C O N F I D E N T I A L

Q Is 45,000 barrels your economic limit in this field for a well?

A 45,000 barrels I determined, under guidelines that Phillips uses, would pay out the wells.

Phillips would not drill a well under that circumstance.

Q Would you recommend drilling a well -- at what figure would you recommend drilling a well?

A The reserves that we have, as I've calculated here, the 103,000 barrels, gave me economics which in one of the parameters that Phillips looks at is on the borderline of minimum value.

Q Yet did I understand your testimony to say that this well would pay out in 8 months?

A That's right, 8-1/2 months, approximately.

Q That's fairly fast, isn't it, with today's oil prices?

A Yes, I imagine. That's what we see for these Strawn wells. They have very high initial production rates but extremely high decline rates, also, so you'll get a rapid payout but the investment isn't returned very many times.

Q Let me go back to a question I asked you. What would be the recommendation, where would be the cutoff that you would recommend as far as recoverable reserves are concerned?

MR. IVES: Mr. Padilla, are you asking with regards to this particular well?

MR. PADILLA: Yes, sir.

A In this situation with the production forecast scenario that I came up with, the location where we're drilling and the reserves that we've determined on that location are pretty much the minimum reserves to drill that well.

Q Well, if you recovered -- how long would it take to recover 103 barrels from this particular well?

A My production forecast --

Q 103,000 barrels.

A Yes. My production forecast had it taking between six and seven -- or sorry, seven and eight years to recover that amount of oil.

Q In 8-1/2 months how much oil would you produce?

A I do not know.

Q Well, you're familiar with the recovery rates for these wells in this field, aren't you?

A I would have to go back to economic cal-

culations and find that number. I didn't make a note of that.

This was assuming that we were able to produce initially at 222 barrels of oil a day, but no, I don't know the exact volume of oil.

Q Have you done any material balance calculations in this field?

A No, I have not.

Q What other reserve calculations have you done in this field?

A Other reserve calculations. Basically these volumetrics and examination of offset production history.

Q Have you participated in drilling of other wells in this field?

A No, I have not.

MR. PADILLA: Pass the witness, Mr. Examiner.

END OF CONFIDENTIAL INFORMATION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

19 November 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of Phillips Petroleum Company for a nonstandard oil proration unit and unorthodox oil well location, Lea County, New Mexico.	CASE 9036

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:	Jeff Taylor Attorney at Law Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501
For Phillips Petroleum:	Peter N. Ives Attorney at Law CAMPBELL & BLACK P. A. P. O. Box 2208 Santa Fe, New Mexico 87501
For Pennzoil:	W. Thomas Kellahin Attorney at Law KELLAHIN, KELLAHIN & AUBREY P. O. Box 2265 Santa Fe, New Mexico 87501

A P P E A R A M C E S

For Fasken: Ernest L. Padilla
Attorney at Law
PADILLA & SNYDER
P. O. Box 2523
Santa Fe, New Mexico 87504

For Exxon: James G. Bruce
Attorney at Law
HINKLE LAW FIRM
P. O. Box 2068
Santa Fe, New Mexico 87501

I N D E X

ROBERT G. STRAUSS

I N D E X CONT'D

I N D E X CONT'D

E X H I B I T S

MR. CATANACH: We'll call next Case 9036.

MR. TAYLOR: The application of Phillips Petroleum Company for a nonstandard oil proration unit and unorthodox oil well location, Lea County, New Mexico.

MR. CATANACH; Are there appearances in this case?

MR. IVES: Peter Ives, with Campbell and Black, on behalf of applicant, and I will have two witnesses to be sworn.

MR. CATANACH: Are there other appearances?

MR. BRUCE: Mr. Examiner, my name is Jim Bruce from the Hinkle Law Firm in Santa Fe. I'm representing Exxon Corporation.

I may have one witness.

MR. PADILLA: Mr. Examiner, Ernest L. Padilla, Santa Fe, for Barbara Faskin.

I have possibly one witness.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of Santa Fe, appearing on behalf of Pennzoil Company, and I have at least one witness to be sworn.

MR. CATANACH: Anybody else?

Will all the witnesses, or possible witnesses, stand and be sworn in?

(Witnesses sworn.)

ROBERT G. STRAUSS,

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

DIRECT EXAMINATION

BY MR. IVES:

Q Mr. Strauss, could you please state your name and place of residence?

A My name is Robert George Strauss and I reside in Odessa, Texas.

Q And by whom are you employed and in what capacity?

A I'm employed by Phillips Petroleum Company and I'm a petroleum geologist.

Q Have you previously testified before this Division or one of its examiners and had your credentials accepted and made a matter of record?

A Yes, I have.

Q Are you familiar with the application

filed in this case?

A Yes, I am.

Q Have you made a study of the subject area?

A Yes, I have.

Q And are you familiar with the proposed well?

A Yes.

MR. IVES: Are the witness' qualifications acceptable to the examiner?

MR. CATANACH: Mr. Strauss is it?

MR. IVES: Yes.

MR. CATANACH: He is considered qualified.

Q Mr. Strauss, would you briefly state what is sought in the application?

A Phillips Petroleum Company requests that it be allowed to drill an 11,300 foot Strawn test in Section 4 of Township 17 South, Range 37 East, at an unorthodox location of 330 feet from the south line and 2500 feet from the west line.

Also that Phillips be allowed to dedicate to the well the southeast quarter of the southwest quarter for the test.

Q Are you familiar with the rules for the subject pool?

A Yes, I am.

Q And what are the acreage dedication and well location requirements currently in the Shipp-Strawn Pool?

A The acreage dedication for the Shipp-Strawn Pool is that each well be located on a unit containing 80 acres, more or less, with nothing prohibiting the drilling of a well in any of the quarter quarter sections.

The well requirement is that each well be located within 150 feet of the center of the governmental quarter quarter section.

Q How much closer to the boundary of the spacing unit is the proposed well?

A The Phillips Shipp State A No. 1 would be 250 feet closer to the south line and 393 feet closer to the east line.

Q Have you prepared certain exhibits for introduction in this case?

A Yes, I have.

MR. IVES: I'll go ahead and distribute those now.

Q Mr. Strawss, would you please refer to what has been marked as Exhibit One, identify it, and ex-

plain what it shows?

A Exhibit One is a structure contour map on top of the Strawn formation. It shows Phillips' proposed well location, the proposed nonstandard unit, and cross section line A-A'.

Q And how important is structure in determining whether or not you would make a successful well in the area proposed?

A Structure is important in that it is a controlling factor for the localization of porosity. Strawn porosity is associated with northeast to southwest trending structural noses; however, the porosity is limited in areal extent both up dip and down dip around the structures.

Q Let me ask you now, if you would, to refer to what has been marked as Exhibit Two and please identify it and explain what it shows.

A Exhibit Two is the net pay map for porosity greater than 4 percent within the Strawn formation.

Again it shows Phillips' proposed well location and the proposed nonstandard unit.

Q And how was this exhibit prepared?

A This exhibit was prepared with electrical logs.

Q And what sort of study did you do of those logs?

A I used a 4 percent cutoff. I've studied the area the last two years over approximately 20 square miles, and I've used a 4 percent cutoff. Based on my experience this is the cutoff where wells are economically producable.

Q And what does, let me ask, Exhibit Two show with regards to the request for the nonstandard unit in this circumstance?

A Exhibit Two shows that Phillips --

Q I understand we'll go to Exhibit Three, which will assist in this.

A All right.

Q But perhaps it would be easier to go to Exhibit Three and then we can refer to both in turn.

Let me ask you, if you would, then, to turn to what has been marked as Exhibit Three, identify that, and explain what it shows.

A Exhibit Three is cross section line A-A', and it shows the Strawn formation, a portion of structural nose from the west.

It shows the Strawn formation thinning quickly to the west or up dip towards the Phillips lease.

It also shows the rapid loss of porosity towards the Phillips lease and it also shows quite clearly that Yates' 40-acre tract, which is west of the Tipperary

Johns Well, is essentially condemned geologically.

Also I'd like to point out that the Tipperary Johns Well, which was uneconomical, did DST 20 feet of clay to gas-cut mud and that particular uneconomical well is Phillips' 40-acre tract.

Q Let me also ask you what Exhibit Three shows with regards to the acreage to the east and south of the proposed location?

A It shows the acreage to the east containing high amounts of Strawn porosity.

It also shows that to the south porosity is present but it's very slim.

Q What conclusions can you draw from your study of the area and Exhibits One, Two, and Three which you have testified to here today?

A My geological studies show that the hydrocarbons in the Shipp-Strawn Pool are stratigraphically trapped in local porosity closures associated with southwest/northeast trending structural noses.

Studies also indicate that the eastern half of Phillips' 40-acre tract contains the Strawn porosity that is present both to the south and east of the Phillips' tract; however, due to the fact that an uneconomical well already exists on Phillips' 40-acre tract and that the porosity decreases very rapidly to the west, it is imperative

that Phillips' Shipp A State No. 1 be drilled 330 feet from the south line and 2500 feet from the west line of Section 4.

I feel any deviations from this proposed location will greatly elevate the geologic risk associated with the project.

Q And what are your conclusions with regards to the nonstandard unit as to whether that is necessary or not?

A I feel that it's necessary in that Yates' acreage in my opinion contains no Strawn porosity.

Q Were Exhibits One, Two, and Three prepared by you or under your direction and supervision?

A Yes, they were.

MR. IVES: I would offer the exhibits into evidence at this time.

MR. CATANACH: Exhibits Number One through Three will be admitted into evidence.

MR. IVES: And I have no more questions for this witness at this time.

MR. CATANACH: Mr. Bruce?

CROSS EXAMINATION

BY MR. BRUCE:

Q Mr. Strauss, looking at Exhibit Number

Two, what is your estimate of the productive acreage in the southeast quarter of the southwest quarter of that section?

A The engineer has calculated that and he will be testifying.

Q Mr. Strauss, are you aware that the -- looking at Section 9, the Exxon 2 Well and what is marked as the Con 3 Well, that the bottom hole locations are somewhat to the north of the surface locations?

A I've heard that verbally, yes.

Q Would that cause you to contract your area of porosity?

A No, it wouldn't.

Q Why not?

A One, I don't -- I don't realize how far north it is. I have no physical evidence. And I don't see any need for it geologically.

Q Why isn't there a need for it geologically?

A I don't believe the contour, if it's deviated to the north, if it's in 10-foot contour intervals, is going to be drastically altered.

Q Might it be altered by the amount the bottom hole location differs from the surface location?

A Not in that the contour line runs in that particular area to the north.

Q On Exhibit Number Two, Mr. Strauss, you've sort of -- you indicate one solid -- more or less just one mass of porosity in this area. Is there any evidence of any communication between, say, the Tipperary and Shipp wells to the north and the Vierson wells to the southeast?

A I have no evidence, no.

Q By the same token is there any evidence of communication between the Vierson wells and the Exxon Con 3 Well to the south?

A I have no evidence.

Q If those wells are not in communication would you change your contours in any manner?

A I would have to have the physical evidence, but based on the interpretation -- or the material I have right now, this is my interpretation.

Q But would you change them if the wells were not in communication?

MR. IVES: Let me just ask, I think he's testified that he does not know or have any reason to believe that the wells are in communication.

MR. BRUCE: Well, I'm asking his opinion, then, if the wells are not in communication would he change the contours.

I think that's --

A One could but on the other hand there's also other explanations besides changing the contours. I could have a permeability barrier and therefore the net pay map as seen here wouldn't necessarily change.

MR. BRUCE: I have no further questions at this time, Mr. Examiner.

MR. CATANACH: Mr. Padilla.

CROSS EXAMINATION

BY MR. PADILLA:

Q Mr. Strauss, let me have you refer to your Exhibit Number One first, and I'll ask you that is a structure map of the area, is that correct?

A That's correct.

Q And generally that structure runs from northwest to southeast, is the way you have it depicted there.

A The strike does, yes.

Q Is there any difference structurally between a standard location and your proposed location?

A Very little.

Q Okay. let's go on now to Exhibit Number Two. You've shown the Faskin Well in Section -- in Section 9 as being a commercial well, is that correct?

A The evidence I have right now is that it

potentialed as a commercial well. I have no further production data on the well.

Q And you've extended your second contour line to the Faskin Well, is that correct?

A Yes, I have.

Q Okay, and that line extends northward through very close to what would be a standard location, does it not?

A Yes, it does.

Q Now, you've shown a nosing or a close-out in general, but you don't have any well control to indicate where you have a closure in the middle of Section 4 there, do you?

A No, it's based on my geologic interpretation and knowledge of the area.

Q Wouldn't it be reasonable to assume that if your strike is from northwest to southeast that generally you do have control and that you wouldn't have that type of (unclear) as shown on Exhibit Number Two?

