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:	
APPLICATION OF OCEAN ENERGY, INC., FOR COMPULSORY POOLING AND AN UNORTHODOX WELL LOCATION, LEA COUNTY, NEW MEXICO	CASE NOS. 11,958
APPLICATION OF OCEAN ENERGY, INC., FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO	11,959
APPLICATION OF YATES PETROLEUM CORPORATION FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO	and 11,934 (Consolidated)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

May 14th, 1998

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, May 14th, 1998, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

I N D E X

May 14th, 1998
Examiner Hearing
CASE NOS. 11,958, 11,959 and 11,934 (Consolidated)

(Continued...)

OCEAN ENERGY WITNESSES (Continued):

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* * *

A P P E A R A N C E S

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* * *

WHEREUPON, the following proceedings were had at 8:45 a.m.:

EXAMINER STOGNER: This hearing will come to order.

At this time I'm going to call and call and consolidate Cases 11,958, 11,959 and 11,934.

11,958 and 11,959 is Applications of Ocean Energy, Inc., for compulsory pooling and an unorthodox well location in Lea County -- that's 11,958 -- and 11,959, it's Ocean Energy, Inc., for compulsory pooling, Lea County, New Mexico.

Case Number 11,934 is the Application of Yates Petroleum Corporation for compulsory pooling, Lea County, New Mexico.

At this time I'm going to call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge and Sheridan. We represent Yates Petroleum Corporation in these consolidated cases, and I have three witnesses.

EXAMINER STOGNER: Other appearances?

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing Ocean Energy, Incorporated. I have three witnesses.

EXAMINER STOGNER: Other appearances?

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the Santa Fe law firm of Kellahin and Kellahin, appearing on behalf of Amerind Oil Company and Michael Shearn, S-h-e-a-r-n.

We have no witnesses to present, Mr. Examiner.

EXAMINER STOGNER: Any other appearances?

At this time I'm going to request that the six witnesses that will be presenting testimony in this matter please rise, be sworn in.

(Thereupon, the witnesses were sworn.)

EXAMINER STOGNER: Mr. Carr?

MR. CARR: May it please the Examiner, we would first call Robert Bullock.

EXAMINER STOGNER: Just for the record, I was talking to Mr. Kellahin prior to this hearing. There was a previous case -- and please forgive me, there were six cases; I can't remember the case numbers or the order number. But if we take a recess sometime today I will dig that out. I'd like to take that order under administrative notice in this particular matter.

What that particular order did was, in an elongated section such as this, it went into detail about the OCD's policy on handling these kind of cases and what is considered standard proration units and nonstandard proration units.

But I just wanted to make that on the record at this point. We do have a new Division Director, and I wanted her to be aware of it also. That's the reason I'm saying it at this particular time, that I will dig that order out and we will make it a part of the record in this matter.

Mr. Carr?

ROBERT BULLOCK,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. My name is Robert Bullock.

Q. Where do you reside?

A. In Hope, New Mexico.

Q. Mr. Bullock, by whom are you employed?

A. By Yates Petroleum Corporation.

Q. And what is your position with Yates Petroleum Corporation?

A. I'm a landman.

Q. Have you previously testified before this Division and had your credentials as a petroleum landman accepted and made a matter of record?

A. Yes, sir.

Q. Are you familiar with the Applications filed in each of these consolidated cases?

A. Yes.

Q. Are you familiar with the status of the lands in the subject area?

A. Yes, sir.

MR. CARR: May it please the Examiner, we tender Mr. Bullock as an expert in petroleum land matters.

EXAMINER STOGNER: Any objection?

MR. BRUCE: No, sir.

EXAMINER STOGNER: Mr. Bullock is so qualified.

Q. (By Mr. Carr) Would you briefly state what Yates Petroleum Corporation seeks in this case?

A. We seek the compulsory pooling of several spacing units in this irregular Section 2. We would propose for a 320-acre spacing unit that Lots 11, 12, 13, 14 and the southwest quarter be pooled.

For a 160-acre spacing unit we would like Lots 11, 12, 13 and 14.

And for an 80-acre spacing unit we would like to see Lots 13 and 14.

Q. If, in fact, Yates drills a well on 40-acre spacing, that would be on Lot 13. Does Yates own all the interest in 13?

A. Yes, sir.

Q. And to what well do you propose to dedicate these spacing units or proration units?

A. We call this well the Fields "APK" State Com Number 3, and the location of that well is 3300 feet from the south line and 760 feet from the west line of Section 2.

Q. Does Yates also request that the Applications of Ocean Energy, Inc., for compulsory pooling of two laydown 320-acre units be denied in this case?

A. Yes, we do.

Q. Have you prepared exhibits for presentation here today?

A. Yes.

Q. Would you refer to what has been marked for identification as Yates Exhibit Number 1 and review that for Mr. Stogner?

A. Exhibit Number 1 is our land map. I've highlighted the 320-acre spacing, the standup, being Lots 12 -- excuse me, 11, 12, 13, 14 and the southwest quarter, and we have indicated with a red dot the location of the well. And --

Q. Could you --

A. Excuse me.

Q. -- describe for Mr. Stogner the two 320-acre units that are being proposed in these cases by Ocean?

A. Ocean Energy wants to use the south half as one proration unit, and then for the second -- That would be the first, the southern laydown proration unit. And for the other proration unit they would want to use Lots 9, 10, 11, 12, 13, 14, 15 and 16, being the middle 320-acre spacing unit, which is also a laydown spacing unit.

Q. Could you review for us the ownership in each of these three proposed spacing units, starting first with the 320-acre unit proposed by Yates? What is the ownership breakdown between Yates and Ocean in that tract?

A. Ocean Energy has 37.5 percent of that spacing unit, and Yates has 37.9775 percent.

Q. In the southern laydown 320-acre unit, how would the ownership breakout be in that tract between Ocean and Yates?

A. Ocean Energy would have 75 percent of that spacing unit, and Yates would have 12.5 percent.

Q. And then the middle spacing unit, the laydown, the Lots 9 through 16, what is the ownership breakdown in that tract?

A. That would be even at 37.5 percent for each company.

Q. Let's go to the packet of correspondence with the rubber band around it that is Yates Exhibit Number 2, and using that exhibit, would you review for Mr. Stogner the

efforts that have been made to obtain voluntary participation in your proposed spacing unit?

A. Yes, this was my effort to obtain joinder from the unleased mineral owners and the noncommitted working interest owners for the drilling of this Fields "APK", and along with the submittal letter was attached our AFE.

Q. When did you first propose an Atoka well?

A. This was proposed to Ocean Energy on December the 2nd, 1997.

Q. And since then, what has transpired?

A. Well, there's been several negotiations between the parties with no reconciliation on any type of joinder from all parties.

Q. In your opinion, have you made a good-faith effort to obtain voluntary participation in your proposed standup 320-acre unit?

A. Yes, sir.

Q. What is -- Who will be subject to pooling?

And it might be easier, Mr. Bullock, if we'd go to Exhibit A on the operating agreement, which is included in that material --

A. Right.

Q. -- the long pages, and see if you can get to Exhibit A that shows the ownership, and identify for us those interest owners who are, in fact, participating in

the Yates proposal.

A. We have --

Q. Let's hold it --

A. Excuse me.

Q. -- just a second.

A. That's the operating agreement.

EXAMINER STOGNER: Okay. What page of the operating agreement?

THE WITNESS: It's right after XIV A., back in the --

EXAMINER STOGNER: Is that it?

THE WITNESS: No, that's the farmout agreement. The operating agreement is in that rubber band, it's in the bottom of that --

MR. CARR: It's the long paper --

THE WITNESS: Yeah.

EXAMINER STOGNER: Oh.

THE WITNESS: Behind XIV A.

Q. (By Mr. Carr) Would you identify those interest owners who are participating in the Yates proposal?

A. We have received signed AFEs and operating agreement pages from Mark Shidler, Roy Barton Trust, S.E. Cone, Jr., and Marjorie Cone Kastman. Those would be the only parties as of this date that have --

Q. Has Michael Wise agreed to participate in the

well?

A. Sir? Mike --

Q. Mike Wise, also agreed to participate in the well?

A. Mike Wise?

Q. Yes.

A. I'm not familiar with that name.

Q. Okay. Everyone, other than those four parties that you've identified and Yates, would be subject to the pooling order --

A. That's correct.

Q. -- entered in this case?

One of those is Amerind?

A. That's correct.

Q. What is the status of negotiations with Amerind?

A. Amerind initially indicated they would farm out to us, and we submitted a farmout agreement to them.

Q. Do you remain willing to enter a farmout --

A. Yes.

Q. -- agreement with them if they desire?

A. That's correct.

Q. In your opinion, have the negotiations on a voluntary level gone as far as they reasonably can go?

A. Yes, sir.

Q. Has Yates drilled other Atoka and Strawn wells in

this immediate area?

A. We've drilled a couple of Atoka to the section just south of this, which I'm sure our geologist will bring forth in her testimony.

We've also drilled a couple of Strawn wells in this section.

Q. Let's go to the AFE, which is included with the letters in the first part of Exhibit Number 2.

A. Okay, we have --

Q. Can you go to that AFE and review the totals, both for a dryhole and a completed well?

A. The total dryhole cost on that AFE is $657,200. The completed well cost is $1,213,200.

Q. Is Yates Exhibit Number 3 an affidavit with attached letters and return receipts confirming that notice of this hearing has been provided in accordance with Division rules?

A. Yes, sir.

Q. To whom has notice been provided?

A. It's been provided to all the noncommitted working interest owners and the unleased mineral owners.

Q. Have you made an estimate of the overhead and administrative costs to be assessed while drilling the well and also while producing it, if it is successful?

A. Yes, we would like to use the rates of $5400 a

month and $540.

Q. Are these standard costs that Yates uses for wells in the area?

A. Yes.

Q. Are they same costs that have been proposed by Ocean for the wells that they are proposing today?

A. Yes, sir.

Q. And do you recommend that these figures be incorporated into the order that results from this hearing?

A. Yes.

Q. Does Yates Petroleum Corporation seek to be designated of their proposed well [*sic*]?

A. Yes.

Q. Will Yates also be calling geological and engineering witnesses to present the technical portions of this case?

A. Yes, sir.

Q. Were Exhibits 1 through 3 either prepared by you or compiled under your direction and supervision?

A. Yes.

MR. CARR: At this time, Mr. Stogner, we would move the admission into evidence of Yates Petroleum Corporation Exhibits 1 through 3.

EXAMINER STOGNER: Any objection?

MR. BRUCE: No, sir.

EXAMINER STOGNER: Exhibits 1 through 3 will be admitted into evidence at this time.

MR. CARR: And that concludes my direct examination of this witness.

EXAMINER STOGNER: Mr. Bruce, before I turn it over to you, please allow me to clarify --

MR. BRUCE: Mr. Examiner, I have no questions.

EXAMINER STOGNER: Oh, well, all right. In that case...

EXAMINATION

BY EXAMINER STOGNER:

Q. Mr. Bullock, I'm looking at a Form C-102 -- it's about page 5 of Exhibit 2 -- and that Form C-102 shows the lower third of that Section 2.

Okay, with -- The 320-acre proposed deep gas proration unit is designated on there, and also each quarter section has some different hachmarkings. Could you please indulge me a little bit in going through the separate ones, what the different lease numbers --

A. Okay.

Q. -- fee, state, federal, if you would, please?

A. There's a -- I don't have that exhibit that you're looking at, but the Lot 12 is a state lease, E-3003.

Lot 11 and Lots 13 are State Lease VA-604.

Lot 14 and the east half of the southwest quarter

is State Lease E-7720.

And then the southwest quarter of the southwest quarter is fee acreage.

Q. Okay. When I look at your Exhibit A on the AFE, and you had -- In your testimony you had talked about some people that had joined. Is there a breakdown of this interest ownership with the smaller proration units for 160 and 80, other than what's on Exhibit A?

A. Yates is -- No, there's not. We -- there's a -- We have separated this out into a shallow unit and a deep unit, and the shallow unit would be from surface to 11,000 feet. We have done that because of a producing well that's on Lot 12 right now, and those rights are owned by somebody that's totally out of the picture.

So we have not pooled any rights from surface to 11,000 feet, because of this existing Wolfcamp well on Lot 12.

So if we make a completion in a shallow zone from surface to 11,000 feet, we try to show that on Exhibit A, that that would be solely borne by the Yates companies. And that's what the shallow unit there -- I've attempted to show that in the middle of Exhibit A.

If a well is completed in the deep unit, then all the interests would be pooled, and all those zones below the Wolfcamp -- Strawn, Atoka and Morrow -- would all

participate in that deep unit, and those percentages we've attempted to show there on Exhibit A.

Q. Okay. Well, indulge me here then. Okay, the 40-acre tract being Lot 13 --

A. Right.

Q. -- are there any interests being force pooled in that 40-acre tract?

A. No, those are all -- That Lot 13 is owed solely by Yates Petroleum and --

Q. Okay, that really doesn't need to be an issue in this particular matter.

MR. CARR: That could be dismissed as to 40 acres.

Q. (By Examiner Stogner) Okay. Let's talk about the proposed 80-acre tract, and I'm assuming that there are some -- there's some production out there that's spaced on 80. With that assumption, then, Lots 13 and 14 would be consolidated for that particular proration unit, and that's -- would be the consolidation of two particular state leases.

Who would be force pooled to form that 80? Or is that 100-percent Yates?

A. No, we would suggest that all these companies be pooled in that.

Q. Well, okay, you're confusing me here. Okay, the

40-acre tract, that can be dismissed because that's 100-percent Yates.

A. Right.

Q. Okay.

A. Lots 13 and -- Lot 14 is owned solely by Ocean Energy.

Q. Okay.

A. It's owned solely by Ocean Energy. Lot 13 is owned solely by the Yates companies.

Q. Okay. I'm thinking from the surface down to 11,000 feet, that being a shallow interest, then the 80-acre proration unit wouldn't concern that, I would assume.

Is the Strawn production deeper than 11,000 feet out there?

A. Yes, it is.

Q. Okay.

A. Yeah.

Q. So that would be --

A. Strawn is going to be eleven- --

Q. Okay. So what is the breakdown of the interest in Lot 13 and 14?

A. Well, it would be a half -- It would be 50-percent Ocean Energy and 50-percent Yates Companies.

Q. Okay, and nowhere in your exhibit do you break that down; is that correct?

A. No, no, I don't in my exhibit.

Q. Okay. Anticipation of my next question about the 160-acre breakdown. Lots 11 and 13 are subject to that state lease, which is 100-percent Yates; is that correct?

A. Right.

Q. Okay. Now, that would leave Lot 12 and 14. What would be the breakdown of the interest between those two lots in this particular 160?

A. Lot 14 would be owned 100 percent by Ocean Energy.

Q. Okay.

A. And Lot 12, from 11,000 feet to 12,375 feet, is owned by Five States 1995 B and D, I show those entities on the top of my deep unit. Mark Shidler is an owner in that also. Bristol Resources. Basically it's all -- It's all the entities down to and through Kenneth G. Cone.

Q. Okay. So everything below the Kenneth Cone interest, I'm assuming, would be made up of that fee acreage --

A. Exactly.

Q. -- in the --

A. Exactly.

Q. -- far southwest quarter, southwest quarter?

A. Yes, sir.

EXAMINER STOGNER: Okay. Mr. Carr, subsequent to

today's case could you --

MR. CARR: Yes, sir.

EXAMINER STOGNER: -- provide me a breakout of the different --

MR. CARR: I will.

EXAMINER STOGNER: -- proration units, and we can dismiss that 40-acre --

MR. CARR: Yes.

EXAMINER STOGNER: -- proration unit.

MR. CARR: We would request the dismissal, and we'll provide a breakdown by spacing unit.

Q. (By Examiner Stogner) Okay. Now, your Exhibit Number 2 was a letter to Amerind dated December the 2nd. Is this a representative letter or first notice to all the other parties that are being force-pooled today?

A. All the parties that I knew about on December 2nd -- And it got everybody except some of the mineral owners, unleased mineral owners down in the southwest southwest. At the -- When I wrote this letter on December 2nd, I still didn't have all that ownership figured out.

So subsequent to that letter, I have submitted additional letters to the parties that I hadn't notified on December 2nd.

Q. Okay, when did the next letter get sent out?

A. Well, let's see. Some of them were sent out

February the 26th. I see one went out December 9. Here's one that went out February 12.

Q. And essentially what you're doing at this time is just thumbing through the Exhibit 2 --

A. Exactly.

Q. -- looking at the first-page letters?

A. Exactly.

Q. So the whole packet of Exhibit Number 2 is a comprehensive notification by correspondence to the interests that are being pooled?

A. Exactly.

Q. In the various correspondences, were there any mention of their breakdown interest in the different formation units, or was -- or anything such as that, that would give them an indication, or me an indication, from those exhibits what their interest would be in the different proration units? Other than your comprehensive Part 2 of your operating agreement.

A. No, there's nothing else.

Q. And the operating agreement was sent to all parties on March 27th?

A. Yes, sir.

Q. Okay. I'm looking now for your correspondence to Ocean Energy, and I'm assuming that's in here somewhere.

A. It was probably addressed to UMC.

Q. I'm working my way down. Okay, December 2nd, first notification. I'm looking at the correspondence.

A. Yes.

Q. Was there any other additional correspondence before the March 27th operating agreement?

A. The letter of December 2.

Q. But was there any between December 2 and March 27th?

A. No.

Q. Okay. Now, your notification of the hearing, direct mailing to all parties, that went out on letterhead from Mr. Carr's office on February 26th; is that your understanding?

A. Yes.

Q. So with UMC in particular, in this particular instance, the first correspondence they got concerning this matter was December 2nd?

A. Yes, sir.

Q. And then they received sometime late in February the notice that that interest was being force-pooled?

A. Yes, sir.

Q. And then they were provided later in March the AFE; is that correct?

A. The operating agreement.

Q. I mean the operating agreement, I'm sorry, the

operating agreement.

So that was the total of three correspondences for this particular case?

A. That's right.

EXAMINER STOGNER: Okay, I have no other questions of this witness.

Mr. Carr, do you have any other --

MR. CARR: I have --

EXAMINER STOGNER: -- redirect?

MR. CARR: No, I have nothing on redirect.

EXAMINER STOGNER: Okay, Mr. Kellahin, I'm sorry.

MR. KELLAHIN: Just a point of clarification.

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Bullock, you mentioned that there's a Wolfcamp well in Lot 12?

A. Lot 13 -- Excuse me, 12, yeah, that's right.

Q. Lot 12 --

A. That's my under- --

Q. -- still has a Wolfcamp well?

A. That's my understanding.

Q. Who operates the Wolfcamp well? Do you know?

A. A company out of Midland. I can't come up with their name right now.

Q. Do you know the orientation of the spacing unit

for that well?

A. No, I don't.

MR. KELLAHIN: Thank you. No further questions.

FURTHER EXAMINATION

BY EXAMINER STOGNER:

Q. Do you know if it's a gas well or an oil well?

A. I believe it's an oil well, but probably one of our technical people --

Q. Okay.

A. -- can give us that.

EXAMINER STOGNER: So the Wolfcamp formation, Mr. Carr, that would be alleviated also in this particular instance, would it not? Or how would that be handled?

MR. CARR: It depends on what's dedicated to it, but it could be.

EXAMINER STOGNER: Okay.

MR. CARR: When we get the ownership breakdown, we'll also provide that to you, and if that portion can be dismissed, we'll request it.

EXAMINER STOGNER: Or at least let's take notice of it or act accordingly. I'll take administrative notice of any files we may have concerning that well, or we will have in our files here in Santa Fe.

Mr. Kellahin, is there any other questions of this witness?

MR. KELLAHIN: No, sir.

EXAMINER STOGNER: Okay. You may be excused, Mr. Bullock. Thank you.

Mr. Carr?

MR. CARR: May it please the Examiner, at this time we call Brent May.

BRENT MAY,

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Would you state your name for the record?

A. Brent May.

Q. By whom are you employed?

A. Yates Petroleum.

Q. And what is your current position with Yates?

A. I'm a geologist.

Q. Mr. May, have you previously testified before this Division and had your credentials as an expert in petroleum geology accepted and made a matter of record?

A. Yes, I have.

Q. Are you familiar with the Applications filed in each of these cases?

A. Yes, I am.

Q. Have you made a geological study of the area

which is the subject of these consolidated Applications?

A. Yes, I have.

Q. Are you prepared to share the results of that study with Mr. Stogner?

A. Yes, I am.

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

EXAMINER STOGNER: Any objection?

MR. BRUCE: No, sir.

EXAMINER STOGNER: There being none, Mr. May is so qualified.

Q. (By Mr. Carr) Initially, would you identify the primary objectives in this area for the Examiner?

A. The primary objectives are the Atoka -- and I need to clarify that a little bit. Yates considers this zone Atoka. I know the OCD in some of this area has also listed this as Morrow.

So if I said -- sometimes go back between Atoka and Morrow, I am talking about the same zone. And when I go into a cross-section a little bit later I'll -- that also.

Also, the --

Q. Is the Atoka in any established pool?

A. As far as I know, it's been put into an undesignated pool at this time.

Q. At this time it's still undesignated?

A. I think so.

Q. Or not in any pool.

A. It's in an undesignated --

Q. What are the other primary objectives?

A. The Strawn, and I believe it's in the Big Dog Strawn Pool.

EXAMINER STOGNER: I'm sorry, what?

THE WITNESS: The Strawn, the Big Dog.

Q. (By Mr. Carr) Are there secondary objectives in this area?

A. Yes, there are, the Morrow and also the Mississippian sometimes.

Q. Why is Yates proposing the standup 320-acre spacing unit that it is proposing in the area?

A. The Atoka and Morrow and, to my understanding, the Mississippian are usually on 320-acre spacing units. And also, we believe that the west half of this section, where the proposed locations are at, has the best productive reservoir, especially for the Atoka.

Q. All right, let's go to what has been marked Yates Exhibit Number 4, your stratigraphic cross-section of the Atoka, and I'd ask you to take that out and review it for Mr. Stogner.

A. This is a stratigraphic cross-section, A-A'. The

trace of the cross-section, I believe, will be on Exhibit 7?

Q. Exhibit Number 6.

A. Six? Okay.

The datum on this cross-section is a marker within the Atoka formation. I've got the tops of the Strawn, Atoka and Morrow labeled.

The zone in orange is the zone of interest that I am calling Atoka and is sometimes also called Morrow, sometimes by the OCD. But I will probably call it mostly Atoka at this hearing. But it is what I loosely term the Brunson sand, and that's just an in-house term.

Starting on the -- This cross-section starts down at the south, goes up to the north and jots back over to the east.

Starting on the left-hand side of the cross-section, first well is the Mesa Petroleum Monsanto State Number 1, in Section 14 of 16 South, 35 East. It's 1980 from the south and west. This well was drilled down and TD'd in the Morrow formation. It was -- Pipe was run on this well, and they completed in this Brunson sand. They IP'd it for about 2.4 million cubic feet of gas a day. It's cum'd about 3.8 BCF so far.

The next well on the cross-section is the Yates Brunson "AQK" State Com Number 1, Section 10 of 16 South,

35 East. It's 2260 from the north line and 1795 from the east line. This well TD'd in the Mississippian. There was a few DSTs performed in the Atoka on the way down, and one of them did include the Brunson sand. The Brunson sand did not DST very well.

Yates did run pipe on this well, attempted a small-hole completion down in the Mississippian. That wasn't too awfully successful, so we set a cast-iron bridge plug right above those perfs, came up the hole, perforated the Brunson sand and frac'd it. It IP'd for about a half a million cubic of gas a day and about 29 barrels of condensate. Currently, I believe that well is doing about 1.3 million a day.

The next well on the cross-section, on the far right-hand side, is the Yates Petroleum Shell Lusk "ANB" Com Number 1, in Section 11, 16 South, 35 East, and 1980 off the north and west line. This was originally an old well that Yates re-entered, sidetracked, because the old well had TD'd, I believe, in the Permo Penn section; it had not penetrated any of the deeper horizons such as the Strawn-Atoka-Morrow.

We took it down and deepened it with the sidetrack, TD'd in the Mississippian again, just like in the Brunson Number 1, kept it a small-hole completion in the Mississippian, set a cast-iron bridge above those

perfs, went up to the Brunson sand, perf'd and frac'd it and IP'd this well for not quite 700,000 cubic feet of gas a day, 32 barrels of condensate a day, and one barrel of water. Currently, I think this well is doing a little bit over 2 million of gas a day.

Q. Let's go now to the structure map on the top of the Atoka, Yates Exhibit Number 5. Will you review that, please?

A. This is a structure map on the -- on a marker within the Atoka formation, and it's the same marker that was used as the datum, as the cross-section A-A'.

The proposed Yates proration unit is shown outlined in blue. The proposed Yates location is shown with a blue circle up in Section 2 of 16 South, 35 East.

The UMC or Ocean locations, there's one shown just due east of the proposed Yates location, and the other Ocean location is down in the southwest quarter, shown -- Both of these are shown as open red circles.

There's some color on some of the wells on this map. The blue designates that they are Strawn producers, the yellow showing Atoka or Morrow producers. And what I mean by that, those are the Brunson sand producers.

Most of the other well spots on this map were Permo Penn or Wolfcamp, whatever you want to call it, penetrations and production. And most of those wells --

not all of them, but most of them did not penetrate Strawn or deeper. But that's what most of the other wells on the map are.

This map is showing a general regional dip -- well, I shouldn't say regional, but a general dip to the northeast in this little localized area. There's a fault down on the southwest part of the map that has -- The southwestern part has been faulted up, and then the rest of the map was faulted down. There's a closure just to the southeast of the proposed proration unit in Section 2. And going through Section 2, through the proration unit, there is a slight nose.

The Yates location is slightly updip to the most northern Ocean location and a little bit downdip of the most southern Ocean location.

I show this map, generally, because -- I'll get to an Atoka sand map a little bit later, but the main thing in chasing these Atoka sands is finding the sand, but I do believe there is a small structural element that can enhance some of the production. So there is a nosing effect through the proposed location that could enhance that production.

