

Entered July 23, 1969
A.S.P.

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. 3975
Order No. R-1670-I
NOMENCLATURE

APPLICATION OF FRANKLIN, ASTON &
FAIR, INC., FOR THE CREATION OF A
NEW OIL POOL AND FOR SPECIAL POOL
RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 26, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 23rd day of July, 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 Order No. R-2665, dated March 13, 1964, created
the Bluitt-San Andres Gas Pool, Roosevelt County, New Mexico, and
promulgated Special Rules and Regulations therefor.
- (3) That Order No. R-3618, dated December 9, 1968, created
the East Bluitt-San Andres Oil Pool, Roosevelt County, New Mexico,
and promulgated temporary Special Rules and Regulations therefor.
- (4) That pursuant to the provisions of said Order No. R-3618,
Case 3975 was reopened to allow all interested parties to appear
and present evidence as to whether the East Bluitt-San Andres Oil
Pool is indeed a separate common source of supply or merely an

extension of the Bluitt-San Andres Gas Pool, and in the event said East Bluitt-San Andres Oil Pool is found to be an extension of said Bluitt-San Andres Gas Pool, the amendment of the Special Rules and Regulations governing the Bluitt-San Andres Gas Pool to provide for the classification of oil and gas wells, spacing and well location requirements of oil and gas wells, and an allocation formula for withdrawals from the gas cap and oil rim.

(5) That the evidence establishes that the East Bluitt-San Andres Oil Pool is not a separate common source of supply but is an extension of the Bluitt-San Andres Gas Pool.

(6) That while the said Bluitt-San Andres Gas Pool is presently classified as a gas pool, the evidence adduced indicates it is, in fact, an associated oil and gas reservoir.

(7) That the Bluitt-San Andres Gas Pool, the East Bluitt-San Andres Oil Pool, and the Special Rules and Regulations governing said pools should be abolished.

(8) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation and designated the Bluitt-San Andres Associated Pool should be created and Special Rules and Regulations should be promulgated therefor.

(9) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations for the Bluitt-San Andres Associated Pool should provide for 80-acre oil well spacing and proration units and 320-acre gas well spacing and proration units.

(10) That the Special Rules and Regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(11) That the Special Rules and Regulations should provide for limited withdrawals from gas cap wells in order to prevent the migration of oil into the gas cap and resulting waste.

IT IS THEREFORE ORDERED:

(1) That the Bluit-San Andres Gas Pool and the East Bluit-San Andres Oil Pool, both in Roosevelt County, New Mexico, and the Special Rules and Regulations governing said pools are hereby abolished.

(2) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation, is hereby created and designated the Bluit-San Andres Associated Pool, with vertical limits comprising the San Andres formation and horizontal limits comprising the following-described area:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM

Section 5: All
Section 8: N/2
Sections 9, 10, and 11: All
Section 12: W/2
Sections 13 and 14: All
Section 24: NE/4

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM

Section 18: W/2 and SE/4
Section 19: NW/4

(3) That the Bluit-San Andres Associated Pool shall be governed by the General Rules and Regulations Governing Prorated Gas Pools in Southeastern New Mexico promulgated by Order No. R-1670, as amended, insofar as said General Rules and Regulations are not inconsistent with the Special Rules and Regulations hereinafter set forth.

(4) That Special Rules and Regulations for the Bluit-San Andres Associated Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
BLUIT-SAN ANDRES ASSOCIATED POOL

A. WELL LOCATION AND ACREAGE REQUIREMENTS

RULE 1. Each well completed or recompleted in the Bluit-San Andres Associated Pool or in the San Andres formation within one mile of the Bluit-San Andres Associated Pool, and not nearer to

or within the limits of another designated San Andres pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2(A). Each gas well shall be located no nearer than 990 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 2(B). Each oil well shall be located within 150 feet of the center of a governmental quarter-quarter section.

RULE 2(C). In the event oil production is obtained in a well projected as a gas well and located in accordance with Rule 2(A) above but not in accordance with Rule 2(B) above, or in the event gas production is obtained in a well projected as an oil well and located in accordance with Rule 2(B) above but not in accordance with Rule 2(A) above, it shall be necessary for the operator to bring the matter to a hearing before approval for the production of hydrocarbons can be given. Such unorthodox location, if approved, may necessitate an allowable adjustment.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2(A) or 2(B) without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompleting of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application. Such unorthodox location, if approved, may necessitate an allowable adjustment.

