Case Number

4684

Application

Trascripts

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
CONFERENCE ROOM, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
April 5, 1972

EXAMINER HEARING

IN THE MATTER OF:

Application of The Petroleum Corporation for creation of a new gas pool and special pool rules, Lea County, New Mexico.

No. 4684

BEFORE: Daniel S. Nutter
Alternate Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Call case number 4684.

MR. HATCH: Case 4684. Application of the Petroleum Corporation for creation of a new gas pool and special pool rules, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant, Cox and Eaton, Roswell, appearing on behalf of the Petroleum Corporation. We have two witnesses I would like to have sworn.

(THEREUPON, the witnesses were duly sworn.)

(THEREUPON, Applicant's Exhibits One through Seven were marked for identification.)

HAL DEAN

was called as a witness on behalf of the applicant, and having been first duly sworn, testified upon his oath as follows, to-wit:

DIRECT EXAMINATION

BY MR. HINKLE:

Q. State your name, your residence, and by whom you are employed.

A. My name is Hal Dean. My residence is Midland, Texas. I am employed as a consulting geologist for the Petroleum Corporation of Delaware.

Q. Who is the applicant in this case?

A. Yes, sir.

Q. Have you previously testified before the Oil Conservation Commission?

A. Yes, sir, I have.

Q. Are your qualifications as a petroleum geologist a matter of record with the Commission and they have been accepted by the Commission?

A. Yes, they have.

Q. Have you made a study of the subject area and all the wells that have been drilled in that particular area?

A. Yes, I have done that.

Q. And have you prepared, or has there been prepared under your direction, certain exhibits of introduction in this case?

A. Yes. These exhibits were prepared by me.

Q. Are you familiar with the application of the Petroleum Corporation in this case?

A. Yes, I am.

Q. What is the applicant seeking to accomplish?

A. The Petroleum Corporation seeks to create the designation of a new gas pool and special pool rules for this well, which is The Petroleum Corporation number one, Tenneco-Federal located nine ninety from the south line, twenty-three ten from the west line of Section 12, Township 26 South, Range 37 East, Lea County, New Mexico, who also seeks special

rules, including a six hundred and forty acre spacing unit.

Q. Now, refer to exhibit one and explain what this is and what it shows.

A. Exhibit one is basically a land ownership map of the area of interest, showing the relationship of this tract, Section 12, to the other producing areas in the vicinity. The subject well is outlined in a circle in yellow, the tract which we recommend as a six hundred and forty acre spacing unit, Section 12 is outlined in yellow.

Q. And the well as shown there and outlined in yellow is a discovery well --

A. Yes, this is a discovery well for the proposed Dubgin gas pool.

Q. Well, now, refer to exhibit two and explain what this shows.

A. Exhibit two is a production map showing the specific horizons from which oil and gas production is obtained in the vicinity. As you can see, Section 12 is a federal lease, and that the Petroleum Corporation of Delaware obtained this through a farm-out from Tenneco.

Production to the north is in the south of -- south edge of Justis pool, and Getty Oil Company has blinebry production in that Section 1, immediately to the north.

Immediately to the west is the Leonard Seven Rivers pool, immediately to the south in Sections 13 and 24

is the south Leonard Queen pool. Of interest is two wells which have been completed in the Devonian which have now been abandoned. These are located in the discovery, was the Stanolind number one in the southeastern southeast of Section 11, and the Forrest number one low federal located in the northwest of the southwestern section of -- Section 7.

Of particular interest also is the Humble number one Leonard which was a discovery well for the Dubgin pool (Dublin) in the Ellenberger formation. This was completed as an oil well.

Q. The discovery well is the only Ellenberger well producing well shown on the plat?

A. The discovery well, the number one Tenneco Federal is the only producing gas well from the Ellenberger formation.

Q. Did you, or have you -- has the Petroleum Corporation furnished Tenneco with whom you say they obtained the farm-out, with a copy of this application?

A. Yes. Tenneco has been given all information concerning the drilling and testing of this subject well.

Q. Have you had any objection from them?

A. To date we have no objections and we have verbally been given an okay.

Q. State briefly the history of this discovery well in Section 12.

A. All right. This exhibit three is a copy of the dual induction laterolog of the subject well through the Ellenberger formation. The Ellenberger was penetrated at a depth of eleven thousand six hundred and eighteen feet and was drilled to a total depth of eleven thousand eight hundred and fifty-four feet.

The well was spud on December 13, 1971, and was completed on February 24, 1972. During the drilling of the well through the Ellenberger formation we conducted three drill stem tests, all three of these drill stem tests encountered gas, and liquids in various quantities.

The drill stem tests are indicated on the log. After penetrating two hundred and thirty-six feet of Ellenberger, we concluded that it would be prudent for us to terminate the drilling and make a completion, attempt a completion as a gas well.

This decision was made on the fact that we were about thirty-five or forty feet above the perforations in the number one Leonard.

MR. NUTTER: You mean the bottom of your hole was?

THE WITNESS: Yes.

And the Humble number one Leonard had been abandoned because of its excessive water production, so we have perforated from eleven thousand six hundred and thirty-four

to eleven thousand eight hundred and twenty-eight, and we recorded an open flow potential of four million two hundred and forty-nine thousand M.C.F., G.P.D. with a gas-liquid ratio of five thousand six hundred and fifty-two to one, a gravity of sixty point six.

The rock that we penetrated while we were drilling this well was dolomite, highly fractured, good clean dolomitic rocks, and exhibited good reservoir quality.

Q. How did you happen to locate the well in the position it was located, the discovery well here?

A. This well was located after a completion of a purchase, and the acquiring of additional data, geophysical data of our own company. This well, as you know, the Humble number one Leonard, was abandoned in 1947, and it has been -- it has been some deep activity around this area, and we have found out that it was a very complicated area from a structural standpoint and that subsurface information was not giving us the entire answer, so we acquired this seismic data, reworked it, and prepared a map and located this well approximately two thousand feet east and slightly north of the Humble number one Leonard.

Q. Do you have the production history of the Humble number one well?

A. Yes. I will have that. Well, let's go to the --

Q. Refer to the exhibt number four and explain that.

A. Okay. I have to look at it myself. I think if we examine the south half of the cross-section, we can find out what is going on a little better. This is a cross-section constructed on a sub-sea datum from the Stanolind number one Leonard on the west.

Q. You are referring to the index map.

A. Yes, sir, and also, it is marked on your exhibit two. If you needed to refer to that, it goes from the Stanolind number one Leonard D to the Humble number one Federal Leonard, then to the number one Petroleum Corporation number one Tenneco Federal, then to the Forrest number one Federal low. The Humble number one Federal Leonard was the first well drilled in this area, and it was drilled in -- commenced in 1943 and it was finalized in 1944. When I say finalized, I -- our records indicate there was a long period of testing and perforating and retesting, but they -- to when it was put on production in November of 1944, and until January 23, 1947, the well produced thirty-nine thousand four hundred and eighty barrels of oil plus twenty-three thousand nine hundred and forty-six barrels of salt water.

Our information indicated that when the well was plugged, it was producing approximately twenty-seven barrels of -- a day, about ninety-five barrels of water, with a gas ratio of around four thousand to one.

Now, of course, our idea was to study the test

data and in the number one Humble Leonard to see if the characteristics of that reservoir -- and we noticed that in a drill stem test from eleven thousand eight hundred and seventy to eleven thousand eight hundred and ninety-one that the Humble number one Leonard flowed gas at the rate of ten million cubic feet of gas per day, plus four hundred and eighty barrels of con. They recovered four hundred and eighty barrels of concentrate at a surface pressure, thirty-five hundred to thirty-eight hundred, and had a gas liquid threshold that was around twenty thousand to one.

From that we felt the possibility that a gas cap might exist, and this was a thin non-commercial oil rim, and we located our well from this seismic data, and we penetrated the top of the Ellenberger a hundred and eighty-eight -- and a hundred and eighty feet high, to this Humble number one Federal Leonard, and tested gas throughout the section that we penetrated.

Q. Well, was the gas zone that you have referred to in the Ellenberger number one perforated and produced, attempted to be produced by Humble?

A. No, sir, it was not.

Q. Just the oil zone?

A. Yes, sir. Now, they made various attempts at completion there, but they did not perforate into the upper portion of the Ellenberger where we are producing gas.

Q. Do you have anything else to say with respect to the well which is on the extreme right-hand?

A. Yes, sir. The relationship of this well on the right is the Forrest number one Federal low. As indicated, it is in a separate fault block. It penetrated the Ellenberger at depths eight hundred and eighty-nine feet low to the Petroleum Corporation number one Tenneco Federal. In addition, there is the complexity of this area. If you refer back to map number two -- I mean exhibit number two, the Stanolind number two Leonard in the northeast northeast of Section 12 penetrated the Ellenberger four hundred and thirty-eight feet high to our number one -- our Petroleum Corporation number one Tenneco Federal.

