CASE 3002: Application of PAN AM. for creation of new gas pool and special pool rules - Lea County.

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Application, Transcripts, Small Exhibits ETC.



APP/ication, Transcripts, SMALL Exhibits ETC.

-2-CASE No. 3246 Order No. R-2935-3

(5) That the reservoir characteristics of the Nesa-Queen Pool presently available justify the establishment of a gasliquid ratio limitation of 5,000 cubic feet of gas per barrel of liquid hydrocarbons until further order of the Commission.

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(6) That the evidence establishes that the Mesa-Queen Pool has been and will be efficiently and economically drained and developed under the Special Rules and Regulations promulgated by Orders Nos. R-2935 and R-2935-A.

(7) That the Special Rules and Regulations promulgated by Orders Nos. R-2935 and R-2935-A have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil and gas in the pool.

(8) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Orders Nos. R-2935 and R-2935-A should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Mesa-Queen Pool, promulgated by Orders Noz. R-2935 and R-2935-A, are hereby continued in full force and effect until further order of the Commission.

(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

GUYTON B. HAYS, Member

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

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:

فستعريب

CASE No. 2720 Order No. R-2397-C

APPLICATION OF TENNECO OIL COMPANY FOR SPECIAL RULES AND REGULATIONS GOVERNING WELLS IN THE DOUBLE-X DELAWARE POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 26, 1966, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this ______day of February, 1966, 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 this case has been reopened pursuant to the provisions of Order No. R-2397-B.

(3) That the evidence establishes that the Double-X Delaware Pool has been and will be effficiently and economically drained and developed under the Special Rules and Regulations promulgated by Orders Nos. R-2397, R-2397-A, and R-2397-B.

(4) That the Special Rules and Regulations promulgated by Orders Nos. R-2397, R-2397-A, and R-2397-B have alforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil and gas in the pool.

-2-CASE No. 2720 Order No. 8-2397-C

(5) That is provent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of rish arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Orders Nos. R-2397, R-2397-A, and R-2397-B should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the bouble-X belaware Pool promulgated by Orders Nos. R-2397, R-2397-A, and R-2397-B are hereby continued in full force and effect until further order of the Commission.

(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

JACK M. CAMPBELL, Chairman

GUYTON S. HAYS, Member

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

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BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS Santa Fe, New Mexico May 1, 1968 EXAMINER HEARING MEXICO IN THE MATTER OF: N In the matter of Case No. 3002 1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUOUEROUE.) Case 3002 (reopened) being reopened pursuant to the) provisions of Order No. R-2684) which order provided special rules) and regulations for the Fowler-Lower Paddock Pool, Lea County,) New Mexico. dearnley-meier BEFORE: Elvis A. Utz, Examiner TRANSCRIPT OF HEARING

MR. UTZ: Case 3002.

MR. HATCH: Case 3002. Reopened. In the matter of Case No. 3002 being reopened pursuant to the provisions of Order No. R-2684-B, which order provided special rules and regulations for the Fowler-Lower Paddock Pool, Lea County, New Mexico.

MR. BUELL: For Pan American Petroleum Corporation, Guy Buell, we have one witness, Mr. Wight.

(Witness sworn)

MR. UTZ: Are there other appearances? You may proceed.

MR. BUELL: Mr. Examiner, it might be of help to you in that this is a rather unusual background that we have in the Fowler-Lower Paddock, if I make a very brief opening statement. This pool was discovered in December of 1963 when Pan American completed the South Mattix Unit No. 16, as a gas well. Pan American applied for and the Commission approved in March of 1964 by Order No. R-2684, temporary gas pool rules which among other things, provided for 320-acre units. As customary with the Commission's policy on temporary rules were reviewed in April of 1965. At that time South Mattix Unit or I'll refer to it in the future as SMU,

and anytime I say SMU I'm talking about the South Mattix Unit and not the university in Dallas. Sixteen was still the only well in the pool and it was still a gas well, so under those circumstances the Commission continued the gas pool rules as temporary for another year. By the time the rules were next reviewed by the Commission in April of 1966 three additional wells had been drilled and completed in the Lower Paddock, but these three new wells were completed as oil wells, so in view of this, we recommended to the Commission the adoption of pool rules which would apply to associated oil and gas pool which we obviously have in the Lower Paddock. The Commission approved these temporary rules for a two-year period to govern this associated oil and gas reservoir. Among the rules that they adopted as temporary for a two-year period, were 80-acre oil proration units, the rules provided for an allowable factor for these oil wells of 2.33. They continued the 320-acre gas units and provided a gas allowable which was four times the top gas limit for an 80-acre oil well. They also, in view of the producing characteristics of the oil wells in the pool, adopted a limiting gas-oil ratio of four thousand to one, so actually this hearing today is to review rules that started

out back in 1964 but over their temporary life they changed from gas pool rules to associated oil and gas pool rules, and today it will be our recommendation to the Commission that these rules now in effect as temporary be adopted as permanent pool rules for the Fowler-Lower Paddock pool.

> (Whereupon, Applicant's Exhibits 1 through 5 marked for identification)

DAVID G. WIGHT

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

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Wight, will you state your name, by whom you are employed, in what capacity, and what location, please?

A My name is David George Wight, I'm employed by Pan American Petroleum Corporation as a Petroleum Engineer in their Fort Worth Division Office.

Q You have testified before the New Mexico Oil Conservation Commission before, have you not, and your qualifications as a Petroleum Engineer are a matter of public record?

A Yes, they are.

Q In connection with this subject case here today

I wish you would look first at what has been identified as Pan American's Exhibit No. 1. What is that exhibit?

A This is a base map of the Fowler area. It shows the various completions in the area of the Fowler-Lower Paddock pool. The Lower Paddock completions, of which there are four, are designated with yellow for gas and red for oil. The four completions starting with the initial one, which is a gas well, Well No. 16, is located in the southeast quarter of Section 15. Well No. 9, an oil well, is located in the northeast quarter of Section 15. Well No. 18, in the northeast quarter of Section 22 and Well No. 19 in the northwest quarter of Section 22.

Q All in 24 South, 37 East, Lea County?

A Yes.

Q Since this is an orientation map more or less, how have you designated the boundary of the south Mattix Unit?

A The South Mattix Unit which is located in Sections 15 and 22 is outlined with a heavy black dashed line.

Q And I believe you stated that this was a multi-pay area and you have color coded the various wells to show their reservoir completion?

A Yes.

Q Let's go now, Mr. Wight, to what has been identified as our Exhibit No. 2. What is that exhibit?

A This is a structure map using the same base map as our Exhibit No. 1. The structure is contoured on the top of the Fowler-Lower Paddock pool pay. Designated on this map by colors are the four Fowler-Lower Paddock wells, these being the same colors as on our Exhibit No. 1.

Q And your contour is on top of the Lower Paddock pay? A Yes, sir.

Q Now, while there are only four completions in the Lower Paddock reservoir, most of the wells in this area have penetrated it, have they not?

A Yes, we have many completions in other horizons which have penetrated the Lower Paddock pay. This gives us excellent control on the structure and wells that we have logs on through the Paddock pay, Lower Paddock, have tops picked.

Q How would you describe the structure of the Lower Paddock as reflected on this exhibit?

A This is an asymmetrical anticline trending from the northwest to the southeast; it has a gas cap which we have estimated to be at a minus 1,960 feet.

Q You say, "gas cap," you mean gas-oil contact?

A Gas-oil contact, yes.

Q Have you designated that on Exhibit No. 2?

A Yes, it is designated by a light dashed line and appropriately labeled.

Q Would you say that the Lower Paddock Pool is predominantly a gas reservoir with just a small oil accumulation?

A Yes, by looking at our structure and the completions you can see that it is primarily a gas reservoir with a small amount of oil associated in the rim.

Q Let's move on now to what has been identified as our Exhibit No. 3. What is that exhibit?

A Exhibit No. 3 consisting of four parts, are performance curves on the wells in the Fowler-Lower Paddock pay. They are plots of production versus time for each well.

Q For each of the four completions?

A Yes, sir.

Q Look now to Exhibit No. 4, what is that exhibit?

A Exhibit No. 4 also consisting of four parts, is a tabulation on each individual well completed in the Lower Paddock pay as to production data.

Q Looking at the production history of these wells, particularly the three oil completions, what does it reveal to you?

A Most recently, looking at the oil completions, Well No. 9 shows that it produced 12 barrels of oil per day in December of 1967, Well No. 19 produced 15 barrels per day in December of '67, and Well No. 18 produced 6 barrels a day in December of 1967..

Q These wells are not barnburners in any sense of the word, are they, Mr. Wight?

A No, these production tabulations indicate that they are somewhat marginal in nature.

Q Have you had available to you any interference data which would indicate the degree or magnitude of an area that one well in this pool will effectively drain?

A Yes.

Q In that connection I wish you would look at what has been identified as Exhibit No. 5, what is that exhibit?

A This is a plot of bottom hole pressures versus time that we have obtained on the Fowler-Lower Paddock completions.

Q Would you briefly explain for the Examiner and the record the exact data which this exhibit reflects?

A Well No. 16, the discovery well, had an initial pressure on completion of 2,214 pounds, this was in December of 1963.

Q Virgin pressure in the Lower Paddock Pool was 2411?

- A 2,214.
- Q 2214.

A Yes, sir. At a later date in March of 1965 we obtained another pressure on Well No. 16, this pressure being 1811 PSI, or showing a decline of approximately 400 pounds. Subsequent pressures were obtained on completion of additional wells in the reservoir; in May of 1965 Well No. 9 was completed in the Lower Paddock pay. This was the second completion and it had an initial bottom hole pressure of 1,911 pounds, approximately 300 pounds less than the discovery pressure.

Q Approximately how far is No. 9 located from No. 16, which at that time was the only producing well in the pool?

A This Well No. 9 is located 3,600 feet from No. 16.

Q And these data certainly show that one well in this pool will effectively and efficiently drain an extremely large area?

A Yes, using this distance you can calculate a drainage radius for Well No. 16 in excess of 900 acres.

Q Do you have any other initial pressures on subsequently completed wells on this exhibit?

A Yes, sir, in July of 1965 Well No. 18 was completed in the Lower Paddock pay; this was the third Lower Paddock completion, it had an initial pressure of 1,828 PSI, some 400 pounds below the discovery pressure. This well is located some 3,000 feet from the discovery well No. 16, and this exhibit or this data shows a drainage radius in excess of 600 acres for Well No. 16.

Q This exhibit also reflects a subsequent pressure on the discovery Well No. 16 at about the same time that Wells No. 9 and 18 were completed, does it not?

A Yes, sir, this pressure taken in March shows that the pressure of 1,811 on No. 16 is approximately the same as the later completions in the same year on the other wells, showing good drainage of the reservoir.

> MR. UTZ: When was No. 18 completed? A No. 18 was completed in July of 1965.

Q (By Mr. Buell) Now, in addition to these interference data which show that wells in this pool can effectively and efficiently drain a large area, what about this pool from the standpoint of economics? Can you economically justify a well in this pool, an oil well, to a

unit size of less than 80?

A No, sir, the 80-acre spacing for oil wells represents marginal economics and a reduction in the unit size would present unfavorable economics.

Q Is the marginal nature of this reservoir rather vividly demonstrated by the fact that so many wells in this pool have the Lower Paddock behind the pipe and yet haven't attempted a completion in the Lower Paddock?

A Yes, sir.

Q From your earlier testimony, Mr. Wight, it's pretty obvious that the three oil completions in this pool at this time cannot even approach producing the 80-acre allowable. Why would you recommend to the Commission that the rules providing for an 80-acre allowable remain in effect?

A Although these wells cannot produce an 80-acre allowable this will be an incentive to operators, Pan American, and offset operators to attempt additional completions in the Lower Paddock pay.

Q In other words, this appears to be a salvage type reservoir and you believe you need all the incentive possible to encourage an operator to salvage as much from it and recover as much oil and gas as we can?

A Yes, sir.

Q You are recommending then to the Commission that these rules as currently in effect be continued as permanent rules?

A Yes, sir, that's my recommendation.

Q In your opinion, if the Commission takes that action will it serve conservation through the prevention of waste as well as protecting correlative rights of all the owners of interest in this pool?

A Yes, sir, it will.

Q Do you have anything else you care to add at this time?

A No, sir.

MR. BUELL: May it please the Examiner, that's all we have by way of Direct. I would like to formally offer Pan American's Exhibits 1 through 5.

MR. UTZ: Without objection, Exhibits 1 through 5 will be entered into the record of this case.

> (Whereupon, Applicant's Exhibits 1 through 5 were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Do you have any information as to how the gas-oil

contact is acting, whether it's stationary, moving up or down dip?

A Well, Well No. 18 is the basis for picking the gas-oil contact. It has a high gas-oil ratio and our production tabulation will reflect that. The other two wells which are completed lower continue to have low gas-oil ratios and although they are completed at some distance lower, we have not seen any evidence of the gas cap going in that direction. Well No. 16 makes no oil at this time and so that would be indicative of no oil going up into the gas cap to this well. This is the only data we have to present in that regard.

MR. BUELL: Actually Well No. 16, the gas well is producing less liquids than it did on completion.

A Yes.

Q (By Mr. Utz) How about the No. 18 GOR? Has it gone up or down? Just scanning your exhibit here it looks like it's increasing substantially, is that true?

A It's fluctuated to a great extent. Other than the initial gas-oil ratio shown on this tabulation in September, gas-oil ratios have been on the order of 20,000 or higher. It would appear to me that the gas-oil ratio has been about the same with periodic variances up as high

as 59,000 -- excuse me, 61,000.

Q Have you any explanation for the eradic GOR of this well, for example in April of '67, 53,000, December of '67, 26,000?

A No, sir, I don't.

MR. BUELL: It doesn't even appear to be related to the oil production, does it, Mr. Wight?

A No, sir, we examined the producing rates, in June we had one of the higher producing rates during the year, you had one of your lower gas-oil ratios, so I can't draw a conclusion as to the cause of this fluctuation in the gas-oil ratio.

Q It wouldn't appear that the gas cap is expanding?

A No, sir, I don't believe it has moved very much.

Q Do you have any information as to the production of the Gulf well in Section 23?

A Which well are you speaking of?

Q The Plains-Knight, I believe it's the No. 1 that's completed in this zone, isn't it? Isn't one of those wells completed in the Lower Paddock?

A No, sir, the only Lower Paddock completions are within the South Mattix Unit. The Plains-Knight, Gulf Plains-Knight wells are No. 1 is an Ellenburger, No. 3 is an Upper Paddock gas well, No. 2 is a Blinebry well.

MR. BUELL: You were probably thinking of that Upper Paddock completion, Mr. Examiner.

Q (By Mr. Utz) I'm thinking of the time that they wanted this unorthodox location and you opposed them on it. Was that the Upper Paddock?

A I think it was the Ellenburger, wasn't it? MR. BUELL: Yes, sir, Ellenburger.

A Ellenburger, I believe.

Q (By Mr. Utz) So actually, your request here is for permanent rules of the current order in every respect?

A Yes, sir.

MR. UTZ: Are there other questions of the witness? He may be excused.

(Witness excused)

MR. UTZ: Take the case under advisement.

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MR. UTZ: Call Case 3002 (Reopened). In the matter of Case No. 3002 being reopened pursuant to the provisions of Order No. R-2684-A, which order continued the original order for an additional year, establishing 320-acre spacing for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico.

MR. BUELL: We have one witness, Mr. Howell. MR. UTZ: Let the **record** show that Mr. Howell was sworn in the previous case.