Q. When I look at this exhibit, there are circles showing locations, and there are three of them.

A. Yes.

Q. What is the easternmost location?

A. That one showed up on our geologic database that we get from a commercial PI, Dwight, and I'm not sure if that's maybe an old location or if it's active right now. But it is not one of the two current Ocean locations that I'm aware about.

Q. So we can disregard that for the purpose of this hearing?

A. Yes, for the purpose of this hearing.

Q. Mr. May, at this time I'd like to go out of the order in terms of exhibits and skip 6, the isopach, and go to Exhibit Number 7, and I'd ask you to identify that.

A. This is a time structure map in the Atoka, and this is based off a 3-D survey that was performed in the area. This is not on the exact same marker as what I had the Atoka structure map on. This is actually on the base of the Brunson sand.

But what we wanted to show -- Well, let me go through the exhibit first, before we get to that.

The Yates location is shown with a red circle. The most northern Ocean or UMC location is also shown with a red circle.

The southernmost one, we didn't get that one on here, but it should be down -- There's a blue letter C', and it should be just southeast of that where there's a

small indication that says TB 2-1. It's in that general area. And I think the footage is -- and Mr. McRae can correct me, but I believe it's 930 off the south line and 1650 off the west line.

The section lines are shown as the dark black lines, and the section numbers are the large blue letters in each corner. So we're not actually showing a full section here. This is a small piece of our 3-D. And I'm showing Section 2, 3, 10 and 11.

What we wanted to show with this is that the subsurface data on the previous exhibit that I just showed, the structure map, was done independently of this, and they seem to fall into place. There's a slight nose dipping down to the northeast in the area of the proration unit, but there's a slight little difference here in that the Yates location is slightly updip of both Ocean locations.

Q. All right, let's now go to Yates Exhibit Number 6, the gross sand isopach in the Atoka formation.

A. This is a gross sand map of the Brunson sand, which was identified on the cross-section A-A'. The trace is shown here, and there's also another stratigraphic cross-section trace of B-B', which I'll get into in just a minute.

This is basically showing a north-south-trending Atoka sand, the Brunson sand. The thick is going through

the west half of Section 2 of 16 South, 35 East, and that is the reason all the locations have been spotted in the west half of Section 2.

Yates feels like that the standup 320 proration unit better fits the geology of this Atoka sand. You have all the productive sand underneath this west half. And we feel like that if you lay the proration units down, as Ocean is suggesting, that you will be bringing in unproductive acreage on the east half of Section 2, and thus diluting Yates' interest.

Q. Mr. May, when we look at Exhibit 6, all well locations, those proposed by Ocean as well as by Yates, are located in the east half of the section; isn't that correct?

A. Located in the west half.

Q. I'm sorry, west half of the section.

If, in fact, the production is allocated to those wells based on laydown units, what actually happens to Yates' interest?

A. It's diluted, from what I understand.

Q. And it's diluted for what reason?

A. It's diluted because you're bringing in unproductive acreage from the east half, and also Yates owns -- all the acreage, I understand, owns, is over on the west half. Ocean owns more acreage over on the east half.

So you'd be bringing in the unproductive east half, in on the west half.

Q. Based on your geological interpretation, if the Yates-proposed well is drilled, where's the production going to come from that will --

A. It will be coming from the west half, where the proration unit -- where we feel the proration unit should be.

Q. If, in fact, your proposal is approved and the well drilled, do you believe that each owner of the actual reserves in this Atoka reservoir will receive their fair share?

A. Yes, I do.

Q. Are you prepared to make a recommendation to the Examiner as to the risk penalty that should be assessed against any nonconsenting interest owner in your proposed well?

A. Yes, sir, we're proposing 200 percent.

Q. And upon what do you base that recommendation?

A. As you look at this exhibit, Exhibit Number 6, you'll note most of the well control is south of Section 2 for the Atoka, for this Atoka sand. So because of that there is risk because of the lack of data points up in this area.

Q. Have Atoka wells been drilled in Section 3?

A. Yes, there were some wells in Section 3 that did penetrate this sand, but they -- I shouldn't say -- they penetrated deep enough to hit this sand, but they did not see it; they had zero.

Q. If we look back at Exhibit Number 5, the structure map, you've shown on those the Atoka-Morrow producers in the area. Are there any Atoka-Morrow producers north of the well in Section 11?

A. Not that I'm aware of.

Q. Do you believe there is a chance at this location you could drill a well that, in fact, would not be a commercial success?

A. That's a possibility, yes, just because of lack of control up here.

Q. All right, let's go to the stratigraphic cross-section B-B'. Will you review that for the Examiner? The trace for this exhibit is on Exhibit 6?

A. That's correct, it's B-B'; this is stratigraphic cross-section B-B'. It's over the, basically, just Strawn section. The datum is on the top of the Atoka. I've also shown the top of the Strawn. Also loosely divided the Strawn up into an upper and lower. It seems like in this localized area that the upper part is the productive interval.

Starting on the left-hand side of the cross-

section, the Yates Brunson "AQK" State Com Number 1 in Section 10, 16 South, 35 East -- This well was on the previous cross-section, A-A'. Of course, it was an Atoka completion.

Note that the Strawn section, especially the upper Strawn section, has thinned and also shaled out. So it was nonproductive in the Strawn.

The next well on the cross-section, the Yates Field "APK" State Number 1, Section 2, 16 South, 35 East, 3500 feet from the north line, 1880 from the east line, this well was drilled into the top of the Atoka. We did have the upper Strawn zone here, and it has some porosity in it. We attempted a completion. It was IP'd flowing for 190 barrels of oil a day and a little over 600,000 cubic feet of gas a day and 13 barrels of water a day.

So far it's cum'd, through the end of 1997, about 19,000 barrels of oil, 113 million cubic feet of gas and about 1000 barrels of water.

The next well on the cross-section is the -- on the far right-hand side is the Amerind Gallagher State Number 2, Section 2 of 16 South, 35 East, 2646 from the north line and 2299 from the west line. Again, this well was drilled and TD'd into the top of the Atoka. It too had the upper Strawn zone with some porosity. They completed it for 445 barrels of oil a day and 785,000 cubic feet of

gas a day. It's cum'd 118,000 barrels of oil and almost a third of a BCF.

Q. All right. Let's now go to Yates Exhibit Number 9, the seismic structure map.

A. Again, this is similar to the last map, the seismic map I showed. That map was on the Atoka. This is a time map on the top of the -- a time structure map on the top of the Strawn.

Again, the Yates location is shown, along with the northern Ocean location. Again, the southern Ocean location is in the area of the -- just southeast of the blue letter C', around TB 2-1, in that blue area.

This map is also showing some traces of some arbitrary lines that I'll show a little bit later. Also, it has the section numbers 2, 3, 10 and 11 in the corners. As I said before, this is for the Strawn.

Again, it's showing a general dip towards the northeast with the blue being low, the red being high.

The Strawn is much more -- as far as prospecting for the Strawn in this area is much more seismic-intensive, and what we look for usually are some bumps -- put quotes around "bumps", but some highs through here to hit for the Strawn.

You'll note that the Yates location appears to be on a small little high in Section 2, updip from the

proposed Ocean location -- well, actually both of the Ocean locations. And for this reason we feel like we've got a good chance of hitting the Strawn in this location. So with this, we feel like we can probably have a good shot at the Strawn and the Atoka at this location.

Q. How much higher structurally are you with the northern -- compared -- your location compared to the northern Ocean location?

A. This is -- Again, consider this as a time map, so in geophysical terms about two to three mils, which might be 15 to 20 feet, which is not a whole lot, but that can make a difference in the Strawn.

Q. Let's go to Exhibit Number 10. What are these?

A. These are some of these arbitrary traces that are shown on Exhibit Number -- 8? Am I right?

Q. Exhibit Number 9.

A. Nine, I'm sorry. There's an A-A', a B-B' and a C-C'.

Let's start with A-A'. This starts down in the south in Section 10, goes up north into Section 3 and then heads off to the east over in Section 2.

This is -- In the purple we're showing the Strawn picks, and in the yellow line the Atoka pick. The green is the top of the Brunson sand and the red is the base of it.

On the far left-hand side we've spotted the

Brunson "AQK" State Number 1, which is in Section 10 of 16 South, 35 East, and we had a synthetic seismic that we were able to tie the well data into the seismic.

Going over to the far right-hand side of this trace are the Yates -- proposed Yates location, and the most northern Ocean location. Note on the Strawn, the purple line, that the Yates location is a little bit higher than the UMC, the Ocean, location. And there may be a slight little rollover, but we can see it a little bit better on some of the other traces. But it does show the Yates location is a little bit higher in time.

Let's now go to the other two traces, the B-B' and the C-C'. Both of these are running north-south. B-B' is going through the Yates location and C-C' is going through the most northern Ocean location.

Again, the Strawn, Atoka and the Brunson picks are shown, the Strawn with the purple. You can see that there's a slight rollover on the Strawn at the Yates location.

And looking at C-C', which shows something very similar except it goes through the Ocean location, looking at the purple line, the Strawn pick, it's fairly flat.

Q. Is it fair to say that the location selected for this well by Yates was, in fact, chosen because it is a good shot for the Strawn as well as the Atoka?

A. That's correct.

Q. Can you summarize for Mr. Stogner your geological conclusions?

A. Basically, we feel like that there is a north-south Atoka sand trending through the west half of Section 2, so that is the better place to spot the locations, and we feel like a standup 320-acre proration unit better serves the geology based on that.

Q. In your opinion, will development of this Atoka channel with laydown units dilute the interest of Yates?

A. Yes, we do.

Q. And what impact does that have on your correlative rights?

A. We feel that it will impair our correlative rights.

Q. Mr. May, were Exhibits 4 through 10 either prepared by you or compiled under your direction?

A. Yes.

MR. CARR: And at this time, Mr. Stogner, we'd move the admission into evidence of Yates Petroleum Corporation Exhibits 4 through 10.

EXAMINER STOGNER: Any objections?

MR. BRUCE: No, sir.

EXAMINER STOGNER: Exhibits 4 through 10 will be admitted into evidence at this time.

MR. CARR: And that concludes my direct examination of Mr. May.

EXAMINER STOGNER: Thank you, Mr. Carr.

Mr. Bruce, your witness.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. May, I wanted to confirm a few things first. On the Brunson well, I believe you said it's producing from the Atoka, the Brunson sand?

A. Yes.

Q. And it's currently producing 1.3 million a day?

A. I believe that's the last production data I saw here just a few --

Q. What about -- What's the condensate production?

A. That I don't know off the top of my head.

Q. Okay. It was initially what? Twenty-some? Twenty-nine barrels?

A. Yes, that's correct.

Q. Okay. And the Brunson well -- And I'm going to use, probably, Mr. May, primarily your Exhibits 5 and 6 in talking to you. The Brunson well is the well in the northeast quarter of Section 10?

A. That's correct.

Q. Okay. Now, is Yates drilling another well in the east half of Section 10?

A. Currently, yes, it is.

Q. And what is the footage location of that well?

A. I'm not sure I have the exact footage off the top of my head.

Q. Okay. Is that well in the northwest quarter of the southeast quarter?

A. I believe that's correct.

Q. Okay, and that well is being drilled to test what? The Mississippian or the Morrow?

A. What we believe, yes, to be Mississippian.

Q. Okay. So that well is what? About a quarter mile south of the Brunson well?

A. Yes.

Q. Let's go over to Section 11. The Shell Lusk well is also an Atoka producer?

A. That's correct.

Q. And it's producing currently about 2 million a day?

A. Yes, that's what I understand.

Q. Do you have the current condensate production rate?

A. No, I didn't -- Like I said, I looked at these production numbers and just glanced at the gas.

Q. Now, also on -- staying on Exhibit 6, to the southeast of the Shell Lusk well, there's a well symbol

there. What are the current operations on that well?

A. On the dry hole --

Q. Yes.

A. -- symbol? I believe Yates just recently attempted to re-enter this well, to deepen, and could not get down, so we have just in the past few days plugged it.

Q. Okay.

A. And I believe that was going to be an east-half well, if I remember correctly.

Q. So you attempted to re-enter it. And what was -- You were going to deepen that well?

A. I believe so, for the Strawn, yes.

Q. For the Strawn --

A. Yes.

Q. -- only?

A. We were going to go all the way to the Mississippian, but the main, primary target, was the Strawn. And in fact, this had been proposed quite a while back, before I was even looking at this area. In fact, Mr. McRae was looking at the area.

Q. Would the Atoka also be prospective in that well?

A. It's getting over on the edge of what I've mapped in. I mean, you might hit some reserves there, but it is getting over, off to the edge. So you may make -- It's hard to say. You may make a stinker well, possibly.

Q. Yates doesn't want to drill edge wells?

A. No, that's why we prefer to -- at least when we don't have to. But that's why the Strawn was the main target here.

Q. Mr. May, looking at your structure map, Exhibit 5, and then comparing that with your Exhibit 7, which is your seismic structure map --

A. Yes.

Q. -- now, you have the structural nose or the low coming down basically through the east half of Section 2 on Exhibit 5?

A. Yes, that's correct, a slight one.

Q. Isn't that in conflict with Exhibit 7, where the nose is aimed toward the southwest quarter?

A. Not really, because -- I mean, there's going to be a little bit of difference between these maps, but in general they're going to match, because there is a slight nose on Exhibit -- on the structure map, that's going through the west half, and there is a slight, in general -- a slight general nose going through the west half of Section 2.

There's more detail on the seismic than there is the subsurface, but I believe there's also -- The east half of 2 is not really shown on the seismic, but I believe there is a small little low going through there. You can

see the green starting to show up, just starting to get in off the eastern edge of the seismic map.

So they're not going to exactly match. Too, they're also not on the exact same horizon. But they do somewhat match generally, and that's what we want to do when we're trying to put together seismic, various seismic and geology, you want to see. You want to make sure that they both kind of fit together.

Q. What controls the standup position out here --

A. I believe it was probably some sort of a channel that was laid down, and because of its orientation it's -- the way this sand maps out, from what I know from working the Atoka-Morrow, it appears that way.

Q. Are any of the Atoka wells in this area wet?

A. Not that I'm aware of off the top of my head.

Q. Looking at your Exhibit 9, now, Mr. May, the seismic structure on the top of the Strawn, in your opinion does this show that the best location for a Strawn well in Lots 13 or 14 is over at Yates' location?

A. I'm sorry, you're going to have to point out exactly where Lots 13 and 14 are, I'm sorry.

Q. Okay.

A. I assume they're over on the west --

Q. I would guess right where lots -- I mean lines A and B --

A. Uh-huh.

Q. -- cross; is that correct?

A. Which lot? Right in that area?

Q. Right in that area.

A. Yes, on Section 2 it looks like that's probably the best -- what we've shown of Section 2 here, that looks like the best spot.

Q. There's a -- And what I'm looking at is, the area that's colored, you know, orange or yellow with a little bright red circle up here.

A. Yes, yes, that's correct.

Q. Okay. Is Yates' location based primarily on the Strawn?

A. It's based primarily both on the Strawn and the Atoka.

Q. Is your proposed Field Number 3 best situated to drain or compete for reserves with the Shell Lusk well in Section 11?

A. Compete in the Atoka?

Q. In the Atoka.

A. Do you mean, is there going to be competition between those two wells --

Q. Is there --

A. -- for the gas in the Atoka?

Q. Well, I mean, is -- will there be -- Okay, will

there be competition between those two wells for Atoka reserves?

A. This is -- probably would be better for an engineer to answer, but just off my knowledge of the Atoka and the gas produced, I wouldn't say that there would be a large effect between the two wells. But that's just, you know, that -- Like I said, engineering data would probably better to answer that.

Q. Now, you stated in response to a question from Mr. Carr that there is definite risk in drilling this Atoka well.

A. There is, yes.

Q. If there is risk in drilling your well, wouldn't you want to drill a well closer to the established production, the Brunson well and the Shell Lusk well in the south, place a well closer to those two wells to lessen the risk in the Atoka?

A. We feel like we have the north-south trend of this sand. I feel pretty comfortable about it. But again, I mean, I can't say for certain because there's not a whole lot of data up here. But if we did move it to the south we'd miss the Strawn target then, so we'd be down to just the Atoka.

We picked the location currently because it would hit the Strawn and Atoka. But we do feel pretty confident

about the north-south trend of this sand. But like I said, there's no control up there, and there's always risk when you drill any well.

Q. And on your Exhibit 6, Mr. May, you only go out to five feet, right?

A. Yes, yes --

Q. So the zero line --

A. -- but my last --

Q. -- is really a lot closer to the -- On the east side of this reservoir, the zero line is a lot closer to the eastern boundary of Section 2, is it not?

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

Q. Well, your five-foot contour line --

A. Right.

Q. -- goes through, oh, you know, 1000, 1200 feet east of your well unit?

A. Oh, of the proration unit.

Q. Yes.

A. Okay, yes.

Q. Wouldn't the zero line be closer to the east boundary line of Section 2?

A. Oh, okay, I see what you're saying. Possibly, yes. But still, when you look at the east half overall, the sand is thinning onto the east half. You may have some gas reserves over there, but if you drilled a well over

there I bet it would be noncommercial.

Q. Okay, you wouldn't want to drill a well in the east half --

A. I would not, not for the Atoka. Not for the Atoka.

Q. Yeah, the eastern half of that Section 2, you wouldn't want to drill an Atoka well?

A. Not -- Yes, that's correct. That's why we've spotted it in the West half.

Q. Just a couple of final questions, Mr. May. Looking at your Exhibit 10, this is what? Your seismic cross-sections --

A. Okay.

Q. -- going to the B north to the B south?

A. Okay.

Q. It looks to me like in the Atoka the further south you go the thicker it is?

A. Thicker? All I can really say right here is that it might be going slightly updip in time. Oh, are you talking about the pay, not the top of the Atoka?

Q. Yes, the interval thickness, Mr. May.

A. Thicker than the Yates location?

Q. I'm going from the top of the Atoka to the base of the pay. Isn't there a thicker interval?

A. Oh, oh, okay. Okay, that whole interval. Yes,

there is a little bit of a thickening there.

Q. And doesn't your C-north-to-C-south map show the same thing?

A. Yes, it does.

Q. So this would show that in the Atoka, the southwest quarter is thicker in the Atoka than Lots 12, 13 -- excuse me, 13 -- yeah, 12 -- 11, 12, 13 and 14?

A. That's a possibility, yes. But I -- From my geologic outlook on this, I don't think that's significant.

Q. Mr. May, one final matter. You mentioned something about diluting Yates' interest. Are you aware that Yates' interest in your standup unit, working interest, is the same as Yates' interest in Lots 9 through 16?

A. I don't know that as far as specific lots or anything, I don't.

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

EXAMINER STOGNER: Mr. Bruce.

Mr. Kellahin, your witness.

EXAMINATION

BY MR. KELLAHIN:

Q. Good morning, Mr. May.

A. Good morning.

Q. Would you pull out your Exhibit Number 6 for me?

There are three well locations under consideration. The Yates location is circled in blue on this display; is that correct?

A. That's correct.

Q. There are two Ocean locations. There's the one for the north laydown, which I'll call the north location for Ocean. Is that the location that's the open red circle slightly to the east of your blue circle?

A. Yes, just due east of it, yes.

Q. All right. So that's the northern Ocean location?

A. That's correct.

Q. The southern Ocean location, is that the one in the southeast of the southwest?

A. That's correct.

Q. Okay, and then there's a stray open circle just below the Number 3, and that's not a location?

A. I don't know if it's an active location or not, but it is not a location that is being considered in this hearing today.

Q. Am I correct in understanding that it is your opinion that when we are looking for the Atoka and Morrow production in this vicinity, it's limited to what you call the Brunson sand?

A. Not necessarily, but this is what we have seen in

the area to be the best producing pay. Now, there can be other pays within the Atoka-Morrow besides this one, but this appears to be the best one.

Q. When I look at this gross sand map, what is the gross interval that's included on the map? Is it simply limited to the Brunson sand that we saw on the cross-section?

A. That is correct, yes. It shows only one interval.

Q. Is there a material difference if you made a net map? Does that change anything?

A. It possibly would change the map a little bit. It would not change the -- probably would not change the orientation of the sand. But basically with this gross-sand map all I did was count the thickness of the sand, and with a net map I would probably throw in a porosity factor.

Q. All right. So the orientation is going to be about the same, the thickness might vary just a little bit. But you used the gross map, then, for making your selection of a location?

A. Yes, that was one of the criteria for selecting a location.

Q. All right. Is there any other criteria, other than this gross sand map, to find the Brunson sand?

A. We used a little bit of structure. And of

course, as I stated before, the Strawn was a big part of picking --

Q. All right, exclude the Strawn for a moment. Let's stay on the Brunson sand, if you will.

When we look at your location proposed, in comparison to the UMC -- Ocean's north location, I can't perceive a difference in thickness by which to decide the priority between those two locations; is that correct?

A. That's correct. As far as the thickness of the sand is concerned, there is not a difference between those two locations.

Q. When you add this additional component of structure to the Brunson sand --

A. Yes.

Q. -- you said that there was a slight advantage to the Yates location?

A. Yes.

Q. Can you quantify that?

A. Compared to the northern --

Q. Yes, sir.

A. -- Ocean location, it's about -- It's maybe 10 or 15 feet higher.

Q. Pretty negligible?

A. Yes, it is. It's a small one.

Q. Let me have you make the comparison now between

the Yates location and the southern Ocean location when we look at your gross Brunson sand map. I cannot perceive a material difference between those two locations when I look at sand thickness; is that correct?

A. That's correct. That's why everybody spotted their locations on the west half.

Q. Now, in your gross map you have a 25-foot contour line just to the west of your control point in Section 11?

A. That's correct.

Q. What's the basis for the 25-foot gross-thickness line?

A. The Shell Lusk down in Section 11 had 24 feet, and I based it off of that.

Q. All right, so there is data to make a contour of that thickness?

A. I believe so, yes.

Q. The southern Ocean location would appear to be located closer to the point of greatest thickness, as compared to the Yates location?

A. Slightly. As I said before, and as you stated before, I don't think there's any difference between the three locations based off of sand thickness. We're all -- All these locations should make a good Atoka well.

Q. If the proration units are laid down as Ocean proposes, then the southern location could be drilled,

could it not?

A. Yes, if that occurs, it could be drilled.

Q. And either the Yates or the Ocean's north location could be drilled with the north laydown, could it not?

A. If that's what occurs, yes. What we're afraid of is that laying the proration units down will bring in the unproductive acreage on the east half.

And also, we feel like that one well in this Atoka sand, a 320-acre proration unit is sufficient to drain that proration unit.

Q. All right. The engineering question will be answered by an engineer, I assume?

A. Yes.

Q. The geologic question that you've addressed, though, is the orientation of the spacing unit to overlie the greatest volume of potentially productive acreage in the Brunson sand?

A. We feel like the standup better fits the geology of the Atoka sand.

Q. I understand that argument. What I'm trying to understand is the choice of location. Even if it's a standup that you propose, and if I'm looking at the Brunson sand, why would you not move farther with your location?

A. Because we would miss out on the Strawn.

Q. Let's talk about the Strawn. Do you have a Strawn isopach of some kind to show us the distribution of the Strawn reservoir?

A. No, I do not, because the Strawn is fairly seismic-intensive, and that's why we did not prepare that. We used the exhibit on the -- based off the 3-D. I'm sorry, I forget the number of this exhibit, but that's what we base --

MR. CARR: -- Exhibit 9

THE WITNESS: Exhibit 9.

Q. (By Mr. Kellahin) So your Strawn locations are driven by looking exclusively at a structural position?

A. Not exclusively, but it is a big part.

Q. Are you using your 3-D seismic for some other purpose than defining structural highs?

A. Well, of course, we use it for looking at all horizons and any other factors that might play in. But that was the main thing.

Q. I'm not making myself clear. Can you use that 3-D seismic work to give you the size and the shape of the reservoir?

A. It depends -- It depends on the size and the shape. If it's extremely small, it's not going to -- the resolution won't see it.

Q. So you're using the seismic to find the highest

point for a Strawn well onstructure?

A. That's part of it, yes.

Q. What do you use to find out how big a structure you're going to have?

A. Well, part of it is based off of this. I mean, you can see the anomaly here that we have spotted our location on, that yellow spot, and part of that is showing how large it is.

Q. When I look at the seismic cross-sections --

A. Yes.

Q. -- do you have both UMC locations spotted, the north location and the south location? Are they on these maps?

A. On the maps or the traces --

Q. Yes, sir, on these.

A. No, it's just the northern one, just the northern location.

Q. Can you show me on any of these traces where the Yates location will be in relation to the Ocean southern location?

A. No, I cannot with the traces, but I can with Exhibit 9.

Q. Okay, let's do that. Let's find Exhibit 9 and have you show me your comparison between --

A. Okay, the southern Ocean location would be down

just southeast of the blue C' letter, around what you see as a TB 2-1. There's a little, small white circle in there. It would be just northeast of there. So it's in this blue area. The blue is the lowestmost -- It represents the structure time that's lowest on this map. You go from blues, low, to reds, high.

Q. So when you have compared your location, you've also compared it to both the Ocean locations?

A. That's correct.

Q. And you find as a result of that comparison, for their two locations, yours is the best point in the Strawn because it's the highest?

A. That's correct.

Q. When I look at Exhibit 5, which is your top-of-Atoka-marker structure map --

A. It's not the top of the Atoka; it is a marker, though, within the Atoka.

Q. Okay, and that marker is shown on one of the cross-sections so we know where you've tied this to?

A. It is the datum that was on the cross-section A-A'.

Q. If I look at this, do I not gain structure by moving to the southwestern portion of the spacing unit, as opposed to the Yates location?

A. For the Atoka, you do, for the southern Ocean

location. But as I stated before, it's not -- the structure is a small piece of chasing the Atoka. The big thing is finding the sand.

