STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

15 March 1989

EXAMINER HEARING

IN THE MATTER OF:

Application of Conoco, Inc. for special pool rules, Lea County, New Mexico. CASE 9622

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Robert G. Stovall
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I N D E X

E X H I B I T S

MR. STOGNER: We will call next Case Number 9622.

MR. STOVALL: Application of Conoco, Inc., for special pool rules, Lea County, New Mexico.

MR. STOGNER: Call for appearances.

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of the Santa Fe law firm of Kellahin, Kellahin & Aubrey. I'm appearing on behalf of the applicant and I have two witnesses to be sworn.

MR STOGNER: Are there any other appearances in this matter?

Will the witnesses please stand and be sworn?

(Witnesses sworn.)

HUGH INGRAM,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Ingram, for the record would you

please state your name and occupation?

A My name is Hugh Ingram. I'm Conservation Coordinator for Conoco, Inc., for the Hobbs Division.

Q Mr. Ingram, on prior occasions have you testified before the Oil Conservation Division of New Mexico as a petroleum landman?

A I have.

Q And were your qualifications accepted and made a matter of record?

A They were.

Q Have you made an examination of the land matters surrounding this particular application by your company?

A Yes, I have.

Q Including the required parties to be notified for this hearing?

A Yes, I have.

MR. KELLAHIN: At this time, Mr. Examiner, we tender Mr. Ingram as an expert petroleum landman.

MR. STOGNER: Mr. Ingram is so qualified.

Q Mr. Ingram, would you turn to what is marked as Conoco Exhibit Number One and describe for the Examiner what you're seeking to accomplish with this appli-

cation?

A In this application Conoco seeks an exception to statewide Rule 506. We are requesting a special pool rules for the Warren Drinkard Pcol to allow for a producing gas/oil ratio limit of 8000-to-1.

Q Is the Warren Drinkard Pool a new pool in New Mexico?

A No, it is not. It was established by Order R-27 in July of 1950.

Q Let me direct your attention to Exhibit Number One and would you use that display to help us find the current boundaries of the pool?

A Exhibit Number One is a map of the area surrounding a recently completed well, the Warren Unit No. 94, as indicated by the red arrow.

The Warren Unit as indicated by the yellow arrow is a heavy dashed line that extends in Sections 25, 26, 27, 28, 21, 20, 29, 33, 34 and 35.

Q Excuse me, I think you described that as being identified with yellow arrow. It's the green arrow, is it not?

A That's right. That's -- that's identified by the green arrow.

Q And the green arrow then describes the Conoco Warren Unit area.

A That's correct.

Q Within that unit area, does that unit area contain the entire Warren Drinkard Pool?

A The Warren Drinkard Pool is identified by the yellow arrow, which is a heavy slashed line, and it is completely within the Warren Unit except for a 320-acre tract in the east half of Section 32 that is outside the Warren Unit.

Q Identify for us on the display, Mr. Ingram, in addition to the Well 94, are there any other wells currently producing from the Drinkard formation assigned to the pool?

A There's only one other Drinkard well in that pool. It is Well No. 26, located in the southwest quarter of Section 27.

Q What is the reason that Conoco is seeking to have the Division adopt a special rule with regards to the gas/oil ratio for the pool?

A The completion of our Warren Unit Well No. 94, which is located 1840 feet from the north line and 2020 feet from the west line of Section 28, Township 20 South, Range 38 East, Lea County, New Mexico.

This well was completed as a dual Blinebry-Drinkard oil well in November, 1988. On initial potential the Drinkard formation tested 62 barrels of oil,

912 MCF gas, for a producing gas/oil ratio of 14,700-to-1.

The gas allowable for a 2000-to-1 GOR limit, which is prescribed by statewide rule, is 284 MCF gas per day.

A gas/oil ratio limit of 8000-to-1 as requested will give us a gas allowable of 1136 MCF gas per day, which will allow us to produce the Warren Unit No. 94 at a commercial rate and provide a small margin in top allowable for future development wells in the Warren Drinkard Pool.

