STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF CONOCO, INC., FOR THE ADOPTION OF SPECIAL POOL RULES FOR THE WEST MALJAMAR-DEVONIAN POOL, LEA COUNTY, NEW MEXICO

CASE NO. 11,773

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

May 1st, 1997

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, May 1st, 1997, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

May 1st, 1997
Examiner Hearing
CASE NO. 11,773

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A P P E A R A N C E S

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* * *

WHEREUPON, the following proceedings were had at 9:21 a.m.:

EXAMINER STOGNER: I believe at this time we need to call Case Number 11,773, which is on the third page.

MR. CARROLL: Application of Conoco, Inc., for the adoption of special pool rules for the West Maljamar-Devonian Pool, Lea County, New Mexico.

EXAMINER STOGNER: Call for appearances.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the Santa Fe law firm of Kellahin and Kellahin, appearing on behalf of the Applicant, and I have two witnesses to be sworn.

EXAMINER STOGNER: Any other appearances in this matter?

Will the witnesses please stand to be sworn?

(Thereupon, the witnesses were sworn.)

EXAMINER STOGNER: Mr. Kellahin?

MR. KELLAHIN: Mr. Examiner, we're before you this morning to ask you to consider our request to adopt special pool rules for the West Maljamar-Devonian Pool.

We have excluded from our request at this point the creation of the pool and the discovery oil allowable, because those items have been filed administratively with the Division.

On February 25th, Conoco filed with the

Division's Hobbs Office a request for a discovery oil allowable for the Elvis Well Number 1, the discovery well, and the assignment of a discovery allowable.

It is our understanding that the new pool creation and the discovery allowable were docketed on the Examiner docket in the nomenclature case for April 17th. I do not believe an order has been issued in the nomenclature.

EXAMINER STOGNER: Let's see, that was April 17th. You're referring to case 11,765?

MR. KELLAHIN: Yes, sir.

EXAMINER STOGNER: Let's see, and that would have been the creation -- Here it is, I believe, subpart (e), creation of a new pool, classified Devonian, West Maljamar-Devonian Pool, the Conoco, Inc., Elvis Well Number 1.

MR. KELLAHIN: Yes, sir, that's the case.

EXAMINER STOGNER: I've got to hear this one. All right. In Unit F of Section 20, 17 South, Range 32 East. And that includes, and I guess still does, the northwest quarter of Section 20 of 17-32?

MR. KELLAHIN: Yes, sir.

EXAMINER STOGNER: And it was assigned a discovery allowable.

I'll take administrative notice in Case Number 11,765 and also take administrative notice of any order

issued in that.

MR. KELLAHIN: Thank you, Mr. Examiner.

So that you'll have an opportunity to see the entire case, we have asked our geologic witness to bring the geologic information so that you can see the technical basis for the creation of the pool and the separation of this Devonian pool from other Devonian pools.

In addition, we're going to ask you to grant us authority to create special rules, including 160-acre spacing. We would ask for a limitation of a single well in the 160-acre spacing and proration unit.

We will ask for the flexibility of having well locations no closer than 330 to the side boundaries of any quarter-quarter section.

We would use the gas-oil ratio in the statewide book of 2000 to 1, and we're asking for a special depth bracket oil allowable of 900 barrels of oil a day, and that we would ask in addition that any well drilled or completed within a mile of this discovery be included and subject to these rules.

I have two witnesses, a geologic witness and a reservoir engineer.

EXAMINER STOGNER: Okay, back to that last statement you made, that was --

MR. KELLAHIN: Yes, sir.

EXAMINER STOGNER: -- the standard mile?

MR. KELLAHIN: That's the standard rule.

EXAMINER STOGNER: Okay. So that's really nothing special?

MR. KELLAHIN: No, sir.

EXAMINER STOGNER: Okay. All right, Mr. Kellahin.

MR. KELLAHIN: Mr. Examiner, Exhibit 1 is a companion of Exhibit 13, which I'm about to hand you, and that's our certificate of notification. Exhibit 1 in the exhibit package is a locator map.