However, it tested water in the Ellenberger, in the other well which had penetrated the Ellenberger, is the Humble number one-B, and that well penetrated the out-- penetrated the Ellenberger, and it was eight hundred and thirty-one feet low to our number one Tenneco Federal, so there is a complex fault system in the area. These are vertical faults, and they really don't condemn much area. It is just a technical deal in here.

Q. Well, now, from the information which you have obtained and have available, and the studies you have made, have you formed any opinion as to the characteristics and extent of this reservoir?

A. No, sir. Our sub-surface data and seismic data is not conclusive to limit the boundaries of this field. It might extend to the north, it might extend to the south. We know it is a very complicated reservoir, but we feel that the reservoir rock itself is of the type that is -- if it is not interrupted by structural movement, that the fracturing will permit fluid to move throughout this entire area.

Q. Well, do you feel that the Humble number one and the fact that it has been the -- been abandoned, condemns it? You might say the south portion of the southwest quarter of Section 12?

A. No, I -- I certainly don't. This well had production problems in the early days of completion. They attempted to make an oil well in a thin oil column, which is leaning immediately above the water, and immediately below the gas, and just were unsuccessful, but in this particular well, there is evidence that there is considerable hydrocarbon zone still in the well.

Q. Now, what about the Forrest number one well in the southeast of the southeast of Twelve?

A. That did not penetrate the Ellenberger.

Q. So it has no effect?

A. No, sir. The wells that have penetrated the Ellenberger on this map are underlined in red.

Q. Do you feel that the Humble one-B and the

Stanolind two which are shown and underlined in red, condemn the north portion of Section 12?

A. No, I certainly don't. I feel that this is a very complicated structure and that where I looked at it, it just condemns the forty acres that they're on, or maybe not even the full forty acres, because of the fault pattern in there. The Forrest well over to the east is definitely the low well in there, and it is probably on a down-throwing side of the Justis fault, which extends in the north-south direction.

Q. Now, do you have any further comments with respect to any of these exhibits at this time?

A. No, sir.

MR. HINKLE: We would like to offer in evidence exhibits one through four.

MR. NUTTER: Petroleum Corporation Exhibits One through Four will be admitted in evidence.

MR. HINKLE: We have another witness, but this is all of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Dean, I think you gave the top of the Ellenberger with respect to your well as far as the Forrest was concerned, but I didn't write that down. How much lower

was the top of the Ellenberger than that one?

A. The top of the Ellenberger in the Forrest number one Federal low was eight hundred and eighty-nine feet low to the Petroleum Corporation's number one Tenneco Federal.

Q. And the Stanolind well was four hundred and thirty-eight feet high, and the Humble one-B was eight hundred and thirty feet low?

A. Yes, sir.

Q. Now, we are back over here to the left on this Tenneco well in -- or this -- this well in the southeast southeast of Eleven. How did it regard the -- what was its structural --

A. That is the Stanolind number one Leonard, and it was three hundred fifty-eight low to the number one Tenneco Federal.

Q. Or to the Humble number one well?

A. Wait a minute, let's see. That's right. Two hundred fifty-eight feet low to the Petroleum Corporation number one Tenneco Federal.

Q. And it is lower yet, or it is lower than the Humble well, too, isn't it?

A. No, sir. It is lower than the Humble one, yeah; yeah, right.

Q. Right. Lower than it?

A. Yes, right.

Q. Well, Mr. Dean, I don't understand, in the case here where we have got such extreme faulting, where these wells, just one and two locations apart, can have a difference in elevations anywhere from three hundred to eight hundred, nine hundred feet, how you can even figure a six hundred and forty acre reservoir here, much less a proration unit.

A. Yes. Yeah, well, this is the way we feel, that these are vertical faults, and from our seismic data, that these wells were located just at the positions that they were on the down-thrown side, or the up-thrown side of this anomaly.

Q. You don't anticipate having a very large reservoir block in between these, do you?

A. Well, it could run extremely far up north and south.

Q. But we don't know exactly unless you have got a better picture from your seismic data than we have seen here? We don't have any idea?

A. Yeah.

Q. We don't know which they are, and it appears that those two wells in the north half, at least of Section 12 would indicate that you have got even some acreage up there that is not very productive of gas. Wouldn't you say that the one that was northeast northeast of Twelve, was four hundred and thirty-eight feet high to your well?

A. That's right.

Q. And yet it produced water?

A. That's right.

Q. The Humble well is lower than your well, and it produced water?

A. Uh-huh.

Q. What was the production on the Humble one-B which was eight hundred thirty feet low?

A. It was water.

Q. That was water?

A. Uh-huh. Number one-B is water, number two is -- Humble -- Stanolind number two is water, the number one Stanolind down in the southeast southeast of Eleven, it tested oil and water.

Q. Now, there hasn't been any wells south of your well that have penetrated the Ellenberger?

A. No, sir; no, sir, and there haven't been any wells north.

Q. Well, now, the Humble well and the Stanolind well.

MR. HINKLE: Well, yeah, up through the center.

A. Well, yeah, but this could be a ridge trending in the north-south direction.

Q. And it could be stopped by an east-west fault in

that, too?

A. Well, there is always all kinds of -- all kinds of things that could happen.

Q. Now, your potential on this Tenneco Federal well, is given here on the cross-section as absolute open flow of forty-two to forty-nine M.C.F. per day?

A. Yes, four thousand.

Q. And this is gas-liquid ratio, I presume?

A. That's right.

Q. This is barrels per thousand or what?

A. It is cubic feet per barrel.

Q. Well, is that a comma or a period?

A. It is five thousand six hundred and fifty-two.

Q. Well, that is a comma, then?

A. Yeah.

Q. Cubic feet per barrel?

A. Yeah.

Q. Did it make any water?

A. No, sir.

MR. NUTTER: Are there any further questions of this witness? He may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: Just off the cuff, Dean, where is this with relation to the Crosby Devonian pool? How far west?

A. It is about three miles southeast.

MR. NUTTER: This is three miles southeast of Crosby pool?

A. Yes. It is that.

MR. NUTTER: That would be up in here somewhere?

A. Yeah. Crosby is right in here. It is a high faulted --

MR. NUTTER: I know that is highly faulted.

LARRY SHANNON

was called as a witness in behalf of the applicant, and having been first duly sworn, testified upon his oath as follows, to-wit:

DIRECT EXAMINATION

BY MR. HINKLE:

Q. State your name, your residence, and by whom you are employed.

A. I am Larry Shannon. I live in Dallas, Texas. I am employed by the Petroelum Corporation as a petroleum engineer.

Q. What is your position with the Petroleum Corporation, just a petroleum engineer, or --

A. Yes.

Q. Have you previously testified before the Oil Conservation Commission?

A. Yes, I have.

Q. And your qualifications as a petroleum engineer are a matter of record with the Commission and have been accepted?

A. Yes, sir, that's correct.

Q. Have you made a study of the subject area and the wells that have been drilled in that area?

A. Yes, sir, I have.

Q. Have you prepared, or has there been prepared under your supervision and direction, certain exhibits for introduction?

A. Yes, there -- that's correct.

Q. Refer to exhibit five, and explain what this is and what it shows.

A. All right. Exhibit five is a reservoir fluid study that we ran on the subject well, the Tenneco Federal well number one, which flowed the well for about five days, the last thirty-six hours was on a constant rate of gas concentrate and surface flowing pressures, to obtain samples of gas and condensate so that they could be recombined in a laboratory for further analysis; Core Laboratories ran this laboratory analysis for us, and they found that the gas and liquids are retrograde in nature.

The bottom hole pressure that we asked them to use was the maximum pressure that we had seen on a drill stem test and, Mr. Examiner, it is slightly different than that -- what is on the first exhibit, because the first exhibits were field data, and the pressures that I give you were office pressures that were calculated a little more accurately. It is not much different, but the maximum pressure which we saw was four thousand seven hundred and twenty-nine P.S.I. It was on drill stem test number five.

Core Laboratories found that pressures above four thousand six hundred and seventy-six pounds, everything was in a gas basis -- the first liquid started to appear as the first pressure dropped below forty-six seventy-six, and I think the best way to see this is on page -- this is one, two, three, four, five, six -- where they -- the retrograde condensation during compression and the reservoir measure of one hundred fifty-eight degrees Fahrenheit.

Now, you see the forty-six seventy-six, the first pressure -- the first liquids appear, and as these dropped, the pressure on down to zero, you see the percent of hydrocarbon bore space exhibited in the right column.

Basically, this report shows that we have a retrograde condition and that both condensate and gas was in a gas phase under original bottom hole pressure.

Q Have you had -- have you made or have you had

made for your company, any other studies to show the characteristics of the reservoir?

A. Yes. We asked Halliburton, the Halliburton Company to prepare a Horner plot of the shut-in pressures run on drill stem test number six.