A Not necessarily. I've studied this -- this area in quite detail over the last two years, and we don't necessarily seen any relationship between the -- the build-up of the Strawn carbnate and the strike of the formation.

Q Then you don't know because you don't

have any information, do you?

A It's based on my interpretation.

Q Can you tell me, sir, why you have drawn your contour line, the first contour line, as far west as you have?

A On which exhibit?

Q On Exhibit Number Two.

A The John State, the well had four feet of porosity greater than 4 percent. Based on my interpretation I felt the zero line was to the west of that well.

Q And that's the only indication that you have and it's a matter of interpretation, is that true?

A That's correct. Those are the only wells that are present at the time in this hearing.

Q And you don't have any other reason to show the separation between the first and the second line.

A Just based on my experience with the area. I see the Strawn porosity falling off structures rather quickly and based on my interpretation I feel it's dropping off this fast.

Q By drawing your first line are you trying to show that that has productive acreage that far west?

A It shows that the Strawn has porosity greater than 4 percent that far west, yes.

Q Would that porosity be sufficient to al-

low a well at a standard location to drain the 40-acre spacing unit?

A That's out of my area of expertise.

Q Well, you've drawn, sir, the contour lines. You've testified as to porosity, so I'd still like to have an answer from you regarding my question.

MR. IVES: We object to the question. We will be putting on a reservoir engineer who, I believe, will testify to the question that you are seeking an answer to, Mr. Padilla.

Q Let me ask the question this way, Mr. Strauss.

Geologically would the well at a standard location drain, based upon the contour lines?

A Based on my geologic knowledge. I don't -- I don't have the expertise to say whether or not it -- how much acreage it would drain.

Q Would it drain anything, at the standard location?

A The well at a standard location would -- would be uneconomical. It would contain porosity but probably not in amounts to have a commercial producer.

MR. PADILLA: I believe that's all I have, Mr. Examiner.

MR. CATANACH: Mr. Kellahin.

MR. KELLAHIN: Thank you, Mr. Catanach.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Strauss, for purposes of my question, I think I have found what is Exhibit Number Two. It's an Isopach on the Strawn?

A That's correct.

Q Right? My Two is the same as your Two.

A Yes, it is.

Q All right. You said you've worked this area for the last couple years, I believe, in response to a question by one of the other lawyers?

A Yes, I have.

Q Have you been involved with the exploration geologic work for any of the wells drilled in the Shipp-Strawn Pool?

A I evaluated the Tipperary well when we were approached in 1984.

Q Which Tipperary well?

A On our tract.

Q All right.

A Which was a wildcat at the time.

Q When that well was drilled, what was the

spacing and proration unit proposed by that well?

A It was -- I'm not sure.

Q It was an 80-acre tract, was it not?

A I'm not sure what it was.

Q You don't know the orientation of it?

A I believe it was a laydown, if it was 80.

Q You were involved with the Tipperary John State Well?

A Yes, I was.

Q All right. Were there any other wells in this pool that you provided exploration geology for?

A Just further to the north in the Dean Field, the Devonian-Strawn in that particular area. I worked on, in association with Yates Petroleum, on some development wells up there.

Q When we look at the Strawn Isopach, Exhibit Number Two, Mr. Strauss, what is the purpose of that exhibit?

A The purpose of the exhibit is to show that, the localization of the Strawn porosity greater than 4 percent.

It also shows how quickly the Strawn porosity drops off around the structures.

Q Have you provided this Strawn Isopach to your engineers so that they could use the Isopach to determine the net acreage involved within the producing area to this well?

A Yes.

Q Have you calculated for them the number of acreage involved within this 40-acre tract that is within the zero contour line?

A I did not do those. I did not do those calculations, no.

Q When we look at the way the Isopach was prepared, if we begin the northeast corner of Section 9, there's an Exxon well that shows 4 feet?

A Yes, sir.

Q What is the status of that well insofar as the Shipp-Strawn is concerned?

A As far as the Strawn formation, it was uneconomical. It's currently producing out of the -- I believe it's the Wolfcamp.

Q How did you pick the 4 feet?

A I used the 4 percent cutoff on the FDC/CNL electric log.

Q You looked at the log and you found 4 feet.

A Yes.

Q Was that 4-foot interval perforated in the Exxon well when they tested that zone?

A I don't believe so.

Q Okay. When we go up counter-clockwise

around the zero contour line, we get into Section 3 and there's a dry hole there with 4 feet. What is that well?

A That was a well, the Waldron No. 1, drilled by Pennzoil, which also tested uneconomical.

Q Okay, same process, then, you made an analysis of a log. You found porosity in excess of 4 percent on the log, and that's the basis for the contour line at that point, yet when the well was tested in that formation it wouldn't produce.

A I'm not sure whether or not they tested the Strawn.

Q Okay. It's indicated to be a dry hole.

A I'm not sure whether they tested it; if they tested it uneconomical or whether or not it indeed was P&Ad.

Q Okay, as we move around, then, counterclockwise, we get up into the Shipp No. 2 Well and I guess that's 5 feet of net pay with porosity in excess of 4 percent?

A Yes.

Q And what was the result of that well? Was it a commercial well?

A As far as I know it was also uneconomical.

Q Okay, as we move around the contour

again, then, we get into the southwest corner of Section 33. We've got 2 feet of pay in another well that's also apparently uneconomic in this well.

A That's correct.

Q Did it produce anything?

A It produced -- I believe they plugged back to the Paddock formation.

Q Okay. As far as I know, nothing in the Strawn formation.

Q If you'll continue, then, around counterclockwise on the Isopach, just to the north 40-acre tract, north of your 40, there's 10 feet of pay on another dry hole?

A Yes.

Q Okay, what's -- what happened to that well?

A That well, I believe, tested water.

Q When we look now at the Tipperary John State Well in your 40-acre tract, you've assigned it 4 percent porosity in excess of -- 4 feet of porosity in excess of 4 percent.

A That's correct.

Q And that well is one of the wells that's on your cross section, isn't it?

A Yes, sir.

Q Let's turn to that cross section, if you will, please.

Were you satisfied that the John State Well was perforated and tested in all the potential producing sections of the Strawn?

A It was never perforated. They DST'ed the Strawn formation and it was uneconomical.

Q Based on that drill stem, then, they didn't even run pipe on it or try to perforate it.

A That's correct.

Q All right. And what were the results of the drill stem test?

A They recovered 20 feet of vuggy, gas cut mud.

Q And what does that tell you as a geologist?

A It tells me that they possibly could be close to a reservoir.

Q Do you see in examining this log any presence of the reservoir in this log section with porosity in excess of 4 percent?

A Yes, I do.

Q Do you find an interval with 4 feet?

A Throughout the whole section, yes, I can. I can add up 4 feet.

Q All right, sir, let me give you my red pen and ask you to mark those intervals that you used to get to 4 feet.

You've made on your copy of Exhibit Number Three, Mr. Strauss, four small, red, vertical lines on four different points. I assume each one, then, you have credited with approximately a foot of pay?

A That's correct.

Q Based upon your experience in this area, Mr. Strauss, when we look at your Exhibit Number Two, can you define for us what is probably the minimum number of feet of pay you need in the Strawn in order to have a commercial well?

A The minimum one section, I would say approximately 10 feet but not 10 feet scattered in one foot intervals.

Q We've got to have at least 10 feet all put together in a thickness of 10 feet in order to have a sufficient volume of pay to get us a commercial well. Did I say that right?

A No.

MR. IVES: Let me interject and just ask, in terms of commercial in this instance if you could define that term so he has a reference point to refer to.

MR. KELLAHIN: I asked the question and he answered it without any difficulty, Mr. Examiner.

MR. IVES: Well, I'm concerned that the record be clear without any possible misinterpretation.

MR. KELLAHIN: Well, Mr. Ives, you'll have an opportunity to re-examine your own witness, if you like.

He answered my question, Mr. Examiner. I think I'm entitled to continue.

MR. CATANACH: Let's proceed.

Q Mr. Strauss, let me ask you this, sir. You're talking about a commercial well that has to have at least an interval of thickness at least 10 feet.

A Not necessarily economical. It would produce hydrocarbons, yes.

Q And if we find an interval of less than 10 feet, then it's not going to produce hydrocarbons?

A It will produce hydrocarbons; not necessarily in economical amounts.

Q So when we get to a 10-foot thickness, at that point then you as a geologist begin to suspect you're going to have a commercial well.

MR. IVES: Let me interject

again. You're asking about commercial wells again and I'm not exactly sure that he is with you in terms of that definition.

MR. KELLAHIN: Same problem, Mr. Examiner. May I continue?

MR. CATANACH: Yes, you may continue.

MR. IVES: Mr. Examiner, could I ask just as a -- if a witness feels any need to explain what he's referring to when he says commercial in the sense --

MR. KELLAHIN: Do you want to take a break so you can coach your witness here?

MR. IVES: No, I'm merely trying to clear up a potential problem on the record.

MR. KELLAHIN It's no problem for me, Mr. Ives.

MR. IVES: (Inaudible).

Q Mr. Strauss, let me get through this. The 10 feet of pay you refer to identifies a well that if it encounters 10 feet of pay is going to produce enough oil that you would suspect it would be commercial. Right?

MR. IVES: Same objection.

A Commercial but not necessarily economic.

Q All right. Okay. If we get less than 10

feet, as we can see on this Isopach, then we might as well forget about that well, right?

A It would depend on the amount of porosity. I think each well has to be looked at individually. I hate to make generalizations about the 8 or 9 foot zone.

Q When we look at the Isopach, sir, we've got lots of wells in here and we can find wells that you have identified as having at least 10 feet of pay and they're plugged and abandoned as dry holes. Right?

A Which well are you referring to, sir?

Q The one in the 40-acre tract just north of your 40 that says CHD-1, got a dry hole symbol on it and 10 feet.

A The 10 feet was distributed throughout the Strawn. Like I said, it doesn't necessarily mean it's going to be a commercial well.

Q All right. When we look at the Faskin well in Section 9, you've got 12 feet.

A Yes.

Q How was that 12 feet organized in the wellbore, if you will, so that that well is commercial, because they apparently have completed it as a producing oil well?

A It was -- if you look at the cross section, Exhibit Number Three --

Q Yes, sir.

A -- all 12 feet is compacted on top of the Strawn formation.

Q And in that instance, then, when we have 12 feet compacted in that configuration, we're able to drill a well that will produce oil out of this pool.

A Produce oil, yes.

Q Yes, sir, and it can produce a sufficient enough volume of oil to recover the costs of drilling that well.

A No.

Q It cannot?

A Engineering will testify to that, but my -- my opinion is no.

Q All right, the Faskin Well is not going to pay for its costs.

A My personal opinion, no.

Q Okay, what's it recovered to date, do you know?

A I don't have the figures. Like I mentioned befores, all I have is the initial potential test on that.

Q Okay. That, then, is not going to be a commercial well? In other words, a well defined as at least being able to recover the cost of drilling that well one

time.

MR. IVES: I think he's indicated that that was -- his opinion was that it was not going to be economical. I think he answered that question already.

Q Was that your answer; that in your opinion there is not enough reservoir underlying the Faskin Well, notwithstanding the fact that you got 12 feet of it, there's not enough reservoir there that will allow that well to produce enough oil to recover its cost one time?

A It's really out of my area of expertise.

Q Do you define that Faskin well as a commercial well in terms of analyzing whether or not you would drill a well like that at that type of location?

A On a geologic viewpoint I would not want to drill a well with a similar appearance as that.

Q Why not, sir?

A Based on my regional studies throughout the area I've seen instances where thin Strawn formation often potentials well but they don't necessarily hold up.

Q Have you determined as a geologist that you would not recommend a well located anywhere west of that contour line that intersects with the Faskin well, the Con No. 3?

A I would not recommend it.

Q You would not recommend a well west of that line.

Do you have an opinion, sir, as to what portion of that acreage west of the line would contribute production to a well if it was located on that line?

A I feel the acreage would probably contribute to it but again it's out of my area of expertise to assign any particular values.

Q Well, the engineer, I believe you told us, has taken your Isopach and he uses that Isopach, then, to derive a volumetric calculation of the reserves in place based upon where you locate that zero line. Is that not true?

A I believe so, yes.

Q And yet in each instance on this Isopach you have located that zero line outside or beyond the wellbore of a number of wells that are dry holes.

A Not necessarily dry holes; uneconomical.

MR. KELLAHIN: Thank you, sir.

MR. CATANACH: The witness may be excused.

MR. IVES: I just have a couple more questions.

MR. CATANACH: Oh.

MR. IVES: Just a brief moment.

REDIRECT EXAMINATION

BY MR. IVES:

Q Mr. Strauss, I believe you indicated that the JNS-1 was a wildcat. Is that -- is that your earlier testimony?

