STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING)
CALLED BY THE OIL CONSERVATION)
DIVISION FOR THE PURPOSE OF)
CONSIDERING:) CASE NO. 10748

APPLICATION OF YATES ENERGY CORPORATION

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

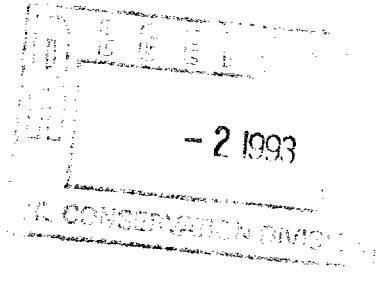
BEFORE: David R. Catanach, Hearing Examiner

June 17, 1993

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on June 17, 1993, at the Oil Conservation Division Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Deborah O'Bine, RPR, Certified Court Reporter No. 63, for the State of New Mexico.

ORIGINAL



I N D E X

June 17, 1993
Examiner Hearing
CASE NO. 10748

E X H I B I T S

YATES PETROLEUM CORPORATION'S EXHIBITS:

NEARBURG PRODUCING COMPANY'S EXHIBITS:

A P P E A R A N C E S

FOR THE DIVISION:	ROBERT G. STOVALL, ESQ. General Counsel Oil Conservation Commission State Land Office Building 310 Old Santa Fe Trail Santa Fe, New Mexico 87501
FOR THE APPLICANT:	CAMPBELL, CARR, BERGE & SHERIDAN, P.A. P.O. Box 2208 Santa Fe, New Mexico 87504 BY: WILLIAM F. CARR, ESQ.
FOR NEARBURG PRODUCING COMPANY:	MILLER, STRATVERT, TORGERSON & SCHLENKER, P.A. P.O. Box 1986 Santa Fe, New Mexico 87504-1986 BY: J. SCOTT HALL, ESQ.
FOR SANTA FE ENERGY OPERATING PARTNERS, L.P.:	HINKLE, COX, EATON, COFFIELD & HENSLEY P.O. Box 2068 Santa Fe, New Mexico 87504 BY: JAMES G. BRUCE, ESQ.
FOR MARATHON OIL COMPANY:	KELLAHIN AND KELLAHIN 117 N. Guadalupe Santa Fe, New Mexico BY: W. THOMAS KELLAHIN, ESQ.

EXAMINER CATANACH: Call the hearing back to order, and please call Case 10748.

MR. STOVALL: Application of Yates Energy Corporation for pool creation, classification of the new pool as an associated pool and for special pool rules, Eddy County, New Mexico.

EXAMINER CATANACH: Are there appearances in this case?

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge & Sheridan. I represent Yates Petroleum Corporation in this case, and I have two witnesses.

I would note that the application was originally filed in the name of Yates Petroleum Corporation. And although the legal ad is in the name of Yates Energy Corporation, I don't believe that's significant, but the applicant in the case is Yates Petroleum Corporation.

EXAMINER CATANACH: You filed the application under Yates Petroleum Corporation?

MR. CARR: Yes.

EXAMINER CATANACH: And it was --

MR. CARR: -- Yates Energy only in the ad, as far as I can tell. I don't think that's a

substantive change that should require readvertisement, but I would note that change.

EXAMINER CATANACH: I'm just curious as to how that might have occurred. I'm sure you probably wouldn't have any knowledge of that.

MR. CARR: None that I would disclose.

EXAMINER CATANACH: Additional appearances?

MR. HALL: Mr. Examiner, Scott Hall from the Miller, Stratvert, Torgerson & Schlenker law firm on behalf of Nearburg Producing. We have one witness this afternoon.

MR. BRUCE: Mr. Examiner, Jim Bruce from the Hinkle law firm in Santa Fe representing Santa Fe Energy Operating Partners, L.P. We have no witnesses.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the Santa Fe law firm of Kellahin and Kellahin appearing on behalf of Marathon Oil Company. I do not have a witness.

EXAMINER CATANACH: Will the witnesses please stand and be sworn in?

(Witnesses sworn.)

MR. CARR: At this time we'd call Mr. Brent May.

BRENT MAY,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. CARR:

Q. Will you state your name for the record, please.

A. Brent May.

Q. Where do you reside?

A. Artesia, New Mexico.

Q. By whom are you employed and in what capacity?

A. Yates Petroleum, and I'm a geologist.

Q. Have you previously testified before this Division?

A. Yes, I have.

Q. At the time of that testimony, were your credentials as a geologist accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the application filed on behalf of Yates Petroleum Corporation in this matter?

A. Yes, I am.

Q. And have you made a geological study of the area that is involved in this case?

A. Yes, I have.

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

EXAMINER CATANACH: They are.

Q. (BY MR. CARR) Would you briefly summarize what Yates seeks with this application?

A. We want to create a new pool in the Upper Penn formation in the west half of Section 17, of Township 22 South, 24 East. We request that this pool be classified as an associated oil and gas pool.

Q. Are you seeking special rules for this pool?

A. Yes, we are, and those include 320-acre spacing and proration units. Also, special well location requirements, providing for all wells to be located 660 feet from the outer boundary of a spacing or proration unit and 330 feet from a quarter section line. Also, a limit of no more than one well per quarter section, and a special depth bracket allowable for each well on a 320-acre spacing or proration unit of 1400 barrels of oil per day.

Q. Has Yates also recommended an administrative procedure be established for approval of unorthodox well locations and nonstandard proration units as they affect future development?

A. Yes, we do.

Q. Could you refer to initially what has been marked for identification Yates Petroleum Corporation Exhibit A?

A. Yes. This is a land map of the area around the Hickory ALV, Federal No. 1. The west half of Section 17 is outlined in a blue-green color. The leases colored in yellow are the Yates leases. The thick black line running basically northeast-southwest through this page, it shows the outline of the Indian Basin-Upper Penn Pool, and the smaller dark line on the southern edge of the page just shows the outline of a federal unit to the south.

Q. Who is the operator of Sections 7, 8, and 16?

A. I believe Santa Fe Energy. In Section 7, I think this is showing Bill Finn, but from what I understand, Santa Fe Energy has acquired that lease, and they can correct me if I'm wrong.

Q. Are there any wells within a mile of the proposed pool boundary that are completed in this particular interval?

A. There are no operating wells within a mile of this boundary except for the Bandana Federal Unit No. 1, which is operated by Yates Petroleum.

There are two existing wells in Sections 7 and 8, but those have been plugged.

Q. All right. Let's move now to Yates Exhibit No. 1. This is your cross-section A-A'. And I'd ask you first to identify this and then review it for the examiner.

A. This is a cross-section A-A'. It's basically a northwest-southeast structural cross-section with a datum of minus 4000 and showing the Upper Penn or what I call the Canyon interval. The Upper Penn or Canyon dolomite is colored in blue, and perforations are colored red.

I'd like to just start over on the left side with the first well, the Monsanto Low State No. 1 in Section 36 of Township 21 South, 23 East. This well was originally drilled from the Morrow. It's currently plugged but has in the past produced gas out of the Upper Penn formation, and that was within the Indian Basin-Upper Penn Pool.

It IP'd originally in the Upper Penn for 7.5 million cubic feet of gas a day. It was originally dual completed in the Canyon, in the Morrow. And the cumulative production as of the end of '92, I believe, was a little over 16 Bcf. And I would also like to note that the -- you might note

that the perforations are in the upper part of the dolomite here.