Testimony that will be given in just a minute by our reservoir expert will show additional justification for such a GOR limit and although this is an old pool, heretofore no well has produced enough oil or gas to be restricted by the 2000-t0-1 gas/oil ratio limit prescribed by statewide rule.

Q I direct your attention to Exhibit Number Two, Mr. Ingram, and have you identify and describe that exhibit.

A Exhibit Number Two is a map showing the same area but on a little bit smaller scale so that it takes in additional territory surrounding the Warren Drinkard Pool.

The purpose for this map is to show the offset operators to the Warren Drinkard Pool, being Shell,

Antweil and Elk Oil Company, and also it shows the operators in the east half of Section 32, that there are some operators in that half Section that is not operated by Conoco.

Q Pursuant to Division notice rules have you caused notice of this hearing and Conoco's request for a special rule on the gas/oil ratio for the pool to be sent to all interested parties within the pool?

A Yes, I have.

Q Is that information shown on Exhibit Number Three?

A Yes, if you will refer to Exhibit Number Three, it is a copy of the certified mail receipts that we received back from the offset operators to the pool, as well as the operators within the pool, other than Conoco, and there's one exception to this that I should mention, that being John Hendrix is not shown on this exhibit. We did not get a return receipt from John Hendrix, so Monday of this week I called his office, talked with Ron Westbrook. Ron told me that he didn't know why we didn't get the receipt back, that he has seen the notification that we sent them and that he has no objection to this application.

Q Did you receive any objection from any of the interested parties that operator or have working in-

terests in the pool?

A No, we did not.

Q All right, sir, let me have you direct your attention to Exhibit Number Four and identify and describe that exhibit.

A This Exhibit was made to show the offsetting Drinkard Pools to our Warren Drinkard Pool. You will note to the north a heavy slashed line that's designated Skaggs Drinkard Pool, and to the south there is a heavy dashed line that is identified as the Drinkard Pool. These two pools are the closest Drinkard pools to the Warren Drinkard Pool and I might point out that the Skaggs Drinkard Pool to the north has a gas/oil ratio limit of 10,000-to-1 approved by Order R-7020. The Drinkard pool to the south has a gas/oil ratio limit of 6000-to-1 approved by Order R-4202.

MR. KELLAHIN: Mr. Examiner, that concludes my direct examination of Mr. Ingram. We would at this time move the introduction of Exhibits One through Four.

MR. STOGNER: Exhibits One through Four will be admitted into evidence.

CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Ingram, are you familiar with Orders Nos. R-7020 and R-4202 which you have shown on Exhibit Number Four and, if so, are those Conoco applications or were those made by someone else?

A I have reviewed those applications, Mr. Examiner, and neither of those orders were Concco applications.

MR. STOGNER: At this time I'll take administrative notice of both aforesaid Orders 7020 and 4202, Mr. Kellahin.

MR. KELLAHIN: Thank you, Mr. Examiner.

Q Mr. Ingram, on Exhibit Number One you gave some testimony on the Well No. 94. You stated a lot of production figures and everything. Could you go over those again for me so I could get them down?

A The IP for Well No. 94, Mr. Examiner?

Q Yes, sir, and this is essentially the one in which is the reason for the retroactive request, I would assume, is that correct?

A That's right. Yes, sir.

Q Okay.

A The Warren Unit 94 was actually com-

pleted in November of last year and it will probably be testified also by the next witness, but we have been varying the tests on that well in an attempt to get a producing gas/oil ratio lower than 8000-to-1 so that we could live within the existing statewide rule, but we were unable to obtain flow from that well at a lower gas/oil ratio and so since November, it took us that long in making many attempts to get that well to produce under lower gas/oil ratio limits until just recently we got what we feel like is a good, stabilized producing rate of 62 barrels of oil per day, 912 MCF gas per day.

Q You also stated some overproduction figures. What were those again?

A Mr. Examiner, I'm sorry, I don't have the production -- the total production figures for that well. We didn't -- I didn't bring those with me.

Q Somewhere I jotted down 1136 MCF a day.