MR. BUELL: Mr. Examiner, it might be well, with regard to this case, to briefly review some of the history. The temporary pool rules were first adopted by the Commission March 31, 1964, by your Order R-2684. These were temporary rules for a one year period and at that time we only had one gas well completed in the lower Paddock Gas Pool. The Commission called a review hearing in April of 1965. Unfortunately, at that time we still had this one lone gas well in the lower Paddock, and based upon our recommendation the Commission again continued the temporary rules for another 12 month period; that was done by R-2684-A.

Unfortunately, subsequent to the April 1965 hearing Pan American has drilled and completed 3 wells in this reservoir. I say "unfortunately" because they are all oil wells, so actually what we're dealing here with, now, is not

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a non-associated gas reservoir but rather an associated oil and gas reservoir, which we think is primarily and predominantly a gas reservoir with a small rim-type accumulation of oil. Therefore, today, viewing the type reservoir that we have and the well that we have in it, we would like to present evidence and testimony supporting pool rule recommendations that will go to the type reservoir we actually have.

We would like to, at this time, recommend an associated oil and gas pool rule recommendation. We recognize, certainly, Mr. Examiner, that the scope of the hearing as advertised on this docket does not cover a presentation of that kind. What we would like to do, and it's a plea that the Examiner heard a little earlier today, is to be allowed to present evidence and testimony on the recommendations and ask that the case be readvertised, sufficiently broad in scope, to cover associated oil and gas pool rules, and after it has been readvertised and when it's called at the readvertised docket, that the record of this hearing simply be incorporated into the record of that

docket by reference.

I might point out to the Examiner that all four lower Paddock completions are within the South Mattix Unit which Pan American operates. There are no other operators

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in this area that, at this time, have any lower Mattix completions.

I can certainly tell the Examiner at this time that I don't believe any operator in the area would object to this procedure.

MR. UTZ: The Examiner will hear this case as proposed by Pan American's counsel, and the case will be readvertised and called again at the May 27th hearing, at which time any interested parties may give testimony or make statements.

MR. BUELL: Thank you very much, Mr. Examiner.

REX HOWELL, a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Howell, state your name, by whom you are employed, in what location, and in what capacity?

A Rex Howell, employed by Pan American Corporation in the Lubbock District Office as a Reservoir Engineer and Section Leader.

Q Mr. Howell, you have previously testified before



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this Commission and your qualifications are a matter of public record?

Yes, sir. А

MR. BUELL: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir.

Q (By Mr. Buell) Would you look first at what has been identified as Pan American's Exhibit 1?

Α Yes, sir. Exhibit 1 is an area map of the Fowler Area and shown by colored dots are the current completed production intervals of the different wells in this area. Also shown on this map in the heavy dashed blue line, is the outline of the South Mattix Unit in which Pan American is the operator. Other working owners are Continental, Standard of Texas, Atlantic and Tenneco.

Q How many separate reservoirs have produced in the Fowler Area?

Eight that have produced. At the current time А only 7 produce in the area. Now, the Drinkard is not productive in this area at the present time.

How have you distinguished the wells which are in Q the reservoir subject matter of this hearing?

Α Shown in the lower Paddock in Section 16 there are three lower Paddock completions, 15, 2 and 22 which are



colored red.

Q Would you go now to what has been identified as Exhibit 2. What is that Exhibit?

A Again, Exhibit 2 is a map of the Fowler Area. On it is shown our present interpretation of the lower Paddock pay zone. Also shown on this map in the heavy blue line is the outline in yellow for the gas wells and red for the three oil wells shown on the Paddock completions. Also show is the approximate gas-oil contact based on production data.

Q How would you describe the structure of the lower Paddock reservoir which is reflected by Exhibit 2?

A The structure is an assymetrical anticline and this is similar to the other producing horizons in this area.

Q Look at Exhibit 3; what is that exhibit?

A Exhibit 3 is a North - South structural cross section. Included on it are the logs of the four lower Paddock completions. Each are hung on the subsea depth of minus (-) 1700 feet shown by the heavy dashed blue line. Also shown is the correlation of the top of the lower Paddock formation and pay, and top of the Blinebry pay. And also shown by each one of the wells is the current producing interval and the initial completion of the reservoir.



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Also shown with the lighter dashed blue line at the subsea depth of minus (-) 1960, is the approximate depth of the gas-oil contact.

Mr. Howell, I've stated that I thought this was primarily and predominantly a gas reservoir, do you share that opinion?

Yes, sir, I agree. Α

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What has been our experience with these three oil wells we have recently completed?

The three oil wells potential have fairly low Α rates. It appears that all these oil wells will be marginal in nature.

Let's look at out next exhibit, Exhibit 4; what Q is that exhibit?

This is a tabulation of the production data, both Α oil, water and gas, for all of the Fowler Lower Paddock completions.

These data more or less are self-explanatory, I Q don't think you need to read it all. Do you have any comments you would like to make about any of these data?

The latest March production data on the individual wells indicate Well 9 is making 26 barrels of oil per day, per calendar day; Well 18, 8 barrels; Well 19, 19 barrels of oil per day.



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Mr. Howell, look next at what has been marked as 0 Pan American's Exhibit 5 and 5A, companion exhibits, and state for the record what 5 and 5A is.

Exhibits 5 and 5A plot the bottom hole pressures Ä in the Lower Paddock Pool. Where Attachment 5A is, is a tabulation of the same plotted pressure data.

Sticking now with Exhibit 5, what significant 0 data are reflected on that exhibit?

On Exhibit 5 is shown the initial reservoir Α pressure of the lower Paddock formation which was measured on December 10, 1963. Its initial pressure at the pool data of minus (-) 1912' subsea, was 2214 psi.

Also shown is the initial pressure on our South Mattix 19, which was 1911 psi, also at the same datum measured in May of 1965.

The initial pressure on the subsequently Q completed well was how much lower than virgin reservoir pressure?

303 pounds. Α

How far away was that subsequently completed well Q Number 9 from the discovery well, Well Number 16?

Number 9 is about 3600 feet North of Well 16. Α

What is the area of the circle, the radius of which Q

is 3600 feet?

It would be in excess of 900 acres. Α



These data show that we were having pressure 0 interference over an area of 900 acres?

Yes, sir. Α

What other data are on this exhibit? Q

The last point shown to the right on Exhibit 5 is Α the initial pressure measured in our South Mattix Well 18, which is 1828 psi, also at a datum of 1912 feet.

How much below virgin pressure was that, and how 0 far before the nearest producing well is Well Number 18?

I believe that's 386 psi lower than the initial Α reservoir pressure. This well is located about 3,000 feet South of Well Number 16.

What is the area of the circle, the radius of which 0 is 3,000 feet?

In excess of 600 acres. Α

Again, we see by pressure interference data that Q one well has the ability to drain a tremendous area?

Yes, sir, that's correct. А

Do you have any other comments you would like Q to make on 5 or 5A?

No, sir. А

Look then, at Exhibit 6, which contains the rules 0 that you're recommending here, today. Again, in the interest of time and in order not to burden the record, I wish you

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would summarize for the record what you feel are the more important rules.

A All right, sir. Since we have both oil and gas wells in this field I'm recommending rules that I think will take care of both situations. I would like to recommend that the gas well be classified as a well that is producing with a gas liquid ratio of 50,000 cubic feet of gas or more.

Q Why do you recommend 50,000 to 1 as a breakover point?

A It appears that once a well starts making or producing with 50,000 cubic feet per well, it's predominantly a gas well.

Q Go ahead.

A If it produces less, it's to be classified as an oil well. I would recommend that proration units of 320 acres be set up for the gas wells and 80 acres for the oil wells, with a proportional factor of 2.33 for allowable purposes for the oil wells, and recommend that acreage cannot be simultaneously dedicated to an oil and gas well, nor can a well be dually completed to produce gas from the Fowler Lower Paddock Gas Pool.

I recommend that, and then finally I would recommend that the maximum allowable for a gas well shall be equal to four times the top allowable gas limit for an oil



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Q With interference data of the magnitude reflected on Exhibit 5, why are you recommending 320 acre gas units and not 640 acre units?

A Refer to Exhibit 2, showing the approximate gas-cil contact of minus (-) 1960, neither in Section 15 or 22 do we have 640 acres strictly productive of gas. I believe that future completions in the Lower Paddock will be the result of the other wells completed in the lower horizon.

Q So your 320 gas unit recommendation will not result in drilling unnecessary wells?

A No, sir, it will not.

Q Let me ask you a question about a limited gas-oil ratio for oil wells. Do you think that under the performance of oil wells this ratio is justified?

A Yes, sir. Refer to Exhibit 4, which shows the gasoil ratio history of the oil wells, and note that all the gas-oil ratios have increased on the wells. Therefore, since we do have a gas cap in this area, that the oil wells will produce at a farily high limit. So I believe 6,000 cubic feet limit is a practical number to use.

Q Do you feel that these recommended rules will serve conservation as well as protect the Correlative Rights of the interest owners?



PAGE 12 А Yes, sir, I believe our data show that one well CONVENTIONS in this reservoir can effectively drain 320 acres for gas DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, DAILY COPY, and 80 acres for oil. I believe that the reservoir is NEW MEXICO principally and predominantly a gas reservoir. These rules AIBUQUERQUE, I AIBUQUERQUE, NEW have taken these facts into consideration and I believe they form a basis for developing and depleting this associated gas reservoir in a manner that will serve • PHONE 243-66 conservation. Q Do you have anything else to add at this time? • 092 Α No, sir. BOX 1 EAST US BLDG. • P.O. B T NATIONAL BANK E MR. BUELL: That concludes our direct testimony ž and I would like to offer Pan American's Exhibits 1 through VIIZING SIMMS FIRST 1 6. SPE 120 (Whereupon, Applicant's Exhibits 1 through 6 offered into evidence.) MR. UTZ: If there are no objections they will be admitted. (Whereupon, Applicant's Exhibits 1 through 6 admitted into evidence.) CROSS-EXAMINATION BY MR. PORTER: What was your recommendation for the gas-oil ratio? Q 6,000 for an oil well, sir. Α CROSS-EXAMINATION

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BY MR. UTZ:

Q

your 18 was 59,506, and 19 was 3,693?

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Yes, sir. Α 0 Now, according to your definition here, then, the Number 18 would also be a gas well? Yes, sir, that's correct. Α Q What acreage would be dedicated to Number 18? When Well 18 was going to be developed we had a Α hearing to get an unorthodox gas proration unit; we were drilling that well again as a gas well; we were going to use the well in the upper 40 acre tract in Section 22. Q The North half? Α Yes, sir, plus the North half of the Southeast Quarter ---Q I see. Α -- which would have been 320 acres. This was approved by the Commission, however the well resulted, initially, as

Mr. Howell, I note that your Number 9 was 2269 and

an oil completion. I think if the well is reclassified as a gas well, then we would recommend that, essentially, the East half be included as the proration unit for the gas well with the 80 acres around Well 19, being dedicated to the oil well.

A 280 acre unit? Q

PAGE 13

Α Yes, sir, that's correct. Q In regard to the Number 19 Well, then, I presume the West half of the Northwest Ouarter? Α Yes, sir, that would be correct. Q How about the Number 16? Α At the present time the South half of Section 15. 320 acres is dedicated to this gas well. Q Do you think that 320 acres is productive? Α Yes, sir. How about Number 9? 0 Number 9, we probably dedicated the North half of the Α Northeast Quarter to that well. 0 Then you probably will recomplete either the 10 or 17? Yes, sir, possibly. Α Q Looks like the whole Northeast of the North half is productive.

PAGE

14

Yes, sir. Α.

Q Where do you think the productive limit is, of this structure?

Α I don't know, sir. Only the four wells we've got as completed have tested the lower Paddock. We have not encountered volumes and I do not know where the productive limits end.



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acres?

2.33 acreage based on a 44 barrels per day. A А month would be 103 barrels of oil per day. 0 You were asking for 6,000? Λ Yes, sir. Q So an 80 acre gas well allowable will be 618 MCF per day? Ā Yes, sir. Q And 320 would be four times that? Yes, sir. Α Almost 2-1/2 per day? Q Yes, sir. Α Let me hear, again, why you think you should have Q the 6,000 ratio in this pool? I believe the 6,000 ratio is needed so that the oil Α wells can be produced as long as possible, at as high a rate as possible. You note the gas-oil ratio on all three of these wells have increased. On well 9 it's 2269; on well 18, it will be reclassified as a gas well, but it has increased from 700 to essentially 60,000; and Number 19 is up to 3693 feet per barrel. Also, this is the current gas-oil ratio limit for the Fowler Blinebry Pool which is the next producing

horizon under the Lower Paddock.

What would be the normal unit allowable on 80

PAGE
If the gas allowable established by 6,000 GOR should ()prove to be higher than it should be in order to maintain a constant gas-oil contact, how would you determine it, determine that situation in the way these wells were spaced here?

A Actually determine the movement of the gas-oil contact?

Yes, sir. 0

I think this would just totally depend on the A producing characteristics of the well. Of course, the original contact was not established, it was based on the information on the Number 16, which was a gas well, and Well 18, which was the next highest completed well. Therefore, it indicates that it's not lower than 1960 feet but it's pretty close to that. For movement of gas-oil contact, I think we would just have to watch the individual well performance. The other wells are fairly low down-structure and it will probably be a long time before the gas cap would expand out to that.

If Number 18 were to decrease it would be a 0 pretty good sign that the oil was moving up structure?

А Yes, sir, it would.

Q How much production do you have out of the 18 at this time?



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NI DEPOSITIONS, HEARINGS, STATE MENTS, EXPER dearnley-meier seerting 6691 243-66 • PHONE 2 PHONE 256-1 • P.O. BOX 10 BANK EAST S BLDC. . SPECIALIZING IN. 1120 SIMMS 1213 FIRST N

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3,000 barrels. Q It's a relatively new well? Α Yes, sir. MR. UTZ: Are there other questions of the witness? RECROSS-EXAMINATION BY MR. PORTER: Q Mr. Howell, I'm sorry, I was out for a moment. What was your recommendation for the definition of a gas well? A A gas well shall mean a well producing from within the vertical and horizontal limits of the Fowler Lower Paddock Pool which produces with a producing gas liquid ratio of 50,000 cubic feet of gas or more per barrel of liquid hydrocarbons. Q Two of them would be gas wells? Α Yes. Q Also, you referred to the Fowler Blinebry Pool as having a gas-oil ratio limitation of 6,000 to 1? Yes, sir, that's correct. Α Q Is that defined as an oil pool?

Total production, I would guess, sir, about

PAGE

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A Yes, sir.

Q Does it have any gas wells in it at all?

Α	No,	sir,	it	does	not

MR. PORTER: That's all I have.

MR. UTZ: The witness may be excused. Are there any other statements in this case? We have quite a number of communications from people who show approval and others who have discovered that Pan American was changing the rules on this case. Texas Standard Oil Company, Division of Chevron Oil Company concurs; Tenneco concurs; Continental concurs; and Atlantic Concurs.

Are there other statements in this case? The case will be taken under advisement and the hearing is adjourned.

(Whereupon, the hearing was adjourned at 3:00 o'clock P.M.)



EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

HEARINGS, STATE MENTS.

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STATE OF NEW MEXICO)) ss County of Bernalillo)

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

Witness my Hand and Seal this 15th day of May, 1966.

NOTARY PUBLIC

My Commission Expires:

March 13, 1969.



SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE NATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE No. 3245 Order No. R-2935-B

THE MATTER OF CASE NO. 3246 BEING REOPENED FURSUART TO THE PROVISIONS OF ORDER NO. R-2935, WHICH ORDER ESTABLISHED SPECIAL RULES FOR THE MESA-QUERN POOL, LEA COUNTY, NEW MERICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 10, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this ______ day of January, 1968, the Commission, a guorum 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 by Order No. R-2935, dated July 13, 1965, temporary Special Rules and Regulations were promulgated for the Mesa-Queen Pool, Lea County, New Mexico.