The next well to the right, the Red Fern Winston No. 1 in Section 31 of Township 21 South, 24 East, was again drilled to the Morrow and was also dually completed in the Canyon or Upper Penn and Morrow and again was perforated in the upper part of the dolomite.

It originally IP'd for a calculated open flow of 29 million cubic feet of gas a day, and cumulative from the Canyon or Upper Penn was approximately a little over 21 Bcf. Again, this well is currently plugged.

The next well to the right, the Trigg Federal IB No. 1-6 in Section 6 of 22 South, 24 East, was again drilled to the Morrow, but according to all the information I have, it was only perforated in the Canyon or Upper Penn. Again, the perforations are in the upper part of the dolomite. This well originally IP'd for a calculated open flow of a little over 151 million cubic feet of gas a day and 39 barrels of condensate. Cumulative production out of the Canyon or Upper Penn was a little over 28 Bcf. And, again, this well is currently plugged.

The next well to the right is the Trigg

Federal IB No. 2 in Section 7, of Township 22 South, 24 East. This well was just originally drilled into the Canyon or Upper Penn. Again, the perforations are in the upper part of the dolomite, and it originally IP'd for 11 million cubic feet of gas a day and cum'd a little over 14 Bcf.

The last well on the very far right is the Yates Hickory ALV Federal No. 1 in Section 17 of 22 South, 24 East. This was originally Pan-American Hollow Well Federal No. 1. Yates reentered the well originally to the Morrow, made a Morrow completion. Within just a few months, the Morrow started producing water. So we came up and recompleted to the Canyon in the perforations shown. And the completion is currently in progress.

This well is currently making oil, water, and gas. Taking a general overlook of this cross-section, you'll notice that to the northwest or to the left side of the cross-section, the dolomite is thickening, and back to the southeast or to the right of the cross-section where the Hickory is located, the dolomite is starting to pinch out.

The wells shown on the cross-section except for the Hickory have produced gas from the Indian Basin-Upper Penn Pool. The Hickory, again, is

perforated within this same dolomite body and is producing oil, water, and gas at this time.

Q. Mr. May, the index map on this exhibit also shows the boundary of the Indian Basin Pool, does it not?

A. Yes. The yellow line shows the boundary of the Indian Basin-Upper Penn Pool, and then the blue line shows the west half of Section 17 which we are talking about here today.

Q. As you've indicated, all the wells on the cross-section except for the well in 17 are completed in the Indian Basin?

A. Were completed in the past and did produce out of the Indian Basin.

Q. The perforated intervals are shown, and the Hickory well is at a substantially lower datum than those wells?

A. Yes. These are several hundred feet in structure lower than these perforations in the gas wells back to the northwest and northwest. It's typically been known that in Indian Basin, there is an east to northeast tilted gas-water contact, and until the completion of the Hickory, oil production from this dolomite body in this area was unknown.

Q. That well is actually producing oil?

A. Yes, it is.

Q. How do the gravities of this oil compare to the gravities of the condensate produced or that had been produced from Indian Basin?

A. The gravity in the oil from the Hickory is approximately 42, while the gravity of condensate produced out of Indian Basin is anywhere from 58 to 60.

Q. So you're actually producing a black oil in the Hickory well?

A. Yes, a true oil. And I might point out that 42-degree gravity is very similar to the oil produced out of Dagger Draw.

Q. How far are we from the Dagger Draw?

A. We're approximately, say, 8 to 10 miles south of South Dagger Draw Pool.

Q. Is there anything else you'd like to present using your cross-section?

A. No, I believe that's all.

Q. Let's move to Yates Exhibit No. 2. Would you identify that and review it for Mr. Catanach?

A. This is a structure map with the top of the Upper Penn or Canyon dolomite as a datum. It's showing a general structural dip to the southeast.

I might note the thick black line at the

base of the map represents the extent of the dolomite. South of that line there is no dolomite; it's all lime.

The wells back to the north, northwest, and west of the Hickory have produced gas from the Indian Basin-Upper Penn Pool and are structurally higher. The Hickory is producing oil structurally lower than these gas wells, and more oil should be found in a similar structural position within this dolomite. And I might add that this is a similar structural position that oil is found in the South Dagger Draw Pool.

Q. Let's go now to Exhibit No. 3, your isolith map, and review that for Mr. Catanach.

A. This isolith map represents the Upper Penn or Canyon dolomite. It shows its limits. You might note that some of the values have plusses beside them. That's to indicate when those wells were drilled, the dolomite had not been fully penetrated. Thus the true thickness is unknown. The map shows thicks to the northeast and northwest with the Hickory being located near the edge of the dolomite body.

Q. Let's now to go Exhibit No. 4. Would you identify this exhibit and then review it?

A. This is just a dolomite map which I'll loosely call a cartoon of the regional extent of the

Canyon or Upper Penn dolomite. And that is shown in the dark black lines within any colored areas, showing the extent of the Canyon or Upper Penn dolomite.

You might note the heavy purple lines indicate the approximate boundaries of the Indian Basin, South Dagger Draw, and North Dagger Draw-Upper Penn Pools. The yellow color shows the area of gas production. The green represents oil production up in South and North Dagger Draw. And the green down around the Hickory area represents an area of projected oil production. The blue represents area of water production.

The purpose of this map is to show the relationship between the Indian Basin area and Hickory area and Dagger Draw area and explain why Yates is asking for pool rules similar to South Dagger Draw.

The Upper Penn or Canyon dolomite is continuous from North Dagger Draw down to the Hickory area. Again, similar to Indian Basin, North and South Dagger Draws have tilted gas-oil and oil-water contacts that tilt down generally to the east. And these help separate out these different areas of gas production, oil production, and water production.

Until the Hickory was completed, it had originally been thought that Indian Basin area only

produced gas and/or water. Yates feels that the area east of Indian Basin-Upper Penn Pool, which is what we call the Hickory area, is very similar to the Dagger Draw Pools.

You might note up in sections, approximately in the area of Sections 5, 6, 7 and 8 of Township 21, 24 South, there is an absence of dolomite between these two green oil legs between South Dagger Draw and this Hickory area. I believe if the dolomite had been present there, this oil leg would be continuous from South and North Dagger Draw all the way down to the Hickory area.

Q. Mr. May, what conclusions have you been able to reach based on your geological study of this area?

A. First, the dolomite all the way from North Dagger Draw all the way down to the Hickory area is continuous. The Hickory is downdip of the Indian Basin gas production, which is similar to Dagger Draw, which has oil production downdip of gas.

The oil gravities are very similar to the Dagger Draw pools. The Hickory produces oil at a similar structural position as oil production in the Dagger Draw. This sequence of gas updip, then going downdip into oil, then water is very similar to Dagger

Draw. And if the dolomite was present in this one area I pointed out, it should be one continuous oil leg.

Q. Is Exhibit No. 5 an affidavit showing that notice of this application was provided to Santa Fe Energy Operating Partners, L.P.?

A. I believe it was.

Q. I believe earlier you indicated that there were no wells within a mile of the pool boundary in this formation?

A. That's true. We notified Santa Fe just out of courtesy because we knew they would be operating wells in the area in the near future.