A Yes, it was.

Q What's the spacing on wildcat, do you know?

A I believe it's 80 acres.

Q Okay, you don't believe that it is in fact 40 acres?

A I'm not sure.

Q Okay. So you're not sure one way or the other --

A No, I don't really know.

Q -- whether it's 40 or 80? Okay. May I take just one moment?

With regards to a question asked by Mr. Bruce with regards to the bottom hole on the Exxon 2, would you need additional information on all the other bottom holes in order to try and render an accurate opinion or answer to a question as to bottom hole drift in the reservoir?

A Definitely. Definitely.

MR. IVES: That's all I have.

MR. CATANACH: The witness may be excused.

JOHN CHARLES CURRIE,

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

DIRECT EXAMINATION

BY MR. IVES:

Q Mr. Currie, could you please state your full name and place of residence?

A My name is John Charles Currie and I live in Odessa, Texas.

Q And by whom are you currently employed and in what capacity?

A I'm employed by Phillips Petroleum Company and my title is Associate Reservoir Engineer.

Q Have you previously testified before this Division or one of its examiners and had your qualifications accepted?

A No, I have not.

Q In that case I would like to ask you several questions about your educational and professional work experience.

If you could, please summarize your

educational background since high school, including any degrees you have received, when they were received, and from what institution.

A Okay, I hold a Bachelor of Science degree in chemical engineering and a Bachelor of Arts degree in geology.

I received both of those in 1979 from Cornell University in Ithaca, New York.

Q And you graduated from there in 1979. What has been your work experience since that time?

A Since that time I've been employed by Phillips Petroleum Company.

Q Let me ask you just to run briefly through your various job --

A Okay.

Q -- positions, assignments, and the dates of those.

A I've -- okay, from '79 through '81 I was in Oklahoma City as a reservoir engineer.

From '81 to '83 I was located in Cutbank, Montana, and there I did a variety of drilling, production, and reservoir engineering assignments.

From '83 to '85 I was located in Houston, Texas, as a -- in my current job title as a reservoir engineer and I was also responsible for reserves determina-

tions on all Phillips partner interest property.

From '85 to the present I was located in Odessa, Texas, where I'm responsible for reservoir engineering on Phillips operated drilling wells, producing properties, and enhanced recovery units in southeast New Mexico.

Q And are you a member of any professional societies or are you registered as a professional engineer in any jurisdictions?

A Yes. I'm a member of the Society of Petroleum Engineers; member of the American Institute of Chemical Engineers; and I'm registered as a professional engineer. My registration is in the State of Oklahoma.

MR. IVES: Mr. Examiner, I would tender Mr. Currie as an expert reservoir engineer for purposes of this proceeding.

MR. CATANACH: Mr. Currie is considered qualified.

Q Mr. Currie, are you familiar with the application filed in this case?

A Yes, I am.

Q And are you familiar with the proposed well and the subject area?

A Yes, I am.

Q Let me ask, if you would, to turn to Exhibit, what has been marked as Exhibit Number Five, and ex-

plain what that is and what it shows.

Let me ask you first, if you would, to identify and explain what Exhibit Four shows.

A Okay. Exhibit Number Four is a map of the Shipp area.

It shows the current producing wells in the area, the date they were completed is shown underneath the well. In addition, the cumulative recovery of those wells through July, 1986, is shown and the production rate as of July, 1986, is shown on those wells.

Q Let me ask you how many wells have been put in and what time frame?

A Okay. During the last two years twelve wells have been drilled, drilled to develop the Shipp Pool.

Seven wells have been completed as producers. Five wells have not been economic in the Strawn.

Q What does this map demonstrate, if anything, with regards to any need to drill additional wells to determine reserves and/or the limits of the Shipp-Strawn Pool?

A Okay. It appears that additional drilling is necessary to fully develop the pool and determine where all the limits of the pool are.

Q Does this map indicate anything with regards to a standard location or if Phillips were to put a

standard location on its lease property, does this map tell us anything about the productivity of such a well?

A Just based on this map it appears that a well at a standard location would probably not be commercially productive due to the close proximity of any standard location to the Tipperary John No. 1 Well., which was determined to be noncommercial.

Q Let me ask, if you would, now, to turn to Exhibit Five and ask you to identify that and explain what it shows.

A Okay, this -- this map is somewhat related to the porosity map Mr. Strauss showed.

This map was prepared by examining the logs and determining the product of the porosity and thickness of that porosity in each well.

I -- this map has been used to help determine volumetric reserves in the reservoir.

Q And let me ask you now to turn to Exhibit -- what has been marked as Exhibit Six and ask you to identify that and explain what that exhibit shows.

A Okay, this exhibit shows a reserve calculation for the recoverable oil on Phillips Shipp State A Lease.

First of all I've stated the volumetric formula for this calculation.

Then I go through and define the terms in the formula. That first term is a conversion factor for the oilfield units used in the formula.

The second term is the reservoir area.

The third term is the reservoir thickness.

The next term is the Greek symbol phi, standing for reservoir porosity.

The term after that, 1-Sw, where Sw is the reservoir water saturation; therefore this entire term is the reservoir oil saturation figure.

Then to the bottom of that equation is Bo, which is the formation -- the oil formation volume factor.

Q And what specific data have you developed for the Shipp State A No. 1 Well that ¼Phillips proposes?

A Okay. Based on what I've studied in the area, moving down the exhibit, I have determined (A) (h) (Phi), which was planimetered from the map shown as Exhibit Five for Phillips acreage.

And the next term, water saturation of 25 percent, or .25, based on examination of well logs in the Shipp area.

The recovery factor I used is .42 based on what I've seen on recovery from the Casey Strawn Field,

located to the northeast. That pool is used because it's been on production longer and we are able to determine decline rates and more accurately determine ultimate production from that pool.

And finally Bo is used of 1.4, based on well data from the Shipp Strawn pool and Standing's Correlation.

Q Now, using those -- that data along with the volumetric formula, what was your calculation of the recoverable reserves on Phillips' lease?

A Okay, that calculation is shown at the bottom of the exhibit, where I come up with 103,100 barrels of oil recoverable on Phillips Shipp State A Lease.

It should be noted that taking the recovery factor out, that the oil in place on Phillips' lease would be approximately 250,000 barrels.

Q Could you please tell us what the economics involved in putting such a well in would be?

A All right. I base my economics on having an initial production rate which would be based on a 40-acre allowable as provided for in the field rules, and using a decline rate similar to what I've seen in other wells which have gone on decline around there, which gives us a 7-year or 8-year life, I'm sorry, to produce 103,000 barrels of oil. A well with that production forecast gives us economics

that would have a discounted cash flow rate of return of approximately 170 percent. The investments return two times, and payout is in about 8-1/2 months.

Q Let me ask you now, if you would, to turn to what has been marked as Exhibit Seven and identify the exhibit and explain what it shows.

A Okay. Exhibit Seven is a lease plat of the area, which shows the leasehold ownership of all the oil and gas rights surrounding Phillips' lease. Just to point out, the operator to the south is Fasken. Exxon is located to the southeast. Pennzoil is located east. Conoco holds the lease rights to the north, and Yates holds the lease rights to the west.

Q And does this show the nearest orthodox location to your proposed well?

A Yes. It shows the nearest orthodox location, which is located more or less northwest of the proposed location, which is also shown on this map.

Q Let me ask you, if you would, to identify the two circles that are drawn there and what the purpose of those circles are?

A Those circles represent the theoretical 40-acre drainage radius drawn around each one of those locations. The purpose of doing that was in determining whether the 40-acre allowable we are asking for was greater allow-

than we should be entitled to, based on the advantage that our location gives us. These circles are for the purpose of calculating off lease acreage.

Q Let me ask you now just to return briefly to Exhibit Number Eight and identify that and explain what that shows.

A All right. This is the penalty allowable calculation I was talking about. We wanted to see how this location compared with a standard location of the well.

There are three factors that we used here, two of which are based on distance to the lease line.

The first factor, labeled A here, shows that the well is close -- is located, well, 180 feet closer to the south line of the lease than would be allowed by the current field rules. This gives a 35 percent factor.

The second factor, labeled B, shows that the well is located 370 feet closer to the east line of the spacing unit boundary than is allowed by field rules. This gives us a factor of 73 percent.

And the last fact, labeled C, using those two circles, we get 15.9 acres located outside of the 40-acre circle for a standard location. That gives us a factor of 40 percent.

Q How do you then calculate the penalty factor involved?

A We combined and averaged those factors that I previously talked about and came up with a 40 percent penalty factor.

Q And then how would that penalty factor be applied to 80-acre depth bracket allowable?

A As I've shown in this last calculation, you'd remove 49 percent of the full allowable rate and the calculation shows that the allowable would then be 227 barrels of oil per day.

Q And what penalty is -- well, what allowable is asked for in the application that Phillips has at issue here?

A By assigning 40 acres to this well we would reduce our allowable in proportion of 40 acres is to 80 acres as provided in the field rules; that would be a 50 percent reduction, which would give us an allowable of 223 barrels of oil per day.

Q And how does that allowable compare with the allowable calculated under the penalty that's referenced on Exhibit Eight?

A That allowable is less than the penalty allowable that we calculated, which shows that our -- by dedicating 40 acres to this well we have already offset any possible advantage we would have gained based on the location of this well.

Q What is your understanding, let me ask, as to where the production is on Phillips' lease; i.e. the producable reserves?

A I would say that there are reserves under all 40 acres of Phillips' lease.

Q Would putting a well in at the proposed location result in drainage or production from the entire tract?

A Yes. I believe the entire 40 acres would contribute to the production from the well.

Q Let me ask you why this well could not be drilled at a standard location.

A As Mr. Strauss previously testified, the geologic risk of getting a noncommercial well is very high at a standard location.

In addition, the mapping that we have supports this, that wells at a standard location would not encounter a sufficient thickness of pay to produce at commercially economic (unclear.)

Q If you were required to drill this well at a standard location, would Phillips proceed with its drilling program?

A I do not believe Phillips would drill this well at a standard location.

Q If you drilled this well at a standard

location would you be able to recover, would Phillips be able to recover its just and fair share of the reserves underlying this property?

A No, due to the decreasing thickness of pay there, I do not believe that Phillips would be able to fully drain its acreage and would not be able to recover the reserves that I've calculated there.

Q Do you have any understanding or knowledge of interference or drainage of surrounding wells of the recoverable reserves underneath Phillips lease property?

A Let's see, at a previous hearing today, 8696, I believe, I witnessed an engineer testify that he had done interference testing and found that two wells located approximately 1650 feet apart were in communication with each other.

Based on hearing that and the high production rates from the wells offsetting Phillips acreage, I would conclude that Phillips is probably undergoing drainage at this time.

Q Let me ask, do you believe that the granting of Phillips' application in this instance will be in the best interest of conservation, the prevention of waste, and the protection of of correlative rights?

A Yes, I do.

MR. IVES: At this time I would

offer -- one final question.

Q Have the exhibits which you have testified to been either prepared by you or under your direction and supervision?

A Yes, they have.

MR. IVES: I would offer Exhibits Four through Eight into evidence at this time.

MR. CATANACH: Exhibits Four through Eight will be admitted into evidence.

MR. IVES: And I have no additional questions at this time.

CROSS EXAMINATION

BY MR. BRUCE:

Q Mr. Currie, did I understand you to say that you believe all 40 acres from this hearing would contribute to production from the well?

A Yes.

Q Even though the John State No. 1 Well is a dry hole and the CHB No. 1 Well to the north is a dry hole?

A Yes.

Q What is your reasoning for that?

A In the John No. 1 Well there was a drill stem test run which recovered 20 feet of slightly gas-cut

mud, indicating the presence of hydrocarbons in the reservoir in that area.

Since there is hydrocarbon in the reservoir, I'd have to conclude that that would contribute to production under our acres.

Q If this well was drilled at a standard loation the top allowable would be, what, 223 barrels a day?

A That's correct.

Q And yet you're asking for 227 barrels a day?

A No, I believe we've asking for 223 barrels a day.

Q So despite the penalty factor you referenced on Exhibit Number Eight, you're not asking for that 227 barrels per day.

A No, I feel we should stick with what is provided for in the field rules and take the allowable based on the acreage.

Q You mentioned Cases 8696 and 8790 previously. Were you listening to the testimony of the witness at that time?

A Yes, I was.

Q Did not he say that one well could adequately drain 80 acres?

A I believe he did.

Q How come on Exhibit Seven you're spacing or you're calculating your drainage based on 40-acre drainage?

A In this case we used 40-acre circles because we were only asking for an allowable based on 40 acres.

I have looked at 80-acre circles drawn around that, those two locations, and come up with 25 acres off lease, and that factor, then, would be 26/80ths, or 33 percent, which is in fact less of a penalty factor than we're asking for, or we show here.

