

Case Number.

4185

Application

Transcripts.

Small Exhibits

ETC.

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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.,) No. 4185
for the creation of a new oil pool)
and special pool rules, Lea County,)
New Mexico)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

and
ed

I N D E XPage

B. C. SINCLAIR
Direct Examination by Mr. Durrett
Cross Examination by Mr. Nutter

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11

E X H I B I T SMarkedOffered and
Admitted

Applicant's Exhibits Nos. 1 through 6

3

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MR. NUTTER: We will call the next case, 4185.
For the information of anyone who may be interested,
this will be the last case that we will take before the
luncheon recess. We will recess the Hearing to 1:30
at the conclusion of 4185 which I call now.

MR. HATCH: Case 4185, Application of Pennzoil
United, Incorporated, for the creation of a new oil
pool and special pool rules, Lea County, New Mexico.

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

MR. DURRETT: If the Examiner please, J. M. Durrett
appearing for the Applicant, Pennzoil United, Inc.

I have one witness, Mr. Benny Sinclair. I would request
that the record reflect that he was sworn in a previous
case and is still under oath.

MR. NUTTER: Mr. Sinclair is 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 Pennzoil
is seeking in the Application of Case No. 4185?

A Pennzoil is seeking the creation of a new pool and the promulgation of field rules for this pool which establish 160-acre spacing and proration units with wells located within 150 feet of the center of either the NW/4 or SE/4 of a Governmental quarter section.

Q Will you please refer to your Exhibit No. 1 and point out the discovery well for this pool?

A Exhibit No.1 is a structure map contoured on the top of the Wolfcamp Pay. The discovery well for the Wolfcamp zone was the Pennzoil-Sinclair 6 State No. 1 in the SE/4 of Section 6. This well was completed on April 24th, 1969, from perforations at 10,938 to 10,991 feet, and on potential tests, the well flowed 265 barrels of oil per day with a flowing pressure of 250 pounds.

The Exhibit also shows the location of other wells that have been drilled in the immediate area. These are three other wells. They are: Pennzoil-Gallagher 8 State No. 1, Pennzoil-Mobil 7 State No. 1 and the Monsanto-Gallagher State No. 1 which is now the Pennzoil-Gallagher 8 State No. 2 well in Section 8.

Q That is a dry hole, correct?

A That is a dry hole. The other two wells that are shown on the map to be Penn producers, both of these

wells tested oil from the Wolfcamp Pay on drill-stem tests.

When the Penn zone is depleted, completion attempts in the Wolfcamp zone will be made on both of these wells.

The Wolfcamp zone producers in other fields in the area, the Kemnitz field is just off the map to the north. The production would be about 3 miles from the Sinclair 6 well. And the Wolfcamp is also productive in the North Vacuum field which is about 2½ miles northeast of the Sinclair 6 well.

Q Let's move now to your Exhibit No. 2 which is your production data. Will you please review that with the Examiner?

A Yes. This shows monthly oil, water and gas production from the reservoir. It also shows gas-oil ratio and number of producing wells. All production to date has come from the Sinclair 6 well and the cumulative production as of July 1st, 1969 was 5362 barrels of oil.

Q Let's move now to Exhibit No. 3 which is your Reservoir properties and review that.

A This Exhibit shows the rock and fluid properties for the Sinclair 6 well. Again, the significant properties are the porosity, 7.2 percent; bottom-hole temperature, 155°F; oil gravity, 40 degrees A.P.I.; formation volume

factor, 1.85 reservoir barrels per stock tank barrel and the reservoir energy solution gas drive.

Again, these properties are similar to the properties presented previously and are in the range that will permit easy movement of the fluid in the reservoir. They are the properties that control primarily the viscosity of the oil.

Q So that you would feel that based upon this information here that one well could drain 160 acres?

A Yes, sir.

Q Now, move to your log, if you would, which is Exhibit No. 4.

A This is a gamma ray neutron of the portion of the Sinclair 6 State No. 1 well showing the Wolfcamp perforations which is 10,938 to 10,991 feet. It also shows the top of the other geological markers in the vicinity of Wolfcamp Pay.