A Yes, sir.

Q What was that?

A That 1136 MCF a day is the allowable, gas allowable that we would have if an 8000-to-1 GOR limit is approved.

Q I'll also take note whenever this application was made that Conoco requested 10,000-to-1, is that correct?

A That's correct, Mr. Examiner, and the reason for that was that we had not quite yet achieved the stabilized rate that we were looking for at the time that we filed the application.

We -- it looked to us at the time that we were going to need 10,000-to-1 in order to make it flow but in continuing working with the well we arrived at a stabilized rate of -- that would allow us to produce it at an 8000-to-1 GOR limit.

Q And at this time you are requesting a lower --

A Yes, we're requesting 8000-to-1.

Q And consequently that would average out between your -- this would be sandwiched between a pool that has 10,000-to-1 and one that has 6000-to-1, is that correct?

A That's correct.

MR. STOGNER: I have no questions of Mr. -- no further questions of Mr. Ingram at this time, Mr. Kellahin. He may be excused.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q One further number, Mr. Ingram. Would you repeat to us what your producing gas/oil ratio on a

daily -- I mean, I'm sorry, your producing gas volume on a daily basis is if you use a 2000-to-1 gas/oil ratio?

A The producing volume that we will be able to produce the well on 2000-to-1 would be something in the neighborhood of, oh, less than 10 barrels a day and the well will not produce at that rate.

Q What would be the gas volume using the 2000-to-1?

A Oh, 284 MCF a day would be the gas volume.

MR. STOGNER: Thank you, Mr. Kellahin.

THOMAS BOELENS,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you please state your name and occupation?

A My name is Thomas Boelens and I'm an engineer for Conoco, Incorporated, in the Hobbs Division.

Q Would you spell your last name for the court reporter?

A B-O-E-L-E-N-S.

Q Mr. Boelens, have you as a petroleum engineer testified on prior occasions before the Division?

A No, I have not.

Q Would you take a moment and describe when and where you obtained your degree in engineering?

A I obtained my degree in petroleum engineering, a Bachelor of Science from the University of Wyoming, in 1987.

Q Subsequent to graduation, Mr. Boelens, would you summarize for us what has been your employment experience as a petroleum engineer?

A After graduating from college I was hired by Conoco and I've been in the Hobbs Division for just under two years.

Q Mr. Boelens, have you made a study of the engineering factors including the important geologic information around the Warren Drinkard Pool in Lea County, New Mexico?

A Yes, sir I have.

Q And in conducting that study have you made a determination and reached an opinion as an expert as to what in your opinion is the appropriate gas/oil ratio for the pool?

A Yes, sir, I have.

MR. KELLAHIN: At this time, Mr. Examiner, we tender Mr. Boelens as an expert petroleum engineer.

MR. STOGNER: Mr. Boelens is so qualified.

Q Before we start with Exhibit Number Five, Mr. Boelens, in looking at some of Mr. Ingram's prior exhibits, let's start with Exhibit Number One. In examining the geologic information have you satisfied yourself that the Warren Drinkard Pool continues to be a separate source of supply, separate from the Skaggs Drinkard Pool to the north and separate from the Drinkard Pool to the south?

A Yes, sir, I have. We've attempted to recomplete wells to the Drinkard in between the Skaggs Drinkard and the Warren Drinkard Pools. These wells were not commercially productive and the Peters State Well in Section 32 that Mr. Ingram referenced earlier, was not commercially productive, either, so the pool is limited to the south, also.

Q When we look at Exhibit Number One, Mr. Ingram made reference to the well that has brought about the request, Well 94 in Section 28, and he's also mentioned the Well 26 in the southwest quarter of Section 27.

Are there any other currently producing wells in the pool?

A No, sir, there are not.

MR. STOGNER: I'm sorry, Mr. Kellahin, what were those wells again, 9426 and what was the other one?

MR. KELLAHIN: 94 in Section 28 and 26 in Section 27 are the only two wells.

MR. STOGNER: Okay, thank you, Mr. Kellahin.