Q So that would be 26 acres -- wouldn't that be 26 acres outside divided by 40 instead of by 80, though, since the southwest of the southwest is not productive?

A Well, the only reason I'd use an 80-acre circle is if we felt that 80 acres was productive.

Q Two final questions, Mr. Currie. If it's fair for a well at a legal location to get an allowable of 223 barrels a day, how can it be fair for a well at quite a nonstandard location to get the same allowable?

A I've determined that the well at the nonstandard location with that allowable -- or that allowable would be necessary at that nonstandard location for Phillips to recover the approximately 100,000 barrels which we've de-

termined is located under our lease.

Q Wouldn't that adversely affect the correlative rights in the remaining acreage in that --

A Well, there's nothing to prevent the holders of offset rights to drill for their oil and the -- we're simply trying to protect the --

Q The two wells in the south and the other -- the Vierson -- two wells to the east are at standard locations, are they not?

A The well immediately south, I believe, is at a standard location. The Exxon Well No. 2 is located 330 feet from the lease line.

Q Which was a standard location when it was drilled.

A Yes, but under current field rules is no longer a standard location.

MR. BRUCE: I have no further questions at this time, Mr. Examiner.

MR. CATANACH: Mr. Padilla.

CROSS EXAMINATION

BY MR. PADILLA:

Q Mr. Currie, referring to your Exhibit Number Eight, I call your attention to the calculation you have at the last line of that exhibit.

You have a formula there and I understand your testimony that that 445 barrels per day factor was derived from the depth bracket allowable, is that correct?

A Yes.

Q And that's 80-acre depth bracket allowable.

A Yes, that's the allowable provided for in the field rules.

Q What is the depth bracket allowable for a 40-acre unit?

A If my memory serves me correctly, the statewide depth bracket allowable at that depth is 365 barrels a day on the lease.

Q You don't know for sure?

A I'd have to check that statement.

Q Since you're using an 80-acre bracket allowable, shouldn't that 445 figure be based or be one-half of that 445 figure?

A I'm not sure I understand. Would you reword that for me?

Q Well, you only have a 40-acre unit, correct?

A Correct, we're applying for a 40-acre unit.

Q Therefore shouldn't that 445 figure be

cut in half, since you're using the 80-acre depth bracket allowable?

A In this case, when we calculated the penalty, we wanted to prepare the penalty based on a full allowable to the penalty based on an acreage based allowable.

Q But you don't have an 80-acre unit.

A That's true.

Q Now, in this Exhibit Eight, you have straight arithmetic averages, is that correct?

A That's correct, on the penalty factor calculation they're straight averages.

Q Is drainage based exponentially sometimes based on pressures in the volumetric calculations?

A Yes, sometimes that would be true.

Q You haven't prepared that kind of a calculation?

A No, I have not.

Q Going now to your Exhibit Number Seven, the one with the circles, did you calculate how much of the 40-acre circle, or the circle based on the proposed location, is outside of the proration unit?

A The calculation shown on Exhibit Eight is the acreage of the 40-acre circle. Outside the 40-acre circle it would be on its standard location.

Q What is the difference between the acreage

outside the standard location and the circle on the proposed location?

A That is 15.9 acres.

Q Now, going to your Exhibit Number Five, I have a hard time understanding how the entire 40-acre proration unit would be productive when you have the zero line drawn generally, almost at the midpoint of the 40-acre proration unit.

A This Exhibit Five has to be based on the net porosity map, I believe it's Exhibit Number Two, yes, and that net porosity map used a 4 percent porosity cutoff to arbitrarily essentially stop the Isopach contours. That is not to say that there isn't some porosity less than 4 percent that goes out under the rest of our acreage.

Q Well, isn't what you're saying in effect that that line ought to extend beyond the exterior boundary of the west -- the western exterior boundary of that proration unit?

A You could do that. It would be based on existing well control. It would be difficult to say exactly where that line went and for ease in the volumetric calculation we conservatively cut off the calculation at that 4 percent cutoff point.

Q Instead of the word "conservatively", wouldn't it be better to use the word "advantageously" used

that line?

MR. IVES: I'm going to object to the question as argumentative. I don't think that's been his testimony at all.

MR. PADILLA: I'll withdraw the question, Mr. Examiner.

Q Mr. Currie, is your productive acreage calculation based upon the zero line?

A My productive acreage calculation.

MR. IVES: Do you understand what he's referring to?

A No, what do you refer to on this?

Q On Exhibit Six.

A Okay, are you referring to the figure for (A) (h) (Phi), 59.1 acre feet?

Q Yes.

A Yes, that is based on -- on the zero line is the cutoff.

Q Well, how much of this 103,100 barrels lies west of the -- of the zero line?

A My calculation, my calculation here is based on reserves that lie to the east of that line, which is why I was saying that was a conservative cutoff. If we had included the lower porosity to the west, you would have had somewhat more oil.

Q Mr. Currie, I have a hard time understanding why you would use the zero line for calculating recoverable reserves, if in fact you say that the entire 40-acre tract is productive.

MR. IVES: Is that a question?

Q Well, --

MR. IVES: I realize you have a hard time understanding that, but --

MR. PADILLA: Well, let me follow up on that, Mr. Ives.

Q My question is of the 103,100 barrels, how much is going to be produced west of the zero line? What is attributable west of the zero line?

MR. IVES: I object as having been asked and answered several times previously.

MR. CATANACH: The witness can answer it, please.

A The reserves calculation shown in Exhibit Six does not include any -- any oil to the west of that zero line.

Q Do you consider a well that produces 103,100 barrels a productive well?

A It's certainly productive of hydrocarbon, yes. How do you mean productive?

Q Is it a commercial well?

A It passes Phillips' economics. We would drill that well.

Q What's your economic limit in barrels?

A The limit as far as what would pay out?

Q Yes. sir.

A Somewhere in the range of 45-to-55,000 barrels of oil, assuming a gas/oil ratio of around 1000.

Q In other words, if you had -- if Phillips had a well that -- or you analyzed a proposed location that would produce 45,000 barrels, you would drill it.

MR. IVES: Let me, before you answer, ask the Examiner, we're getting into, I believe, what constitutes proprietary and confidential information of Phillips Petroleum Company in this line of questioning, and I would ask that any questioning along these lines which involves such information be governed by a confidentiality order to be entered by the Examiner at this time in connection with this proceeding.

This -- Phillips' calculations and their economics, if they got out to competitors, would or could possibly jeopardize their ability to compete in a highly competitive marketplace in oil and gas.

So before the witness is allowed to answer that question, I would ask the examiner to place this under confidence and require that it be used

strictly for this proceeding and none other.

MR. CATANACH: I will grant your request at this time.

MR. IVES: And so that the request goes to both keeping this portion or portions dealing with this type under confidence, and I assume that the listing of people attending the hearing would constitute the listing of people who will be bound by your order and also that the order require that it be used solely for purposes of this proceeding.

MR. CATANACH: Yes, sir.

MR. IVES: Okay.

A I'm sorry, I don't remember what the question is.

REPORTER'S NOTE:

PAGES 56 THROUGH 58 INCLUSIVE OF THIS TRANSCRIPT CONTAIN CONFIDENTIAL INFORMATION AND HAVE BEEN PLACED IN A SEALED ENVELOPE INCLUDED HEREWITH.

Shelley W. Boyd CSR

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Currie, sir, would you pull out Exhibit Number Five, which is your Phi-H map, and then your volumetric calculations on Exhibit Number Six.

When we look at Exhibit Number Five am I correct in understanding that you have presumed that the surface location for each of these wells corresponds to the bottom hole location for those wells?

A That -- that is correct.

Q When we look at the volumetric calculation midway through that exhibit it says "Data for Phillips . . ." and then you show an acreage feet number of 59 acres.

When we look at the first factor, the (A) factor, or the area factor, is that the area contained on the 40-acre tract within the zero line on the Phi-H map?

A That is correct.

Q What did you use for average thickness or the (h) factor in the calculation?

A Okay, the way this was planimetered we calculated the area -- what's shown on this map is already a product of (Phi) and (h), so that we planimetered them together and came up with the area. So there is no -- I didn't use thickness individually in the calculation.

Q Did you take an average thickness between each of the contour lines?

A I used the -- well, when I planimetered it I found out an area that corresponded to each I guess you'd say Phi-h value as you go through the lease and then I used a parametal formula to find volume contained in that structure.

Q Let me say it my own way to see if I understand your methodology.

How many acres did you calculate within the zero contour line, surface acres? How many surface acres did you have for the 40-acre tract within the zero line?

A I believe there were 30 acres.

Q 30?

A 30.

Q 30 out of the 40. All right, that's the surface acres.

In getting the thickness, did you take an average from the zero line all the way to the eastern boundary of the 40-acre tract?

A Okay, let me -- I think I might be able to clarify this.

We would have planimetered that one 30-acre volume, or area.

Q Okay.

A And then gone to the next line in. I believe that's the value of 1 in combination with height and thickness or height and porosity; found the area contained in that contour and so forth, finding all those areas.

Q I understand.

A And then -- and then instead of using an average thickness or an average porosity it was, using these porosity thickness values, it was calculated.

Q Okay, and by doing that, I assume that's a standard engineering technique for establishing the parameters by which you can make a calculation of reserves.

A Correct.

Q Did you calculate the reserves in place underneath the 40-acre tract before you put in the recovery factor?

A Yes, I did.

Q And what is that number?

A That's approximately 250,000 barrels.

Q In using a recovery factor you have selected a recovery factor out of another pool, the Casey Strawn Pool.

A Correct.

Q Do you have recovery factors for wells within the Shipp Strawn Pool to apply to the calculation?

A I did not have enough data to come up

with recovery factors for the Shipp Strawn Pool because I was unable to determine what ultimate recoveries at this time will be from the wells in that pool. Most of them have not gone on line yet.

Q Have you testified before before the Commission, Mr. Currie?

A No, I have not.

Q Have you done any other penalty calculations before working on this particular case?

MR. IVES: I'm going to object to the question. I don't think that's relevant. I think it may be relevant whether these calculations are correct or not but what other work he's done, I'm not clear is relevant.

Q Are you familiar with the way the Oil Conservation Division calculates penalty allowables in cases before the Commission?

A I have -- I've read through some other cases and seen some other penalty allowable determinations.

Q Have you seen any other penalty calculations used by the Division that are used the way you have displayed them on Exhibit Number Eight?

A Yes, I have.

Q Do you have an example of another case in which the Commission has used a penalty calculation for a

well and used only 50 percent of the acreage that was to be dedicated for individual wells in that pool?

A Let me think a minute here.

MR. IVES: If you have problems with the question we can get it clarified.

A I have not. I have not, no.

Q What type of Division penalties did you review, then, to apply them to the analysis you've made on Exhibit Number Eight?

A There was a case where Phillips was asking for an unorthodox location very similar to this where the same --

Q Do you remember the order number that was used in that case, Mr. Currie?

A No, I don't. I only know the lease name.

Q Did that other case involve -- did that other case involve anything less than the assumption that the entire standard 80-acre spacing unit was productive?

A To my knowledge it did not.

Q It was the plain vanilla double circle penalty?

A I believe that's right.

Q In which the factor was the encroachment on adjoining property.

A That's correct.

Q And that factor that you used did not take into consideration a calculation of condemned acreage or acreage that would not contribute?

A No.

Q Is there a minimum daily producing rate below which you could not drill this well?

A Yes, but I have not determined what that is.

Q Do you have an approximate number?

A No, I didn't run those economics.

Q How does your proposed penalty, which would give you an allowable of 227 barrels a day, how does that compare to the current producing rates of the offset wells?

MR. IVES: I object to the question because the testimony has been quite clear that this is not the proposed penalty. This was -- this exhibit was merely offered as an example to show that allowing 40 dedicated acreage would result in a lower allowable and therefore that the application of particular procedure, methodology, here would actually have been to Phillips' benefit but that they are not seeking that. They are only asking for the 40 dedicated acres with the resulting 223 BOPD.

Q Am I clear in understanding you propose

that this location not be penalized other than to divide its allowable in half?

A That's correct, based on acreage assigned to the well.

Q And that allowable would be 227 barrels a day?

A No, that would be half of the field allowable, which would be 223 barrels a day.

Q Okay. How does 223 barrels a day assigned to this well compare to the current producing rates of the offsetting wells?

A Based on July production it's a lower production rate than all except, I believe, one.

Q Okay. Why don't you give me the July production rates on an average barrel per day basis for the offsetting wells?

A Okay, it's shown on Exhibit Four. Okay, the Fasken Consolidated State located to the south -- excuse me, that's not a July production rate. We only have the initial production rate that was filed with the State. That was 564 barrels a day.