Q. And those were the three sections that were shown on Yates Exhibit A?

A. Yes, 7, 8, and 16.

Q. Will Yates call an engineering witness to review the requested special pool rules?

A. Yes, we will.

Q. Were Exhibits A and Exhibits 1 through 5 prepared by you or compiled at your direction?

A. Yes, they were.

MR. CARR: At this time, Mr. Catanach, we would offer into evidence Yates Exhibits A and 1 through 5.

EXAMINER CATANACH: Exhibits A and 1 through 5 will be admitted as evidence.

MR. CARR: That concludes my direct examination of Mr. May.

EXAMINER CATANACH: Mr. Hall?

EXAMINATION

BY MR. HALL:

Q. Mr. May, on your cartoon, Exhibit 4 --

A. Yes.

Q. In 24 East in the South Dagger Draw, I assume a lot of that is Yates production in 11, 14, 23, on down to 26?

A. Yes, a big chunk of it is.

Q. Just a minute ago, you mentioned that the Hickory ALV was completed. Exhibit 1 shows that it's not yet completed. So which is it?

A. Let's see, Exhibit 1 -- okay. The completion -- I should clarify that completion is still in process. We have not officially through the sundry notices completed the well.

Q. No production results on that?

A. That's right. But we are in the process of evaluating it right now.

Q. You're confident it's an oil well?

A. Yes, we are.

Q. Just as the South Dagger Draw are oil wells?

A. Yes, we are.

Q. Geologically, you're showing by all of these exhibits that the reservoir dips downward as you get away from the Indian Basin gas field; is that correct?

A. Yes, that's true. Over on the east side of the Indian Basin area, it is dropping in structure.

Q. So the new area established by the Hickory ALV is essentially an oil leg off the gas field, as is the South Dagger Draw, North Dagger Draw?

A. Yes. It's very similar to South Dagger Draw.

Q. In fact, they're geologically identical?

A. Yes, in my opinion, yes.

Q. Are you familiar with any of the IP results on any of the infill wells in the South Dagger Draw?

A. I couldn't give you specifics. I don't have any specifics with me, but I do know that the Hickory is similar to some of the -- from what we're seeing on the Hickory so far, it's similar to some of the IP's in South Dagger Draw.

Q. In the South Dagger Draw, some of the IP's on the infill wells, did they differ much at all from

the original wells?

A. I'm not sure if I could answer that because I'm not really sure.

Q. Insofar as your area of expertise, is there any reason geologically to limit development in the Hickory ALV area to one well per 160?

A. Dr. Boneau, which is our engineer, would be better qualified to answer that question, I believe.

Q. So there's no geologic reason, anyway, to limit development that way?

A. It's mostly based on reservoir engineering.

MR. HALL: Okay. Nothing further.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. May, what tests have been conducted on the well?

A. We are currently -- we have acidized, and we're currently pump testing. We put it on pump this last weekend. And as of June 14, which is Tuesday, it produced 408 barrels of oil, 1,197 barrels of water, 511,000 cubic feet of gas.

Q. I'm sorry, the gas number again?

A. 511.

Q. How long a test is that?

A. It was put on pump this weekend; so just a

few days so far.

Q. Do you know what the bottom hole pressure of the zone is?

A. I believe when we first perforated this formation, the engineer shut it in for a pressure test, and it was approximately -- Mr. Boneau can probably give you an exact number, but it was approximately around 2,000 pounds.

Q. I'm sorry?

A. 2,000.

Q. In the area between the South Dagger Draw and the area which you propose as potentially oil productive, have there been wells drilled in that area?

A. Within this green area?

Q. Between the two green areas.

A. Oh, where there's lack of dolomite?

Q. Correct.

A. There are some Morrow wells in that area, and in those wells the Canyon or Upper Penn is all limestone. And further back to the west a little bit, I believe there's one dry hole in Section 13 of 21-23. That did encounter some dolomite, but I believe it was very thin and nonproductive, and too, they were looking for gas there.

Q. Do you have enough data to conclude that this new area is not connected with the South Dagger Draw?

A. It could potentially be connected. Right now we have not a whole lot of data, and it could be connected up, possibly, yes.

Q. How did you define the potentially oil productive area on this map?

A. Originally how we decided to try the Canyon and the Hickory, there had been an old DST that had an oil show, and up in this, quote, "oil leg" or the green area around the Hickory area, there had been several other wells that had old DST's with oil shows. When we did start producing oil, I started looking at the structural position of it, and this leg around the Hickory is based off the structure in general, which is similar to the oil production in South Dagger Draw.

And I will admit, I have very little data. It could easily change when some wells are drilled. But that's my -- that was the best data I had to this point to define the boundaries of this oil leg.

Q. Are you confident with respect to the dolomite boundaries that you have mapped on this?

A. Fairly confident, but from what we've found

in Dagger Draw, they can sometimes be hard to predict.

EXAMINER CATANACH: I have nothing further of the witness. Oh, I'm sorry, Mr. Bruce?

EXAMINATION

BY MR. BRUCE:

Q. Just a couple questions. Looking at your Exhibit 4, Mr. May, what do you think based on geology the eventual extent of the pool will be if this is granted, if this application is granted?

A. We're just asking for the west half currently of Section 17.

Q. But based on geology, do you think it would include all that area that you have marked in green?

A. That's a possibility, yes.

Q. Anything beyond that?

A. Possibly. Like I said, this is my best guess at this point.

Q. Looking just at the area in green, does Yates have any plans, say, within the next year to drill or recomplete any additional wells?

A. Oh, yes.

Q. Do you have any rough number?

A. Well, we have -- within calendar date '93, we're currently working on one completion, one reentry and completion, and another reentry that we deepened,

and we're currently working on that. So that's two other current completions we're working on.

Just a rough guess besides those, we might drill an additional two or three wells possibly. Could be more.

MR. BRUCE: Thanks. Nothing further, Mr. Examiner.

EXAMINER CATANACH: Anything, Mr. Kellahin?

EXAMINATION

BY MR. KELLAHIN:

Q. Point of clarification. Mr. May, help me in the area that's green hatched that looks like the oil productive --

A. Yes.

Q. -- area for the same, the well symbols in here, there's some gas well symbols. Are those gas wells in the Upper Pennsylvanian?

A. To my knowledge, most of them should be Morrow. To my knowledge, all the gas wells are within -- that are in the Canyon or Upper Penn are within the Indian Basin-Upper Penn Pool. And the gas wells outside of that purple line showing that should be Morrow wells.

Q. So we don't have gas wells in the Cisco

downstructure to this oil well?

A. No.

MR. KELLAHIN: Okay. Thanks.

EXAMINER CATANACH: Anything further? The witness may be excused.

MR. CARR: At this time we call Dr. Boneau.

DAVID F. BONEAU,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. CARR:

Q. Would you state your name for the record, please.

A. David Francis Boneau.

Q. Where do you reside?

A. Artesia, New Mexico.

Q. By whom are you employed and in what capacity?

A. I work for Yates Petroleum Corporation as a reservoir engineering supervisor.

Q. And you have previously testified before this Division and had your credentials as a reservoir engineer accepted and made a matter of record?

A. Yes, sir.

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

A. Yes, sir.

Q. Have you made a study of the subject area?

A. Yes.

MR. CARR: Are the witness's qualifications acceptable.

EXAMINER CATANACH: Yes.

Q. (BY MR. CARR) Dr. Boneau, would you refer to what has been marked as Yates Exhibit No. 6, identify this exhibit, and then using it, review the history of the tip of the Hickory well for Mr. Catanach.