For purposes of notification, we've notified the operators within a mile of the discovery well. Exhibit 1, the discovery well is the black dot numbered "1" in the northwest quarter of 20.

The black dot numbered "2" in 17, we'll discuss, but that's another well in this pool.

All right, if I may begin, sir.

ANDREW G. COLE,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Would you please state your name and occupation?

A. My name is Andrew Cole, and I'm a senior

geophysicist.

Q. Mr. Cole, on prior occasions have you testified before the Division?

A. I have not.

Q. Summarize for us your education.

A. Education, I received a BA from Miami University of Ohio in 1988 and a master's of science from Wright State University in 1991.

Q. And where do you reside?

A. Midland, Texas.

Q. Summarize for us your employment.

A. I'm employed by Conoco, Incorporated.

Q. In what capacity?

A. As a senior geophysicist for the Midland Division.

Q. As part of your responsibilities, have you have you been involved in analyzing the geology and the geophysical data that's relevant to this discovery well?

A. I have.

Q. And based upon that study, have you reached conclusions and opinions concerning this reservoir?

A. I have.

Q. As part of your study, have you prepared geologic illustrations and displays for Mr. Stogner to consider?

A. Yes, I have.

MR. KELLAHIN: We tender Mr. Cole as an expert witness.

EXAMINER STOGNER: Mr. Cole is so qualified.

Q. (By Mr. Kellahin) Let me turn, just for the record, and have you identify Exhibit Number 1.

A. Exhibit Number 1 is the Elvis leases and offset operator map. The blue outline is the West Maljamar-Devonian Pool, which Elvis Number 1 is located in.

Q. The color codings represents what, Mr. Cole?

A. Indicates different leases.

Q. And the black dot, Number 2, in the southern portion of 17 represents what?

A. That is our Elvis Number 2 well, which is currently drilling.

Q. All right, that's a drilling well and you've not yet completed it.

A. No, we have not. We're approximately three days from the Devonian.

Q. All right. Let's set that locator map aside for a moment, and let me have you unfold Exhibit Number 2, give us a chance to get it unfolded, and then we'll talk about it.

Before we discuss the specifics and I ask you your conclusions, give us an introduction and describe for us what it is that we're seeing when we look at Exhibit

Number 2.

A. Exhibit Number 2 is a structure map on the Devonian, created from a 3-D seismic survey. Contour interval is 50 feet. It shows the location of the larger Baish feature in Section 22, 27, surrounding sections, and the west Maljamar feature, which is currently producing from the Elvis Number 1 in Section 20 and Section 17.

Q. Does this represent your work product?

A. Yes, it does.

Q. How did you generate this map?

A. This was generated from a 3-D seismic survey and using the deep penetrations to depth convert.

Q. And did you analyze that 3-D seismic information?

A. I did.

Q. The Devonian depth map is an illustration of what, sir?

A. The depth to the Devonian and subsea --

Q. You're looking at the top? Are we contouring what you would identify to be the top of the Devonian?

A. We are -- Yes, the top of the Devonian, immediately below the Woodford Shale, showing the two different structures, the larger Baish feature, a low or a trough, and then the satellite feature to the Baish, which is the West Maljamar field.

Q. Describe for us what's the -- the color coding.

How do we understand and interpret the color coding?

A. The lighter greens are high, with the darker blues and purples lows.

Q. In addition to the geophysical data, were you able to obtain and use any conventional geologic information?

A. Yes, there are wellbores that penetrate the Devonian in the area, and those were used in the mapping.

Q. Let's turn to the eastern portion of the display and look in Section 22. There is a black dot representing a well symbol?

A. Correct.

Q. Identify the well for us and tell us the type of well at this location?

A. This is the Baish B 12, which has been renamed to the Baish B 5. This was a current Devonian producer, or was currently producing from the Devonian. It is currently plugged. It produced 487,966 barrels of oil, approximately 15.1 million cubic feet of gas, and 5.1 million barrels of water.

Q. Are there any other Devonian wells, other than that well and the discovery well, on this map that were drilled and completed to be productive in the Devonian?

A. No, there was not.

Q. Are there other source points of data for you in

this area of Devonian attempts, which were not successful?