(3) That by Order No. R-2935-A, dated January 13, 1956, said temporary Special Rules and Regulations were continued in full force and effect for an additional two-year period.

(4) That pursuant to the provisions of Order No. R-2935-A, this case was reopened to allow all interested parties in the subject pool to appear and show cause why the gas-liquid ratio limitation of 5,000 cubic feet of gas per barrel of liquid hydrocarbons should not be reduced and why the special rules and regulations should not be discontinued.

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 & LAW LIBRARY

CASE No.

Order No. R-_______

3002

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR EXTENSION AND AMENDMENT OF THE SPECIAL RULES AND REGULATIONS FOR THE FOWLER-LOWER PADDOCK POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on <u>May 1</u>, 1968, at Santa Fe, New Mexico, before Examiner <u>Elvis A. Utz</u>.

NOW, on this ______day of ___May ___, 1968, the Commission, a guorum 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 pursuant to the provisions of Order No. R-2684-B, dated June 23,1966, Case No. 3002 has been reopened to allow all interested parties in the Fowler-Lower Paddock Pool, Lea County, New Mexico, to appear and show cause whether the special pool graning said force, rules, as they relate to well spacing, well classification, and

limiting gas-oil ratios, should remain in effect.

(3) That the reservoir characteristics of the Fowler-Lower Paddock Pool presently available justify the definition of a gas well as a well producing with a gas liquid ratio of 50,000 or more cubic feet of gas per barrel of liquid hydrocarbons. -2-CASE No. 3002 Order No. R-2684-C

(4) That the reservoir characteristics of the subject pool presently available justify the establishment of a gas-liquid ratio limitation of 4000 cubic feet of gas per barrel of liquid hydrocarbons.

(5) That the evidence establishes that the Fowler-Lower Paddock Pool has been and will be efficiently and economically drained and developed under the Special Rules and Regulations promulgated by Order No. R-2684-B.

(6) That the Special Rules and Regulations promulgated by Order No. R-2684-A have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil and gas in the pool.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-2684-B should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Fowler-Lower Paddock Pool, promulgated by Order No. R-2684-X, are hereby continued in full force and effect until further order of the Commission.

(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.

DRAFT

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GMH/esr June 15, 1966

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING: CF Subj.

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CASE No. <u>3002</u>

Order No. R-<u>2684-B</u>

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR EXTENSION AND AMENDMENT OF THE SPECIAL RULES AND REGULATIONS FOR THE FOWLER-LOWER PADDOCK POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on <u>May 25</u>, 1966, at Santa Fe, New Mexico, before Examiner <u>Daniel S. Nutter</u>.

NOW, on this <u>day of June</u>, 1966, the Commission, a guorum 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 by Order No. R-2684, dated March 31, 1964, the

Fowler-Lower Paddock Gas Pool was created and temporary Special Rules and Regulations were promulgated for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico.

(3) That by Order No. R-2684-A, dated May 4, 1965, said temporary Special Rules and Regulations were continued in full force and effect for an additional one-year period.

(4) That pursuant to the provisions of Order No. R-2684-A, April 27, 1966, this case was reopened to allow the operators in the subject pool

to appear and show cause why the Fowler-Lower Paddock Gas Pool developed

should not be established on 160-acre units.

-2-CASE No. 3002 Order No. R-2684-B

t the request of That the applicant, Pan American Petroleum Corporation ase No. 3002 was continued to May 25, M46, and a se amendment of Order No. R-2684 and Order No. R-2684-A to was continued to May 25, 1966, and read -> conside

> establish special rules and regulations governing the Fowler-Lower Paddock Pool.

(6) That the applicant seeks the promulgation of rules classfying wells as gas wells or oil wells, establishing spacing for gas wells and oil wells, and fixing a limiting gas ratio of 6000 to

(7) That the reservoir characteristics of the subject pool indicate that the gas area can be efficiently and economically drained and developed on 320-acre spacing, and that the oil area can be efficiently and economically drained and developed on 80acre spacing.

(8) That the reservoir characteristics of the subject pool presently available justify the definition of a gas well as a well producing with a gas-liquid ratio of 50,000 or more cubic feet of gas per barrel of liquid hydrocarbons.

(9) That the reservoir characteristics of the subject pool presently available justify the establishment of a gas-liquid ratio limitation of 4000 cubic feet of gas per barrel of liquid hydrocarbons.

(10) That temporary special rules and regulations providing for 320-acre gas well spacing and 80-acre oil well spacing should be promulgated for the subject pool in order to 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, and otherwise prevent waste and protect correlative rights.

(11) That the temporary special rules and regulations should provide for the classification of a gas well as a well producing

-3-CASE No. 3002 Order No. R-2684-B

with a gas-liquid ratio of 50,000 or more cubic feet of gas per barrel of liquid hydrocarbons and should provide for the establishment of a gas-liquid ratio of 4,000 cubic feet of gas per barrel of liquid hydrocarbons in order to afford the owner of each property in the pool the opportunity to produce his just and equitable share of the oil or gas, or both, and for this purpose to use his just and equitable share of the reservoir energy.

(12) That the Special Rules and Regulations promulgated by Order No. R-2684 and Order No. R-2684 B are not sufficient to afford the owner of each property in the pool the opportunity to produce his just and equitable share of the gas and oil in the pool.

(13) That the Special Rules and Regulations promulgated by Order No. R-2684 and Order No. R-2684-A of the Commission Rules and Regulations should be amended to allow the owner of each property in the pool the opportunity to produce his just and equitable share of the gas and oil in the pool.

IT IS THEREFORE ORDERED:

That, effective ______, 1966, Order No. R-2684 and Order No. R-2684-A are hereby amended to read in their entirety as follows:

SPECIAL RULES AND REGULATIONS FOR THE FOWLER-LOWER PADDOCK POOL

RULE 1. Each well completed or recompleted in the Fowler-Lower Paddock Pool or in the Lower Paddock formation within one mile thereof, and not nearer to or within the limits of another designated Lower Paddock pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth. -4-CASE No. 3002 Order No. R-2684-B

RULE 2. A gas well shall mean a well producing from within the vertical and horizontal limits of the Fowler-Lower Paddock Pool which produces with a producing gas-liquid ratio of 50,000 cubic feet of gas or more per barrel of liquid hydrocarbons.

RULE 3. A well producing from within the horizontal and vertical limits of the Fowler-Lower Paddock Pool and not classified as a gas well shall be classified as an oil well in the Fowler-Lower Paddock Pool.

RULE 4. Each gas well shall be located on a standard unit containing 320 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental section.

<u>RULE 5</u>. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objectior to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

-5-CASE No. 3002 Order No. R-2684-B

<u>RULE 6</u>. Each oil well shall be located on a standard unit containing 80 acres, more of less, consisting of the N/2, S/2, E/2, or W/2 of a governmental guarter section.

<u>RULE 7</u>. The Secretary-Director may grant an exception to the requirements of Rule 6 without notice and hearing when an application has been filed for a non-standard unit comprising a single south condition of lot All operators offsetting the quarter-quarter section or lot All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

<u>RULE 8</u>. A standard oil proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

<u>RULE 9</u>. Each well shall be located no nearer than 660 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

<u>RULE 10</u>. The Secretary-Director may grant an exception to the requirements of Rule 9 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the -6-CASE No. 3002 Order No. R-2684-B

proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

<u>RULE 11</u>. Acreage dedicated to a gas well shall not be simultaneously dedicated to an oil well and the dual completion of a well so as to produce gas and oil from two different zones in said pool is hereby prohibited.

RULE 12. Gas-liquid ratio tests shall be conducted annually during the month of May on all wells located in and producing from the Fowler-Lower Paddock Pool.

<u>RULE 13</u>. The limiting gas-oil ratio for an oil well shall be 4,000 cubic feet of gas for each barrel of oil produced.

RULE 14. The maximum allowable for a gas well shall be equal to four times the top allowable gas limit for an oil well.

IT IS FURTHER ORDERED: Jante

() that the vertex tandation (1) That the locations of all wells presently drilling to (2) or completed in the Fowler-Lower Paddock Pool or within one mile thereof are hereby approved provided that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before July 1, 1966.

(2) (2) That each oil well presently drilling to or completed in the Fowler-Lower Paddock Pool or within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 80 acres

to the well has been filed with the Commission. Product Porch 7 (1) that the metric and an entry of the former of the American space were related and the grant has been the state of the American space were 10, 16, sound the World & Const forter 15 They all prove the top of the superior of the World & Const forter of the top of t -7-CASE No. 3002 Order No. R-2684-B

(3) That the 3pecial Rules and Regulations promulgated by Order No. R-2684 and Order No. R-2684-A, as amended in their entirety by this order, are hereby continued in full force and effect until further order of the Commission.

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

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

That This case share the (4) respond at an examinar hearing may, 1968, at which time The lors in The subject for and show cause - Junto ary special rules, as they acing, well plassi will so tion and goe - ail ratio limitation , remain in effect

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

CF Subj.

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE	No.	3002	

Order No. R-2684-A

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on <u>April 7</u>, 1965, at Santa Fe, New Mexico, before Examiner <u>Elvis A. Utz</u>.

NOW, on this day of <u>April</u>, 1965, the Commission, a guorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

n.

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 by Order No. R-2684, dated March 31, 1964, temporary Special Rules and Regulations were promulgated for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico.

(3) That pursuant to the provisions of Order No. R-2684, this case was reopened to allow the operators in the subject pool to appear and show cause why the Fowler-Lower Paddock Gas Pool should not be developed on 160-acre spacing units.

That the temporary Special Rules and Regulations for the Fowler-Lower Paddock Gas Pool, promulgated by Order No. R-2684, should be continued in effect for an additional one-year -2-CASE No. 3002 Order No. R-2604-A

period in order to allow the operators in the subject pool **sufficient** time to gather additional information concerning **the reservoir** characteristics of the pool.

(7)(5) That this case should be reopened at an examiner hearing in April, 1966, at which time the applicant and all interested to satisfield is. The parties chould appear and show cause why the Fowler-Lower Paddock if the subvalers of the part for the fowler-Lower Paddock if subvalers of the developed on 100-acre spacing units: considered to justify continuation of the openal nulus and regulation for the part of the developed on 100-acre spacing units: considered to justify continuation of the openal nulus and regulation. It is therefore ordered:

(1) That the temporary Special Rules and Regulations for the Fowler-Lower Paddock Gas Pool promulgated by Order No. R-2684 are hereby continued in full force and effect for an additional one-year period.

(2) That this case shall be reopened at an examiner hearing in April, 1966, at which time the applicant and all interested outstands for the parties may appear and show cause why the Fowler-Lower Paddock of manual models for the found from the fowler for the Gas Pool should not be developed on 160 acre spacing units (3) That jurisdiction of this cause is retained for the

entry of such further orders as the Commission may deem neces-

sary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated. MD/esr March 18, 1966

APPLICATION OF PAR DECKGE THE DECK CORPORATION FOR THE CREASED OF SELECT GAS POOL AND FOR SPECIAL FORT BELOS, LEA COUNTY, NEW BEXICO.

ORDER OF THE STREEPERS

BY THE COMMISSIONS

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NOW, on this day of March , 19 64, the Commission, a quorum being present, having considered the **application** testimony, the record, exidementations 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, Pan American Privolaus Desporation, seeks the creation of a new gas guod for Lower Paddock production in Lea County, New Action, and the probably with of temporary special rules and regulations governing and gool, including a provision of 320-acre species.

(3) That the Pau Amerikan Sea Well the (6, 177) on in Unit (

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The structure, which there we can also parameters that ϕ is the ϕ

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-2-CASE No. 3002

formation, and 5230 feet, the top of the Blinebry formation, and that the horizontal limits of said pool should be all of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk caused from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 320-acre spacing units should be promulgated for the Fowler-Lower Paddock Gas Pool.

(5) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(6) That this case should be reopened at an examiner hearing in April, 1965, at which time the operators in the subject pool should be prepared to appear and show cause why the Fowler-Lower Paddock Gas Pool should not be developed on 160-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Maxico, classified as a gas pool for Lower Paddock production is hereby created and designated the Fowler-Lower Paddock Gas Pool, with vertical limits comprising the zone encountered in the Pan American SMU Well No. 16, located in Unit O of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico, between the top of Lower Paddock formation at 5088 feet and the top of the Blinebry formation at 5230 feet, and horizontal limits comprising all of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That, Special Rules and Regulations for the Fowler-Lower Paddock Gas Pool are hereby promulgated as follows, effective April 1, 1964. -3-CASE No. 3002

SPECIAL RULES AND REGULATIONS FOR THE FOWLER-LOWER PADDOCK GAS POOL

<u>RULE 1</u>. Each well completed or recompleted in the Fowler-Lower Paddock Gas Pool or in the Lower Paddock formation within one mile of the fowler-Lower Paddock Gas Pool, and not nearer to or within the limits of another designated Lower Paddock pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Fowler-Lower PaddockCRDAR Gas Pool shall be located on a standard unit containing 320 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of

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a single governmental section of the Commission

<u>RULE 3</u>. The Secretary-Director/may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarterquarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which **argyparksef** the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well completed or recompleted in the Fowler-Lower Paddock graphs Gas Pool shall be located no nearer than 660 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

> <u>RULE 5.</u> The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or cortified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

-4--CASE No. 3002

IT IS FURTHER ORDERED:

(1) That any operator desiring to dedicate 320 acres to a well presently drilling to or completed in the Fowler-Lower Paddock Gas Pool shall file a new Form C-128 with the Commission on or before $\frac{MG_{1}}{MT_{1}}$, 1964.

(2) That this case shall be reopened at an examiner hearing in April, 1965, at which time the operators in the subject pool should be prepared to appear and show cause why the Fowler-Lower Paddock Gas Pool should not be developed on 160-acre spacing units.

(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 NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico March . 1, 1964 BYAMINER HEARING PHONE 325-118 DEARNLEY-MEIER REPORTING SERVICE, Inc. IN THE MATTER OF: Application of Fan American Petroleum Corporation for the creation of a new gas pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Lower Paddock Gas Pool for its SMU Саве No. 3002 Well No. 16, located in Unit O of Section 15, Township 24 South, Range 37 East, and the establishment of special pool rules therefor, including a provision for 320acre spacing, Lea County, New Mexico. FHONE 983-3971 DANIEL S. NUTTER, EXAMINER. BEFORE : TRANSCRIPT OF HEARING ALBUQUEROUE, N. M.