A. Exhibit No. 6 is a brief chronological for the Hickory well. I tried to emphasize what seemed to be the important things. As you've heard, the well was originally drilled in 1965 and plugged in 1965, and it went to 10,295 feet.

Our geologist figured out that this might be a place to find oil, and Yates reentered the well in October of '92, and I've listed various entries there, the important things. We took it to approximately the same depth it had been originally. In October, we perforated the Morrow and completed the Morrow for 3.8 million a day on December 1st, and we

produced the Morrow in January and February, produced a total of 88 million from the Morrow, approximately 2 million a day.

We really were interested in studying the Canyon. Anyway, in February we went -- temporarily abandoned the Morrow and went to the Canyon, and we first perforated on February 20th a zone in the Canyon at 8839 to 8154, but a zone at the top of the Canyon at the top of the dolomite. And it flowed oil but no treatment. And in that time frame we measured a pressure, estimates that it was 2,000 pounds. It was actually about 1,920 pounds.

And we produced the well on a testing basis in April for about ten days, and it flowed from 300 down to about 100 barrels a day out of this single zone in on top of the Canyon.

Then in May we opened some other Canyon zones, and the exact perforations are all listed there, but we opened some lower part of the Canyon, acidized the individual zones, and then on May 28, acidized all the zones together with 35,000 gallons of acid, a big acid job, installed a sub pump, and we've been pumping the well for, I don't know, since last Friday, something like that.

And the same numbers are listed there that

Mr. May showed. Those are the production numbers for last Tuesday, one day. In one day it made what it says there, 408 barrels of oil, 1197 barrels of water, 511 Mcf a day. That's indicative of the productive capacity of the well. The next day it made -- I don't know, my memory is 437 barrels. But, anyway, that's indicative of the production capacity of the well.

So we have a well that makes black oil, and it's within a mile of the Indian Basin-Upper Penn gas pool, which is a prorated gas pool with 640-acre spacing. Those rules are clearly not applicable to this new area. We're here seeking some rules that make sense for an oil well in the Upper Penn in this area.

Q. Let's go to Yates Exhibit No. 7. Using that exhibit, would you review for Mr. Catanach the rules that Yates is seeking for this new pool?

A. Okay. Mr. May, I think, ticked off those rules, but this Exhibit 7 shows the individual items that comprise the special part of the rules, and it shows what the current rules are now in South Dagger Draw, Upper Penn associated, and it shows what we're proposing for Indian Basin, and what we're proposing is taken from the situation in South Dagger Draw.

So the size of the spacing units are 320

acres for oil wells and gas wells, and that's what it is in South Dagger Draw, and that's what we propose for what I'm calling Indian Basin-Upper Penn associated.

The well location requirements are the same both places. It must be at least 660 feet from the outer boundary and 330 feet from the quarter-quarter boundary and inner boundary. We're proposing those same rules for Indian Basin-Upper Penn associated.

The GOR of South Dagger Draw is set at 10,000. 10,000 is not appropriate here for the reason that I would say -- this is my logic as to why it's not appropriate -- and what we're asking for is simply no rule, which would leave it at 2,000, which is the standard. My logic is that Indian Basin-Upper Penn gas pool is a prorated gas pool, and the allowable within the last few years has been about 5-1/2 million a day per well, which is for 640 acres. Half of that for 320 acres would be about 2.8 million a day. And if you take 1400 barrels of oil a day with a 2,000 GOR, you get 2.8 million a day.

So for this Indian Basin-Upper Penn associated, if we have the standard GOR, we get a gas allowable that in my way of thinking is in tune with the allowables in the Indian Basin-Upper Penn gas

pool. And so I saw no logical reason to ask for anything more than the standard 2,000. That's the reason behind that number being different than the 10,000 at South Dagger Draw. The oil allowable we're seeking is the same as the 1400 barrels of oil per day in South Dagger Draw.

And the other change is regards the last item, which is wells per spacing unit. In South Dagger Draw, the number of wells you're allowed to drill, I wrote "unlimited." That's probably a little bit of an exaggeration, but there is no limit in the rules. You drill as many wells as you can, as long as you stay within the allowable.

What we're proposing here at Indian Basin-Upper Penn is one well per quarter section, two wells on the 320-acre spacing unit but restricting those two wells to be in different quarter sections.

I know I need to explain why we're asking for that, and I will attempt to do that. In Dagger Draw -- and I guess the Dagger Draw development was really driven by the rules for North Dagger Draw, and South Dagger Draw kind of tagged along; so it makes more sense to me to talk about North Dagger Draw.

But in North Dagger Draw, the original spacing in 1973 was 320 acres. And in 1976 that was

changed to 160 acres with about a 300 barrel a day allowable. So there was basically one well per 160 acres in North Dagger Draw during the early development.

In 1991, I believe it was in February of 1991, Conoco and Yates came here to talk about increasing the allowable at Dagger Draw so that more wells could be drilled. And essentially the idea was to downspace it, but the methodology for doing that was to increase the allowable so that more wells could be drilled on 160 acres.

At that time Conoco presented lots of good data to show that a well did not drain 160 acres in North Dagger Draw, but against them I argued that we should not downspace all the way to 40 acres. It would be logical to downspace to 80 acres. Essentially, the data shows that the wells drained about 80 acres. Well, that was another one that Yates lost. Anyway, it was downspaced essentially to 40 acre.

MR. STOVALL: One of the few, Dr. Boneau; is that correct?

THE WITNESS: One of the few, yes. Anyway, it was downspaced, the allowable was raised, and there were no limits on how many wells could drill, and de

facto, 40-acre development quickly ensued. And Yates did a heck of a lot of the 40-acre development.

We are drilling wells on 40 acres in Dagger Draw and South Dagger Draw, and we are encountering bottom hole pressures of 800 pounds, 900 pounds, 1,000 pounds compared to the original bottom hole pressure of 3,000 pounds. In my mind, in my opinion, 40 acres is too close on Dagger Draw. That's all done, but I don't want to do the same thing here.

And I think that the analogies with Dagger Draw drilling on 40 acres, it's going to be too close in this new area, and I just think that we ought to go at it a step at a time. And the first step, what I am proposing is essentially effective 160-acre spacing. And I think that's a logical place to start and develop, explore and find out whether the field really exists and get some real data, and maybe we can downspace it to 80's or 40's or 20's or whatever later, but let's start at a sensible place and go about it in a step-by-step, logical manner.

Q. (BY MR. CARR) Dr. Boneau, the rules that result from this hearing can be temporary rules; is that correct?

A. I would expect that would be what the Commission would want to do.

Q. What period of time do you think would be appropriate for temporary rules?

A. I think two years would be an appropriate time. That would give time to develop the field.

Q. In that period of time, would you anticipate sufficient data to be obtained so that an appropriate spacing pattern, if it's other than 160 acres, could be adopted?

A. Yes, sir.

Q. You're also seeking in this case the designation of this pool as an associated pool?

A. Yes, that's correct.

Q. What we have here is basically an oil zone with a gas cap over it; is that correct?

A. That's correct. We cannot ignore that Indian Basin gas pool. That's the biggest gas field around.

Q. So it qualifies as an associated reservoir like Dagger Draw?

A. Yes, sir.

Q. You've also requested administrative procedures whereby unorthodox well locations and nonstandard proration units can be approved administratively. Do those need to be included in special rules for this pool?