Q Now let me direct your attention to Exhibit Number Five and before we discuss the conclusions that you've reached from Examination of this information, Mr. Boelens, would you simply identify the information displayed on this exhibit?

A Exhibit Number Five is a map of the Warren Drinkard Pool, which shows cumulative oil, gas and GOR production for wells which have produced from the Warren Drinkard Pool.

Warren Unit 94 is indicated by the red arrow. The wells which are produced from the Warren Drinkard Pool are identified by an inverted T-shaped symbol next to those wells and within these T-shaped symbols are cumulative oil, gas and GOR values. And as you mentioned, the only one that is not plugged in the Warren Drinkard Pool other than Warren Unit 94, is No. 26 in Section 27.

Q What has happened to the other wells be-

sides Well 94 and 26 in the pool?

A The majority of these wells were abandoned in the Warren Drinkard Pool for uphole zones which were more profitable and had better economics involved than the Warren Drinkard Pool.

Q Turn to Exhibit Number Six now and again before we describe your conclusions and the -- and the reasons behind those conclusions, describe for us what we're looking at in Exhibit Number Six.

A Exhibit Number Six is a structure map drawn on top of the Drinkard formation in the Warren Drinkard Pool.

Warren Unit Well No. 94, which initiated the application for a GOR limit of 8000-to-1, is indicated by the red arrow.

It may be noted that the subject well is located structurally high in the reservoir; however, we will show that the high GOR that this well has IP'ed at is not a result of producing a gas cap in the reservoir.

Q When we look at each of the wells, then, in the reservoir, those are wells that are identified with the large, dark, black circles?

A That is correct.

Q Adjacent to each of the black circles is a number. What does that number represent?

A That number represents the cumulative GOR from the Warren Drinkard Pool for these wells.

Q For all the wells you have placed adjacent to the well. then, the number that represents the gas/oil ratio?

A I'm sorry?

Q All right. For each of the wells, adjacent to it, for example, if we look in the -- in Section 27 and we find Well 26 in the southwest quarter, and just to the west of the well location is the number 13,810.

A Yes, sir.

Q That number again is what, sir?

A That is the cumulative GOR through 1988 for that well.

Q Okay. What's the purpose of displaying that information and showing it on a structure map?

A The purpose for displaying this information is to -- so that we can realize that there is no relation between structural position and cumulative GOR's.

If a gas cap were present in the reservoir, we should -- we would expect to see higher cumulative GOR's higher on structure. We do not see this and that implies that there is no gas cap.

Q Can you give us an example of that -- that observation that you don't have a direct relationship

so that you have high gas/oil ratios higher on the structure and lower gas/oil ratios lower on the structure?

A Yes. If you look at Well No. 26 in Section 27 you'll notice it has a cumulative GOR of 13,810. Well No. 8 located in Section 28 is farther up structure and has a lower cumulative GOR of 6100.

Q When we look at Well 94, what type of data has been compiled on that well that you have subsequently utilized in your study?

A We have altered production rates for the purpose of determining producing GOR's at various gas production rates and we have collected reservoir fluid samples for PVT analysis.

Q What do the PVT analyses show you as an engineer?

A The PVT analysis shows that at reservoir conditions we have a solution gas/oil ratio of 760-to-1. Since the well IP'ed at over 14,000-to-1, it indicates that there is free gas present in the reservoir.

Q What does that tell you in terms of a method by which you can establish to produce your well in the reservoir?

What does the PVT data results tell you about what you need to do in terms of preserving reservoir energy by keeping the gas production at a low volume?

A Well, if free gas was not present or if a gas cap was present, we would have to limit production but we have no indications that a gas cap is present and the PVT analysis included with the production results we've shown indicate that we do not have an increasing GOR with the increased rate and that it's not a rate sensitive phenomenon.

Q Let's turn to Exhibit Number Seven and have you identify and describe that exhibit.

A Exhibit Number Seven is a copy of the well log across the Drinkard section of Warren Unit No. 94. The log section shows two main pay intervals from which we are producing. These main pay intervals are opposite the arrow shown in the depth track. Within each of these main pay sections several porosity stringers can be identified from the gamma ray, neutron and density curves.