RULE 4(A). Each gas well shall be located on a standard unit consisting of approximately 320 acres which shall comprise 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 unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.

RULE 4(B). For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 4(A) without notice and hearing where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys, or where the following facts exist and the following provisions are complied with:

- (1) The non-standard unit consists of contiguous quarter-quarter sections or lots.
- (2) The non-standard unit consists of not more than 324 acres and lies wholly within a single governmental section.
- (3) The entire non-standard unit may reasonably be presumed to be productive of gas from said pool.
- (4) The applicant presents written consent in the form of waivers from all offset operators, and from all operators owning interests in the section in which any part of the non-standard unit is situated and which acreage is not included in the non-standard unit.
- (5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of the non-standard unit.

RULE 5(A). Each oil 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 single 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 the unit. For purposes of these rules, a unit consisting of between 79 and 81 contiguous surface acres shall be considered a standard unit.

RULE 5(B). For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 5(A) above without notice

and hearing where an application has been filed in due form, and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys, or where the following facts exist and the following provisions are complied with:

- (1) The non-standard unit is to consist of a single quarter-quarter section or lot.
- (2) The non-standard unit contains less than 81 acres.
- (3) The entire non-standard unit may reasonably be presumed to be productive of oil from said pool.
- (4) The applicant presents written consent in the form of waivers from all offset operators.
- (5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the offset operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no operator has entered an objection to the formation of such non-standard unit.

B. NOMINATION AND PRORATION SCHEDULE

RULE 6(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 6(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 7(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 7(B). (SEE ORDER NO. R-1670, AS AMENDED.)

C. ALLOCATION AND GRANTING OF ALLOWABLES

RULE 8(A). The total tentative gas allowable to be allocated to the pool shall be equal to the sum of the preliminary or supplemental nominations together with necessary adjustments. The pool gas 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

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each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

Preliminary nominations for the first gas proration period (ten months, from September 1, 1969, to July 1, 1970) shall be filed with the Commission at least five days prior to the August, 1969, hearing. These nominations shall indicate the market demand for gas for the ensuing period and shall be subject to any necessary adjustments.

RULE 8(B)(1). No well shall be assigned an allowable until Form C-104 and Form C-116 have been filed together with a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the unit. Form C-116 shall show, in addition to the information required thereon, the gravity of the liquid hydrocarbons produced on the test.

The District Supervisor of the Commission's Hobbs District Office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by 2000.

RULE 8(B)(2). A standard oil proration unit shall be assigned an 80-acre proportional factor of 2.00 for allowable purposes, and 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. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

RULE 9(A). A gas well's "Acreage Factor" shall be determined to the nearest hundredth of a unit by dividing the acreage assigned to the well by 320 acres. An oil well's "Acreage Factor" shall be determined to the nearest hundredth of a unit by dividing the acreage assigned to the well by 80 acres.

RULE 9(B). Each oil well on an 80-acre oil proration unit shall be permitted to produce an amount of gas determined by multiplying the top unit oil allowable for the pool by the limiting gas-oil ratio for the pool (2000). In the event there is more than one oil well on an 80-acre oil proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

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RULE 9(C). Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage has been filed.

RULE 10(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 10(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 11: (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 12. The full production of gas from each well, including drilling gas, shall be charged against the well's allowable regardless of the disposition of the gas; provided, however, that gas used in maintaining the producing ability of the well shall not be charged against the allowable.

D. BALANCING OF PRODUCTION

RULE 13(A). The initial gas proration period shall be from 7:00 o'clock a.m. on September 1, 1969, to 7:00 o'clock a.m. on July 1, 1970. Subsequently, the dates of 7:00 o'clock a.m. January 1st and 7:00 o'clock a.m. July 1st shall be known as balancing dates, and the periods of time bounded by these dates shall be known as the gas proration periods for the pool.