A. I'm not sure I understood your question.

Q. Are you asking for anything other than the administrative procedures that currently exist in the general rules for associated pools? And I'm talking about Rule, I think, it's 2.C. --

A. Yes, 2.C. and 4.A. are the things we're talking about, and the same wording that's in the general rules would serve us fine now.

Q. If this pool is classified an associated pool and governed by those rules, then it wouldn't be necessary to duplicate those provisions in a special pool rule?

A. I understand that that's the way it would work fine, yes, sir.

Q. In the area we're talking about around the Hickory, how generally could you characterize the topography?

A. It's pretty hilly, pretty rough topography.

Q. Based on the topography as you understand it, is it reasonable to expect that 40-acre development could go forward?

A. 40-acre development, it would be tough, and what I'd kind of be worried about is that 160-acre development could be tough for some people, and I'd hate to see somebody with good topography get in there

with four A wells real quick when his neighbor had problems getting even one well drilled.

Q. In your opinion, would starting with 160-acre spacing most likely result in imprudent development of this reservoir over the long haul?

A. That's clearly my opinion, yes, sir.

Q. Would, in your opinion, approval of the application and promulgation of special pool rules for this pool, including a limitation of in essence one well per 160 acres, be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, I believe that's very true.

Q. Were Exhibits 6 and 7 prepared by you?

A. Yes, sir.

MR. CARR: At this time, Mr. Catanach, I'd move the admission of Yates Exhibits 6 and 7.

EXAMINER CATANACH: Exhibits 6 and 7 will be admitted as evidence.

MR. CARR: That concludes my direct examination of Dr. Boneau.

EXAMINER CATANACH: Mr. Hall?

EXAMINATION

BY MR. HALL:

Q. Dr. Boneau, through Mr. May's testimony,

we've established that the geology in the South Dagger Draw, North Dagger Draw are similar to the geology around the Hickory ALV. Do you agree?

A. Yes, I think that's the correct assumption given what we know about the situation now.

Q. When the North Dagger Draw was developed, it was initially on 320's. Because it was virgin development, we just didn't have any information to go on at the time; is that right?

A. That's my understanding. That was before, probably both of us, our times.

Q. But we don't have that situation now to the south, do we? We know that it's similar geology. You have tremendous familiarity with the engineering production characteristics of the reservoir, do you not?

A. If your assumption is that it's exactly like Dagger Draw, then we have lots of familiarity with Dagger Draw. To generalize anything from one well in this new area, it seems rash. So I'm trying to differentiate your question in my head so I understand what you're saying.

Q. Let me ask you, how many acres do you think the Hickory ALV No. 1 will drain?

A. One hundred.

Q. Why do you say 100? Distinguish for me between the Hickory acreage and the South and North Dagger Draw acreage.

A. Well, my study, what I know about the South and North Dagger Draw acreage is that the wells drain -- and they don't all drain the same, but they drain 50, 60, to 100, 120 acres. They do. And you put -- by drilling on 40's, you put two straws into a well's drainage area, and you get the oil out faster, but the fact that you drill an extra well, at least in my mind, doesn't change what the original well potentially could have drained.

So the numbers I'm talking about are what a well would drain if you drill the well and let it produce. And the data from North and South Dagger Draw is that number is 100 acres, 80 acres. I'm not going to quibble about it, but it's 80 to 100 acres. And what little I know about this new area, I expect the drainage to be similar. And so I answered your question with 100 acres.

Q. I don't know if you recall your testimony in the previous Dagger Draw cases. I'll tell you. I'll ask you to accept your testimony.

A. You tell me.

Q. You testified earlier that you thought the

Dagger Draw wells in the Cisco Penn would drain between 60 and 80 acres based largely on the information Yates had and including the information Conoco presented at the same time.

A. Okay. I'm asking you to say that 60 to 80 and 80 to 100 are the same answer.

Q. Well, but the problem with that is, also in that same case you testified that you thought it was closer to 60 acres than 80 acres.

MR. CARR: I'm going to object to this. If there was prior testimony that Mr. Hall would like to show Dr. Boneau, we'd be glad to look at it, but just to sit here and characterize this testimony for him I think is inappropriate cross-examination without at least letting him take a look at it.

EXAMINER CATANACH: Can you produce that, Mr. Hall?

MR. HALL: Let's see.

Q. I may have paraphrased somewhat, but if you look at your testimony here concerning the Barbara Federal area, you'll let me know if I mischaracterized anything.

A. Yeah. I read this, and I say that I said the drainage area is 80 acres, and the man from Conoco said 60. And I said that my estimate of 80 and his

estimate of 60 could be consistent in that those numbers are -- they're generalizations and hard to pin down. I read this to say that I said 80. Okay?

Q. So we disagree.

A. Yeah.

Q. Between 60 and 80; is that fair?

A. Between 60 and 80, all right.

Q. Okay.

A. My point is, I think the drainage area is more than 40, and I think that we should not have rules that allow development on 40 acres at this time.

Q. If we are to assume on the basis of known information that the production characteristics of the acreage around the Hickory are going to be similar or identical to the South, North Dagger Draws, there is really no reason to allow for a more dense drilling in the area from the perspective of protection of correlative rights and prevention of waste? I mean, you will ultimately recover the same amount of oil, will you not?

A. I didn't understand your question.

Q. Does density have any effect on the ultimate recovery of reserves, whether you drill on 160's, 320's, or 40's?

A. Yes and no is the answer to your question.

If you drill on 640's, and the wells drain 80, you're only going to produce 80 acres out of every 640 -- if you drill on 160's.

If you drill on 80's, then you're going to produce all the oil. If you drill on 40's, you're going to produce all the oil, and you're just simply going to have two wells producing each little batch of oil. That's my effort in answering your question.

Q. All right, I understand. So if drilling is limited to 160's, you will not recover all the oil?

A. If the drainage area of the wells truly is 60 or 80 or 100 or whatever number we could agree on, and you drill on 160's, you will not drain all the oil.

Q. Will infill drilling affect the economics of development? Let me ask you, were all the infill wells up in the South and North Dagger Draws economic?

A. Well, no, not all the wells in North and South Dagger Draw are economic. Most of them are economic. And most of the, what I'm characterizing as unnecessary wells are economic.

Q. Were you familiar with the IP's from the infill wells in South Dagger Draw?

A. Pretty much, yeah.

Q. And the initial IP's on the original wells?

A. Original wells, you mean 1965 or --

Q. Well, the wells drilled prior to the infill development in the South Dagger Draw?

A. I'm pretty familiar with the IP's on all the wells Yates has drilled in Dagger Draw.

Q. Was there much difference between the IP's on the original wells and the infill wells?

A. I think the right way to answer that, there was what you have characterized as not much difference between the IP's of the infill wells and the original wells. What was different was that the declines of the original wells increased; so they fell as you put a competition in it, and the declines of the infill wells also became steeper than the original wells had been.

Q. But it did show, did it not, that wells drilled on 160's in the South and North Dagger Draws were not efficiently and effectively draining the acreage?

A. Like I said, I think the drainage area of the wells in North Dagger Draw is 80 to 100 acres, 80 acres -- if you want to settle on 80 acres, say 80 acres, but it's less than 160; it's more than 40.

And further I'm saying, if we're going to start this new pool, and if we're going to err, let's

err on starting at 160's, and go down and get data, rather than starting with 40's and deciding we drilled too many wells.