In addition, the cross plot porosity of the neutron and density curves, which is more representative of the reservoir porosity, has been drawn and colored in red where the cross plot porosity exceeds 6 percent. This further illustrates the separation between the different stringers within the main pay intervals.

Q When we look at the display, do you have a gas/oil ratio or do you have production test information on the separate sets of perforations so that you can deter-

mine the gas/oil ratio for the upper sets of perforations and compare it to the gas/oil ratios for the lower set of perforations?

A Yes, sir, I do.

Q What is that information?

A For the upper zone we conducted a 3-day flow test and in the last 24 hours of that test we had a gas/oil ratio of 15,000-to-1.

Q That's for the upper zone?

A Yes, sir.

Q And how about the lower zone?

A In the lower zone we conducted a 5-day flow test and in the last 24 hours of that test we had a gas/oil ratio of 8300-to-1.

Q Have you made a study to determine whether or not it is suitable to come back in and plug off the upper perforations and thereby keep your gas/oil ratios lower and stay within the statewide gas/oil ratio limitation of 2000-to-1?

A Yes, sir, we've considered that, but if you'll notice from the log, there is no indication of gas, a gas cap or gas intervals. If we did have a gas cap or gas intervals, gas stringers, we would see crossover, or attempted crossover, of the density and neutron curves.

Log analysis shows that any sort of at-

tempted crossover in the main pay intervals is due to lithologic and matrix effects and not due to gas influence. Therefore we are not able to identify where -- which stringers are oil and which are gas, if indeed that exists, and we wouldn't know how to perforate in order to produce those separately.

Q Turn to Exhibit Number Eight for me, Mr. Boelens, and identify and describe that exhibit.

A Exhibit Number Eight is --

Q Perhaps we ought to look at that along with Exhibit Number Nine? Let's look at them together.

A Exhibits Numbers Eight and Nine are copies of well logs through the Drinkard formation from wells in offset Drinkard pools.

The logs shown are from the Skaggs B No. 8, which is in the Skaggs Drinkard Pool, and the Hawk A No. 9, which is in the Drinkard Pool.

Q These wells were selected to assure that modern logging suites would be available for comparison with logs from the Warren Unit Well No. 94.

In comparing these logs to Exhibit Six, it is obvious that the three pools have similar characteristics and it is inferred that they should behave comparably.

The Skaggs Drinkard and Drinkard Pools

have limiting GOR's of 10,000-to-1 and 6000-to-1, respectively, so that a limiting GOR of 8000-to-1 in the Warren Drinkard Pool is consistent with other Drinkard Pools in the area.

Q In your opinion has all the gas being produced from the No. 94 Well Drinkard solution gas?

A No, sir, it is not. The pressure volume temperature analysis we ran on the Drinkard oil and gas indicated that a solution GOR of approximately 760-to-1 exists at reservoir conditions.

Since the well was --

Q What's the number again?

A 760-to-1. Since the well IP'ed at a GOR over 14,000-to-1, some free gas is being produced from the reservoir.

Q All right, the -- the solution gas-oil ratio for the reservoir at reservoir conditions is 760-to-1?

A Yes, sir.

Q All right, and since the initial IP you have a producing gas/oil ratio of in excess of 14,000-to-1.

A Yes, sir.

Q That tells you as an engineer what?

A That there is free gas present in the reservoir.

Q Am I correct in understanding, then, we have a 2-phase reservoir system where we have some free gas and then we have gas in solution?

A Yes, sir, we have.

Q What is your opinion of the initial reservoir pressure?

A The original reservoir pressure is estimated at 2300 psi.

Q Where are you in relation to the bubble point pressure of the reservoir with your current production in this well?

A We are below the bubble point.

Q Have you made an examination to determine what is a reasonable rate at which to produce the well in terms of its gas/oil ratio?

A Yes, sir, I have.

Q And what is that opinion?

A The well, during the course of producing the well at various rates, we found that the lowest actual GOR occurred at producing rates in between 8-and-900 MCF per day and this actual producing GOR was approximately 10,000.