Q. You might explain what a Horner plot is.

A. The Horner plot is the bottom hole pressure versus the -- plus Delta T, over Delta T, T being the time that the well was flowed, Delta being the incremental time that the well was shut in, and to build up pressure there from an extrapolative back to one gives a theoretical value of what the reservoir pressure is, as we know that in a drill stem test, we cannot allow the well to be shut in longer than -- long enough to obtain maximum pressure, and this is a theoretical way to try to show what the maximum formation pressure was.

Q. Now, referring to exhibit six, and --

A. All right. On exhibit number six, and we used for conservative reasons the lower line to the right, which would be the top instrument run on the final shut-in pressure, drill stem test number six, and it shows that theoretically the formation pressure would be forty-seven hundred and fifty-five P.S.I., slightly higher than that other pressure we have seen, and of course, the other plots show even higher pressures, but this is just another way for us to confirm that the formation pressure is higher than the dual

point pressure observed in the fluid analysis.

Q. What conclusions do you reach, now, from these studies?

A. Well, we'll try to recap the studies in exhibit number seven.

Q. Exhibit seven, yeah.

A. Exhibit number seven shows the completion data, the depths of the well, and plug back data, the perforations, the zone, and the potential test. One thing that I did not show in here, and I think possibly is of some importance, when we ask for six hundred and forty acres spacing in the drainage, the stimulation of this well was very small. We treated the well originally with five hundred gallons of acid on a matrix technique at a low pressure and low rate. Then we came back, after we floated to clean it up, re-acidized it with fifteen hundred gallons of acid. We think that this is a small stimulation when you compare the thickness of this zone and all that we have, and we feel that this is a prudent way to go on a completion of this well, so we possibly could get a much higher delivery rate if we wanted to really treat the well.

The reservoir data -- I would like to point out that the orginal bottom hole pressure -- and we gave you two pressures, first the maximum pressure that we observed on a drill stem test, that being forty-seven twenty-nine, at the

instrument depth of eleven thousand seven hundred and six feet, the maximum pressure that we show from exhibit number six, up by the Horner plot of four thousand two hundred and fifty-five P.S.I. at a D.S.T. of eleven thousand six hundred and seventy-one feet, the depth of the pressure instrument.

The pressure volume temperature relations indicate retrograde characteristics with a dew point at forty-six seventy-six P.S.I. feet. The physical phase of condensates at original phase in temperature is in the gas phase.

Another thing that I would like to point out, the gas-oil ratio during our recombination test was eight thousand seven hundred and seventy-four to one. This is quite a bit higher than the G.O.R. we observed during our absolute open flow test.

I believe there was two reasons for this, number one, we floated at a lower rate, slightly less than one million cubic feet per day on our recombination test, and number two, we found slight errors in our instruments, and we felt we have to be much more accurate in the recombination, and our gas volumes were higher than we thought during our absolute open flow calculations, but we didn't think it was significant enough to change it.

Q. Now, from the information which is available that you have testified to in your study, in your opinion are the reservoir characteristics such that one well would

effectively and efficiently drain six hundred and forty acres or more?

A. Oh, yes, sir. I feel there is no -- no trouble with having a capability of draining six hundred and forty acres.

MR. NUTTER: If you have got six hundred and forty acres?

MR. HINKLE: Yeah, if you have got six hundred forty acres.

Q. All right. Now, what about the cost of the wells in this area?

A. Yes. We would like to point out that the cost -- it cost us two hundred and fifty-four thousand dollars to complete this well, and for economic reasons we would also like for you to consider the spacing of six hundred forty on a temporary basis.

Q. Well, due to the fact that because there is a lot of unknowns here, you would like to have some time so you would have some production history to better determine the characteristics of this reservoir?

A. Very true, very true.

Q. Do you have any plans for drilling any additional wells at the present time?

A. Not at this time. We would like to observe the production from this well, and hopefully we can tell more

about our reservoir after we have had some --

Q. And you are asking for field rules on a temporary basis of one year for this purpose?

A. Yes, yes.

Q. What are your recommendations to the Commission as to the adoption of special pool rules?

A. Be just like a standard six hundred and forty acre rule with normal spacing and distance from the lease line.

Q. Now, this initial test -- the discovery well is not located as it would be under the general rules for six hundred and forty acre spacing. Would you like to have an exception for that?

A. Yes, that's correct. We would like to have this designated as a non-standard unit because we are nine hundred and ninety feet from the south line, and I believe the minimum distance is sixteen hundred and fifty feet from the lease line on a normal six hundred and forty acre spacing.

Q. You think that by the end of the year with production increase, that you would then better be able to determine the characteristics of the reservoir and the area that you have involved?

A. Yes, sir, I certainly do.

Q. In your opinion will the adoption of special pool rules on a temporary basis be in the best interests of conservation and prevention of waste?

A. Yes.

Q. And prevent the drilling of unnecessary wells?

A. Yes, it will.

Q. Will it also protect correlative rights?

A. Yes, that's correct.

Q. Do you have anything else you would like to submit to the Commission?

A. I believe we have covered everything.

MR. HINKLE: We would like to offer in evidence exhibits five, six, and seven.

MR. NUTTER: Petroleum Corporation's Exhibits Five, Six, and Seven will be admitted in evidence.

MR. HINKLE: That's all of the witnesses.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Shannon, is the well connected yet?

A. No, sir, it's not. We have not signed a gas contract at this point.

Q. Do you have any idea when you will have that connection?

A. No, I really don't. There is speculation probably within a couple of months.

Q. There are pipelines available?

A. There are pipelines available, yes.

Q. And you haven't run any reservoir limit tests on the well?

A. No, sir, we have not.

Q. What acreage does your company control for this formation, Mr. Shannon, in the immediate area?

A. We can control the acreage in Section 12.

Q. How about Section 13?

A. No, sir, we do not.

Q. Since you have got such a low G.O.R. here in -- and your reservoir pressure is so close to your retrograde, did you point out you are going to have some liquids falling out, pretty quick, aren't you, when you put the well on production?

A. That is true. We believe, and we can't prove it at this point, but historically, if you just look at the area, there is a very active bottom water drive in this Ellenberger zone throughout this area, and we think that if we produce the well prudently and at a slow rate, that we can maintain our --

Q. If you can produce it slow enough to keep the water coming in?

A. Yes, sir. Yes, sir.

Q. And the pressure up?

A. Yes, sir, and we plan to control and restrict the withdrawal from this well.

Q. I see. Have you made any studies yet as to the maximum withdrawal that would allow this water drilling to keep up with the formation depletion -- the formation pressure depletion?

A. We have cursory studies that indicate that something of -- something in the neighborhood of two million a day should give us what we are looking for. We will just have to look at production history and see.

Q. Which would be in about fifty percent of the calculated open flow potential?

A. Yes, that's right, but here again, there isn't much trouble getting additional deliverability if we wanted to stimulate the zone. We intentionally left stimulation at a minimum and absolute open flows at a minimum. All we wanted was something to approach a deliverability of two million a day.

MR. NUTTER: Are there any other questions of Mr. Shannon? He may be excused.

(THEREUPON, the witness was excused.)

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

MR. HINKLE: That's all.

MR. NUTTER: Does anyone have anything they wish to offer in case number 4684? We'll take the case under advisement.

STATE OF NEW MEXICO)
) SS.
COUNTY OF BERNALILLO)

I, LINDA MALONE, a Certified Shorthand Reporter, 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.

Linda Malone
CERTIFIED SHORTHAND REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4684, heard by me on 4/5, 1972.

, Examiner
New Mexico Oil Conservation Commission

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HAL S. DEAN
1001 MIDLAND NATIONAL BANK BLDG.
MIDLAND, TEXAS 79701

April 27, 1972

File
Case 4684

Mr. D. S. Nutter
New Mexico Oil & Gas Conservation Committee
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Nutter:

The Dublin Ellenberger Field is a complex structural feature with the potential of being gas productive in portions of four (4) sections, or over 2,000 acres, with a productive oil-gas column of over 500 ft. Subsurface well control in the immediate area indicates a partial interpretation of this anomolus area. Seismic information prior to the drilling of the discovery well was used to supplement the subsurface information obtained from previous drilling. Prudent oil field operations would have prevented our organization from drilling this wildcat test if we had believed this to be a limited reservoir in areal extent.

Two structural maps are submitted for your information. The map contoured on top of the productive Ellenberger formation shows the relationship of the Dublin Ellenberger Field to the Justis Ellenberger Field, three (3) miles north, and the Crosby Devonian Field, three (3) miles northwest. The seismic map, contoured on the top of the Devonian formation, illustrates a portion of the seismic control in the specific area.

The Justis Ellenberger Field is located at the crestal portion of an anticlinal structure, on the up-thrown side of a major fault. This east limiting fault for the Justis productive area in the Ellenberger formation extends in a north-south direction through the Dublin area. The Justis Ellenberger Field has a productive oil column in excess of 600 ft., and a productive area of approximately 1,000 acres.