Q I'm sorry, I've lost you on the July production numbers.

A Okay. On the July production numbers Consolidated wasn't drilled.

The Exxon State "EX" No. 2 Well --

Q Yes, sir.

A -- was 338 barrels of oil per day.

Q It's average for July was 338?

A Correct.

Q Okay.

A Pennzoil's Vierson No. 2, the average was 58 barrels of oil per day.

Q Okay.

A And those are the only two direct offsetting wells.

Q Well, let's pick up one more just for comparison. How about the Vierson No. 1 to the northeast?

A Okay, that's producing 445 barrels of oil per day.

Q And what is the Fasken Well producing now, not on a July basis? What's your current information on that well?

A The only information I have is what -- what they filed on initial potential and that was 564 barrels per day.

Q All right. Thank you.

MR. IVES: If I may just take a moment, I might have a couple of questions on redirect.

I have no redirect.

MR. CATANACH: Okay. I have no questions of the witness. He may be excused.

DAVID J. ANDREWS,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q Mr. Andrews, would you please state your full name and your city of residence?

A Yes, David John Andrews, and I reside in Midland, Texas.

Q And what is your occupation and who is your employer?

A I'm a geologist with Exxon Corporation.

Q Have you previously testified before the OCD and had your credentials accepted?

A No, I haven't.

Q Would you please give a brief statement of your educational and work background?

A Yes. I received a Bachelor of Science degree in geology from the University of Texas in the fall of 1980.

In the spring of 1981 I was employed by

Exxon Corporation and from the spring of 1981 to the spring of 1985 I was occupied as an exploration geologist in the Oklahoma City District.

While there my duties included regional geological studies, generating well packages, and analyzing any competitive proposals in my areas of interest.

In the spring of '85 I was transferred to the Midland Production District in Midland, Texas, and from that time until the present I've been occupied as a production geologist; duties pretty similar to what I did as exploration geologist in Oklahoma City.

Q And are you qualified to testify before the Texas Railroad Commission as a geologist?

A Yes. I have had my credentials accepted there and I have testified before the Railroad Commission.

Q And have you reviewed the geology concerned in this Case 9036 and are you familiar with that?

A Yes, I have. Yes, I am.

MR. BRUCE: Mr. Examiner, is the witness considered qualified?

MR. CATANACH: He is considered qualified.

Q Mr. Andrews, in front of you you have Phillips Exhibit Number Two. Have you reviewed that exhibit?

A Yes, I have.

Q Do you agree with this interpretation regarding the areal extent of porosity?

A No, I don't.

Q In particular in looking at that map the zero and 10-foot porosity lines, do you, in your opinion is that area productive of oil?

A In my opinion the area in between the zero and 10-foot porosity lines are not productive of oil, no.

Q You've -- have you been listening to the Phillips witnesses?

A Yes, I have.

Q And particularly did you hear them discuss the John State Well, the dry hole or nonproductive well in the proposed unit. One of the witnesses, I believe, stated there were 20 feet of gas-cut mud in that well?

A Yes, that's correct.

Q In your opinion is that indicative of an oil productive reservoir?

A In my opinion 20 feet of gas-cut mud is not indicative of an oil productive reservoir, no, sir.

Q Now looking at that map tahere are several dry holes referenced on the map, particularly the CHD-1 Well to the north, the John State, the Exxon No. 1,

and I can't read --

A The Waldron No. 1.

Q -- the Waldron No. 1 to the northeast.

In your opinion after studying the records, is there any porosity in those wells?

A In our opinion after interpreting those logs, and of course we drilled the Exxon "EX" No. 1 in the northeast quarter of Section 9, there is no porosity in any of those four wells.

Q Now, so basically you do not agree with the areal extent of the porosity?

A No, sir, I don't.

Q Now, assuming that Phillips Exhibit Number Two is -- is otherwise correct, in your opinion how much acreage in the proposed unit is productive?

A In my opinion acreage that has greater than 10 feet of porosity could be assumed to be productive.

Visually inspecting the 40-acre unit in Phillips map, I would approximate about 15 acres of that 40-acre unit would be productive.

Q And based on that estimate do you have an opinion as to a penalty which should be assessed against Phillips proposed well?

A Yes, I do. Based on previous OCD decisions, we think a reasonable way to come up with a pen-

alty for this proposed location, if you take the 15 productive acres and divide it by the 80-acre proration and spacing unit, that gives us a percentage of 18.75 percent of the allowable; of course, it would be an 81.25 percent penalty.

Q And what rate of production would that penalty be assessed against?

A We would assess that to the 223 barrels a day, which is approximately one-half of the top allowable for an 80-acre proration unit. They're asking to drill a 40-acre proration unit here and -- or drill on a 40-acre tract, excuse me, and we do not feel that using the full allowable of 446 is appropriate here; rather we would put 223 barrels a day, which would be half that allowable.

Q In short, you're recommending an 81.25 percent penalty based -- assessed against 223 barrels a day.

A That's correct.

Q In your opinion is the assessment of a penalty like you've just described against the Phillips well in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A Yes, it is.

MR. BRUCE: I have no further questions of the witness at this time, Mr. Examiner.

MR. CATANACH: Mr. Ives.

CROSS EXAMINATION

BY MR. IVES:

Q May I ask you, if you would, Mr. Andrews, to draw what you consider to be the productive acreage around the Exxon 2 and the Exxon 4 Wells?

A Exxon 4 Well?

Q Or Exxon 2, I guess.

You're speaking of the Exxon No. 1 Well here? This is the Exxon "EX" No. 1.

Q That's right, I'm sorry.

A And this is the "EX" No. 2 here.

Q Yeah, the No. 4. I'm sorry, I read that as a 4.

A Okay. I'm not clear on what you're asking. Could you rephrase it, please, or ask again?

Q Yeah. You've indicated what you believe to be the productive acreage under the Phillips -- on the Phillips acreage, and I'm asking you now to indicate if you would the productive acreage for the Exxon No. 2 Well that you have there.

A Yes, that would constitute in all practicality offering another exhibit for the hearing. We're not prepared to do that at this time.

Q I'm just asking you to mark it, if you would, on the present --

A Assuming that this interpretation is correct?

Q -- Exhibit Two. Yes, please do.

A Assuming that this interpretation is correct, as I stated before, I think that acreage that has greater than 10 feet of 4 percent porosity would be productive, so it would be the acreage inside the 10-foot line, 10-foot contour.

Q Yeah, but what I'm asking, if you could, just to draw that --

A Okay.

Q -- so we can see it.

A It would go from approximately right here to approximately right there on this in Section 9.

Q And could you -- do you have any notion of the extent through the middle of the southwest --

A Yeah, it's --

Q -- quarter of the --

A -- going to be a continuation of this line coming down to the south, so approximately like that.

Q Let me ask you, if you would, to identify which line?

A The line that I continued drawing down to the south was the eastern north/south line of the 40-acre tract that Phillips is proposing a location on.

Q Now didn't you just indicate, though, with an "x" on the bottom of what has been marked on Exhibit Two, that is the south side of what has been marked as Exhibit Two, as the Phillips Lease, the 10 line, and indicate that that would be within the productive acreage of that well?

A Yes, that's not Exxon acreage; that's Fasken acreage, and it is certainly within the productive reservoir, we would think.

Q So in other words, your well might well be draining that acreage?

A I think that's conceivable.

Q In terms of the 80-acre unit that Exxon has dedicated to this Exxon 2, what is, then, the areal extent of the productive acreage there?

A Approximating, 30 acres, perhaps.

Q And --

A But that's very approximate. An exact number would have to be planimetered, of course.

Q And what is your allowable on that well?

A That was top allowable, 443 barrels a day.

Q So it would seem --

A No, it would be 446 barrels a day.

Q So it's your position here that Phillips

should have a penalty imposed because it has limited acreage which you claim is producable on its tract, while Exxon should have a full allowable notwithstanding the limited acreage on its tract.

A Due to the fact that we drilled an orthodox location and that Phillips is asking for an unorthodox location, yes, sir, that's our contention.

Q And you also contend that notwithstanding the fact that your present Exxon 2 Well, you've indicated would probably drain the reserves under the Phillips lease.

A No, sir. That -- you asked me if it would drain the acreage over here to the west in the Fasken acreage. Whether the reservoir actually extends up to the Phillips acreage or not, again, we said we did not agree with this interpretation, so we can't say that it will drain anything on Phillips.

Q Well, let me ask, if you would, where you feel the reservoir stops, if you have any information on that.

A We do not know specifically, assuming that this interpretation is correct, that this is a correct contour in here.

Again, our interpretation, which we're not prepared to give an alternative interpretation right now, in a way you're asking me to do that, so I'm going to

have to --

Q I recognize that you are not prepared and you cannot put into evidence anything at this time by way of alternate interpretation; therefore, assuming that this interpretation is correct, please identify -- please answer my question which I asked before as to whether or not on this map as it is set forth there will be drainage of the Exxon 2 Well of the reserves under the Phillips acreage?

A Yeah, okay, assuming that this interpretation is correct, I think it's reasonable to assume that there would be some drainage of the Phillips acreage, yes, sir.

Q Mr. Andrews, let me ask you, given the present pool rules if your Exxon 2 Well were drilled today, would that represent an orthodox or an unorthodox location?

A It would be unorthodox if it were drilled today.

Q And how far from an orthodox location would it be?

A An orthodox location we would locate approximately 510 feet from the north line. We're at about 330 feet, so that would be approximately 140 feet, excuse me, 180 feet.

Q And what's the bottom hole location of that well?

A The bottom hole location is approximately 150 feet to the north, almost directly north; had very little east/west variance.

Q And so in fact the bottom hole location is even more unorthodox under the present pool rules than the surface loation, is that correct?

A Yes, sir. There was unintentional deviation when the well was drilled and it drifted to the north.

Q Do you know what Phillips is asking by way of an unorthodox location for its well from the south line?

A Excuse me?

Q Isn't Phillips seeking a 330-foot from the south line unorthodox location for its well?

A Yes, sir.

Q And isnt' that the same as your well is unorthodox at its surface location presently?

A Presently. When we drilled the "EX" No. 2, of course, it was not an unorhtodox location.

Q I realize that.

A So you're sort of comparing apples and oranges.

We did not drill an unorthodox location. Phillips is proposing to drill an unorthodox location. I don't feel the comparison is apt.

Q I'm talking about correlative rights and the ability of a leaseholder to produce the reserves which are under that leaseholder's property.

A Yes, sir.

Q In terms -- you've indicated that there will be drainage, given this assumption, which is the only assumption here before this tribunal today that there will be drainage from Exxon's well from the Yates acreage.

A Yes, sir. It is our contention, though, that an unorthodox location that did not have a significant penalty would be draining other people's reserves on their acreage and would be infringing on their correlative rights.

Q And isn't that exactly what is happening in the circumstance of Exxon's well?

A We drilled an unorthodox -- an orthodox location, excuse me, so I don't think the situations are analogous at all.

Q Do you think that mere location of the well determines whether or not correlative rights are always apportioned fairly and correctly?

A Would you rephrase that, please?

Q Certainly. You've indicated that Exxon has put down an -- what was at the time an orthodox location.

A Yes, sir.

Q And what I'm asking is do you think that the mere drilling of an orthodox location at a point in time justifies drainage which may be occurring and therefore an imbalance in terms of what one property is able to produce of its reserves as opposed to another?

A I feel that the drilling of an orthodox well, and particularly in this case here, will, of course, have drainage on offset acreage.

Anyone who's being drained in their offset acreage, of course, has the option to drill an orthodox location without sufferng any penalty. If they come in and offer to drill an unorthodox location, again we think that it is infringing on other leaseholders' correlative rights to allow them to produce that well without a significant penalty, such as the one that we're proposing today.

Q Let me just ask one or two final questions, Mr. Andrews.

You've indicated that you want the penalty imposed on Phillips to be based on 15 --

A Productive acres.

Q -- productive acres, which you estimate to be the amount that exists upon the Phillips lease although you don't have any evidence to suggest or to put on with regards to this map being inaccurate, and that it should be assessed, this penalty, on an 80-acre unit, where-

as Exxon has no penalty based on its 30 productive acres which you have estimated again, which is also on an 80-acre unit, is that correct?

A Yes, sir, the fact that we drilled an orthodox location in complete adherence with the field rules would seem to -- there'd be no cause for penalty. We're not doing anything unorthodox. We were completely orthodox when we drilled our well.

Q Oh, I understand that.

A Yes, sir.

MR. IVES: I have no further questions.

MR. CATANACH: Mr. Bruce?

Mr. Padilla.

MR. PADILLA: We have testimony to put on at this time, Mr. Examiner.

MR. CATANACH: Do you have any questions of --

MR. PADILLA: No, I don't have any questions of him.