Q If the Examiner approved your request to establish an 8000-to-1 gas/oil ratio for the pool, do you have an opinion as to whether or not setting that as the

maximum rate on the gas/oil ratio will cause the premature expenditure of reservoir energy for the -- for the pool?

A Yes, sir. If we -- if we set the limiting GOR at 10,000 or at 8000-to-1, I do not believe that we will prematurely expend the reservoir energy. The reservoir is being depleted by a combination of solution -- solution gas drive and gas cap drive. Our production data shows that as we increase rate we decrease GOR's in the range of 8-to-900 MCF per day. Above or below that we experience higher GOR's.

If we were harming the reservoir by producing at too high a rate and causing gas to leave oil behind, I would expect to see an increasing GOR as we increase gas rate.

Q Do you see the opportunity, do you have the correlative rights of any other interest owner in the pool impaired by going to an 8000-to-1 gas/oil ratio?

A No, sir.

Q Have you attempted to produce the well at a 2000-to-1 gas/oil ratio?

A Yes, sir, we have.

Q And what happens>

A As we approached the 284 MCF per day gas limit the well started to log off and we had to increase our gas production rate in order to keep the well flowing.

Q Let's turn to Exhibit Number Ten. Would you identify and describe that exhibit for us?

A Exhibit Number Ten illustrates the current completion in the Warren Unit No. 94. This well is a Blinebry-Drinkard dual with the Blinebry zone above the Drinkard and the two zones separated by a packer.

Q All right, we currently have the Well 94 as a -- a dually completed Blinebry-Drinkard well?

A Yes, sir.

Q Is it going to be reasonable for you as an engineer to recommend to your company that you place a pump on the well and artificially lift the oil from the formation?

A No, sir, it is not.

Q Why not?

A If a means of artificial lift were installed in the well we would still need to maintain separation between the Blinebry and Drinkard because they're combined production is in excess of that allowed for the maximum for downhole commingling.

If -- so in order to pump this well, we would have to install a third tubing string as a vent string for the Drinkard formation or we would have to attempt to produce it underneath a packer. In either case with the well wanting to flow, it would be extremely diffi-

cult and inefficient to attempt to pump the well.

Q Can you come back now and isolate off the Blinebry zone and then pump the Drinkard zone and lift it artificially?

A That would be possible but it would not be prudent for Conoco to operate that way because of the economics.

The Drinkard is not productive enough on its own to justify a single; a single production; a single completion.

Q In your opinion will approval of Conoco's application prevent waste and protect the correlative rights of any interested owners?

A Yes, sir, it would.

Q In what particular way would it prevent waste?

A It would prevent waste in that if we had -- we cannot produce the well at a gas/oil -- a limiting GOR of 2000-to-1. If we must maintain that, we will likely abandon that zone and recomplete up the hole and dual the Blinebry with another zone uphole.

MR. KELLAHIN: That concludes my examination of Mr. Boelens.

We move the introduction of Exhibits Five through Ten.

MR. STOGNER: Exhibits Five through Ten will be admitted into evidence at this time.

CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Boelens, when I take a look at your Exhibit Number Six, now these figures for the cumulative GOR, is that from day one of each well?

A Yes, sir. They are, according to the state records of cumulative production, that is what it had produced at up through 1987, I believe, not 1988, as I said earlier.

Q Now, some of these wells are fairly old, aren't they?

A Yes, sir.

Q What is some of the oldest wells in here?

A I'm not completely sure of the oldest dates but I believe many of them were drilled in the fifties, mid-fifties.

Q Now our figures don't show casinghead gas prior to '59, am I correct?

A Correct, and that is the case with some of the wells. We don't have those values.

Q Okay, but if that -- if gas figures were

available, we would see figures -- or larger GOR's, on these smaller ones, would we not?

A Yes, sir.

Q Okay. Let me see if I can get this right on the reservoir. It's a combination solution gas drive and a gas cap, is that correct?

A Solution gas drive and free gas, yes, sir.

