

CASE 3543: Application of TENNECO
OIL CO. for pool contraction, new
pool creation & special pool rules

CASE No.

3543

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.

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. 3543
Order No. R-3211
NOMENCLATURE

APPLICATION OF TENNECO OIL COMPANY
FOR A POOL CONTRACTION, NEW POOL
CREATION, AND SPECIAL POOL RULES,
RIO ARriba COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 22, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 30th day of March, 1967, 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, Tenneco Oil Company, seeks the
contraction of the horizontal limits of the South Blanco-Tocito
Oil Pool by the deletion of that portion of said pool contained
in Sections 18, 19, 20, and 21, Township 26 North, Range 5 West,
NMPM, Rio Arriba County, New Mexico.

(3) That the applicant also seeks the creation of the
Tapacito-Gallup Associated Pool with vertical limits comprising
the Gallup Sand and horizontal limits comprising all of Sections
16 through 23, Township 26 North, Range 5 West, NMPM, Rio Arriba
County, New Mexico.

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(4) That the applicant further proposes that certain special rules and regulations for the said Tapacito-Gallup Associated Pool be established whereby a well in said pool would be classified as an oil well unless it produces with a gas-oil ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons, in which event it would be classified as a gas well. Applicant further proposes that 80-acre proration units be established for oil wells in the pool and that 320-acre proration units be established for gas wells in the pool, with a limiting gas-oil ratio for oil wells of 2000 to 1.

(5) That reservoir information presently available establishes that the South Blanco-Tocito Oil Pool, Rio Arriba County, New Mexico, as presently designated, encompasses more than one separate common source of supply and the horizontal limits of said pool should, in order to prevent waste and protect correlative rights, be contracted by deleting the following:

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM

Section 18: N/2 and SE/4

Section 19: NE/4

Section 20: N/2

Section 21: N/2

(6) That reservoir information presently available establishes that the proposed new pool encompasses a separate common source of supply and in order to prevent waste and protect correlative rights, the Tapacito-Gallup Associated Pool should be created with vertical limits as proposed by the applicant and horizontal limits as follows:

TAPACITO-GALLUP ASSOCIATED POOL

RIO ARRIBA COUNTY, NEW MEXICO

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM

All of Sections 16 through 23

(7) That the evidence indicates that the gas area in the proposed Tapacito-Gallup Associated Pool can be efficiently and economically drained and developed on 320-acre proration units, and it further indicates that the oil area in the said proposed pool can be efficiently and economically drained and developed on 80-acre proration units.

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IT IS THEREFORE ORDERED:

(1) That, effective April 1, 1967, the horizontal limits of the South Blanco-Tocito Oil Pool, Rio Arriba County, New Mexico, are hereby contracted by the deletion therefrom of the following-described area:

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM

Section 18: N/2 and SE/4

Section 19: NE/4

Section 20: N/2

Section 21: N/2

(2) That, effective April 1, 1967, a new pool in Rio Arriba County, New Mexico, classified as an associated reservoir for the production of oil and gas from the Gallup Sand, is hereby created and designated the Tapacito-Gallup Associated Pool with vertical limits comprising said Gallup Sand and horizontal limits as follows:

TAPACITO-GALLUP ASSOCIATED POOL

RIO ARRIBA COUNTY, NEW MEXICO

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM

Sections 16 through 23: All

(3) That, effective April 1, 1967, special rules and regulations for the Tapacito-Gallup Associated Pool, Rio Arriba County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE

TAPACITO-GALLUP ASSOCIATED POOL

RULE 1. Each well completed or recompleted in the Gallup Sand within the boundary of the Tapacito-Gallup Associated Pool or within one mile thereof, and not nearer to nor within the boundaries of another designated Gallup pool, shall be drilled, spaced, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. (a) Each gas well shall be located on a tract consisting of approximately 320 acres which may reasonably be presumed to be productive of gas from said pool, and which shall comprise any two contiguous quarter sections of a governmental section, being a legal subdivision (half section) of the United

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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 gas unit.

RULE 2. (b) For good cause shown, the Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 (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 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 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 2. (c) The District Supervisor shall have authority to approve non-standard gas proration units without notice and hearing and without administrative approval by the Secretary-Director if such unit consists of less than 316 contiguous surface acres and the non-standard unit is necessitated by a variation in the United States Public Land Surveys.

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RULE 2. (d) The allowable assigned to any such non-standard gas proration unit shall bear the same ratio to a standard allowable in said pool as the acreage in the unit bears to 320 acres.

RULE 3. (a) Each oil well shall be located on a unit containing approximately 80 acres, which may reasonably be presumed to be productive of oil from said pool, and which consists of the N/2, S/2, E/2, or W/2 of a governmental quarter section. For purposes of these rules, a unit consisting of between 79 and 81 contiguous surface acres shall be considered a standard unit. Nothing contained herein shall be construed as prohibiting the drilling of an oil well on each of the quarter-quarter sections in the 80-acre unit.

RULE 3. (b) For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 3 (a) without notice and hearing when 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 quarter-quarter section or lot.
- (2) The non-standard unit consists of not more 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.

RULE 3. (c) The District Supervisor shall have authority to approve non-standard oil proration units without notice and hearing

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and without administrative approval by the Secretary-Director if such unit consists of two contiguous quarter-quarter sections or lots comprising less than 79 acres lying within a governmental quarter section and the non-standard unit is necessitated by a variation in the United States Public Land Surveys.

RULE 3. (d) The allowable assigned to any such non-standard oil proration unit shall bear the same ratio to a standard allowable in said pool as the acreage in the unit bears to 80 acres.

RULE 4. (a) Each well, oil or gas, shall be located no nearer than 790 feet to any quarter section line and each such well shall be located no nearer than 330 feet to a governmental quarter-quarter section line or subdivision inner boundary line. Any well drilled to and producing from the Tapacito-Gallup Associated Pool prior to the effective date of this order at a location conforming to the well location requirements in effect at the time the well was drilled shall be considered to be located in conformance with this rule.

