

CASE 4184: Appli. of PENNZOIL FOR
NEW OIL POOL, SPECIAL RULES AND
NON-STANDARD OIL WELL LOCATION.

Case Number.

4184

Application

Transcripts.

Small Exhibits

ETC.

dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 6, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Pennzoil United, Inc.
for the creation of a new oil pool,
promulgation of special rules
therefor, and a non-standard oil
well location, Lea County, New Mexico.

Case No. 4184

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

I N D E XB. C. SINCLAIR

Direct Examination by Mr. Durrett
Cross Examination by Mr. Nutter

Page

3
14

E X H I B I T SMarkedOffered and
Admitted

Applicant's Exhibits 1 thru 7

3

13

MR. NUTTER: We will call the next case, Case 4184.

MR. HATCH: Case 4184, Application of Pennzoil United, Inc., for the creation of a new oil pool, promulgation of special rules therefor, and a non-standard oil well location, Lea County, New Mexico.

(Whereupon, Applicant's Exhibits 1 through 7 were marked for identification.)

MR. DURRETT: If the Examiner please, J. M. Durrett, Jr., appearing on behalf of the Applicant. I have one witness, Mr. Sinclair. I would ask that the records show that Mr. Sinclair was sworn on the previous case and is still under oath.

MR. NUTTER: Mr. Sinclair is still under oath.

B. C. SINCLAIR

called as a witness, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. DURRETT:

Q Mr. Sinclair, will you please state what the Applicant is seeking in Case 4184?

A Pennzoil United is seeking the creation of a new pool and promulgation of field rules for this pool

which established 160-acre spacing and proration units with wells located within 150 feet of the center of either the NW/4 or the SE/4 of a Governmental quarter section.

Q Now, Mr. Sinclair, I believe our Application also states that we were seeking authority to re-enter a well, is that correct?

A Yes, that is correct.

Q And the testimony will show later that this is no longer necessary?

A That is correct.

Q Thank you. Referring to your request for creation of a pool, would you please refer to your Exhibit No. 1 and point out the discovery well?

A Exhibit No. 1 is a structure map contoured on the top of the Penn porosity. It shows the location of all wells that have been drilled to the Penn Reservoir and the immediate area. The discovery well for the Penn Reservoir was the Pennzoil-Gallagher "8" State Well No. 1, located in the NW/4 of Section 8 and colored in green.

Q Do you have the footage location on that well?

A The location, yes, I have it. The Pennzoil-Gallagher "8" State No. 1 is located 660 feet from the north line and 510 feet from the west line of Section 8, 17 South,

34 East.

Q Mr. Sinclair, when was that well completed, what date?

A That well was completed in November of '68 and a potential for 453 barrels per day with a flowing pressure of 800 pounds.

Q What is the top of the perforations in that well?

A Perforations in the Penn are from 11,711 to 11,753 feet.

Q Okay. Referring back to your Exhibit No. 1, is there anything further you would like to say concerning that Exhibit?

A Yes, I would like to point out the additional development that has taken place in the field. The second well drilled was the Pennzoil-Sinclair 6 State No. 1 in the SE/4 of Section 6. This well recovered oil from the Penn Pay on the drill-stem tests, but a complete attempt was not attempted in the Penn because of the thin and tight reservoir that was encountered there and the well was completed in the Wolfcamp.

The third well drilled was the Pennzoil-Mobil 7 State No. 1 in the NE/4 of Section 7, and this well was completed on June 30th, 1969 and potential 540 barrels

of oil per day with a flowing pressure of 700 pounds.

I would also like to point out that in July of '69, Pennzoil re-entered the Monsanto-Gallagher State No. 1 well that is now designated as the Pennzoil-Gallagher 8 State No. 2 which is located in the SW/4 of Section 8. This well was deepened to the Penn Reservoir and found to be dry in the Penn and it has been plugged.

Q And that is the reason that we don't need the exception that we were requesting?

A That is correct.

MR. NUTTER: So I presume then, Mr. Durrett, that you wish to amend your Application to delete that portion?

MR. DURRETT: I would so move, Mr. Examiner.

MR. NUTTER: The Application will be amended.

BY MR. DURRETT:

Q Let's refer to your Exhibit No. 2 which is production data. Would you state what that shows?

A Yes, this Exhibit shows monthly, all the oil, water and gas production from the Penn Reservoir. It also shows the gas-oil ratio for each month and the number of producing wells. As you can see, there has been only one producing well through June of 1969. This producing

well was the Pennzoil-Gallagher 8 State No. 1. The second producing well was the Mobil 7 which began producing in July of '69. Accumulative production to July 1st, 1969, from the Reservoir, 26,822 barrels of oil and 26,411 M.C.F. gas. Current production from the Reservoir is 50 barrels of oil per day with a flowing pressure of 75 pounds from the Gallagher 8 State No. 1 and approximately 250 barrels per day with a flowing pressure of 1100 pounds from the Mobil 7 State 1.