Steep south dip is apparent from the productive area of the Justis Field to the Stanolind #2 Leonard, located in the NE/4 NE/4 Section 12 T-26-S R-37-E. This specific well tested water in the Ellenberger 2, 000 ft. below the oil-water contact in Justis Field, and 800 ft. above the oil-water contact in the Dublin Ellenberger Field. Seismic information indicates the Stanolind #2 Leonard is fault separated from the Dublin area, confirming the separate fluid levels. This cross fault, observed in the seismic data in the Ellenberger formation, strikes in a northwest direction with the up-thrown block to the east.

The Dublin area Ellenberger gas production is on the up-thrown side of the Justis fault, but down-thrown to the cross fault which strikes in a northwesterly direction on the west side of the Justis Field. The crestal position of the Dublin Field is in the NE/4 of Section 12, immediately adjacent to the junction of the Justis Field and the cross fault. A possibility exists for portions of the gas productive area in the Ellenberger to extend northward into a portion of Section 1, and southward into Sections 13, 24, and 25, T-26-S, R-37-E.

The Dublin Field is limited on the west by a reverse fault cutting the Humble #1-B Leonard Federal. A part of the Simpson section was repeated in the well bore, thereby causing the Ellenberger to be abnormally low and to test water. Seismic information indicates this fault to extend in a southwesterly direction to intersect the Crosby Field fault, and northeasterly to intersect the cross fault on the west side of Justis pool.

The production testing data obtained from The Petroleum Corporation #1 Tenneco Federal indicates that the reservoir conditions are favorable for a single well to effeciently drain a minimum of 640 acres.

To the best of my knowledge, the only other well in Southeastern New Mexico producing from the Ellenberger

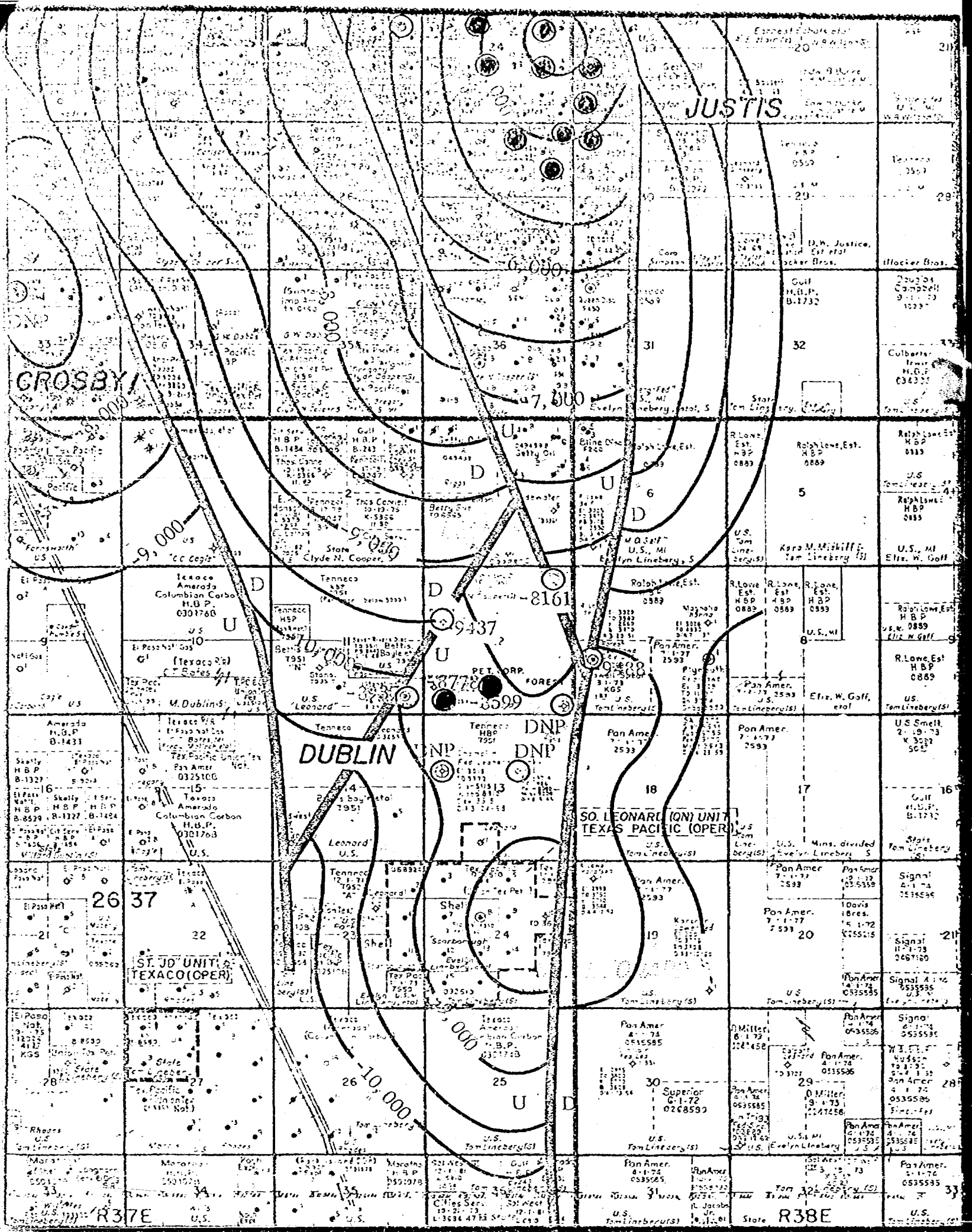
formation is the Shell #1-B State in the Custer Field, located approximately twelve (12) miles northwest of the Dublin Field. This well has proved to effectively drain a considerable area, although development drilling offsetting this well has been unsuccessful.

Should you need any further information, or if you would like for me to come to Santa Fe for consultation, please do not hesitate to contact me.

Very truly yours,

Hal S. Dean
THE PETROLEUM CORPORATION

HSD/jp
encls.



THE PETROLEUM CORPORATION

DUBLIN AREA

LEA COUNTY, NEW MEXICO

CONTOURS: ELLENBERGER - INTERVAL: 500'

SCALE: 1" = 4,000' DATE MARCH, 1972

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
BRUCE KING
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

June 7, 1972

Re: Case No. 4684
Order No. R-4321
Applicant:
The Petroleum Corporation

Mr. Clarence Hinkle
Hinkle, Bondurant, Cox & Eaton
Attorneys at Law
Post Office Box 10
Roswell, New Mexico 88201

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. 4684
Order No. R-4321

APPLICATION OF THE PETROLEUM CORPORATION FOR CREATION OF A NEW GAS POOL AND SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

NOMENCLATURE

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 5, 1972, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 7th day of June, 1972, 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, The Petroleum Corporation, seeks the creation of a new gas pool for Ellenburger production in Lea County, New Mexico, and the promulgation of special rules and regulations governing said pool, including a provision for 640-acre spacing and proration units.

(3) That the Tenneco Federal Well No. 1, located in Unit N of Section 12, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico, having its top perforations at 11,634 feet, has discovered a separate common source of supply which should be designated the Dublin-Ellenburger Gas Pool.

(4) That the applicant has not established that there are 640 productive acres in the Dublin-Ellenburger Gas Pool.

(5) That the applicant has not established that wells in the Dublin-Ellenburger Gas Pool can efficiently and economically drain and develop 640 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 vertical limits of the Dublin-Ellenburger Gas Pool should be the Ellenburger formation and that the horizontal limits of said pool should be the S/2 of said Section 12.

(7) 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 a gas pool for production from the Ellenburger formation, is hereby created and designated the Dublin-Ellenburger Gas Pool, consisting of the following-described area:

LEA COUNTY, NEW MEXICO
TOWNSHIP 26 SOUTH, RANGE 37 EAST, NMPM
Section 12: S/2

(2) That the applicant's request for the promulgation of special rules for the above-described 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.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

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

S E A L

dr/

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 5, 1972

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 4539: (Continued from the November 17, 1971, Examiner Hearing)
In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Doanbuy Lease & Company, Inc., and all other interested persons to appear and show cause why its following described wells in Section 27, Township 14 South, Range 33 East, Saunders Pool, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 4690: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Antelope Ridge-Morrow Pennsylvanian and Antelope Ridge-Devonian Gas Pools in the wellbore of its Antelope Ridge Well No. 2, a dual completion, in Unit B of Section 4, Township 24 South, Range 34 East, Lea County, New Mexico.

CASE 4688: Application of Gulf Oil Corporation for a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two non-standard gas proration units to form one 600-acre non-standard gas proration unit comprising the SW/4, S/2 NW/4, NW/4 NW/4, and E/2 of Section 4, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its J. F. Janda (NCT-F) Wells Nos. 7 and 13 located, respectively, in Units K and P of said Section 4.