A. Yes, there are.

Q. And how many of those are there?

A. There are approximately four, one in Section 22 --

Q. They're not physically shown on this display, are they?

A. No, they are not.

Q. Let's identify them for the Examiner.

A. There's a well in Section 22, in the northwest quarter, the Baish Federal B 1, which penetrated the Devonian and was wet; the MCA Unit 303 well, which is located in the southwest quarter of Section 20, the same section as our Elvis Number 1, which was also wet; and I believe there is a well that Conoco is not associated in Section 19 that was also drilled wet.

Q. Apart from the fact that those wells don't appear on this display, you've physically used all available --

A. Yes.

Q. -- information to attempt to verify the reliability of your seismic interpretation?

A. That is correct. This is the Baish feature and the West Maljamar feature. It is located under the MCA unit, which is a shallow producing field on 20-acre spacing. Those are not shown on the map. Those were used

in the depth conversion, as well as the deep wells.

Q. Okay. The nearest known production, then, to the Elvis discovery well in the northwest of 20 is the Baish well in the southwest of 22?

A. That is correct.

Q. Have you concluded that the Elvis 1 is in a separate Devonian reservoir, independent of any other existing Devonian production?

A. I have.

Q. How did you reach that conclusion?

A. From the mapping, the structural mapping, the seismic.

Q. All right, give us the reasons, then, for the separation.

A. Separation is that you have a large horst-type feature, separated by a low and what we are calling a satellite feature to the Baish feature, the Maljamar West Pool.

Q. When I look at the area shaded the lighter green color around the Elvis 1 and move to the southeast, it appears to be fault-separated from what might be additional Devonian reservoir.

A. That is --

Q. Do you see what I'm talking about?

A. Yes, I do. That is correct. And that is how it

is mapped.

Q. All right. What is the distance of vertical displacement of that faulting in there that separates that small portion of the Devonian reservoir in the southeast from that in the northwest? Is there a displacement to this fault?

A. There is. The displacement varies along the fault, as is shown, anywhere from 100 feet to plus 250 feet along that fault.

Q. Is that a sufficient displacement of the reservoir to constitute a barrier to flow between the two portions of the Devonian?

A. Yes, it is.

Q. Let's concentrate, then, in the northwest quarter. What gives you an indication of the size and potential shape of the Devonian reservoir for the discovery well?

A. That once again came from a 3-D seismic survey. We mapped out closure on the Elvis structure along the fault, and you lose closure as you come off the fault.

Q. Am I correct in understanding that this is your best approximation of the reservoir limits but should not be taken as a precise scientific measurement of that physical boundary?

A. That is correct. As we get more data, it will be

updated. The Elvis Number 2 will be another real point as we penetrate the Devonian, and the map will be updated.

Q. Okay. Did you bring some logs of the discovery well so we can talk about what the reservoir looks like?

A. Yes, I did.

EXAMINER STOGNER: Mr. Kellahin?

MR. KELLAHIN: Yes, sir?

EXAMINER STOGNER: If I may interject, before we leave this particular exhibit, just a few points I want to make sure I'm clear, if you don't mind.

You had mentioned, I thought, there were four deeper wells in which you had gotten information of, and you mentioned the one up in the northwest quarter of Section 22.

THE WITNESS: Correct.

EXAMINER STOGNER: I believe that was the Baish B 3?

THE WITNESS: The Baish Federal B 1.

EXAMINER STOGNER: B 1, okay. And then you mentioned one that was in the southwest quarter of Section 20 --

THE WITNESS: Correct.

EXAMINER STOGNER: -- to the south of the Elvis Number 1. And then you said there was a well in 19 somewhere?

THE WITNESS: Yes, there's --

EXAMINER STOGNER: That's only three. Where is the fourth one?

THE WITNESS: The Baish B 12 is the fourth --

EXAMINER STOGNER: Oh, okay, you were -- the one that is marked, that's one of your four?

THE WITNESS: Correct.

EXAMINER STOGNER: The one in 19, do you have a -- can you narrow it down to a quarter section?

THE WITNESS: No, I cannot.

EXAMINER STOGNER: How about a half section?