Q. Dr. Boneau, Yates is currently working on or completed a well in Section 3 in 24 East, is it not?

A. If you'll tell me the name of the well, I'll have a better chance of knowing what you're talking about.

Q. I'm sorry, I don't know.

A. Walt Canyon?

Q. Walt Canyon? Do we have any results from that well yet?

A. The Walt Canyon is perforated pretty much throughout the dolomite, and it's producing on test approximately 100 oil and 2,000 water, 1,500 water, and we're thinking about trying to shut off some of the lower water.

Q. You're closer to the water contact down there, it would appear?

A. Well, we're making more water, yes.

Q. Otherwise it appears to be similar production to the Hickory ALV?

A. There's oil there. There's more water than there is oil. Those are similarities, yes.

MR. HALL: That's all I have.

EXAMINER CATANACH: Mr. Bruce?

EXAMINATION

BY MR. BRUCE:

Q. Dr. Boneau, you said the Morrow is temporarily abandoned as well?

A. That's how I would characterize it, yes, sir.

Q. When you abandoned it, what was it producing, do you recall, from the Morrow?

A. Yes, I understand. My memory is it was still producing 1,500 a day, and it was making a little water, and I don't remember whether a little was 5 or 15 barrels, but some numbers in there. I calculated reserves on it as 225 million -- some number, approximately half the reserves or something like that through the years have been produced.

Q. In the North Dagger Draw and the South Dagger Draw, is that still essentially being developed on 40-acre infill drilling?

A. Yes. And I don't know what a no answer would mean.

MR. BRUCE: That's all I have, Mr. Examiner.

EXAMINER CATANACH: Mr. Kellahin?

MR. KELLAHIN: No questions.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Boneau, what is the advantage starting at 320 as opposed to starting at 160?

A. What is the advantage. I can think of at least two. One obvious one is that starting at 320, you drill one well, and you hold 320 acres.

Another one that makes a little more sense to me is that -- this is an associated gas pool, and somebody is going to drill a gas well or what you would call mostly a gas well, and he's going to be able to produce 2.8 million out of that gas well on 320. And if you downspaced it, you would hurt his gas well very badly. To me that's the reason that makes the most sense.

Q. Which leads me to my next question. Isn't the Indian Basin-Upper Penn gas pool the gas portion of this new reservoir?

A. It is the gas cap that makes this associated, yes.

Q. Correct. If somebody drilled a gas well, wouldn't that necessarily be classified in the Indian Basin-Upper Penn gas pool?

A. Not if you let there be associated -- not

if you let this be an associated pool with either gas or oil wells in the associated pool. In an associated pool, you can have either gas wells or oil wells.

You know the rules way better than I know the rules.

MR. STOVALL: Yeah, why did you ask that question, Mr. Examiner?

Q. (EXAMINER CATANACH) What I'm saying is --

A. I don't believe that's true, and it seems to me you could get in trouble with that logic. There are going to be sections that have maybe gas on part of it and oil on part of it, and if you're going to put the whole thing in Indian Basin gas and you're not going to let the oil be produced, to me going the associated pool is the way to solve all those problems.

MR. STOVALL: What you're saying, Dr. Boneau, is if it is in a pool and it is an associated pool in which there can be a gas well, then you don't get the extension problems because you've already defined the limit of the extension?

THE WITNESS: Exactly, yes.

EXAMINER CATANACH: I don't have anything else.

MR. STOVALL: I do.

EXAMINATION

BY MR. STOVALL:

Q. There's been a lot of analogies to South Dagger Draw and North Dagger Draw and its pools. Am I correct in understanding that you are basing your recommendation upon the experience in the Dagger Draw pools and recommending that the spacing start out -- spacing as opposed to proration units -- start out wide, relatively speaking -- let me ask a preliminary question.

Is it your opinion still that 40-acre spacing in the Dagger Draw pools is too close?

A. Yes, that's correct.

Q. Too many wells in the pool; is that correct?

A. And I'm saying that we've drilled 100 wells, and we've proved that that was correct.

Q. But you're not recovering any more oil but you've drilled some unnecessary wells?

A. Essentially, that's true, yes.

Q. And then am I correct in inferring then that your rationale here is if you start out on less dense spacing, you always have the option to increase if necessary, but if you start out on higher density, you can't decrease space the number of wells?

A. You can go one way, but you can't go the other.

Q. And, therefore, what you're recommending is start out on essentially 160 spacing; if you need to infill, you can do it?

A. Yes.

Q. At a later time, come back in and change it?

A. Dagger Draw started out at 320. Now I'm saying, we've gained enough experience and enough confidence, we don't need to start at 320, but let's start out at 160, and we could go down from there, if necessary, or 160 could turn out to be exactly right.

Q. Again, Dagger Draw, I don't think you've ever testified that there are wells -- very many wells drain at 160 up there; is that correct?

A. No, no. I'm just saying this could be a little bit different.

Q. Let's find out?

A. And let's find out. And if we go drill on 40's, and that's the wrong way to do it, the money is already gone.

Q. Does that analogy apply to 80 as well?

A. In my opinion, yes.

Q. Is that because -- and I'm kind of asking

this in a leading way, but if I'm not stating it correctly, please tell me -- is that because you don't have enough information here to know whether in fact this might be a more permeable reservoir which could drain wider areas than perhaps Dagger Draw?

A. That's what I'm trying to guard against, yes, sir.

MR. STOVALL: I don't have any other questions.

MR. CARR: Can I ask one, David?

FURTHER EXAMINATION

BY EXAMINER CATANACH:

Q. Let me just ask him, Dr. Boneau, do you anticipate or do you think the Indian Basin-Upper Penn is going to be extended to the east? Do you think drilling is possible to extend the eastern boundary of that pool?

A. I think it's very possible that the kind of oil wells we're talking about at the Hickory will be drilled and produced throughout Mr. May's green area. And a lot of that green area is east, what I would characterize as east of Indian Basin-Upper Penn gas pool.

Q. So you think the Indian Basin gas pool has been pretty much defined by development at this point?

A. Oh, yeah. These wells he -- the wells Mr. May talked about that have been abandoned are on the south and east edge of Indian Basin gas pool, and Indian Basin gas pool is being abandoned from east to west. And there's, I think, no chance of drilling Indian Basin type gas wells further east than the plugged ones.

EXAMINER CATANACH: That's all I have.

FURTHER EXAMINATION

BY MR. CARR:

Q. Dr. Boneau, you indicated that you thought somebody might go out in a green area shaded on Mr. May's map and drill a gas well. Would that gas well have to necessarily be contiguous with the current Indian Basin boundary, or could it be anywhere in that green area?

A. I think it's possible it could be anywhere in the green area.

Q. I mean, if it was not contiguous with Indian Basin, a step-out might create a situation where we had acreage developed as an oil zone within a gas well not contiguous with current Indian Basin development?

A. Yeah. In Dagger Draw we found little dolomite bumps that rise up unexpectedly, and we get

--

MR. STOVALL: Is that an engineering term, Dr. Boneau?

THE WITNESS: I think that's a geologic term.

MR. CARR: That's all I have.

EXAMINER CATANACH: The witness may be excused.

MR. CARR: We have nothing further in this case, Mr. Catanach.

EXAMINER CATANACH: Okay. Mr. Hall?