RULE 4. (b) The Secretary-Director shall have authority to grant an exception to Rule 4 (a) without notice and hearing when the application has been filed in due form and the Secretary-Director determines that good cause exists for granting such exception. However, such an unorthodox location, if approved, may necessitate an allowable adjustment.

Applicants shall furnish all offset operators and all operators within the section in which the subject well is located a copy of the application to the Commission, and the applicant shall include with his application a list of the names and addresses of all such operators together with a stipulation that proper notice has been given said operators at the addresses listed. The Secretary-Director of the Commission shall wait at least 20 days before approving any such unorthodox location, and only in the absence of objection from an offset operator may such application be approved.

RULE 5. A well shall be classified as a gas well if it has a gas-liquid ratio of 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more. A well shall be classified as an oil well if it has a gas-liquid ratio of less than 30,000 cubic feet of gas per barrel of liquid hydrocarbons. The simultaneous dedication of any acreage to both an oil well and a gas well is strictly prohibited.

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RULE 6. The gas-liquid ratio limitation shall be 2,000 cubic feet of gas per barrel of liquid hydrocarbons produced.

RULE 7. An oil well which has 80 acres dedicated to it shall be permitted to produce an amount of gas determined by multiplying the top unit oil allowable for said pool by the limiting gas-liquid ratio for the pool, (2,000). 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 80-acre unit from said wells in any proportion.

A gas well shall be permitted to produce that amount of gas obtained by multiplying the top unit oil allowable for the pool by 2,000 and by a fraction, the numerator of which is the number of acres dedicated to the particular gas well and the denominator of which is 80. In the event there is more than one gas well on a 320-acre gas proration unit, the operator may produce the amount of gas assigned to the unit from said wells in any proportion.

RULE 8. The operator of each newly completed well 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 11. Provided further, that any well which is shut-in shall be exempted from the afore-said gas-liquid ratio test requirement so long as it remains shut-in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 9. If the gas-liquid ratio is 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, 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. Any operator that desires to obtain an exception to the foregoing provisions for a well classified as an oil well shall submit to the Secretary-Director of the Commission an application for such exception with a statement setting forth the facts and circumstances justifying it. The Secretary-Director is hereby authorized to grant such an exception if he determines that the granting of it is reasonably necessary. If the Secretary-Director declines to grant administrative approval

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of the requested exception, the matter shall be set for hearing if the operator so requests.

RULE 9. Gas-liquid ratio tests shall be taken on all wells in the pool, and on all wells producing from the Gallup Sand within one mile of the boundaries of the pool which are not within another designated Gallup pool, during the months of January and July of each year. The initial gas-liquid ratio test shall suffice as the first semi-annual 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 tests, each operator shall file with the Aztec 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 10. An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Commission on Form C-125.

RULE 11. Any well completed after the effective date of this order shall receive an allowable only upon receipt by the Commission's Aztec Office of Commission Forms C-104 and C-116, all properly executed. The District Supervisor of the Commission's Aztec 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 2,000.

RULE 12. The initial gas proration period shall be from 7 o'clock a.m. on April 1, 1967, to 7 o'clock a.m. on February 1, 1968. Subsequently, the dates 7 o'clock a.m. February the first and 7 o'clock a.m. August the first 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 Tapacito-Gallup Associated Pool.

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RULE 13. Any gas well which has an underproduced status as of the end of a gas proration period shall be allowed to carry such underproduction forward into the next gas proration period and may produce such underproduction in addition to the allowable assigned during such succeeding period. Any allowable carried forward into a gas proration period and remaining unproduced at the end of such gas proration period shall be cancelled.

RULE 14. Production during any one month of a gas proration period in excess of the allowable assigned to a well for such month shall be applied against the underproduction carried into such period in determining the amount of allowable, if any, to be cancelled.

RULE 15. 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 compensated for during such succeeding period. Any well which has not compensated for the overproduction carried into a gas proration period by the end of such proration period shall be shut-in until such overproduction is compensated for. 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 16. The allowable assigned to a well during any one month of a gas proration period in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.

RULE 17. The Commission may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut-in upon a showing after notice and hearing that complete shut-in of the well would result in material damage to the well and/or reservoir.

RULE 18. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Commission on Form C-115 so as to reach the Commission on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

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RULE 19. Each purchaser or taker of gas shall submit a report to the Commission on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in approximately the same order as they are listed on the oil proration schedule.

RULE 20. Failure to comply with any provision of this order or the rules contained herein shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The District Supervisor shall notify the operator of the well and the purchaser in writing of the date of allowable cancellation and the reason therefor.

RULE 21. All transporters or users of gas shall file gas well-connection notices with the Commission as soon as possible after the date of connection.

RULE 22. 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 that a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage have been filed.

(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
DAVID F. CARGO, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

S E A L

esr/

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 2088
SANTA FE

March 30, 1967


Mr. Charles White
White, Gilbert, Koch & Kelly
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

Re: Case No. 3543
Order No. R-3211
Applicant:
TENNECO OIL COMPANY

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,


A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC x

Other Mr. Bob Baker, Atlantic Richfield, Roswell, N.M.

Case 3543

Lease 3-2261

Rec. 3-23-67

1. Oppose Denmead's request for
new Gallup associated Gas Oil
pool to be named Topacito
Gallup Asso. Pool.

Vertical limits Gallup s.s. of
Manco shale.

Horizontal limits.

26 N-SW - sec. 16 thru 23.

26 N-6W - sec. 13 N/2

sec. 14 N/2

2. Contract S. Blanco. Socito
Oil Pool as follows:

26 N-SW, sec. 18 N/2 + SE/4

✓ 19 NE/4

✓ 20 N/2

✓ 21 N/2

26 N-6W, sec. 13, N/2

✓ 14, N/2

3. Write a asso. Pool order for the pool
identical to R-1410C except
as follows:

Rule 9 - require 40 R barrels in
Jan & July each year

Rule 12 - Make 1st Production

Period: Apr 1, 67 thru Jan 31, 68

Day 1 thru July 31 & Aug 1

thru Jan 31, thereafter.