Q Move to your bottom-hole pressure which is your Exhibit No. 5?

A This Exhibit shows all bottom-hole pressures that have been taken in the Wolfcamp Reservoir to date.

I would like to point out that original bottom-hole pressures were taken in two wells before any fluid was

produced from the Reservoir. These two wells are the Sinclair 6 State No. 1 which had an original pressure of 3784 pounds and the Gallagher 8 State No. 1 which had an original pressure of 3702 pounds.

It is a bit unusual for the original pressure in a reservoir to show this much variation from one well to the other, so for purposes of trying to establish what the original reservoir pressure was, I have assumed an average of these two pressures which were taken before any fluids were produced. This establishes for my purposes the original reservoir pressure of 3743 pounds per square inch. The difference in the pressures, in my opinion, is probably due to inaccuracies in measurement of the pressures. They were both drill-stem test pressures.

I would like to point out that the original bottom-hole pressure encountered in the Mobil 7 State No. 1 well was 3658 pounds, and this was on the date of June 7th, 1969. On this date, some 4500 barrels of oil had been produced from the reservoir. All production had come from the Sinclair 6 State No. 1 well which is some 1800 feet from the Mobil 7, and the indications are that with this small volume of production, pressure interference had been established 1800 feet away in the

Mobil 7 State No. 1 well. This pressure interference indicates the drainage capacity of this reservoir, which based on this data and the reservoir fluid and rock properties, I believe the drainage capacity of one well is in excess of 160 acres.

I might also point out that the bottom-hole pressure data, primarily from the Sinclair 6 State No. 1 well, we have bottom-hole pressures taken -- three bottom-hole pressures on that well -- indicates a limited reservoir again, a reservoir of full aerial extent.

Q Let's move to your Exhibit No. 6 which shows your economics and discuss that, if you would?

A This is a comparison of the economics for 80-acre versus 160-acre spacing for one well in this pool. These economics are based on the estimated oil recovery from the well with reservoir development comparable to the Sinclair 6 State No. 1, but with greater aerial extent on the reservoir than the bottom-hole pressure performance of Sinclair 6 indicates.

Again, I want to make sure that you understand that the 160,000 barrels of estimated recovery shown is not the estimated recovery from the Sinclair 6 well, but is the estimated recovery from a hypothetical well that

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has reservoir development comparable to the Sinclair 6, but has greater aerial extent than Sinclair 6.

The total revenue shown after deduction of royalty and severance tax is \$415,900 in both cases; 80-acre and 160-acre spacing. It is estimated that it will cost \$220,000. to drill and complete and equip the well in the reservoir. The operating costs are estimated at \$35,000. for 80-acre spacing and \$21,000. for 160-acre spacing, making a total expense of \$475,000. for 80-acre spacing and \$241,000. for 160-acre spacing, leaving a net loss of \$59,100. under 80 acres and a net profit of \$174,900. under 160-acre spacing. The profit to investment ratio under 160-acre spacing is shown to be .80 and this, again, is considered marginal to justify additional development in this reservoir.

Again, I think it is apparent that the wells drilled to date are marginal as far as the economics are concerned. Pennzoil would like to drill additional wells in the area and feel that the 160-acre spacing is necessary to protect the investment of Pennzoil or any other operator that might desire to attempt further development of this reservoir. The 160-acre spacing would protect the investment from spacing that was too

close that would reduce the per well recovery from the reservoir.

Q Once again, Mr. Sinclair, you have testified that in your opinion as a petroleum engineer, based upon the information that we have and have presented to the Commission, that one well in this pool would efficiently and economically drain and develop 160 acres. Is it also your opinion that your well location that you have requested of 150 feet of the center of either the NW/4 or SE/4 of a Governmental quarter section would protect correlative rights in this pool?

A Yes.

Q Now, the only well completed in the pool is on pattern?

A Yes, it is.

Q And if you re-completed your other two wells that you are speaking of, would they be on pattern?

A Yes, they would.

Q Were Exhibits 1 through 6 prepared by you or under your supervision?

A Yes, they were.

MR. DURRETT: If the Examiner please, I would move the introduction of Exhibits Nos. 1 through 6, and

that will conclude my direct examination.

