BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 14, 1957

TRANSCRIPT OF HEARING

Case No. 1219

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTE FE
3-6691 2-2211

BEFORE THE
OIL CONSERVATION COMMISSION
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IN THE MATTER OF: Application of Amerada Petroleum Corporation for a 440-acre non-standard gas proration unit in the Justis Gas Pool in exception to Rule 5 (a) of the Special Rules and Regulations for said pool as set forth in Commission Orders R-586 and R-586-A. Applicant, in the above-styled cause, seeks an order authorizing a 440-acre non-standard gas proration unit in the Justis Gas Pool consisting of the W/2 SW/4 of Section 24, the N/2 of Section 25, and the NE/4 NE/4 of Section 26, all in Township 25 South, Range 37 East, Lea County, New Mexico; said unit to be dedicated to a well to be drilled at a point 990 feet from the North line and 1650 feet from the West line of said Section 25.	Case No. 1219

BEFORE:

Honorable Edwin L. Mechem
Mr. A. L. Porter
Mr. Murray Morgan

TRANSCRIPT OF HEARING

MR. PORTER: The next case to be considered will be Case 1219.

MR. COOLEY: Application of Amerada Petroleum Corporation for a 440-acre non-standard gas proration unit in the Justis Gas Pool in exception to Rule 5 (a) of the Special Rules and Regulations for said pool as set forth in Commission Orders R-586 and R-586-A.

JOHN VEEDER

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

DIRECT EXAMINATION

By MR. BUSHNELL:

Q Would you state your name and company for which you are employed?

A John Vedder, Amerada Petroleum Corporation.

Q In what capacity are you employed?

A District Geologist.

Q You are District Geologist of the Midland area office, is that correct?

A That is right.

(Marked Amerada's Exhibit No. 1, for identification.)

Q I hand you what is marked as Exhibit No. 1. Will you identify this exhibit, please?

A This is a subsurface structure map of the Justis Gas Pool in southeastern Lea County, New Mexico. This map is contoured on a marker near the top of the Yates with a contour interval of twenty-five feet.

Q What do these contour lines purport to show with reference to the Paddock zone?

A They would show relatively the structure of the Paddock zone.

Q Now, on this exhibit there are seven wells, is that not correct, outlined or noted with red circles?

A That is right.

Q Is it not true that those seven wells are the wells now

producing from the Justis Gas Pool? A That is right.

Q Also on this plat is an area outlined in red. Would you state what that area represents?

A That area outlined in red is the proposed gas unit for a well to be drilled within that unit for gas production in the Justis Gas Pool.

Q That unit contains a total of how many acres?

A Four hundred forty acres.

Q Would you identify and locate on this exhibit the three gas wells on the tracts adjacent to the area outlined in red, now completed in the Justis Gas Pool?

A Those wells are the Olsen No. 1 Wimberly, which is located in the southeast of the northeast of Section 23, the Widewater No. 1 Coats C, which is located in the southeast of the northwest of Section 24, and the El Paso No. 1 Carlson A which is located in the northwest of the southeast of Section 25. All of these sections being in Township 25 South, Range 37 East.

Q Now, Mr. Veeder, on the basis of your study in this area, and also on the basis of the information contained on this exhibit, in your opinion does the Justis Gas Pool substantially underlie all the 440 acres outlined in red on this exhibit?

A I would say that acreage is very well located structurally.

MR. BUSHNELL: That is all the questions I have of this witness.

MR. PORTER: Anyone else have a question of Mr. Veeder? Mr. Mankin.

CROSS EXAMINATION

By MR. MANKIN:

Q Mr. Veeder, this structure map which you have prepared is on the Yates. The production which you anticipate to get from the well to be drilled will be from the Glorieta zone, is that correct?

A Well, it's the Glorieta, or you could call it the Intermediate.

Q Call it the what, please?

A The Intermediate. That is the section between the San Andres and the Clear Fork.

Q Do you have another name for it than Glorieta?

A It is often-times referred to as Paddock.

Q Are all the wells completed in the Justis Pool from the same zone?