Q Let's move to Exhibit No. 3 now. What is that?

A This is a production curve showing a plot of the monthly oil production, gas-oil ratio and number of producing wells.

Q You don't have a great deal of information here because the wells haven't been producing very long, is that right?

A That's correct.

Q Is there anything else significant about that?

A No.

Q Let's move to Exhibit No. 4 which is your Reservoir data and discuss that Exhibit, if you will?

A This Exhibit shows the rock and fluid properties of the Reservoir that were encountered in the Mobil 7

State No. 1 well.

I would like to point out that in this case we show the properties of the Mobil 7 because of four wells drilled to the Penn Reservoir to date, it is the only well that encountered Penn Pay of sufficient thickness and quality to warrant other development of this Reservoir.

The significant properties shown on this Exhibit are porosity $6\frac{1}{2}$ percent, the bottom-hole temperature 160°F , the oil gravity of 42 degrees A.P.I., the formation volume factor, 1.60, reservoir barrel per stock tank barrel and the reservoir energy solution gas drive. These properties are in the range that will permit easy movement of fluid in the Reservoir. The properties that I mentioned are those which affect the viscosity of the oil, and these properties indicate that the viscosity is such that fluid movement through the Reservoir will be relatively easy and will efficiently drain, in my opinion, 160 acres per well.

Q Now, refer, please, to your Exhibit No. 5 which is the log?

A Yes. This is the gamma ray neutron log of a portion of the Mobil 7 State No. 1 well. It shows the Penn purse at 11,711 feet to 11,753 feet. It shows also

the tops of the various geological markers in the vicinity of the Penn Pay.

Q Referring now to your bottom-hole pressure which is Exhibit No. 6, could you please point out the pertinent parts of that?

A Yes. This Exhibit shows all of the bottom-hole pressures that have been taken from the Penn Reservoir in this area. I would first like to call your attention to the Mobil 7 State No. 1 well which is in the middle of the Exhibit. It shows that the original bottom-hole pressure encountered in this well was 7975 pounds per square inch. No original pressures were taken in the discovery well which is the Gallagher 8, therefore, the bottom-hole pressure of 7975 found in the Mobil 7 is the original Reservoir pressure and has been established for this Reservoir. I believe that the original pressure in the Reservoir for any fluid that was produced was around 7975 pounds.

Now, I would like to point out the Sinclair 6 State No. 1 well which encountered an original pressure of 7748 pounds on April 8, 1969. The cumulative production from the Reservoir on that date was about 20,700 barrels of oil and all of this oil had been produced from the

Gallagher 8 State No. 1 well. If you will look back on your map, I would like to point these out on the map, please.

The Sinclair 6 in Section 6 encountered a reduced pressure that was some 227 pounds below the original Reservoir pressure, and the only well that had produced at this time was the Gallagher 8 State No. 1. in Section 8. This well is approximately 1800 feet from the Sinclair 6 and it created drainage in the vicinity of the Sinclair 6.

This indicates the drainage capability of a well in this Reservoir. As I stated before, I believe it is indicated that a well has the capability of draining at least 160 acres, efficiently.

Q Let's move now to your economic data which is your Exhibit No. 7.

A This Exhibit shows comparative economics for 80-acre spacing and 160-acre spacing for a well in the Penn Reservoir.

I would like to point out the note at the bottom of the Exhibit that states that the economics shown are based on the estimated oil recovery from a well with a Reservoir development comparable to the Mobil 7 State No. 1 but with greater aerial extent of the Reservoir than the bottom-hole pressure performance of the Mobil 7 State No. 1.

indicates.

The bottom-hole pressure performance which was shown on the previous exhibit does indicate that the Mobil 7 is completed in a small reservoir of limited size, and these economics are not based on estimated recovery from this well, but are based on a hypothetical well that encountered reservoir properties comparable to Mobil 7, but with aerial extent greater than is indicated in the Mobil 7.

The estimated recovery from such a well is 174,000 barrels of oil, and this produces total revenue after royalty and severance tax of \$452,200. in the case of 80 and 160-acre spacing. The expenses are shown. It is estimated that \$240,000. would be required to drill and complete and equip one well in this reservoir. Operating costs of \$70,000 for 80-acre spacing is \$49,000., for 160-acre spacing are shown. This is due to the fact that two wells would be required for 80-acre spacing and only one for 160-acre spacing. Also influencing these numbers is the fact that two wells would drain the reservoir more quickly in a shorter time than would one well drain the reservoir. Total expenses are shown of \$550,000. for 80-acre spacing, \$289,000. for 160-acre

spacing, leaving a net loss of \$97,800. for 80-acre spacing and \$163,200. profit for 160-acre spacing. Profit to investment ratio under 160-acre spacing would be .68. A profit to investment ratio of this magnitude is considered marginal and can justify the investment required to develop this reservoir.