Q. Okay. When we look at the Strawn now, you've identified for me on this structure map with a color code what appear to be Strawn producers, and they are wells that have the blue shading within the circle. Do you see what I was looking at?

A. Oh, I'm sorry.

Q. Exhibit Number 5.

A. Yes, yes, that's correct, the Strawn producers have the blue.

Q. There are Strawn producers to the north and east of all the locations. Do you see that?

A. Yes, that's correct.

Q. When I look at your proposed spacing unit in Section 2, if I look to the south and to the west in Section 3 --

A. Yes.

Q. -- and look at the southeast southeast of 3 -- or the northeast southeast of 3 --

A. Yes.

Q. -- there is a well with a blue circle around that?

A. Yes.

Q. What does that mean?

A. I believe it's a Strawn producer.

Q. Have you done any comparisons of the data with that Strawn producer to the ones to the northeast, to see if it matters to you --

A. I --

Q. -- how close you are to the well in Section 3?

A. If I'm correct, over -- If you look back on the Strawn time map, I believe that is the Amerind 1 Y.

Q. I don't know, sir.

A. I believe that's what it is. And it's shown in yellow on an anomaly similar to what the Yates location is.

Q. All right. So if you're looking at an opportunity for a Strawn producer, the criteria is to be high on the structural feature that you interpret from the 3-D seismic data?

A. That's one of the criteria, yes.

Q. Have you integrated into any of your seismic cross-section lines the Amerind well that you've just described here in Section 3?

A. Yes, it's shown on this map. And like I said, the anomaly on it is similar to the anomaly that we're seeing at the Yates location.

Q. Is the anomaly you're seeing in the Yates location independent of any other strong anomaly?

A. It's -- I don't know if it's completely independent. I mean, some of the anomalies that you see over in Section 3 may be part of that, but it's -- It's kind of hard to say, but appears like it could be.

Q. When you look at the Strawn wells to the north and east of your location, are those wells within the same Strawn anomaly?

A. Those are not shown on this exhibit --

Q. I know.

A. -- and so -- I don't believe they are, but I'm going strictly off memory.

Q. I guess the point of my question, are they in the same Strawn reservoir where the wellbores were competing for the same hydrocarbons?

A. Not that I'm aware of.

Q. Okay. And your strategy here is to find an anomaly that's independent of any current Strawn production?

A. Well, let me back up with what you just said. Just because they're in the same anomaly, doesn't mean they are connected reservoirs.

Q. I understand. Your strategy here, though, is to find an anomaly that does not yet have a wellbore?

A. That's correct.

Q. And if you're fortunate enough to do that, you

improve the probability that that anomaly may also be independent of an existing reservoir being produced by a current well?

A. That's correct.

MR. KELLAHIN: Thank you, sir.

EXAMINER STOGNER: Mr. Kellahin.

Any redirect?

MR. CARR: No redirect.

EXAMINATION

BY EXAMINER STOGNER:

Q. How extensive is this Brunson sand throughout this part of Lea County, when I refer back to your Exhibit Number 4?

A. It is -- well, it's -- I don't know -- Of course, we don't know how far north it goes because we don't have the control --

Q. Okay.

A. -- and I'm not sure exactly how far south it goes out of this nine-section map that I have. But it does appear to go further south a ways, because some of the picks I have are on the southern border of the map.

Q. With just the Brunson in mind, and because you have a lack of datum points up to the north of you there, because none of the wells up in the upper tier, Sections 1, 2 or 3, even penetrated the Morrow; am I to assume that's

correct?

A. There are some wells in Section 3 that penetrated, but they did not see the Brunson sand.

Q. Okay, and those are designated as zero markers --

A. That's correct.

Q. -- on Exhibit Number 6?

A. That's correct.

Q. Would that southern proposed well for Ocean Energy, just looking at the Brunson alone -- that would, of course, make it closer to established production in the Brunson, would it not?

A. That's true, it would. But again, I feel like that we've got a good handle on the trend in the thick, and also our location further north is better for the Strawn. But you're correct, it is closer, the southern location is closer to current production.

Q. Okay. Now, you said the Mississippian was a primary target for your well. Is there any Mississippian -- successful Mississippian production in this area?

A. Mississippian is secondary --

Q. I'm sorry --

A. -- it's not primary.

Q. -- okay, it's secondary. Okay.

A. There's -- The two Yates wells that were on the cross-section A-A', the Brunson and the Shell Lusk, we did

attempt completions in the Mississippian, because we did have shows. We did establish commercial production.

There's -- and the only other -- That's the only other definite Mississippian that I'm really aware of out here.

Q. So the Mississippian test is, you're going to the Morrow, you've got your rig out there, and you might as well test it?

A. Yeah, yeah, that's right. It's not that much further, so you might as well take it down and take a look at it.

Q. So there's really no geological reason for the Mississippian?

A. Well, the UMC Carlisle well, we don't have logs on that but we do have a mud log. It appears that that zone that blew out appears to be in the Mississippian. And there could be argument over that. But it appears like that zone could be in the Mississippian.

Q. Now, where's this well that you're talking about?

A. That is the open red circle in the southwest section of 10, southwest quarter of 10.

But -- That could be debated, but when I've looked at the mud log and made my determination, it looks like to me it's Mississippian.

Q. But you didn't submit any -- Well, yeah, you did

include a little bit of Mississippian in Exhibit Number 10, or at least you showed some --

A. Yes, some of the seismic traces do show the Mississippian pick. But like I said, it's definitely a secondary target for this proration unit up here, up in Section 2.

Q. The well location -- Just to clarify some stuff for me. On Exhibit Number 6 and 5 there's a bunch of little red dots. What production does that mostly depict?

A. Most of the red dots through there are what the State's been calling Permo Penn, which is probably Wolfcamp.

Q. Okay. So we can assume by looking at that that's Wolfcamp oil?

A. Yes.

Q. Okay. Were most of those wells stand-alone, drilled down to the Wolfcamp and no further, of the existing wells that are depicted?

A. The vast majority of them did. Some did go down further, but the vast majority of those wells TD'd within the Wolfcamp above the Strawn.

Q. Okay, so your B-B' map, you took what was available to you in that particular -- the west half --

A. Yes.

Q. -- or the western portion, I should say, of this

irregular Section 2?

A. Of course, up in the north, in the very north part of Section 2, now, most of those wells are Strawn producers. If you look on Exhibit 6, those are colored in blue.

But outside of the ones on Exhibit 6 that were colored blue and yellow, the vast majority of those are Wolfcamp production, or were.

Q. And again, I can assume for the Strawn production down here, geologically speaking, is from the algal mound, the small algal mound?

A. That's what we understand, yes.

Q. So when I look at your Exhibit Number 9, that's your 3-D interpretation, the Strawn -- your proposed Strawn well would be -- well, it looks like it falls right in the center of one of these algal mounds; is that what you're depicting?

A. That's what we're hoping, yes, sir.

Q. And there would be another small one over there to the south and east.

A. That's correct.

Q. I'm talking about that small yellow --

A. Yes.

Q. -- depiction --

A. Yes, yes, that's true.

Q. That may or may not be commercial, but that would be --

A. That's correct.

Q. -- looking down on it, and one of the algal mounds.

What's the huge purple area, violet area to the Section 10?

A. There's some structure coming up on that part. You're getting up on a higher part of the structure, and as you go up on that structure, if you recall my cross-section B-B', the upper part of the Strawn, the producing part, starts to thin out and shale out as you go up and get on that, because I believe it was the Brunson in Section 10, it was the well that I showed where it was thin and shaling out.

Q. Would that accurately depict the deposition of the Strawn interval, or was that upthrown or lifted up later?

A. There is a fault block running down part of the southern part of 10, so it could have been faulted up. But there also -- You know, there could be a little bit in there to where it was already a little bit of a high, and things may have been eroded off.

EXAMINER STOGNER: Okay, I have no other questions of this witness at this time.

Any other direct -- or redirect or cross-examination?

MR. CARR: No.

EXAMINER STOGNER: You may be excused, Mr. May.

Let's take a 20-minute recess at this time, 15 to 20.

(Thereupon, a recess was taken at 10:20 a.m.)

(The following proceedings had at 10:40 a.m.)

EXAMINER STOGNER: This matter will come to order.

Mr. Carr?

MR. CARR: May it please the Examiner, at this time we'd call Dave Pearson.

DAVID PEARSON,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. Dave Pearson, or David Pearson.

Q. Where do you reside?

A. Artesia, New Mexico.

Q. By whom are you employed?

A. Yates Petroleum Corporation.

Q. What is your current position with Yates?

A. I'm a reservoir engineer for Yates.

Q. Mr. Pearson, have you previously testified before the New Mexico Oil Conservation Division?

A. No, I have not.

Q. Would you summarize your educational background for Mr. Stogner?

A. Yes, I have a bachelor of science in petroleum engineering from Texas Tech University in Lubbock, Texas.

Q. And when did you receive your degree?

A. 1990.

Q. Since 1990, for whom have you worked?

A. I worked for Exxon USA, six and a half years in Midland, and then about a year in Dallas for a consulting organization called Scotia Group. And I worked for approximately the last six months with Yates in Artesia.

Q. And at all times since graduation, have you been employed as a reservoir engineer?

A. That's correct.

Q. Does the area of your responsibility for Yates include the portion of southeastern New Mexico involved in this case?

A. That's correct.

Q. Are you familiar with the consolidated cases which are before Examiner Stogner here today?

A. Yes, I am.

Q. Have you reviewed engineering aspects of the proposals that are before the Division?

A. Yes, I have.

Q. And are you prepared to share the results of your work with the Examiner?

A. Yes, I am.

MR. CARR: Mr. Stogner, we tender David Pearson as an expert witness in petroleum engineering.

EXAMINER STOGNER: Any objections?

Mr. Person is so qualified.

Q. (By Mr. Carr) Mr. Pearson, let's go to what has been marked as Yates Exhibit Number 11, and I would ask you to identify this and review it for the Examiner.

A. Yates Exhibit Number 11 is an exhibit showing the nine-section area centered on Section 11, which is one section south of the area of interest. It shows the section lines, township boundary at the northern limit of the map, it shows *Dwight's* PI plots, the publicly available production data for all the producing Atoka or Morrow wells in the area.

It also shows pressure data for three wells in the area, two DSTs on a well in Section 10 that, for shorthand's sake, because the labels are fairly hard to read, I call the Brunson -- it's operated by Yates Petroleum -- pressure data from a pressure transient test

taken immediately after completion of the Shell Lusk well, Section 11, and DST data from a well that was operated by Mesa in 1973 in Section 14; two other wells, one well in Section 14 that the production plot identifies as operated by Mark Shidler. It was originally drilled by Mesa Petroleum, as identified on Mr. May, or Brent's, cross-sections as being the Mesa Petroleum well. The well in Section 15 blew out when it penetrated the top of the Atoka section.

Q. All right, let's look at the wells in Section 11 and Section 14. Could you review the information you have on those and explain what you believe this shows?

A. All right. In Section 14 the principal well of interest is the Mesa well that's in the -- it would be the east half of the section. The well was drilled and completed and began in production in early 1978. The well produced approximately 3.8 BCF of gas from the sand identified on Mr. May's cross-sections as the Brunson pay. It's currently producing roughly 900,000 cubic feet of gas a day -- or excuse me, the numbers are on there in per month. It's still producing about 10 million cubic feet per month.

The well in Section 11 is the Shell Lusk well, deepened and completed in the Atoka sand, the Brunson pay, by Yates Petroleum in December of 1997. We use the

Dwight's plots to try to show the publicly available data. The last data that was available when this exhibit was prepared was for the end of 1998, and the current -- the production rates at that point after they were frac'd were -- it was approximately 1.7 million a day and 25 barrels of condensate, to answer your previous question on Shell Lusk. And within a few weeks, the same point in time the Brunson well was completed, it was producing 1.3 million a day and 16 barrels of condensate per day.

The --

Q. What do these wells actually show you?

A. The principal point of showing the two wells is actually the pressure data that you see. After 3.8 BCF of production, a little over -- about a mile and a quarter to the south in Section 14, the Shell Lusk was completed, and the discovery pressure in the Shell Lusk, in the Brunson sand, was 3000 p.s.i., which represents about a 30-percent depletion of the estimated recoverable reserves in that location.

Also of particular significance is that a mile to the east in the Brunson well, which encountered about 17 feet, gross feet of sand, a pressure was taken with a few weeks of the time the pressure was take in the Shell Lusk. It shows pressure in the Brunson pay sand, which is the lower of those two DSTs listed there. The depths are

listed, and they should match what's on Mr. May's cross-section. The pressure at that location was what we believe is the virgin pressure, about 4000 p.s.i.

The DST in the well in the eastern half of Section 14 covered two pay sands: the Atoka sand we call the Brunson pay, and an additional sand down in the Morrow. It's not clear -- I can't discriminate between the two as to whether or not the higher pressure is a function of the two sands being combined, or actually the early pressure that the Mesa well saw was higher than 4000 pounds.

Q. All right, what does this tell you?

A. Basically the point to take away from the Mesa well that's made 3.8 BCF and the Shell Lusk well in Section 11 is that at a distance of a mile and a quarter there's very good continuity in a pressure sense between these two wells. And in fact, the drainage radius of the wells extends greater than a mile.

The second point would be that in an east-west sense, at a distance of about three-quarter of a mile apart, it doesn't appear that there's interference between the two wells.

Q. Based on this information, do you have an opinion as to whether or not two wells are necessary on the east half of Section 2 to drain the Atoka reserves that are there?

A. In my opinion, only one well is necessary. A second well would simply be unnecessary.

Q. Does Yates Petroleum Corporation have concerns about having Ocean or UMC operate wells in which its interests are committed?

A. Yes, it has. In wells that we've participated with Ocean, we have had -- most recently, have had significant operational problems and cost overruns. We don't believe -- From our perspective, we don't believe that Ocean is a prudent operator. And we'd have significant -- or we won't feel comfortable with them being operator in any compulsory pooling case until they've cleaned up the problems that have occurred in Carlisle Number 1.

And based on information we have, there are additional problems. They've drilled two other additional wells in the area, both of which have encountered significant mechanical problems, particularly Townsend Number 4, where they've had casing and cementing difficulties.

We just don't -- We are not comfortable with them being able to operate in a prudent, safe manner and be within -- their AFEs represent any reasonable approximation of what their costs are going to be.

Q. If pooled, would Yates be interested in

voluntarily joining in the well and thereby becoming a partner in any future problems that might occur?

A. No.

Q. Would Yates be -- has Yates -- Is it acceptable to Yates to be put in a position where a 200-percent risk penalty could be assessed against their interest by virtue of their electing not to be in a well operated by Ocean?

A. No.

Q. Was Yates Exhibit Number 11 prepared by you?

A. Yes.

MR. CARR: Mr. Examiner, at this time I would move the admission into evidence of Yates Exhibit Number 11.

EXAMINER STOGNER: Exhibit -- Are there any objections? Exhibit Number 11 will be admitted into evidence at this time.

MR. CARR: And that concludes my direct examination of Mr. Pearson.

EXAMINER STOGNER: Thank you, Mr. Carr.

Mr. Bruce, your witness.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. Pearson, is this a continuous, homogeneous reservoir?

A. I don't believe it is a continuous, homogeneous

reservoir.

Q. Do you agree that some compartmentalization or permeability barriers exist in this reservoir? I mean, looking at the pressures on the Brunson well and the Shell Lusk?

A. The data, in my opinion, clearly shows that in an east-west sense there are permeability barriers or compartmentalization.

Q. Have you calculated the -- Are there shut-in wellhead pressures available for the Monsanto State Number 1, down in Section 14?

A. I don't have either well in Section 14 identified as the Monsanto State Number 1.

Q. Okay, I think what you called it is the Mesa. The one in the west half of Section 14?

A. I don't know.

Q. You don't know? You haven't checked *Dwight's* for that information?

A. In New Mexico the pressures that are reported in *Dwight's* are somewhat erratic.

Q. So you haven't calculated any reservoir pressure for that well?

A. I have not. I have direct evidence of drainage between that well and the Shell Lusk.

MR. BRUCE: I have nothing else, Mr. Examiner.

EXAMINER STOGNER: Thank you, Mr. Bruce.

Mr. Kellahin, your witness.

EXAMINATION

BY MR. KELLAHIN:

Q. I apologize for not keeping up with your names on this map. Would you help me --

A. That's okay, it's confusing.

Q. Let's look at this exhibit, so I understand the pressure data you were looking at.

A. Okay.

Q. In Section 11 we have a well, and what did you call this well?

A. That was labeled the Shell Lusk. It's the Shell -- It's operated by Yates Petroleum, and it's the Shell Lusk. I don't remember our lease designation, but I think "AND" Number 1.

Q. Okay. Yates Shell Lusk is in 11?

A. That's correct.

Q. In 14 we have two wells. The well in the southeast quarter, that was what? The Mesa well?

A. That's -- Yes.

Q. Okay.

A. I believe it's identified on Brent's -- or Mr. May's cross-section as the Mesa well.

Q. Okay, we call that the Mesa well.

The well to the west in 14, do you have a name for that?

A. I'm sorry, the well in the west in 14 is also operated by Mesa, the one that has the lengthy cum.

Q. Yeah, I'm having trouble finding the data.

A. That's --

Q. It says no Atoka or Morrow drill stem test.

A. That's correct.

Q. Okay, what do we call that?

A. That's the one we call the Mesa also. That's the significant Mesa well. It's operated by Mr. Shidler, if the *Dwight's* data is correct.

Q. All right. That's the big Mesa well.

Over in 15 is the Ocean well that blew out?

A. That is not correct. This is an earlier well that was drilled in 1973, and if you can read the small text it shows that it was operated by V-F Petroleum at the point it was completed here. I'm working from my memory, but I --

Q. All right, we'll call it the V-F Petroleum well?

A. Yeah, I believe it was drilled by ARCO.

Q. We'll call it the V-F Petroleum, just to keep it straight.

Up in 10 now, what shall we call that well?

A. That is the Yates Brunson well.

Q. All right.

A. And then there are -- The locations are in Section 2 of interest.

Q. Okay. When I'm looking at five data points --

A. Correct.

Q. -- what's the sequence? Which one's the first data point?

A. The first well drilled was over in Section 15.

Q. Okay, what's your next data point?

A. The second well drilled was in Section 14, in the eastern half.

Q. Okay. The third?

A. The third well drilled was in the western half.

Q. Okay.

A. And then the order on the Brunson and the Shell Lusk are virtually identical. They were drilled within the last quarter and completed in December of 1997.

Q. Okay. Your pressure data, have you been able to analyze the data and confine it to a particular reservoir?

A. That's correct, with the exception of the well in the eastern half of Section 14. The well in the eastern half of 14 includes the Brunson pay and some lower pays. I don't -- my recollection -- I don't know if it's -- they're in Mr. May's cross-section or not.

Q. Let's start with the Mesa well in the east half

of 14. That's the one that had about what, 3.8 BCF of gas?

A. No, it's the well in the west half of 14 that had 3.8 BCF.

Q. All right.

A. The well in the east half was an earlier completion that produced about 250 million cubic feet of gas.

Q. When you compared those two wells to each other, did you have reliable pressure data to make comparisons?

A. No, there is no pressure data available that I regard as reliable in the Mesa or currently operated by Shidler well in the west half of Section 14.

Q. Okay. So we go up to Section 11, and we have the Yates Shell Lusk, and your pressure data, were you able to find pressure data that you could use for comparison purposes?

A. Correct. We operate the well, and immediately upon completion of the well, a pressure transient buildup was run. It was isolated to the Brunson pay --

Q. Okay.

A. -- and that is where the pressure points you see there are 3016 p.s.i., and it's the gauge depth that's listed on there.

Q. You have concluded that the Yates Shell Lusk well was subject to pressure depletion in the Brunson sand?

A. The Yates Shell Lusk well was subject to pressure depletion in the Brunson sand.

Q. To what well or wells do you attribute that depletion?

A. The depletion can be attributed to the Mesa, or the well operated by Mr. Shidler now, in the west half of Section 14. It is the only well in the area that has produced a sufficient volume of gas to drain that distance.

Q. Okay. You can't tell us which of the two wells were causing the drainage, but they were pre-existing wells, and the depletion had to be attributed to something?

A. That's a fair statement.

Q. Okay. Then the Brunson well in 10 is drilled, about the same vintage as the Yates Shell Lusk well in 11. And do you have pressure test data on the Brunson well in Section 10?

A. Correct.

Q. And what does that show you?

A. That pressure shows what we believe to be the virgin pressure in the Brunson pay of 4000 p.s.i. There are two DSTs listed in that well, and the lower of the two DSTs is the test of the Brunson pay. It shows what, again, we believe to be the virgin pressure in the area of 4000 p.s.i.

Q. When I look at Mr. May's Exhibit 6, the gross

sand map, and look at the comparisons of gross sand thickness, do you have an engineering explanation as to why the Brunson well appears not to be in pressure communication with the --

A. Yes, as I --

Q. -- with the Shell Lusk well?

A. Yes. As I previously stated, I believe that there is poor continuity, consistent with the geologic model of deposition, north-south channels. I believe there's poor pressure continuity, either a permeability barrier or what is a change in the sand. There has to be a permeability barrier. What you attribute the permeability barrier to, I can't conclude.

Q. And apparently there is less restriction to gas migration between Sections 11 and 14?

A. I wouldn't attribute it specifically to those. I would say in a north-south sense in general.

Q. Okay. So there appears to be a bias in terms of drainage or depletion in a north-south direction?

A. Yes, a considerable bias.

Q. Have you made any forecasts of what you think the ultimate gas recovery is going to be from the Yates Shell Lusk well in Section 11?

A. I have not at this point. There's only about three months or four months of production data.

Q. All right. Have you established any kind of pressure decline in that well yet?

A. Not a strong one. We have some working numbers, but they're not something that I -- I mean, they're very loose. It's going to be half a BCF or better, for example.

Q. All right. The current forecast, if it follows on trend with this kind of well and these performances, would give you what kind of estimated ultimate recovery?

A. A half BCF or better.

Q. Okay.

A. Similarly, we've done an analysis. There's more pressure data available in the Brunson well, and it shows that it's likely to be a very limited-extent reservoir, probably less than a quarter BCF.

Q. Have you done pressure buildup analysis on data from that well?

A. Yes, actually we have a DST and two additional pressure data points. And the conclusion you would draw, based on material balance for that particular well, would be that the reservoir extent is very limited.

Q. In the Brunson well?

A. In the Brunson well.

Q. Have you done a similar test for the Shell Lusk well?

A. We have not yet.

Q. Why not?

A. We were forced to shut the Shell Lusk well in as a function of the blowout in the Carlisle.

Q. At what point in time are you going to be able to forecast what you might believe to be a barrier limit, using pressure buildup or some other data to show you how far out you can reach in the reservoir with the Shell Lusk well?

A. It should be within a year. It might be considerably sooner than that. It depends on the size of the reservoir and the degree -- you know, some gauge-accuracy concerns and things like that.

Q. Can you estimate, between the Shell Lusk well and Yates' proposed location in the hearing today for this Fields 3, the point of interference between those two wellbores as they compete for gas in the Brunson sand?

A. Not at this point in time. We won't be able to estimate that until we understand the total transmissibility in the Yates in Section 2. That type of calculation requires pretty intimate knowledge of the transmissibility in both wells.

Q. At this point would it not be appropriate, with the lack of data, to position the well in Section 2 at a point equal distance from the common boundary with the well that's producing in 11, so that they would each compete in

a fair way for their share of gas reserves in the Brunson sand?

A. Without -- Yeah, that probably is. The appropriate way to do it is actually to know what the transmissibility of the two are, and you don't know that until after you've drilled the well. So it's a reasonable assumption.

Q. The risk we're running with the Yates location is that we can give up Brunson gas reserves in the south half of that spacing unit that will be depleted and produced by the Yates Shell Lusk well?

A. That's probably a fair assessment.

Q. Do you know what Yates' interest is, in terms of a percentage in the Yates Shell Lusk well?

A. I don't.

MR. KELLAHIN: Thank you, Mr. Examiner, that's all I've got.

EXAMINER STOGNER: Any redirect?

MR. CARR: No.

EXAMINATION

BY EXAMINER STOGNER:

Q. Are all five wells depicted on Exhibit Number 11, are they presently producing?

A. No, presently producing wells are the well we call Brunson in Section 10, the well we call Shell Lusk in

Section 11, and the well in the west half of Section 14 that -- it's labeled on there in the fine text as operated by Mr. Shidler.

Q. And the one in the east half of 14, that did produce and is now plugged and abandoned or recompleted uphole?

A. Recompleted out of that zone. It produced from early first quarter of 1974 and was depleted, pressure-depleted and abandoned, in the mid-year of 1976. It produced approximately 260 million cubic feet.

Q. In your opinion, what was the pressure depletion from? Did the well in the west half contribute to the pressure depletion?

A. No, the well in the west half did not begin production until 1978. I believe it was just a limited-extent reservoir, and consistent with both mine and Mr. May's interpretation of the east-west permeability, or the channelized nature of this, exaggerates drainage in a north-south sense and significantly reduces it in an east-west sense.

Both the southern wells -- The well in Section 15 also produced and was depleted, based on a limited-extent reservoir, I assume, although we don't know how much gas they lost in the blowout, before the well in the west half of Section 14 came on production.

Based on those two points, I'd say it's highly unlikely that there was pressure communication even a half mile distance in an east-west sense, because the pressure was low enough that the rates were no longer economic in the east half of 14, where the rates were clearly economic, and there's a large connected reservoir in the west half of 14.

With those two control points, it forces the reservoir orientation to be north and south.

Q. Now, the location of the wells of these three lower -- or the far southern wells, on Exhibit Number 6 --

A. I'm sorry, I don't have a copy of that in front of me.

Q. I was trying to come up with some sort of depiction on the placement of these wells in that channel. The well that produced from 1974 to 1976, it looks like it had 14 feet of pay; is that correct?