A They are completed from this section between the base of the San Andres and the Clear Fork. I would not say they are producing from the same reservoir.

Q In some cases they may be what, termed Glorieta and some cases might be termed Paddock?

A I think that is loose terminology, but they are two zones in that section.

Q This well has not yet been drilled, has it?

A No, it has not.

Q There is numerous wells surrounding this proposed well, that is numerous gas wells producing from another pay, is that correct?

A That is right.

Q Is that pay the Langley-Mattix pay?

A That is including the Langley-Mattix.

Q Which is predominantly the Queen pay?

A Right.

Q Do you have knowledge that the wells in the Justis Pools are normally prolific producers?

A On potential, they had very good potentials.

Q Do you have any knowledge as to the area which one well will drain?

MR. BUSHNELL: I think, Mr. Mankin, that we have another witness to testify to that.

MR. MANKIN: As to the drainage area?

MR. BUSHNELL: Yes.

MR. MANKIN: That's all.

MR. PORTER: Anyone else have a question? The witness may be excused.

(Witness excused.)

MR. BUSHNELL: I would like to offer this exhibit in evidence. I would like to ask the witness one other question, if it is not true this was prepared by you or under your supervision?

A That is right.

MR. PORTER: Without objection the exhibit will be received.

(Witness excused.)

R. S. CHRISTIE

a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. BUSHNELL:

Q State your name and the company for which you are employed.

A R. S. Christie, Amerada.

Q In what capacity? A Petroleum Engineer.

Q Have you, as a witness, testified as a Petroleum Engineer before this Commission on prior hearings?

A Yes, I have.

Q Mr. Christie, I hand you what is marked Exhibit No. 2. Would you identify this exhibit, please?

A Exhibit No. 2 is a plat showing the Amerada Atlantic Wimberly, the proposed Wimberly Gas Unit, the proposed 440 acre unit as outlined in red, and the other unit wells surrounding this area are outlined in green. In addition to that, the outlines of the Justis Gas Pool are shown in a hashed manner.

Q This plat was prepared by you or under your supervision, is that not correct? A Yes, sir.

Q You have already testified that the area outlined in green represent the units from which the three respective wells are

producing in this metered area, is that correct?

A Yes, sir.

Q Would you locate and identify on this plat the proposed location of Amerada's well in the area outlined in red?

A We propose to drill our Wimberly No. 3, which is located 990 from the north line and 1980 feet from the west line, Section 25, Township 25 south, Range 37 east.

Q You have made a study of the reservoir conditions and the characteristics of the sand in this immediate area, is that correct?

A Yes, sir.

Q From your study, is it your opinion that one well will drain the 440 acres outlined in this red area?

A In my opinion I believe it will.

Q What facts are you using as a basis for reaching this conclusion?

A Unfortunately we have very little reservoir information in this particular area, and since we haven't drilled our own well, we had to use other information from other sources. Not knowing what the exact porosity, permeability and so forth are underneath this tract, I have used an alternate method of attempting to determine what the drainage area might be.

We have assumed, or it's actually not an assumption, we have estimated that the average pay thickness underneath this tract is twenty feet of net effective pay. We have used a percent porosity

of eight and a half, which is the porosity based on an analysis of the Paddock in the Monument Pool, which is to the northwest of the Justis Pool. We have used the percent saturation, water saturation of twenty percent, and have arrived at a recoverable gas reserve down to a pressure of 200 pounds of 7,000 M.C.F. per acre. Using those figures and taking the Olsen Oil Company Wimberly No. 1 Well as an example, since we have production history on it and it has produced the most gas of any gas well in the pool, we have calculated from an original bottomhole pressure of 2,050 pounds, and the present bottomhole pressure of 1850 pounds with an accumulative production of 1,896,896 M.C.F. of gas that the gas originally in place was 403.3 M.C.F. per acre foot.

The gas now remaining under these conditions is 364.2 M.C.F. per acre foot. Therefore using these figures, we can calculate mathematically that the area being drained is 48,514 acre feet, or converted into acres, using the twenty foot pay thickness, would give a total of 2425 acres that this one well is draining. That is the Olsen Wimberly No. 1.