CASE 4683: Application of Mark Production Company for the creation of a new oil pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause,

(Case 4683 Continued)

seeks the creation of a new pool for the production of oil to be designated the Metts Permo-Pennsylvanian Pool for its three wells located in Unit L of Section 29, Unit P of Section 30 and Unit D of Section 32, Township 14 South, Range 34 East, Lea County, New Mexico. Applicant further seeks the promulgation of special rules for the pool including a provision for 160-acre spacing and proration units.

CASE 4684: Application of The Petroleum Corporation for creation of a new gas pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for its Tenneco Federal Well No. 1 located 990 feet from the South line and 2310 feet from the West line of Section 12, Township 26 South, Range 37 East, Lea County, New Mexico. Applicant further seeks the promulgation of special rules therefor, including a provision for 640-acre spacing and proration units.

CASE 4689: 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, to dispose into unlined surface pits water produced by its Dexter Federal Well No. 15 located in Unit J of Section 15, and all of its wells located or to be located in the NW/4 of Section 20, Township 17 South, Range 30 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 4685: Application of Fluid Power Pump Company for two non-standard oil proration units, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 160-acre non-standard oil proration units in Township 19 North, Range 3 West, Media-Entrada Oil Pool, Sandoval County, New Mexico, comprising the following-described acreage:

1. S/2 SW/4 of Section 14 and the N/2 NW/4 of Section 23;

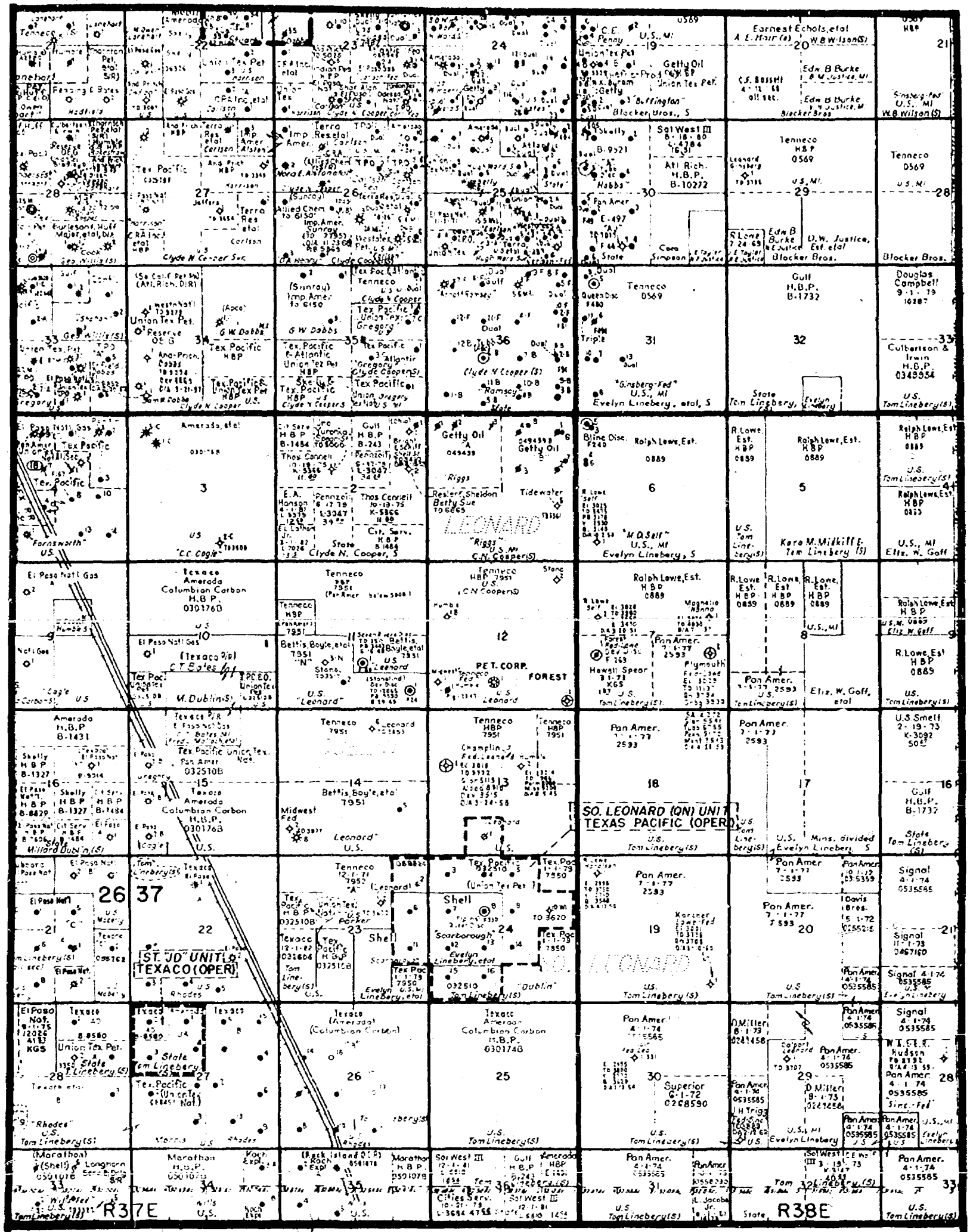
2. S/2 SE/4 of Section 15 and N/2 NE/4 of Section 22.

CASE 4686: Application of Jack L. McClellan for a waterflood expansion, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks to expand the waterflood projects in the Sulimar-Queen Pool, Chaves County, New Mexico, authorized by Order No. R-4214, by the injection of water into said pool through three additional injection wells located in Township 15 South, Range 29 East, as follows:

Smernoff Federal No.	1 - Unit B - Section 24
Carthel Federal No.	2 - Unit P - Section 23
La Rue Federal No.	1 - Unit D - Section 25

Applicant further seeks amendment of the rules governing said projects to permit expansion administratively without a showing of well response.

CASE 4687: Application of Riggs Oil & Gas Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from an undesignated Fruitland gas pool and the Fulcher Kutz-Pictured Cliffs Gas Pool in the wellbore of its Federal Well No. 1 located in Unit F of Section 4, Township 29 North, Range 12 West, San Juan County, New Mexico.



THE PETROLEUM CORPORATION

DUBLIN AREA

LEA COUNTY, NEW MEXICO

OWNERSHIP MAP

SCALE: 1" = 4,000' DATE MARCH, 1972

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207

March 22, 1972

RESERVOIR FLUID DIVISION

gas & liquid
We Recognize
in natural

The Petroleum Corporation
3303 Lee Parkway
Dallas, Texas 75219

Attention: Mr. Larry C. Shannon

Subject: Reservoir Fluid Study
Tenneco Federal No. 1 Well
Wildcat
Lea County, New Mexico
Our File Number: RFL 72119

Gentlemen:

Samples of separator liquid and vapor were collected from the subject well during production testing on March 6, 1972. The samples were forwarded to our Dallas laboratory to be used in the performance of a reservoir fluid study. Presented in the following report are the results of this study as requested by The Petroleum Corporation.

After correction for the factors shown on page one, the producing gas-liquid ratio was calculated to be 8774 cubic feet of primary separator gas at 14.65 psia and 60° F. per barrel of stock tank liquid at 60° F. In the laboratory this ratio was determined to be equivalent to 6504 standard cubic feet of primary separator gas per barrel of primary separator liquid at 620 psig and 60° F. The hydrocarbon composition of the well stream material was calculated on the basis of the producing gas-liquid ratio and is given on page two of the report, along with the measured separator liquid and separator vapor compositions.

The separator samples were physically recombined in their producing gas-liquid ratio and the resulting mixture was examined in a visual cell at the reported reservoir temperature of 158° F. During a constant composition expansion at this temperature, the fluid exhibited a retrograde dew point

at 4676 psig. The results of the pressure-volume measurements, as well as the measured deviation factor at the dew point pressure and above, are presented on page three of the report. Given on page four are the data concerning the retrograde liquid accumulation as reservoir pressure declines.

It has been a pleasure to perform these determinations for you. If you have any questions regarding these data or if we may be of further assistance in any manner, please feel free to contact us.