PAGE 1

100 M	·	
-		MR. NUTTER: We will call Case 3002.
		MR. DURRETT: Application of Pan American Petroleum
		Corporation for the creation of a new gas pool and for special
	16	pool rules, Lea County, New Mexico.
R	243-6691	MR. MALONE: May it please the Commission, Charlie
JVE	ie 24	Malone of Atwood and Malone of Roswell for the Applicant, Pan
INI	Phone	American Petroleum Corporation. We have one witness and seven
ROF		exhibits.
4 Cl	Mexico	(Witness sworn.)
EY, MEIER, WILKINS and CROWNOVER General Court Remarting Service	e, New M	(Whereupon, Applicant's Exhi- bits 1 - 7 were marked for identification.)
LKI Renar	erque	JAMES T. ROGERS
TAN	lbuquerque,	called as a witness, having been first duly sworn, testified as
ER,	Y	follows:
MEI	ling	DIRECT EXAMINATION
T'	Building	BY MR. MALONE:
NLL	Simms	Q Please state your name and business address.
DEARNLI	io Sii	A James T. Rogers, employed by Pan American in the Lubbock
DI	Suite 1120	District Office, Senior Grade Petroleum Engineer.
	Suit	Q Doos the Lubbock Office of Pan American have jurisdiction
		of Lea County, New Mexico?
		A Yes, sir.
		Q Are you personally familiar with the matters described
	i	



PAGE 3 in the application in this case, Mr. Rogers? Yes, sir, I am. A Have you previously testified before this Commission in Q matters of this type? Phone 243-6691 DEARNLEY, MEIER, WILKINS and CROWNOVER Yes, sir. A MR. MALONE: Mr. Examiner, are the qualifications of this witness satisfactory? MR. NUTTER: They are. Mexico Would you state very briefly, Mr. Rogers, what Pan Q General Court Reporting Service American seeks by its application? New We're seeking temporary pool rules for a new gas pool A Albuquerque, in the Lower Paddock formation in the Fowler area. Is this Lower Paddock formation which you've just men-Q tioned a designated pool? Suite 1120 Simms Building No, sir, it's not. A Does Pan American recommend a pool name? Q Yes, sir, we would like to recommend Fowler and Lower A Paddock Gas Pool. Is there production in the Lower Paddock within one mile Q of the section in which your discovery well was drilled here? A No, sir, there's not. Referring now to your Exhibit 1, would you explain what Q this shows, please?



A Exhibit 1 is a base map of the Fowler area. More for general information it shows all of the wells drilled in this vicinity and the formation in which the wells are completed, the completions are color coded. The code or legend is at the lower left-hand corner. There are nine productive formations in this immediate area.

Also shown on this exhibit is an outline of a cross section, and also the outline of the South Mattix Unit, which is operated by Pan American.

Q Is it correct that the discovery well for this Lower Paddock Gas Pool which you are now discussing is the Well No. 16, located within the boundaries of the South Mattix Unit?

A Yes, sir. Well No. 16 is a triple completion in the Paddock, Lower Paddock and Tubb formations. It's located in the Southwest Quarter of the Southeast Quarter of Section 15. The Lower Faddock is shown on here in red.

Q What does Exhibit 2 show, please?

A Exhibit 2 is a cross section through several wells in the South Mattix Unit on the Gulf Plains Knight lease down in the east end. The trace of this cross section is shown on Exhibit 1 as the line $A-A^1$. This cross section has shown on it the tops of the Paddock, Lower Paddock, Blinebry, Tubb and Drinkard formations in this area.



DEARNL) Y, MEIER, WILKINS and CROWNOVER General Court Reporting Service 243-6601

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Q Has this cross section, Exhibit 2, been previously presented to this Commission?

A Yes, sir, this cross section was presented in this identical form in Cases 2742, 43 and 44, concerning field rules for the Paddock, Blinebry and Tubb formations.

Q Those cases were on February 19 of this year?

A Yes, sir, they were.

Q Would you go now to Exhibit 3 and describe it, please? A Exhibit 3 is a structure map contoured on top of the Lower Paddock, indicating the structure of this formation to be an asymetrical anticline with the Northwest-Southwest trend.

Q How many wells are completed in the Lower Paddock which you are discussing here today?

A We have only one completion in the Lower Paddock and that's the South Mattix No. 16 previously referred to. It's shown on this Exhibit No. 3 colored in red.

MR. NUTTER: You mentioned there has been a triple completion of this SMU No. 16. Has this Commission approved this triple completion?

A Yes. This triple was approved in Case 2974 held on January 22, 1964.

Q Did Pan American at that time present evidence as to the fact that the Lower Paddock is a separate and a distinct gas



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with any other reservoirs?
reservoir which is not in communication with any other reservoirs?
A Yes, sir, we did: Q Was Order No. R-2644 entered in that case allowing the
triple completion in the three separate zones?
A Yes, sir, it was. A Yes, sir, it was. MR. MALONE: Mr. Examiner, at this time, to prevent
A Yes, Sir, it was HA Solution A Yes, Sir, it was MR. MALONE: Mr. Examiner, at this time, to prevent MR. MALONE: Mr. Examiner, at this time, to prevent
MR. MALONE: MILE NR. MALONE: MILE Ioading the record in this case, we would like to move the ad-
No loading the record in this case of the transcript and the mission in evidence in this case of the transcript and the
mission in evidence in this too evidence in the former Case No. 2974 heard on January 22 of this woor
e year.
MR. NUTTER: I preservoir from the remainder of the Whether this was a distinct reservoir from the remainder of the Paddock was dealt with in detail?
A no Paddock was dealt with in detail?
MR. MALONE: Yes, definitely.
HI B MR. NUTTER: You want to incorporate the record?
MR. NUTTER: fou man Will be incorporated in
MR. MALONE: We would MR. MALONE: We would MR. NUTTER: Case 2974's record will be incorporated in MR. NUTTER: Case 2974's record will be incorporated in NR. NUTTER: Case 2974's record will be incorporated in
this proceeding.
H C this proceeding. H C C (By Mr. Malone) Did you say that the Lower Paddock Q (By Mr. Malone) Did you say that the Lower Paddock completion in the SMU 16 is shown in red on the exhibits?
Q (By Mr. Further, completion in the SMU 16 is shown in red on the exhibits?
A Yes.
Q What is the status of this well? Q What is the status of this well?
Q What is the Status A This well is currently shut-in. We are waiting pipeline



-. connection.

Q With respect to your structure map, which is the current Exhibit No. 3, what geological evidence does Pan American have to support a request for temporary 320 spacing? What can you say with respect to the geology of the area as to whether one well would drain 320 acres or more?

A Geologically, as shown by our Exhibits 2 and 3, the structure map and cross section, we have no apparent structural impediments and we have a good indication of continuity of Pennsylvanian the Lower Paddock is correlatable and continuous as shown by the cross section, and we have no reason to suspect from a geological standpoint that one well will not drain more than 320 acres.

Q It is your opinion, then, that the Lower Paddock within the structure is a single continuous gas reservoir, is that correct?

A Yes, sir, it is.

Q Have you obtained a production test on this Lower Paddock zone in Well No. 16?

A We haven't tested this well extensively. We plan to run routine tests when we connected it such as a four back pressure test. However, we have a test obtained in the completion of the well at a rate of 1784 MCF per day with a flowing tubing pressure of 850 psi.



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Q Would you go now to Exhibit No. 4, please, and describe it?

A Exhibit No. 4 is a tabulation of the pertinent data used to arrive at pore volume reserve estimates for the Lower Paddock gas. On this exhibit we have shown the net pay of 19 feet, porosity of 9%, water saturation of 30% and several other data leading to gas reserves of 9.06 million cubic feet per acre.

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Q To what abandonment pressure is that calculated? A These reserves are calculated to an abandonment pressure of 213 psi.

Q Generally speaking, would you expect the reserves to be below or above average at the location of this SMU No. 16? A These reserves on Exhibit 4 are taken from the well log

A These reserves on Exhibit 4 are taken from the well log run on SMU 16, and I would expect the reserves at that location to be higher than the average for the field due to the fact that the well is located within the top contour, or you might say located on top structure, since we generally associate that location as being for the better wells in the field.

Q Would you now describe what is shown on Exhibit 5, please? A Exhibit 5 compares the economics of development of the Lower Paddock on 160 acres versus 320 acres. These economics have been prepared based on reserves shown in Exhibit 4. We have 160 acres, reserves of 1450 million cubic feet. This is dry gas



with no condensate reserves. The gas price at fifteen cents is that currently being paid by El Paso as pertains to our contract with them.

On 160-acre spacing we would have a profit per well of \$95,000, thirty-two month payout, and 1.53 return on investment. On 320-acre spacing we have essentially twice the numbers we had on 160. We went up with considerably more profit of \$267,000 per well, sixteen month payout, and 4.31 return on invest ment.

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Q Do these economics in your opinion permit drilling on 160?

A The economics for 160-acre spacing meet our minimum requirements for drilling. They barely meet it, it approaches marginal economics. However, they do meet economics for development. However, there's another consideration here that affects economics, in that our rate of take with El Paso is on acreage basis and the drilling of two wells on 320 tract, on 160-acre statewide spacing would not result in any higher rate of production than one well on 320. So, if you incorporate that into the economics, essentially you have no payout on the second well drilled on a 320 if you are on 160-acre spacing.

Q In addition, if your estimates of reserves and a payout, and so forth, happens to be slightly low, then the return on



investment might fall below what you call your minimum return, is that correct?

A That's right.

Q Do you have a set of proposed rules?

A Yes, we have our proposed rules, shown by Exhibit No. 6. These rules are identical to those established by the Commission for the Fowler-Paddock Gas Pool, and the Fowler-Tubb Gas Pool with one exception.

Q What is that?

A The exception is in Rule 4 where it states "Each well completed or recompleted in the Fowler-Lower Paddock Gas Pool shall be located no nearer than 660 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line." The rules for the Paddock and Tubb state that wells should be located no nearer than 990 feet to the outer boundary, whereas here we have 660 feet.

Q Would you discuss Exhibit 7, please, and state the reason that Pan American requests a slightly different rule with respect to well locations?

A Exhibit 7 shows the well locations for the Ellenburger, Blinebry, Tubb and Paddock formations in this area as established by the field rules for these various formations. The Ellenburger locations are shown colored in orange, and I have just shown the



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possible locations within a 160-acre tract, and it would be the same for 160, for each 160 in the section. Ellenburger is on 80 acre with strict location. The wells have to be located in the Northwest or Southeast 40 of a quarter section.

The Blinebry is also an 80-acre spacing with more flexible spacing, in that the wells can be located on either 40 of an 80, and both Ellenburger and Blinebry, the wells have to be located within a 150-foot circle of the center of the 40.

For the Tubb and Paddock Gas Pools, based on the 990, 330 spacing in that field, wells can be located at the X's shown on this exhibit which gives you one of eight specific locations in a 320 to locate your wells. What we run up against here, we have most of our wells in these more shallow zones are duals or triples and we anticipate that future completions in this Lower Paddock will be by dual completion of existing wells.

The proposed rule that we have here of 660 would allow us to locate our wells within the red squares shown on this Exhibit 7, which makes our possible locations compatible with both the Ellenburger and Blinebry on the oil side, or compatible with the Tubb and Paddock gas where the X is located, so that we could dual complete the Lower Paddock with a Blinebry or Ellenburger well, or we could dual or triple complete it with a Paddock or Tubb gas well and relieve us of having to request unorthodox locations in



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this Lower Paddock for future completions.

Q And the administrative and legal expenses that goes with those applications, is that correct?

A Yes.

Q For how long is Pan American requesting the temporary pool rules which you are suggesting?

A We're requesting temporary rules for one year to eighteen months in Case 2743 held on February 19, 1964 for continuation of temporary rules in the Fowler-Tubb Gas Pool. We requested that the Fowler-Tubb case be reopened at the same time as reopening of this current case, and that continuation for the Fowler-Tubb also be for one year to eighteen months. Reopening of these two cases at the same date will permit consolidation of exhibits and require that Pan American come to Santa Fe only once for this subject area.

Q Will Pan American adopt a data-gathering program to obtain the necessary data to support further its request in this field?

A Yes, sir. Well, as we've stated, we have only one completion at the present time. It's not connected and, of course, upon connection of that well and additional wells we will take the necessary pressure and production data to adequately indicate the drainage area of the wells completed in the Fowler-Lower Paddock Gas Pool.



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		ſ	Q Mr. Rogers, in your opinion would the granting of this
			application tend to prevent waste and protect correlative rights of
			all owners within this area?
		21	A Yes, sir, it will.
R		243-6691	Q Were these exhibits prepared by you or under your
NE (e 24.	direction?
7NC	•	Phone	A Yes, sir.
Y, MEIER, WILKINS and CROWNOVER			MR. MALONE: Pan American respectfully moves the intro-
	54	Mexico	duction of Exhibits 1 through 7.
	Service	New M	MR. NUTTER: Pan American Exhibits 1 through 7 will be
	rting		admitted in evidence.
	General Court Reporting Service	Albuquerque,	(Whereupon, Applicant's Exhibits 1 through 7 were offered and admitted in evidence.)
IER,	neral	Y	MR. MALONE: I believe that's all I have.
ME	Ğ	uilding	MR. NUTTER: Does anyone have any questions of Mr.
Υ,		P	Rogers? Mr. Durrett.
DEARNLEY		Simms	CROSS EXAMINATION
AR		10 Si	BY MR. DURRETT:
DE		Suite 1120	Q I missed your date that you were speaking of. What date
		Suit	was it that you requested that the case be reopened?
			A This case be reopened?
			Q Yes.
			A For one year to eighteen months, within a year to

eighteen months. Q Well, now, if I understood correctly, there was a compatible case that was going to be reopened.

A Oh, yes, sir. Case 2743, which was held February 19, 1964. That would concern the Fowler-Tubb Gas Pool, and we asked in that case for continuation of temporary rules for Fowler-Tubb that would require that it be reopened. We want this current case

reopened with that Fowler-Tubb case.

Q Reopened with Case 2743 if possible?

A Right, the same date if possible.

Q One other question. There is just one well completed in the pool now, is that correct?

A That's right.

Q And it's not connected?

A No, sir.

Q What is the possibility of obtaining a pipeline connection?

A We have a contract with El Paso covering that well, and it should be connected within two or three weeks.

Q So you don't anticipate it will be sitting there for a long period of time without connection?

A No. That was the problem we ran into in the Tubb. We shouldn't have that here.



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MR. DURRETT: That's all I have.

BY MR. NUTTER:

Mr. Rogers, this is the only well that has been com-Q pleted in this Lower Paddock zone. How about the other wells that Phone 243-6691 have gone through the Lower Paddock, have they taken any drill stem tests or tested the Lower Paddock in any way, do you know? No. sir. We have not tested it at all, and to be per-A fectly frank, we weren't even aware it was there until recently. Mexico We ran a very good set of logs on this No. 16 and picked up this zone as a result of having a good logging program. We have not New tested it and we haven't drill stem tested it or cored it or any-Albuquerque, thing.

So actually this Lower Paddock hasn't been condemned Q in their wells, it just hasn't been affirmed either?

That's right. A

How does it compare with the Upper Paddock? Q I realize the Commission has entered temporary rules for the Upper Paddock zone. From what you know of the reservoir characteristics, how do they compare?

A As far as reserves and economics go, they're very similar. If you will allow me just a minute here. I'm referring now to Exhibit No. 14 in N.M.O.C.C. Case 2742, 43, 44 consolidated, I'm not sure which one of the numbers pertain to the Paddock, held



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on January 23, 1963. In that Exhibit 14 we had reserves of 8.75 MMCF per acre and as shown on our exhibit in this case we have 9.06. The economics on the Paddock were \$93,000 profit per well on 160-acre spacing with a 1.55 return on investment and a 31month payout, and those numbers are very similar, almost identical to those shown on our Exhibit No. 5 in this case.

Q Now, the Upper Paddock came on for its second hearing just a short time ago, didn't it?

A Yes, sir, it did.

Q Were you present at that hearing?

A Yes, sir. We requested permanent rules in the Paddock at that time.

Q What did you have to substantiate your permanent rules in that case, do you recall?

A We had pressure and production data over a period of several years that indicated that the wells were effectively draining at least 320 acres. We essentially based it on the initial pressures of subsequent completions in the field being lower than the initial pool pressure, and also on our gas material balance pressure, cumulative reserve determination as compared to pore volume reserves.

Q Haven't you been able to compare the permeability in the Lower Fowler section with the Upper Fowler section?