Q Mr. Sinclair, I note that you indicate that you have the same recovery on 160-acre spacing that you would have on 80-acre spacing. That is not exactly correct, is it?

A No. The reason that higher recovery was not shown for 80-acre spacing, is due to the fact that we have very little knowledge of this reservoir, very little data has been obtained, very few wells have been drilled. We don't feel like our description of the reservoir and our knowledge of the reservoir is sufficient to really refine the estimated recovery to the point that we could show increased recovery for closer or wider spacing. We do feel like the 174,000 barrels is the approximate recovery that would be obtained from the one well in the field on 160-acre spacing. Probably, if the reservoir is normal, a slightly increased recovery would be expected under 80-acre spacing.

Q But you do feel the profit to investment ratio of .68 is marginal under any circumstances?

A Yes.

Q Were Exhibits 1 through 7 prepared by you or under your supervision?

A Yes, they were.

MR. DURRETT: At this time, if the Examiner please, I move the introduction of Exhibits 1 through 7.

MR. NUTTER: Pennzoil Exhibits Nos. 1 through 7 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 7 were offered and admitted in evidence.)

BY MR. DURRETT:

Q Now, Mr. Sinclair, concerning the designation of this pool, what name are you recommending?

A We are recommending the Vacuum Northwest Penn Pool.

Q Now, you have previously testified that in your opinion as a petroleum engineer, one well in this pool can efficiently and economically drain and develop 160 acres. Do you feel that your proposed well locations of 150 feet of the center of either the NW/4 or SE/4

of a Governmental quarter section will adequately protect correlative rights in this area?

A Yes, I do.

Q Are all of the wells that are presently completed, would they be on pattern?

A Yes, they would.

MR. DURRETT: If the Examiner please, that will complete our direct examination.

MR. NUTTER: Are there any questions of Mr. Sinclair?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Sinclair, what was the completion date for your Gallagher State Well, please?

A November of 1968.

Q Do you have the date on that?

A Yes, sir. November 8, 1968.

Q So it had about 22 days of production in November and according to Exhibit No. 2, you made about 3600 barrels. What was the I.P. on the well when it was originally --

A (Interrupting) 433 barrels per day.

Q Then in the month of December, you produced 6200 barrels, so from November 8 through December, it had

declined to an average daily rate of 200 barrels per day in December?

A Yes, sir.

Q And it is down to about 50 now?

A Yes, sir, that's right.

Q Now, this Mobil 7 was brought in for 540 barrels.

What was the completion date on that?

A June 30, 1969.

Q June 30th. And in the course of a month, then, it has declined to 250 barrels a day?

A Yes, sir, that would be right. Of course, it is not on maximum production. It is flowing about 1100 pound tubing pressure and we are pulling it at the rate of about 250 barrels per day at the present time. It is experiencing a rapid decline though.

Q What is the allowable assigned to this one; what would be the maximum allowable that could be assigned to it at this stage?

A 362 barrels per day, I believe, sir.

Q What was the status of the Pennsylvanian formation in the Sinclair 6?

A It was thin and low permeability, and oil was recovered, a small amount of oil and gas cut mud was

recovered from the Penn on a drill-stem test, but the Wolfcamp Reservoir in this well looked much better than the Penn Reservoir so we completed and set pipe through the Penn and completed in the Wolfcamp. There would be a possibility that when the Wolfcamp depletes, we would go out and attempt a completion in the Penn Pay there.

Q But this pressure that you give here on Exhibit No. 6 is a drill-stem test pressure?

A It is a drill-stem test pressure, right.

Q What about the other pressures; they were taken after completions?

A Yes, the initial pressures in each case were drill-stem test pressures. On the Mobil 7, the 7975 pound is a drill-stem test. The others were bottom-hole pressure survey.

Q I don't know if it is necessary to ask this or not, but is it Pennzoil's intent to drill anymore wells in the area?

A Yes, sir, it is. I think it is apparent from the testimony we have presented that the economics are very poor for the wells which we have drilled so far. Nevertheless, we have plans to continue to develop the Reservoir. We felt that to protect our investment in

past wells and future wells that we need the protection against an off-set drainage that 160-acre spacing will afford. This is our reason.

Q What is the extent of your leases in this area?

A We have most of Sections 6, 7 and 8 and other scattered leases in the immediate area.

Q You are in a position that you can dedicate 160-acres to each of these two wells if the Commission approves the Application?