A. I believe so.

Q. And then the well in Section 15, this is the Carlisle well, you said?

A. No, this is a well operated by V-F Petroleum. It blew out in 1972. It's the -- There had been previous drilling and pressure-related problems in Section 15.

It was a deeper test, and was recompleted by a different operator than the original operator to this

Brunson pay, or to a Morrow pay in the neighborhood, and produced from 1972 until the first month of 1973. It made approximately 50 million cubic feet of gas.

Q. And the similarity in those two wells, they're over there between the 15- and 10-foot contour line.

A. Yes. As you recall, Mr. May testified that he felt like as the sands thinned, they became quite a bit less -- quite a bit more channelized or quite a bit more quality. And that seems to be consistent with the data that's shown -- the complete -- the actual EUR of these two wells, and it's also consistent with the EUR that we are estimating for -- in answer to Mr. Kellahin's question, the EUR that we're estimating for the well called Brunson in Section 10.

It's not clear to me whether there are, in fact, multiple channels and there's one in the thicker part of the pay that's much more continuous than the others, or whether there's shale drapes or something else that creates a permeability barrier. Clearly, in an east-west sense, and then even as you get into the thinner pay, they're not as extensive north-south either.

Q. I was trying to come up with some sort of relationship or understanding, would there be -- If you're in that main channel there, such as the two currently producing wells in 11 and 14 --

A. Yes.

Q. -- which is depicted to be in that main channel area there, would we see a pressure depletion or pressure interference?

A. I believe, in fact, we have direct evidence of that. The pressure in the Shell Lusk in Section 11 is about 25 percent below what we believe is the discovery pressure. And in a recoverable reserve sense, about 30 percent of the reserves probably have been drained from that section down into Section 14, or been produced by the well in Section 14.

Based on that, I would conclude that the drainage radius or extent of these wells is significantly more than the mile-and-a-quarter distance.

Q. But how much of the well in Section 10 would have added to that pressure depletion, or what kind of pressure do we see in the well in 10?

A. The well in 10 did not show any pressure depletion at all. It was completed simultaneously, within a few weeks of the time of that the well in Section 11 was completed, and the original pressure in the Brunson pay -- or the pressure at completion in the Brunson pay, actually during a DST, was 4000 p.s.i., in Section 10.

At completion in Section 11, the pressure was 3000 p.s.i., and there was no production from Section 10 at

the time of the completion of Section 11.

Q. Well, what would be the cause -- or not cause. What would be the effect of having two wells within that western portion of Section 2, as opposed to one? What kind of adverse effects would you expect, or would you expect any adverse effects?

A. If two wells were placed in the two laydown -- and if the circumstances were such that the two laydown proration units were approved and two wells were placed there, the southern location would have a disproportionate opportunity to drain reserves from the Yates lease in Section 11.

In addition, because of the significantly higher interest that UMC would have in the southern proration unit in Section 2, the -- UMC would have the opportunity by operational manipulation to drain reserves from the northern unit, which they had a lower interest in, by controlling the production rates.

Q. How about adverse effects to the reservoir, notwithstanding ownership differences?

A. Adverse effects to the reservoir, in my mind, would be difficult to -- I would not conclude that there would be any adverse effects, because I believe it's a volumetric reservoir. The data that I have so far suggests that it's a volumetric reservoir, although somewhat

extensive in a north-south sense.

And so I would have a hard time -- I don't think the rate at which you deplete it is going to have much impact on ultimate recovery.

Q. So this reservoir is not rate sensitive?

A. I don't believe so. I don't see evidence of a water-drive mechanism or any kind of fines migration or sand production.

Q. How about adverse affect, just to the reservoir alone, as far as pressure and/or drainage, would the two wells have in that well in Section 11, in your opinion?

A. I'm sorry, would you mind repeating your question?

Q. I'm just looking at the technical reservoir, and notwithstanding ownership differences, of having two wells up there in that -- in Section 2, as UMC is proposing -- I'm sorry, as Ocean is proposing. How would that adversely affect either drainage or pressure on that number -- the well in Section 11?

A. The -- locate -- Put two locations in Section 2, given the evidence of continuity that we have at this point, we'd in effect -- we'd seriously impair Yates' correlative rights in Section 11. It would put two -- or it would drain Section 11. It would put two sources of withdrawal in the same reservoir across the section line

from only one source of withdrawal.

Given the mapping that's been done to date, the evidence would be that they'd be about the same gross thickness and about the same transmissibility, and so I would have to assume that you'd be able to take twice as much gas out of Section 2 as you could take out of Section 11, thereby draining Section 11 through the wellbores in Section 2.

Q. I'm sorry, I thought you told me that one well would be able to adequately drain the reserves from that western portion of Section 2. And with what I'm hearing, you're saying that two wells, you would have more --

A. The withdrawal --

Q. -- more withdrawal.

A. That's correct, you'd have twice the withdrawal rate. Based on the way they're mapped, it appears that they would about -- It's just a rate question.

You could take -- since the thicknesses appear to be likely to be about the same in both locations, the withdrawal rates that you're capable of -- I mean, everybody goes in the same pressure gas pipeline, so the -- You've got the same delta P both locations, and you could have twice the withdrawal rate from Section 2 that you have in Section 11.

And again, given that the sand thickness is

relatively similar and the sandbody width is about the same, you would be able to produce a disproportionate share of the reserves from Section 2, versus one withdrawal point, half the rate, in Section 11.

Putting two wells in Section 2, you'll produce more gas -- There's a total amount of gas that's available to produce between Section 2 and Section 11, and if you put two wells in Section 2, because their withdrawal rate will be twice what one well -- what the rate of withdrawal from Section 11 would be, then they will drain Section 11 to Section 2.

I believe it's one tank, and you're going to put three straws, rather than two straws.

Q. In your opinion, can these four wells, assuming the Yates well is allowed, would these four wells be the adequate number of wells to adequately drain this Brunson sand in this channel?

A. Yes. Back from the perspective strictly of a Brunson sand completion, the Brunson well in Section 10 is probably going to be uneconomic. We wouldn't drill to that target exclusively, given what we know today.

Q. I'm sorry, say that again.

A. The Brunson well in Section 10 probably -- I guess the point I was trying to make, probably three wells would have been adequate, because the reserves we think we

will recover from the Brunson well in Section 10 are going to make that well noncommercial or uneconomic.

When you get out of that main channel, as Mr. May said earlier, the wells -- it appears that the pay is not sufficient -- the extent of the pay is not sufficient to justify -- you know, to reservoir the gas to make an economic well.

That's part of why we think that the western -- or the eastern half of Section 2 should be considered to be part of the proration units.

EXAMINER STOGNER: Any other redirect?

MR. CARR: No redirect.

EXAMINER STOGNER: Any other questions?

MR. BRUCE: I have a couple, Mr Examiner.

FURTHER EXAMINATION

BY MR. BRUCE:

Q. Just following up on something the Examiner asked you, if you believe a limited reservoir exists down in the well in the southeast quarter of Section 14 and that separate reservoirs exist between Sections 10 and 11, why do you believe that a well in the northern part of Section 2 will drain all of the Section 2 reserves?

A. Because the well in Section 10, the well in Section 15, and the well in the eastern half of Section 14, were clearly uneconomic as Brunson-pay producers. The

reserves that are economic are oriented in a north-south direction in this channel sand. The acreage in the eastern half of Section 2 probably is not economic, because the acreage in the eastern half of Section 2 is considerably thinner than those three uneconomic wells, by our mapping.

Q. It seems like what you're saying is that since -- Are you saying that the -- I forget what you called it, but the well in the southwest quarter of Section 14 -- I think you called it the Mesa?

A. Yeah, on the exhibits you have, in the little text, it's labeled as --

Q. Shidler --

A. -- Shidler.

Q. Shidler. Okay, the Shidler well. That has drained Section 11?

A. Correct.

Q. So what you're saying is, as a result, you ought to be allowed to drain Section 2?

A. By -- I don't know --

Q. By the Shell Lusk well.

A. No, we've asked to place a well roughly equidistant from the Shell Lusk well and in an optimum Strawn location in Section 2. Actually, UMC, now Ocean Energy, has asked to place a well on the drainage boundary, what you would assume is the drainage boundary between the

location -- between Section 2 and Section 11 --

Q. Okay, so --

A. -- and drain Section 11 with their southern well.

Q. So you think a drainage boundary would be -- what? A quarter mile north of the northern boundary of Section 11?

A. That would be roughly -- Yes, I think that's appropriate. I think that the wells drain at least a mile, mile and a quarter away, give clear prima facie evidence of that, between -- of the depletion -- shown by the depletion in Shell Lusk.

Q. One final thing. The Shell Lusk well in Section 11, you had a pressure of about 3000?

A. That's correct.

Q. And what was the pressure in the Shidler well?

A. The Shidler well pressure at that time we don't know.

Q. You don't know what its completed well pressure was?

A. At the time of initial completion, or at the time that the pressure was measured in the Shell Lusk?

Q. Its initial.

A. I do not know. I believe that it was -- Given the other DSTs in the area, I believe that it was about 4000 p.s.i., and using a normal pressure gradient, which is

what we encountered in Section 10, in the Brunson well, would have been about 4000 p.s.i.

Q. Do you consider 800 to 1000 pounds pressure drop over 25 years, 20, 25 years, effective drainage?

A. I didn't say that it had completely drained Section 11; I said that the drainage radius extended at lease a mile and a quarter from that well. And yes, given time it will drain Section 11 completely.

Q. But it's already been over 20 years, right?

A. The point of drainage is not how long it takes.

Q. So if no well is drilled in Section 2, eventually your well in Section 11 will drain Section 2?

A. Yes.

Q. All of it?

A. Correct.

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

EXAMINATION

BY EXAMINER STOGNER:

Q. What's the difference between Strawn and Morrow out here, by average?

A. Do you know, Brent? I don't know. One of the geologists -- It's on --

Q. Okay, let's look at Exhibit Number --

A. I don't have it here.

Q. -- 4. How familiar are you with the Strawn production out there?

A. I have not studied it in depth. I am somewhat familiar with it.

Q. Will you be the one making the determination where Strawn perforations are made as well?

A. No. No, I will not, although I probably will do the log analysis.

Q. Okay. Just by looking at Exhibit Number 4, which has already been submitted, I show the top of the Strawn in here about 11- -- what? About 11,300, something like that?

A. Yeah, 11,320 or so.

Q. And the Morrow is at what depth?

A. The Morrow itself, as we interpret it, would be at about 12,340 -- I'm sorry, about 12,040. So there's about 700 feet between the two.

Q. What kind of cost difference would the drilling of a Strawn well, or a well down to 12,000, 11,500, be over a well, stand-alone, drilled down to a depth of the Morrow penetration? Is -- Do you have any estimation of what would be the cost difference?

A. Probably -- Well, I don't know which way you want me to answer the question. A Strawn-depth well would probably cost about $1.1 million completed, whereas a Morrow-depth well would probably be $1.2 to $1.3. Not a

big -- a small difference.

Q. Just a small difference?

A. Yeah, I didn't know whether you wanted the cost of a Strawn well or whether you wanted the $100,000 difference.

Q. Mostly I'm just looking at the cost of just drilling down to a depth and then drilling down to another depth. I'm trying to look at the whole picture here. I mean, we're talking about the Brunson and the development of the Brunson, but yet we're talking about Strawn development also.

A. Correct. My estimate would be $1.1 to drill to the Strawn and complete, $1.3 to drill to the Morrow and complete, or the Brunson pay.

Q. So you would need more than -- You're going to have more than one well down to the Strawn anyway, in this portion of Section 2?

A. Yeah. I don't have all the Strawn completions, but there are other Strawn completions in Section 2, I think more in the northeast portion of it than in the south. I think they don't come much south -- At this point in time, I don't think they come very much south of the --

Q. So an additional --

A. -- midpoint.

Q. -- Brunson well in this particular section would

only serve to -- and I'm looking at just the depletion of the Morrow zone -- would just serve to deplete the Morrow zone faster?

A. If you put -- If I understand your question correctly, if you put two wells in the Brunson pay, versus one well in the Brunson pay, all you would accomplish would be to deplete the Morrow zone faster, and I believe drain reserves from Section 11 into Section 2.

Q. But that most southern well that UMC is proposing, that's a standard location, is it not?

A. I -- Bill?

MR. CARR: Yes.

Q. (By Examiner Stogner) You're not advocating 640-acre spacing for the Morrow at this point, are you?

A. I don't know if that's appropriate in this setting.

MR. CARR: Not at this point, no.

Q. (By Examiner Stogner) So the UMC well is proposing that as a standard location?

A. Yes.

EXAMINER STOGNER: I want to make that clear, that's not unorthodox..

I'm also looking at the number of wells that would have to be drilled anyway to develop the Strawn and the Morrow.

With that, I have no other questions.

MR. CARR: No further questions.

EXAMINER STOGNER: You may be excused.

Mr. Bruce?

Mr. Carr --

MR. CARR: Yes, sir?

EXAMINER STOGNER: Will Mr. Pearson be available if we need to --

MR. CARR: Yes, sir, he will.

EXAMINER STOGNER: Ready when you are, Mr. Bruce.

LAURA B. SMITH,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Okay. Would you please state your name and city of residence for the record?

A. My name is Laura Smith, and I live in Denver, Colorado.

Q. Who do you work for and in what capacity?

A. I work for Ocean Energy, Inc., as a senior landman.

Q. Have you previously testified before the Division as a petroleum landman?

A. No, I have not.

Q. Would you please describe for the Examiner your educational and employment background?

A. Sure. I graduated in May of 1983 from the University of Colorado with a BS in mineral land management. Since then I've worked for a variety of different oil and gas companies in Denver. Those include Resources Investment, Nikor and General Atlantic, and I've been with Ocean Energy or its predecessor since February of 1997.

Q. Does your area of responsibility include southeast New Mexico?

A. Yes, it does.

Q. And are you familiar with the land matters involved in these cases?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I tender Ms. Smith as an expert petroleum landman.

EXAMINER STOGNER: Any objection?

MR. CARR: No objection.

EXAMINER STOGNER: Ms. Smith is so qualified.

Q. (By Mr. Bruce) Would you please refer to Exhibit 1, identify that for the Examiner, and discuss what it is that Ocean Energy seeks in its cases.

A. Okay. Exhibit 1 is a land plant of Section 2, Township 16 South, Range 35 East. It shows the two 320-

acre units that we are -- we propose to pool.

Our two proposed wells are shown. The Townsend State Com Number 2 well is depicted in Lot 14, and the Townsend State Com Number 6 well is depicted in the southeast of the southwest quarter.

What we'd like to do today is, we're seeking two compulsory pooling orders. The first, in Case 11,958, we'd seek to pool Lots 9 through 16 as to -- from the surface to the base of the Mississippian formation for all pools or formations spaced on 320 acres, and lots 13 and 14 for all pools or formations spaced on 80 acres.

In this case, we are also requesting an unorthodox well location for the Townsend State Com Number 2.

In the second case, 11,959, we seek to pool the south half of Section 2, from the surface to the base of the Mississippian formation for all formations spaced on 320 acres.

Q. What is the underlying mineral ownership in Section 2?

A. The area that we're -- Well, in all of Section 2, all of the lands are State of New Mexico lands, with the exception of the southwest southwest, which is fee acreage.

Q. Okay. Other than that 40 acres, everything else is state land?

A. Yes, that's correct.

Q. And we'll get into this in a minute, but let me digress. Lot 12, we'll get into that mineral-interest owner- -- or leasehold-interest ownership later, will we not?

A. Right.

Q. Now, that includes a number of contractual interest owners who own interest over in Section 3?

A. That is correct.

Q. Okay. And then the fee tract down in the southwest southwest, that also has a bunch of leased and unleased owners?

A. Correct.

Q. Okay. Why is Ocean Energy seeking two laydown units, as opposed to the one standup unit proposed by Yates?

A. Well, the first well we discussed between Ocean and Yates was the Townsend State Com Number 2 well, and it was talked about being spaced with Lots 13 and 14. Those discussions started back in July of 1997, and at that time the Strawn was really the only zone of interest, and the only two interest owners in the well would have been Ocean Energy and Yates at that time.

However, as occurred previously today, since that point last summer there's been additional development in

this vicinity. Most particularly, the Brunson well in the northeast quarter of Section 10 was logged and completed in the fall of 1997, and as a result of that well, additional data was available, and Ocean and Yates, I believe, both began to revise their geology to include an Atoka test in Section 2.

We have chosen the Townsend 2 location because it can test both the Atoka and the Strawn. However, our geologist and engineer believe that two Atoka wells are necessary in Section 2 to adequately develop the Atoka reservoir, and we feel that the best Atoka location is in the southwest quarter of Section 2. And as a result, that's why we feel that we need the two laydown units.

Q. Okay. Would you identify Exhibit 2 and describe what that shows?

A. Yes. Exhibit 2 is a nine-section plat of the area. We have shown the Wolfcamp and deeper wells that produce in this area on this plat.

Also on the plat, if you look at Sections 10 and 11, we show four existing Atoka well units in those two sections, and we'll discuss those well units later.

Also on the plat, again, are our proposed two laydown units in Section 2.

Q. Okay. What is the leasehold ownership of Lots 9 through 16 in your northern unit and the south half -- I

mean of Section 2, your northern unit, and in the south half of Section 2 your southern unit? And I'd refer you to Exhibit 3?

A. Okay, Exhibit 3 shows the ownership of our proposed two laydown units. The first is Lots 9 through 16 on Section 2, and you can see that Ocean and Yates have basically the same interest.

I understand, due to Mr. Bullock's testimony, they've acquired a small interest. So their interest, instead of 37.5 percent, would be 37.9 percent.

The south half of Section, Ocean does have 75-percent working interest, and the Yates companies have a 12.5-percent working interest. In both of these two laydown units you'll see the 40 acre tracts that Jim previously mentioned that contain either contractual working interest owners or unleased -- numerous unleased or leased owners.

Q. Okay, let's move on to that. For Lots 9 through 16, the northern unit, would you refer to Exhibit 4A and identify that for the Examiner?

A. Yes, Exhibit 4A is our Exhibit A to our operating agreement for the northern 320-acre unit. If you'll look under what's identified as the deep unit from -- first it reads UMC, then Yates -- Mark Shidler down through Pride Energy Company, those owners are all attributable to Lot

12.

Q. Okay. So those are just -- The one you just mentioned are the Lot 12 interest owners?

A. Right, right.

Q. And then regarding the south-half unit, if you'd refer to Exhibit 4B --

A. Right.

Q. -- could you identify who the interest owners are in the southwest quarter, southwest quarter?

A. Yes, those entities are listed under the -- below where the deep unit is set forth.

Q. Okay, and at this point you don't have a specific breakdown on those interests, do you?

A. No, I really don't.

Q. It's your understanding that Yates was having a title opinion prepared on this?

A. I understand that Yates obtained the abstracts for the southwest southwest. We understand it was quite expensive. And actually, Mr. Bullock and myself discussed not -- for us not to order the abstracts as well.

Q. Not duplicating the cost?

A. Exactly.

Q. Okay. Looking at Exhibits 4A and 4B, at this point who do you seek to pool?

A. We seek to pool all of the owners listed on 4A

and 4B, with the following exceptions, and that will be Marjorie Cone Kastman; R.G. Barton, Sr., and the Opal Barton Revocable Trust; and S.E. Cone, Jr.

Q. Okay.

A. These parties have all elected to participate in the wells.

Q. Have you had conversations with other interest owners who indicate they may participate once this case is decided?

A. Yes, I've had numerous conversations with some of the smaller working interest owners. We're going to wait and see what transpires at the hearing before making election.

Q. Okay. Let's discuss your efforts to obtain the voluntary joinder of the interest owners in the well. If you could, just briefly identify Exhibit 5 at this time.

A. Okay. Exhibit 5 is a time line that I put together that tracks the various either conversations or correspondence that I had with the other working interest owners in these two laydown units.

Q. Okay. And what is Exhibit 6?

A. And Exhibit 6 is the supporting documentation for my timeline. It's copies of correspondence and also telephone notes that I've jotted down.

Q. Okay, so Exhibit 6 is the backup to Exhibit 5?

A. Yes, exactly.

Q. And let's not go specifically through this at this time, but in addition to the correspondence here in Exhibit 6, did you have any other contacts with the parties?

A. Yes, especially between Yates and UMC. Mr. Bullock and I have talked many times, as well as our respective geologists have talked on numerous occasions regarding the development of this section.

Q. Did personnel from Ocean Energy also visit Artesia in an attempt to resolve this matter?

A. Yes, we did. We went down in February, late February, after we had received Yates' pooling application notice. But previous to that we had offered on many occasions to go down and talk to them about these issues.

Q. Okay. Well, let's, rather than having -- use the big package of correspondence, let's go to your time line --

A. Okay.

Q. -- Exhibit 5, and let's go through that. Starting with the first date, when did you first begin working Yates? By "you" I mean Ocean Energy or its predecessor, UMC Petroleum. When did they first begin working with Yates in this area of Section 2 or this Townsend area?

A. I think the easiest thing is to go back, and that's the first item on my time line. That's dated January 6th of 1997. At that point in time, Yates and UMC entered into an agreement which basically set forth two Strawn units for this section. As you can see, one of the units was to operated by Yates, one was to be operated by UMC.

A Strawn well was drilled on the Yates unit, but we did not drill another Strawn well on the UMC unit.

Q. Okay. What then occurred over the next, oh, four or five months, say, from February into July?

A. Primarily, UMC continued to work its seismic and interpret the seismic. We also cooperated with Yates in acquiring additional interests in this general area, most particularly the northwest quarter of Section 10.

Q. Okay. Now, when did you first propose what Ocean calls the Townsend State Com Well Number 2?

A. We first proposed that well on July 23rd, 1997. We did propose that as a Strawn test, and I refer you to the agreement listed, January 6th. We proposed that the unit, the Strawn unit, for the Townsend 2 be revised from Lots 11 and 14 to Lots 13 and 14, for the Strawn unit. And no ownership changes would result in that.

Q. Yeah. It would have been half Yates, half UMC --

A. Exactly.

Q. -- regardless of the orientation?

A. Right, and we already had an operating agreement in place that would have been very easy to get it done.

Q. And that Townsend Number 2, that's one of the wells we're here for today?

A. Yes, it is.

Q. Okay. Moving on to page 2 of your time line, what was Yates' initial response to the Townsend Number 2 Strawn test?

A. Well, I had a conversation with Mr. Bullock, and he said that the location we had chosen was recommended by the geologist, but that was subject to management approval. And during that phone conversation, I said, Well, I'll go ahead and proceed to file the unorthodox well location.

And so based on that conversation, we went ahead, and that application was filed on August 11th.

Q. Okay. Now, that unorthodox-location application was subsequently withdrawn, was it not?

A. Yes, it was.

Q. And why is that? What occurred during this time frame to change -- or to cause the withdrawal of that Application?

A. Well, it was withdrawn mostly because Yates had a different -- Yates believed the better Strawn location was on their acreage, and they requested that UMC discuss that

with them. So our technical people got together and discussed that. In an effort to get a well drilled, UMC -- we basically re-proposed the location Yates wanted to drill at, for the Strawn.

Q. During this time was the Brunson well also being completed and logged in the Atoka?

A. Yes, it was. It was logged in early September. And so --

Q. And did that -- the information from that well cause Yates and UMC at that time to begin considering drilling to a deeper horizon?

A. Absolutely.

Q. Okay. And as a matter of fact, in late August, in a letter, you stated that you would hope that the location may also be prospective in the Morrow, did you not?

A. Exactly, that is right, based on early interpretations.

Q. Okay. Then what occurred? Apparently there's a lull in activity over two or three months. Why was that?

A. Well, there's a lull as far as written correspondence goes. Both Yates and UMC were working continually, trying to take the data they had obtained from the Brunson and also the data from the Shell Lusk and apply that to Section 2.

We had a lot of conversations with Yates during this time. We've always wanted to drill two wells in Section 2 with the two laydown units.

Q. Okay. Then in December you did receive a formal proposal from Yates for a Morrow test at their location?

A. Yes, on December 1st.

Q. Did UMC re-propose its well?

A. Yes, we did, on December 3rd we went ahead and re-proposed the Townsend State to Yates as a Morrow test.

Q. Okay. And you also offered to meet with Yates in Artesia?

A. Yes, we did.

Q. Okay. Moving on to page 3 of your time line, at one point Yates did make an offer for laydown units, did they not?

A. Right, they -- Mr. Bullock and Mike Hayes verbally proposed a proposal to us whereby two laydown units were offered, but there were some other terms that were not acceptable to UMC. That phone conversation came on January 16th, and UMC countered to that verbal proposal with a verbal counter on February 5th.

Q. Okay. So you made a counterproposal on February 5th. What's the next thing that happened?

A. Well, the next thing, Yates filed its pooling on February 10th.

Q. Did you still want to work this out with Yates?

A. Very much so. We felt like Yates was the other large working interest owner in this area, and we've had a good relationship with Yates, and we've obviously had a lot of conversations with them. We felt like we could work it out, and really wanted to, in lieu of coming to hearing.

So when we received the pooling notice, arrangements were made immediately to go to Artesia for a meeting, and we did do that on February 25th.

Q. What was the result of that face-to-face meeting in Artesia?

A. Well, basically the parties just -- we did not come to terms. UMC did present geological and geophysical evidence, but we just were not able to make it work out with Yates.

Q. Okay. Because you couldn't come to terms, did you then go ahead and send out proposals to all the other interest owners in the -- in your proposed wells?

A. That's right. At that point in time we realized we needed to go ahead and propose to all the other working interest owners. So on March 3rd and 4th, we sent out well proposals to the owners in the Townsend 2 and Townsend 6 units.

Q. Again, you felt that if you and Yates had been able to come to terms, then it probably would not have been

such a fuss dealing with the other interest owners?

A. No, absolutely.

Q. Did you make one final settlement proposal to Yates?

A. Yes, we did. On April 7th we sent a written proposal down to Yates. In this proposal we offered -- again, we requested the two laydown units, but we offered operatorship to Yates for both wells, at least through a completion on the Townsend Number 6, subject to some other conditions. But Yates again declined this settlement offer.