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No, sir. We don't have any permeability or any cores A in either of these formations. The only way we could compare it would be by comparing our production rates or absolute open flows, and since we have not obtained one on this well, it would Phone 243-6691 be hard. Q You would have to run drawdown tests and things like that? Yes. A Mexico Q You haven't been able to do this yet? General Court Reporting Service Also we only estimated this with 2,000 gallons of acid, A New so the one test we got very roughly 1700 MCF a day is possibly lbuquerque, not a good indication of the permeability of the formation. Since this was a triple completion we anticipate probably some well bore damage of that Lower Paddock, and I feel certain that if necessary Building additional stimulation would probably give us a lot better rate. Q I believe you said your flowing tubing pressure was Simms 80C some pounds. What's the shut-in pressure on this well? A I'm not sure what the shut-in surface pressure is. We Suite 1120 have a bottomhole pressure we already obtained on it. What is that? Q 4 The bottomhole pressure was 2214 at a datum of minus 1912 feet. That pressure was obtained December 10th, 1963 after 72-hour shut-in.



DEARNLEY, MEIER, WILKINS and CROWNOVER

			Q So evidently this will be virgin pressure for the reser-
CROWNOVER	10		voir?
			A Yes, sir. That pressure was also utilized in these
			reserve calculations.
		243-0001	MR. NUTTER: Any other questions?
		240	MR. DURRETT: I have one additional question.
		Albuquerque, New Mexico Phone	BY MR. DURRETT:
MO	,		Q Mr. Rogers, on your SMU Well No. 16 is the date January
DEARNLEY, MEIER, WILKINS and CR			the 3rd, 1964, is that your completion date on that? I'm re-
	ervice		ferring to your Exhibit 1.
			A Yes, sir, that is what Pan American would call the offi-
	Repor		cial completion date. We had all three zones rated on production
	Court		at that time; of course, the well has been shut-in since then.
	ieral (A	Q Will this well conform to your well location which you
	Gen	, Bui	have requested?
	•	Building	A Yes, it will fall on the X on Exhibit 7, which would be
			on the corner of the square that well is 990, 330 location.
		Suite 1120 Simms	Q So you would not need an exception for the existing
DE		1120	well?
		Suite	A No, sir.
			Q Did you state what horizontal limits you would propose
			for the pool?
-			A No, sir, I didn [‡] t.
		1	

--



Q Do you have any you would like to recommend? A I hadn't considered it. Is it necessary that I recommend?

Q No, sir.

MR. NUTTER: How would you dedicate your acreage if you were to have 320 acres, what acres would you dedicate to this well the South Half or the East Half?

A I don't know whether -- we haven't looked in detail at which well we would prefer to complete our second one in in this section, off-hand I just don't know. It's going to require that we review the casing and the mechanics of all these completions in this area and pick the best wells for completion with this Lower Paddock, and then at that time we will decide which way we prefer to lay our 320.

> MR. NUTTER: Do you have anything further, Mr. Durrett? MR. DURRETT: No.

MR. NUTTER: Does anyone have anything further of the witness? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Malone? MR. MALONE: I understood that the Commission might have received some concurrences which perhaps should be noted in the record, is that correct?



DEARNLEY, MEIER, WILKINS and CROWNOVER General Court Reporting Service Phone 243-6691

New Mexico

Albuquerque,

Suite 1120 Simms Building

MR. DURRETT: Yes, that is correct. We have received telegrams from Atlantic Refining Company, Delhi-Taylor, stating that they support your application in this case, and we have also received a letter from Standard Oil Company of Texas stating that 243-6691 they concur in your application. MR. NUTTER: Does anyone have anything further they wish Phone to offer in Case 3002? We'll take the case under advisement, and call a fifteen-minute recess. New Mexico STATE OF NEW MEXICO **Jeneral Court Reporting Service** នន COUNTY OF BERNALILLO) lbuquerque, I. ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and Building ability. IN WITNESS WHEREOF I have affixed my hand and notarial seal Simms this 31st day of March, 1964. Suite 1120 Public-Court Reporter Notarv My commission expires 1 do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of C June 19, 1967. heard by me 196 , Examiner New Maxico Oil Conservation Commission



DEARNLEY, MEIER, WILKINS and CROWNOVER

PAN AMERICAN PERSENER IN INDURATION

2. O. Box 268 Lubbook, Texas 77501 February 7, 1985

File:

JRT-4076 (201, 200,)

Subject:

: Application for Treporer, Field Rules, Undesignated Lower Paddock Gas Pool, Sections 15 and 22, The Park, R-37-E, Leg County, New Design.

Mr. A. L. Verter, D. Secretary Divector New Mexico Off Conservation Consission P. O. Box 371 Santa Ve. New Maxico

Dear Sir:

Pan American Petroleum Corporation as operator of the South Mattix Unit respectfully requests that a hearing be docketed to consider its application for adoption of temporary rules for the Undesignsted Lower Paddock Gas Pool located in Section 15, T-24-S, R-37-E, Lea County, New Mexico, and to designate this field as the Fowler Lower Paddock Gas Pool.

In our opinion information available to date regarding this field indicates the accessity for, and we plan to request, the following teaporary rules: (1) 320 acre well spacing; (2) all wells drilled or recompleted in the field subsequent to the effective date of the rules are to be located no closer than 660° to any outer boundary of the 320 acre protation unit; and (3) optional protation units to consist of either the N/2, S/2, E/2 or N/2 of a governmental section.

At the present time the subject field contains one producing gas well, Pan American's SMU No. 16. In our opinion, establishment of the above rules on a temporary basis will be in the interest of conservation and protection of correlative rights.

Yours very truly,

Noil S. Watthore

Boil S. Canthore District Superintendent

JER: jb

co: ALL NORK THE INSTRUCT CLIFT.



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MR. UTZ: Case Number 3002. MR. DURRETT: In the matter of Case Number 3002 being reopened pursuant to the provisions of Order Number R-SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS 2684, which order established temporary 320-acre spacing for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico, for MR. MALONE: If it please the Commission, Charles 1:20 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6491 • ALBUQUERQUE, NEW a period of one year. Malone of Atwood & Malone, appearing for the applicant. American Petroleum Corporation has requested that we simply make a statement in this case for the applicant, and that statement would be as follows: The original application in this matter was heard about one year ago. At that time the SMU Well Number 16 had been completed as the discovery well in this pool, and all well information which was available was furnished at that time. Since that time no further well completions have been made in the Fowler Lower Paddock gas pocl. Since there is no further well completion information available at this time, the applicant respectfully requests that the temporary rules established by Order Number R-2684 be continued in effect, and would recommend that this extension be for an additional MR. UTZ: Is there anything further in regard to period of one year. Case Number 3002? ... Case Number 3002 will be taken under

، د ، د .: dearnley-meier reporting service.



advisement. SPECIALIZING IN: DEPOSITICINS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS STATE OF NEW MEXICO } 85) COUNTY OF BERNALILLO) 1092 + PHONE 243-6691 + ALBUQUERQUE, NEW MEXICO I, ELIZABETH K. HALE, Notary Public and Court Reporter, hereby certify that the proceedings in the foregoing case were taken and transcribed by me, and that the foregoing is a true and correct transcript of proceedings to the best of my knowledge, skill and ability. IN WITNESS WHEREOF, my hand and seal of office this 8th 120 SIMMS BIDO. + P. O. BOX day of April, 1965. Colar Miles Notary Public My commission expires May 23, 1968. I do hereby certify that the foregoing The

dearnley-meier reporting service. inc.

I do hereby certify that the foregoing in a complete record of the proceedings in the Encliner hearing of Case No. 3. 0. 1. heard by me on 19.6.1 New Mexico Oil Conservation Commission

PAGE 3



D LLA161 MEX 96 PD=FAX DALLAS TEX 6 320P CST= NEW MEXICO OIL CONSERVATION COMMISSION= P 0 BOX 2088 SANTA FE NMEX 87501=

DELHI-TAYLOR OIL CORPORATION RESPECTFULLY <u>REQUESTS THAT PAN</u> <u>AMERICAN PETROLEUM CORPORATION'S APPLICATION FOR TEMPORARY</u> 320-ACRE SPACING FOR THE FOWLER LOWER PADDOCK GAS POOL <u>BE</u> <u>GRANTED.</u> IN OUR OPINION PROMULGATION OF A SMALLER SPACING UNIT IN THE ABSENCE OF SUBSTANTIALLY MORE PRESSURE AND PERFORMANCE DATA WOULD EXPOSE THE APPLICANT AND ITS CO-OWNERS TO THE POSSIBILITY OF SUBSTANTIAL ECONOMIC LOSS WITH RESPECT TO THIS GAS RESERVOIR. IT IS REQUESTED THAT THIS COMMUNICATION BE INCORPORATED INTO THE HEARING RECORD OF FOWLER LOWER PADDOCK GAS POOL, CASE 3002 MARCH 11, 1964, NMOCC DOCKET=

> DELHI-TAYLOR OIL C RP R S WANSBROUGH MANAGER PRODUCTION ENGINEERING==



320-ACRE 3002 11 1964 NMOCC=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



STANDARD OLL COMPANY OF THE OCC

M 8:28 HOUSTON 1964 MAR 9 P. O. BOX 1249

March 5, 1964

DY &

New Mexico Oil Conservation Commission P. 0. Box 2088 Santa Fe, New Mexico 87501 Attention: Mr. A. L. Porter, Jr., Secretary-Director

Gentlemen:

Standard Oil Company of Texas, a Division of California Oil Company, concurs in the application of Pan American Petroleum Corporation for the creation of a new gas pool and special rules providing for 320-acre spacing for the Lower Paddock gas pool, Lea County; New Mexico. This application is Case 3002, scheduled to be heard March 11, 1964.

Standard is the owner of leasehold interests in this area.

Yours very truly,

Alovel Afone Chief Engineer

RLMc:ja

cc: Pan American Petroleum Corporation Attention: Mr. Neil S. Whitmore P. O. Box 268 Lubbock, Texas 79401

PAGE -2-

MARCH 11, 1964 EXAMINER HEARING

- CASE 3004: Application of Ambassador Oil Corporation for a unit agreement Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Pearsall Queen Sand Unit comprising 960 acres of State and Federal land in Townships 17 and 18 South, Range 32 East, Lea County, New Mexico.
- CASE 3005: Application of Ambassador Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Pearsall (Queen) Pool, Lea County New Mexico, by the injection of water into the Queen formation through 5 wells, located in Sections 4 and 5 Township 18 South, Range 32 East.
- CASE 3006: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant in the above-styled cause, seeks authority to institute a waterflood project in the Pearsall (Queen) Pool, Lea County, New Mexico, by the injection of water into the Queen formation through one well located in Unit M of Section 33, Township 17 South, Range 32 East.
- CASE 3007: Application of Consolidated Oil & Gas, Inc. for a triple completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (conventional) of its Hoyt Well No. 2-5, located in Unit L of Section 5, Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Basin Dakota and Blanco Mesaverde Gas Pools and oil from an undesignated Gallup oil pool through parallel strings of 2 1/16 inch, 1 1/2 inch, and one inch tubing, respectively.
- <u>CASE 3008</u>: Application of Phillips Petroleum Company for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (conventional) of its Santa Fe Well No. 87, located in Unit L of Section 31, Township 17 South, Range 35 East, Lea County, New Mexico, to produce oil from the North Vacuum-Abo, Vacuum-Wolfcamp and Vacuum-Glorieta Pools through parallel strings of 2 3/8-inch OD tubing.
- CASE 3009: Application of Cities Service Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Owen No. 1 Well located in Unit P of Section 35, Township 21 South, Range 37 East, Lea County, New Mexico, to produce oil from the Blinebry and Drinkard Oil Pools through parallel strings of 1½inch and 2 1/16-inch tubing, respectively.
- CASE 3010: Application of R. C. Davoust for the expansion of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, as successor to Stanton Oil Company, Ltd., seeks to expand the Turkey Track Pool Waterflood Project authorized by Order No. R-1524. Said expansion would be effected by the drilling of 11 water injection wells to the Queen formation at certain unorthodox locations no nearer than 5 feet distance from any 40acre lot line in Section 34, Township 18 South, Range 29 East, and Section 3, Township 19 South, Range 29 East, Eddy County, New Mexico.

Docket No. 7-64

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 11, 1964

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 2988 (Continued from the February 5, 1964 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit George E. Willett and all other interested parties to appear and show cause why the SDD Hare Well No. 7, located 600 feet from the South line and 1360 feet from the East line of Saction 14, Township 29 North, Range 11 West, San Juan County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.

CASE 2998 (Continued from the February 19, 1964 Examiner Hearing)

Application of Tenneco Oil Company for a gas well-water injection well, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Central Totah Unit Well No. 24 located in Unit O of Section 11, Township 28 North, Range 13 West, San Juan County, New Mexico, to produce gas from the Basin-Dakota Gas Pool through 1 1/2 inch tubing and to inject water into the Gallup formation, Totah-Gallup Oil Pool, through 2 1/16 inch tubing with separation of the zones by a packer set at 5766 feet.

CASE 3001: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit O. A. Peters and all interested parties to appear and show cause why the Peters State Well No. 1, located 860 feet from the South line and 660 feet from the East line of Section 2, Township 1 North, Range 20 East, De Baca County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.

CASE 3002: Application of Pan American Petroleum Corporation for the creation of a new gas pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Lower Paddock Gas Pool for its SMU Well No. 16, located in Unit 0 of Section 15, Township 24 South, Range 37 East, and the establishment of special pool rules therefor, including a provision for 320-acre spacing. Lea County, New Mexico.

- CASE 2737 (Reopened): In the matter of Case No. 2737 being reopened pursuant to the provisions of Order No. R-2429-A, which order established temporary 640-acre spacing units for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.
- <u>CASE 3003</u>: Application of Cabot Corporation for the creation of a new oil pool and for special pool rules, Chaves County, New Mexico. Applicant, in the abovestyled cause, seeks the creation of a new Bough "C" Oil Pool for its Signal State Well No. 1, located in Unit A of Section 29, Township 8 South, Range 33 East, Chaves County, New Mexico, and for the establishment of temporary pool rules therefor, including a provision for 80-acre proration units.

Docket No. 10-65

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 7, 1965

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 A. L. Porter, Jr., Alternate Examiner:

- CASE 3225: Application of Harold L. Runnels for directional drilling, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to directionally drill his Millard Eidson B Well No. 3, the surface location of which is 660 feet from the South line and 1980 feet from the East line of Section 26, Township 16 South, Range 35 East, Shoebar Field, Lea County, New Mexico. Applicant proposes to set a whipstock at 6800 feet and directionally drill in a northwesterly direction bottoming said well at a true vertical depth of approximately 10,400 feet in the Permo-Pennsylvanian pay at a point not closer than 330 feet to the North and West lines of the SW/4 SE/4 of said Section 26.
- CASE 3226: Application of Skelly Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the abovestyled cause, seeks authority to institute a waterflood project in the Grayburg Jackson Pool in its Dow Unit Area, by the injection of water into the Premier (Grayburg) and San Andres formations through six wells located in Section 22, Township 17 South, Range 31 East, Eddy County, New Mexico.
- CASE 3227: Application of Texaco Inc. for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (combination) of its C. H. Weir "B" Well No. 6 located in Unit P of Section 11, Township 20 South, Range 37 East, Lea County, New Mexico, to produce oil from the Skaggs Glorieta Pool through 2 7/8 inch casing, gas from the Skaggs Drinkard Pool through 1.61 inch ID tubing installed in a parallel string of 2 7/8 inch casing, and gas from the East Weir Blinebry Pool through the tubingcasing annulus, both strings of 2 7/8 inch casing being cemented in a common well-bore.
- CASE 3228: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Skaggs Pool by the injection of water into the Grayburg formation through nine wells in Sections 7, 12, and 13, Township 20 South, Range 37 East, Lea County, New Mexico.