Very truly yours,

Core Laboratories, Inc.
Reservoir Fluid Analysis

P. L. Moses (JF)
P. L. Moses
Manager

PLM:JF:dl
7 cc. - Addressee

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 72119

Company The Petroleum Corporation — Date Sampled March 6, 1972
Well Tenneco Federal No. 1 — County Lea
Field Wildcat — State New Mexico

FORMATION CHARACTERISTICS

Formation Name	Ellenburger
Date First Well Completed	, 19
Original Reservoir Pressure	PSIG @ Ft.
Original Produced Gas-Liquid Ratio	SCF/Bbl
Production Rate	Bbls/Day
Separator Pressure and Temperature	600 PSIG 82 ° F.
Liquid Gravity at 60° F.	° API
Datum	Ft. Subsea

WELL CHARACTERISTICS

Elevation	Ft.
Total Depth	Ft.
Producing Interval	11634-11828 Ft.
Tubing Size and Depth	2-3/8 In. to 11110 Ft.
Open Flow Potential	MMSCF/Day
Last Reservoir Pressure	4729 PSIG @ * Ft.
Date	, 19
Reservoir Temperature	158 ° F. @ * Ft.
Status of Well	
Pressure Gauge	

SAMPLING CONDITIONS

Flowing Tubing Pressure		2530 PSIG
Flowing Bottom Hole Pressure		PSIG
Primary Separator Pressure		620 PSIG
Primary Separator Temperature		82 ° F.
Secondary Separator Pressure		PSIG
Secondary Separator Temperature		° F.
Field Stock Tank Liquid Gravity		° API @ 60° F.
Primary Separator Gas Production Rate		985.3 MSCF/Day
Pressure Base	14.65 PSIA	
Temperature Base	60 ° F.	
Compressibility Factor (F_{pv})	1.060	
Gas Gravity (Laboratory)	0.677	
Gas Gravity Factor (F_g)	0.9413	
Stock Tank Liquid Production Rate @ 60° F.		112.3 Bbls/Day
Primary Separator Gas/Stock Tank Liquid Ratio		8774 SCF/Bbl
	or	113.97 Bbls/MMSCF
Core Laboratories, Inc., Engineer		Tefteller, Inc.

REMARKS:
* DST Depth = 11706-11800 Ft.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 72119

Well Tenneco Federal No. 1

Hydrocarbon Analyses of Separator Products and Calculated Well Stream

Component	Separator Liquid Mol Per Cent	Separator Gas Mol Per Cent	Separator Gas GPM	Well Stream Mol Per Cent	Well Stream GPM
Hydrogen Sulfide	Nil	Nil		Nil	
Carbon Dioxide	0.06	0.14		0.13	
Nitrogen	0.09	1.64		1.43	
Methane	15.93	83.91		74.63	
Ethane	7.95	8.48		8.41	
Propane	10.24	3.70	1.012	4.59	1.256
iso-Butane	1.58	0.25	0.081	0.43	0.140
n-Butane	8.71	1.07	0.335	2.11	0.661
iso-Pentane	2.10	0.12	0.044	0.39	0.142
n-Pentane	6.74	0.30	0.108	1.18	0.425
Hexanes	6.93	0.13	0.053	1.06	0.430
Heptanes plus	39.67	0.26	0.117	5.64	3.494
	100.00	100.00	1.750	100.00	6.548
Properties of Heptanes plus					
API gravity @ 60° F.	52.3				
Specific gravity @ 60/60° F.	0.7698			0.768	
Molecular weight	153	103		151	

Calculated separator gas gravity (air = 1.000) = 0.677

Calculated gross heating value for separator gas = 1168 BTU per cubic foot of dry gas @ 14.65 psia and 60° F.

Primary separator gas collected @ 620 psig and 82 °F.

Primary separator liquid collected @ 620 psig and 82 °F.

Primary separator gas/separator liquid ratio	6504	SCF/Bbl @ 60° F.
Primary separator liquid/stock tank liquid ratio	1.349	Bbls @ 60° F./Bbl
Primary separator gas/well stream ratio	863.39	MSCF/MMSCF
Stock tank liquid/well stream ratio	98.40	Bbls/MMSCF

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 72119

Well Tenneco Federal No. 1

Pressure-Volume Relations of Reservoir Fluid at 158° F.
(Constant Composition Expansion)

Pressure PSIG		Relative Volume	Deviation Factor Z
7000		0.8817	1.253
6400		0.9034	1.174
5900		0.9253	1.108
5500		0.9454	1.056
5200		0.9630	1.017
5000		0.9766	0.992
4900		0.9834	0.979
4800		0.9907	0.966
4729	Reservoir Pressure	0.9961	0.957
4700		0.9982	0.953
4676	Dew Point Pressure	1.0000	0.950
4650		1.0020	
4600		1.0058	
4500		1.0155	
4300		1.0368	
4000		1.0756	
3600		1.1451	
3100		1.2725	
2600		1.4744	
2100		1.8109	
1861		2.0505	
1680		2.2899	
1408		2.7707	
1200		3.3001	
1077		3.7170	
961		4.2027	

Retrograde Condensation During Gas Depletion at 158° F.

Pressure PSIG		Retrograde Liquid Volume Per Cent of Hydrocarbon Pore Space
4676	Dew Point Pressure	0.0
4650		0.2
4600		0.6
4500		2.0
4300		5.5
4000	First Depletion Level	9.5
3100		16.3
2100		17.6
1200		16.3
700		15.0
0		12.6

Core Laboratories, Inc.
Reservoir Fluid Analysis

P. L. Moses (JF)

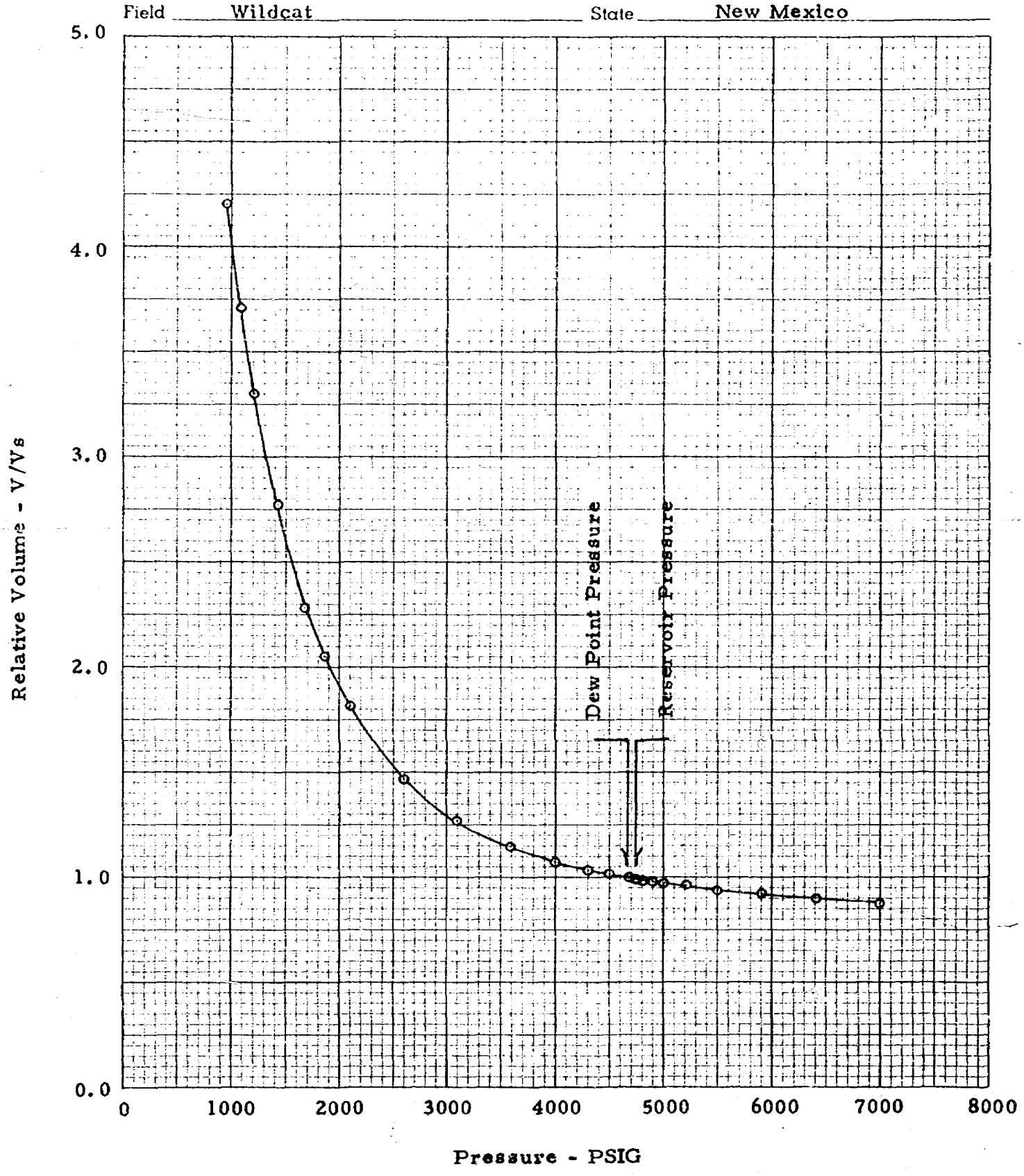
P. L. Moses
Manager

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 72119

Pressure-Volume Relations of Reservoir Fluid at 158° F.