MR. CATANACH: Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Examiner.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Andrews, I want to see if I understood how you have reached certain conclusions you have made.

The first point I'd like to clarify is what refinements or adjustments you have made to the Phillips' calculation of the penalty under their allowable formula.

A Yes, sir.

Q Directing your attention to that subject first, do you agree that the Phillips' calculation of the double circle penalty on their Exhibit Number Six does not include an additional penalty factor for the productive acreage within their unit?

A Yes, sir, I agree with that.

Q You therefore have taken one of their exhibits and have determined that the number for that additional factor was approximately 15 productive acres out of the 80-acre tract that would contribute production to that well?

A Yes, sir. In my opinion, and this is just visually so the number may be a little bit rough, they have approximately 15 productive acres on a theoretical 80-

acre proration unit since they only have 40 acres.

Q And in making that adjustment, then, you have looked at the area contained within the contour line that corresponds to the Fasken Well that shows 12 feet of pay?

A Actually it's the 10-foot contour line.

Q That's the 10-foot contour line.

A Yes, the Fasken well should actually be on the other side of that line toward the thicker part of the reservoir since it has 12 feet of porosity.

Q What has been your involvement as a geologist for your company with regards to the geology of this particular area?

A Yes, sir. We -- I've been analyzing this area for about -- approximately the last six or seve months. My involvement is specifically picking and drilling wells. I have not been involved in either of the two wells we've drilled. My predecessor was involved in that; however, we are actively exploring this area. We are looking for, obviously, potential offsets; I'm actively involved in that.

Q When we look at this exhibit by Phillips and we've assume it to be accurate for purposes of the discussion, can you as a geologist and as an expert, find any indication of any kind of geologic barrier or other factor that would preclude the Phillips well, if drilled at this

proposed location, from draining the acreage of Fasken, Exxon, and Pennzoil?

A No, sir. If this interpretation is correct, and we have not agreed with the interpretation, but if they were to drill that well with that interpretation, they would indeed drain the -- well, the reserves, and, of course infringe upon the correlative rights of the three people you mentioned, yes, sir.

Q You've done a little comparison about the relationship of at least the surface locations of the offsetting wells to see whether or not they are in a position to compete equitably with the offsetting well.

As you look to the acreage to the south, to Mr. Fasken's acreage, is his well in a position where he can fairly compete with the Phillips well in the absence of a penalty on the Phillips location?

A In the absence of a penalty, no, sir.

Q He will need the benefit of a penalty as you proposed in order for his well to compete fairly with the Phillips well?

A Yes, sir, I think so.

Q Is that also true of your well?

A Yes, sir. We cannot compete fairly unless a penalty such as the one we propose is assessed to the Phillips well.

Q And let's look at the Pennzoil acreage. Where is their closest producing well?

A There's the No. 2 Well in the southwest quarter of the southeast quarter.

Q And it would be impossible for that well to compete fairly with a Phillips well in the absence of a penalty.

A Yes, sir, assuming that this interpretation is correct, we feel the same applies to the Vierson 2 Well.

Q So for the protection of everyone's correlative rights that offset this well, it's your firm belief that a penalty as you've suggested is one that's not only fair but appropriate.

A Yes, sir, absolutely.

MR. KELLAHIN: No further questions.

MR. BRUCE: Two -- two questions, Mr. Examiner.

REDIRECT EXAMINATION

BY MR. BRUCE:

Q You've been questioned about Exxon's well, that well isn't in issue today, is it?

A As far as I know, no, sir, it's not.

Q Secondly, there are questions about the bottom hole location. Do the field rules of the Shipp-Strawn Field address bottom hole locations?

A No, as long as it's unintentional deviation the field rules do not address the bottom hole location of any well drilled there.

MR. BRUCE: I have no further questions of the witness.

MR. IVES: I might have one or two on follow-up.

RECROSS EXAMINATION

BY MR. IVES:

Q Mr. Andrews, could you please explain to me exactly what studies you have done in this area?

A Well, of course, we've taken a look at the geology of the area. (Unclear) well logs; every -- every bit of information that we have in this area that helps us put together some sort of geologic picture about what's going on, of course we've conducted.

Q How about you specifically?

A I specifically have done some mapping in the this area. I've taken a look at all the wells in the area. I've taken a look at all the information that was done by my predecessor and we have satisfied ourselves that

that work is correct and it is reasonable and we have taken that work and built off of it.

Q Mr. Andrews, out of curiosity, why did not you bring your net pay map to this proceeding? Do you have a net pay map?

A We are not prepared to offer any alternative exhibits at all here.

Q Do you have a net pay map, though?

A We have a net pay map that exists, yes.

Q And you did not bring that with you here today?

A We are not prepared to put on anything like that, no, sir.

Q But you did not bring it here with you today, is that correct?

A We have certain maps here, yes, sir, but we're not prepared to put them on.

Q I'm just asking about your net pay map, a simple question.

A It is present, yes, sir, we're not prepared to put it on.

Q Mr. Andrews, I would request to review the maps that you've brought with you here today.

A No, sir, we're not ready to put them on.

MR. BRUCE: I'd object to that.

MR. IVES: I would move that this witness' entire testimony be stricken from this record.

MR. BRUCE: For what reason. He's testified that he knows about the geology in the area.

MR. IVES: And I think it's certainly fair to ask what is present to be able to cross examine him if it appears necessary to utilize those maps do it -- to do it.

MR. BRUCE: It's common practice in the courts to offer expert testimony based upon the testimony made by the other party.

MR. IVES: Well, it's common practice in the courts to allow cross examination based on --

MR. BRUCE: You are -- you have had a chance to cross examine here.

MR. IVES: -- based on studies prepared by those experts.

MR. BRUCE: And it's not common to engage in discovery at the hearing itself.

MR. IVES: Well, I think we've had some of that go on in any event, given the nature of these proceedings.

MR. BRUCE: Well, you set forth all your exhibits and therefore they're open to --

MR. IVES: Certainly, and I would make that motion or in the alternative I would move to strike his testimony.

And I think that's at this point in time what I have for this witness.

MR. CATANACH: Mr. Ives, because Mr. Andrews testified based on your evidence and did not testify based on their own evidence, I don't think that they should have to present it.

MR. IVES: Well, Mr. Examiner, I would -- I think Mr. Andrews' testimony was that he was testifying on the basis of studies he had done and his expertise in this field. In fact I think his very qualifications rested on that basis and these maps certainly play their part in his expertise in regards to this field. So I think implicitly, if not expressly, his entire qualification to testify in this matter, and certainly his testimony vis-a-vis the exhibits introduced by Phillips rests on that -- those qualifications, and I think we would be entitled to see them.

MR. BRUCE: His testimony was to his qualifications in this area but all of his testimony here this morning relates only to the exhibits put forth by Phillips.

MR. CATANACH: I'll stay with

my decision.

Q Mr. Andrews, with regards to the maps which you have brought with you today but which Phillips is not going to be allowed to see or cross examine you with regards to, did you prepare any of those maps?

A Yes, sir, I did prepare a map.

Q Which particular map?

A Of the maps that we made?

Q Yes.

MR. BRUCE: I'm going to object. I mean, they're not in evidence.

MR. IVES: I realize they're not in evidence. I think it's bona fide to ask what maps he has prepared. If he prepared, for instance, a net pay map which he's testifying that ours in incorrect, I mean if he's done that, certainly I'm curious to find that out, if there is a basis for his opinion, and what the basis for that opinion is. I think that certainly is an appropriate question in this circumstance and I realize the Examiner's ruling I won't be allowed to see that, which I will proceed in accordance with.

MR. CATANACH: Mr. Ives, I would disallow this continued line of questioning concerning the (not clearly understood by the reporter.)

MR. IVES: In that case I would

have, I think, just several other questions of Mr. Andrews.

Q Mr. Andrews, would Exxon support going to an acreage based allowable in the Shipp-Strawn Pool?

A You're talking about would we want to change the pool rules?

MR. BRUCE: I would object. That's not at issue in this hearing. This case only has to do with the penalty for a nonstandard unit and a possible penalty to be assessed against Phillips has nothing to do with pool rules of the Shipp-Strawn. That would have been addressed at the hearing earlier this morning.

MR. IVES: I think it's relevant by way of the credibility of this witness and I think it should be allowed on that basis.

Exxon has a full allowable based on 30 production acres and I believe that goes to impeachment of the witness in the particular instance.

MR. CATANACH: I would agree also that's not the substance of this hearing.

MR. IVES: And I believe my next question would probably make that crystal clear and establish the relevance as to credibility of the witness.

My next question was to be notwithstanding your opposition to going to an allowable based on productive acreage, you propose to impose that upon Phillips, is that correct, Mr. Andrews?

A Is that question allowed?

MR. BRUCE: Well, I can ask some follow-up questions on it.

A Okay. Would you repeat the question, please?

Q The question was based on the premise that you were going to say no, that Exxon would not agree to an allowable based on productive acres in the reservoir, and then the question to follow was yet you propose exactly such a penalty to be imposed upon Phillips, isn't that correct?

A Well, we didn't answer negative to the prior question. That was never in the record.

Q I understand that.

A What we are proposing to Phillips is a penalty based on other examples that have been set by the OCD for similar unorthodox locations. That's all we're doing here.

Q If I could ask, which examples are you referring to?

A Order Nos. 8162-A and R-8239. The last one was heard, I believe, in front of Examiner Stogner and he used a formula that was very similar, if not identical, to this one.

Q How did the factual circumstances in those cased differ than the factural circumstances in this

case?

A Very, very similar, especially the one, R-8239. That was in a well that was approximately 2 or 3 miles north, excuse me, in the Northeast Lovington play. Here Amerada proposes an unorthodox location and it is established that not all their productive -- or not all the acreage that they are going to contribute to that well, the proration spacing unit is productive.

Examiner Stogner took a formula where he took the productive acreage, or what was accepted as the productive acreage, divided it by the 80-acre proration spacing unit, and came up with the penalty.

Q And in that case was there nonproductive acreage to the west of the lease where the proposed well was to be drilled?

A There was nonproductive acreage west to the proposed unorthodox location very similar, if not identical to this, yes, sir.

Q So you feel they were virtually identical?

A I feel they were very similar, yes, sir. That's one of the reasons that we proposed this over here.

Q And let me ask, were there wells situated as there are on the present map to the south and to the southeast, vis-a-vis the proposed location --

A Yes, as I recall, there --

Q -- of Phillips?

A -- are wells to the east. That were productive that offered control.

Q Where exactly was that proposed well to be placed in that particular matter, 8239?

A Let me get my copy of the order.

MR. KELLAHIN: Excuse me, what order number are we referring to?

A 8239.

MR. IVES: 8239, Tom.

Let me just say, Mr. Examiner, if the witness is being allowed to bring out exhibits here to testify to and to the record on, I certainly feel it would be appropriate to restress my request to see all the maps that they have prepared. They should not be allowed to merely bring out what supports their case versus withold what does not support their case.

MR. BRUCE: Mr. Examiner, what he's testifying to now is an OCD order. I think rather than extend these proceedings the OCD could just take administrative notice of the -- of the orders and the cases just discussed by my witness and the things the witness is testifying about now have nothing to do with the questions already asked.

MR. IVES: Mr. Examiner, I would be willing to do that if I could submit testimony by way of a brief as to the similarities or dissimilarities between the orders and issues which were present in those particular cases which Mr. Andrews has testified to.

Quite simply, I am not familiar with the factural circumstance behind those two orders and it will take me awhile to familiarize myself with that.

I certainly do not oppose taking judicial notice of prior orders entered by this body but would request an opportunity to comment on those and the applicability to this proceeding.

MR. CATANACH: Mr. Ives, I will be reviewing administratively the case in question of R-8239. Would that be adequate to satisfy you?

MR. IVES: I certainly understand and appreciate your position. I just simply am not so aware of the factual circumstance or exactly what is in the order that would correspond to the witness' testimony that we have virtually identical circumstance between that case and this.

I would certainly request that the Examiner's review be on that basis if that can be determined by virtue of the order which has been entered in that case.

Again, I do not know the testimony that was entered in that case and if that testimony did not present as strong a case as has been presented by Phillips, that, too, I feel should bear upon the Examiner's determination as to the applicability of that order to this particular matter.

MR. CATANACH: And so it shall.

MR. IVES: Those are all the questions I have.

MR. CATANACH: Mr. Bruce?

MR. BRUCE: Nothing further.

MR. PADILLA: Mr. Examiner, I call James Groce.

JAMES GROCE,

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

DIRECT EXAMINATION

BY MR. PADILLA:

Q Mr. Groce, for the record would you please state your name and where you reside?

A My name is James Groce. I'm from Midland, Texas.

Q What is your connection to Barbara Fasken

in this case?