- 2 -Evaminer Hearing - April 7, 2005

CASE 3229: Application of ran American Petroleum Corporation for a dual completion and a non-scandard gra proration unit, Lee County, New Merica. Applicant, in the abovestyled cause, seeks approval of the dual completion (conventional) of its South Mattin Unit Well No. 18 located in Unit G of Section 22, Township 24 South, Range 37 East, Lee County, New Mexico, to produce gas from the Lower Peddock formation and oil arow the Blinebry Horastion, Powler field, through parallel strings or tubing. Applicant, further sould approval of a Powler-Lower Peddock non-standard gas provation unit for said wall, comprising the NE/4, E/2 MM/1, and N/2 SE/4, of said Section 22.

CASE 3002: (Reopened) In the matter of Case No. 3002 being reopened pursuant to the provisions of Order No. R-2686, which order established temporary 320-acre spacing for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why suid pool should not be developed on 160-acre spacing units.

CASE 3230: Application of The British-American Oil Producing Company for an unorthodox location and a non-standard gas unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for its North Wilson Deep Unit Well No. 1 located 560 feet from the South Line and 1980 feet from the East line of Section 31, Township 20 South, Range 36 East; applicant further seeks approval of a non-standard Morrow gas unit to be dedicated to said well, said unit comprising the SE/4 of Section 31 and the SW/4 of Section 32, Township 20 South, Range 36 East, Lea County, New Mexico.

- CASE 3231: Application of Vilas P. Choldon for a unit agreement, Eddy County, New Mexico. Applicant, in the abovestyled cause, seeks approval of the Old Loco Unit Area comprising 720 acres, more or less, of State lands in Sections 31 and 32, Township 17 South, Range 29 East, Eddy County, New Mexico.
- CASE 3232: Application of Vilas P. Sheldon for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Grayburg Jackson and Loco Hills Pools in the Old Loco Unit Area by the injection of water into the Lovington and Grayburg formations through six injection wells in Section 32, Township 17 South, Range 29 East, Eddy County, New Mexico.

Examiner Hearing - April 7, 1965

- 3 -

- CASE 3233: Application of Tidewater Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks approval of the East Eumont Unit Area comprising 5,535 acres, more or less, of Federal, State and Fee lands in Townships 18, 19, and 20 South, Range 37 East, Lea County, New Mexico.
- CASE 3234: Application of Tidewater Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Eumont Pool, Lea County, New Mexico, in its East Eumont Unit Area by the injection of water into the Yates, Seven Rivers and Queen formations through 69 wells in said unit area.

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Case 3002 Heard 4-7-65 Rec. 4-7-65 Continue order R-2684 in forse for I more year with the word that The pool would revent to 160 A. of and 7-2

Docket No. 11-66

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 27, 1966

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

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

- CASE 3394: Application of Shell Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the N/2 SW/4, SE/4 SW/4, and NW/4 SE/4 of Section 22, Township 21 South, Range 37 East, Blinebry Gas Pool, Lea County, New Mexico, said unit to be dedicated to applicant's Turner Well No. 13 located in Unit N of said Section 22.
- CASE 3395: Application of R. W. Warner for down-hole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle in the well-bore marginal oil production from undesignated Gallup and Dakota Pools in his Warner-Federal Well No. 1 located in Unit A of Section 10, Township 22 North, Range 8 West, San Juan County, New Mexico.
- CASE 3396: Application of Texaco Inc. for a non-standard oil proration unit and a non-standard location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of a 40-acre nonstandard oil proration unit comprising the NE/4 SW/4 of Section 14, Township 12 South, Range 34 East, Ranger Lake-Pennsylvanian Pool, Lea County, New Mexico, said unit to be dedicated to its State of New Mexico "DA" Well No. 2 to be located 1980 feet from the South and West lines of said Section 14.
- CASE 3397: Application of Texaco Inc. for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Skaggs-Grayburg Unit Area comprising 880 acres, more or less, of Fee land in Sections 12 and 13, Township 20 South, Range 37 East, and Sections 7 and 18, Township 20 South, Range 38 East, Lea County, New Mexico.
- CASE 3398: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation, Skaggs-Grayburg Pool, through eleven wells in its Skaggs-Grayburg Unit, Lea County, New Mexico.
- CASE-3399: Application of Tenneco Oil Company for two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of two non-standard gas proration units which would comprise all lands in the W/2 of Section 30, Township 30 North, Range 9 West, adjacent to a Blanco-Pictured Cliffs Pool, San Juan County, New Mexico.
- CASE 3400: Application of Pan American Petroleum Corporation for creation of a new pool and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for its Big Eddy Unit Well No. 7 located in Unit 0 of Section 19, Township 20 South, Range 31 East, Eddy County, New Mexico, and for the promulgation of special rules therefor, including a provision for 160-acre oil proration units.

- 2 -APRIL 27, 1966, EXAMINER HEARING

CASE 3002 (Reopened): In the matter of Case No. 3002 being reopened pursuant to the provisions of Order No. R-2684-A, which order continued the original order for an additional year, establishing 320-acre spacing for the Fowler-Lower Paddock Gas Pool, Lea County, spacing for the Fowler-Lower Paddock Gas and show cause New Mexico. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.

DOVERNOR JACK M. CAMPBELL CHAIRMAN

State of New Mexico Gil Conserbation Commission



BOX 871 SANTA FE

March 31, 1964

STATE SEDLOGIST A L PORTER JR. BEDRETARY . DIRECTOR

Mr. Charles Malone Atwood & Malone Attorneys at Law **Box** 700

Re:

Order No. R-2684

30:2

Applicant:

Case No.__

Roswell, New Mexico

Pan American Petroleum Corp. DOCKET MAILED 3-24-65 p

Date

Dear Sir:

LAND COMMISSIONER

L & JOHNNY WALKER MEMOER

> 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

is/

Carbon copy of order also sent to:

Hobbs OCC ____

Artesia OCC_____

Astec OCC _____

OTER

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF CASE NO. 3002) BEING REOPENED PURSUANT TO THE) No. 3002 PROVISIONS OF ORDER NO. R-2684-A.)

ENTRY OF APPEARANCE

The undersigned, Atwood & Malone of Roswell, New Mexico, a firm of attorneys, all of whose members are duly licensed to practice law in the State of New Mexico, hereby enters its appearance as local counsel with Guy Buell, Esquire, of the Texas Bar, for Pan American Petroleum Corporation in the above entitled cause.

DATED at Roswell, New Mexico, this 21st day of April,

1966.

ATWOOD & MALONE

lan BY / Attorneys for Pan American

Attorneys for Pan America Petroleum Corporation Post Office Drawer 700 Roswell, New Mexico GOVERNOR JACK M. CAMPBELL CHAIRMAN

State of New Mexico Oil Conservation Commission

P. O. BOX 2088

SANTA FE

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

LAND COMMISSIONER GUYTON B. HAYS MEMBER

May 4, 1965

Mr. Charles Malone Atwood & Malone Attorneys at Law Post Office Box 700 Roswell, New Mexico

Re: Case No. 3002 Order No. <u>R-2684-A</u> Applicant:

PAN AMERICAN PETROLEUM CORP.

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

ir/

Carbon copy of order also sent to:

Hobbs OCC ×

Artesia OCC_

Aztec OCC _____

OTHER_





TENNECO OIL COMPANY + P 0 BOX 1011 + 1800 WILCO BUILDING + MIDLAND, TERAS

April 25, 1966

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

RE: Hearing Scheduled April 27, 1965 Adoption of Permanent Field Rules Fowler (Lower Paddock) Pool

Gentlemen:

Pan American Petroleum Corporation has advised Tenneco Oil Company that at the captioned hearing, they intend to request the following rules in addition to requesting the temporary rules be made permanent.

- 1. That a well be classified as a gas well if the producing gas-oil ratio equals or exceeds 50,000 cubic feet per barrel.
- 2. That a well be classified as an oil well if the producing gas-oil ratio is less than 50,000 cubic feet per barrel.
- 3. A proration unit of 80 acres for gas wells.
- 4. A limiting gas-oil ratio of 6000 cubic feet per barrel for oil wells.
- 5. A maximum gas well allowable to be equal to four times the top allowable for an oil well.

Please be advised that Tenneco Oil Company concurs with Pan American Petroleum Corporation in these specific requests and hereby supports their petition for the above rules.

Yours very truly,

TENNECO OIL COMPANY

K

A. W. Lang District Production Superintendent

ACT:pt cc: Pan American Petroleum Corporation P. O. Box 268 Lubbock, Texas

DOCKET MAILED

AH 6 09

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797**01**

Date 5-10-66



THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE





WESTERN UNION CLASS OF SERVICE SYMBOLS DL=Day Letter This it a fast message unless its deferred char-NL=Night Letter TELEGRAM acter is indicated by the 1201 (4-60) LT=International Letter Telegram proper symbol. W. P. MARSHALL, PRESIDENT The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination Т ł $\overline{\circ}$ 8 MAXIMUM GAS WELL ALLOWABLE. WE CONCUR IN THEIR REQUEST FOR THES ADDITIONAL RULES= W P TOMLINSON ATLANTIC REFINING CO== 3002 320 80 GOR= THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



Docket No. 13-66

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 25, 1966

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 3399: (Continued and Readvertised)

Application of Tenneco Oil Company for two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of two non-standard gas proration units adjacent to the Blanco-Pictured Cliffs Pool and described as follows:

- (1) A 155.40-acre unit comprising the SE/4 SW/4 and Lot 4 of Section 19, and the E/2 NW/4 and Lots 1 and 2 of Section 30, Township 30 North, Range 9 West;
- (2) A 156.08-acre unit comprising the E/2 SW/4 and lots 3 and 4 of Section 30 and the NE/4 NW/4 and lot 1 of Section 31, Township 30 North, Range 9 West, all in San Juan County, New Mexico.
- CASE 3404: Application of Tenneco Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg and San Andres formations through six wells in Sections 22 and 28, Township 17 South, Range 29 East, Grayburg-Jackson Pool, Eddy County, New Mexico. Applicant further seeks an administrative procedure for expansion of said project to include additional injection wells and leases.
- CASE 3405: Application of David Fasken for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Indian Hills-Morrow Gas Pool in Section 4, Township 21 South, Range 24 East, Eddy County, New Mexico, including a provision for 640-acre spacing units.
- CASE 3406: Application of Pan American Petroleum Corporation for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Bough-Devonian Pool, Lea County, New Mexico, including a provision for 80-acre proration units.

CASE 3002: (Continued and Readvertised)

In the matter of Case No. 3002 being reopened pursuant to the provisions of Order No. R-2684-A, which order continued the original order for an additional year, establishing 320-acre spacing for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico. The original applicant, Pan American Petroleum Corporation, seeks continuation of the 320-acre spacing for

- 2 - MAY 25, 1966, EXAMINER HEARING

CASE 3002 - Continued:

said gas pool and the amendment of the special pool rules to include the classification of oil and gas wells in said pool, a provision for 80-acre spacing for oil wells, and the establishment of a limiting gas-oil ratio of 6000 to 1.

- CASE 3407: Application of Midwest Cil Corporation for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Upper Pennsylvanian formation through its Harris State Well No. 1, located in Unit N, Section 29, Township 13 South, Range 34 East, Nonombre-Upper Pennsylvanian Pool, Lea County, New Mexico.
- CASE 3408: Application of Marathon Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through three wells in Sections 10 and 15, Township 18 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.
- <u>CASE 3409:</u> Application of Dr. Sam G. Dunn for a secondary recovery project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a secondary recovery project by the injection of air into the Upper San Andres formation through three wells located in Section 26, Township 7 South, Range 26 East, Leslie Spring-San Andres Pool, Chaves County, New Mexico. Applicant further seeks an administrative procedure to place additional wells on air injection if necessary.

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	BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico May 25, 1966		
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BALNICY-MBIBL CONTINUES STATEMENTS. EXTERT TESTIMONY, I ECLALIZING IN DEPOSITIONS, HEARINGS, STATEMENTS, EXTERT TESTIMONY, I D SIMMS RIDG. • P. O. BOX 1192 • PHONE 243-6491 • ALBUQUEROUE, NEW MEXICO	IN THE MATTER OF: In the matter of Case No. 3002 being reopened pursuant to the provisions of Order No. R-2684-A, which order continued the original order for an additional year, establishing 320-acre spacing for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico.))))) Case No))	
GEALDEY-MEIO	BEFORE:))]	
	Daniel S. Nutter, Chief Engineer		
- ²	TRANSCRIPT OF HEARING		

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Call Case 3002, which is in the MR. NUTTER: SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS matter of Case No. 3002 being reopened pursuant to the provisions of Order No. R-2684-A. This case was also heard April 27, continued and readvertised. Are ther any appearances 1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUEROUE, NEW MEXICO 1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO in Case 3002? If there are no appearances the Commission will take the case under advisement and call Case 3404.

dearnley-meier reporting service, inc.

PAGE

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STATE OF NEW MEXICO) COUNTY OF BERNALILLO)

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

SS

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Witness my Hand and Seal this 9th day of June, 1966.

Bobly Q: Damin NOTARY PUBLIC

My Commission Expires:

March 13, 1966.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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ALBUQUERQUE, NEW MEXICO ALBUQUERQUE, NEW MEXICO

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 1213 FIRST NATIONAL BANK EAST • PHONE 256-1294 •

I do hereby certify that the foregoing is a cu S. 31 300 tĿ $x \in y$ 'n TIN ., Bussin**er** New Marine Oil Conservation Consiston

PAGE 3

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. 3002 Order No. R-2684

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 11, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>31st</u> day of <u>March</u>, 1964, 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, Pan American Petroleum Corporation, seeks the creation of a new gas pool for Lower Paddock production in Lea County, New Maxico, and the promulgation of temporary special rules and regulations governing said pool, including a provision for 320-acre spacing.

(3) That the Pan American SMU Well No. 16, located in Unit O of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Maxico, has discovered a separate common source of supply which should be designated the Fowler-Lower Paddock Gas Pool; that the vertical limits of said pool should be the zone encountered in said well between the top of the Lower Paddock formation at 5088 feet and the top of the Blinebry formation at 5230 feet; and that the horizontal limits of said pool should be all of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Maxico.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of
-2-CASE No. 3002 Order No. R-2684

risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 320-acre spacing units should be promulgated for the Fowler-Lower Paddock Gas Pool.

(5) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(6) That this case should be reopened at an examiner hearing in April, 1965, at which time the operators in the subject pool should be prepared to appear and show cause why the Fowler-Lower Paddock Gas Pool should not be developed on 160-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Lower Paddock production is hereby created and designated the Fowler-Lower Paddock Gas Pool, with vertical limits comprising the zone encountered in the Pan American SMU Well No. 16, located in Unit O of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico, between the top of the Lower Paddock formation at 5088 feet and the top of the Blinebry Cormation at 5230 feet, and horizontal limits comprising all of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That temporary Special Rules and Regulations for the Fowler-Lower Paddock Gas Pool are hereby promulgated as follows, effective April 1, 1964.

SPECIAL RULES AND REGULATIONS FOR THE FOWLER-LOWER PADDOCK GAS POOL

<u>RULE 1</u>. Each well completed or recompleted in the Fowler-Lower Paddock Gas Pool or in the Lower Paddock formation within one mile of said pool, and not nearer to or within the limits of another designated Lower Paddock pool, shall be spaced, drilled, operated, and produced in accordance with the special Rules and Regulations hereinafter set forth.