Now there is some question of the accuracy of that because we believe this is a water drive field and if that is true, then those figures are probably not too reliable, but we can arrive at a figure, another way. At the present time, as I have stated, the Olsen Wimberly has recovered 1,896,896 M.C.F. of gas, which represents complete drainage of 271 acres. In other words, there was

that much gas being produced it would contain a volume of 271 acres. If we assume some sort of depletion, some percentage of depletion, we can arrive at some reasonable figures I think of the drainage at the present time. If we assume a well is 25 percent depleted and that is probably not, if anything is a high figure based on the total drop in pressure which has only been 150 pounds, it will only recover 7,787,000 M.C.F. of gas, and will have drained over 1,000 acres.

If a well is now 50 percent depleted, the ultimate recovery will total twice as much as it has produced, or 3,793,792 M.C.F. of gas, which gives a drainage area of over 540 acres. Of course, we know the field, or this particular well, is not 75 percent depleted, but if it were you would still get an area of 361 acres. So based on those calculations it is my opinion that one well in this area will efficiently and effectively drain at least 440 acres.

We have also used the same calculations in determining the area drained by the other wells in the field. I will mention the three other largest producers, that is the El Paso Justis No. 1 which had produced 1,685,000 M.C.F., has drained to the present time, or 1,157,241 acres. The Western Natural E 10-B No. 1 which has produced, incidently this is a correction in a statement I made earlier, this is the well that has produced the maximum amount of gas in the field rather than the Olsen Wimberly. It has produced 2,291,823 M.C.F., and has drained on that basis 427 acres.

Q Now, Mr. Christie, referring to this plat, we find that there is 120 acre tract owned by Atlantic in the northeast of 25, is that correct? A Yes, sir.

Q And that Amerada owns the northwest quarter of Section 25 and the southwest of the northeast of 25. It is my understanding now that Atlantic and Amerada have been entering into negotiations concerning the development of these two tracts. Would you state what those negotiations are, what prompted them?

A It was the feeling, both Atlantic and Amerada, that the 120 acre Atlantic tract would not support a well on it's own, that is it would not be an economical, attractive proposition. As to the 200 acres in that section that Amerada owns, while a well on that would pay out, it still wouldn't be real attractive, economical proposition, so it was decided that Atlantic and Amerada, if they could come to some agreement and unitize those two tracts, that one well would efficiently drain it and be a profitable venture.

Q Now, referring to the Amerada tract within the area outlined in red described as the west half of the southwest quarter of Section 24 and containing 80 acres, and also referring to the 40 acres in the red outlined area which is described as the northeast 40 of the northeast of Section 26, in your opinion would it be economical for Amerada to drill either of these two tracts separately? A No, sir, it would not.

Q In your opinion do the three wells located on this plat and

now producing from the Justis Gas Pool drain acreage outlined in red?

A Yes they do, even if you assume 160 acre radius of drainage, all three wells are draining from the area outlined in red. Of course, if you use the figures that I have put into the record that the wells have actually drained, then they would have drained quite a larger area than the 160 acres.

Q Now, in your opinion, will the proposed Amerada well, if allocated 440 acres, drain acreage adjacent to the area outlined in red?

A Well, if you assume the drainage radius theory, of course you will drain some gas from offset properties and will not entirely drain entirely all your own property.

Q Assuming that is true, in your opinion is the acreage from Amerada's or the tract underlined in red that is now being drained, would the proposed well, Amerada well, counter drain any excess acreage from the adjacent tracts?

A No, sir, it wouldn't insofar as there are only 440 acres in the tract outlined in red and there are a total of 480 in the other three tracts, we would still lack 40 acres of having counter drainage equalized.

Q And such counter drainage would be substantially the same?

A Yes, sir.

Q Mr. Christie, in your opinion will the formation of the 440

acre unit based on your prior testimony and your study of this area, impair the rights of owners in this pool?

A No, sir.