WHITE, GILBERT, KOCH & KELLY
ATTORNEYS AT LAW
P. O. BOX 787
SANTA FE, NEW MEXICO

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
TENNECO OIL COMPANY FOR THE CREATION
OF A NEW OIL POOL WITH GAS CAP OVERLAY
IN RIO ARriba COUNTY, NEW MEXICO.

Case 3543

APPLICATION

Comes now Tenneco Oil Company and hereby seeks approval for the crea-
tion of a new oil pool in Rio Arriba County, New Mexico, and respectfully states:

1. Applicant seeks the contraction of the horizontal limits of the
presently known Blanco Tocito Field in Rio Arriba County, New Mexico, and the
creation of a new pool classified as an associated reservoir with a gas cap
overlying an oil reservoir.

2. Applicant recommends the horizontal limits of the new pool be de-
fined as Sections 16 through 23, Township 26 North, Range 5 West, N.M.P.M, Rio
Arriba County, New Mexico. This identical acreage should be deleted from the
presently existing Blanco Tocito Field.

3. Applicant further proposes special pool rules including 80 acre
spacing for oil wells and 320 acre spacing for gas wells with gas allocation
formula based on 100% of acreage. Applicant proposes that the rules for the
proposed new pool resemble the previously approved Angel's Peak Gallup appli-
cation issued under Order No. R-1410-C.

WHEREFORE Applicant prays that the Commission set this application for
a public hearing before an examiner in Santa Fe, New Mexico; that notice be
issued according to law; and that this application be granted.

TENNECO OIL COMPANY
J. D. Moon, Division Attorney
201 Wall Building, Midland, Texas

WHITE, GILBERT, KOCH & KELLY
P. O. Box 787, Santa Fe, New Mexico

By

MB Kelly

Attorneys for Tenneco Oil Company

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 22, 1967

9 A. M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or
Daniel S. Nutter, Alternate Examiner:

- CASE 3541: Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico:
- A 280-acre unit comprising the NW/4, E/2 NE/4, and SW/4 NE/4 of Section 9, dedicated to its State "A" Acct. #1, Well No. 41 located 660 feet from the North and East lines of Section 9, and to its State "A" Acct. #1 Well No. 100 located 1980 feet from the North line and 990 feet from the East line of Section 9;
- A 200-acre unit comprising the NE/4 SW/4, N/2 SE/4, and SE/4 SE/4 of Section 9, and the SW/4 SW/4 of Section 10 dedicated to its State "A" Acct. #1 Well No. 38 located 990 feet from the South and West lines of Section 10;
- A 240-acre unit comprising the NW/4 and N/2 SW/4 of Section 10, dedicated to its State "A" Acct. #1 Well No. 37 located 1650 feet from the North and West lines of Section 10;
- A 200-acre unit comprising the SE/4 SW/4 of Section 10 and the NW/4 of Section 15, dedicated to its State "A" Acct. #1 Well No. 33 located 1650 feet from the North and West lines of Section 15;
- A 400-acre unit comprising the N/2 SE/4 and SE/4 SE/4 of Section 21 and SW/4, S/2 NW/4, and NE/4 NW/4 of Section 22, dedicated to its State "A" Acct. #1 Well No. 94 located 660 feet from the North line and 1980 feet from the West line of Section 22 and to its State "A" Acct. #1 Well No. 97 located 1980 feet from the North and West lines of Section 22.
- CASE 3542: Application of Union Oil Company of California for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Devonian formation through perforations from 12,017 to 12,036 feet in its Federal G Well No. 1 located in Unit G of Section 31, Township 9 South, Range 36 East, West Crossroads-Devonian Pool, Lea County, New Mexico.

CASE 3543:

Application of Tenneco Oil Company for a pool contraction, new pool creation, and special pool rules, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the South Blanco-Tocito Oil Pool by the deletion of that portion of said pool contained in Sections 18, 19, 20, 21, and 22, Township 26 North, Range 5 West, Rio Arriba County, New Mexico, and the creation of a new Gallup sand pool to include Sections 16 through 23 of the same township, and the promulgation of special rules therefor. Applicant proposes pool rules for said pool similar to those promulgated by Order No. R-1410-C for the Angels Peak Gallup Pool.

CASE 3544:

Application of Perry R. Bass, Cities Service Oil Company, agent, for creation of a gas pool and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a Morrow gas pool for its Big Eddy Unit Well No. 17 located in Unit B of Section 2, Township 21 South, Range 29 East, Eddy County, New Mexico, and for the promulgation of temporary special pool rules therefor, including a provision for 640-acre proration units.

ir/

INTER-OFFICE COMMUNICATION

TENNECO OIL COMPANY

TO: Southwestern Division
FOR: MR. J. D. Moon
FROM: MR. R. E. Siverson
RE: Jicarilla Area Gallup Sand

DATE February 14, 1967

RECEIVED

FEB 17 1967

MIDLAND LEGAL DEPT.

Case 3543

Please request the scheduling of an examiner hearing with the New Mexico Oil Conservation Commission during March, 1967 to consider field rules for production from the Gallup Sand in the Jicarilla Area of Rio Arriba County, New Mexico. The new field area should include Sections 16, 17, 18, 19, 20, 21, 22 and 23 of T-26-N, R-5-W. This area was previously included in Blanco Tocito Field by extending field limits according to statewide rules. It is our belief that this new development should be regulated separately from the abandoned Blanco Tocito waterflood project and that our application should closely resemble the previously approved Angels Peak Gallup Application. (Case No. 1641, Order No. R-1410-C.)