A I'm a petroleum engineer working for our operations company.

Q Who do you work for, Mr. Groce?

A I work for Barbara Fasken, doing business as Henry Engineering.

Q Is Henry Engineering an engineering company or what is that?

A It's a subsidiary, if you will, of Barbara Fasken. It's wholly owned by Barbara Fasken.

Q Where is Barbara Fasken's acreage in relation to the proposed location?

A We have the acreage south of the proposed location in Section 9. We have the west half of Section 9.

Q Mr. Groce, have you previously testified before the Oil Conservation Division or the Commission and gad your records accepted as a matter of record as a reservoir engineer?

A Yes, sir.

Q Tell us, sir, what your connection with the pool in question is today and what studies or what -- what have you done to familiarize yourself with the (unclear) at hand today?

A Barbara Fasken has most recently drilled the Consolidated State No. 3, which is the most recently

drilled well in the field. In such we have become familiar with the area and production so that we could recommend and drill the well at that location.

Q Were you involved in the recommendation to drill that particular well?

A Yes, sir.

MR. PADILLA: Mr. Examiner, we tender Mr. Groce as a reservoir engineer.

MR. CATANACH: Any objections? Mr. Groce is considered qualified.

Q Mr. Groce, have you been present throughout the presentation of the case in chief of the applicant in this case?

A Yes, sir.

Q Mr. Groce, have you formed an opinion as to the propriety of the proposed location?

A Yes, sir. Based on the information we know about our well and the evidence presented by Phillips, they have no case for the unorthodox location. They could drill at a standard location.

Q Mr. Groce, let me refer you to what was presented this morning as Applicant's Exhibit Number Five and I'll ask you in the interest of expediency to tape it up on that well up here.

Mr. Groce, we have marked that as Fasken

Exhibit Number One due to certain alterations that you made on that exhibit.

Can you identify the alterations that you have made to the exhibit?

A Yes, sir. We have drawn and indicated it in the red circle a standard location in the center of Phillips yellow highlighted 40-acre proration unit.

We've also indicated in dashed red lines a similar 40-acres which would be surrounding Barbara Fasken's Consolidated State No. 3 to the south.

Q Now, how -- how many acres do you have dedicated to the Fasken well?

A We have 80 acres on an east/west 80 dedicated to it.

Q But you've only shown a 40-acre tract to the south for comparison purposes, is that correct?

A That is correct.

Q Now you've made an assumption that the information contained in that exhibit is correct, have you not?

A Yes, sir.

Q Now what conclusions can you draw from the information contained in the exhibit in relation to your alterations of that exhibit?

A The red circle indicating a standard lo-

cation in the center of the Phillips 40-acre would almost touch their contour which is one porosity foot contour line, and in the way of comparison, that would be a better location than our Consolidated State No. 3, which shows a .72 porosity foot contour.

Q Is your well at a standard location, Mr. Groce?

A Yes, sir.

Q Is there another of applicant's exhibits that supports your position as you have drawn or as you have made that conclusion from this Exhibit Number One of Fasken?

A Did --

Q Are there other Phillips exhibits that support your conclusion?

A Yes, sir. I've reviewed all of the exhibits they presented today and I -- all of them are in concurrence with this exhibit that this is a good location.

Q Now tell us about how -- what you consider the -- how you -- what you think of the Fasken well as far as commercial production is concerned.

A We consider it commercial.

Q Is it a good well?

A It's a very good well. It is still flowing top allowable. It was completed in late August and has flowed at 445 barrels a day ever since.

Q Where are you in terms of payout on that well?

A I haven't calculated that but it would be approximately half paid out.

Q And it's been in production how long? Since August?

A Two and a half to three months.

Q Mr. Groce, let me hand you what we have marked as Exhibit Number Two and have -- you may resume your seat.

I believe you have that.

A Yes.

Q I'd have you identify what we have marked as Exhibit Number Two and tell us what that is.

A Exhibit Two is an interoffice memo written to me by Mr. Mark Merritt, who is a petroleum engineer under my supervision.

He referenced a pressure buildup analysis that we made on August 2nd, 1986, on the Consolidated State No. 3 Well.

Q Did Mr. Merritt at your supervision conduct a material balance calculation to reach conclusions stated in that exhibit?

A Yes, sir. Based on the bottom hole pressure that we measured at this buildup and the bottom

hole pressure that we had when we drilled the well on a DST, with the cumulative production, we were able to by material balance calculate an oil in place of 245,000.

Q How does the information contained in this exhibit compare to the information submitted by Phillips earlier?

A It is in very good agreement in that they -- their engineer testified that he had estimated by volumetrics 250,000 barrels of oil in place under their proration unit.

He also indicated that they anticipated a 42 percent recovery factor and we estimated a 43 percent recovery factor.

They estimated 103,100 barrels of oil to be recovered. We estimate we will recover 104,000 barrels.

Q Mr. Groce, do you have anything further to add to your testimony?

A No, sir, other than based on the evidence that Phillips has presented, Barbara Fasken drilled an orthodox location. We have a commercial well. We feel that Phillips should be required to drill an orthodox location. Their evidence indicates they would have at least as good and maybe a better well than we have and that their recoveries would be comparable to ours.

MR. PADILLA: Mr. Examiner, we

move the introduction of Exhibits One and Two.

MR. CATANACH: Any objection?

MR. IVES: I'm going to object to the Exhibit Number Two. I don't think a proper foundation for it necessarily has been laid in this particular instance.

MR. PADILLA: Well, Mr. Examiner, I think in response to that question, I think the foundation is simply a well established. We're simply refuting and informing the Division and the Examiner of information that is -- that we have in our possession that is material to this case.

MR. CATANACH: I'm going to allow the evidence to be admitted.

Exhibits One and Two will be admitted into evidence.

MR. IVES: Mr. Examiner, I'm going to have certain questions of the witness and I will probably need five or ten minutes to draw up those questions.

I would ask that we should be able to take a brief recess at the moment.

MR. CATANACH: Okay, we'll take a ten minute recess.

(Thereupon a recess was taken.)

MR. CATANACH: Mr. Ives.

CROSS EXAMINATION

BY MR. IVES:

Q Mr. Groce, let me ask you, if you would -- well, let me start again.

You've indicated that you're familiar with the Shipp-Strawn Pool, is that correct?

A Yes, sir.

Q Are you familiar with the STU No. 1 Well? Texaco State 1?

A Well, I'm not familiar with the northern part of the field, no, sir. It's in the vicinity of the Vierson, the Vierson 1 and 2, Shipp 1, and then the Exxon well and our well.

Q Do you know the production history of what I will refer to as the STU 1 Well?

A No, sir.

Q Are you aware that the initial production was at 440 barrels per day of oil?

A No, sir.

Q Are you aware that that was -- are you aware that that well was plugged and abandoned after it had produced 20,000 barrels of oil?

A No, sir.

Q Mr. Groce, if I could ask you to step up to what has been marked as Fasken Exhibit Number One, although I think it is erroneously marked Exhibit Number Two up there, and point to the STU 1 so that the Examiner knows exactly where we are referring.

A He's referring to the well in the far northwest corner of Section 4.

Q And could you please spot a location on this map on the Phillips acreage which would be within the same two lines on Fasken Exhibit One as would be down on Phillips lease, if you would?

A Approximately there.

Q Thank you.

A I would judge it to be something like 150 feet of the standard location.

Q From where to where?

A From the standard location to the location that you asked me to point to, I'm judging approximately 150 feet.

Q And that's your best guess based on where you would place these points on this map?

A Yes, sir. If your contours in the north end are the same as your contours in the south end, that's what I would feel would be the location.

Q And let me ask you just once again what

is your understanding as to the total production from the STU 1 Well before it was plugged and abandoned?

A As presented by your exhibit, it was 20,000 barrels.

Q All right. Now, Mr. Groce, if I could ask you just to draw in what exactly is the unit which Ms. Fasken has which is dedicated to your well?

A It's a laydown 80 acres in the north half of the northwest corner of Section 9.

Q And is it your opinion -- let me ask you, if you would, please, just to indicate on that unit where you have hydrocarbons, what portion of that unit do you have hydrocarbons under?

A It's our opinion we have hydrocarbons under all of it.

Q And would that be your opinion with regards to that tract out beyond the zero line which is on your Exhibit Number One?

A Yes, sir.

Q Let me ask you, if you would, to draw on your Exhibit Number One the 87-acre drainage area which is referred to on your Exhibit Number Two.

A Well, that would be that same area you can see, oh, a pencil-width wider area around the entire area.

Q And so your contention is that your well will drain beyond the zero line drawn on your Exhibit Number One?

A First of all, this zero line is your line and we simply did not take issue with the zero line. So we're saying that our acreage is going to drain 104 -- 104,000 barrels as presented here; yours is going to do the same.

We simply concur with that analysis.

Q I understand that, and having accepted the exhibit, is it your contention that there will be drainage beyond the zero line?

A My contention is that if you have defined it that way, that I'll accept that as your opinion, and I'm not arguing with you.

Q I'm asking you about your opinion with regards to your acreage and your Exhibit Number One, which you have introduced into evidence.

A Our -- I do not have an opinion as far as the -- where the contour line is, but most Ispachs do not drain below zero acreage -- or zero footage.

Q Let me ask you then, which 87 acres you feel your tract is going to drain in actuality.

A In actuality?

Q As opposed to your --

A We had not prepared anything to say exactly where the boundaries of this reservoir are. Based on our material balance and an estimate of volumetrics, we conclude that we're going to drain 80 acres.

Q What 80 acres do you feel it is likely that your well is going to drain?

A Well, the 80 acres we're prorated, of course.

Q Do you think there will be any drainage from your well off Phillips' lease, reserves -- any drainage of the reserves under Phillips' lease to your well?

A The evidence presented earlier indicates that these wells are in interference with each other, so there would be some drainage, yes, sir.

Q Let me ask you, is there any -- what is the productive acreage on your unit?

A 80 acres.

MR. PADILLA: Objection, Mr. Examiner. We did not present any productive acreage calculations. We simply took and assumed that the information on Exhibit Five of Exxon -- Phillips is correct.

We're going beyond the scope of the direct testimony of this witness.

MR. IVES: I know of no limitation on -- for cross examiner purposes of direct exam, as

Mr. Padilla is suggesting. It was, I believe, an old doctrine in the law, which is long since past.

MR. CATANACH: I'll allow the question in.

A Would you repeat it, please?

Q Certainly. What is the productive acreage on your unit?

A The 80 acres that we have prorated.

Q Mr. Groce, let me ask you, would you support an allowable based on productive acreage?

A I could not answer that. I don't know what my company's position would be.

Q Mr. Groce, you listened to the testimony of a witness from Exxon Corporation, Mr. Andrews. Is there anything with which you disagree in connection with his testimony? In other words, did he say anything with which you disagree?

A I don't recall.

Q Do you recall his testifying as to the limited productive acreage on the Phillips tract?

A Yes, sir.

Q Do you recall him testifying that he did not believe that you could put in a productive well which was at a porosity of 10 or less?

A I believe he said 10 feet or less, did he

not?

Yes, sir, I heard that.

Q And do you agree with that?

A No, sir.

Q What do you feel would be a proper point for productive acreage -- a commercial well porosity?

A I don't have a feel for that. Our main position is that at .72 porosity feet we have a commercial well and we feel like we're going to recover commercial quantities as Philips has defined, and that at a standard location you have better than a .72 porosity foot location, so therefore you should recover what you already entered in testimony as a commercial amount of oil.

MR. IVES: That's all I have.

MR. CATANACH: Mr. Bruce, do you have any questions of the witness?

MR. BRUCE: Nothing.

MR. CATANACH: Mr. Kellahin?

MR. KELLAHIN: Yes, sir, just a few, Mr. Examiner.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Groce, in terms of the ability of these wells to compete fairly with one another, if you'll

examine the surface location of your well in relation to the proposed Phillips well, let me ask you this first of all, is your bottom hole location the same as your surface location?

A No, it is not.

Q Where is your bottom hole location with reference to the surface location?

A It's approximately 150 feet north of our location. We did have unintentional deviation while we were drilling, also, as Exxon did.

Q You and Exxon, then, have drifted north about 150 feet.

A Yes sir.

Q All right. You're welcome to take that factor into consideration in answering the question. My question is, using the common boundary line between you and Phillips, you have already committed yourself to a wellbore that's in the ground. In the absence of a penalty on the Phillips well at their location, can you fairly compete for the reserves in this reservoir?

A No. Let me emphasize, even at that 150 foot location, we drilled 660 from the north line so we are still within a legal location or an orthodox location, excuse me, at some 510 feet from Phillips' line.

Q And how close will they be to you from the line?