MR. NUTTER: Pennzoil Exhibits Nos. 1 through 6 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 through 6 were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Sinclair, what was the completion date of this well, please?

A April 24, 1969.

Q Well, now, your Exhibit No. 2 shows production in May, but did it produce any in April at all?

A Just -- it was a potential in April.

Q All of your actual production was in May?

A Yes, sir.

Q And in the month of May, it averaged just a little over 100 barrels per day. In June, it is down to about 50-some barrels per day. What is the current rate of production?

A The current rate of production is 60 barrels of oil per day with a flowing pressure of about 175 pounds.

Q And the well is making a little bit of water

from the Wolfcamp?

A Yes, sir.

Q You mentioned that both of the Pennsylvanian wells south of here had tested oil from the Wolfcamp. What kind of a drill-stem test did you have in the Wolfcamp on those two wells?

A On the Mobil 7, the test of the Wolfcamp, we had gas to surface in 95 minutes. It is too small to measure. We recovered 120 feet of very heavy oil and gas cut mud with an initial shut-in pressure of 3658 pounds and a final shut-in of 3362.

Q On the Gallagher 8 State No. 1, we had a gas to surface in 12 minutes at the rate of 25.7 M.C.F. per day. The tube was open a total of three hours with no fluid to surface. The recovery was 145 feet of heavy oil and gas cut mud, 335 feet of free oil with a trace of water. The initial shut-in pressure was 3702 pounds. The final shut-in pressure was 3314 pounds.

Q I think I've got everything except possibly the final shut-in pressure on the Mobil 7. Is that 3362?

A Yes, sir, 3362.

Q Was any attempt made to dually complete the wells?

A No, sir, there was not.

Q But you do think that after such time that it is depleted, that there will be an attempt to completion in the Wolfcamp?

A Yes, sir, I am very sure of that.

Q You mentioned that your economics are based on a hypothetical well with the reservoir characteristics as evidenced by your Sinclair 6 well, but with an aerial extent greater than the production history indicates that it is contributing. What size of reservoir would be producing this amount of oil with this type of decline and pressure decline that you've got here?

A I would estimate that the indicated size of the reservoir is something around 160 acres.

Q I was wondering if it would be big enough to cover a proration unit?

A It would be just about that size. You see, we have encountered the reservoir in three wells there. I believe it is a common reservoir. It has some aerial extent, but the pressure data definitely indicates that it is small.

Q Evidently the reservoir is very tight over here in this Mobil 7. You have free oil there and you had 120 feet of oil and gas cut mud?

A That's correct. As you know, I am sure, this is typical of the Wolfcamp Reservoir. It usually comes in strong and depletes fast and very often. We would hope to get into a reservoir comparable to, say, the North Vacuum Lower Wolfcamp Reservoir that we also are producing in and has been an economic reservoir. We are looking for a comparable development down here and still have hopes of finding it.

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

You may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have anything to offer in Case 4185?

The case will be taken under advisement and we will recess until 1:30.

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

8/6 4185
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New Mexico Oil Conservation Commission

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. 4185
Order No. R-3826
NOMENCLATURE

APPLICATION OF PENNZOIL UNITED, INC.,
FOR THE CREATION OF A NEW OIL POOL
AND SPECIAL POOL RULES, 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 Wolfcamp production in 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 Pennzoil United, Inc., 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, NMPM,
Lea County, New Mexico, having its top perforations at 10,938
feet, has discovered a separate common source of supply which

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CASE No. 4185

Order No. R-3826

should be designated the Northwest Vacuum-Wolfcamp Pool; that the vertical limits of said pool should be the Wolfcamp formation; and that the horizontal limits of said pool should be the SE/4 SE/4 of said Section 6.