We propose rules as follows:

1. Rename the subject area and reclassify as an associated reservoir with a gas cap overlaying an oil reservoir.
2. Eighty acre spacing for all wells and 320 acre spacing for gas wells. All wells with gas-oil ratios under 30,000 classified as oil wells; over 30,000 gas wells, 2000/1 limiting gas-oil ratio for unpenalized oil production.
3. Gas allocation formula based 100 percent on acreage.
4. Gas well units to consist of any two contiguous governmental quarter sections of a single governmental section.
5. Oil well units to consist of N/2, S/2, E/2 or W/2 of any governmental quarter section.
6. Secretary-Director to approve odd-sized governmental spacing units without necessity of hearing.
7. Future wells to be drilled to conform with statewide spacing rules; 330' from tract boundary for oil wells, 790' from tract boundary for gas wells. Exceptions to be granted to those wells currently completed in the Gallup Sand.

INTER-OFFICE COMMUNICATION

TENNECO OIL COMPANY

J. D. Moon
February 14, 1967
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8. Gas-oil ratio tests to be taken yearly on both oil and gas wells or at more frequent intervals as the Secretary-Director may specify.
9. Original bottom-hole pressure tests on all new wells after clean up period.


Robert E. Siverson

JW:hes

WHITE, GILBERT, KOCH & KELLY
(GILBERT, WHITE AND GILBERT)

ATTORNEYS AND COUNSELORS AT LAW

LINCOLN BUILDING

SANTA FE, NEW MEXICO

March 9, 1967

CARL H. GILBERT (1891-1963)

L. C. WHITE

WILLIAM W. GILBERT

SUMNER S. KOCH

WILLIAM BOOKER KELLY

JOHN F. MCCARTHY, JR.

Case
35-43

POST OFFICE BOX 767

TELEPHONE 962-4301

(AREA CODE 505)

Mr. J. D. Porter
Secretary-Director
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Re: Application of Tenneco Oil
Company for new pool, Rio
Arriba County, N. M.

Dear Mr. Porter:

Enclosed please find original and two copies of Tenneco's application for the creation of a new pool in Rio Arriba County, New Mexico. This application has already been published and is set for hearing on March 22.

Sincerely,

W. B. Kelly
W. B. KELLY

WBK:el
Encl.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1720 SIMMAS BLDG. • P. O. BOX 1092 • PHONE 243-6191 • ALBUQUERQUE, NEW MEXICO

EXAMINER HEARING

IN THE MATTER OF:

Application of Tenneco Oil Company for
a pool contraction, new pool creation and
special pool rules, Rio Arriba County,
New Mexico.

) Case No. 3543

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



MR. UTZ: Case 3543.

MR. HATCH: Application of Tenneco Oil Company for a pool contraction, new pool creation and special pool rules, Rio Arriba County, New Mexico.

MR. WHITE: Charles White of White, Gilbert, Koch and Kelly of Santa Fe, New Mexico, appearing on behalf of the applicant. We have one witness to be sworn.

(Witness sworn.)

L. B. PLUMB,

called as a witness on behalf of the applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:

Q Will you state your name for the record, please?

A My name is L. B. Plumb. I am employed by Tenneco Oil Company as a Petroleum Engineer, Durango, Colorado.

Q Have you previously testified before the Commission as a Petroleum Engineer?

A Yes, sir.

Q Briefly state what Tenneco seeks by the subject application.

A Tenneco asks that certain tracts of land be removed from the limit of the South Blanco- Tocito Pool, these lands are described as Sections 17, 18, 19, 20, 21 and 22 of Township

26 North, Range 5 West, Rio Arriba County. We also ask the establishment of a new Gallup Pool including Sections 16 through 23 of Township 26 North, Range West, Rio Arriba County.

Q Do you have evidence to show that the present South Blanco-Tocito Pool limits should be contracted and a new pool created?

A Yes, we have prepared testimony that will support this contention.

(Whereupon, Applicant's Exhibits 1 through 4 marked for identification.)

Q (By Mr. White) Will you refer to Exhibit 1 and explain it, please?

A Exhibit 1 is a geologic structure map drawn on the top of the Gallup formation marker. The map shows that in the area under consideration, the regional dip, the Gallup formation is the same as the rest of the San Juan Basin, and that there is no particular geologic feature which caused the formation or the deposition of the sand bars to be included in the new pool limits.

Also shown on the map by color code are the wells which have been drilled on the acreage and the zones in which these wells are completed. The color code is explained at the bottom of the map.

Q Is the exhibit otherwise self-explanatory?

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A Yes, sir, I believe the exhibit is otherwise self-explanatory. Also shown in each section is the name of the operator of the property.

Q And also shows the offset operators?

A Yes, sir, the operators of offset properties are also shown.

Q Will you refer to Exhibit 2 and explain Exhibit 2?

MR. UTZ: The figures on the contours are subsea data, is that right?

MR. PLUMB: Yes, they are subsea data.

A Exhibit 2 is an isopach map showing the net productive pay sands in the Gallup interval under, on the lands under consideration. The completions of the several wells are again shown by the same color code as in the previous map. I wish to note on the map the effective control, particularly on the south side of the sand bar, where the wells which penetrated the Dakota formation and the -- logs that were taken through the Gallup show that there is effective zero net pay sands all along the southern border of the proposed Tapcito-Gallup Pool.

On the north side, the control does not go down to zero because there has been not enough development up there, but the pay is thinning to such an extent that it effectively pinches out in that direction and it is very doubtful that

there would be any development on the north side of the pool for pay thicknesses on the order, shown here, of four to five feet.

I would also like to note the difference in the thickness contour interval on the two sand bars indicated here, the southern half of the proposed pool or the up-structure side is contoured on five foot intervals going to a maximum thickness of 32 feet. The north side of the pool is contoured on a two foot interval going to a maximum thickness of only eight feet, of what we believe to be the oil productive portion of the sand.

Q What does this exhibit demonstrate?

A The exhibit demonstrates effectively, that the sand bar shown here is well defined, that it is limited to the land requested under the call of the Hearing, and that the sand bar shown here should be considered to be effectively out of communication through the reservoir with the South Blanco-Tocito Pool.