Q. And that was pretty much the end of it, then?

A. Right. I mean, at that point I guess we felt like we just needed to proceed.

Q. In your opinion, has Ocean Energy made a good-faith effort to obtain the voluntary joinder of interest owners in the wells?

A. Yes.

Q. Would you please identify Exhibit 7A and 7B for the Examiner?

A. Yes, these are our AFEs for both wells. Exhibit 7A is the AFE for the Townsend State Com Number 2, Exhibit 7B is the AFE for the Townsend State Com Number 6 well. Both of these wells are proposed Mississippian tests, estimated dryhole cost of approximately $840,000 and

completed cost of $1,212,000.

Q. Are these costs in line with the cost of other wells drilled to this depth in this area of New Mexico?

A. Yes.

Q. At this point, does Ocean Energy request that it be designated operator of both wells?

A. Yes.

Q. I mean obviously, you don't have a problem with Yates operating, do you?

A. No, we've offered them operatorship on both wells.

Q. Okay. But as the geologist will discuss, this is more of a well-location matter?

A. Absolutely.

Q. Do you have a recommendation for the amounts which the operator should be paid for supervision and administrative expenses?

A. Yes, we would request $5400 a month be allowed for a drilling well, $540 a month be allowed for a producing well. And these rates would apply to both wells.

Q. And are these amounts equivalent to those normally charged by you and other operators in this area for wells of this depth?

A. Yes, and as previously mentioned, Yates' proposal, same overhead rates.

Q. And were the uncommitted interest owners notified of the hearings in this matter?

A. Yes.

Q. And let me go through this. Exhibit 8A is my affidavit of notice regarding Case 11,958, which is for the northern unit; is that correct?

A. That's correct.

Q. And Exhibit 8B is the affidavit regarding the southern unit?

A. Correct.

Q. Okay. Now, regarding the northern unit, Exhibit 8A, this was also notice to offset operators; is that correct?

A. That is correct, for the unorthodox location.

Q. Okay. Looking at Exhibit 8C, this lists a number of the offset either operators or unleased mineral interests; is that correct?

A. That's correct.

Q. And this is for Lots 13 through 16 of Section 3?

A. Yes.

Q. Okay. The other parties notified of the Atoka unorthodox location are the Mark Shidler, et al., group, are they not?

A. Correct.

Q. Who are also potential interest owners in the

northern unit?

A. That is correct.

Q. Okay. So they were interest owners and offset owners, whereas the Exhibit 8C people are primarily just unleased mineral offset owners?

A. Yes.

Q. One last question, Ms. Smith, and I'd refer you to your Exhibit 9, and also if you could get Exhibit 2 in front of you.

A. Okay.

Q. Let's go through the working interest ownership in this area. What -- Exhibit 9 lists working interest ownership by groups in this particular area, does it not?

A. That's correct.

Q. Let's go through this. On the west half of Section 10, what is the working interest ownership?

A. Ocean Energy has 75 percent working interest, and the Yates companies have 25 percent.

Q. Okay. Now, in the east half of Section 10 where the Brunson well is located, what is the breakdown?

A. That is a 50-50 split between Ocean Energy and the Yates Companies.

Q. What about Section 11? Who are the working interest owners there?

A. In all of Section 11, Ocean does not have any

interest. But Yates Petroleum -- and I think they have some partners as well -- own 100 percent of Section 11.

Q. Okay.

A. I believe David Petroleum may have an interest in Section 11.

Q. Okay. And then one final matter. Whether it's a standup unit as proposed by Yates --

A. Uh-huh.

Q. -- or the Lots 9 through 16 unit as proposed by UMC, what is Yates' working interest ownership in that unit?

A. 37.9 percent.

Q. Okay. So it's the same in either one?

A. Yes.

Q. Were Exhibits 1 through 9 prepared by you, under your supervision, or compiled from company business records?

A. Yes.

Q. And in your opinion are the granting of Ocean Energy's Applications in the interests of conservation and the prevention of waste?

A. Yes.

MR. BRUCE: Mr. Examiner, I'd move the admission of Ocean Energy's Exhibits 1 through 9.

EXAMINER STOGNER: Any objections?

MR. CARR: No objection.

EXAMINER STOGNER: Exhibits 1 through 9 will be admitted into evidence at this time.

Point of clarification, Mr. Bruce. The notification that you're offering --

MR. BRUCE: Yes, sir.

EXAMINER STOGNER: -- is that for the compulsory pooling portion or the unorthodox well location?

MR. BRUCE: It's both, Mr. Examiner. Let me go through that for a minute.

EXAMINER STOGNER: Okay.

MR. BRUCE: And maybe if you had Exhibit 2 in front of you --

EXAMINER STOGNER: Okay, I've got Exhibit 2 in front of me.

MR. BRUCE: Exhibit 8B is for the southern unit, and there is no unorthodox location, I believe, so that's strictly -- 8B is strictly to the interest owners.

EXAMINER STOGNER: Okay, let me get 8B out. I've got 8A, 8B. Okay, 8B is just strictly for the southern portion?

MR. BRUCE: Yes.

EXAMINER STOGNER: Everything is standard on that one?

MR. BRUCE: Yes, everything is --

EXAMINER STOGNER: Okay.

MR. BRUCE: -- standard, and that is -- There were a couple of mailings because, just like Mr. Bullock with Yates, you know, the title in that southwest southwest of Section 2 is kind of convoluted, and as we became aware or knew of the interest owners we sent out some additional mailings.

EXAMINER STOGNER: Okay.

MR. BRUCE: Now, on the northern part, Exhibit 8A contains notice to all of the working interest owners in the Lots 9 through 16.

EXAMINER STOGNER: Okay.

MR. BRUCE: The -- Lot 12 has a number of contractual interests. I don't have that file right in front of me right now, but there is a JOA which covers, I think, most of the east half of Section 3, and there are a number of working interest owners. Those people have been notified because they were also notified as working interest owners in the proposed well unit.

EXAMINER STOGNER: Okay, were there any additional noticed that weren't?

MR. BRUCE: And then 8C, Exhibit 8C --

EXAMINER STOGNER: Okay, let me get 8C. 8C, okay, got it.

MR. BRUCE: -- 8C is Lots 13 through 16, which is

a fee tract which contains numerous mineral interest owners, and there were some leases which are apparently still valid. We notified the lessees where the leases were valid, we notified the mineral interest owners where the leases did not appear to be valid, and in addition we notified the last known lessee of that acreage.

EXAMINER STOGNER: Okay, and that would be what portion of Section 3? That would be Lots 13, 14, 15, 16, and then that southeast --

MR. BRUCE: I believe -- I don't have that file with me, Mr. Examiner, but I believe the JOA that we're talking about that Lot 12 is involved in, covers the Lots 1, 2, 7 and 8 of Section 3.

EXAMINER STOGNER: Okay.

MR. BRUCE: Okay? And it covers Lots 9, 10, 11, 12 of Section 3. And I believe it also covers -- I believe it also covers the southeast quarter of Section 3. The fee tract, Lots 13 through 16 that we notified -- It was within that JOA, but obviously it wasn't held by production, so those leases expired, and that's why we had to notify those folks.

EXAMINER STOGNER: Okay, so the fee owners in the blue shaded portion -- I'll refer back to Exhibit Number 2 -- all of the blue-shaded --

MR. BRUCE: Well, Lots 13 through 16.

EXAMINER STOGNER: Lots 13 -- Okay, that would be that --

MR. BRUCE: Because there is a producing well in the southeast quarter of Section 3.

EXAMINER STOGNER: Okay, I'm assuming that's a Strawn or a Wolfcamp?

MR. BRUCE: That's a Strawn well.

EXAMINER STOGNER: Now, I'm trying to determine if adequate notice was given for the 320-acre parties that would be affected.

MR. BRUCE: Mr. Examiner, if I can -- In the interests of speeding this along, if I can double-check that, I have that file back in my office, and I can report back to you and let you know.

EXAMINER STOGNER: Okay.

MR. BRUCE: As far as the southwest quarter of Section 3 goes, that is Ocean Energy acreage, so no one there needed to be notified.

EXAMINER STOGNER: I'm sorry, rephrase that -- what --

MR. BRUCE: The southwest quarter of Section 3 is Ocean, so no one needed to be notified there.

EXAMINER STOGNER: Okay, that's that yellow section --

THE WITNESS: Right.

MR. BRUCE: Yes, the yellow quarter section.

EXAMINER STOGNER: Okay. Thank you, Mr. Bruce.

Mr. Carr, your witness.

MR. CARR: Thank you.

EXAMINATION

BY MR. CARR:

Q. Ms. Smith, let's look -- I think we'll look at Exhibits 1 and 2.

A. Okay.

Q. I think those are the only two we'll need to look at. If I look at Exhibit number 2, and we look first at the northernmost laydown spacing unit that you're talking about in Section 2 --

A. Correct.

Q. -- you've testified that in that spacing unit Ocean or UMC owns 37.5 percent of the working interest; is that right?

A. That's correct.

Q. And then we come down to the south half of the southernmost of the laydown unit, and you've testified you have 75 percent of the working interest there?

A. That is correct.

Q. You have no working interest at all in Section 11; is that right?

A. That is right.

Q. You've shown that all as Yates, and you indicated that David Petroleum may be one of their partners and own part of that. Do you know, in fact, how much of that interest David Petroleum may own?

A. I don't know that.

Q. Would it be in excess of 50 percent?

A. It may be. I don't know.

Q. Let's go to Exhibit Number 1 and then we'll come back to 2. I think it's easier to do this.

When I look at the yellow acreage on 1, that's Ocean Energy, Inc., acreage?

A. Correct.

Q. And on that I see three wells, the Townsend State Number 1 --

A. Uh-huh.

Q. Is that a well that was drilled by UMC and is operated by UMC/Ocean?

A. Correct.

Q. Is the same true of the Townsend State Number 4?

A. Correct.

Q. What about the Townsend Number 3? Is that a UMC well, or was that drilled by someone else?

A. That is a permitted well; it's a permitted Strawn well. UMC had proposed -- or permitted that well back in July of 1997.

Q. Has it been drilled?

A. No, not yet.

Q. Okay. In Section 2 are there only two wells at this time that have actually been drilled by UMC/Ocean?

A. Yes.

Q. Okay. And then if we go to the plat, Exhibit Number 2, can you tell me what other wells on this plat have been drilled by UMC?

A. Yes, in Section 10, the southwest quarter, we've drilled the Carlisle well, and that is --

Q. That's the southernmost -- or southwesternmost?

A. Yes.

Q. Okay.

A. Well, it's the one that is identified -- It says 12,600 feet below that southwest quarter.

Q. Okay, so that's the Carlisle?

A. Yes.

Q. Okay, and in addition to the two Townsend wells, are there any other wells on this plat that have been drilled by UMC?

A. No. Our predecessors obviously had drilled the well in Section 3.

Q. All right. Now, when we look at your plans to develop the spacing units in Section 2, do you know if you've made a decision as to which of the wells you would

drill first?

A. I believe we'd like to drill the Number 6 well, but I would like John McRae to expand on that.

Q. Okay. And if I have questions about that decision, I should talk to Mr. McRae?

A. Yes.

MR. CARR: That's all I have, thank you.

MR. KELLAHIN: Sir, no questions, thank you.

EXAMINER STOGNER: Mr. Kellahin.

EXAMINATION

BY EXAMINER STOGNER:

Q. Okay, I'm going to refer to Exhibit Number 5. This is the timeline.

A. Uh-huh.

Q. How close were you and Mr. Bullock to some sort of an agreement back in February the 5th? What happened? There seemed to be a lot of discussion going on, a lot of proposals. What happened?

A. Well, I don't really know. I mean, you can see we had discussed this over and over and over again.

On the 16th of January, when Yates offered -- verbally offered their proposal, I guess we felt like we were making some headway at least. They were acknowledging two laydown 320-acre spacing units.

When John McRae and I countered on February 5th,

we asked that Yates would move their location a little bit further to the east to reduce the potential penalty for an Atoka well. That's for the Townsend Number 2 well. And we went ahead and offered operations on the northern 320-acre unit to Yates.

At that time we wanted to retain operations of the southern 320-acre unit. Yates would not have an interest in the event that Townsend State Com Number 6 well encountered the Strawn, and we felt like it would be too messy to try to handle operations if Yates was operating that. There were -- you know, would naturally be more interested in the deeper zone and not the Strawn, and we wanted the right to be able to call tests, et cetera. We felt like it was just going to be too messy of a situation.

So -- And Mr. Bullock agreed, it was going to be hard agreement to work out on how to operate that southern unit.

But I'll tell you back -- you know, our last attempt to try to get Yates to agree to our proposals, on April 7th, we went ahead and did give them operations, or offered operations to them for the Townsend Number 6 at least through completion of the well.

I've just highlighted the main points in my time line, but the correspondence is in Exhibit 6.

Q. And what was Yates' response to the April 7th --

Did you have any verbal conversation?

A. It seems like they called and just said that they rejected the offer. That conversation did not happen with me. I believe they called John McRae.

Q. Was the well location still the issue in that north half, or the northern portion? Because you mentioned several wells there. Which -- I get mixed up on which of the proposed wells.

A. Well, what we had proposed on April 7th is that they would -- Yates would basically withdraw their Application and become operator under our two pooling Applications. So we would -- We were proposing that they drill our Townsend State Com Number 2 well where we have it proposed.

Q. As opposed to their location with a laydown proration unit?

A. That's exactly right. If you did a laydown with their location, you may be penalized greatly because you'd be much too close to the end unit of that -- to the end line of that unit.

Q. Well, that's a real possibility, but do penalties often get handed down?

A. I'm not familiar how often they do get handed down. But I know it had come up in my previous conversations with Yates, and I think both parties were

concerned about that.

EXAMINER STOGNER: I'm going to do something a little unorthodox. Mr. Bullock?

MR. BULLOCK: Yes.

EXAMINER STOGNER: Why don't you come up here? Grab a chair and just move it next to Mr. Carr here.

MR. BULLOCK: Okay.

EXAMINER STOGNER: What do you feel about that April 7th proposal?

MR. BULLOCK: Well, the bottom line is, we couldn't come to an agreement, and that's why we're here today. I think she gave a fair assessment of the way it came down.

EXAMINER STOGNER: I'm trying to bring down the issues, though. I mean, it seems like there was some good agreement coming out, good conversations.

MR. BULLOCK: We were trying to accommodate each other, trying to reach a ground where we could -- at least a tradeoff. And I guess the bottom line was that we just didn't feel like we could accommodate that type of situation.

EXAMINER STOGNER: What part of it did you not like? I mean, you were offered to operate both units. What was wrong with that?

MR. BULLOCK: I think it came down to what the

geologists have been trying to bring forth to you: They wanted to drill one well --

EXAMINER STOGNER: But you proposed two wells prior, or Yates had proposed two wells prior.

MR. CARR: Mr. Stogner?

EXAMINER STOGNER: Yes, sir.

MR. CARR: I mean, if we want to get real unorthodox, perhaps Mr. Pearson is the person is the person to ask.

EXAMINER STOGNER: Okay, well, let's get Mr. Pearson up.

MR. PEARSON: The simple answer is the timing of when the pressure data was acquired from Shell Lusk.

EXAMINER STOGNER: And when was that?

MR. PEARSON: It was acquired in December and interpreted in January, late January, and between the time we made our initial offer -- our initial concern was just with UMC's operatorship, based on some problems they had experienced in the area.

EXAMINER STOGNER: Okay, what was that? Yates had agreed to two laydown 320-acre units in January.

MR. PEARSON: Correct.

EXAMINER STOGNER: This was subsequent to the pressure data.

MR. PEARSON: This was previous to the

interpretation of the pressure data from the Shell Lusk that showed the depletion in the Shell Lusk.

EXAMINER STOGNER: Okay.

MR. PEARSON: It was actually acquired in December in the Shell Lusk, but the interpretation wasn't done until late January, and we sat down and recognized the consequences of that.

So our initial offer in January was made before we recognized the extent of the drainage in a north-south direction.

EXAMINER STOGNER: Okay, when did you come to that conclusion, that the two laydown, in which the January proposal agreed to, was really not a --

MR. PEARSON: -- a good idea.

EXAMINER STOGNER: Yeah, when --

MR. PEARSON: Late in January.

EXAMINER STOGNER: Pardon?

MR. PEARSON: Late in January, after we had made the first proposal, we decided that we had made a mistake and that perhaps we should change course.

The actual sequence of events on Shell Lusk, the well was completed and acidized, and then we ran the pressure test that showed that had some skin damage, and we went back and frac'd the well, so there was some time delay in the completion going on in there.

EXAMINER STOGNER: Okay, going back to that April 7th proposal, even if that was modified to allow Yates' location, that would not be acceptable at this time? Or a workable solution or --

MR. PEARSON: The problem would still remain, having two wells.

EXAMINER STOGNER: Okay, that --

MR. PEARSON: The crux of the problem that we have is two parts: One, we're not comfortable with them operating, but that would resolve that. The problem really is two wells, if we --

EXAMINER STOGNER: Hold it. Say that again.

MR. PEARSON: We have two fundamental difficulties with the UMC proposal. One is, we have some significant questions about their ability to be a prudent operator, the April 7th --

EXAMINER STOGNER: Well, but the April 7th --

MR. PEARSON: -- would resolve --

EXAMINER STOGNER: -- doesn't that propose Yates to be operator --

MR. CARR: Yeah.

EXAMINER STOGNER: -- of both laydowns?

MR. PEARSON: That would resolve that.

EXAMINER STOGNER: Okay.

MR. PEARSON: The remaining problem becomes,

then, the drainage issue, the correlative-rights issue with Yates' Section 11.

If we -- With the data that we have, if we were to put two wells in the locations that UMC proposes, we would open ourselves to a problem to -- some liability, I suppose, is the right way to phrase it -- that we're draining Section 11 from Section 2.

EXAMINER STOGNER: Okay, how about the Yates-proposed well in the -- Yates-proposed well, but turn it into a laydown? That would still be unacceptable?

MR. PEARSON: I'm not sure -- What would be acceptable would be a single well, and then I would have to go back to Mr. Yates to understand what he would be willing to accept in terms of how the working interests were divided up between the two companies.

EXAMINER STOGNER: Let's take a 30-minute recess. Mr. Carr, Mr. Bruce, I want to see you.

(Thereupon, a recess was taken at 12:20 p.m.)

(The following proceedings had at 12:40 p.m.)

EXAMINER STOGNER: At this time I'm going to go into recess until 1:30, for lunch, in this matter.

(Thereupon, a recess was taken at 12:40 p.m.)

(The following proceedings had at 1:40 p.m.)

EXAMINER STOGNER: This matter will come to order.

Q. (By Examiner Stogner) Let's see, Ms. Smith, I've got one additional question for you here. I just want to make sure that the record is straight on this.

You're asking, Case 11,958 for 320-acre spacing from the Mississippian formation, from the surface to the base on anything on 320, and that is depicted on Exhibit Number 9, what the ownership is and the different interests that are being force-pooled.

And also you have a list of the parties that are being force pooled in -- what? Your operating agreement? That's broken out somewhere; is that --

A. Right, I think that's Exhibit 4A.

Q. 4A. Also, you are requesting in that particular case 80-acre spacing for the -- for whatever the pool out there is.

MR. BRUCE: I believe that's the South Big Dog-Strawn Pool, Mr. Examiner.

Q. (By Examiner Stogner) And that is 80. And you -- There's parties being force-pooled in that one. That's a 50-50 split, or --

A. Right.

Q. -- what is the split on that one?

A. That is correct. In Lots 13 and 14 that would be a Yates Companies and Ocean Energy 50-50 split.

Q. Okay, and that's depicted on 4A?

A. Correct.

Q. And those are the only two sizes of proration, so you're covered on that --

A. Yes.

Q. -- and the Case Number 11,959 is just 320.

A. Correct.

EXAMINER STOGNER: And that's depicted also on that.

Okay, that's all I have.

Before we release her, is there any other questions of Ms. Smith at this time?

MR. CARR: No.

MR. BRUCE: No, sir.

EXAMINER STOGNER: You may be excused.

THE WITNESS: Thank you.

EXAMINER STOGNER: Mr. Bruce?

MR. BRUCE: Call Mr. McRae.

JOHN R. McRAE,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you please state your name and city of residence for the record?

A. John Robert McRae, Highlands Ranch, Colorado.

Q. Who do you work for and in what capacity?

A. I work for Ocean Energy, Inc., and I'm a senior exploration geologist.

Q. Have you previously testified before the Division?

A. Yes, I have.

Q. And were your credentials as an expert geologist accepted as a matter of record?

A. Yes.

Q. And are you familiar with geologic matters involved in these cases?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I'd tender Mr. McRae as an expert petroleum geologist.

EXAMINER STOGNER: Any objection?

MR. CARR: No, no objection.

EXAMINER STOGNER: Mr. McRae is so qualified.

Q. (By Mr. Bruce) Mr. McRae, would you identify your Exhibit 10 and discuss the zones of interest in this area?

A. Exhibit 10 is simply an information map. It covers the nine sections that we have previously been discussing, Sections 1, 2, 3, 10, 11, 12, 13, 14 and 15 of Township 16 South, 35 East, in Lea County, New Mexico.

I've broken the wells out into two different

groups, and this is depicted on the legend at the bottom of the map. The wells that are circled with the red circle, small red circle, are wells that are deeper than 11,000 feet. The wells that are shallower than 11,000 feet just show the well symbol with no circle around it.

For example, in Section 1, it shows the Townsend Permo Penn -- Permo upper Penn shallow field, approximately 11,600 feet. Those are not circled. All the other wells are that are below 11,000 feet.

I've also included in that legend a color code as to what each of the wells below 11,000 feet produce from, and you can see there's Wolfcamp down through Devonian.

The four Atoka wells that produce from what we refer to as the Brunson sand are circled with a large red circle. There's two wells in the south half of Section 14, there's one well in the east half of 10 and one in the west half of 11.

The well that has been referred to as producing from the Atoka zone in Section 15, in the southwest quarter, I disagree with that interpretation. I think that is either a Morrow sand or a detrital section at the top of the Mississippi.

And I've also included the IPs for the Shell Lusk, the Brunson well and the two Atoka wells down in 14, with cumulative production.

Q. On this map, Mr. McRae, you've outlined this with a green line that -- This is the Townsend-Permo Penn Pool?

A. That's correct.

Q. I think you've referred to it -- or you've informed me that that's basically a Wolfcamp zone?

A. Yes, it is.

Q. That is an oil pool, is it not?

A. That's correct.

Q. And we've checked the spacing, and that is 40 acres?

A. Right.

Q. Do you think that's really prospective in either zone -- or in either well, at this time?

A. No, I don't. That particular zone is pressure-depleted from several wells in Section 2, and we don't expect any production from that zone at this point.

Q. That's a pretty aged field, is it not?

A. Right. I'm not sure exactly when it was drilled, but it's older production.

Q. Okay. Let's move on to your Exhibit 11, the type log, and maybe specify in a little more detail the zones you're looking at in this area for the Examiner.

A. The type log is a neutron density log from the Yates Petroleum Brunson well in the east half of Section 10. I started -- or copied the log from approximately 9000

feet. I show the top of the Wolfcamp about 9600.

Then at ten thousand five hundred and -- oh, approximately fifty, I've highlighted the Townsend's Permo upper Penn zone. That's the producing zone that's highlighted by the green outline on Exhibit 10.

Then I've noted the Strawn, the Strawn clastics, the Atoka, the Atoka lime, Atoka clastics.

And then approximately 12,000 feet I've highlighted the Brunson sand interval and the Morrow lime top, the Austin top, the Chester top and the lower Miss are all depicted by wavy lines. These are all erosional surfaces, unconformities in this area, and there's been a lot of erosion in these different intervals. The seismic supports that, also the well control.

This just puts into perspective where the Townsend upper Permo Penn zone is, and also points out the erosional surfaces in the lower Morrow and Mississippian section.

Q. Okay, Mr. McRae. Give me a second here. What is Exhibit 12?

A. Exhibit 12 is a structure map on top of the Morrow lime. And on the type log that would be at a depth of 12,175 feet -- I'm sorry, excuse me, that would be at 12,040 feet. It's the top of that Morrow limestone.

What this shows is the fault, the northwest-

southeast-trending fault that goes through Section 15. There's an upthrown block in the southwest portion of that section. On the northeast side of that fault, it's downthrown, and there is dip on the Morrow lime to the northeast across Sections 10, 11 and Section 2.

There's a pronounced structural low that's defined by well control and seismic control in Section 2. Our Townsend 2 location and Townsend 6 location are located in the structural low. We feel that the Brunson sand deposition is controlled by this low.

I've also shown on this map cross-section A-A', which we'll talk about in just a minute.

Q. Okay, a couple follow-up questions, Mr. McRae. What you said is that the Brunson or Atoka sand is there because of the structure?

A. In Sections 10, 11 and 2, I believe that controlled the deposition of the Atoka sand, the Brunson sand.

Q. What is important is this low you show on here?

A. That's correct. The orientation of that low is southwest to northeast.

Q. Let me show you something, Mr. McRae. This is Yates Exhibit 7, which is their seismic and structure map. Doesn't that map more or less agree with your interpretation of the structure, than with Mr. May's?

A. This seismic interpretation agrees with my structure map on top of the Morrow lime. It shows a southwest-northeast-trending structural low with a slight ridge to the east of that low in the central portion of Section 2, and then dropping off again in the eastern part.

Q. Does this low also have some -- I don't know what the right word is -- some significance with respect to Morrow potential in Section 2?

A. According to our seismic there's -- as has already been discussed, there's very little well control in Section 2. Well, actually, there's no deep well control. There's a little -- three wells in Section 3. So there's very little Morrow control.

As you go to the northeast and go downdip on this map, the Morrow section thickens. And we feel that in this Morrow low there is also potential for Morrow sand development.