Q And free gas. There is no gas cap.

A Not that we can identify, no, sir.

Q And there is no gas stringers.

A Not that we can identify, no, sir.

Q When I have this type of a system or reservoir, whenever you talk about free gas, is this gas in solution or is it -- do we see it intermixed with the oil or do we see it above the oil in different sand stringers where the oil does exist? How exactly is this free gas in there?

Q Well, sir, what I tend to think is happening is that we have our reservoir rock coated with oil and we have free gas in the pore spaces and when we produce the free gas carries the oil along with it. That's why we don't see the increasing GOR with increased rates. It's strictly because we're pulling -- we're pulling -- we're producing at a higher velocity in the reservoir and

it's carrying more oil with it.

Q Is this type of reservoir also characteristic through the two existing pools, one to the north and one to the south? Is this the same mechanism?

A I believe that basically it's the same mechanism other than the Skaggs Drinkard Pool is said to have a gas cap.

Q Okay, and that's the one to the north or south?

A It is to the north.

Q Okay.

MR. STOGNER: I have no further questions of this witness.

Are there any other questions of Mr. Boelens?

MR. KELLAHIN: No, sir.

MR. STOGNER: Mr. Kellahin, I'm still somewhat confused of why the request for retroactive back to April. As I understand it, the Well No. 94 is not producing at this time?

MR. INGRAM: It is producing.

MR. STOGNER: It is producing. Now, is either one of the Wells 26 or 94, are they overproduced as far as their allowable at this point?

A Yes, sir, I believe they are. I remember

the No. 94 is, yes, sir.

MR. INGRAM: It would be under a 2000-to-1 limit, too, because if we were limited to a 2000-to-1 gas/oil ratio, our oil allowable would be extremely low in 94, so during the testing, and so forth, in arriving at the IP we had to produce more oil than what a 2000-to-1 gas/oil ratio would allow.

Q And when did these tests take place?

A We tested the well in between February 2nd, 1989, and March 10th, 1989.

Q And this well was completed in November, is that correct?

A Yes, sir, I believe so.

Q Now between November and February was it producing? Was it shut-in? What was the --

A It -- it was producing.

Q It was producing. Was the production curtailed because of the allowables between November and February?

A No, sir, it was not.

Q Was there some overproduction that occurred between those months, too?

A Yes, sir. There was a time which it was shut-in because of the Blinebry completion was going on and the zone was shut-in during that time.

Q When did the Blinebry completion take place?

A January.

Q And about how long are you talking about it shut-in?

A It should have been shut-in between December 16th and March 1st, approximately.

Q And then a few days in February for the testing.

A Yes, sir.

MR. STOGNER: I have no further questions of either witness at this time.

Is there anything further?

MR. KELLAHIN: No, sir.

MR. STOGNER: Case Number 9622 will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C. S. R. DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9622, heard by me on 15 March 1989.

Michael E. Stogner, Examiner
Oil Conservation Division

CASE 9627: Application of Yates Petroleum Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox gas well location 330 feet from the North and East lines (Unit A) of Section 25, Township 7 South, Range 29 East, San Andres formation, the NE/4 of said Section 25 to be dedicated to the well forming a standard 160-acre gas spacing and proration unit. Said location is approximately 7.5 miles east by south of Elkins, New Mexico.

CASE 9628: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter the plugged and abandoned Carper Drilling Company, Inc. Marathon-State Well No. 1 located at an unorthodox gas well location 660 feet from the North and East lines (Unit A) of Section 33, Township 17 South, Range 24 East, to test any and all formations and/or pools from the top of the Undesignated Collins Ranch-Wolfcamp Gas Pool to the base of the Morrow formation, the N/2 of said Section 33 to be dedicated to said well forming a standard 320-acre gas spacing and proration unit. Said well is located approximately 7.75 miles east by south of Hope, New Mexico.