I call your attention to the area on the northwest portion of the map, where the sand thickness goes down to an interval of four feet, which is marked at this time. This reference means that although there was sand indicated to be present, that there was very little porosity indicated in the sand. There was no completion attempt in the Gallup, and that,

effectively, sands of this type characteristic would separate the two sand bars from effective communication.

Q Now, will you discuss the producing characteristics of each producing well?

A There are four wells presently producing in the proposed Tapcito-Gallup Pool. Although there are seven completions, Wells Number A 2 and A 8 are completed as Gallup oil producers and produce with typical oil well characteristics. Well Number A 2 was tested to produce 65 barrels of oil per day and 167 mcf of gas with a flowing tubing pressure of 20 psi and a flowing casing pressure of 900 psi.

Well Number A 8 was tested for an initial production of 114 barrels of oil, 102 mcf of gas with a flowing tubing pressure of 40 psi, and a flowing casing pressure of 800 psi.

Now, proceeding down to Wells Number A 3 and A 5, A 3 was tested at a rate of 1900 mcf of gas per day with a flowing tubing pressure of 720 psi, with a flowing casing pressure of 880 psi.

Number A 5 --

MR. UTZ: No liquids?

A The liquids in this case are commingled with Dakota liquids because the well is a dual completion, and I didn't have a test showing the effective separation of the liquids as to how much came from each zone at the time of this test.

The indication is that the wells are producing at a gas-oil ratio of approximately 40,000 to 1. They do produce liquids of a slightly higher gravity than that produced from Number A 8, which produces 4,343 API crude. Number A 5 produces at the rate of 4,000,000 mcf per day, with a flowing tubing pressure of 1475 psi, and a flowing casing pressure of 1725 psi.

MR. UTZ: What was your gas figure again?

A 4,000,000 mcf per day, 4,000 mcf, excuse me. We have run bottom hole pressure tests on each of these wells, the bottom hole pressures are so nearly similar as to be essentially the same. A 2 for instance, had a shutin bhp of 2,017. A 8 had a shutin bhp of 2115 psi. A 3 had a shutin pressure of 2181 psi. And A 5 had a shutin bottom hole pressure of 2176 psi.

I call your attention especially to the difference in flowing pressure characteristics of the two wells, Number A 2 and Number A 8 from the flowing pressure characteristics of the Wells A 3 and A 5. I know that this clearly indicates that the A 3 and A 5 produce essentially as gas wells produce, and that the A 2 and A 8 produce as oil wells produce.

Q (By Mr. White) Now, will you refer to Exhibit 3?

A Exhibit 3 is a geologic cross section drawn along the line marked AA Prime on your two maps. This travels in

an east-west direction across the north side of the pool. This purports to show the connection and communication of the Gallup sand from well to well across this interval. I believe that the logs clearly indicate that the producing interval in these wells is essentially the same, and that the wells are producing from the same sand bar across the pool there.

Q Now, will you refer to Exhibit 4?

A Exhibit 4 is a geologic cross section drawn on the line BB Prime, which goes in a north-south direction across the pool and shows also the Gallup formation, looking at a cross section in the north-south direction. We can note that on the south end of the pool, the well Tenneco Oil Company's Jicarilla Number 6 has effectively no pay sand developed at all in the Gallup formation. I wish to note that the well, Tenneco Oil Company's A 6 developed no pay sand in the Gallup formation, and is non-productive.

Proceeding north to A 5, we developed 32 feet of Gallup sand. I would like to note here that this is probably the thickest development of porous Gallup sand found anywhere in the San Juan Basin. We also have the Jicarilla 3 which developed approximately 11 feet of Gallup sand, then in the Jicarilla Number 7, proceeding north, the sand appears to thin out again, to where it is essentially non-productive.

No completion attempt was made in this well in the Gallup formation.

Proceeding further north into the Jicarilla Number 8, we again find the Gallup sand developed productive, and here is where the oil production comes from. I feel that the thinning of the sand on an east-west line between the gas productive portion and the oil productive portion of the oil should serve effectively as a barrier to prevent migration of oil into any area from which gas is produced.

Q This pool, in your opinion, is separated from the South Blanco-Tocito Pool?

A Yes. I believe it is. If you will refer back to Exhibit 2, the isopach map, we show that the development of the sand bar here thins into a very thin tight sand which effectively will stop communication in the reservoir between the South Blanco-Tocito and the proposed Tapcito Pool. I would like to note also, that the South Blanco-Tocito is a very old Gallup pool. It has produced for a number of years, it has undergone secondary recovery attempts with water injection, which have since been abandoned, but that, during this attempt, the Calkins Oil Company Bridge C Number 248, located in the northeast quarter of Section 13, 26, 6, which has been classified in the South Blanco-Tocito Pool has never responded to any attempt at pressure maintenance or

waterflooding. It has seen no increase in oil production, no reduction in gas-oil ratio, and no break through of water from water injection. I think that this well is in communication with the sand bar that we wish to call the Tapcito-Gallup Pool, and it effectively is not in communication with the sand bar in the South Blanco-Tocito Pool. This well currently produces with a gas-oil ratio of approximately 25,000 to well --

MR. UTZ: What was the location of that well, again?

A Northeast quarter of 13, 26, 6.

MR. UTZ: C 248?

A C 248.

Q (By Mr. White) What name do you suggest be given this new pool?

A Tapcito-Gallup.

Q And what pool rules do you recommend?

A We recommend that the pool rules for the Tapcito-Gallup be adapted essentially the same as those pool rules now in effect for the Angel Peak-Gallup Pool, with two exceptions.

Q What exceptions do you wish as to Rule 9?