This Morrow low is also present at the top of the Austin. And in fact, it's very pronounced at the Austin. It almost looks as though there's an erosional channel system at the top of the Austin cycle that goes southwest-northeast, through Section 2.

Q. Okay, thank you. Let's move on to your Exhibit 13. What is this?

A. Exhibit 13 is an isopach from the top of the

Atoka lime to the top of the Morrow lime. And on the type log, the Atoka lime is at a depth of 11,600 feet, and the Morrow lime is at 12,040 feet. It's that interval that I've isopach'd.

If you'll set beside Exhibit 13 Exhibit 12, you'll notice that the well control in Section 10 and 11 and 3 shows that there's a significant thick from the top of the Atoka lime to the top of the Morrow lime, oriented southwest to northeast through Section 2, that corresponds to the structural low that's present on the top of the Morrow lime.

There's three wells in Section 3 with corresponding thicknesses of 412 feet, 425 feet, 425 feet. This sets up a northeast-southwest-trending thin. The Brunson well thickens to 442 feet, the Shell Lusk is 432 feet, and then Well Number 4 on the cross-section -- it's highlighted in that yellow -- is 402 feet, and then it thins off to the east.

On the cross-section you will see that the Brunson sand interval is located in this Atoka thick, Atoka-to-Morrow thick, and then corresponding with that structural low on top of the Morrow.

Q. Well, let's move on to your cross-section. Could you refer to your Exhibit 14, and let's discuss its contents.

A. All right, Exhibit 14 is a west-to-east stratigraphic cross-section. The datum is a marker in the Atoka section. I've colored it as green on this -- the shale marker, the color is green on this cross-section. It's down in the Atoka section.

And I hung these logs on that datum to show clearly that at Well Number 1, which is over in Section 3 -- from that Atoka marker down to the top of the Morrow lime there is no sand, and that interval is thin, 412 feet.

Just to the right of that is an arrow that shows the isopach'd interval clearly.

The next well, Well Number 2, is the Brunson well. it shows the Brunson sand highlighted in yellow, and you'll notice it's about 30 feet above the top of the Morrow lime. And the interval from the Morrow lime to the Atoka lime has thickened significantly.

Well Number 3, the Shell Lusk, shows the Brunson sand interval in yellow again, and it's 432 feet thick.

As you go to the east in Section 11, Well Number 4 also has a thin sand interval, although it is fairly thin and thin and tight. There were no tests in that well for that particular interval.

And Well Number 5 shows that the Atoka lime to the Morrow lime interval has thinned dramatically to 382 feet, and it's very obvious that there is no Brunson sand

interval present in that well.

Q. Mr. McRae, looking at this, and in particular Exhibit 4 -- I mean, excuse me, Well Number 4 on this exhibit, the Brunson sand definitely shows up there, correct?

A. Yes, it does.

Q. And then Well Number 2, which is the Brunson well, it obviously extends to the west of that well, does it not?

A. That's correct.

Q. So what you're looking at here, this reservoir appears to be over what? A mile and a half wide?

A. Along the orientation of that cross-section it's about a mile and a half wide.

Q. Okay, so it's not just a narrow channel sand?

A. No, no. And the sand is obviously present where the interval is thick. So this isopach from the Atoka lime to the Morrow lime is a very significant map.

Q. Okay. Mr. McRae, I don't know if you want to discuss the -- Let's go to your Exhibit 15. Would you discuss your interpretation of the Atoka reservoir?

A. Exhibit 15 is an isopach of the gross Atoka-Brunson sand interval. This is a very dirty sand on gamma ray. The DSTs that have been taken in here show low permeability. So I used an 80 -- I'm sorry, a 60 API

cutoff for the gamma ray. So my thicknesses of the sands are based on the gamma ray.

Down in Section 14, the well in the southwest quarter has 20 feet. It's interesting to note that the well in the southeast quarter has 22 feet. As I previously stated, I don't agree with the Yates interpretation that there's Atoka sand in Section 15, and I have those as zero.

The sand in Section 14 trends northwest-southeast. It parallels the fault. Apparently this sand was deposited in front of this fault system, and it would be downdip, on the downdip side of that fault, again, structurally low to Section 15.

When you come into Section 10, the trend turns and follows that Morrow lime low and Atoka-Morrow isopach thick, trends off to the northeast. So you have a southwest-northeast-trending sand thickness.

Our Carlisle well, which is in the southwest of 10, we do not have a log on that, but we have a mud log, and we had approximately 12 feet drilling break there.

The well in the southwest has zero feet of sand, the Brunson has 13, the three wells in Section 3 that tested -- or penetrated this interval, all had zero sand

From the north of the cross-section, that isopach interval is aided by our seismic -- 3-D seismic data.

Q. Mr. McRae, looking at this exhibit -- and we'll

get into that a little more in a minute -- you show that essentially all of the southern two-thirds of Section 2 has Atoka sand under it; is that correct?

A. That's correct.

Q. And what -- well, let me -- You've got your exhibits.

A. Yes.

Q. And a series of well logs, marked Exhibits A through G, could you go through those and explain why you have the Atoka sand running north as you do, rather than, say, northwesterly direction?

A. I'm not sure exactly what you're asking.

Q. Okay. Could you go through Exhibits A through G and tell me what your -- On Exhibit 15 you have your eastern boundary heading pretty much north-south of the Atoka reservoir.

A. Right.

Q. Could you go through Exhibits A through G and explain why you've done that orientation, and what do Exhibits A through G show?

A. Okay. Exhibit A is, once again, a colored-up copy of the Brunson log that highlights the Morrow lime top, the Atoka lime top, and I've colored in yellow at 12,000 feet the Brunson sand interval.

On this scale it's easy to see that the gamma-ray

response in this particular sand shows it to be quite dirty.

Exhibit B is a copy of the log in the northeast-southwest of Section 14. So it's in the southwest quarter. I have the same tops marked on here, along with the green marker that I hung on the cross-section on. This log shows clearly the 20 feet of Atoka Brunson sand.

Now, as you move to the east, in the southeast quarter of 14 is Exhibit C. I've noted on this log 68 API units, and there's 22 feet of sand in this well, off the gamma-ray response.

Now, the wells that I put these exhibits for, to show, are the following ones:

Exhibit D moves over into the northwest southwest of Section 13. According to my 60-unit cutoff, this well has four feet of sand. A DST was taken across this interval, down into the Morrow lime, recovered slightly gas-cut mud. The initial shut-in pressure was 2900 pounds, the final shut-in was 3163. They ran pipe and perforated, they acidized with 1000 gallons, and this well flowed 70 MCF per day.

The Brunson well and the Shell Lusk well both flowed at low rates, 300 to 500 MCF -- I don't have the exact rates with me -- until that particular interval was frac'd.

This well is very significant. There's four feet of sand. It tested gas, it has reservoir pressure, and it was not -- it was never produced, nor was it ever frac'd. This very clearly shows that there are reserves all the way to the edge of this particular reservoir, even down to four feet of sand.

Exhibit E is the southeast northeast of Section 14. This particular well has 10 feet of sand. It was never tested, either by DST or through pipe.

Exhibit F is moving north, southeast southeast of 11. This has two feet of sand in that Brunson interval. Obviously right on the edge of the reservoir, but showing that sand does exist, all the way to the eastern edge of Section 11.

And then the southeast northeast is Exhibit G. It's also Well Number 4 on the cross-section. It shows the sand interval, two feet of sand. But it's very significant that there is a sandy interval that's potentially -- Let's see, how many feet there? Possibly eight feet thick. Also showing that the sand reservoir exists all the way to the east edge of Section 11.

Based on this subsurface control, I've interpreted that the east half of Section 2 does have reservoir sand, although it will be thinner than the west half.

Q. So getting back to your Exhibit 15, the two conclusions are, under the southern two-thirds of Section 2 there is Atoka sand?

A. Yes.

Q. And also, in Section 2 where is the best possible Atoka location?

A. Well, according to my Exhibit 15, the best location is where we picked the Townsend Number 6 location, in the axis of the sand trend, and it would be in the southwest quarter.

Q. Before we move on, what about the Strawn? And I would refer you to your Exhibit 18. What does that show? We'll go a little out of sequence here.

A. Exhibit 18 is an isopach. It essentially covers Section 2 and a little bit into the surrounding sections. It's a net isopach of the Strawn. I used three-percent porosity cutoff where I have well control. The wells that I don't have control, I've noted "no log". But all of the wells that are colored green are productive from the Strawn.

You'll notice that at our Townsend 2 location, which is noted, we have a Strawn anomaly that essentially straddles those two 40 acres that have been discussed in the past, so it would be a laydown 80.

Our isopach map seems to indicate that the

thicker part of that anomaly is at our Number 2 location. The structurally higher part is at the Yates location. I believe that these Strawn mounds should be drilled in the thicker portion of the anomaly, especially when we have production downdip. We're not too concerned with water in this anomaly.

It also shows a small anomaly at the Well Number 3, Townsend Number 3, and the anomaly that we will drill for the Townsend Number 4.

At the Townsend Number 6 location I do not see any Strawn potential, significant Strawn potential.

Q. Do you believe that based on both the Strawn and the Atoka, your proposed Townsend Number 2 location is the best for both -- for testing both of those zone?

A. Yes, I do. First, it will test the thickest part of that Strawn anomaly. And two, it is just slightly to the west of the axis of that sand trend.

The Yates location, which is further west, will be moving further towards the edge of the sand on the west side, and I'm afraid that we'll be looking at a well that's equal to or worse than the Brunson, which we've already -- has already been discussed, it's probably uneconomic.

Q. Now, when you're looking at Section 2, especially with respect to the Atoka and deeper zones, what are the possible ways to develop the reservoir?

A. Well, if you look at the south two-thirds of Section 2, since this is an elongated section, you have to options. You can -- I mean the State of New Mexico set out 320-acre spacing for the Atoka reservoirs at this depth, so you can either do two laydown 320s or two standup 320s.

If you do two standup 320s and drill the well at the location that Yates has proposed, I believe they will drill an edge well, similar to the Brunson well.

The second well for -- to develop this reservoir, as I have interpreted it, would be in the east half of Section 2. And again, whether you pick it in the southeast quarter or the northeast quarter -- talking about these two 320s -- you're forced to drill an edge well.

It is not Ocean Energy's philosophy to drill edge wells. The reservoir trends right across the south two-thirds of Section 2, from a southwest to a northeast direction. We've picked the Townsend location at a legal location for a laydown 320, at the optimum location for both Atoka sands and Morrow -- potential Morrow sand.

We picked the Number 2 location as a laydown at the optimum location for the Strawn anomaly, and the Atoka is 700 to 800 feet below that. So it's at a good location for the Atoka.

The Yates location to the west pushes the west edge of that sand trend.

Q. Now, drilling for the Atoka is definitely risky, is it not, Mr. McRae?

A. It certainly is. I think these wells and these reservoirs show that.

Q. I mean, you would agree with Mr. May that a 200-percent risk penalty would be appropriate in this instance?

A. I do.

Q. Looking at that penalty, doesn't it -- Does it make any sense not to drill the best part of the Atoka?

A. No.

Q. Does it make any sense to step a mile out from existing production?

A. It does not.

Q. Let's move on to your Exhibit 16, and could you identify that for the Examiner?

A. Exhibit 16 is simply a distance map. It shows the same nine sections, it shows the distances between the wells in Section 10 and 11 and the proposed wells in Section 2.

Q. Let's go over this a little bit. Let's start in Section 10, and if you'll recall -- Now, the west half of Section 10, that's 75-percent UMC, 25-percent Yates -- or Ocean Energy, excuse me?

A. That's correct.

Q. Seventy-five percent Ocean Energy. And there's

the Carlisle well there. Now, the east half is 50-50 Yates and Ocean; is that correct?

A. That's correct.

Q. What about the distances between the wells there? Now the Brunson is an Atoka well, correct?

A. The Brunson is an Atoka well.

Q. What's the Big Flat going to?

A. The Big Flat is a second deep test in that east-half standup unit, and as Mr. May already discussed, it's to test the Atoka Morrow and Mississippian section, primarily the Morrow Mississippian.

Q. Now, you've sat here and listened to the testimony of the Yates witnesses today, have you not?

A. I have.

Q. And they've expressed some concern about placing a well too close to their existing Shell Lusk well, have they not?

A. That's correct.

Q. Do they seem to evince the problem, offsetting the Carlisle with the Big Flat?

A. Yates has staked the Big Flat well as close as possible to our Carlisle well.

Q. Now, let's move on to Sections 11 and 2. Now, in Section 11, Ocean Energy has no interest; is that --

A. In Section 11, correct.

Q. That's all Yates and its partners?

A. Right.

Q. Okay. Now, we have a -- I believe you heard Mr. May say that the Simmons Number 1 Witt has been -- the re-entry has been stopped at this point?

A. Right.

Q. But what was that well going to test?

A. Well, that well originally started out when I was at Yates Petroleum as a Strawn re-entry. But the permit for this particular well was to test the Morrow Atoka section --

Q. Okay.

A. -- and go into the Mississippian.

Q. So if it went to the Morrow and Atoka, Yates had no problem offsetting its own well by 1720 feet?

A. That's correct.

Q. Now, what about Section 2? Could you discuss the distance between your proposed wells and between the Townsend Number 6 and the Shell Lusk well?

A. Well, as I've already stated, we feel that there are two wells required to adequately drain the reserves in the south two-thirds of Section 2.

Our first well we picked at the optimum location based on geology and geophysics. It's 1650 from the west line, 930 from the south line. That puts it 2625 feet from

the Shell Lusk well.

The second well, the Townsend Number 2, is 1440 from the west line and -- 3300 from the south line? Is that correct? I don't remember the exact footage of that. But it will put that 2310 feet from the Townsend Number 6.

Now, these footages were measured off the map. It may vary by 10 feet one way or the other.

Q. Okay. What about the distance between Yates' proposed well and the Shell Lusk?

A. Yates' proposed well, the Field Number 3, is 5060 feet from the Shell Lusk, almost a mile stepout.

Q. Do you think that's the prudent way to develop the Atoka reservoir?

A. Well, we've already showed very clearly in this testimony that this is a compartmentalized sand system. My isopach of the sand, the Brunson sand, is simply the sand fairway.

By no means do I mean to indicate that this is one homogeneous sand, but it's a sand fairway. And within that sand fairway there are probably multiple reservoirs, as the Brunson pressure data seems to indicate, as the well in the southeast of 14 seems to indicate.

Having this type of compartmentalized or reservoir with perm barriers in it, the 320-acre spacing is a much more prudent way to develop this reservoir, instead

of a 640-acre spacing, mile stepout.

Q. Now, with respect to the Townsend Number 6, you're not crowding as far south as you could, are you?

A. That well is proposed 930 feet from the line, and we could legally drill it 660 feet from the line.

Q. Okay. And regarding the proposed -- the staked Townsend Number 3 well, I mean, you could conceivably take that down to the Atoka also, could you not --

A. We could.

Q. -- if you formed a south-half unit?

A. We could, but if you drill that to the Atoka then we feel you're much too close to the Townsend 2, which would be the next spacing unit.

Q. You'd be -- what? 1300, 1400 feet away from the Townsend 2?

A. Approximately, which we feel is too close.

Q. That would be, in effect, 40-acre spacing?

A. Yes.

Q. And you don't think that's appropriate?

A. No.

Q. Do you think the initial stepout should be a mile away from the existing production?

A. Any prudent operator dealing with this type reservoir would not step out a mile. They would do one 320-acre stepout, which is what we've proposed for the

Townsend Number 6, and then move to the next one.

Q. Do you have anything else at this time, Mr. McRae?

A. That pretty well explains all of the exhibits.

Q. Okay. Were Exhibits A through G and then 10 through 16 and 18 prepared by you or under your supervision?

A. Yes, they were.

Q. And in your opinion is the granting of Ocean Energy's Applications and the denial of Yates' Application in the interests of conservation, the prevention of waste and the protection of correlative rights?

A. I certainly do.

MR. BRUCE: Mr. Examiner, I'd move the admission of Ocean's Exhibits A through G, 10 through 16, and 18.

EXAMINER STOGNER: Exhibits A through G -- unless there are any objections.

MR. CARR: No objection.

EXAMINER STOGNER: Stay with me on this, Mr. Bruce. A through G, 8 through --

MR. BRUCE: 10 through 16.

EXAMINER STOGNER: -- 10 through 16, and 18 will be admitted into evidence at this time.

Okay, thank you, Mr. Bruce.

Mr. Carr, your witness.

CROSS-EXAMINATION

BY MR. CARR:

Q. Mr. McRae, you used to be a geologist for Yates, did you not?

A. That's correct.

Q. And you worked this area for them, did you not?

A. Yes.

Q. You were a witness for me when you were working this area for them, were you not?

A. Yes.

Q. I'd like to look at Exhibit Number 12. This is your structure map on top of the Morrow lime?

A. That's correct.

Q. If I look at this, what you've done is, you're interpreted a low coming sort of northeast-southwest across Section 2; is that correct? In the Morrow?

A. Yes, that's correct.

Q. And you were, if I understood your testimony, suggesting that in this low you would have a better chance of encountering thicker sands; was that what you were saying?

A. Yes, that's exactly correct.

Q. Now, when I look at the data that you've utilized, did you have any seismic, or is this map constructed from well control?

A. This map is constructed from well control where we have it.

Q. Okay.

A. And it's supplemented with our seismic interpretation.

Q. Do you have seismic interpretation north and -- on the north and east side of Section 2?

A. Yes.

Q. When you are interpreting your low up there, is it fair to say, then, you've relied on the seismic data to interpret that low?

A. That's correct.

Q. Because you don't have any well control, do you?

A. That's correct.

Q. And so what you're attempting to do here is suggest that coming through this trough or low is the best place to locate wells in the area, right?

A. Based on the incorporation of the seismic --

Q. Uh-huh.

A. -- the 3-D seismic, and the well control from the Brunson and the Shell Lusk, the anomaly that we see in those two wells appears to trend southwest-northeast through this well.

Q. The Shell Lusk well is, in fact, the best well in the area, is it not?

A. That's apparently correct, based on production.

Q. And it is not in that low; it's off on the flank; isn't that right?

A. The isopach interval shows -- Let me back up. I'm not saying that the absolute best location is in the Morrow low at this point. I'm saying that there is a structural low that has controlled the deposition of the Atoka sequence.

Q. Okay, and --

A. The Atoka sequence is thicker in this general low.

Q. How important is structure in making an Atoka well in this area?

A. There is no water that I'm aware of in this reservoir. As you go downdip we may encounter some, but at this point there's no indication of it. Structure is not important for the reservoir, meaning, does it need to be up on a structure or down in the low? That's not important.

Q. Okay.

A. What's important is, where is the sand? And the sand seems to be concentrated in this well.

Q. And so if we would take this map and then look at your Atoka, we ought to see the thick in the low; is that what you're saying?

A. Generally.

Q. And if you go, then, to the next map, Exhibit 13, that's what you've shown; you've shown the thick coming down through that low?

A. That's correct.

Q. And if we look at this, the Brunson well in Section 10 is in the thick?

A. Yes.

Q. That has 13 feet, according to your mapping; isn't that right?

A. As far as the isopach of the gross sand? Yes, that's correct.

Q. And you testified that you didn't think that was economical?

A. That's been testified by Yates' engineer.

Q. And you agreed with that, did you not?

A. We're not -- I'm not an engineer, and I have not studied the engineering data. Our engineer will discuss that.

Q. Did I misunderstand you? I thought you testified that you felt the Brunson would be uneconomic.

A. I stated that the testimony that had been given so far indicated that that was a possibility.

Q. Do you have an opinion on your own of whether or not that is going to be an economic well?

A. I think it's too early to tell.

Q. Is it possible that is not an economic well, in your opinion, based on your geological interpretation?

A. The Brunson?

Q. Yes.

A. It's my opinion that until that well has been produced a longer period of time and we can tell a little better what the ultimate recovery of that well will be, I can't answer that question whether it's economic or not. I can say that the Brunson sand is present in that well.

Q. You can't say that it's economic, right?

A. I can't say that it's economic or uneconomic at this point.

Q. If we go out of your thick when we go to the Shell Lusk over to the east of that well, we can say that's an economic well, is it not?

A. I think that well also needs to be produced a longer period of time --

Q. Is it your --

A. -- before that can be determined.

Q. You don't know if that is an economic well? I'm just -- If you don't, I'm just asking.

A. Well, we wouldn't be proposing additional wells in here if we didn't think that this Atoka sand was an economic reservoir. For me to specifically say that I think the well is economic or not, I can't say based on the

data that we have.

Q. You're familiar with both of those wells?

A. Yes.

Q. The Shell Lusk is by far a better well than the Brunson, is it not?

A. From the initial flow rates, yes.

Q. And it is not in the heart of the thick that you've mapped the Brunson?

A. That's correct.

Q. All right. When you are picking the reservoir as you did on, say, Exhibit 15, your isopach, the gross Atoka Brunson sand, do you integrate pressure information into that interpretation?

A. I'll have you -- ask if you'd repeat that question.

Q. Is Exhibit 15 your interpretation of the Atoka reservoir in the Brunson sand?

A. Exhibit 15 is simply the gamma-ray thickness of that sand.

Q. Is it your testimony that this is a map of one reservoir?

A. It is a map of the Atoka Brunson fairway, not one reservoir.

Q. Not one reservoir. Have you integrated pressure information in your determinations of what is or is not --

A. Okay, maybe I should ask for your definition, what -- When you say one reservoir, what exactly are you asking?

Q. My question is, what are you trying to show with this? Is this a -- I thought you said this was a map of the Brunson sand reservoir; is that right?

A. It's the Brunson sand interval.

Q. Do you believe you have multiple reservoirs in this interval?

A. Yes.

Q. When you look at the two wells in Section 14, the two wells that were originally the Mesa wells, are those in the same reservoir, in your opinion?

A. In my opinion, there are two separate reservoirs within the Brunson interval in Section 14. The well in the southeast of 14 depleted fairly rapidly. The well in the southwest of 14 has continued to produce gas a much longer time.

Q. And so what we're looking at here is just the basic overall interval, not the particular reservoirs --

A. Right.

Q. -- or separate pools we're in?

A. Right.

Q. When we look at your cross-section, Exhibit Number 14, here again you are mapping a gross interval;

isn't that right, the -- I'm sorry. Isn't that what we've mapped here? We've mapped a gross interval?

A. That's correct.

Q. And then within that interval you have indicated in yellow an Atoka zone. Is that the -- That's the Brunson sand interval?

A. Yes, that's correct.

Q. Let me take a minute to find that.

And so if we look at 13, this is the isopach of, again, this gross interval, correct?

A. That's correct.

Q. And if we look at the Brunson well, we have -- you have 442 feet in the gross interval, correct?f

A. Right.

Q. And you have what? Thirteen feet in the Brunson sand?

A. Right.

Q. And if we go over to the Shell Lusk, you have a thinner interval, 432 feet, in the gross interval, correct?

A. Right.

Q. And how many feet do you have shown as productive in the Shell Lusk?

A. I show 21 feet.

Q. Twenty-one feet?

A. Of sand.

Q. So when I look at the gross interval, that's only telling me just that, the gross interval, is it not?

A. That's it, just a gross interval.

Q. If I need to look for what is actually productive in the reservoir, the gross interval doesn't really tell me very much. I have to look for productive sands; is that not --

A. That's very true.

Q. You've presented a number of log sections, A through G, F -- G.

A. Right.

Q. What were you trying to show with those log sections?

A. I was showing what the sand section looked like on the east side of Section 14, 13 and 11 where I have well control.

Q. Okay. And you were integrating pressure information, were you not, to confirm -- Why did you include the pressure information on these exhibits?

A. I simply put on these exhibits as much information as I had access to, off the scout tickets.

Q. If we go to like Exhibit D --

A. Was that B?

Q. I'm sorry, D.

A. D, all right.

Q. -- and I look at the pressure information, I've got some two-hour shut-in pressure tests, some pressure data. Are you the person I should ask about whether or not two-hour buildup is adequate in a reservoir like this to get a meaningful pressure?

A. That would probably be better answered by our engineer.

Q. You're not trying to testify one way or the other on that?

A. No.

MR. CARR: That's all I have, thank you.

EXAMINER STOGNER: Thank you, Mr. Carr.

Mr. Kellahin?

MR. KELLAHIN: I have no questions, Mr. Examiner.

EXAMINER STOGNER: Mr. Bruce, do you have any redirect?

MR. BRUCE: I do not have any redirect?

EXAMINER STOGNER: Pardon?

MR. BRUCE: No, sir.

EXAMINATION

BY EXAMINER STOGNER:

Q. I'm referring to Exhibit Number 16. Which well does Ocean Energy propose to drill first?

A. We would propose to drill the Townsend Number 6 first.

Q. Will the Townsend Number 2 be drilled simultaneously as that one, or will you be running tests on that Number 6 before you drill the Townsend Number 2?

A. The Townsend Number 2 could possibly be drilled at the same time, because the -- That well has two objectives, two primary objectives. One is the Strawn, which we have a very good anomaly for the Strawn, and it's a short distance to test the Atoka Morrow section in that well.

We -- That would be a discussion that Yates and Ocean Energy would enter to, as to the timing of the wells, but we would propose the Number 6 well first and the Number 2 well second, if we were dealing only with the Atoka reservoir.

Q. What do you mean, "discussion with Yates"? I thought the negotiations were off.

A. No, as far as the exact -- I mean, Yates is a partner of both of these wells, and it's our philosophy to discuss with our partners the timing and situations that pertain to some of the wells.

Q. Well, I'll tell you what. I came to the conclusion prior to lunch that negotiations were probably off. I'm beginning to wonder now.

A. As far as the negotiations of how we drilled, where we spaced the well and where we locate the wells --

Q. Oh, I think you could do that too.

A. That's --

Q. You're trying to limit your negotiations with this hearing today. You've got a real complicated situation here. Nobody has addressed anything about what makes a commercial well. You've got three compulsory poolings. If I go with the Yates, there's got to be a time limit, then, for the Number 6 to take over, because you can't just approve one and deny two. There's got to be a certain time limit. This thing has the potential to be a 30-page order. It's real complicated.