A Yes, sir, we are.

MR. NUTTER: Are there any other questions of Mr. Sinclair? You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Durrett?

MR. DURRETT: That's all I have, Mr. Examiner.

MR. NUTTER: Does anyone have anything that they wish to offer in Case 4184?

(No response.)

MR. NUTTER: We will take Case 4184 under advisement.

STATE OF NEW MEXICO)
) SS.
 COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify
 that the foregoing and attached Transcript of Hearing
 before the New Mexico Oil Conservation Commission was
 reported by me, and the same is a true and correct record
 of the said proceedings, to the best of my knowledge,
 skill and ability.

Richard L. Nye
 COURT REPORTER

My Commission expires April 8, 1971.

I do hereby certify that the foregoing is
 a correct record of the proceedings in
 the hearing held on 4184
 held by me 8/16, 1969

Richard L. Nye, Examiner
 New Mexico Oil Conservation Commission

Docket No. 22-69

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 6, 1969

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

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

CASE 4179: Application of Petroleum Corporation of Texas for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's Flint "B" Federal Well No. 1 located in Unit M of Section 14, Township 17 South, Range 30 East, Grayburg-Jackson Pool, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by said well in an unlined surface pit located in said Unit M.

CASE 4180: Application of Union Oil Company of California for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's Federal "E" and Federal "F" leases in Section 31, Township 18 South, Range 31 East, Shugart Field, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by wells on said leases in unlined surface pits on the subject leases.

CASE 4167: (Continued from the July 9, 1969 Examiner Hearing)
Application of Charles B. Read for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Hobbs "Y" Well No. 1 located in Unit J of Section 29, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Hightower-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Glorieta, Yeso, and Abo formations in the open-hole interval from approximately 4195 feet to 7720 feet.

CASE 4181: Application of J. M. Huber Corporation for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Stoltz Federal Well No. 1 located in Unit J of Section 12, Township 15 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Morton-Wolfcamp Pool and the disposal of produced salt water through the 8 5/8 X 4 1/2-inch casing-casing annulus into the San Andres, Tubb, Abo, and possibly other formations in the open-hole interval from approximately 4330 feet to 9750 feet.

CASE 4182: Application of Franklin, Aston & Fair, Inc. for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico. Said exception would be for certain of applicant's Loco Hills Field wells located in Units I and P of Section 20, Township 17 South, Range 30 East, Unit A of Section 17 and Unit F of Section 4, Township 18 South, Range 30 East, and Unit O of Section 36, Township 17 South, Range 29 East, Eddy County, New Mexico. Disposal would be into unlined surface pits in the vicinity of said wells.

CASE 4183: Application of Pan American Petroleum Corporation for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Cedar Point Unit Area comprising 5,120 acres, more or less, of State and Federal lands in Township 15 South, Range 30 East, Chaves County, New Mexico.

CASE 4172: (Continued from the July 23, 1969, Examiner Hearing)
Application of Pennzoil United, Inc. for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the East Lovington-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre oil proration units.

CASE 4184: Application of Pennzoil United, Inc. for the creation of a new oil pool, promulgation of special rules therefor, and a non-standard oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian oil pool for its Gallagher "8" State Well No. 1 located in the NW/4 NW/4 of Section 8, Township 17 South, Range 34 East, Lea County, New Mexico, and for the promulgation

(Case 4184 continued)

of special rules therefor including a provision for 160-acre proration units and well locations in either the Northwest or Southeast quarter of a quarter section. Applicant further seeks an exception to said proposed rules to re-enter its Monsanto Gallagher State Well No. 1 located 660 feet from the South and West lines of said Section 8 and to recomplete said well in the subject pool.

CASE 4185: Application of Pennzoil United, Inc., for the creation of a new oil pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Wolfcamp oil pool for its Sinclair "6" State Well No. 1 located 660 feet from the South line and 760 feet from the East line of Section 6, Township 17 South, Range 34 East, Lea County, New Mexico, and for the promulgation of special rules therefor including a provision for 160-acre proration units and well locations in either the Northwest or Southeast quarter of a quarter section.

CASE 4186: Application of Tenneco Oil Company for compulsory pooling and an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Basin-Dakota Gas Pool underlying the North half of Section 11, Township 29 North, Range 13 West, San Juan County, New Mexico, said acreage to be dedicated to a well to be drilled at an unorthodox gas well location 2250 feet from the North line and 660 feet from the East line of said Section 11. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4187: Application of Aztec Oil & Gas Company for the amendment of Administrative Order NWU-341 and Commission Order No. R-2046, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Administrative Order NWU-341 and Commission Order No. R-2046, which orders established, respectively and among other units, certain non-standard gas proration units for the Blanco Mesaverde and Basin-Dakota Pools in Sections 7, 8, 9, 10, 11, 12, 18, and 19, Township 32 North, Range 8 West, San Juan County, New Mexico. Applicant seeks to amend said orders in such a manner as to establish eight co-extensive Mesaverde and Dakota gas proration units in Sections 7, 8, 9, 10, 11, 12, and 18, said units to average 318.89 acres each.