A Rule 9 of the Angel Peak-Gallup Pool Rules requires a gas-oil ratio test to be taken four times a year. We request that in the Tapcito-Gallup Pool, that the gas-oil ratio test

be required twice a year, in January and July. We feel that the purpose of this gas-oil ratio testing is for the purpose of classifying wells as either oil wells or gas wells, that the monthly reporting of gas and oil production which will be required, will serve as an effective control on the production characteristics of the well, keeping the production within the allowable limits for both oil and gas.

Q What exceptions do you desire as to Rule 12?

A Rule 12 applies to the, specifically, to the Angel Peak area, setting dates for the balancing period for gas proration. I think that the rules for Tapcito should conform to the rest of the San Juan Basin, using the period February to August or August to February, as the gas proration period but, the wording on the particular rules here would need only a slight change to accomplish this.

Q In your opinion, will one oil well efficiently and economically drain 80 acres?

A Yes, it will.

Q And in your opinion, in the Gascap area, will one well efficiently and economically drain 320 acres?

A Yes, it will.

Q Does that conclude your testimony?

A Yes, sir, it does.

MR. WHITE: At this time, we move the admission of

Exhibits 1 through 4.

MR. UTZ: Without objection, Exhibits 1 through 4 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 4 offered and admitted in evidence.)

MR. WHITE: That concludes our presentation.

CROSS EXAMINATION

BY MR. UTZ:

Q While we are fresh on the subject of balancing, it is your recommendation that the six months' balancing period be the same as our 1670 or the other balance rules in the San Juan Basin, with the understanding that cancelling is carried through a six months' period, or curtailment only is carried through a six months' period?

A Yes, we agree to that.

Q Referring to Exhibit Number 2, I want to talk about nomenclature a little bit. The area you have asked for in this application is substantially larger than the area designated at the present time by the Commission. Now, you want to start in Section 16, is that correct?

A Yes, we do, for this reason; that the Jicarilla B 7 is scheduled for dual completion in the Gallup formation. We propose to do this as soon as convenient to our operation schedule and this is indicated to be probably in the month of

April that we will dually complete the B 7 as a Gallup-Dakota producer.

Q If you complete that, then you will have a well in the northeast quarter of Section 16?

A Correct.

Q You now have a well in the northeast quarter of Section 17 completed in the Gallup, is that correct?

A Yes.

Q And you have a well in the same quarter section, the northeast quarter of Section 18?

A Yes.

Q Then you want to go down to Section 19, is that correct?

A Yes. We have completions in the northeast quarter there, also.

Q Well, now, that leads to my next question. What about the C 248 over here in Section 13?

A Well, sir, since that well is not operated by Tenneco Oil Company, I would feel out of order on my part to make any recommendations concerning that well.

Q Well, we don't define a pool on the basis of the pool operator.

A Well, I think that well should be included within the limits of the Tapcito-Gallup Pool.

Q Would you agree that that well is in communication in some manner with the A 2 on Section 18?

A Yes, definitely.

Q So, we have no wells in Section 14?

A No, that would be Section 24.

Q Now, in Section 19, you have a Gallup completion in the northeast quarter, correct?

A Yes.

Q And the northeast quarter of 20 you have a completion, the northeast quarter of 21 you have a completion, you have no completion in the Gallup in Section 22, is that correct?

A That's correct, we do not.

Q But you do have in Section 23, northwest quarter?

A Yes, sir, we have in the northwest quarter in Section 23.

Q And also the southeast quarter?

A I am not positive of that. I mean, I believe that is a mistake. I believe that that well is not a Gallup completion. C 3 is a Gallup completion in the southeast quarter, C 1 is not a Gallup completion in the northwest quarter.

Q I have got one too many Gallup wells in that section?

A Yes.

Q So, with the exception of Section 16, A 22, you have a Gallup completion in each of the sections that you are

requesting?

A Yes. For the record, there was a completion attempt made in the C Number 1, but it was unsuccessful because of mechanical problems. We had to squeeze the cement some, at the same time, we effectively squeezed the cement to the pay formation, and were not able to get any production out of it.

Q Section 12 is in the present pool, Section 12 of 26, 6, I'm sorry.

A Yes, 12 and 24.

Q Also, the north half of 13 is also in the pool as delineated?

A Oh, excuse me, I don't think I understand you.

Q I said, Section 12 of 26, 6, is now in the pool?

A 26, 6 is now in the South Blanco-Tocito Pool, yes.

Q And also the north half of 13 is in the present delineated pool?

A You are correct, the north half of 13.

Q Is it your opinion that there is separation between those two areas?

A I think there is effective separation in the reservoir between those two areas.

Q Approximately on the section line between Sections 12 and 13?

A Yes.

Q Now, Section 7, the east half is also in the present delineated pool. Do you feel that is separated from Section 18 which you have recommended?

A Yes, I believe it is. There is a definite pay thinning in the Gallup formation in the south half of Section 7, which I think effectively shuts off communication between the north half of Section 7 and the north half of 18.

MR. UTZ: I think that pretty well takes care of our nomenclature problem. Are there any other questions of the witness? Mr. Arnold.

CROSS EXAMINATION

BY MR. ARNOLD:

Q Mr. Plumb, you stated you think one well will effectively drain 80 acres. Have you observed any pressure interference, or what do you base your opinion on as to the drainage radius?

A The pressure interference has not been apparent through the reservoir. We noted that the initial bottom hole pressure in Tenneco's Jicarilla 2 was approximately 2,817 psi whereas the bottom hole pressure reported in the Calkins Breach C 248 in the northeast quarter of Section 13 is reported as being less than 700 psi. It is apparent that there is not sufficient pressure communication in the reservoir to cause a pressure interference over an interval as great as a half mile,

but I believe that the characteristics of the Gallup formation indicate that pressure would be in communication in a distance of a quarter mile or a half mile, which is what might be expected in the 80 acre space for pools.

Q One other question I had in mind; how do you account in your own mind for the fact that you have two adjacent sand bars in the same approximate geologic horizon here, one of which contains gas and the other which contains oil?