Q Is it not your opinion that the formation of this 440 acre unit is necessary to protect the rights of owners in the area outlined in red?

A Yes, sir, it is my opinion.

MR. BUSHNELL: That is all the questions I have of this witness at this time.

MR. PORTER: Before we start cross examination, suppose we recess until one-fifteen.

(Recess.)

MR. PORTER: The meeting will come to order, please. Does anyone have a question of Mr. Christie?

MR. WOODWARD: Mr. Woodward, El Paso Natural Gas has some questions on cross examination.

CROSS EXAMINATION

By MR. WOODWARD:

Q Mr. Christie, no interference tests have been taken in the Justis Field, is that your understanding?

A None by us at least. I know of no interference test.

Q Have you seen any analysis on cores taken from the Justis Field?

A No, sir.

Q In your opinion as to the area to be drained by one well

in this pool is based on a computation, is that correct?

A Yes, sir. In addition to that, which I didn't mention, the degree of potential reflects permeability, and therefore a drained area.

Q The degree of potential? A Yes.

Q From what source was that drawn?

A Your potential tests are usually taken at completion, and the relative volume of your open flow potential indicates the capacity of the well to produce, and in a measure indicates the permeability.

Q They were taken from wells in the Justis Pool?

A Yes, sir.

Q What wells were those, would you indicate that?

A The information that I have, for example, the El Paso No. 1-A Carlson Federal, Section 25, has an open flow potential of 7,800,000.

Q Now, the rest of the factors that go into this computation are porosity and net pay thickness? A Yes, sir.

Q What was the source of your information on porosities?

A We useda porosity that was obtained in the Paddock Zone in the Monument Field.

Q Approximately how far is the well from which that information was obtained, how far is that well from the tract in question?

A Oh, I don't know exactly, it's several miles.

Q Now, the porosity information obtained on a well in the Monument Pool was combined with an estimate of thickness under this tract, is that correct?

A Yes, sir. The thickness estimate wasn't necessarily an estimate, it was an actual determination from logs.

Q Logs of other wells? A Yes, sir.

Q That are not completed on this tract?

A Yes, sir.

Q I wish you would again describe how you determined the drainage area by the use of these factors.

A Calculated the gas originally in place by using twenty foot thickness porosity of 8.5 percent, and water saturation of twenty percent and found that to be 403.3 M.C.F. per acre foot. That's the gas originally in place. Now, taking the drop in pressure from the original of 2,050 and the present of 1850, calculate the gas now in place. That calculates to be 364.2 M.C.F. per acre foot. Then the difference between what was there originally and what you produced divided into the amount you have produced, gives you the number of acre feet. That's the area being drained.

Then the area being twenty feet thick, you come out with 2425 acres under that first calculation. That's assuming besides that there is a possibility you have a water drive there and that's not a very accurate calculation.

Q Now, the validity of that type of calculation depends to

some extent upon your estimate of the reserves in place per acre does it not? A Oh, yes.

Q How did you arrive at what is in place per acre now?

A Well, you take your area, your thickness, your porosity, and your bottomhole pressure, temperature and calculate it.

Q That would tell you what you could expect to be in place originally, but how do you determine what percentage of that is still in place now?

A Well, if you calculate how much you had originally and how much you have now, it is just a matter of dividing one percentage to get your percentage.

Q Well now, if the production that has been taken out of the ground is removed from a relatively small area, you would have a proportionate decrease in the amount in place. If it is taken out from a larger area, there would be a relatively small decrease, is that not correct? A Yes, that is right.

Q How do you determine which of those two conditions exist in this field?

A Well, I have just gone through the calculations.

Q Does that calculation not rest upon an assumption?

A Well, we have assumed a porosity percent, about the only assumption, and the water saturation.

Q Does it not rest on an assumption as to what is in place in order to determine how far the drainage has occurred? What is

now in place?

A Well, I'm not calculating the total gas in the reservoir. I'm breaking it down to an acre basis.

Q Let me put the question this way, how do you tell whether the amount of gas withdrawn has come from 160 acres or from some larger area?