CASE 4188: Application of Coastal States Gas Producing Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Lower San Andres formation in the open-hole interval from approximately 5025 feet to 5125 feet in its Santa Fe State Well No. 2 located in Unit F of Section 33, Township 9 South, Range 37 East, West Sawyer-San Andres Pool, Lea County, New Mexico.

CASE 4189: Application of Cayman Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the well location requirements for the High Plains-Pennsylvanian Pool as promulgated by Rule 4 of Order No. R-2874, to permit the drilling of a well at an unorthodox location in the center of the SE/4 NE/4 of Section 15, Township 14 South, Range 34 East, Lea County, New Mexico.



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE

R7501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

September 4, 1969

Mr. James Durrett
Rhodes, McCallister & Durrett
500 Oak NE
Albuquerque, New Mexico 87106

Re: Case No. 4184
Order No. 4185
Applicant:
Pennzoil United, Inc.

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

Copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other

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. 4184
Order No. R-3825
NOMENCLATURE

APPLICATION OF PENNZOIL UNITED, INC.,
FOR THE CREATION OF A NEW OIL POOL,
PROMULGATION OF SPECIAL RULES THERE-
FOR, AND A NON-STANDARD OIL WELL
LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 6, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 4th day of September, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, Pennzoil United, Inc., seeks the
creation of a new oil pool for Pennsylvanian production in Lea
County, New Mexico, for its Gallagher "8" State Well No. 1,
located in the NW/4 NW/4 of Section 8, Township 17 South, Range
34 East, NMPM, Lea County, New Mexico, and the promulgation of
special rules and regulations governing said pool, including a
provision for 160-acre proration units and well locations in
either the Northwest or Southeast quarter of a quarter section.

(3) That the aforesaid Pennzoil United, Inc., Gallagher "8"
State Well No. 1, having its top perforations at 11,712 feet, has
discovered a separate common source of supply which should be

-2-

CASE No. 4184
Order No. R-3825

designated the Northwest Vacuum-Pennsylvanian Pool; that the vertical limits of said pool should be the Pennsylvanian formation; and that the horizontal limits of said pool should be the N/2 NE/4 of Section 7 and the NW/4 NW/4 of Section 8, both in Township 17 South, Range 34 East, NMPM.

(4) That the evidence presented at the hearing disclosed that the wells completed in the subject pool to date have experienced a very rapid decline in bottom-hole pressure and production which would indicate that the pool reserves are either extremely limited or the area of drainage is very small, or both.

(5) That the applicant has not established that the wells in the subject pool can efficiently and economically drain and develop 160 acres or that the establishment of special rules and regulations, even on a temporary basis, would prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, or otherwise prevent waste or protect correlative rights.

(6) That the applicant's request for the promulgation of special rules for the subject pool should be denied.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as an oil pool for Pennsylvanian production, is hereby created and designated the Northwest Vacuum-Pennsylvanian Pool, with vertical limits comprising the Pennsylvanian formation, and horizontal limits comprising the following-described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 7: N/2 NE/4
Section 8: NW/4 NW/4

(2) That the applicant's request for the promulgation of special rules for the subject pool is hereby denied.

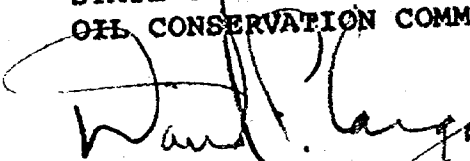
-3-

CASE No. 4184
Order No. R-3825

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

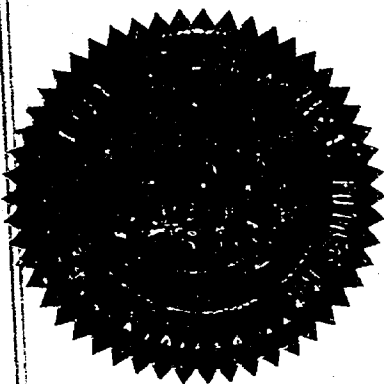
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ARMIJO, Member


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



esr/

PRODUCTION DATA
VACUUM NORTHWEST PENN FIELD
LEA COUNTY, NEW MEXICO

	No. Wells	Oil Barrels	Water Barrels	Gas MCF	GOR CF/Barrel
<u>1968</u>					
November	1	3,583	0	3482	972
December	1	6,237	0	6168	989
<u>1969</u>					
January	1	3,903	0	3464	888
February	1	3,302	0	3288	996
March	1	3,019	0	3159	1046
April	1	2,749	0	2766	1006
May	1	2,234	0	2269	1016
June	1	1,795	0	1815	1011
		26,822	0	26,411	