A Well, my opinion is that the sand bar was deposited after the geologic structure was in place and that we have the possibility of an on shore sand bar and an immediately off shore beach type sand bar, the on shore being the thicker one on the south, and the off shore being the one to the north. The difference here we must appreciate is that the sand bar to the south is 30 feet thick, whereas the one to the north is very small, being only eight feet thick, and that this could easily occur under the conditions that existed during the time of deposition.

As for the north sand bar containing essentially oil and the south sand bar containing essentially gas, I am not -- I don't have any opinion as to how this situation occurred. However, it is characteristic also of the Gallup formation throughout the San Juan Basin, that is, a very high gas-oil ratio production, that there is quite a lot of solution gas in

the Gallup, that in almost every pool found there, the oil is supersaturated with oil -- with gas rather, and I feel that the appearance of gas --

Q This gas in this sand bar, is it not unique to this sand bar at all? Actually, with the rules that you are proposing, even if it should develop that in some areas these two bars are connected, the rules that you are proposing will protect against drainage because of the fact you are going to dedicate larger areas to gas wells?

A I believe that is true. With the dedication of 320 acres to a gas well, we will be withdrawing the same reservoir volume of hydrocarbons from a 320 acre gas well as we were withdrawing from an 80 acre oil well, so that in this case, correlative rights or offset production rights should be adequately protected.

Q So, with that type of rules, it can be produced just as efficiently as one reservoir, as it could as if you had actually separated them as you indicated that you think they actually are?

A Yes. I think that the pool rules would allow for just as effective production mechanism under the single gas pool rules as it would if we separated them into two pools.

MR. ARNOLD: I believe that's all I have.

CROSS EXAMINATION

BY MR. UTZ:

Q Do you happen to know what the dip factor is?

A We are in the six to 7,000 foot range. The maximum 80 acre allowable is 194 barrels of oil per day.

Q 388 mcf of gas per 80 acre tract, is that correct?

A That is correct.

Q So your 320 acre gas allowable will be 1552 mcf?

A Correct.

Q Per day?

A Yes.

Q That is a pretty sizeable gas allowable for San Juan Basin, is it not?

A It is higher than the San Juan Basin average. However, the wells do indicate having a capacity of being able to produce at those rates and producing pressures indicate that they should be sustained at such rates.

Q That was my next question. How many wells do you have in the Gasap area now?

A Two. We have two producing wells, the B 4 has been tested but it is not on the line of selling gas at this time. This is a matter of approval by the necessary regulatory bodies before we are able to sell gas.

Q You feel that the 2,000 to 1 GOR will curtail those

two wells to some extent?

A Yes, I believe so. On the -- Excuse me, not the -- On others, but not shown on this map, but approximately seven miles east of here there is a Gallup gas producer, which has produced cumulative production of nine billion cubic feet of gas and produces at rates considerably higher than 1.5 million cubic feet of gas per day.

Q Now, actually, you are not saying here that you have, or at least you don't show on any of your exhibits, gas-oil contact?

A No, sir, we have found no gas-oil contact.

Q As a matter of fact, judging from your Exhibit Number 2, you really don't feel that is very much communication between the two fields?

A I don't think there is much communication between the fields. I think this effect would prevent migration of any oil into an evacuated gas cap, that should the gas cap pressure drawdown be greater than the pressure drawdown in the oil sand bar, there should not be any migration of oil into the Gascap area. However, with the considerably greater thickness in the Gascap area, it is my opinion that the pressure drawdown will be much sharper in the oil producing section of the pool rather than in the gas producing section.

Q Now, the liquid produced from the gas wells has

substantially higher gravity than the 46 API crude produced from the oil wells?

A Yes, sir, that's correct.

Q Do you have any --

A The A Number 8, the production from the Gallup formation in this well is tanked separately and sold separately because the well is producing right now only from the Gallup formation. The gravity here is 46 degrees API. In the Well A Number 3, which produces from the gas cap, the gravity is 49.5; in the A 5, the gravity is 55 degrees API. Now, these wells have the liquids commingled with liquids produced from Dakota also. The Dakota liquid appears to have a gravity of approximately 55 to 60 degrees API. We tanked it separately.

Q These gravities you have given me on the gas wells, is that Gallup liquid gravities?

A Well, it is commingled liquid gravity with some Gallup liquid and some Dakota liquid in the same tank.

Q So that is the commingled gravity?

A Yes.

Q You don't know what the relationship between the two liquids are, we know the Dakota gravity is 55?

A 55 to 60.

Q On the A Number 3, if you are to get very much Dakota

liquid in there, the gravity must be pretty low on the Gallup side, then, mustn't it?

A Well, by contrast, the A Number 7, which is Dakota's only producer, has a liquid gravity of 52 degrees. You can see it is between the A 3 and the A 8 in the southwest of 17. The A Number 6 in the southwest of Section 20 produces from the Dakota only. The gravity reported here is 52 to 54 degrees API.

MR. UTZ: Are there any other questions of the witness?

CROSS EXAMINATION

BY MR. ARNOLD:

Q Did you take any cores of any of these Gallup wells when you drilled them?

A Yes, there were two cores cut in the Gallup Section, A Number 2 was cored, and one other which I can't remember at this time.

Q Were there any in the gas portion that you cored?

A No, sir, we did not core any wells in that portion of the field. We were totally surprised by the thickness of sand that occurred in the A 5 and at that time, up until that time rather, we were not enthusiastic about the gas production on this particular block of acreage.

Q Are you also recommending that we use a gas-oil

ratio of 30,000 to 1 to define the difference between a gas well and an oil well?

A Yes, sir.

MR. ARNOLD: I believe that's all.

CROSS EXAMINATION

BY MR. UTZ:

Q Now, you have two oil completions at the present time?

A Yes.

Q Can you give me the GOR's of those two wells?

Do you have any data on the C 248 in Section 13?