JERRY ELGER,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. HALL:

Q. For the record, please state your name.

A. Jerry Elger.

Q. Mr. Elger, where do you work?

A. I work for Nearburg Producing Company in Midland, Texas.

Q. What do you do for Nearburg?

A. I'm an exploration geologist.

Q. And you've previously testified before the Division and its examiners and had your credentials

accepted as matter of record, have you not?

A. Yes.

Q. You're familiar with the application in this case and the subject area?

A. Yes.

Q. What are Nearburg's interests in the immediate area?

A. We have leasehold position. I'll refer to, if I can, Yates Exhibit No. 4. We have leasehold position within his green crosshatched area.

Q. And you're referring to the Yates Exhibit 4, is it?

A. The overall cartoon that Mr. May did for the Dagger Draw and Indian Basin and the area for the proposed field rules area.

Q. And you're familiar with the geology in the Upper Cisco Penn area?

A. Yes.

Q. Why don't you briefly describe the geology of the reservoir? And you may wish to refer to Exhibit 1 and Yates Exhibit 4 to help you out.

A. Exhibit 1 is just a porosity log profile. The top page is the Yates Hickory ALV Federal No. 1, which both of the Yates people testified to would make an oil well in the subject area, down in the southeast

end of Indian Basin. And the other log profiles are similar type, Schlumberger litho density, compensated neutron litho density log profiles of various logs that were drilled within the boundaries of the South Dagger Draw oil pool.

And the reason I'm introducing this as a piece of testimony is the fact that basically, as Mr. May already has testified, the reservoir characteristics that are observed in the South Dagger Draw area are very similar to that which you see on the Yates Hickory well down in Section 11 in the southeast side of Indian Basin.

Q. So in the application lands, we're talking about another downdip oil leg as we are in the South and North Dagger Draw?

A. That's correct.

Q. Are you familiar with the pool rules for the South Dagger Draw?

A. Yes, I am.

Q. Do those rules impose a limitation of one well per 160?

A. No, they do not.

Q. And the current practice in the area is what?

A. Well, the current practice, as Mr. Boneau

pointed out, is to drill these things on almost unlimited spacing, but the pattern has been developed at primarily 40-acre spacing in the oil leg of the Dagger Draw South and North fields.

Q. Is that density necessary to maximize recovery?

A. We believe it is. We believe, although the majority of the wells that have been drilled on that particular spacing have been economic wells, they've produced for both Dagger Draw South field and the Dagger Draw North field, and as previous testimony in previous cases has pointed out, the spacing, the area per well -- drainage area per well and reservoir engineers have been able to determine for those two fields is roughly 60 acres.

Q. And you're in agreement with that testimony?

A. Yes. I'm not a reservoir engineer, but I would agree with that, yes.

Q. So, in your opinion, can the reservoir be effectively and efficiently drained by limiting development to one well per 160?

A. No.

Q. Will a provision allowing for the drilling of more than one well per 160 adversely affect the

economics of drilling in the pool?

A. No.

Q. What are Nearburg's plans for development in the immediate area?

A. We've already proposed in the green hachured area a reentry of the formerly drilled Antweil well in the north half of Section 2 of Township 20 -- I believe it's 22 South, 24 East, to test the dolomite section, top part of the dolomite section of the Cisco Canyon.

We also plan to conduct similar type production tests of a Morrow well in the north half of Section 11, the same township and range.

Q. Does Nearburg request that any order approving the creation of this new pool contain a provision like that found in Rule 22 of Order R-5353 for the Dagger Draw allowing for two or more wells per 160?

A. Yes.

Q. In your opinion, would such a provision be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, it would.

Q. Was Exhibit 1 prepared by you or at your direction?

A. Yes, it was.

MR. HALL: We would move the admission of Exhibit 1. That concludes our Direct.

EXAMINER CATANACH: Mr. Carr?

MR. CARR: Did you admit the exhibit?

EXAMINER CATANACH: Oh. What were the numbers?

MR. HALL: Uno.

EXAMINER CATANACH: Exhibit No. 1 will be admitted as evidence.

Mr. Carr?

EXAMINATION

BY MR. CARR:

Q. Mr. Elger, Nearburg is only objecting to the proposal to limit development to effectively one well per 160 acres; is that correct?

A. That is correct.

Q. Your Exhibit No. 1 is basically to show similarity in the geological characteristics between the Hickory well and some wells in South Dagger Draw?

A. That's correct. And Mr. May pointed out the same things.

Q. Have you ever experienced a situation where you have similar geologic characteristics and different producing characteristics for wells?

A. Not any that come to mind.

Q. So if we can look at the geology, it's unnecessary to involve the engineers; is that what you're saying?

A. Not necessarily.

Q. Nearburg isn't in the business of drilling unnecessary wells, obviously; isn't that right?

A. That's correct.

Q. And what we're talking about here you understand are temporary rules that two years from now can be amended; do you understand that?

A. Yes.

Q. You would agree with me that you can make a better decision in establishing permanent rules the more data you have on the reservoir?

A. That would be true.

Q. And you would agree with me that based on your plans for development and those that have been disclosed by Yates, that two years from now there should be substantially more development on this oil zone?

A. Yes.

MR. CARR: That's all I have.

MR. STOVALL: Mr. Kellahin.

MR. KELLAHIN: No questions.

FURTHER EXAMINATION

BY MR. HALL:

Q. One follow-up. Mr. Elger, if the Yates application is approved with the provision for one well per 160, you're going to have rules for associated pools covering several pools in the same area with different procedures, different provisions in them; is that correct?

A. Yes, it is.

MR. HALL: That's all I have.

EXAMINATION

BY EXAMINER CATANACH:

Q. You request that you be allowed to drill on 40; is that what you're saying?

A. No, but what we do request is that Nearburg -- obviously, we don't have as much acreage under this green downdip oil leg. I agree entirely with the interpretation of the geology out here, but what we would like to have -- we don't have as much acreage position out here as Yates or Santa Fe, but what we would like to be able to do is develop on a reasonable spacing pattern that would allow us to develop our acreage in an economic and timely manner.

And that's not necessarily two years or -- as testimony for the Dagger Draw and Dagger Draw North

areas, if it truly can be applied to this area, and we think it can, the spacing ought to be more in line with 60 acres since the drainage up in that particular area has been testified to as being roughly 60 acres, the spacing --

MR. STOVALL: Whoa, whoa. I'm going to interject something here. I don't think that's an accurate characterization. I think that's the assumption you're making from one line of the testimony which Dr. Boneau does not agree was his statement.

So let's make sure that is on the record, that you're making the statement that it's 60 acres. Dr. Boneau did not agree that his statement was it was 60 acres.

THE WITNESS: I didn't say it was. I was just saying, the testimony that's been filed in previous --

MR. STOVALL: I agree, but let's make it clear that you're talking as -- you're kind of stating these as factual, and Mr. Hall asked Dr. Boneau, and I think he does not agree that that is an accurate characterization of his statement. So proceed with that.

MR. HALL: Were you finished with your

answer?

THE WITNESS: Basically, yes.