THE WITNESS: It would be in the southern half of 19.

EXAMINER STOGNER: Southern half?

MR. KELLAHIN: Mr. Examiner, we can supply the specific well name and location after the break.

EXAMINER STOGNER: That won't be necessary. I just wanted to clarify that. He had mentioned 4, and I thought I had missed some somewhere.

And with that, thank you for allowing me to get that in there. I'll turn it back over to you, Mr. Kellahin.

Q. (By Mr. Kellahin) Let's turn to look at the logs, Mr. Cole, so that we can see what the logs indicate about the Devonian Pool. If you'll start with Exhibit

Number 3?

A. Exhibit Number 3 is a compensated neutron log. I've shown the top of the Devonian on this log, as well as the perf'd interval, and submitting this to indicate the problem with typical log calculations and the nature of the Devonian reservoir.

Q. All right, let's do that. If you'll turn the log section down, fold it down so you get the top of the Devonian. If you fold out the next two folds you'll see some perforations shown.

Let's take this portion of the log and have you explain to the Examiner what has caused you to conclude that this type of log is not a useful tool to make judgments about the quality or the potential geologic reservoir values for the Devonian.

A. If you look on the log, on the caliper log, the right-hand display, you'll note there are frequent washouts in the Devonian. And if you note on the compensated neutron density log, you do not get usable data in those washouts. It is a problem with the pad hitting the formation, and you get the same problem with the resistivity tool. The pads do not contact because of the karsting, the vuggy, the cavernous porosity that you encounter in the Devonian here.

Q. Is there another type of log that gives you

reliable geologic data from which you can make an analysis of the Devonian?

A. Yes, there is, and that is submitted as Exhibit Number 4, CBIL imaging tool.

Q. Let's look at that exhibit.

A. This, if you're not familiar with the imaging tool, it's an acoustic imaging tool which is not a pad-type of device.

I have marked the perforated interval and the top of the Devonian. The scale is very different; it is one foot interval. You'll notice that what is marked as the ten-foot intervals. It's quite a large display.

EXAMINER STOGNER: It's almost to scale, but not quite, huh?

THE WITNESS: Almost.

EXAMINER STOGNER: Okay.

THE WITNESS: The top of the Devonian, once again, is marked -- that is, the base of the Woodford -- and --

Q. (By Mr. Kellahin) Let's start with the top of the Devonian, then, and at that point in the log interpret it for us as we move downward, first of all starting with the significance of the color shading. When we get to the dark, intense shading, what are you seeing?

A. What you're seeing with the acoustic imaging

logs, whether they CBIL or otherwise, the dark indicates void, or lack of rock, and the white indicates formation.

You have two displays: the reflectance, which is simply a reflection, and travel time, which is travel time out into the formation and back. And where you get dark shading in both is a fairly reliable indicator of vugs, void, cavernous-type porosity, depending on the size of that interval.

The top of the Devonian, which is the base, you do have reservoir, you're coming into the Devonian. As you move down through the interval you encounter vuggy, porous porosity, from approximately 13,720 down to 13,740. You then encounter a tight lime interval, which is also indicated on the density neutron log. You do have formation there, and you are getting returns.

Beyond that, you run into a vuggy, cavernous from 13,760 to 13,770, and deeper you run into a very karsted formation, fractured formation.

If I can draw your attention to approximately 13,788, on the right-hand travel-time display, there is a sinusoidal-type image there.

EXAMINER STOGNER: 13,788?

THE WITNESS: 13,788.

EXAMINER STOGNER: Okay.

THE WITNESS: You see that there is curvature, a

sinusoidal wave type on the right-hand display. That indicates fracturing. And as you move up and down through this interval, through the Devonian where we've taken the CBIL log, you find this fracturing throughout. At 13,790 you see that sinusoidal also.