A If you know how much you had there originally and how much you took out, and you know your area, it is a simple mathematics to tell whether you have produced more than 160 acres will contain or less.

Q In this case that you are using, have you produced a sufficient volume to have depleted all of the gas in place under 160 acres? A No, sir.

Q How then do you determine what percentage you have left?

A Well, based on your calculations from your present bottomhole pressure.

Q Would you explain how that works?

A Well, I just indicated awhile ago that your gas now in place is determined from your area times your porosity and saturation and your bottomhole pressure and temperature.

Q But you had more in place under 160 acres than you have taken out of the ground to date, is that not true?

A Actually it is equalized which amounted to 7,000 M.C.F. per acre, based on 160 acres it would appear that the amount of

gas originally in place under 160 acres based on these conditions would be 1,120,000 M.C.F. Therefore several of these wells have produced more than was originally underneath 160 acre tract.

Q Several of these wells. I understood we were talking about the Olsen Wimberly well.

A Well, the Olsen Wimberly well has --

Q (Interrupting) It has produced how much to date?

A According to the figures of the Commission it has produced to the first of the year, 1,896,896 M.C.F.

Q That well then has already produced more gas than you calculate was in place initially, is that true?

A Yes, under 160 acres.

Q Now, what is the cost of these wells?

A We estimate the cost at $67,000 to drill a well to the Paddock Zone.

Q What reserve volume would you estimate is necessary to make the drilling of that $67,000 well commercially feasible?

A Based on the 1 billion 120 million that I originally calculated was originally in place on 160, calculate the gross value to be $1,506 for 160 acres. Of course, you have to discount that over the number of years, so that it wouldn't be, the present worth wouldn't be not near that much.

Q Then in your opinion you would need at least 160 acres to make the well a commercial investment?

A Yes, and it wouldn't be very profitable at that.

MR. WOODWARD: I think that's all we have.

MR. PORTER: Mr. Mankin.

By MR. MANKIN:

Q Mr. Christie, you have indicated previously that you had core analysis from the Paddock Zone in the Paddock Pool. Is that not approximately twenty-five miles away from this area?

A It could be that far away.

Q Do you feel that the characteristics in the Justis area are enough similar to the Paddock Zone in the Monument Pool to compare them?

A I think it would be, probably be within reason.

Q You indicated that you had an average pay thickness for the Justis of approximately twenty feet?

A Under this area.

Q Do you have any information as to what the average pay thickness might be in the Justis Pool? A No, sir.

Q Do you have any knowledge of wells, particular wells off-setting the proposed well which might be making considerable amounts of water in the Justis Pool?

A I understand that the Westates Carlson Unit is making water, but it's probably coming from the lower Paddock and could be very well shut off.

Q You don't feel that that has any characteristics with the

type of drive you mentioned you thought was a water drive?

A I think it is indication that we probably do have a water drive.

Q Do you feel that a large unit the size of which you are requesting, would have any tendency to pull more water into the well which you have drilled here?

A Well, of course, that depends on the rate of withdrawals. At the present time the withdrawals are rather low for 160 acre units.

Q That's my next question, do you have any knowledge, I'm sure you must know what the present withdrawals are per 160 acres per day or per month, or do you have that?

A I don't have it available at this time.

Q Would you say it is a half a million a day or less?

A I wouldn't want to give a figure. It can be easily ascertainable.

Q Well, awhile ago you mentioned a potential of the Federal Carlson Well, did you not mean the Westates Petroleum Federal Carlson?

A Yes, that's the well I referred to. It was originally drilled by El Paso I believe, and carried by El Paso.

Q On your Exhibit No. 2 you showed three wells that had proration units of 160 acres, is that not true, that 160 acres is the standard unit in this pool? A Yes, sir, it is.

Q Is there any units at the present time larger than 160 acres?

A None that I know of.

Q Do you feel that one well will adequately be drained by this 440 acre unit?