<u>RULE 2.</u> Each well completed or recompleted in the Fowler-Paddock Gas Pool shall be located on a standard unit containing 320 acres, more or less, consisting of the N/2, 3/2, E/2, or W/2of a single governmental section. -3-CASE No. 3002 Order No. R-2684

<u>RULE 3</u>. The secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarterquarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

<u>RULE 4.</u> Each well completed or recompleted in the Fowler-Lower Paddock Gas Pool shall be located no nearer than 660 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

<u>RULE 5.</u> The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application. -4-CASE No. 3002 Order No. 8-2684

IT IS FURTHER ORDERED:

(1) That any operator desiring to dedicate 320 acres to a well presently drilling to or completed in the Fowler-Lower Paddock Gas Pool shall file a new Form C-128 with the Commission on or before May 1, 1964.

(2) That this case shall be reopened at an examiner hearing in April, 1965, at which time the operators in the subject pool should be prepared to appear and show cause why the Fowler-Lower Paddock Gas Pool should not be developed on 160-acre spacing units.

(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 CIL CONSERVATION COMMISSION

hairman

Member KER.

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

esr/

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. 3002 Order No. R-2684-A

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 7 1965, at Santa Fe, New Mexico, before Examiner Blvis A. Utz.

NOW, on this 4th day of May, 1965, 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 by Order No. R-2684, dated March 31, 1964, temporary Special Rules and Regulations were promulgated for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico.

(3) That pursuant to the provisions of Order No. R-2684, this case was reopened to allow the operators in the subject pool to appear and show cause why the Fowler-Lower Paddock Gas Pool should not be developed on 160-acre spacing units.

(4) That no additional evidence was presented at this hearing.

(5) That Pan American Petroleum Corporation requested that the special rules and regulations be continued for an additional --? Color (n.)

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IN THE FLOTER OF THE DETERM CALLED BY THE OFF CORDERVISION COMMISSION OF NEW MERTICO YOR THE FURFOLD OF CONSIDERING.

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APPLICATION OF FAR ABUBICUL UNLEGADAU CORFORATION FOR EXTENSION AND AMENDIOUS OF THE SPECIAL RULES AND REGULATIONS FOR THE FORLER-LOWER PADDOCK FOOL.

ORDER OF THE COMMANDERIA

BY THE COMMISSION:

This cause cont on for hearing at 9 a.p. on May 76, 1966, at Santa Fs, New Maxico, before Exertian Faulth 5. Morter.

Now, on this 23rd by of June, 1966, the Completion, a quorim being present, having considered the textimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public of his naving been given as creatived by law, the Commission has justification of this cases and the ranject matter thereof.

(2) That by Order No. R-2654, dated March 31, 1964, the Fewler-Lower Paddock Gas Pool was created and temporary special Nular and Regulations were promulgated for the Powler-Lower Paddock Gas Pool, Los County, New Maxico.

(3) That by Order No. R-2684-A, dated May 4, 1986, cald temporary Special Rules and Regulations were continued in foll force and effect for an additional one-year period.

(4) That pursuant to the provisions of Order No. R-2004-a, this case was respond April 37, 1956, to allow the operators in the subject pool to appear and says cause shy the Follow-haur radiock the pool health of the developed on 160-acre units.

-2-CASE No. 3002 Order No. 8-2684-B

(5) That at the request of the applicant, Nan American Retroleum Corporation, Case No. 3002 was continued to May 25, 1966, and readvertised to consider the amendment of Order No. R-2684 and Order No. R-2684-A to establish special rules and regulations governing the Fowler-Lower Faddock Pool.

(6) That the applicant seeks the promulgation of rules classifying wells as gas wells or oil wells, establishing spacing for gas wells and oil wells, and fixing a limiting gas-oil ratio of 6000 to one.

(7) That the reservoir characteristics of the subject pool indicate that the gas area can be efficiently and economically drained and developed on 320-acre spacing, and that the oil area can be efficiently and economically drained and developed on 80-acre spacing.

(8) That the reservoir characteristics of the subject pool presently available justify the definition of a gas well as a well producing with a gas-liquid ratio of 50,000 or more cubic feet of gas per barrel of liquid hydrocarbons.

(9) That the reservoir characteristics of the subject pool presently available justify the establishment of a gas-liquid ratio limitation of 4000 cubic feet of gas per barrel of liquid hydrocarbons.

(10) That temporary special rules and regulations providing for 320-acre gas well spacing and 80-acre oil well spacing should be promulgated for the subject pool in order to prevent the econemic 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, and otherwise prevent waste and protect correlative rights.

(11) That the temporary special rules and regulations should provide for the classification of a gas well as a well producing with a gas-liquid ratio of 50,000 or more cubic feet of gas per barrel of liquid hydrocarbons and should provide for the establishment of a gas-liquid ratio of 4000 cubic feet of gas per barrel of liquid hydrocarbons in order to afford the owner of each property in the pool the opportunity to produce his just and equitable share of the oil or gas, or both, and for this -3-CASE No. 3002 Order No. R-200000

purpose to use his just too contrable town of the set a read

(12) That the Special Bules and Regulations we succeed by Order No. R-2684 and Order No. R-2684-A are independent to afford the owner of each property in the pool the opportunity to produce his just and equitable share of the gas and oil in the pool.

(13) That the Special Rules and Regulations promulgated by Order No. R-266d and Order No. R-266d-A of the Commission Rules and Regulations should be amended to allow the owner of each property in the pool the opportunity to produce his just and equitable share of the gas and oil in the pool.

(14) That this case should be reopened at an examiner hearing in May, 1968, at which time the operators in the subject pool should be prepared to appear and show cause whether these special pool rules, as they relate to well spacing, well classification, and limiting gas oil-ratios, should remain in effect.

IT IS THEREFORE ORDERED:

That, effective July 1, 1966, the Special Rober and Regulations produlgated by Order Wo. N-2684 and Order No. N-2684-A die hereby amended to read in their entirety as follows:

SPECIAL RULES AND REGULATIONS FOR THE FORLER-LEMER PADDOCK FOOL

<u>RULE</u>]. Each well completed or recompleted in the Fosters Lower Paddock Fool or in the Lower Faddock formation within one mile thereof, and not nearer to or within the limits of snother designated Lower Faddock pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulatione hereinafter set forth.

<u>RULE 2.</u> A gas well shall weap a wall producing from utility the vertical and horizontal limits of the Powler-Lower Saddock Pool which produces with a producing gas-liquid ratio of 50,000 cubic feat of gas or more per barrel of liquid hydrocarbous.

<u>RULE 3.</u> A well producing from within the horizontal and vortical limits of the Fouler-Lower Paddock Pool and not classified -4-CASE No. 3002 Order No. R-2684-B

as a gas well shall be classified as an oil well in the Fowler-Lower Paddock Pool.

<u>RULE 4.</u> Each gas well shall be located on a standard unit containing 320 acres, more or less, consisting of the N/2, S/2, E/2, or H/2 of a governmental section.

RULE 5. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of guarter-guarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

EVILE 6. Each oil well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental guarter section.

CASE No. 3002 Order No. R-2684-B

RULE 7. The Secretary-Director may grant an exception to the requirements of Rule 6 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental guarter-guarter section or lot or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Fublic Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 8. A standard oil proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard oil proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

MULE 9. Each well shall be located no nearer than 660 feet to the outer boundary of the guarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

BULE 10. The Secretary-Director may grant an exception to the requirements of Rule 9 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location of if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 11. Agreage dedicated to a gas well shall not be simultaneously dedicated to an oil well and the dual completion of a well so as to produce gas and oil from two different zones in said pool is hereby prohibited.

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-6-CASE No. 3002 Order No. R-2684-B

<u>RULE 12</u>. Gas-liquid ratio tests shall be conducted annually during the month of May on all wells located in and producing from the Powler-Lower Paddock Pool.

RULE 13. The limiting gas-oil ratio for an oil well shall be 4000 cubic feet of gas for each barrel of oil produced.

RULE 14. The maximum allowable for a gas well shall be equal to four times the top allowable gas limit for an oil well.

IT IS FURTHER ORDERED:

(1) That the vertical limits of the Fowler-Lower Paddock Pool shall be the sone encountered in the Pan American SMU Well No. 16, located in Unit O of Section 15, Township 24 South, Range 37 East, MMPM, Lea County, New Mexico, between the top of the Lower Paddock formation at 5088 feet and the top of the Blinebry formation at 5230 feet, and horizontal limits comprising all of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That the locations of all wells presently drilling to or completed in the Fowler-Lower Paddock Pocl or within one wile thereof are hereby approved provided the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before July 15, 1966.

(3) That each oil well presently drilling to or completed the Fowler-Lower Faddock Pool or within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 80 acres to the well has been filed with the Commission.

(4) That this case shall be reopened at an examiner hearing in May, 1968, at which time the operators in the subject pool may appear and show cause whether these temporary special rules, as they relate to well spacing, well classification and gas-oil ratio limitation, should remain in effect.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary. -7-CASE NO. BODD Order No. Soloci Sc

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OTL CONSERVATION CONTRACTOR

CAMPBELL Chair 25 B-14

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A. L. PORTER, JR., Kendone a Decompany

Member

GOVERNOR JACK M. CAMPBELL CHAIRMAN

State of New Mexico

Gil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER

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

**** ^{_____}

P.O.BOX 2088 SANTA FE

June 23, 1966

Mr. Guy Buell Pan American Petroleum Corporation Post Office Box 1410 Re: Fort Worth, Texas

Case No. 3002 Order No. R-2684-B Applicant:

DOCKE. A LOD

PAN AMERICAN PETROLEUM CORPORATION Dois 41-18-60

Dear Sir:

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

Very truly yours,

h. L. Parter, A. L. PORTER, Jr.

A. L. PORTER, Jr. Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC<u>x</u> Artesia OCC_____ Aztec OCC_____

Other_____

Docket No. 13-68

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 1, 1968

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 3756: Application of Gulf Oil Corporation for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen-Grayburg formation in the interval 1773 feet to 2142 feet in its Eddy State "AN" Well No. 5 located 2310 feet from the South and East lines of Section 13, Township 19 South, Range 28 East, East Millman Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 3002 (Reopened):

In the matter of Case No. 3002 being reopened pursuant to the provisions of Older No. R-2684-B, which order provided special rules and regulations for the Fowler-Lower Paddock Pool, Lea County, New Mexico. All interested parties may appear and show cause whether the special pool rules, as they relate to well spacing, well classification, and limiting gas-oil ratios, should remain in effect.

CASE 3559 (Reopened):

In the matter of Case No. 3559 being reopened pursuant to the provisions of Order No. R-3228, which order established 80-acre spacing units for the South Flying "M"-Pennsylvanian Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

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Care 3 002 Heard. 5-1-68 Rec. 5-1-68 1. Grant Pan American aperminent order for the Dowler - Komen Paddock - Anociated Las pool. She order up P-2684-B.

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This te. m.

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. 3002 Urder No. R-2684-C

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR EXTENSION AND AMENDMENT OF THE SPECIAL RULES AND REGULATIONS FOR THE POWLER-LOWER PADDOCK POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION :

This cause came on for hearing at 9 a.m. on May 1, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 6th day of May, 1968, 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 pursuant to the provisions of Order No. R-2684-B, dated June 23, 1966, Case No. 3002 has been reopened to allow all interested parties in the Fowler-Lower Paddock Pool, Lea County, New Mexico, to appear and show cause whether the special pool rules governing said pool, as they relate to well spacing, well classification, and limiting gas-cil ratios, should remain in effect.

(3) That the reservoir characteristics of the Powler-Lower Paddock Pool presently available justify the definition of a gas well as a well producing with a gas-liquid ratio of 50,000 or more cubic feet of gas per barrel of liquid hydrocarbons.

(4) That the reservoir characteristics of the subject pool presently available justify the establishment of a gas-liquid ratio limitation of 4000 cubic feet of gas per barrel of liquid hydrocarbons.

-2-CASE No. 3002 Order No. R-2684-C

(5) That the evidence establishes that the Fowler-Lower Paddock Pool has been and will be efficiently and economically drained and developed under the Special Rules and Regulations promulgated by Order No. R-2684-B.

(6) That the Special Rules and Regulations promulgated by Order No. R-2654-B have afforced and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil and gas in the pool.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-2684-B should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED :

(1) That the Special Rules and Regulations governing the Powler-Lower Baddock Nool, presulgated by Order No. R-2684-B, are hereby continued in full force and offect until further order of the Commission.

(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 HEXICO OTL CONDERVATION COMMISSION DAVID

A. L. FORTER, Jr., Mosber & Secretary

GOVERNOR DAVID F. CARGO CHAIRMAN

State of New Mexico **Bil Conservation Commission**



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

LAND COMMISSIONER GUYTON D. HAYS MEMBER

May 6, 1968

SANTA FE

Mr. Guy Buell Pan American Petroleum Corporation Post Office Box 1410 Fort Worth, Texas

Re: Case No. 3002 Order No. R-2684-C

Applicant:

Pan American Petroleum Corp.

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

ALP/ir

Carbon copy of drder also sent to:

Hobbs OCC X Artesia OCC

Aztec OCC

Other

			CTION DATA ER PADDOCK POOLS		-
		LEA COUN	TY, NEW MEXICO		
		Oil	Water	Gas	
Year	Month	Bbls.	Bbls. W No. 9	MCF	COR
1965	April	172			0.07
	May	929		767	826
	June	854		715	837 545
	July	826		450 435	595
	August	731		433 504	742
	September	679		990	1369
	October	723		1086	1508
	November	720		1182	1123
	December	1053		1102	
1966	January	730		1124	1540
- ·	February	515		588	1142
	March	795		1804	2269
		<u>S</u>	MU No. 18		
1965	August	689			
27.07	September	690		4868	7055
	October	461	69	9562	20742
	November	461	69	10493	22761
	December	341	5	11425	33504
1966	January	236	23	9523	40552
1900	February	167	17	4984	29 844
	March	25 7	258	15293	59506
	1	<u>s</u>	SMU No. 19		
1966	January	537	200	1342	2499
1900	February	379	150	703	1855
-	March	584	216	2157	3693
		1	SMU No. 16		
1964	Мау	112	•	10546	
1964	June	107		17667	
	July	136		28446	
	August	70		33436	
ar a san i a, i an	September	153		22885	
	October	51		14571	
	November	18		20293	
	December	57		27665	
1965	January	14		22074	
1202	February	52		26592	
	-				

PRODUCTION DATA

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			-2-		
Year	Month	Oil Bbls.	Water Bbls.	Gas <u>MCF</u>	GOR
1001	monen	<u></u>			
1965	March	36		23040	
	April	4		24934	
	May	21		25948	
	June	7		20230	
	July			16179	
	August			23134	
	September			27237	
	October	15		24757	
	November	12		19370	
	December	3		25436	
1966	January		•	18847	
2700	February	30		22963	
	March	33		22378	

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PRODUCTION DATA FOWLER LOWER PADDOCK POOLS LEA COUNTY, NEW MEXICO

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Gas

1964

Year

1965

1966

1967

Month	Barrels	Water	MCF	
ATT HE H				
	SMU No	b. 16		
Мау	112		10546	
June	107		17667	
July	136		28446	
August	70		33436	
September	153		22885	
October	51		14571	
November	18		20293	
December	57		27665	
January	14		22074	
February	52		26592	
March	36		23040	
April	4		24934	
May	21		25948	
June	7		20230	
July			16179	
August	•		23134	
September			27237	
October	15		24757	
November	12		19870	
December	3		25436	
January			18847	
February	30		22963	
March	33		22378	
April	13		18182	
May			24319	•
June	6		22415	
July			22425	
August			18663	
September			18761	
October	25		18704	
November	45		17770	
December	10		7181	
January	62		19174	
February	17		16964	
March	71		23618	
April	68		24121	
Мау	14		19870	
June			7743	
July	•		6858	
August			9104	2
September			5338	ć
October			6314	
November			8199	
December			17080	