Same thing too, if the Townsend Number 6 -- and what you're telling me is going to be the first one. Then something changes. But that's going to affect whether I go with the Townsend Number 2 or the Yates well. This is a real complicated mess.

Also, we're going to refer to Exhibit Number 8. What's the maximum number of proposed wells in this proposed area that we're talking about to be drilled, to adequately test both the Strawn and the Atoka?

A. To test the Strawn reservoir in Section 2, Ocean Energy sees three potential wells: the Townsend Number 4, the 3 and the 2. We would propose to drill the 4 first, which we've started and had mechanical problems in that hole.

It's also -- That would be our plan, is to re-enter or drill a new well to test that anomaly. That's the best anomaly of the three that I've depicted here.

Q. What kind of problems have you had on the Number 4?

A. We encountered a lost-circulation zone in the Townsend upper Permo Penn zone that we were never able to shut off.

Q. Is this well still drilling?

A. We drilled, dry-drilled, to 100 feet above the top of the Strawn and ran casing to case off the lost circulation zone. The casing parted during the casing operation. That well is shut in currently, waiting on -- just waiting on orders to re-drill it.

The Townsend Number 2 would be the next Strawn location. Depending on the results of the Townsend 4 and the Townsend 2, we may or may not drill the Townsend 3. That's why that well's been permitted for a while and we've not drilled it yet. This pertains only to the Strawn reservoir.

Q. So the minimum number of wells out here I could have would be three for the Strawn, and of course if the Number 6 was dry in the Atoka -- Are you seeing where we're going here? You've got a potential to drill four wells. One of the things nobody has addressed is unnecessary

wells.

A. Uh-huh.

EXAMINER STOGNER: You read every unorthodox location -- or not unorthodox -- well, yeah, unorthodox location order and compulsory pooling order. One of the findings is unnecessary wells. That's going to weigh heavy on this decision, real heavy.

Mr. Carr, Mr. Bruce, I want you to keep in mind what I'm saying here, because that's -- I'm going to want a rough draft order, and it's not going to be a simple approve/deny. It's going to be an approve, test, available amount of time of testing. Then the next -- Somebody else will have their opportunity, and then so forth. So we're getting into a real complicated situation in here.

I thought negotiations were off.

THE WITNESS: Let me clarify that comment that I made.

EXAMINER STOGNER: Oh, I think you did. No, I think you did, sir.

THE WITNESS: Okay.

EXAMINER STOGNER: Keep in mind, Mr. Bruce and Mr. Carr, you're probably going to have to send your engineer back up, and we're going to have to talk about a reasonable amount of time and what's a commercial well, when is it determined, how is it determined.

Of course with you in mind, let's say that we give it to Ocean Energy. What kind of a time frame are you going to want to see? And how about, Mr. Bruce, if we give it to Yates, what's the amount of time? You can't just sit there and be producing 1 MCF a day and holding, not in a situation like this.

You all had some very good opportunity to negotiate this out, and something happened somewhere down the line, which I'm beginning to see, it's beginning to be a very, very complicated situation here. And there's going to be an opportunity for you to negotiate further in this matter, especially after what I've heard.

With that, if there's no other questions of this witness, he may be excused.

Mr. Bruce?

MR. BRUCE: Call Mr. Johnson to the stand.

CHAD JOHNSON,

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

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. I'm Chad Johnson.

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

A. I'm employed by Ocean Energy, Incorporated, as a

reservoir engineer.

Q. Have you previously testified before the Division?

A. No, I have not.

Q. Would you please briefly itemize your educational and employment background for the Examiner?

A. I graduated from North Dakota State University with a bachelor of science degree in petroleum engineering in May of 1994. I have worked for Axem Resources in the Willison Basin pumping oil and gas wells while attending college, and I've been a reservoir engineer for UNC/Ocean Energy the past three and a half years.

Q. Are you familiar with the engineering or reservoir matters pertaining to the Atoka wells in this area?

A. Yes, I am.

Q. And does this -- Southeast New Mexico, is that within your area of responsibility?

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I'd tender Mr. Johnson as an expert reservoir engineer.

EXAMINER STOGNER: Any objection?

MR. CARR: No objection.

EXAMINER STOGNER: Mr. Johnson is so qualified.

Q. (By Mr. Bruce) Mr. Johnson, would you identify

Exhibit 17 for the Examiner, and go through the legend and tell him a little bit what it shows.

A. Okay. Exhibit 17 is a production and pressure summary of the Atoka producers in the Townsend area. As you can see the legend, I'm showing cumulative oil production in thousand -- MBO, excuse me -- cumulative gas production in million cubic feet, and expected ultimate gas recovery in million cubic feet, and also the completion date of the well.

My main focus is going to be the wells in Sections 10, 11 and 14. I direct you to the wells -- two wells in Section 14, the Skelly State Number 1 well, which is in the southeast quarter of 14, and the Monsanto State well, which is in the southwest quarter of Section 15.

The Skelly State Number 1 was completed in March, 1973, producing from the Atoka, and IP'd for 658 MCF per day, with reservoir pressure of approximately 4200 pounds, P/Z. The well ultimately cum'd 259 million cubic feet of gas prior to being abandoned.

The Monsanto State well, located in the southwest quarter of 14, was drilled approximately two years later and completed in the Atoka formation for 2.4 million cubic feet a day, with a reservoir pressure of 2855 pounds.

I believe the reservoir pressure was probably higher in the Monsanto State when it was originally

completed, but since that data was not available, I used the highest point available to me in *Dwight's*.

The well is expected to recover approximately 5.3 billion cubic feet of gas, and the well currently produces 300 MCF per day.

Since both wells have similar pay and are the same reservoir, one would believe the two wells to be in communication. I believe these wells are not in communication, based on pressure data and the ultimate recoveries. Some sort of permeability barrier or compartmentalization probably exists in this area.

I now direct you to the Brunson Number 1 well, located in the northeast quarter of Section 10 and the Shell Lusk Number 1 well in the northwest quarter of Section 11. Both wells were completed late 1997. The Brunson Number 1 was completed in October for -- with an IP of 507 MCF per day and 29 barrels of condensate per day, with a reservoir pressure of 4335 pounds, P/Z.

Two months later, in December, the Shell Lusk Number 1 was completed in the Atoka for 665 MCF per day and 32 barrels of condensate per day. The reservoir pressure in that well was 3594 pounds P/Z.

I agree some depletion may have taken place over the years due to the Monsanto State Number 1 in that area.

Again, one would believe both wells, the Brunson

and the Shell Lusk, to be in communication since both are productive from the Atoka. Due to the approximate 700 pounds pressure difference between the Brunson and the Shell Lusk, I believe permeability barriers or compartmentalization probably exists.

Q. Okay. Can you be certain from this data that a well drilled anywhere in the southern two-thirds of Section 2 would be in communication with the Shell Lusk well or the Brunson well?

A. I cannot -- I don't have a definite answer for that. I cannot say yes or no.

Q. A well is going to have to be drilled --

A. Correct.

Q. -- in order to make that determination?

A. Yes.

Q. The Examiner asked the last witness a couple of questions, Mr. Johnson, and I'm not sure you can answer, but he asked about economics. Certainly the Monsanto State well was an economic well?

A. Very much so.

Q. And what about the Brunson and Shell Lusk? Can you even tell at this time?

A. At this time we don't have enough data to accurately determine ultimate recoveries and the economic viability of the well, of each well.

Q. And again --

A. And I will point out that Yates' engineer did point out the same -- that we don't have enough data to determine that.

Q. Now, I think it's already been discussed by the witnesses: These wells are rather expensive, are they not?

A. Correct.

Q. Well, what would it be? $1.2 million for an Atoka, roughly?

A. That's about right.

Q. What about just a Strawn well, roughly? Do you have an idea on the cost on that?

A. I usually don't get involved in the --

Q. Okay.

A. -- AFE preparation on wells, so --

Q. It would be a little bit lower?

A. It would be a little bit lower.

Q. But you still need substantial production to recover those costs plus get a reasonable rate of return, for a company to approve that project?

A. Yes.

Q. Was Exhibit 17 prepared by you, Mr. Johnson?

A. Yes, it was.

Q. In your opinion, is the granting of Ocean's Applications in the interests of conservation and the

prevention of waste?

A. Yes.

MR. BRUCE: Mr. Examiner, I'd move the admission of Ocean Energy Exhibit 17.

MR. CARR: No objection.

EXAMINER STOGNER: Exhibit Number 17 will be admitted into evidence.

Thank you, Mr. Bruce.

Mr. Carr, your witness.

CROSS-EXAMINATION

BY MR. CARR:

Q. Mr. Johnson, Ocean is here today asking the Division to designate them operator of two wells in Section 2; is that right?

A. Yes.

Q. A few minutes ago, Mr. McRae suggested that perhaps both wells would be drilled at the same time. Do you agree?

A. I do not know that answer.

Q. Is it possible that you would do that?

A. Again, I do not know.

Q. Would you consider it prudent to drill both of those wells at the same time?

A. No.

Q. How long have you been employed by UMC and Ocean?

A. It's going on about three and a half years now.

Q. Have you been involved in this area all of that time?

A. No, I have not.

Q. Earlier today when I was cross-examining Ms. Smith, she identified three wells in the area of interest that have been drilled by Ocean or UMC, the Townsend 1, the Townsend 4 and the Carlisle. Are those all the wells in, say, the nine sections surrounding the subject area that have been drilled by Ocean?

A. Yes, it is.

Q. In fact, in the drilling of each of those wells, UMC or Ocean has encountered substantial problems, have they not?

A. Yes.

Q. If we go to the Townsend Number 4, that was the well that Mr. Stogner referenced a few moments. In fact, you had a lost circulation in the Wolfcamp, did you not?

A. I believe that was the zone, yes.

Q. And that's where you had your casing part?

A. I think so. I'm not -- Again, I don't take part in the operational procedures of the wells.

Q. Do you know whether or not you have an uncontrolled underground flow going right now in the Permo Penn in that well?

A. I do not know that.

Q. You don't have a rig on that well at this time, do you?

A. No, we don't. It's currently shut in.

Q. You're thinking of re-entering that well; is that what I understand?

A. I believe we are, yes.

Q. Do you know at this time if, in fact, you have been able to get the problems in that well under control to the satisfaction of the Division?

A. I do not know that answer.

Q. Do you know, concerning that well, what the actual costs of that well have been, compared to the initial AFE cost?

A. I do not.

Q. Townsend Number 1, that's the well that you actually drilled, I believe, horizontally, as it's shown on your exhibits; is that right?

A. Yes.

Q. That well was initially a straight hole to the Strawn; isn't that right? You encountered the anomaly where you expected to; is that correct?

A. I believe so. That would be more of a geologic question.

Q. You did -- You were unable to make a well ion

that zone; isn't that correct?

A. Can you rephrase that, or ask again?

Q. You were unable to initially complete in the Strawn with a straight hole; isn't that correct?

A. Correct.

Q. And so you had to horizontally drill the well?

A. Correct.

Q. In horizontally drilling the well, didn't you encounter some fairly substantial mechanical problems?

A. I don't know.

Q. Do you know what the actual costs of that well were, compared to your AFE for the well?

A. I do not know.

Q. Were you involved with the drilling of the Carlisle well?

A. No.

Q. We all know about the Carlisle well?

A. We do.

Q. All right. Are you still working on the well?

A. I believe so. We are currently -- have a rig on location, have fished drill pipe to about 10,300 feet and are working to get the rest out of the hole.

Q. Do you have any idea what the cost overrun might be on that?

A. No.

Q. You're familiar with AFEs generally?

A. Generally, yes.

Q. And you would agree with me, wouldn't you, that an AFE is really just an estimate of what you expect the well to cost?

A. Correct.

Q. If someone becomes your partner in a well, either by joining before an OCD hearing or paying their share afterward, they're your partner in the well; isn't that right?

A. Yes.

Q. And if you were the operator of the well and you encountered a blowout or casing split or had to drill horizontally, the share of the -- those costs are not just borne by you. The actual costs are what you bill your partners on; isn't that right?

A. Yes.

Q. I mean, you can understand why, can you not, that an operator -- that really your record in this area are three wells in which you've had problems?

A. Could you repeat that?

Q. I mean, if we look at the wells that you have drilled in this area, we have three wells, and we've had major problems in all three of those wells; isn't that fair to say?

A. That's probably a fair assumption.

Q. You can understand that another operator might not want to go into a well, either by voluntarily joining up front, or to avoid a penalty and pooling order, might not want to be in a well with an operator who is really in the situation that their only record was three wells and three problems; can't you understand that?

A. Well, I would have to point out that basically an AFE is a good-faith estimate, like we discussed earlier. Every company is different in determining what an AFE cost will be. No company can ever determine potential problems in a well. So -- I forgot your question, but...

Q. Wouldn't you think that you might be concerned, as Ocean, if you were being asked to join with another operator and have the other operator operate a well in which you owned a substantial interest, if the only track record they could point to was three wells with real problems?

A. I would have to bring out our great track record in other areas of the country, though, also.

Q. But we're drilling here --

A. I mean --

Q. -- right? We're drilling in Section 2, correct?

A. Correct.

Q. Wouldn't you think it would be reasonable to

require that before you are given operations by a regulatory agency, that you at least confirm that the Townsend Number 4 does not have uncontrolled underground flows going on in it?

A. Well, as far as I remember, we're in the process of determining what went wrong. We're in the process of determining what went wrong on the Carlisle. And basically, we've had a couple wells with some problems. Every company is subjected to some sort of problems.

Q. While you're determining what to do in the Townsend 4, you have about a 9500-foot well, do you not? Or do you know? I'm not trying to make you guess.

A. I'm not sure.

Q. You can only get into the top of that well, though --

A. Yeah.

MR. CARR: -- at this point in time?

That's all I have.

EXAMINER STOGNER: Mr. Kellahin?

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Johnson, does your company do economic forecasts before you drill deep gas wells in New Mexico?

A. Yes, we do.

Q. And have you done so in this case?

A. No, I have not.

Q. Would that be your responsibility to do that for this case?

A. Yes.

Q. Why haven't you done so?

A. Because we wanted to see what the outcome of the hearing would be.

And also, based on Mr. McRae's interpretation, if Yates is allowed to drill the Townsend 2, that is a riskier well compared to the drilling of the Townsend Number 6, economics would be different on both wells due to the risk associated with --

Q. Let's assume an unrisked economic scenario, you could run it through your economic program and at least come up with a benchmark to tell you what volume of recoverable gas was necessary in order to pay for the cost of a well like this, right?

A. Yes.

Q. What kind of minimum gas volume would you forecast to be necessary to make this project economic in an unrisked situation?

A. Well, as I stated earlier, the Brunson Number 1, according to John McRae's net sand map, if you look at where the Brunson Number 1 is, that well has 13 feet of pay. If Yates is allowed to drill their well, they're

expecting, or John is expecting approximately 13 feet of pay.

Based on that, I don't have enough data on the Brunson to accurately determine ultimate recovery on the Number 2.

Based on Mr. McRae's net isopach map of the Atoka, on the Townsend Number 6, he's showing 30-plus -- the potential for 30-plus feet of sand in that area.

Then I would move down to the Monsanto State Number 1 in the southwest of 14. I notice that that well is going to cum about 5.3 BCF of gas, and I would base my economics on some sort of -- on what that well has done, because that is the only well that has done the best and I have enough data on to determine economic viability.

Q. How much gas volume would you have to produce in today's market in order to pay for a well that costs this much?

A. I don't know?

Q. Would you need half a BCF?

A. I don't know.

Q. You can't tell me even that?

A. No. I'd have to run the numbers.

Q. When we look at the pressure data, down here on the Skelly State 1 well in 14 --

A. Okay.

Q. -- is this pressure data that is confined, to your satisfaction, to the Brunson sand?

A. I guess I don't understand what you're asking.

Q. Well, if I'm trying to make the comparison of pressures --

A. Okay.

Q. -- I want to make sure I'm comparing pressures in the same correlative interval, right?

A. Okay, uh-huh.

Q. Did that occur in that well?

A. I guess I'm still not understanding. You're asking, is the Skelly State potentially a separate reservoir? Is that what you're --

Q. No, sir, what I'm asking you is, the Skelly State 1 well, on March of 1973 --

A. Okay.

Q. -- there's a pressure of 4200 pounds. I assume that's the bottomhole pressure.

A. That is the calculated bottomhole pressure.

Q. Okay, it's calculated, taken from a surface pressure and calculated bottomhole conditions?

A. Correct.

Q. All right. That pressure was related to where the perforations existed in that wellbore at the time of the test?

A. Yes.

Q. Where were those perforations? Were they in the Brunson sand, is my question.

A. Yes.

Q. Okay.

A. The Brunson interval, yes.

Q. All right, sir. Were there any other intervals open in that wellbore at the time of that test, other than the Brunson sand?

A. I don't believe so.

Q. Okay. Are you satisfied that you have a sufficient surface pressure data point to make a calculation to make this number reliable?

A. Yes.

Q. Okay. When we go and look at the Monsanto State 1 well, this is a pressure in September of 1975, right?

A. Yes.

Q. Again, is this a surface pressure, then, extrapolated to bottomhole?

A. Correct.

Q. Are you satisfied that this is a good enough pressure to use?

A. This was the highest available shut-in wellhead pressure I had in *Dwight's*. As stated earlier, there was no DSTs run in the Atoka Brunson interval. So --

Q. But you're satisfied that this is confined to the Brunson interval?

A. I'm not completely satisfied. As I stated earlier, I believe there was some reservoir -- or, excuse me, I believe the reservoir pressure was probably higher originally.

Q. All right, so it needs a little footnote on this to make certain that we are not making a direct comparison between the Brunson pressure in the Skelly State 1 and believing that the 2800 pounds in the Monsanto State is a measurement of the same interval?

A. Correct.

Q. Okay. There is a period of time in which the Skelly State 1 well is producing, during which the Monsanto State well is completed, tested and produced, right?

A. Yes.

Q. There's a crossover period of a couple of years; is that --

A. About two years.

Q. Did you run any type of production plot on the Skelly State 1 well to see if its production performance was affected when the Monsanto State 1 well came on line?

A. Let me grab my curves here. So the Skelly State was completed in March of 1973, the Monsanto State was completed in January of 1975.

Q. Yes, and by May, 1977, the Skelly State appears to have reached its cum and apparently is abandoned?

A. Correct.

Q. All right, so there's a crossover period?

A. Yes.

Q. Is there any change in the production plot?

A. There is a downward trend, but it bounces right back up a couple months later to where it had been previously.

Q. Okay, you can't look at the data, then, and reach a conclusion that they're interfering with each other?

A. No, I cannot.

Q. What's the basis for your conclusion that they are, in fact, separated?

A. Basically the way the pressure depleted in the Skelly State Number 1 and its ultimate recovery of gas, and how the Monsanto State Number 1 -- basically I'm judging it on the performance of the two wells and the pressure depletion in the Skelly State Number 1.

Q. What would you expect to be undepleted bottomhole pressure conditions in the Brunson?

A. I guess based on what we've seen in the Brunson, approximately 4000 pounds.

Q. A little over 4000 pounds? When we get over to the Monsanto State 1 well, it's 2800 pounds?

A. Yes.

Q. Where did the depletion go? What accounts for the depletion in that wellbore?

A. I guess I wouldn't really phrase it as depletion in that wellbore, because I did state that reservoir pressure was probably higher in that well. This data point I used in this analysis was the highest point available to me through *Dwight's* data.

Q. All right, we have a suspect data point?

A. Yes, big time.

Q. Okay. We get up and look at the comparison between the Brunson 1 and the Shell Lusk 1. What's your confidence in the data that you have used for these two wells?

A. Both of those pressure datums are from bottomhole pressure tests conducted by Yates. Those are --

Q. And is it confined to the Brunson interval?

A. Yes.

Q. There is a pressure differential?

A. Yes.

Q. To what do you attribute that differential?

A. As I stated earlier, the Monsanto State may be in communication with the Shell Lusk. We probably have seen some sort of depletion by that well.

Q. Particularly after 20 years of production?

A. Yes.

Q. All right. Based upon the available data we have now, Mr. Johnson, and the opportunity in Section 2, where there does not yet exist a wellbore --

A. Correct.

Q. -- where would you place that wellbore in Section 2, in order to keep the Shell Lusk 1 well from taking gas reserves from underneath the tract of the owners in Section 2?

A. I'd place it at the Townsend Number 6 location.

Q. And why would you do that?

A. Basically, I would want to keep my proposed locations as close to existing production as I could, and we're proposing a legal offset location to the Shell Lusk Number 1.

Q. If the Yates location is approved in some -- what, 5000 feet? --

A. Correct.

Q. -- apart, between the wells --

A. Yes.

Q. -- what happens to the ability of the Yates well to protect Section 2 from drainage by the Shell Lusk Number 1 well?

A. There is no protection from drainage.

MR. KELLAHIN: Thank you, Mr. Examiner.

EXAMINATION

BY EXAMINER STOGNER:

Q. There was some testimony given about the Number 4 well down there in the extreme southeastern portion of Section 2. Do you know how deep that well went?

A. I do believe it probably went past 10,500 feet. I think Mr. McRae stated earlier that they drilled to almost the top of the Strawn, if I'm not mistaken.

EXAMINER STOGNER: Mr. McRae, do you remember what the total depth of that well was?

MR. McRAE: I do not recall the total depth, but it was approximately 100 feet above the top of the Strawn, based on drill time mud log.

EXAMINER STOGNER: Was that the goal for that well, or did you -- were you supposed to go deeper?

MR. McRAE: We did not want to penetrate the Strawn reservoir, for the potential of a downhole blowout. So our plan was to drill to a safe distance above the top of the Strawn, run casing, case off the lost-circulation zone, and then drill out the smaller pipe.

EXAMINER STOGNER: How deep? Just the Strawn or deeper?

MR. McRAE: On the Townsend Number 4?

EXAMINER STOGNER: Yes.

MR. McRAE: Just to test the Strawn. We would

penetrate the entire Strawn section and up around hole for logs and TD.

Q. (By Examiner Stogner) So Mr. Johnson, what's the status of that well now? Lost circulation in the Wolfcamp, and the casing parted. What -- What's going on now?

A. The current status is shut in, and we're evaluating -- waiting on orders.

Q. From who?

A. From management, to see if they want to re-enter the well.

Q. Okay, but what's the status of the wellbore? What's going on in the wellbore? Is it killed?

A. The well is killed.

Q. It's got fluid in it?

A. I don't know that.

Q. Well, you said it was killed.

A. I believe -- I have my chronology somewhere around here. If I can find that, I can tell you exactly what's going on.

EXAMINER STOGNER: Okay, I'll give you five minutes to find it.

(Thereupon, a recess was taken at 3:08 p.m.)

(The following proceedings had at 3:20 p.m.)

MR. BRUCE: Mr. Examiner, back on the record. If you've got any questions of Mr. Johnson, Mr. McRae is out

on the phone with some of the people, trying to get some answers, but --

EXAMINER STOGNER: Would you -- Are you saying we need to wait for him?

MR. BRUCE: Why don't you ask Mr. Johnson what you have of him, and then --

Q. (By Examiner Stogner) Mr. Johnson, you were going to get some information on that Number 4 well. What can you tell me?

A. I have that in front of me, sir. Basically, it looks like we drilled to the top -- or drilled a hundred feet, the top of the Atoka reservoir, set casing to try and eliminate the lost-circulation zone. We ran casing --

MR. BRUCE: Atoka or Strawn?

THE WITNESS: Or Strawn, I'm sorry.

MR. BRUCE: Okay.

THE WITNESS: A hundred feet on top of the Strawn reservoir. We ran casing to try and eliminate the lost circulation zone, went in the hole and -- We went back in the hole and began to dry-drill the well. It appeared we were drilling metal. We went in and found the casing to be parted at approximately 10,020 feet, went in and free-pointed the casing, cut the casing off and pulled casing out of the wellbore and released the rig and shut in -- with a shut-in status on the well.

Q. (By Examiner Stogner) Okay, how was it shut in?

A. I don't know.

EXAMINER STOGNER: Mr. McRae, do you know how the well was shut in, the Townsend State Number 4?

MR. McRAE: No, sir, I don't know that. I did talk to our engineer. We encountered no drilling breaks between the lost circulation zone and where we TD'd to run the casing. There's no apparent reservoirs open. And it's his assessment that there's no crossflow of any type, because we never had any indication of any reservoir between the lost circulation zone and where we stopped.

EXAMINER STOGNER: But there's no cement in the hole; is that correct?

MR. McRAE: There may be some cement, as we attempted to set the casing. We had two stages. The first stage apparently went fine. The casing parted during the second stage. So I can't answer that question.

Q. (By Examiner Stogner) Okay, what's it going to take -- Mr. Johnson, what's it going to take to redrill this? You said you were waiting for orders to redrill.

A. I don't know the answer to that.

Q. Is it going to take a pulling unit or a drilling rig?

A. I believe it would take a drilling rig.

Q. Okay.

A. We'd have to reset casing.

Q. And how long has this well been in this status?

A. It looks like since the middle of -- excuse me, the end of -- middle of December, 1997.

Q. Oh, why not? I'll ask it: Is this a prudent operation, do you think, to allow a well like this to sit?

A. Probably not.

Q. Okay.

A. But --

Q. And you're here today asking to drill two additional wells, and you haven't given me an indication that you're going to fix the Number 4 prior to that?

A. Mr. McRae knows more about --

EXAMINER STOGNER: Okay, Mr. McRae, you heard --

THE WITNESS: -- the process of that.

EXAMINER STOGNER: -- my question. Why don't you respond?

MR. McRAE: All right, would you re- -- please repeat --

EXAMINER STOGNER: You're here today asking for us to utilize our police powers to force Yates and any other party to join in on the drilling of two wells, but I haven't had any indication from you that you need a drilling rig to work on this one, and you want to drill two additional wells prior.