A Yes, I do. Of course, as I pointed out, this is rather an unusual situation. If the Atlantic and Amerada can not unitize that tract, Atlantic probably would feel like they couldn't afford to drill a well on the 120 acres. That would leave that out of the field as far as protection is concerned, and we certainly couldn't afford to drill a well on the 40 acres in the northeast quarter of 26, nor on the 80 in the west half of the southwest quarter of 24, and that was the reason for taking all those different units across section lines to this particular unit. Of course, having 160 acres as a standard, you may not have a very good opportunity to join with some other operator who would then also have perhaps larger than 160 acre if he tried to unitize with some operator.

As far as the 40 in the northeast quarter of 26, it's our opinion that there is not 160 acres there that's productive.

Q I have only one other question. Has this well been started?

A No, sir. We are waiting for decision of the Commission as to the size of the unit. I think one reason we didn't choose to drill it if the Commission declined to give the 440, we may locate the well in a different position on the lease, different location.

MR. MANKIN: Thank you.

MR. PORTER: Anyone else have a question of Mr. Christie? Mr. Cooley.

By MR. COOLEY:

Q Mr. Christie, is there any indication that the acreage to the west, northwest, southwest of your proposed well location would be possibly productive of gas from the Justis Gas Pool?

A I am sorry. I didn't understand your question.

Q Is the area to the west of the well, can it reasonably be anticipated to be productive from the Justis?

A We think so, yes.

Q You indicated in your mind on direct that you felt that you were merely compensating for counter drainage. Would you indicate what wells on your Exhibit 2 that you feel is, constitutes this counter drainage?

A The Westates Carlson A-No. 1 located in the southeast quarter of Section 25 which appears to be a 660 foot location I believe or maybe nine. - ninety from the northwest corner and the Olsen No. 1 Wimberly in the northeast quarter of Section 23 and Tidewater No. 1 Coats Federal in the northwest quarter of Section 24.

Q Then there is no counter drainage to the west or southwest of this unit?

A No, sir. There is probably no production west.

Q That was my initial question. Apparently you misunderstood. I asked if you anticipated that the acreage to the west of the

proposed location would be productive from the limits of the --

A (Interrupting) I thought you were talking about the acreage within the unit west of the location. No, it's our opinion that there is no production west of the proposed unit.

Q Mr. Christie, concerning the ownership of the working interest and the royalty interest in the acreage outlined in red on Exhibit 2, obviously it is not common, is that correct?

A That is right.

Q Has the acreage been communitized?

A Not yet, no, sir.

Q How long would you estimate that a well would pay out on 160 acres at the present allowable? You estimated a figure of $67,000 per well and a total of $160,000 pay out. How long would it take you to get your total?

A Well, that would take a little calculation. You would have to know the price of the gas and your listed cost.

Q You must have known the price of the gas when you calculated the $160,000.

A Yes, we used ten cents, I believe. You want to assume an allowable of 50,000.

Q That approximates present allowables that will be all right?

A Well, without any accurate calculation I would say possibly three or four years.

MR. COOLEY: Thank you. I believe that's all.

MR. PORTER: Anyone else have a question of Mr. Christie?

MR. BUSHNELL: May I ask one question?

REDIRECT EXAMINATION

By MR. BUSHNELL:

Q To make sure there is no misunderstanding with Mr. Cooley's question regarding the productive acreage or non productive acreage to the west of the proposed well, as I understand your testimony, you are testifying that the acreage within the red lines is productive west of the proposed location, but that acreage west of the proposed area may not be productive, is that correct?

A That is correct.

MR. BUSHNELL: That's all.

MR. PORTER: Any further questions? The witness may be excused.

(Witness excused.)

MR. PORTER: Do you want to enter Exhibit No. 2?

MR. BUSHNELL: Yes, I want to offer both Exhibits 1 and 2 if there is no objection.

MR. COOLEY: One has been entered.

MR. BUSHNELL: You are right.

MR. PORTER: Without objection Exhibit No. 2 will be admitted. Any other witnesses in this case?

MR. BUSHNELL: There are no other witnesses in this case. In the event there are any statements, I would like to reserve the

right to answer any statements.

MR. PORTER: Anyone have a statement to make?