(4) That the evidence presented at the hearing disclosed that the well completed in the subject pool to date has 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 well 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 Wolfcamp production, is hereby created and designated the Northwest Vacuum-Wolfcamp Pool, with vertical limits comprising the Wolfcamp formation, and horizontal limits comprising the following-described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 6: SE/4 SE/4

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

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CASE No. 4185

Order No. R-3826

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

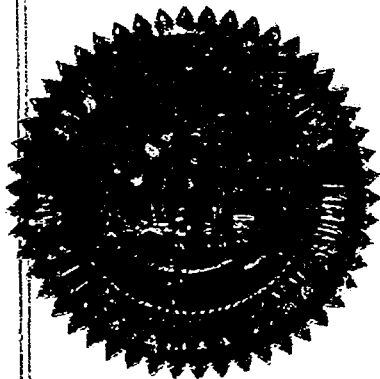
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ARMIJO, Member


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



esr/

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 recompleate 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.

Examiner Hearing - August 6, 1969

Docket No. 22-69

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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.

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

SINCLAIR "6" STATE NO. 1

<u>DATE</u>	<u>BHP</u>	<u>CUM. OIL</u>
3-30-69	3784	0
5- 1-69	2790	1027
7-28-69	2343	6750

Indicated reserves based on BHP performance: 37,000 Barrels

BHP data indicates limited reservoir.

GALLAGHER "8" STATE NO. 1

<u>DATE</u>	<u>BHP</u>	<u>CUM. OIL</u>
10-9-68	3702	0

MOBIL "7" STATE NO. 1

<u>DATE</u>	<u>BHP</u>	<u>CUM. OIL</u>
6-7-69	3658	0

*ave =
3743 psi
which witness
estimates is
approximately
the original
BHP*

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
8/6/69 EXHIBIT NO. 5
CASE NO. 4185

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

EX. 5
CASE 4185

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

<u>Revenue</u>	<u>80-Acre</u>	<u>160-Acre</u>
160,000 barrels oil @ \$3.16	\$ 505,600	\$ 505,600
Less Royalty @ 12.5%	63,200	63,200
Less Severance Tax @ 6%	<u>26,500</u>	<u>26,500</u>
Total Revenue	\$ 415,900	\$ 415,900
<u>Expenses</u>		
Drilling and Completion	\$ 440,000	\$ 220,000
Operating Costs - \$7,000/year	<u>35,000</u>	<u>21,000</u>
Total Expense	\$ 475,000	\$ 241,000
Net Profit	(59,100)	174,900
Profit:Investment Ratio	-	0.80

Note: The above economics are based on the estimated oil recovery from a well with reservoir development comparable to the Sinclair "6" State No. 1, but with greater areal extent of the reservoir than BHP performance for this well indicates.

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
7/6/69	EXHIBIT NO. 6
CASE NO. 4185	

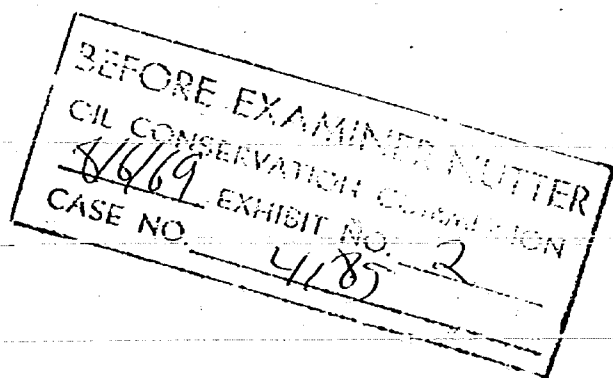
By: B. C. Sinclair
Date: 7-31-69

EX. C
CASE 4185

PRODUCTION DATA
VACUUM NORTHWEST WOLFCAMP FIELD
LEA COUNTY, NEW MEXICO

<u>1969</u>	<u>No. Wells</u>	<u>Oil Barrels</u>	<u>Water Barrels</u>	<u>Gas MCF</u>	<u>GOR CF/Barrel</u>
May	1	3,470	81	6,016	1734
June	1	1,892	60	2,794	1477
		5,362	141	8,810	