Company The Petroleum Corporation
Well Tenneco Federal No. 1
Field Wildcat
Formation Ellenburger
County Lea
State New Mexico



Retrograde Condensation During Depletion

Company The Petroleum Corporation Formation Ellenburger
Well Tenneco Federal No. 1 County Lea
Field Wildcat State New Mexico

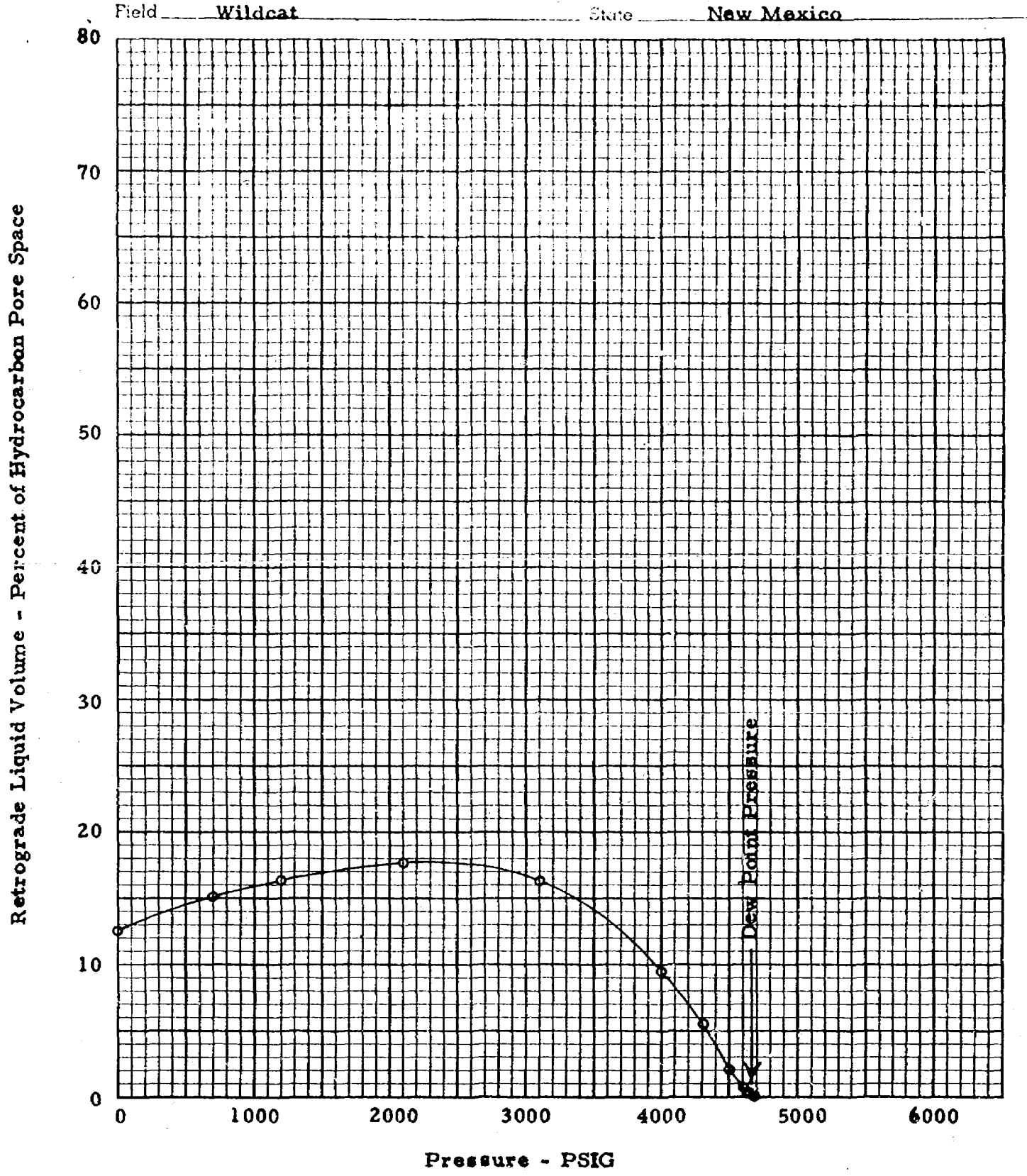


EXHIBIT 7

Request for Special Field Rules

The Petroleum Corporation of Delaware

Tenneco Federal Well No. 1

Unit N, Section 12, T-26-S, R-37-E

Lea County, New Mexico

Case #4684 April 5, 1972

Completion Data:

Total Depth: 11,854 ft.
Plug Back Total Depth: 11,847 ft.
Perforations: 11,634; 661; 668; 676; 678; 681; 750; 760; 764; 769; 772; 788; 790; 794; 811; 813; 817; 818; and 828 (19 holes)
Zone: Ellenberger

Potential Test: Calculated absolute open flow = 4,249 MCFPD
GOR = 5,652 to 1
Condensate Gravity = 60.6° API @ 60° F
Gas Gravity = 0.677

Reservoir Data:

Original Bottom Hole Pressure:
Maximum Pressure Measured = 4729 psig on DST @ 11,706 ft.
Maximum Pressure as extrapolated by the Horner Plot: 4755 psig on DST @ 11,761 ft.

Pressure-Volume-Temperature Relations:
Retrograde characteristics with a dew point at 4676 psig.

Physical phase of condensate at original pressure and temperature is a gas phase.

Gas Oil Ratio during Recombination Test: 8774 to 1

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Applicants EXHIBIT NO. 7
CASE NO. 4684
Submitted by Petroleum Corp.
Hearing Date 4-5-72

CLARENCE E. HINKLE
W. E. BONDURANT, JR.
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY, JR.

J. M. LITTLE

LAW OFFICES
HINKLE, BONDURANT, COX & EATON
600 HINKLE BUILDING
POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88201

TELEPHONE (505) 622-6510

MIDLAND, TEXAS OFFICE
521 MIDLAND TOWER
(915) 683-4691

March 2, 1972

Case 4684

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

We enclose in triplicate application of The Petroleum Corporation for temporary special pool rules in connection with a new discovery in the Tenneco Federal No. 1 well located in Section 12, Township 26 South, Range 37 East, Lea County.

It is our understanding that there will be an examiner's hearing on April 5 and we would like to have this case put on the docket for that hearing.

Yours sincerely,

HINKLE, BONDURANT, COX & EATON

By

CEH:cs
Enc.
cc: Hal Dean
cc: Larry Shannon

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

APPLICATION OF THE PETROLEUM CORPORATION FOR THE PROMULGATION OF SPECIAL FIELD RULES ON A TEMPORARY BASIS DUE TO THE DISCOVERY MADE IN THE PETROLEUM CORPORATION TENNECO FEDERAL NO. 1 WELL LOCATED IN UNIT N, SECTION 12, TOWNSHIP 26 SOUTH, RANGE 37 EAST, LEA COUNTY IN THE ELLENBURGER FORMATION, INCLUDING 640 ACRE SPACING AND PRORATION UNITS	)

Case 4684

990 FSL
2310 FWL

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Comes The Petroleum Corporation, with offices in Dallas, Texas, acting by and through the undersigned attorneys, and hereby makes application for the promulgation of special field rules on a temporary basis due to the discovery made in The Petroleum Corporation Tenneco Federal No. 1 well located in Unit N, Section 12, Township 26 South, Range 37 East, Lea County in the Ellenburger formation including 640 acre spacing and proration units, and in support thereof respectfully shows:

1. The Petroleum Corporation commenced operations on its Tenneco Federal No. 1 well located in Unit N, Section 12, Township 26 South, Range 37 East, N.M.P.M. on or about December 12, 1971 and drilled said well to a total depth of 11,854 feet. The well was completed in the Ellenburger formation at the perforated interval of 11,634 feet to 11,828 feet and is in the process of being tested. Applicant believes that it constitutes a gas discovery in paying quantities.

2. There is attached hereto, made a part hereof, and for purposes of identification marked Exhibit "A", a plat showing the location of the discovery well and the location of wells which have been drilled within 2 or more miles and the ownership of the leasehold interests in the area.

3. Applicant believes that it will be in the interest of conservation and prevention of waste and the orderly future development of the new pool believed to have been discovered that temporary

special pool rules be adopted by the Commission providing for 640 acre spacing and proration units. Due to the character of the Ellenburger formation in which the well is completed and the performance in other areas, applicant believes that one well will effectively and efficiently drain 640 acres or more.

4. The discovery well is located 2310 feet from the West line and 990 feet from the South line of said Section 12 and is located in an undesignated pool. Applicant would like to dedicate all of Section 12 to the well and would like for said section to be designated as constituting the boundaries of the new pool.

5. Applicant further believes that such temporary special pool rules and regulations will prevent the possibility of economic loss resulting from the drilling of unnecessary wells and will permit the operators interested in the pool to gather information concerning the reservoir characteristics, as well as protect correlative rights.