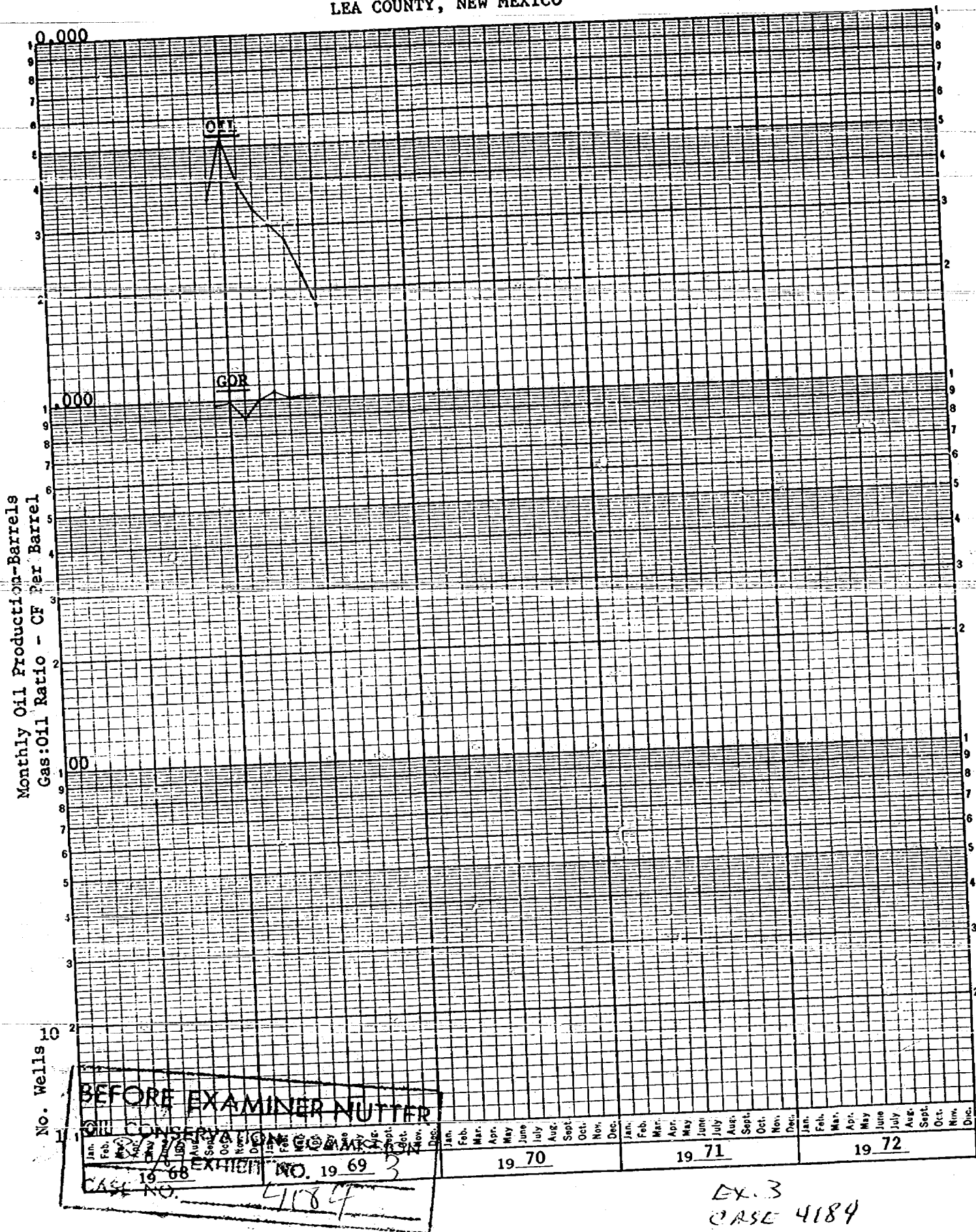
*Current prod/Day
50 Hallager #1
250 mobil 7 St 1*

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
7/6/69 EXHIBIT NO. 2
CASE NO. 4184