RULE 13(B)(1). The top 80-acre unit allowable for oil wells shall be determined each month by multiplying the Southeast New Mexico Normal Unit Allowable by the 80-acre proportional (depth) factor for said pool (2.00). The final allowable for the gas area of said pool shall be determined each six months for the preceding six-month period in accordance with the following formula:

$$V = \left[Q \times \left(\frac{A + \Delta A}{a + \Delta a} \right) \right] \left[(r_1 - r_2) + \left(\frac{T_{sc}}{T_{res}} \times \frac{P_{res}}{P_{sc}} \times \frac{1}{Z} \times B_o \times 5.61 \frac{ft^3}{bbl} \right) \right]$$

where:

V = The gas allowable for the gas area for the preceding six-month period and is equal to the volumetric gas equivalent of all production from the oil area during the preceding six-month period expressed in cubic feet rounded off to the nearest MCF.

Q = Total oil production from the oil area during the preceding six-month period, barrels.

(A + ΔA) = Total acres dedicated to gas wells during preceding six-month period.

(a + Δa) = Total acres dedicated to oil wells during preceding six-month period.

(Note: "A" and "a" represent acreage dedicated to gas wells and to oil wells respectively for the entire six-month period. ΔA and Δa represent acreage so dedicated for only a portion of the six-month period. In the event a well is completed or reclassified during a six-month period ΔA and/or Δa shall be computed as follows:

$$\Delta A = A \left(\frac{d}{D} \right) \qquad \Delta a = a \left(\frac{d}{D} \right)$$

where:

ΔA or Δa = acreage to be added to gas or oil area, respectively.

A or a = acreage dedicated to the well.

d = number of days during proration period during which well was completed as gas well or as oil well and was so classified.

D = total number of days in proration period.)

r_1 = Average producing GOR for oil area during preceding six-month period. (Determined by dividing total cubic feet of casinghead gas produced by total barrels of oil produced.)

r_2 = Solution GOR for the oil area at P_{res} . (r_2 determined from Solution GOR Tabulation in Special Rule 13(C).)

T_{sc} = Temperature at standard conditions = 60° F or 520° R.

- T_{res} = Initial bottom-hole temperature 111° F
or 571° R.
- P_{res} = Average reservoir pressure based on most
recent bottom-hole pressure survey as
provided in Special Rule 28.
- P_{sc} = Pressure at standard conditions. (15.025 psia.)
- Z = Deviation factor for gas at P_{res} and at 111° F.
(Z factor determined from gas Deviation Factor
Tabulation in Special Rule 13(C).)
- B_o = Oil reservoir factor at P_{res} . (B_o determined
from Oil Reservoir Volume Factor Tabulation in
Special Rule 13(C).)

RULE 13(B)(2). (a) The volumetric equivalent of gas for the gas area determined in (1) above shall be compared with the actual production from the gas area.

RULE 13(B)(2). (b) If the actual production from the gas area exceeds such volumetric equivalent plus any permitted production remaining as determined in (c) below, then the nominations and purchases by gas purchasers during the succeeding six-month period shall be adjusted by the Commission so that the volumetric withdrawals from the gas area shall be restricted for the purpose of balancing the cumulative equivalent volumetric withdrawals from each area.

RULE 13(B)(2). (c) If the actual production from the gas area is less than the volumetric equivalent for the gas area then no adjustments will be made but the difference between the volumes will be carried forward as permitted production of gas from the gas area in subsequent balancing periods.

RULE 13(C). The following values of r_2 , Solution Gas-Oil Ratio, Z , Gas Deviation Factor, and B_o , Oil Reservoir Volume Factor, for the various values of P_{res} , Average Reservoir Pressure, shall be used in computing the volumetric equivalent of gas per Special Rule 13(B):

<u>P_{res}</u> Average Reservoir Pressure, Psia	<u>r₂</u> Solution GOR Ft ³ / Bbl.	<u>Z</u> Gas Deviation Factor	<u>B_o</u> Oil Reservoir Volume Factor
1200	392	.855	1.199
1100	372	.859	1.191
1000	350	.865	1.183
900	329	.876	1.175
800	306	.884	1.166
700	283	.898	1.157
600	260	.907	1.148
500	234	.919	1.138
400	208	.927	1.127
300	180	.946	1.116
200	147	.960	1.020
100	116	.974	1.089

RULE 14(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 14(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(A). Overproduction: Any well which has an overproduced status as of the end of a gas proration period shall carry such overproduction forward into the next gas proration period, provided that such overproduction shall be made up during such succeeding period. Any well which has not made up the overproduction carried into a gas proration period by the end of such proration period shall be shut in until such overproduction is made up. If, at any time, a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut in during that month, and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 15(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(C). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(D). (SEE ORDER NO. R-1670, AS AMENDED.)