CASE 9629: Application of Yates Petroleum Corporation for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Ordovician formation underlying the E/2 of Section 36, Township 10 South, Range 26 East, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools within said vertical extent developed on 320-acre spacing. Said unit is to be dedicated to a well to be drilled at a standard gas well location 1980 feet from the North and East lines (Unit G) of said Section 36. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said location is approximately 16 miles east of Roswell, New Mexico.

CASE 9630: Application of Yates Petroleum Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox gas well location 1650 feet from the North line and 2310 feet from the East line (Unit G) of Section 36, Township 10 South, Range 26 East, Ordovician formation, the E/2 of said Section 36 to be dedicated to the well forming a standard 320-acre gas spacing and proration unit. Said location is approximately 16 miles east of Roswell, New Mexico.

CASE 9631: Application of BHP Petroleum Company, Inc. for compulsory pooling and an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the top of the Wolfcamp to the base of the Montoya formation underlying the E/2 of Section 36, Township 10 South, Range 26 East, forming a standard 320-acre gas spacing and proration unit for all formations within said vertical extent, said unit is to be dedicated to a well to be drilled at an unorthodox gas well location 1650 feet from the North line and 2310 feet from the East line (Unit G) of said Section 36. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said location is approximately 16 miles east of Roswell, New Mexico.

CASE 9602: **(Continued from March 1, 1989, Examiner Hearing.)**

Application of BHP Petroleum, Inc. for special GOR, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the adoption of special pool rules for the East Avalon-Bone Spring Pool, establishing a limiting gas-oil ratio of 5,000 cubic feet of gas per barrel of oil. Said pool is located in portions of Townships 20 and 21 South, Ranges 27 and 28 East, which is approximately 9 miles northeast of Carlsbad, New Mexico.

CASE 9608: **(Continued from March 1, 1989, Examiner Hearing.)**

In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, abolishing, and extending certain pools in Chaves and Eddy Counties, New Mexico.

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Bone Spring production and designated as the Magruder-Bone Spring Gas Pool. The discovery well is the OXY USA Inc. State CP Com Well No. 1 located in Unit J of Section 9, Township 21 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 9: SE/4

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the West Millman-Wolfcamp Gas Pool. The discovery well is the Yates Petroleum Corp. State HU Com Well No. 1 located in Unit N of Section 7, Township 19 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 7: S/2

(c) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the West Wickiup Hill-Strawn Gas Pool. The discovery well is the Yates Petroleum Corp. Eland AFC Federal Com Well No. 1 located in Unit N of Section 12, Township 20 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM
Section 12: W/2

(d) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Diamond Mound-Morrow Gas Pool. The discovery well is the Mesa Operating Derrick Federal Com Well No. 1 located in Unit K of Section 5, Township 16 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMPM
Section 33: All
Section 34: All
Section 35: All
Section 36: All

TOWNSHIP 15 SOUTH, RANGE 28 EAST, NMPM
Section 30: S/2
Section 31: All
Section 32: All

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 1: All
Section 2: Lots 1, 2, 7, 8, 9, 10, 15 and 16
Section 9: S/2
Section 10: All
Section 11: All
Section 12: All
Section 15: N/2
Section 16: N/2

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM
Section 3: Lots 1 through 16
Section 4: Lots 1 through 16
Section 5: Lots 1 through 16
Section 6: All

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Diamound Mound-Atoka Gas Pool. The discovery well is the Northern Natural Gas Co. Vandagriff Federal Com Well No. 1 located in Unit K of Section 1, Township 16 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 1: All
Section 2: Lots 1, 2, 7, 8, 9, and 10
Section 9: S/2
Section 10: All
Section 11: All
Section 12: All
Section 16: N/2

(f) ABOLISH the Diamound Mound Atoka-Morrow Gas Pool in Eddy and Chaves Counties, New Mexico.

(g) EXTEND the Diablo-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 27 EAST, NMPM
Section 22: E/2 SW/4 and SE/4

(h) EXTEND the North Grayburg-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
Section 22: W/2

(i) EXTEND the Owen Mesa-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 29 EAST, NMPM
Section 35: NE/4
Section 36: N/2

(j) EXTEND the North Shugart-Bone Spring Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM
Section 5: SW/4