By: B. C. Sinclair
Date: 7-31-69

EX. 2
CASE 4184

VACUUM NORTHWEST PENN FIELD
LEA COUNTY, NEW MEXICO

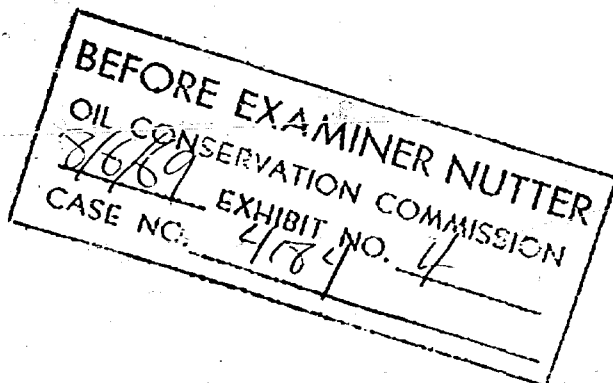


EX. 3
CASE 4184

RESERVOIR AND FLUID DATA
VACUUM NORTHWEST PENN FIELD
LEA COUNTY, NEW MEXICO

Depth	11,700 feet
Net Pay	29 feet
Porosity	6.5 %
Connate Water	30 %
Bottom Hole Pressure, Original	7,975 psi
Bottom Hole Temperature	160°F
Oil Gravity	42°API
Formation Volume Factor	1.60 RB/STB
Reservoir Energy	Solution-gas Drive

Note: Based on Mobil "7" State No. 1 Well



By: B. C. Sinclair
Date: 7-31-69

EX. 4
CASE 4184

BOTTOM HOLE PRESSURE DATA
VACUUM NORTHWEST PENN FIELD
LEA COUNTY, NEW MEXICO

Gallagher "8" State No. 1

<u>Date</u>	<u>BHP</u>	<u>Cum. Oil</u>
No original pressure		
12-10-68	6405	5,314
7-28-69	2918	28,044
Indicated reserves based on BHP performance		46,400 barrels oil

BHP survey

Mobil "7" State No. 1

<u>Date</u>	<u>BHP</u>	<u>Cum. Oil</u>
6-17-69	7975	0
7- 3-69	7577	849
7-28-69	5773	5454

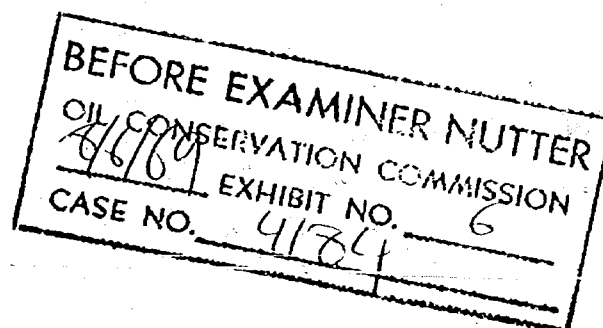
DST

Sinclair "6" State No. 1

<u>Date</u>	<u>BHP</u>	<u>Cum. Oil</u>
4- 8-69	7748	0

DST

BHP data indicates limited reservoir.



By: B. C. Sinclair
Date: 7-31-69

EX. 6
CASE 4184

ECONOMICS FOR WELL IN
VACUUM NORTHWEST PENN FIELD
LEA COUNTY, NEW MEXICO

<u>Revenue</u>	<u>80-Acre</u>	<u>160-Acre</u>
174,000 barrels @ \$3.16	\$ 549,800	\$ 549,800
Less Royalty @ 12.5%	68,700	68,700
Less Severance Tax @ 6%	28,900	28,900
Total Revenue	\$ 452,200	\$ 452,200
<u>Expense</u>		
Drilling and Completion	\$ 480,000	\$ 240,000
Operating Costs - \$7,000/year per well	70,000	49,000
Total Expense	\$ 550,000	\$ 289,000
Net Profit	\$ (97,800)	\$ 163,200
Profit:Investment Ratio	-	0.68

Note: The above economics are based on the estimated oil recovery from a well with reservoir development comparable to the Mobil "7" State No. 1, but with greater areal extent of the reservoir than BHP performance for the Mobil "7" State No. 1 indicates.

By: B. C. Sinclair
Date: 7-31-69

EX. 7
CASE 4184

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

Application of

PENNZOIL UNITED, INC.

For Creation of a New Pool and
Promulgation of Special Pool Rules

Case No. 4184

APPLICATION

Comes now the applicant, Pennzoil United, Inc. by
and through its attorneys, Rhodes, McCallister & Durrett, and
respectfully states:

I.

The applicant is the owner and operator of the
Gallagher "8" State Well No. 1, located 660 feet from the North
line and 510 feet from the West line of Section 8, Township 17
South, Range 34 East, N.M.P.M., Lea County, New Mexico.

II.

The subject well has discovered a new separate
common source of supply which should be designated a Pennsyl-
vanian Oil Pool.

III.

The applicant requests that said pool be designated
the Northwest Vacuum Pennsylvanian Oil Pool.

IV.

Said pool can be efficiently and economically drained
and developed on 160 acre spacing.