MR. WOODWARD: John Woodward representing El Paso Natural Gas Company and Westates Petroleum Corporation, pursuant to a letter that was sent to the Commission on March 8, 1957. El Paso owns the southwest quarter of Section 25, Township 25 south, Range 37 east, and we own 120 acres in the northeast quarter of Sections 26 immediately to the west and the south half of Section 23. We own jointly with Westates an interest in the southeast quarter of Section 25, a well has been completed on the southwest quarter of Section 25 and southeast and one is drilling on the southwest quarter of Section 25.

El Paso is very much in sympathy with the objective of the applicant in this case, that is to avoid the drilling of unnecessary wells and to attribute the maximum amount of acreage that can be efficiently and economically drained by a well to wells in any pool. We have never subscribed to the "dog in the manger" philosophy of after having perhaps drilled some unnecessary wells ourselves of requiring others to go and do likewise. However, we are objecting to this application on the basis of the method used in obtaining perhaps a very desireable result. As in our Crosby-Devonian case, Amerada is attempting to attribute acreage in excess of the proration unit established for the field. Unlike that application, they are seeking to do it by an exception rather than an

amendment to the field rules.

It is our position that such an exception is not authorized by the statute and is contrary to the findings of fact which preceded Order R-586 under which the exception is being sought. Section 65-5D14B provides that the Commission may establish a proration unit for each pool, such being the area that can be efficiently and economically drained and developed by one well.

In this pool, by Order 586 and 586-A, the Commission has established 160 acres as the proration unit for the Justis Pool. The provision under which we assume that Amerada is proceeding is the Rule 5-C which provides that a non standard gas proration unit of less than 160 acres may be formed after notice and hearing by the Commission or by administrative approval under the provision of Paragraph D of this rule. Non standard gas proration units of more than 160 acres may be formed after notice and hearing by the Commission.

Now, the finding of fact which proceeded the Pool Order for the Byers-Queen and the Tubbs is finding of fact No. 9, that no evidence was presented at the hearing at which this order was adopted, that no evidence was presented to justify a change in the size of standard gas units in the Tubb, Byers-Queen or Justis Gas Pools from 160 acres. Our point is this, that if this Rule 5-C is construed to mean that the Commission can establish as an exception a gas proration unit nearly three times the size of a standard unit,

such a result is not supported by any finding of fact in the order and it permits a situation where neither the Commission nor the operators can know in advance the area which will be established as a proration unit.

The statute provides that they shall set up a standard proration unit which is a standard. Deviations have been permitted, but an allocation of this much acreage in that area that they have found can be efficiently and economically drained by one well is not only contrary to the language of the statute, but we feel would create an impossible administrative situation in which the drainage area of individual tracts or wells would have to be determined in each field during the course of development.

We have no objection after a sufficient number of wells have been drilled to take interference tests of changing the standard unit for the entire field, but to attempt to make this calculation for individual tracts, particularly undrilled tracts, places an impossible administrative load on the Commission with respect to every gas field under it's jurisdiction. It is my opinion in the construction of the rule under which Amerada appears to be proceeding, that it was intended solely to take care of small tracts, much less than the proration unit that could conceivably be developed by a well on a standard unit or part thereof by an addition, inasmuch as the smaller or fractional tracts could not themselves support a well.

That, we believe, was the original intent of the rule. It was not to permit a proration unit some three times the size of the standard to be created without a change in the field rules to make such larger areas standard, with exceptions or deviations from it only as to non standard fractional units. Now, as a matter of fact, we are not only in sympathy with eliminating the necessity of drilling unnecessary wells on this particular section, we now have two wells on the section. That is between El Paso and Westates and stand ready to communitize these drilled tracts with the acreage in the north half of the section, which would eliminate the necessity of drilling any further wells in that section, if this Commission issues an order finding that the proration unit should be say 320 acres or 640 acres upon an appropriate finding of fact that one well will efficiently and economically drain that area.