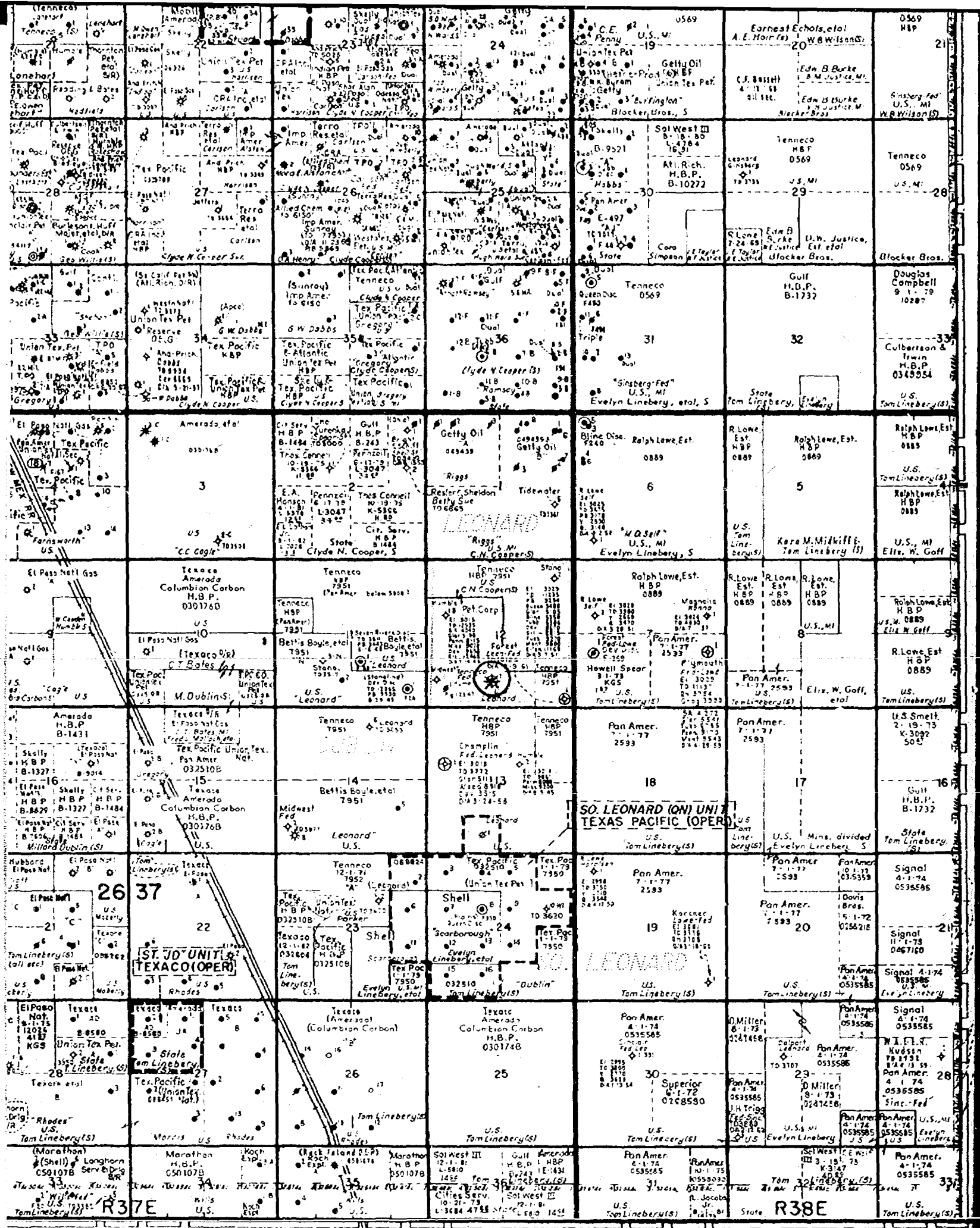
6. Applicant requests that this matter be set down for hearing at the regular examiner's hearing to be held on April 5, 1972.

Respectfully submitted,

THE PETROLEUM CORPORATION

By _____

HINKLE, BONDURANT, COX & EATON
P.O. Box 10
Roswell, New Mexico 88201
Attorneys for Applicant


SO. LEONARD (QN) UNIT
TEXAS PACIFIC (OPER)
ST. JO UNIT
TEXACO (OPER)
LEONARD
R37E
R38E

DRAFT

GMH/dr

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. 4684

Order No. R-4321

APPLICATION OF THE PETROLEUM
CORPORATION FOR CREATION OF
A NEW GAS POOL AND SPECIAL
POOL RULES, LEA COUNTY, NEW
MEXICO.

Nomenclature

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 5, 1972, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of June, 1972, 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, The Petroleum Corporation, seeks the creation of a new gas pool for Ellenburger production in Lea County, New Mexico, and the promulgation of special rules and regulations governing said pool, including a provision for 640-acre spacing and proration units.

(3) That the Tenneco Federal Well No. 1, located in Unit N of Section 12, Township 26 South, Range 37 East, NMPM, Lea County, New Mexico, having its top perforations at 11,634 feet, has discovered a separate common source of supply which should be designated the Dublin-Ellenburger Gas Pool.

(4) That the applicant has not established that there are 640 productive acres in the Dublin-Ellenburger Gas Pool.

(5) That the applicant has not established that wells in the Dublin-Ellenburger Gas Pool can efficiently and economically drain and develop 640 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 vertical limits of the Dublin-Ellenburger Gas Pool should be the Ellenburger formation and that the horizontal limits of said pool should be the S/2 of said Section 12.

(7) 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 a gas pool for production from the Ellenburger formation, is hereby created and designated the Dublin-Ellenburger Gas Pool, consisting of the following described area; with vertical limits comprising the Ellenburger formation and horizontal limits comprising the S/2 of Section 12, Township 26 South, Range 37 East, Lea County, New Mexico.

(Change)

LEA County
T - 26 South, R 37 EAST, NMPM
Section 12: S/2

(2) That the applicant's request for the promulgation of special rules for the above-described 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.

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. ~~4586~~ 4684
Order No. ~~R-4196~~

APPLICATION OF ~~PENNZOIL UNITED~~ The Petroleum Corporation, ~~INC.~~, FOR THE CREATION OF A NEW POOL AND PROMULGATION OF SPECIAL POOL RULES, ~~ROOSEVELT~~ Lea COUNTY, NEW MEXICO.

NOMENCLATURE

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April ~~20~~ 5, ~~1971~~ 1972, at Santa Fe, New Mexico, before Examiner ~~Elvis A. Utz~~ Daniel S. Nutter.

NOW, on this ~~20th~~ day of ~~May~~ June, ~~1971~~ 1972, 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.~~ The Petroleum Corporation, seeks the creation of a new gas pool for ~~San Andres~~ Ellenburger production in ~~Roosevelt~~ Lea County, New Mexico, and the promulgation of special rules and regulations governing said pool, including a provision for ~~320~~ 640-acre spacing and proration units.

(3) ~~(5)~~ That the ~~Superior State~~ Tennneco Federal Well No. 1, located in Unit ~~I~~ N of Section ~~8~~ 12, Township ~~X~~ 26 South, Range ~~35~~ 37 East, NMPM, ~~Roosevelt~~ Lea County, New Mexico, having its top perforations at ~~4252~~ 4534 feet, has discovered a separate common source of supply which should be designated the ~~Northwest Todd-San Andres Gas Pool~~ Dublin-Ellenburger Gas Pool, ~~that the vertical limits of said pool should be the San Andres formation and that the horizontal limits of said pool should be the W/2 of said Section 8.~~ 12.

(4) That the applicant has not established that there are 640 productive acres in the Dublin-Ellenburger Gas Pool.

(5) ~~(3)~~ That the applicant has not established that ~~the~~ wells in the ~~North Bisti-Lower Gallup~~ Dublin-Ellenburger Gas Pool can efficiently and economically drain and develop ~~160~~ 640 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 to too few wells, or otherwise prevent waste or protect correlative rights.

(6) That the vertical limits of the Dublin-Ellenburger Gas Pool should be the Ellenburger formation and that the horizontal limits of said pool should be the S/2 of said Section 12.

(6) That the subject application should be denied.

IT IS THEREFORE ORDERED:

(1) That the subject application is hereby denied.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

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

SEAL

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

Ordered:

esr/ (1) That a new pool in Lea County, New Mexico, classified as a gas pool for production from the Ellenburger formation is hereby created and designated the Dublan-Ellenburger Gas Pool, with vertical limits comprising the Ellenburger formation and horizontal limits comprising the S/2 of Section 12, Township 26 South, Range 37 East, Lea County, New Mexico.

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

(3) Jurisdiction —

CASE 4685: Application of FLUID POWER PUMP CO. FOR 2 NON-STANDARD OIL PRORATION UNITS.