V.

Well locations within 150 feet of the center of either the Northwest Quarter or Southeast Quarter of a governmental quarter section will prevent waste and protect correlative rights in the subject pool.

VI.

The promulgation of special rules and regulations governing the subject pool establishing 160 acre spacing and proration units and well locations within 150 feet of the center of either the Northwest Quarter or Southeast Quarter of a governmental quarter section will prevent waste and protect correlative rights.

VII.

As an exception to the proposed special rules and regulations, the applicant requests authority to re-enter its Monsanto Gallagher State Well No. 1 located 660 feet from the West line and 660 feet from the South line of Section 8, Township 17 South, Range 34 East, N.M.P.M., Lea County, New Mexico, and to recomplete said Well in the subject pool.

VIII.

Approval of the requested exception to the well location requirements of the proposed special rules and regulations will prevent the drilling of an un-necessary well.

WHEREFORE, the applicant requests the Commission to enter its order creating a new oil pool for Pennsylvanian

Production, designating said pool as the Northwest Vacuum
Pennsylvanian Oil Pool, promulgating special rules and regulations
governing said pool, establishing therein 160 acre spacing and
proration units and well locations within 150 feet of the center
of either the Northwest Quarter or Southeast Quarter of a govern-
mental quarter section, and authorizing the applicant to re-enter
its Monsanto Gallagher State Well No. 1 and to recomplete
said well in the subject pool.

Rhodes, McCallister & Durrett

By


J. M. Durrett, Jr.

DRAFT

GMH/esr
August 26, 1969

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:

RECORDS CENTER

CASE No. 4184

Order No. R-3825

NOMENCLATURE

APPLICATION OF PENNZOIL UNITED, INC.,
FOR THE CREATION OF A NEW OIL POOL,
PROMULGATION OF SPECIAL RULES THERE-
FOR, AND A NON-STANDARD OIL WELL
LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 6, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 5th day of August, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, Pennzoil United, Inc., seeks the
creation of a new oil pool for Pennsylvanian production in Lea
County, New Mexico, for its Gallagher "8" State Well No. 1,
located in the NW/4 NW/4 of Section 8, Township 17 South, Range
34 East, NMPM, Lea County, New Mexico, and the promulgation of
special rules and regulations governing said pool, including a
provision for 160-acre proration units and well locations in
either the Northwest or Southeast quarter of a quarter section.

(3) That the aforesaid Pennzoil United, Inc., Gallagher "8"
State Well No. 1, having its top perforations at 11,712 feet, has
discovered a separate common source of supply which should be

designated the Northwest Vacuum -Pennsylvanian Pool;
that the vertical limits of said pool should be the Pennsylvanian
formation ~~as found in the interval from _____ feet to _____~~
~~feet on the log of the aforesaid Pennzoil United, Inc., Gallagher~~

~~"8" State Well No. 1;~~ and that the horizontal limits of said pool
should be the N/2 NE/4 of Section 7 and the NW/4 NW/4
of said Section 8, both in Township 17 South, Range 34
East, NMPM.

(4) That the evidence presented at the hearing disclosed
that the wells completed in the subject pool to date have experienced
a very rapid decline in bottom-hole pressure and production which
would indicate that the pool reserves are either extremely limited
or the area of drainage is very small, or both.

(5) That the applicant has not established that the wells in
the subject pool can efficiently and economically drain and develop
160 acres or that the establishment of special rules and regula-
tions, even on a temporary basis, would prevent the economic loss
caused by the drilling of unnecessary wells, avoid the augmentation
of risk arising from the drilling of an excessive number of wells,
prevent reduced recovery which might result from the drilling of
too few wells, or otherwise prevent waste or protect correlative
rights.

(6) That the applicant's request for the promulgation of
special rules for the subject pool should be denied.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified
as an oil pool for Pennsylvanian production, is hereby created
and designated the Northwest Vacuum -Pennsylvanian
Pool, with vertical limits comprising the Pennsylvanian formation
~~as found in the interval from _____ feet to _____ feet on~~
~~the log of the Pennzoil United, Inc., Gallagher "8" State Well~~
~~No. 1, located in the NW/4 NW/4 of Section 8, Township 17 South,~~

-3-

CASE No. 4184

~~Range 34 East, NMPM, Lea County, New Mexico~~, and horizontal limits comprising the following-described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

*Section 7: N¹/₂ NE¹/₄
Section 8: NW¹/₄ NW¹/₄*

(2) That the applicant's request for the promulgation of special rules for the subject pool is hereby denied.

(3) 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.

CASE 4185: Appli. of PENNZOIL
UNITED FOR CREATION OF NEW OIL
POOL AND SPECIAL POOL RULES.