Q. (BY EXAMINER CATANACH) I still haven't got the answer I need. Your position in this case is that -- do you want the 320-acre spacing with the ability to drill more than one well on a 160-acre --

MR. STOVALL: -- per proration unit would probably be a clearer way to determine --

Q. (EXAMINER CATANACH) Exactly what is your position? Do you disagree with the 320-acre spacing?

A. No.

Q. Okay, you agree with that. You just want the ability to drill more than one well per 160?

A. That's correct.

Q. And how many wells would you propose?

A. However many it would take to make up the allowable. I mean that's the same as Dagger Draw.

Q. So up to four wells?

A. Up to four wells to meet that allowable.

MR. HALL: Mr. Examiner, if I might clarify. In response to an earlier question from me, he testified that we're seeking a provision like that in Rule 22 of Order R-5353, which allows two or more wells.

EXAMINER CATANACH: Does that state two or

more wells?

MR. HALL: Yes.

EXAMINER CATANACH: Okay. That's all I have.

MR. HALL: Mr. Examiner, we would also request that you take administrative notice of the testimony in consolidated cases 10221 and 10222. The records in those cases will speak for themselves, but they tend to establish that an increase in density was necessary to effectively and efficiently drain this reservoir. Yates was a party to both of those cases and concurred with that line of testimony.

We're also asking that you take notice of finding No. 6 in Order 5353, which showed that variations among the rules for the various associated pools have resulted in an unnecessary administrative burden on the Oil Commission.

MR. CARR: May it please the Examiner, we would object to your taking note of those. Yates Petroleum is present here today and can respond to any questions and clarify anything that is in those records that might be inconsistent with anything presented here today.

I would note also that when you look at those, if you should decide to do that, that you ought

to also put them in a historical context and determine when those statements were made, how much data was available on the reservoir at that time.

And I think in view of those considerations, to simply sweep in large masses of testimony in a hearing where Dr. Boneau is present here today and can respond to your questions would be inappropriate, and I object.

EXAMINER CATANACH: Yeah, I don't know that that information in those two cases would be beneficial to me in making a decision in this case.

MR. HALL: In response, I would say same parties, same reservoir, same lawyers. It's only two years old.

MR. CARR: And I would suggest it's a different pool, and that's our concern. It may not be the same reservoir, and it may not perform the same way. And I submit the people are present. If Mr. Hall has had any questions, he's had an opportunity to ask them. And I don't think we need to start sweeping large masses of information into the record in this proceeding.

MR. STOVALL: Let me ask your witness one question, Mr. Hall.

EXAMINATION

BY MR. STOVALL:

Q. Would you agree with either my statement, and I guess Dr. Boneau agreed with it, that if you go to less dense spacing now, you can always increase the spacing later, if necessary, when you've got more information?

A. Well, you do that anyways in the natural course of development of your acreage. I mean, you start with one well. Then you drill two and three, and you're limited by how much acreage you have.

Q. Um-hm. And I think you've already testified, you get more information as you get more wells; is that correct?

A. Since we have a limited amount of acreage in this particular plat, at least less acreage than Yates Petroleum, we could very easily drill our lease on a 160-acre spacing.

I'm not saying that -- you obviously start drilling 40's right off the bat. Your second well is a 40-acre offset to your first well. But what I am saying is that once we reach 160 acres -- once we've drilled up our acreage position on 160 acres, we shouldn't have to wait for Yates to do it if we can prove it's not draining 160 acres.

Q. Couldn't you bring an application of

changed rules once you get some -- let me ask you this. Is your objective to drill wells, or is your objective to recover oil?

A. Our objective is to recover oil.

Q. All right. I think in response to Mr. Carr, you said you only want to drill as many wells as are necessary; is that correct?

A. That's correct.

Q. To recover the oil? Do you understand that there is nothing in the rules that would prohibit you from bringing in an application to increase the number of wells allowed per proration unit if you determine that there is a need for that in order to effectively recover all of the oil underlying your tract?

A. Well, I think what Mr. May has testified to, and I concur with, is the fact that the precedent has already been set in the Dagger Draw area --

Q. Dr. Boneau has also stated -- never mind what Dr. Boneau has stated. Would you agree that you could do that?

A. Yes.

MR. STOVALL: I mean, there's a disagreement with you -- I'll just state that what I think is the disagreement, that there may be too much density up there, and should we repeat that error if

that's correct, or should we find out.

I don't know that that's true. I'm just telling you that if that is -- I think that's what I heard some testimony to so -- I just want to make sure you're aware that if in fact you find that it's necessary in order to recover the oil underlying your tracts, that you don't have to wait for Yates to develop the area to come back in and request either an exception or a change from the rules. I think it's important that Nearburg understand that and recognize that it has some opportunity to protect its correlative rights in that way.

THE WITNESS: Okay.

MR. STOVALL: Assuming -- that obviously has an assumption; it's sort of an assumption in it, if you go to less dense spacing. I don't know that that's what the examiner will do but -- I'm through.

EXAMINER CATANACH: I guess we still haven't resolved the question of taking administrative notice, have we? I think in the natural course of writing this order, some details of the previous case may be taken into consideration. I don't know how much detail or review I want to subject those two case files to.

MR. CARR: Mr. Catanach, I think you can

always take notice as the examiner of Commission records. My objection is not to that. It's to the sweeping in large volumes of evidence, and hopefully by bringing them in, as Mr. Hall is asking you to, they might be considered as part of the record in this case, and I think that would be inappropriate.

EXAMINER CATANACH: Was the request to incorporate the evidence and testimony?

MR. HALL: You were asked to take notice.

MR. STOVALL: Mr. Examiner, I would point out that if you take notice and review those, you're not bound by findings that were made in those cases either. You can be aware of them and have that in your store of information without being bound by the conclusions that were reached based upon that record.

EXAMINER CATANACH: Okay. On that point, I will take administrative notice of the cases and finding No. 6 of the decree.

MR. STOVALL: In fact, all of the orders -- I would say it would be appropriate to say that if you're going to take notice of them, you will take notice of all of the applicable orders for the three pools which are in that series of --

MR. HALL: That's all we have.

EXAMINER CATANACH: All right.

Mr. Bruce, do you have anything?

MR. BRUCE: No, sir.

EXAMINER CATANACH: Mr. Kellahin?

MR. KELLAHIN: No, sir.

EXAMINER CATANACH: Would you like to make closing statements?

MR. CARR: Not unless Mr. Hall wants to.

MR. HALL: I have nothing to add.

EXAMINER CATANACH: Mr. Bruce?

MR. BRUCE: The only thing I would like to say, Mr. Examiner, that the position of Santa Fe Energy is that any pool rules that are enacted should be temporary for a period of one year.

MR. HALL: We would concur.

EXAMINER CATANACH: Any position, Mr. Kellahin?

MR. KELLAHIN: No, sir.

EXAMINER CATANACH: Okay. Good.

MR. STOVALL: Mr. Kellahin, is Marathon's interest just as an Indian Basin operator; is that all it is?

MR. KELLAHIN: Yes, that's correct.

MR. STOVALL: And not in this area? Okay.

EXAMINER CATANACH: Okay. There being nothing further in this case, Case 10748 will be taken

under advisement.

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Deborah O'Bine, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that I caused my notes to be transcribed under my personal supervision, and that the foregoing transcript is a true and accurate record of the proceedings of said hearing.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL, July 20, 1993.

Deborah O'Bine

DEBORAH O'BINE
CCR No. 63

OFFICIAL SEAL
DEBORAH O'BINE
NOTARY PUBLIC--STATE OF NEW MEXICO
My Commission Expires Sept. 19, 1994

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10148, heard by me on June 17 1993.

David R. Catanach, Examiner
Oil Conservation Division