E. CLASSIFICATION OF WELLS

RULE 16(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 16(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 17. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 18. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 19. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 20. (SEE ORDER NO. R-1670, AS AMENDED.)

F. REPORTING OF PRODUCTION

RULE 21(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(C). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(D). (SEE ORDER NO. R-1670, AS AMENDED.)

G. GENERAL

RULE 22. No gas, either dry gas or casinghead gas, produced from the pool shall be flared or vented except as otherwise provided in these Special Rules and Regulations. All gas produced, whether dry gas or casinghead gas and regardless of final disposition thereof, shall be constantly and accurately measured.

RULE 23. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 24. (SEE ORDER NO. R-1670, AS AMENDED.)

H. MISCELLANEOUS SPECIAL POOL RULES

RULE 25. A gas well in the pool shall be a well producing with a gas-liquid ratio of 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, or any well which produces liquid hydrocarbons with a gravity of 60° API or greater.

An oil well in the pool shall be a well producing with a gas-liquid ratio of less than 30,000 cubic feet of gas per barrel of liquid hydrocarbons and which produces liquid hydrocarbons with a gravity of less than 60° API.

RULE 26. The operator of each newly completed well in the pool shall cause a gas-liquid ratio test to be taken on said well upon

recovery of all load oil from the well; provided, however, that in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under a temporary gas allowable assigned in accordance with Rule 8(A) above. Provided, however, that any well which is shut in shall be exempted from the aforesaid gas-liquid ratio test requirements so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Special Rule 27 below. If the gas-liquid ratio is 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, or the gravity of the liquid hydrocarbons is 60° API, or greater, the operator shall not produce the well until beneficial use can be made of the gas.

No gas shall be flared or vented from any well classified as an oil well more than 60 days after the well begins to produce. Exceptions may be granted administratively by the Secretary-Director if the request sets forth facts and circumstances justifying such exception.

RULE 27. Gas-liquid ratio tests shall be taken on all wells in the pool and on all wells producing from the San Andres formation within one mile of the boundaries of the pool which are not within another designated San Andres pool during the months of January, April, July, and October of each year. The initial gas-liquid ratio test shall suffice as the first quarterly test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio test, each operator shall file with the Hobbs District Office of the Commission a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Commission and offset operators.

RULE 28. The average reservoir pressure shall be determined during the months of March and September each year after the well has been shut in for a minimum of three days. Pressures shall be calculated

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to a common datum, which shall be the approximate depth of the gas-oil contact (-560 feet subsea). The pressure on individual wells shall be determined in the following manner:

- (1) Subsurface pressure tests shall be taken on all wells, gas and oil, in accordance with the procedure outlined in Statewide Rule 302, except with respect to shut-in time and datum as provided above. Pressures of pumping oil wells may be calculated from sonic fluid level determinations.
- (2) Information obtained on these tests shall be reported on Form C-124 in accordance with the provisions of Statewide Rules 302 and 1124, and the Commission shall use the arithmetic average of the pressures so reported for the pressure, P_{res} , in the calculations as provided in Special Rule 13(B).

RULE 29. The gas-oil ratio limitation for the pool shall be 2000 cubic feet of gas per barrel of liquid hydrocarbons produced.

RULE 30. No acreage shall be simultaneously dedicated to an oil well and to a gas well in the pool.

IT IS FURTHER ORDERED:

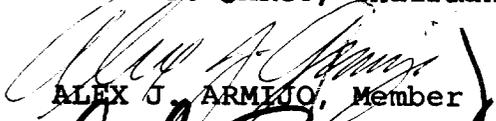
(1) That any well presently drilling to or completed in the San Andres formation within the Bluit-San Andres Associated Pool or within one mile of said pool that would not comply with the well location requirements of Rules 2(A) and 2(B) is hereby granted an exception to said rules. The operator shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before September 1, 1969.

(2) 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


ALEX J. ARMIJO, Member


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

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