Q. (By Mr. Kellahin) The only perforations currently in this well are located below 13,770?

A. That is correct.

Q. And they're shown on the log?

A. Yes, we have three feet of interval perforated.

Q. Have you estimated the total height available in this wellbore in the Devonian?

A. We've estimated that at 50 feet from the CBIL log, 50 feet of connected porosity.

Q. Is that 50 foot taken from the top of the Devonian in this well, all the way down to some base interval?

A. That's taken from the top of the perfs and down.

Q. Okay. From the top of these perfs down, what is the gross interval that you get the 50 feet for? All right, when I add up the total potential height of the pay in the Devonian --

A. Correct.

Q. -- below these top perforations, is there a net height that I'm working with over a gross height interval?

A. The net height over gross would be approximately one to one because of the interconnectedness of the fractures and the vugs.

Q. Okay.

A. There is additional pay above, as I mentioned earlier, above what we have perforated. There is that tight lime interval, and then you move up into a shallower, vuggier zone, which is not currently open.

Q. That was to be my point. The fact that you perforated just three feet of pay in this second pay interval down, package interval, is not an indication that that's the only pay interval?

A. That is not.

Q. There is an opportunity to produce Devonian oil in this well, in this first Devonian pay interval?

A. That is correct.

Q. And you're in this second one down?

A. We're in the lower zone.

Q. Is there yet another one below the interval in which you're perforated?

A. I suspect there is if we are not connected with it now. We have drilled 200 feet into the Devonian, and throughout on the CBIL log we encountered this vuggy, karstic reservoir, which seems to be fractured throughout.

Q. As a geophysicist, do you have a recommendation

to the Examiner as to the appropriate initial spacing pattern, the well density pattern, if you will, in order to give yourself the best chance for appropriate development of a Devonian pool like this?

A. A Devonian pool is interconnected at this, and with the pressure that we have, which is going to be submitted later, 160 seems appropriate, 160-acre seems appropriate. Nothing less than that, certainly.

Q. All right. If you're dealing with less than 160 acres, what is your objection to having more than a single well per 160?

A. Having more than a single well per 160, you would be actually just increasing -- you would not be developing it; you would just be accelerating your production at an additional cost.

Q. The composition and character of the reservoir is such that at least up to 160 acres, a single wellbore would be connected in that reservoir package?

A. That is my understanding.

Q. All right. If we move to the next regulatory level of spacing 320, would that be too large in your sense? And if so, why?

A. That would be too large, and my understanding is that at that point you're going to reach some small fractures that you can see on the seismic that are not

posted on the map, and there will be some compartmentalization which we're seeing between the upper and lower level at that point. It's very likely that you will not be draining 320 feet [*sic*] with this well.

Q. Geologically, then, at some point where you get beyond 160-acre spacing, you'll need another well to get into another Devonian package, if you will?

A. Correct.

Q. Is that a way to understand why Conoco has chosen to drill the Elvis 2 in the south half of 17?

A. That is. That was our next standard location to develop this structure. We would not develop it any closer than that, with our understanding of the Devonian?

EXAMINER STOGNER: Would you repeat that question and answer again?

MR. KELLAHIN: Sure.

Q. (By Mr. Kellahin) My question for you was, your belief and conclusion that two wells on a 320, in, in fact, 160 spacing, was appropriate because you would be in a slightly different combination of Devonian packages?

A. Correct.

Q. And did that form the basis, then --

A. It did.

Q. -- for the decision to locate the Elvis Number 2 well in what you think is the same reservoir with the Elvis

1? A. Yes, it was. Q. And would those two wells then be competing to rate-accelerate the same reserves? A. No, they would not. Q. It would be an additional necessary well? A. Correct. Q. And you can make that conclusion, not as an engineer but as a geophysicist in a geologic sense? A. Correct. Q. Okay. Have you studied other Devonian pools? A. Yes, I have. I've been associated with the Bell Lake structure in the Delaware Basin, as well as the Dean Deep Devonian penetration below the Woodford. Q. Give us a geologic summary, then, of the major geologic components or characteristics that you see concerning this pool. A. The Devonian reservoir is a karsted, vuggy -- It's explained to be subareally exposed reservoir, very interconnected. Q. Is there -- Is it appropriate, in your opinion, to have flexibility in terms of well locations? A. Yes, it is. Q. So that you would have the opportunity to be closer to a side boundary than might otherwise be

permitted?