We urge the Commission in this case to dismiss the application, leaving the door open to Amerada if they choose to seek an amendment of the existing field rules on such an appropriate finding of fact, to do so. We would point out that in our opinion the evidence introduced to date rests upon assumptions drawn from conditions existing in other fields several miles distance, but even granting those assumptions, the most that can be said is that sufficient gas has been produced from one of these wells in excess of the estimated quantity in place under the 160 acre tract. There is no definity

showing in our opinion as to how far the drainage extends. For that purpose we think that an interference test is the most reliable measure of that condition, which also should be coupled with factual data drawn from the field in question and not some other area.

Granting that those things can be rectified by a subsequent hearing in which the efficient drainage area can be more clearly shown in this particular pool, we would have no objection to the establishment of a larger area or to communitizing the acreage we now have to avoid any further drilling in this section.

MR. PORTER: Anyone else have a statement? Mr. Tomlinson.

MR. TOMLINSON: W. P. Tomlinson with Atlantic Refining Company. As Mr. Christie has noted, we do have an interest in this case and we wish to endorse Amerada's application and urge that the Commission adopt or grant a 440 unit.

MR. PORTER: Anyone else? Mr. Cooley.

MR. COOLEY: I have a letter from Westates Petroleum Corporation. "The Westates Petroleum Corporation is desirous of being represented in Case 1219 to be heard March 14, 1957 at Mabry Hall, State Capitol, Santa Fe. Due to unavoidable circumstances preventing appearance of a representative, we wish to be represented through the attorney for El Paso Natural Gas Company, inasmuch as we are equally interested and in agreement as to this Case at this time."

MR. PORTER: Mr. Bushnell.

MR. BUSHNELL: I, at first, would like to say, and I think Mr. Woodward will agree, that any statements he has made concerning an offer for unitizing are so-called free statements for which I don't have knowledge of, and since he makes them in lieu of putting them in the testimony, I just remind the Commission that I don't wish for it to be treated as testimony. Mr. Woodward has recognized the provision in Order No. R-586 out of Case No. 728, and particularly Rule 5-C which provides, "non standard gas proration units of more than 160 acres may be formed after notice and hearing by the Commission".

He has also recognized that in his opinion the purpose for this express provision is to recognize it will take care of tracts in order to protect the correlative rights. That's a paraphrase of Mr. Woodward's statement, but I think he will agree with the meaning or intention of my meaning.

I am inclined to agree with him. As a matter of fact, I will even say that this is not a common provision in spacing orders which provide for standard units of 160 acres. However, it is my opinion that this provision although it may not be so expressed, is necessarily implied in every order issued by the Commission, because under the statutes which you give the Commission the authority to set up units, in particular the authority to set up a unit of 160 acres, the Commission has the duty of nevertheless protecting the rights of correlative owners.

The evidence in this case, and it is uncontraverted, is first that a single well will drain 440 acres. Mr. Woodward has recognized the desireability of not requiring the operator to drill an excess number of wells. The evidence also shows that there are certain tracts, lease tracts within this 440 acre proposed unit on which it would not be economical for the operator to drill separately.

In view of this evidence, and it is this evidence that we think justifies us to make application in the manner in which we do, that is as an exception to the Order No. R-586, as the Commission expressly provides in Rule 5-C, that promted us to make application in the manner in which we have.

We believe that the Commission does have the authority to grant such an exception, and although we are cognizant of the desireability of removing unnecessary administrative paper work from the Commission's now heavy schedule, is, and I think Mr. Woodward would agree, that notwithstanding that fact, you can't use that as a basis for prohibiting operators whose rights are to be protected and whose duty it is to protect their royalty owners under their leases, to come in and ask for an exception on that basis.

My conclusion is that the Commission has the authority to grant an exception under Rule 5-C of Order No. R-586 and that it is proper to do so in the manner in which the applicant has applied for in this instance.

MR. PORTER: Anyone else have anything to say in this case?

If nothing further in the case, we'll take it under advisement.

C E R T I F I C A T E

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

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 ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this day of March, 1957.

Ada Dearnley
Notary Public - Court Reporter

My commission expires:

June 19, 1959.