*current rate 60 BOPD
w/ FTP @ 175 psi.*



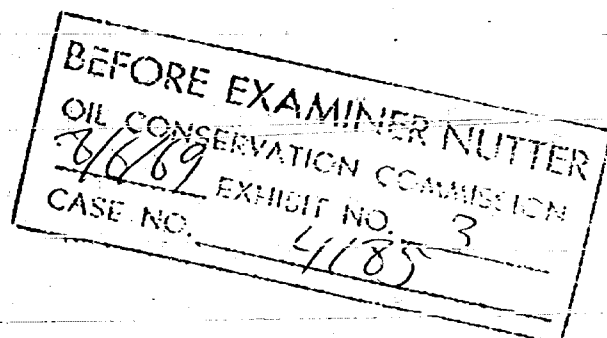
By: B. C. Sinclair
Date: 7-31-69

EX. 2

CASE 4185

RESERVOIR AND FLUID PROPERTIES
VACUUM NORTHWEST WOLFCAMP FIELD
LEA COUNTY, NEW MEXICO

Depth	10,900 feet
Net Pay	21 feet
Porosity	7.2 %
Connate Water	22 %
Bottom Hole Pressure, Original	3784 psig
Bubble Point Pressure, Estimated	2800 psig
Bottom Hole Temperature	155 °F
Oil Gravity	40 °API
Formation Volume Factor	1.85 RB/STB
Recovery Factor	20 %
Reservoir Energy	Solution-gas Drive



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

EX. 3
CASE 4185

RHODES, McCALLISTER & DURRETT
ATTORNEYS AT LAW

JERRY P. RHODES
ORVILLE C. McCALLISTER, JR.
J. M. DURRETT, JR.

3 JUL 11 1969

500 OAK, N E
(CORNER ROMA AND INTERSTATE 25)
ALBUQUERQUE, NEW MEXICO 87106
TELEPHONE 243-9744

July 2, 1969

Case 4185

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Gentlemen:

I am enclosing an application on behalf of Pennzoil United, Inc. for the creation of a new Pennsylvanian Oil Pool and the promulgation of Special rules and regulations and an application on behalf of Pennzoil United, Inc. for the creation of a Wolfcamp Oil Pool and the promulgation of special rules and regulations.

Will you please docket both of these applications for the first examiner hearing in August.

Very truly yours,

Rhodes, McCallister & Durrett

By *JM Durrett Jr*
J. M. Durrett, Jr.

JMD:sn
encls.

DOCKET M-RED

Date 7-24-69

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. 41185

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
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, 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 Wolfcamp Oil Pool.

III.

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

IV.

The subject 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.

WHEREFORE, the applicant requests the Commission to enter its order creating a new oil pool for Wolfcamp production, designating said pool the Northwest Vacuum Wolfcamp Oil Pool, and 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 governmental quarter section.

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. 4185

Order No. R- 3826

NOMENCLATURE

APPLICATION OF PENNZOIL UNITED, INC.,
FOR THE CREATION OF A NEW OIL POOL
AND SPECIAL POOL RULES, 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 Sept 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 Wolfcamp production in 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 Pennzoil United, Inc., 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, NMPM,
Lea County, New Mexico, having its top perforations at 10938
feet, has discovered a separate common source of supply which

should be designated the Northwest Vacuum-Wolfcamp Pool;
that the vertical limits of said pool should be the Wolfcamp
formation ~~as found in the interval from~~ feet to
~~feet on the log of the aforesaid Pennzoil United, Inc., Sinclair~~
~~"6" State Well No. 1~~; and that the horizontal limits of said pool
should be the SE/4 SE/4
of said Section 6.

(4) That the evidence presented at the hearing disclosed
that the well completed in the subject pool to date has 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 well 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 Wolfcamp production, is hereby created and
designated the Northwest Vacuum-Wolfcamp Pool, with
vertical limits comprising the Wolfcamp formation ~~as found in~~
~~the interval from~~ feet to feet ~~on the log of~~
~~the Pennzoil United, Inc., Sinclair "6" State Well No. 1, located~~

-3-

CASE No. 4185

~~660 feet from the South line and 760 feet from the East line of
Section 6, Township 17 South, Range 34 East, NMPM, Lea County,
New Mexico, and horizontal limits comprising the following-~~
described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 6: SE/4 SE/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 4186: Application of TENNECC
OIL CO. FOR COMPULSORY POOLING
AND UNORTHODOX GAS WELL LOCATION.