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Year	<u>Month</u>	0i1 Bb <u>ls</u> .	Water <u>Bbls.</u>	Gas <u>MCF</u>	GOR
1001		SMU N	to. 9		
1965	April	172			001
	May	929		767	826
	June	854		. 715	837
	July	8 26		450	545
	August	731		435	595
	September	679		504	742 1369
	October	723		990	1369
	November	720		1086	
	December	1053		1182	1123
1966	January	730		1124	1540
1900	February	515		588	1142
	March	795		1804	2269
	April	707 .		1593	2253
	May	665		1554	2337
	June	564		1399	2480
	July	450		1297	2882
	August	633	95	1116	1763
	September	392	58	1110	2832
	October	291	45	1058	3636
	November	330	33	970	29 39
	December	328	33	950	2896
10/7	Terrerener	357	54	1819	5095
1967	January	306	37	0	-
	February March	295	37	0	-
		241	34	1662	6896
	April Mar	487	68	1904	3910
	May June	432	60	975	2257
	July	352	49	1146	3256
	August	379	53	1824	4813
	September	415	58	1643	3959
	October	462	65	1484	3212
	November	357	49	1348	3776
	December	374	52	1233	3297

PRODUCTION DATA FOWLER LOWER PADDOCK POOLS LEA COUNTY, NEW MEXICO

FOWLER LOWER PADDOCK POOLS	P	RODUCTI	ON DA	TA	
	FOWLER	LOWER	PADD	CK	POOLS
LEA COUNTY, NEW MEXICO	LEA	COUNTY,	NEW	MEX	KICO

		Bbls.	MCF	GOR
	SMU No	. 19		
January February March April May June July August September October November	537 379 584 333 313 265 212 298 184 136 155 154	200 150 216 203 193 98 78 110 68 50 38 57	1342 703 2157 1905 1858 1672 1009 868 868 868 822 755 739	2499 1855 3693 5721 5936 6309 4759 2913 4717 6044 4870 4799
January February March April May June July August September October November December	342 467 445 292 591 535 427 460 514 571 434 463	127 93 93 58 118 107 85 92 103 114 86 93	2296 2347 2352 1857 2128 1090 1281 2038 1837 1658 1506 1378	6713 5026 5285 6360 3601 2037 3000 4430 3574 2904 3470 2976
	February March April May June July August September October November December January February March April May June July August September October November	January 537 February 379 March 584 April 333 May 313 June 265 July 212 August 298 September 184 October 136 November 155 December 154 January 342 February 467 March 445 April 292 May 591 June 535 July 427 August 460 September 514 October 571 November 434	February 379 150 March 584 216 April 333 203 May 313 193 June 265 98 July 212 78 August 298 110 September 184 68 October 136 50 November 155 38 December 154 57 January 342 127 February 467 93 March 445 93 April 292 58 May 591 118 June 535 107 July 427 85 August 460 92 September 514 103 October 571 114 November 434 86	January 537 200 1342 February 379 150 703 March 584 216 2157 April 333 203 1905 May 313 193 1858 June 265 98 1672 July 212 78 1009 August 298 110 868 September 184 68 868 October 136 50 822 November 155 38 755 December 154 57 739 January 342 127 2296 February 467 93 2347 March 445 93 2352 April 292 58 1857 May 591 118 2128 June 535 107 1090 July 427 85 1281 August

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		0i1	Water	Gas	
Year	Month	Bbls.	Bbls.	MCF	GOR
		SMU No	<u>). 18</u>		
1965	August	689			
	September	690		4868	7055
	October	461	69	9 562	20742
	November	461	69	10493	22761
	December	341	5	11425	33504
1966	January	236	23	9523	40552
	February	167	17	4984	29844
	March	257	258	15293	59506
	April	229	23	13505	58974
	May	215	20	13175	61279
	June	199	20	11857	59 583
	July	245	25	12107	49416
	August	764 [·]	76	10412	13628
	September	472	47	10411	22057
	October	351	35	9871	28123
	November	447	112	9054	20255
	December	462	46	8867	19193
1967	January	153	15	5454	35647
	February	182	36	8038	44165
	March	182	36	8054	44253
	April	117	23	6256	53470
	May	237	47	7168	30245
	June	206	41	3671	17820 <
	July	171	34	4315	25234
	August	184	37	6867	37321
	September	198	40	6187	31247
	October	220	44	5587	25395
	November	173	14	5074	29329
	December	178	36	4643	26084

PRODUCTION DATA FOWLER LOWER PADDOCK POOLS LEA COUNTY, NEW MEXICO



			R PADDOCK POOL	<u>.S</u>	
	•	LEA COUNT	Y, NEW MEXICO		
	,	0i1		Gas	
Year	Month	<u>Barrels</u>	Water	MCF	
		SMU N	0.16		
1964	May	112		10546	
	June	107		17667	
	July	136		28446	
	August	70		33436	
	September	153		22885	
	October	51		14571	
	November	18		20293	
	December	57		27665	
1965	January	14		22074	
	February	52		26592	•
	March	36		23040	
	April	4		24934	
	May	21		25948	
	June	7		20230	
	July			16179	
	August	•		23134	
	September			27237	
	October	15		24757	
	November	12		19870	
	December	3		25436	
1966	January			18847	
2200	February	30		22963	
	March	33		22378	
	April	13		18182	
	May	13		24319	
	June	6		24315	
	July	Ū		22415	
	August			18663	
	September			18761	
	October	25		18704	
	November	45		17770	
	December	10		7181	
1967	January	62		19174	
1907	February	17		16964	
	March	71			
	April	68		23618	
	May	14		24121]
	June	14		19870	1
	July			7743	1
	August			6858 0104	- 1
	September			9104	L
	October			5338	
	November			6314	
	December			8199	
	December			17080	

BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION

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PRODUCTION DATA FOWLER LOWER PADDOCK POOLS LEA COUNTY, NEW MEXICO

	•	FOUT FR LOW	CTION DATA ER PADDOCK POOLS TY, NEW MEXICO		
Year	Month	Oil Bbls.	Water Bbls.	Gas MCF	GOR
		SMU No	<u>. 9</u>		
1965	April May June July August September October	172 929 854 826 731 679 723 720		767 715 450 435 504 990 1086 1182	826 837 545 595 742 1369 1508 1123
	November December	1053			
1966	January February March	730 515 795 707		1124 588 1804 1593	1540 <u>11</u> 42 2269 2253 2337
	April May June July	665 564 450 633	95	1554 1399 1297 1116	2480 2882 1763 2832
	August September October November December	392 291 330 328	58 45 33 33	1110 1058 970 950	3636 2939 2896
1967	January February March	357 306 295 241	54 37 37 34	1819 0 0 1662 1904	5095 - - 6896 3910
	April May June July August September October	487 432 352 379 415 462	68 60 49 53 58 65	975 1146 1824 1643 1484 1348	22.57 3256 4813 3959 3212 3776
	November December	357 374	49 52	1233	3297

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·				TION DATA R PADDOCK POOLS Y, NEW MEXICO		
		Month	Oil Bbls.	Water Bbls.	Gas MCF	GOR
	Year		SMU No.	19		2499
			537	200	1342 703	2499 1855 3693
	1966	January February March	379 584	150 216 203	2157 1905	5721 . 5936
		April	333 313	193 98	1858 1672	6309 4759
\$		May June	265	78	1009 868	2913
		July	212 298	110	868	4717 6044
		August September	184	68 50	822	4870
		October	136 155	38	755 739	4799
		November	154 ·	57		6713
		December	342	127	2296 2347	5026
	1967	January	342 467	93 93	2352	5285 6360
	1701	February March	445	58	1857	3601
		April	292 591	118	2128 1090	2037
		May	535	107 85	1281	3000 4430
		June July	427	92	2038 1837	3574
		August	460 514	103	1658	290- 347
		September	571	114 86	1506	297
		October November December	434 463	93	1378	64 F 1

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PRODUCTION DATA FOWLER LOWER PADDOCK POOLS LEA COUNTY, NEW MEXICO

Year	Month	Oil Bbls.	Water Bbls.	Gas MCF	GOR
		SMU No	. 18		
1965	August September October November December	689 690 461 461 341	69 69 5	4868 •9562 10493 11425	7055 20742 22761 33504 40552
1966	January February March April May June July August September October November December	236 167 257 229 215 199 245 764 472 351 447 462	23 17 258 23 20 20 25 76 47 35 112 46	9523 4984 15293 13505 13175 11857 12107 10412 10411 9871 9054 8867	29844 59506 58974 61279 59583 49416 13628 22057 28123 20255 19193
1967	January February March April May June July August September October November December	153 182 182 117 237 206 171 184 198 220 173 178	15 36 23 47 41 34 37 40 44 14 36	5454 8038 8054 6256 7168 3671 4315 6867 6187 5587 5074 4643	35647 44165 44253 53470 30245 17820 25234 37321 31247 25395 29329 26084



FOWLER LWR. PADDOCK OIL POOL



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	19	64		65		66		67		68		69	19		19		19_		19	
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BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION PAN ANS EXHIBIT NO. 4 CASE NO. 3002

and Him s	EXHIBIT	NO.	4

	PR	<u>eDt ein</u>	(ON	D2	ATA	
FOWLE	R	LOWER	PAD	D	OCK	I
		OUNTY,				

NEW MEXICO COUNTY,

Year	Month	Oil Bbls.	Water Bblc.*	Gas <u>Kor</u>	000
1965	April May	172 929	SMU No. 9		GOR
	June	854		767	826
	July	826		7±5	837
	August	731		450	545
	September	679		435	595
	October	723		504	742
	November	720		990	1369
	December	1053		1086 1182	1508
1966	_			1102	1123
1900	January	730		1124	15/0
	February	515	e e	588	1540 1142
·	March	795 🗇		1804	2269
		1	SMU No. 18		
1965	August	689			
	September	690			
	October	461	69	4868	7055
	November	461	69	9562	20742
	December	341	5	10493	22761
10.00			2	11425	33504
1966	January	236	23	9523	(
	February	167	17	4984	40552
	March	257 6	258	15293	29844
				25255	59 506
		2	MU No. 19		
1966	January	537	200	1342	
-	February	379		703	2499
-	March	379 584 19 C	216	2157	1855
<u>ــــــــــــــــــــــــــــــــــــ</u>				2101	3693
		S	MU No. 16		
1964	Мау	112		105/7	
	June	107		10546	
	July	136		17667 28446	
	August	70		33436	
	September	153		22885	
	October	51		14571	
	November	18		20293	
	December	57		27665	
1965	January	14			
	February	52		22074	
		12		26592	

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			- 2-		
Year	Month	Oil Bbls.	Water <u>Bbls.</u>	Gas MCF	GOR
1965	March April May June July August September October November December	36 4 21 7 15 12 3		23040 24934 25948 20230 15179 20134 27237 24757 19870 25436	
1966	January February March	30 33		18847 22963 22378	

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SPECIAL RULES AND REGULATIONS FOWLER LOWER PADDOCK POOL

RULE 1. Each well completed or recompleted in the Fowler-Lower Paddock Pool or in the Lower Paddock formation within one mile of said pool, and not nearer to or within the limits of another designated Lower Paddock pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. A gas well shall mean a well producing from within the vertical and horizontal limits of the Fowler Lower Paddock Pool which produces with a producing gas liquid ratio of 50,000 cubic feet of gas or more per barrel of liquid hydrocarbons.

RULE 3. A well producing from within the horizontal and vertical limits of the Fowler Lower Paddock Pool and not classified as a gas well shall be classified as an oil well in the Fowler Lower Paddock Fool.

RULE 4. Each gas well completed or recompleted in the Fowler-Lower Paddock Pool shall be located on a standard unit containing 320 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental section.

RULE 5. Each oil well completed or recompleted in the Fowler-Lower Paddock Pool shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section.

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RULE 6. A standard oil proration unit (79 through 81 acres) in the Fowler-Lower Paddock Pool shall be assigned an 80-acre proportional factor of 2.33 for allowable purposes, and in the event there is more than one well on an 80 acre proration unit the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable in the Fowler-Lower Paddock Pool as the acreage in such non-standard unit bears to 80 acres.

RULE 7. Acreage dedicated to a gas well in the Fowler-Lower Paddock Pool shall not be simultaneously dedicated to an oil well in the Fowler-Lower Paddock Pool and the dual completion of a well so as to produce gas the first two different the Fowler Lower Paddock Gas Pool and oil from the Fowler Lower Paddock 2000S in Oil Pool is hereby prohibited.

RULE 8. Gas liquid ratio tests shall be conducted annually during the month of May on all wells located in and producing from the Fowler-Lower Paddock 13 Pool.

RULE 9. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:

BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION 6 KAN YARA EXHIBIT NO. ___ 300-2-CASE NO.

(a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.

(c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the scation in which the non-standard unit is situated and which acreage is not included in said non-standard unit.

(d) In lieu of Paragraph (c) of this rule, the applicant may furnich proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 10.6 The Secretary-Director may grant an exception to the requirements of Rule & without notice and hearing when an application has been filed for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the nonstandard unit within 30 days after the Secretary-Director has received the application.

RULE 11. Each well completed or recompleted in the Fowler-Lower Paddock Pool shall be located no nearer than 660 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 12. The Secretary-Director may grant an exception to the requirements of Rule 11 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 13. The limiting gas-oil ratio for an oil well shall be 6,000 cubic feet of gas for each barrel of oil produced.

RULE 14. The maximum allowable for a gas well shall be equal to four times the top allowable gas limit for an oil well.

F	OTANA NOTA PROSENT DAMA
	The COLUMN STREET
	Hours Shat-In
	SHU No. 16

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SMU No. 9

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SMU No. 18

Date

12-10-63 3-4-65

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BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION 120 Mais EXHIBIT NO. S.A. CASE NO.____ 300 2-

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Rules from Care 2743 R-2425 Byrom p197

SPECIAL RULES AND REGULATIONS FOR THE FOWLER - LOUER PADDOCK GAS POOL

RULE 1. Each well completed or recompleted in the Fowler - Lower Paddock Gas Pool or in the Lower Paddock formation within one mile of the Fowler -Lower Paddock Gas Pool, and not nearer to or within the limits of another designated Lower Paddock pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Fouler - Lower Paddock Gas Pool shall be located on a standard unit containing 320 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental section.

RULE 3. The Secretary-Director shall have authority to grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:

(a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.

(c) The applicant presents written consent in the form of waivers from all offset operators and fro. all operators owning interests in the section in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

(d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of such non-standard unit.

RULE 4. Each well completed or recompleted in the Fowler - Lower Paddock Gas Pool shall be located no nearer than 660 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

quarter-quarter section line. RULE 5. The Secretary-Director may grant an exception to the requirements of fule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that

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such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

FOWLER LOWER PADDOCK FIELD ECONOMIC DATA

210221120	160 ACRES	320 ACRES
RESERVES Gas, MACF Condensate, Bbls.	1450 0	. 2900 0
PRICE Gas, per MCF	\$ 0.15	\$ 0.15
Gross WI Income *	\$190,000	\$380,000
Net WI Income **	\$157,000	\$329,000
Investment	\$ 62,000	\$ 62,000
Profit/Well	\$ 95,000	\$267,000
Payout, Months	32	16
Return on Investment, Ratio	1.53	4.31

* 12.5 Percent Royalty

** Less taxes 6.283% and operating expense of \$100/well - month.

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FOWLER LOWER PADDOCK FIELD RESERVES

Not Pay, Feet	19
Porosity, %	9
Connate Water Saturation, %	30
Reservoir Temperature, ^O F	96
Gas Gravity	0.669
Initial Reservoir Pressure, psi	2227
Abandonment Pressure, psi	213
Gas Reserves, MCF/acre	9.06
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