A They would be 330 on their surface location, and based on that, no, we would not be competing fairly, because the evidence indicated this reservoir is going to drain a wide area. These wells would interfere.

Q If the Phillips well produces its 150,000 barrels of oil that it can recover, is this reservoir such that the well will simply stop flowing at that point when no more oil is going to be recovered?

A There's a good indication of that.

Q In sharing the oil in the reservoirs, are you aware of any physical barrier that will preclude the Phillips well from draining your acreage?

A None.

Q Then how can you compensate yourself?

A Well, first of all, we feel that they should draill a standard location to compensate us by drilling the same distance we drilled when we drilled ours.

In the absence of that remedy, the only other one would be a penalized allowable.

Q And what is accomplished with a penalized allowable?

A It would reduce their takes from the reservoir to the point where we could compete for our amount of oil under our acreage.

Q And is that fair?

A Yes, sir.

Q The penalty proposed by Mr. Andrews, taking the Phillips calculation and then adding into the condemned acreage factor, was a penalty, I think, of somewhere around 83 percent, if I recall correctly.

Do you concur in that as an acceptable penalty for this case?

A Yeah, I have no objections to it.

Q Would you support that type of penalty for this well?

A I think so.

MR. KELLAHIN: Nothing further.

MR. IVES: May we take just a moment?

RECROSS EXAMINATION

BY MR. IVES:

Q Mr. Groce, you've testified that you believe that the acreage outside of the zero line on your unit is productive. Would you believe the same wth regards to the unit acreage outside the zero line on the Phillips acreage?

A No, sir.

Q How do you explain the distinction between your statements?

A I am familiar with yours. I simply took your zero line as being the zero line.

Q Do you have any reason to -- I believe you've testified that you have no reason to doubt this and that you have accepted this for purposes of your testimony, and in fact you entered this as an exhibit, is that correct?

A Yes, sir.

MR. IVES: That's all the questions I have.

MR. CATANACH: Mr. Padilla.

MR. PADILLA: I think I'll ask one question.

REDIRECT EXAMINATION

BY MR. PADILLA:

Q Mr. Groce, you're not in disagreement, in basic disagreement with the Phillips testimony here today.

A No, sir.

Q In fact, your figures are pretty much -- pretty much correspond to their figures, right?

A Correct.

Q Now, with respect to our Exhibit Number One, you just simply assume that that is -- you're not quarreling with that, you're just simply taking their information and supporting your case with it, isn't that correct?

A That's correct. Based on the data presented on our well, which I'm familiar with, they have drawn a similar situation for their well. I'm not quarreling with their Isapach in any way. I'm simply saying that their well is going to drain the same amount of reserves that we predict our well to be. We have a legal location.

Q And their evidence illustrates this.

A That is corroct.

Q Is it still your first decision that a standard location is -- should be -- that Phillips should be required to drill a standard location?

A Yes, sir.

Q If a penalty is necessary, then you would support Exxon's?

A I would support the stiffest penalty possible.

MR. PADILLA: I have no further questions.

MR. KELLAHIN: Mr. Examiner, one further point.

RECROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Groce, in analyzing your acreage com-

pared to the Phillips acreage, what is the single geologic factor that you see that distinguishes the two 80-acre tracts?

A What I'm basing the -- our comparison on is the contours that they drew for their porosity map, their contours through our well and the contours through a standard location, and beyond that, I'm not making any conclusions. I'm not drawing any conclusions.

Q I didn't make my question clear to you.

With regards to the disciplines of your profession, do you see anything to presume that on your 80-acre tract, that that acreage, that full 80 acres is not contributing to your wellbore?

A Based on our evidence or -- yes. We do not have anything that would indicate that we're not draining the full 80 acres.

Q Is there a dry hole on your 80-acre tract?

A All right, let me qualify that statement. There is a dry hole on our Consolidated No. 1, which is to the -- actually was prorated in the Midway Strawn Field. It's in the --

Q That does not lie within your 80-acre spacing unit, though, does it?

A No, sir, it does not.

Q All right.

A And there isn't a -- there is a dry hole in the Tipperary well on the Section 4.

Q Within your 80-acre tract there is not a dry hole, is there?

A No, sir.

Q There is nothing which you can demonstrate to show that your acreage is other than productive.

A Yes, sir, that's correct.

Q And how does that differ from the Phillips acreage? They've got a dry hole right in the middle of it, don't they?

A Yes, sir.

Q What conclusion do you reach from the dry hole in the middle of your 80-acre tract?

A Well, in the middle of their acreage, that would indicate a zero contour line or no pay.

Q That's as good as it gets, isn't it?

A Yes, sir, that's as good a control as you can have.

MR. KELLAHIN: Nothing further.

MR. CATANACH: Anything further of the witness?

He may be excused.

Anything further, Mr. Kellahin?

MR. KELLAHIN: No, sir. We're prepared for closing arguments, Mr. Examiner.

MR. BRUCE: We're agreed. We've gone on long enough so I won't drag this out too much longer.

Phillips seeks to drill a well at what Exxon considers a very unorthodox location, 330 feet from one lease line and 150 feet from the other lease line. They seek to do this with essentially no penalty other than the reducing the allowable to one allowed for a 40-acre non-standard unit.

They did this by calculating a penalty of 49 percent based on his double circle technique and then applied this to the top allowable for an 80-acre unit.

Exxon submits that this method is improper in this case due to, number one, the large amount of nonproductive acreage in the standard 80-acre unit that is the south half of the southwest quarter of Section 4, and number two, any penalty cannot be assessed against the top 80-acre allowable since this only a 40-acre non-standard unit.

As an alternative Exxon feels that it is necessary in this case for the protection of the correlative rights of the other interest owners, to follow

the penalty assessement method previously used in Order Nos. R-8162-A and R-8239.

These orders assessed a penalty or allowable, if you will, for an unorthodox well location based on productive acreage in the well unit.

Exxon believes that the evidence shows that there's only approximately 15 acres in the unit which are productive; therefore an allowable of 15 divided by 80, or 18.75 percent should be allowed, and this allowable should be assessed against the maximum of 223 barrels of oil a day, due to this being a nonstandard 40-acre unit.

That's all.

MR. CATANACH: Thank you, Mr. Bruce.

Mr. Padilla?

MR. PADILLA: Mr. Examiner, we have basically used the same information presented by the applicant in this case to show that there is -- that the application should be denied on the basis that they have, we believe, every reason that Phillips should drill a good well on their acreage.

All you have to do is eyeball the location of the wells to see that the unorthodox location requested is grossly out of proportion with other wells

in the pool. There are no topographical conditions or any other type of geology which would indicate that the non-standard location is necessary.

Somehow the applicants seem incredulous that we would -- that Mr. Groce would testify that he thinks that the 80-acre proration unit operated by Barbara Fasken is fully productive. On the other hand they themselves say that all of their 40-acre tract is going to produce. They have been unable to tell us how much it's going to produce west of the zero line as drawn by them.

I think one of the witnesses this morning said that he drew -- I think it was the geologist said that he drew those contour lines very conservatively.

Well, our position is that he drew them conservatively towards the applicant, not towards anybody else. I made a point this morning that -- a question that I withdrew that it was an advantageous type of position which they have taken, not conservative, and I think it is entirely correct.

If it were conservative, they would have drawn their well to be not to go the other way. It just simply favors the applicant in this case tremendously.

We have shown by the evidence

that Phillips has presented that their correlative rights would be protected if they drilled a well and the basis for this is that they are saying that the entire 40 is going to be productive. They have under the special rules for the Shipp-Strawn Pool the authority to place their well 150 feet from the center of that quarter quarter section and I think if they placed their well right at the radius of that 150 feet, they would obtain a productive well and still be a standard well.

Accordingly, we believe that the application ought to be denied and that if at all, if the Commissioner, if the penalty -- or the Division feels that the nonstandard location ought to be approved, then we request that the stiffest penalty be applied against the proposed well location.

MR. CATANACH: Thank you, Mr. Padilla.

Mr. Kellahin.

MR. KELLAHIN: Thank you, Mr. Examiner, we appreciate the opportunity to be before you today.

We'd like to request an opportunity to prepare you a draft order in this case in which we will propose some paragraphs that apply a standard penalty factor to the Phillips application.

We generally concur in how Mr. Andrews has adjusted the penalty factor and arrived at an allowable limitation, but we propose to draft you an order and set forth the specific language.

I find myself in some quandary today. I reprsented Phillips Petroleum before the Commission for probably fifteen years, and my dad fifteen years before then, and one of the very first witnesses I ever had here was Mr. Mueller, who has been coaching us all today as he coached me many years ago, and his fellows that are working for him have done an interesting thing with their exhibits. The volumetric calculation is optimistic and an generous as any engineer could draft and yet that's not enough. They want some more and the penalty that they show you informs of that exhibit; has no relationship to the evidence before you.

And as much as I like Mr. Mueller and Phillips Petroleum, I guess I'm thankful that the week before Thanksgiving they have brought us a big, fat turkey, and we have killed it today; we have cleaned it; we have cooked it; and we have cut it; and now is the time to go home and do something else because this is over.

MR. IVES: We thank Mr. Kellahin for his histrionics. My closing will be a little bit more conservative.

This is a simple case of correlative rights. As that term is defined by this Commission, it means the opportunity afforded to each property owner in a pool to produce without waste his just and equitable share of reserves in that pool.

Phillips has shown calculations using standard and accepted methods to calculate reserves under the tract at issue.

Phillips has shown that all it seeks is an opportunity to produce those reserves that underlie its property. It has shown that the proposed well location will allow it to produce its fair share while minimizing the risk associated with drilling an unprodutive well and an unproductive well has already been drilled on that property, a noncommercial well.

Every acre of the 40 acres will probably contribute reserves to the well, notwithstanding Mr. Kellahin's reference to the dry -- not the dry well, but his reference to the JSN-1 Well as a dry well; it simply was a noncommercial well, not a dry well.

Thus Phillips is not asking for anything extraordinary or unreasonable. It is of note that unorthodox locations are not unusual in this pool. Exxon presently has what is de facto an unorthodox well under the current pool rules and I believe that even Pennzoil is seek-

ing essentially the same thing as is sought by Phillips here in a hearing which is to proceed before the Commission on tomorrow's docket, and I suppose I should ask this body to take judicial notice of the proceeding in Case Number 9003, which is Pennzoil's application for simultaneous dedication.

With regard to the nonstandard unit question, this tribunal has held two orders to show cause this morning why spacing should not be on 40 acres. This is exactly what Phillips is seeking here, though with very particularized reasons. As shown by the exhibits and the testimony, the southwest quarter of the southwest quarter of Unit 4 is geologically condemned with insufficient porosity to produce or support a commercial well.

To not grant the nonstandard unit -- spacing unit which Phillips seeks would be in (unclear) of Phillips correlative rights and result in the unjust enrichment of Yates in particular, thus the nonstandard spacing unit is not only not unreasonable but is called for in this circumstance.

And finally, Phillips has in good faith demonstrated by the testimony presented on the penalty question, and has established that the penalty that should be imposed is simply based on dedicating 40 acres to the unit.

While on the one hand the loca-

tion proposed is necessary for Phillips to produce its fair share of reserves, protect correlative rights, and prevent waste, the penalty proposed on the 40-acre allowable would prevent Phillips from gaining undue advantage over other operators in the pool.

It is of note, perhaps, in connection with Exxon, that they are essentially seeking -- well, the only word that comes to mind is to be greedy here. They have the de facto unorthodox location in the pool at the present time. They have admitted that there is drainage from this well of the reserves under the Phillips property and yet they want to impose a penalty based on 80 acres in the unit but also on only a 40-acre depth bracket allowable. It seems strange that they point the finger towards Phillips and contend that it is being unreasonable in the circumstance.

Based on all the above and the testimony and exhibits presented here today, Phillips would ask the tribunal to grant its application for the nonstandard spacing unit and also for the 40-acre allowable in this case.

Thank you.

MR. CATANACH: Thank you, Mr. Ives.

Mr. Ives, would Phillips like

to submit a rough order also in this case?

MR. IVES: Certainly would.

MR. CATANACH: Is there anything further in Case 9036?

MR. IVES: There was one additional matter. I spoke with Mr. Bruce about the exhibit which Mr. Andrews was marking on. Apparently that was not the exhibit which had been given to the tribunal and he has agreed to put the exhibit which Mr. Andrews made his markings on in as part of the record in this case.

MR. CATANACH: Okay.

MR. BRUCE: It was Phillips Exhibit Number Two and we'll just hand mark it as Exxon Exhibit Number One.

MR. CATANACH: All right, Exxon Exhibit Number One will be admitted into evidence.

Is there anything further in Case 9036?

If not, it will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

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

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9036, heard by me on November 19 1986.

David R. Catanach, Examiner
Oil Conservation Division