MR. McRAE: The Townsend Number 4, the engineers have been evaluating the different options on how to redrill this well, whether to drill a new well, to plug this well in compliance with the OCD's requirements and drill a new well, or to be able to kick this well off and drill -- sidetrack it. Those are the evaluations that have been going on. And due to a lot of other situations, we just haven't got to this.

We're not asking for the OCD to approve two wells before we take care of this situation, if that -- if that would be a requirement.

EXAMINER STOGNER: When would you be ready to drill the Number 6?

MR. McRAE: We would start operations as soon as the order came down that that particular location was approved.

We have had discussions concerning the Townsend 4 off and on over the last several weeks. That particular problem is in the process of being resolved right now.

Q. (By Examiner Stogner) Mr. Johnson, have you got another drilling rig occupied on another problem out there? I really didn't want to go into this, but it seems like it's the prudent -- the question of a prudent operator is coming up. I really wanted to avoid this issue, because the Commission really has never addressed that issue in

compulsory pooling before. That's been the last thing that's ever been looked at. It's always been assumed that an operator's operations are prudent, but it's becoming an issue.

And you already have a drilling rig out there on the Carlisle; is that correct?

A. There is presently a drilling rig on the Carlisle.

Q. Okay, have you got a drilling rig ready to go on the Number 6?

A. I don't know.

Q. But if you had a drilling rig ready to go, wouldn't it be on the Number 4, working on it?

A. Pardon me?

Q. If you had a drilling ready to go today, wouldn't that be on the Number 4, getting that problem fixed and getting that well in operations so the State -- which that's a State lease; is that correct? -- would be enjoying its royalty, and also you would be enjoying the benefit that that well would be producing?

A. I believe so.

EXAMINER STOGNER: Any other questions, Mr. Carr, along this line?

Mr. Bruce?

MR. BRUCE: I just had one question, a follow-up.

EXAMINER STOGNER: Okay.

FURTHER EXAMINATION

BY MR. BRUCE:

Q. Mr. Johnson, on the Townsend Number 1, when you originally drilled, Ocean drilled that well, it was drilled vertically; it was tight, was it not?

A. I recollect that, yes.

Q. And then you drilled directionally, and that is a good well, is it not?

A. I believe it's flowing approximately 200 barrels a day right now, and 100 to 150 MCF per day of gas.

Q. And for how long has that been going on?

A. Probably about a year.

MR. BRUCE: Thank you, that's all I have, Mr. Examiner.

MR. CARR: Mr. Stogner, I'd like to follow on that.

FURTHER EXAMINATION

BY MR. CARR:

Q. I mean, you've already testified, have you not, Mr. Johnson, that if there were mechanical problems while you were trying to drill the horizontal well, you're unaware of that; is that right?

A. I do not know of any mechanical problems. I wasn't involved in the operational procedure.

Q. You don't know one way or the other?
A. No.
Q. Who in your company would know that? Who would have been drilling that well?
A. Our operations engineer.
Q. And who would that be?
A. Mr. Bob Mowry.
Q. Mallory?
A. M-o-w-r-y.
MR. CARR: Thank you.
EXAMINER STOGNER: Okay, if there's no other questions of Mr. Johnson, he may be excused.
Mr. Bruce?
MR. BRUCE: Mr. Examiner, we have one last witness. He was not previously sworn because he was out collecting my exhibits.
EXAMINER STOGNER: Okay.
MR. BRUCE: If you would be sworn.

JAMES HUCK,

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

DIRECTION EXAMINATION

BY MR. BRUCE:
Q. Would you please state your name for the record?
A. James Huck.

Q. Who do you work for and in what capacity?

A. I work for Ocean Energy as a senior geophysicist.

Q. Have you previously testified before the Division?

A. No, I haven't.

Q. Would you please outline your educational and employment background?

A. I graduated from the University of Wyoming with a degree -- bachelor of science degree in geology, geophysics option, in 1980.

I was employed by Texaco for 15 years, working primarily in Denver, but also in New Orleans. After that, I consulted for two and a half years. Various clients, including UMC. Since March 2nd of 1998, I've been an employee of Ocean Energy.

Q. Have you reviewed seismic data on this area?

A. Yes, I have.

Q. And have you prepared an exhibit for submission today?

A. Yes.

Q. And you are familiar with the seismic interpretations in this particular area, are you not?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I'd tender Mr. Huck as an expert.

EXAMINER STOGNER: Any objection?

MR. CARR: No objection.

EXAMINER STOGNER: So qualified.

Q. (By Mr. Bruce) Mr. Huck, what is Exhibit 19? You know, go through it, explain what it shows and describe its contents for the Examiner.

A. Okay, Exhibit 19 is a map that I've made from the seismic, the 3-D seismic, in the Townsend area from the -- what I call the Brunson top, or the Brunson -- what I interpret as the top of the Brunson sand, down to the Morrow lime reflector, and it's an isochron of that or essentially measuring the time thickness.

And as you can see on the map, we have a southwest-to-northeast trend, with the brighter or yellow to orange colors indicating a thicker isochron.

Q. Okay. Now, this map is based on 3-D seismic, right?

A. Yes, it is.

Q. And then you tie it in with well control?

A. Yes.

Q. Okay. Now, this map, besides showing -- this isn't the -- does not indicate the productive limits of a reservoir, does it?

A. No, it doesn't.

Q. What does it show?

A. This particular map shows the extent to which I can map an isopach thick- -- or isochron thickness between the -- what I interpret as the top of the Morrow sand and the Morrow lime.

Q. What is the resolution that you get in here?

A. Through some modeling I've determined that the resolution is probably somewhere around -- once we get below eight to ten feet, we probably aren't able to really detect the sand on seismic.

Q. Okay, so you'd probably say more like -- you'd probably prefer 15 feet or more to have --

A. Yes, I mean, 15 feet or greater, yes.

Q. Okay. And does this seismic correlate with the well control, then, in this area?

A. Yes, I believe it does.

Q. Now, let me show you Mr. McRae's Exhibit 15, which is his Atoka isopach map. Does -- Your modeling shows, in essence, the same thing as Mr. McRae, does it not --

A. Yes, it does.

Q. -- that the Atoka trends northeast-southwest --

A. Yes.

Q. -- number one. And number two, that the thicker part of the Atoka is in the southwest quarter of Section 2?

A. Yes.

Q. And this would buttress Mr. McRae's conclusions, would it not --

A. Yes, it does.

Q. -- that really, if you're going to drill one Atoka well, the place to do it is in the southwest quarter?

A. Yes, the southwest quarter of 2 would be the best place to drill an Atoka well.

Q. Okay. And Exhibit 19 was prepared by you or under your direction?

A. Yes.

MR. BRUCE: Mr. Examiner, at this time I would move the admission of Ocean Exhibit 19.

EXAMINER STOGNER: Any objection?

MR. CARR: No objection.

EXAMINER STOGNER: Exhibit Number 19 will be admitted into evidence.

Mr. Carr?

MR. CARR: No questions.

EXAMINER STOGNER: Mr. Kellahin?

MR. KELLAHIN: No questions.

EXAMINER STOGNER: I've got a question here.

EXAMINATION

BY EXAMINER STOGNER:

Q. Let's see, where would the Shell Lusk well be on your map?

A. On Exhibit 19?

Q. Uh-huh.

A. If you look in the northwest quarter of 2 -- and excuse me, my seismic-plotting software did not put the section numbers on here, and I apologize for that -- there's a red-circled well with a line coming out running roughly north, and a line going roughly west.

Q. In Section 11, you mean?

A. In Section 11, I'm sorry.

Q. Okay. That would be it?

A. Yes, that's the Shell Lusk well.

Q. Okay. Now, how does your interpretation -- because that shows to be right there in the middle of that green or --

A. Yes.

Q. -- sort of at the side --

A. Uh-huh.

Q. Wouldn't the yellow be down there too? I thought this was a good well.

A. It is a good well, but my map is showing here that we believe that the Atoka sand has a good possibility to be much thicker in the southwest of 2.

Q. But we won't know until we drill?

A. Whether it's thicker or not?

Q. Yes.

A. That's correct.

Q. Can I tell from this how much thicker you're expecting with the proposed well, the Townsend Number 6, as opposed to what you're getting in the Shell Lusk?

A. Not from this map.

Q. Not from this map?

A. No. This is an isopach of a much larger interval, the top of the Brunson sand down to the Morrow lime.

Q. Okay, so I'm not going to be able to tell how much additional footage, other than it's just showing me that you're --

A. On this particular map. But I feel that it does give a fair representation of the sand deposition, as well as the possibility of having an accumulation of greater sands.

Q. Okay, how about the Townsend Number 2? Is that shown on your -- Is that depicted on your map?

A. Yes, it's -- If you go to where the Townsend Number 6 well is, there's about three lines intersecting the Townsend Number 6. If you follow the line that goes roughly north from that, and there's a circled well on that in red, that would be the Townsend Number 2.

Q. Okay. From there I'm expecting that to be thicker also; is that correct?

A. Thicker --
Q. Than what the -- than the Shell Lusk --
A. Yes.
Q. -- your proposed --
A. Yes, that --
Q. -- Townsend?
A. Yeah, that's -- As I have it on this map, I expect it to be thicker than the Shell Lusk well, yes.
Q. By looking at what you're depicting here, am I to assume that the green markings, the blue markings, the white markings, and they go on up into the yellow and orange -- as I move across there --
A. Uh-huh.
Q. -- theoretically as I'm moving --
A. Yes.
Q. -- across, should that depict some drainage restrictions or anything? Just because I see it unconsolidated from your --
A. You're seeing variation in the map.
Q. Yes.
A. You may be able to infer some type of change in the sand, because essentially we have two end points, or two points drilled into this. Right now it would be, probably, difficult for me to say definitively right now.
Q. Okay, so we really won't know until we drill?

A. That's what I believe.

Q. Okay. Because I guess -- Well, I'm looking at between that Townsend 2 and the Townsend 6 --

A. Yes.

Q. -- there seems to be a green finger that protrudes between those two wells, about a quarter of the way down from the Number 2 toward the Number 6.

A. Uh-huh.

Q. Can that be interpreted as some sort of a restriction, permeability or anything?

A. Probably not permeability. My interpretation would be that it would be an area where we would have some thinner sands.

EXAMINER STOGNER: Any other questions?

MR. CARR: Could I ask --

EXAMINER STOGNER: Mr. Carr, most certainly.

EXAMINATION

BY MR. CARR:

Q. If I look at the Shell Lusk well --

A. Yes.

Q. -- it's green. If you go over to the west, to the Brunson well --

A. Uh-huh.

Q. -- this is the gross interval you're mapping; isn't that right?

A. This is the interval from the top of the -- what I interpret as the top of the Morrow, or the Brunson sand, and to what I interpret as the top of the Morrow lime.

Q. If we looked at this and used your logic --

A. Yes.

Q. -- as we move --

A. Uh-huh.

Q. -- to the north, and we move from the Shell Lusk to the Brunson --

A. Uh-huh.

Q. -- we would expect the Brunson to be thicker as well, correct?

A. Roughly on this map, but we're dealing with -- Again, those wells are very thin in terms of what we're looking at, in terms of seismic character. They're sort of an end member.

Q. But when, in fact, we drilled in the Brunson, we found the Brunson sand was only 13 feet in the Brunson Well and 21 over in the Shell --

A. That is correct--

Q. -- Lusk?

A. -- but I say again, those are on the edges of what I interpret.

MR. CARR: That's all.

EXAMINER STOGNER: Mr. Bruce, do you have

anything further of this witness?

MR. BRUCE: I do not, Mr. Examiner.

EXAMINER STOGNER: You may be excused.

Do you have anything further in this presentation?

MR. BRUCE: That concludes our presentation.

EXAMINER STOGNER: Mr. Carr, Mr. Bruce, I really haven't heard any indications of economics today. Is it safe to assume that winner take all in this instance?

MR. CARR: I'm sorry, Mr. Stogner, I couldn't hear you.

EXAMINER STOGNER: Winner take all. If Yates gets the order, it necessarily denies the two --

MR. CARR: Well --

EXAMINER STOGNER: -- other cases, and Mr. Bruce, is that how you see it?

MR. BRUCE: Yeah.

EXAMINER STOGNER: Something usually like this occurs, you have a certain amount of time, and then the force pooling then goes to the other party --

MR. CARR: Right.

EXAMINER STOGNER: -- but I haven't heard anything, any evidence of what would be a prudent time if Yates gets the -- and drills down to the Morrow and doesn't prove anything or -- What's a good amount of time?

MR. BRUCE: Mr. Examiner, there was a proposal made, you know -- and I believe it's in your packet somewhere.

EXAMINER STOGNER: The one that was given to me today?

MR. BRUCE: Yeah. Hold on, I'll -- Don't go leafing through it right now.

EXAMINER STOGNER: Oh, all right.

MR. BRUCE: It will probably drive you crazy.

There was a letter -- And this regards the last proposal made by Ocean to Yates on April 7th, 1998, and that letter is in Exhibit 6. But Yates was offered operations, and there were certain time deadlines in there that if Yates didn't drill, then Ocean Energy would be given operations, et cetera, et cetera. And for -- The Number 6 was proposed first, and then within a certain number of days of completion the Number 2 well would be commenced.

Anyway, that -- So that is in there. That was proposed, and of course that did not come to fruition. But I just did want to make you aware of that.

EXAMINER STOGNER: Okay. Well --

MR. BRUCE: It's one of the last documents --

EXAMINER STOGNER: -- in Exhibit 6?

MR. BRUCE: It is a letter dated April 7th, 1998.

It is the fourth stapled document from the end.

EXAMINER STOGNER: From the end.

MR. BRUCE: From the end.

EXAMINER STOGNER: April 7th, and it has "Ocean Energy" on the right, top right?

MR. BRUCE: Yes, and it was addressed to Kathy Porter of Yates Petroleum.

EXAMINER STOGNER: Okay, direct me to where I'm supposed to be now?

MR. BRUCE: Paragraph 3, there was 30 days to commence a well, Yates was named operator under certain conditions, then if Yates did not drill the well by August 1, 1998, Ocean Energy was to become operator. And then under paragraph 6 there were certain deadlines proposed regarding the Number 2 well.

Now, this of course was for the laydown units, and Yates is asking for a standup unit.

EXAMINER STOGNER: 4) d), "In the event the Townsend #6 shall be initially completed to an interval between the base of the Strawn Carbonate...to the base of the Mississippian..., Yates shall continue to operate the Townsend #6 through the setting and cementing of production casing at which point Ocean Energy, Inc,. shall assume" operations.

If this was the Number 4 well, would that have

been not met, that obligation? It's not cemented within a certain time period.

You brought something up now about the prudency. Here we go again. You were demanding something from Yates, but I haven't seen anything --

MR. BRUCE: Mr. Examiner, you asked about time settings, and that's what I'm answering.

EXAMINER STOGNER: Okay, yeah, I'm sorry. Okay, I'll withdraw that question.

Mr. Carr and Mr. Bruce, I'm going to ask -- Well, there are some other provisions in this matter too, but I want that included in a rough draft. What would be prudent, as far as a certain amount of time, whatever the case may be, obligations in which if it's not met then the other party should enjoy testing, drilling, whatever the case may be. I think that's only fair in an instance like this.

Yes, it's further complicated because you've got a third one, so keep that in mind.

Is there any need for some closing statements? I'll tell you what, I wish you could come up with some closing statements at this point. I'm going to need all the help I can on this one, but you can waive it if you want.

MR. CARR: No, I --

MR. BRUCE: Okay.

Mr. Examiner, I asked Ms. Smith about this, and -- in her testimony.

This case isn't about operations; it's about well locations, it's about adequate development of the Atoka reservoir, and it's about the protection of correlative rights.

Ocean Energy's position is that regardless of who is named operator, an Atoka well must be drilled in the southwest quarter of Section 2.

As you can tell from Exhibit 5 of Ocean Energy, Yates and Ocean have been negotiating the drilling of wells in Section 2 for about a year and a half. Ocean Energy has done everything it could to come to a voluntary agreement with Yates, including offering operations to them. No agreement has been reached. Why? We'll get to that in a moment.

Now, looking at the geology, I think it's clear that Ocean's exhibits and testimony better honor the subsurface data than Yates.

If you look at Ocean Exhibits 15 and 19, which combine well control and seismic, they show that the Atoka in this area trends northeast-southwest, as opposed to the north-south trend claimed by Yates.

Moreover, the southern two-thirds of Section 2

has Atoka sand under it. As a result, two wells are needed to drain the Atoka.

More particularly, without doubt, the heart of the Atoka reservoir is in the southwest quarter of Section 2.

Mr. May, Yates' geologist, stated that the biggest problem is finding the Atoka sand. Yet to find that sand in Section 2, Yates only wants one well drilled, a one-mile stepout from established production. We don't think that's proper.

Now, why is Yates doing this? Well, I had Mr. McRae go through our Exhibit 16, the distance map. Now, Yates states that, well, only one well is needed in Section 2 to drain the Atoka, and that well should be a mile away from existing production.

But if you go in other areas in Sections 10 and 11, Yates has no problem whatsoever drilling a well 1320, 1350, 1700 feet away from existing wells. Of course, that's where it has a larger interest.

In the south half of Section 2 it only owns one-eighth of the working interest. Where it has that minority ownership, it does not want competing wells.

Yates' engineers stated that only a well located further to the south of the Field Number 3, the Yates-proposed well, would effectively compete with the Shell

Lusk well in Section 11.

Of course, that's assuming that all things are equal, that you drill a well up in Lot 13 or 14 that is equivalent in the Morrow -- excuse me, in the Atoka, to the Shell Lusk.

What if you drill up there, where Yates is proposing, an edge well, you don't get a good well, you have a standup unit? What's going to happen?

Well, you know what's going to happen. The south half of Section 3 is going to be drained -- excuse me, the south half of Section 2. The Shell Lusk will end up draining all of that acreage.

And in order to protect its rights, Ocean Energy, Michael Shearn and a couple of other operators are going to have to drill another edge well to try to compete against the good well.

Really, the only accomplishment of forming a standup unit is to prevent the drilling of a well to offset Yates' 100-percent well in Section 11.

Now, Yates complains of dilution of its interest. It's not worried about dilution; it's worried about competition.

Does Ocean Energy have an interest to protect? Well, of course it does. It owns -- I that southern two-thirds of Section 2, it owns 9 of the 40-acre lots. It

owns 9/16 or 56.25 percent of the working interest in that southern two-thirds of the section. It should be entitled to produce and recover its fair share of that Atoka.

It does not have an interest, I say again, in Section 11, which Yates is trying to protect. And that's the crux of the problem.

Let me quote you some language from a prior case, Mr. Examiner.

Quote, "The time has come for you to say no to people who come in here and play games with rules, games with the technical case, and try and do nothing more than gain an advantage on the offsetting operator," close quote.

That argument was made by Mr. Carr three or four months ago in Case 11,842. Yet playing games is exactly what Yates is doing in this case.

The game-playing should not be condoned. Two Atoka wells need to be drilled in Section 2, and two laydown units are required.

We simply request that the Yates Application for a standup unit be denied and that two laydown units be ordered so that two Atoka wells can be drilled in the southern two-thirds of Section 2.

Thank you.

EXAMINER STOGNER: Thank you, Mr. Bruce.

Mr. Carr?

MR. CARR: May it please the Examiner, I'm always pleased when Mr. Bruce finds credible authority to cite.

(Laughter)

After a long day of hearing, the problem I find is that I'm not sure we even agree on the issues. We do agree that this is a case involving correlative rights, and we sincerely believe that if laydown units are created in the southern two-thirds of Section 2, our interest will be diluted by adding to the spacing units acreage which, by Mr. McRae's own definitions, cannot meet a commerciality test.

We do think it involves an issue of the drilling of unnecessary wells. And the one thing that Mr. Bruce didn't address, and he seems to accept as cast in stone, but it's one of the fundamental issues in this case, and that is whether or not two wells are needed. And that issue is on the table.

You know, spacing and well locations are all rooted in drainage issues. And the only drainage evidence, I submit, that you have in this case that's competent is the drainage and pressure information we have between the wells south of Section 2 in this channel, the Number 11 and Number 14. And even Mr. Johnson agrees that he sees communication and drainage there for an area in excess of a mile.

We believe that a second Atoka well in the eastern portion of Section 2 is an unnecessary well. We believe we have come before you and presented a case that shows that if the owners of production in the east half or in the south half of Section 2, if the owners of that production are to get their just and fair share, the spacing unit ought to follow the acreage which overlies the production.

Correlative rights is the opportunity to produce your fair share, and that is the relationship of what you have to the total recoverable reserves in the pool. That's what it is. And when you don't have spacing units follow where those reserves are located, you run afoul of the definition of correlative rights.

That's why we oriented the unit like it is, and I'll tell you why the unit is right: because if it was any other way, everybody wouldn't be trying to put their wells over there. They're putting their wells there because that's where the production is.

We believe our proposal will return to the owners of production their fair share. The Ocean proposals will not.

We believe that the Ocean proposal dilutes our interest and impairs our correlative rights and will result in the drilling of an unnecessary well by an operator by an

operator who may operate wells prudently in other places but an operator who is doing something very wrong right here.

And so we believe that to meet your duty you need to deny the Applications of Ocean and grant the Application of Yates.

I also think it's inappropriate to come in here and say that the crux of the problem is very simply that Yates is trying to prevent an offset -- is trying to keep someone from drilling a well offsetting them that could drain their 100-percent tract, a tract in which other interest owners own substantial interests.

Because I could come in here and say, Mr. Stogner, the crux of the problem is that by laying down units in the southern portion of Section 2, Ocean wants 75 percent of a well that can substantially drain reserves from Section 11, where it owns nothing at all.

And I think that's the kind of gamesmanship that drags us away from the issue, because the issue isn't who's going to drain the other one so much as what is necessary to effectively drain the reserves in this pool, consistent with OCD rules?

They want to say, Oh, we have no problem crowding over next to the Carlisle well, but we're a standard location from the Carlisle well and from the common

boundary between, and you haven't heard us say that they're not a standard distance back from the south line of Section 2. What we're saying is, they're putting too many wells in the pool, and they're laying the spacing units in a way to maximize their interest at the expense of Yates.

You know, it's the first time in my 24 years here that I think there's serious questions about prudent operations. And I guess we've raised those because it's the first time in 24 years we've really been concerned about this.

In the last few months we've marched down the road with Ocean in charge, and pardon the pun but we got burned. And we don't want to do it again unless we're forced to do it.

Now, what they're asking you to do is name them operator. And if you do that, I think you have to determine as a first step that, well, what they've done in the Townsend 4, if imprudent, isn't imprudent enough to suggest that maybe you shouldn't take our interest and give it to them to operate this time.

I guess you'd have to find that what's happened with the Carlisle well, based on data now available, doesn't suggest maybe something imprudent happened. I guess you'd have to say that operations that clearly went 100 percent over their AFE cost don't really suggest that

operations are imprudent.

It seems to me that before this Commission uses -- or Division, uses the police power of the State to once again confer on Ocean the right to operate, the first thing they ought to do is, they ought to clean up the messes they've already created. Because if you don't and you force us into this, our options are terrible.

Let our interests be produced and a 200-percent penalty imposed in an area where we think they probably will make a well, where we could make a well.

Or the alternative is, to avoid that penalty, to sign on and to take another ride that, unfortunately, could be like the ride we've just been on. We think putting us in that position is unreasonable.

We ask you to grant our Application, deny both Applications of Ocean.

EXAMINER STOGNER: I'm realistically looking at about 25 to 30 days, minimal, to even get issued on this instance.

I'm going to ask both Mr. Carr and Mr. Bruce to supply me a rough draft order. But we're going to take advantage of that time period, and I'm going to ask for one more thing, that the parties get back together and try to work -- try to work some sort of an agreement.

There has been a push in this organization to

submit something like this to a mediation. In some instances I think that mediation can probably work; I don't think it would be prudent in this matter because of the time period, the parties that need to be there. It's just not a workable solution at this time.

But I am going to, in the interim, request a written report in 15 days, outlining what steps have been done by both parties, to try to meet this obligation for negotiations. And within twenty- -- Okay, by May 29th, I'd like to have rough draft orders by both parties, and -- What's 15 days from today? That's also May 29th. I don't have a calendar, but if that falls on the weekend, then we will go the next working day. I'm going to need two things from each party, is a rundown and a report on additional negotiations, and a rough-draft order in this instance.

I was going to continue this matter, but I don't think that will be necessary.

At which point, after I get that information, I could set it for additional -- if -- If I get something to the point where we just couldn't work out a time to get together, well, gee, I just couldn't work out time to get an order, and I will submit -- order this matter come back to hearing again.

So it's going to be to everybody's benefit to try to get the parties to negotiate in good faith, because you

all started down that track at one time. And with all the information that's out here, with the questions that have been asked, with some additional information to both parties of what I think some other issues in which I'm going to have to look at, the number of wells, prudent operations, somebody is not going to like what the order says. And who knows? Maybe both parties may not like what the order says.

I can almost guarantee you, both parties are not going to like what's coming out. But perhaps getting together, then both parties may be happy. So that's what we're trying to go with at this point.

At the same time I'm trying to head off some other things, like mediation. I don't think it will work in this instance.

With that, we've got till May 29th to report back to me additional negotiations and a rough draft order.

If there's nothing further, then I think we're going to close this case. I'm going to leave the record open pending the report and pending the rough-draft orders, with the understanding we could continue this matter later on, should we need more time.

So it's going to be to everybody's benefit to at least go back to negotiations and get together and work out a solution.

Okay, with that, I don't think there's anything further in these three matters. We've taken every other matter -- either continued it or taken it under advisement or dismissed it.

So with that, then, this hearing is adjourned for today.

Thereupon, these proceedings were concluded at 4:08 p.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the examiner hearing of Case Nos. 11958 and 11959 heard by me on 11 May 1995.

, Examiner
Oil Conservation Division

CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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 May 22nd, 1998.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998