A. When developing off of 3-D seismic, you are pinpointing locations. So yes, it is.

Q. Okay. We have sought a flexibility factor of 330 setbacks from the quarter-quarter lines of a spacing unit. In your opinion, would that be appropriate here?

A. Yes, it would.

EXAMINER STOGNER: Say that again, Mr. Kellahin?

MR. KELLAHIN: Yes, sir.

Q. (By Mr. Kellahin) When you're looking at the 3-D information in trying to pinpoint well locations, if we were on some of the conventional rules -- for your information, if it was on 80-acre spacing the Division often requires you to be within a certain footage of the center of a 40.

A. Correct.

Q. It's sometimes 150 feet from the center of a 40.

The Application on behalf of your company has asked for 330 setbacks, which would give you a wider drilling window.

My question for you, sir, is it appropriate in this pool? And if so, why?

A. It is appropriate, because we are pinpointing locations off of 3-D seismic. We are locating the well in the best possible location to recover reserves.

Q. If it's determined that you want to drill on the opposite side of a fault from the Elvis well -- Perhaps that's an illustration; I don't know if you'd do it or not. But it appears to me that your best location may be, in fact, unorthodox if you did not have a 330 setback.

A. Correct.

Q. Is that -- All right.

A. That is correct. That is a possible location. You would certainly have to put volumetrics to it, to find out if it's economic. But that is an example, to where you would want that.

Q. All right. The status of the Elvis 2 well, it's being drilled and you're going through a testing process now, I guess?

A. We are currently just above the Devonian, we are currently drilling.

Q. All right.

A. We are in the Mississippian. We should, by this weekend, have encountered the Woodford and be on our way into the Devonian.

Q. All right. So we don't have information now to give us any indication of what else to do about the pool?

A. No, we do not.

Q. Do you have a recommendation to the Examiner as to a temporary period in which to establish these rules for

the pool after which you would be required to report back to the Division and show what's happened?

A. An 18-month period would be adequate for us to test our recommendations and to come back and present what we have found and further recommendations.

MR. KELLAHIN: Mr. Examiner, that concludes my examination of Mr. Cole.

We move the introduction of the exhibits he sponsored, which were 1 through 4.

EXAMINER STOGNER: Exhibits 1 through 4 will be admitted into evidence.

EXAMINATION

BY EXAMINER STOGNER:

Q. In referring to Exhibit Number 2, can I get some idea of, perhaps, the extent of this reservoir, or is that -- can that be determined with the seismic information that you -- with this information that you have presented?

A. The West Maljamar reservoir?

Q. Yes.

A. The extent of the reservoir, as we have it mapped, would be just beyond that 900, 850 subsea closure. That is where we find closure on that fault.

Q. Yeah, I want to make sure I'm at the right contour. That was the 7- -- I'm sorry, the 900, 850?

A. Correct, just beyond --

Q. So it's between the sort of the sky blue and then the darker blue?

A. Correct.

Q. That sort of juts up at the Section 17 and the comes down at Section 20 and connects the fault at the said point?

A. Yes, that's correct.

MR. KELLAHIN: Make sure we're looking at the same thing.

THE WITNESS: That is where we have closure on the fault. Beyond that we do not have closure, and you would not have the oil being trapped in this structure.

Q. (By Examiner Stogner) Do you foresee these to be the only two wells to be drilled in this reservoir?

A. Right now, we do, depending on the height of the Elvis Number 2 well, possible northern location. If the Elvis Number 2 comes in higher than we have mapped it, that would change the depth conversion and there could possibly be a well to the north.

The Baish feature is something entirely different as far as the development of that.

Q. Okay, you're proposing that each 160-acre unit be limited to just one well; is that correct?

A. Correct.

Q. And that you see, if we developed on the present

rules and regulations, 40 acres, I understood you to say that it wouldn't really be developing the pool but would just accelerate --

A. You would be accelerating the reserves at a very high cost. These are deep, expensive wells.

Q. Is one well per 160 -- will that be able to adequ- -- or drain the same amount, let's say, that four wells, or four of these unnecessary, three unnecessary wells would be in the same area, 160?