A The C 248 is producing at a produced gas-oil ratio of approximately 25,000 to 1. It produces the maximum gas allowable for an 80 acre well in the South Blanco-Tocito Pool. This would be 388 mcf a day, which is approximately 12,000,000 feet of gas per month. This well does produce at the rate of approximately 12,000,000 cubic feet of gas per month. The oil production is less than ten barrels per day. I don't know the exact number, but the gas-oil ratio on Tenneco's Jicarilla 2 is 3900, the gas-oil ratio on Tenneco's A Number 8 is 900.

Q Those are producing GOR's?

A Yes, sir.

Q Do you have any explanation for the big difference in GOR's between the C 248 and your other two wells, or your two wells, rather?

A Well, sir, you will note the A Number 2 is producing at a GOR of 3900, which would curtail its production, probably. This indicates to have, indicates that the well might be experiencing some effect of the pressure drawdown from the C 248, although the long term bottom hole pressure buildup did bring the pressure up to shutin of 2,017 psi. The flowing tubing pressure is 200 psi, and indicates a flowing bottom hole pressure of considerably less than 2,000. The A 8 is far enough away from the Calkins C 248 and there just has not been any effective pressure communication over a distance of two miles.

Q On the gas side, you have four wells completed in the gas zones at the present time?

A Yes.

Q Do you have the GOR's on those?

A No, sir, I don't have a GOR report at this time. There are only two of these wells producing and the absolute open flow tests that were conducted on these wells reported no liquid production. The gas was flared as it was produced. We did not produce through a separator for the absolute open flow test, so only the A 3 and A 5 could have GOR's reported. And I do not have that information at this time.

Q How about the A 3?

A Yes, A 3 and A 5.

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Q You said A 4?

A Oh, I beg your pardon.

Q Do you have any idea when you are going to connect the other two wells, the B 4 and C 3?

A I expect the B 4 to be connected before the end of the month, and the C 3, I really don't have any idea.

Q Is it a pretty good gas well?

A No, sir. The absolute open flow test on that well was 1,200 mcf per day with a flowing tubing pressure of 318 psi. There was no casing pressure reported. The well has a packer in it but I do not anticipate that this well will have a productive capacity anywhere near the Wells A 3, A 5 or B 4.

Q That was a 1,203 hour test?

A Yes.

MR. UTZ: Are there any other questions of the witness?

CROSS EXAMINATION

BY MR. ARNOLD:

Q How long a period are you recommending that an operator be given to secure gas connection on a new completion?

A I don't think it will require more than 60 days.

Q Is there a provision in the Angel Peak-Dakota order for that? Is that 60 days?

A Yes, sir, there is a provision in the Angel Peak-

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Gallup. The Well A 2 has a gas connection. Gas is being compressed and sold from this location. A 8, right now, has an exemption. The Blanco-Tocito, no flare order and is flaring gas, and however, the extension or exemption was, I believe, a 30 day exemption, but we are working on a contract for this gas and I think that we will have it by the time the exemption expires.

MR. ARNOLD: That's all I have.

MR. PORTER: I have a question. I am sure this was covered on direct but I wasn't here.

CROSS EXAMINATION

BY MR. PORTER:

Q Now, what are you proposing here, as far as spacing is concerned?

A 80 acres for oil wells.

Q 80 for oil?

A And 320 acres for gas wells.

Q And I believe I heard you indicate that you would like to have the gas-oil ratio make the determination as to whether it is a gas or oil well, 3,000 to 1?

A Yes, 3,000 to 1 would reclassify a well as a gas well. The limiting gas oil ratio for an oil producer would be 2,000 to 1.

Q And this is all the criteria you would use, the gas-oil

ratio?

A Yes.

Q Not the gravity of oil or anything like that?

A No, sir, I don't think gravity can be used to define the difference in the liquids.

Q What about royalty in this area? Does it all come under any one tract? For instance, would you have a 320 acre gas unit composed of different royalties?

A No, sir, all of the land in the Jicarilla Apache Reservation, there are no overriding royalties on this tract, to my knowledge.

MR. PORTER: That's all I have.

MR. UTZ: Are there any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case?

MR. BAKER: Yes, sir, Mr. Examiner. I am Bob Baker representing the Atlantic Richfield Company. My company has a 58 per cent interest in Sections 13 through 24, Township 26 North, Range 5 West, Rio Arriba County, New Mexico. As such, I have listened with considerable interest to the testimony presented by Tenneco.

From the testimony, it is my conclusion that evidence proves that the Gallup reservoirs, primarily under

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the twelve section block, are separated from the main South Blanco-Tocito Reservoir because of lack of pay, or lack of permeability. Withdraws from this new reservoir should not affect producing characteristics of the majority draws presently designated as South Blanco-Tocito. Since producing characteristics of the Tenneco wells are not similar to the majority of South Blanco-Tocito wells, special rules for the South Blanco-Tocito Pool should not apply.

We, as a company, do not encourage economic development of any pool. Pay zones in these new reservoirs indicate formation permeabilities to be high enough to permit an oil well to drain at least 80 acres and a gas well at least 320 acres. We believe that a year of production history will easily establish this conclusion is a fact.

Atlantic Richfield Company recommends that temporary special pool rules be established for this new pool or pools for at least a year. We recommend that these rules be similar to those governing both the Angel Peak-Gallup and Escrito-Gallup Pools. Special rules such as these will prevent waste and protect correlative rights.

As such, Atlantic Richfield Company supports Tenneco Oil Company's application. Thank you.

MR. UTZ: Are there any other statements? The case will be taken under advisement.

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E X H I B I T S

EXHIBIT	MARKED FOR IDENTIFICATION	OFFERED	ADMITTED
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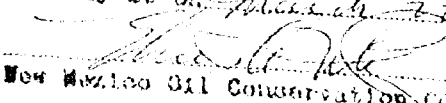
STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JERRY POTTS, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 15th day of May, 1967.


NOTARY PUBLIC

My Commission Expires:
July 10, 1970.

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 85-93, held by me on March 23, 1967.

Notary Public, Notary
New Mexico Oil Conservation Commission