract cannot be practically determined in the subject pool by a formula which considers effective feet of pay, porosity, and water saturation.

(72) That due to the nature of the reservoir the amount of recoverable gas under each producer's tract cannot be practically determined in the subject pool by a formula which considers only the deliverability of a well.

(73) That the amount of gas that can be practicably obtained without waste by the owner of each property in the subject pool substantially in the proportion that the recoverable gas under his tract bears to the total recoverable gas in the pool can be practically determined best by allocating the allowable production among the wells on the basis of developed tract acreage compared to total developed tract acreage in the pool.

(74) That considering the nature of the reservoir and the known extent of development, a proration formula based upon surface acreage will afford the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool so far as such can be practicably obtained without waste substantially in the proportion that the recoverable gas under such property bears to the total recoverable gas in the pool.

(75) That in order to prevent waste the total allowable production from each gas well producing from the subject pool should be limited to the reasonable market demand for gas from that well.

(76) That in order to prevent waste the total allowable production from all gas wells producing from the subject pool should be limited to the reasonable market demand for gas from the pool.

(77) That in order to prevent waste the total allowable production from gas wells in the subject pool should be limited to the capacity of the gas transportation system for the subject pool's share of said transportation facility.

(78) That considering the available reservoir information, a 100% surface acreage formula is presently the most reasonable basis for allocating the allowable production among the wells delivering to the gas transportation facilities.

(79) That in order to prevent drainage between tracts that is not equalized by counter drainage the allowable production from the pool should be prorated to the various producers upon a just and equitable basis.

(80) That the adoption of a 100% surface acreage formula for allocating the allowable production in the subject pool will, insofar as is presently practicable, prevent drainage between producing tracts which is not equalized by counter-drainage.

(81) That in order to ensure that each operator is afforded the opportunity to produce his property ratably with all other operators connected to the same gas transportation facility, allowable production from the pool should be prorated to the various producers upon a just and equitable basis.



(82) That the adoption of a 100% surface acreage formula for allocating the allowable production in the subject pool will, insofar as is presently practicable, allow each operator the opportunity to produce his property ratably with all other operators connected to the same transportation facility.

(83) That the subject pool should be governed by the General Rules and Regulations for the Prorated Gas Pools of Southeastern New Mexico promulgated by Order No. R-1670, as amended, insofar as said General Rules and Regulations are not inconsistent with this order or the Special Rules and Regulations for the subject pool promulgated by this order.

IT IS THEREFORE ORDERED:

(1) That the South Carlsbad-Strawn Gas Pool in Eddy County, New Mexico, is hereby prorated, effective September 1, 1972.

(2) That the subject pool shall be governed by the General Rules and Regulations for the Prorated Gas Pools of Southeastern New Mexico promulgated by Order No. R-1670, as amended, insofar as said General Rules and Regulations are not inconsistent with this order or the Special Rules and Regulations for the subject pool as hereinafter set forth, in which event the Special Rules shall apply.

SPECIAL RULES AND REGULATIONS  
FOR THE  
SOUTH CARLSBAD-STRAWN GAS POOL

A. WELL LOCATION AND ACREAGE REQUIREMENTS

RULE 2. Each well completed or recompleted in the South Carlsbad-Strawn Gas Pool shall be located no closer than 660 feet to the nearest side boundary of the dedicated tract nor closer than 1980 feet to the nearest end boundary nor closer than 330 feet to any governmental quarter-quarter section line.

RULE 5(A). Each well completed or recompleted in the South Carlsbad-Strawn Gas Pool shall be located on a standard proration unit consisting of any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Land Surveys. For purposes of these rules, a standard proration unit shall consist of 316 through 324 contiguous surface acres.

C. ALLOCATION AND GRANTING OF ALLOWABLES

RULE 8(A). The allowable production in the South Carlsbad-Strawn Gas Pool shall be allocated as follows:

-10-  
CASE NO. 4694  
Order No. R-1670-M

The pool allowable remaining each month after deducting the total allowable assigned to marginal wells shall be allocated among the non-marginal wells entitled to an allowable in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

C. GENERAL

RULE 25. The vertical limits of the South Carlsbad-Strawn Gas Pool shall be the Strawn formation.

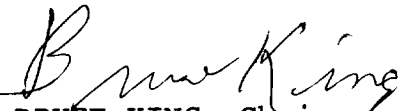
RULE 26. The first proration period for the South Carlsbad-Strawn Gas Pool shall commence September 1, 1972, and shall terminate December 31, 1973. Subsequent proration periods shall be the twelve-month periods as provided in the General Rules.

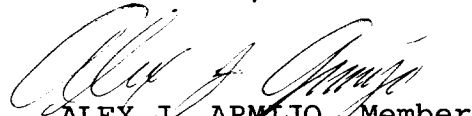
IT IS FURTHER ORDERED:

(1) 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

  
BRUCE KING, Chairman

  
ALEX J. ARMIGO, Member

  
A. L. PORTER, Jr., Member & Secretary

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