A. I believe that to be so.

Q. Okay. So drainage would not be affected?

A. No, it would not.

Q. Okay. So you're looking at more of the drilling of unnecessary wells and the cost factor; is that correct?

A. Correct.

Q. Okay. When you say you're pinpointing locations to drill, what actually are you looking for, other than -- I mean, are you looking for just the vugular space and fractures?

A. We're looking for structure.

Q. Okay.

A. We believe the reservoir, probably beyond our closure here, has that vuggy, karstic porosity. But you do not have closure, you would not have the oil trapped; it would be leaking off.

Q. Would water be taking its place?

A. There would be water below, yes. This is a -- The understanding of the Devonian out here is that it is a water-drive reservoir. So yes, you would have water taking is place. We are producing water out of the Elvis Number 1.

Q. So this is a -- Is that the only mechanism, as you understand -- You'll probably have an engineer --

A. Yes, and that can probably be better addressed by our reservoir engineer. But water drive seems to be the main component, but I will defer to Paul.

Q. Okay. In pinpointing and then allowing also this flexibility that you're requesting for the 350, you could potentially have a situation where two wells, I guess, in this trying to pinpoint, would be only 660 foot apart. Would there be a detriment to that, as you see it?

A. I see them draining two separate, closed reservoirs. I don't see that being a detriment.

Coming back to the fault in the middle of Section 20, I believe that to be a separate closed reservoir, fault-separated, and you would not be draining -- If we were to put a well in there, we would not be communicating with the Elvis Number 1.

Q. Thinking positively, I'm going to refer to Exhibit Number 1, and hopefully this closure goes further

up here and hopefully that's what you will find. But you would not see a problem, should this scenario occur -- I'm being hypothetical, but a very real incident in this particular instance, that closure goes up there and takes in that corner where 8, 9 and 17 and 16 meet --

A. Eight -- Yes.

Q. -- would there be any detriment in having four wells all congregated within that quarter section with this type of a reservoir?

A. There would, unless they are separated by faults, which currently we have that mapped as a low. But that would be a detriment. Assuming that this structure -- you just enlarge the West Maljamar structure and just make it bigger to incorporate those corners --

Q. Yes.

A. -- that would be a detriment.

Q. How would it be a detriment?

A. You would be draining each other. Does that make sense?

Q. Yeah, and that's what I was trying to get at. Because of flexibility, one, would you want to want to get away from that type of a scenario?

A. As we have it mapped, we don't see that scenario occurring.

Q. As you have it mapped presently?

A. Presently. The -- As we have it mapped presently. That is a low.

Q. Well, let's take a look at that scenario. Would it be a detriment? Sure, it would be a detriment to Conoco, because Chevron would be --

A. Well, I think --

Q. -- producing from that area.

A. Well, what you would be doing is draining a very small area with four wells.

We feel, as we have it shown, that on the 160s as we have now, that is adequate drainage.

If you put two wells between those other wells, you're not draining any more reservoir; you're just accelerating the production at an extremely high cost.

Q. Okay. So when you use the term "detriment" in this particular instance, you would see it as the unnecessary wells --

A. That is correct.

Q. -- as opposed to one having advantage over the other?

A. Yes, I see it as a detriment --

Q. One is not draining any more; they would be draining --

A. -- the same --

Q. -- an accelerated --

A. That is correct.

Q. Okay.

A. I imagine at that point that none of the wells would pay out. Well, I say that -- those are expensive -- You are at over 14,000 feet, and that is a huge cost. So...

With the Elvis Number 2, I see the surface location changing by no more than 20 to 30 feet with the velocities that we have, the top of the Devonian at the Elvis Number 2, and that would still -- the Elvis Number 2 location that we are currently drilling.

Q. Okay, you lost me on that one.

A. Okay.

Q. You didn't see a what?

A. Okay, at the Elvis Number 2 we take the time from the seismic and we apply a velocity to it, to get back to the actual depth. And at the Elvis Number 2, I don't see that location changing by any more than 50 feet, which would still put that scenario way low, outside of closure. Is that clear?

EXAMINER STOGNER: Yeah, I was --

THE WITNESS: Yeah, I took a big jump.

EXAMINER STOGNER: -- thinking of drilling but you got me back on the right track, just like the detriment. I was off on another thing, but you pulled me

back. Yes, okay.

I don't have any other questions of this witness. Any other questions of Mr. Cole?

MR. KELLAHIN: No, sir.

EXAMINER STOGNER: I'll tell you what, at this time let's take about a five- to ten-minute recess. At this time if you'll have Mr. Cole get with Steve --

MR. KELLAHIN: -- and spell --

EXAMINER STOGNER: Yeah, and spell all these words that -- And with that, we'll go into a five- or ten-minute recess.

(Thereupon, a recess was taken at 10:06 a.m.)

(The following proceedings had at 10:23 a.m.)

EXAMINER STOGNER: Hearing will come to order.

Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Examiner.

EXAMINER STOGNER: Thank you for your patience on -- I apologize about this.

MR. KELLAHIN: All right, sir.

PAUL SCHULZ,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Would you please state your name and occupation?

A. My name is Paul Schulz, S-c-h-u-l-z. I'm employed by Conoco, Inc., as a reservoir engineer in its Midland, Texas, office.

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

A. No, I have not.

Q. Summarize for us your education and your employment.

A. I graduated from New Mexico Institute of Mining and Technology in May, 1977, with a bachelor of science in petroleum engineering. I was employed by Conoco as a standard petroleum engineer in June of 1977, and I've worked in that capacity since that time.

Q. The microphone in front of you does not amplify your voice, and so you'll have to speak up.

A. Okay, I apologize.

Q. It's just for the -- It's for the court reporter.

A. Okay.

Q. You will not have to lean forward; he's got an amplifier there.

A. Okay.

Q. Have you done the reservoir engineering for the discovery well that we've been talking about this morning?

A. Yes.

Q. And based upon that reservoir engineering, do you

have, now, engineering conclusions and opinions and recommendations for the Division Examiner about special pool rules?

A. Yes.

MR. KELLAHIN: We tender Mr. Schulz as an expert petroleum engineer.

EXAMINER STOGNER: Mr. Schulz, what years were you down at Socorro?

THE WITNESS: I was down in Socorro from 1973 to 1977.

EXAMINER STOGNER: Did you associate or know Mr. Roy Johnson in the geology department or -- geology student?

THE WITNESS: I -- The name does not ring a bell.

EXAMINER STOGNER: Okay. In that case, you -- I'll accept your credentials.

MR. KELLAHIN: Mr. Johnson was enrolled, but he never went to class, if I remember correctly.

EXAMINER STOGNER: Please, let's get...

Q. (By Mr. Kellahin) Let's look at Exhibit Number 5, Mr. Schulz.

A. Okay.

Q. This is a summary of well data, reservoir data and your fluid data?

A. Yes, it is.

Q. All right. Let's start with the PVT data. You've taken fluid samples and the fluids being analyzed, and am I correct in understanding that you've just received your PVT data analysis?

A. Right, we received the report from Core Lab on Monday.

Q. All right. Let's give Mr. Stogner a general overview as a reservoir engineer about the reservoir, its characteristics, the drive components, and how you in your conclusion think we should best manage this reservoir.

A. Okay. Well, as indicated on the data sheet, the perforated interval we've got now is 13,771.5 to 13,773.5 feet. The initial reservoir temperature is 198 degrees Fahrenheit at mid-perf. An initial reservoir pressure for this interval was 5384 p.s.i.

The formation height of 50 feet, estimated reservoir porosity of 12 percent and initial water saturation of 30 percent were all taken from log interpretation. And I believe Mr. Cole has already indicated the difficulty of getting a precise value in those logs, so that's why they're noted that the accuracy may not be precise.

The reservoir fluid properties are kind of interesting. The oil gravity itself turned out to be 51.4 degree API at 60 degrees Fahrenheit. It is a volatile oil;

it is not a retrograde condensate, though; it is an oil.

Q. Have you examined the PVT data analysis at this point so that you are satisfied that that last statement is correct?

A. Yes, I have, and that conclusion was given to me by the Core Lab engineer.

Q. Please continue.

A. Okay. The gas gravity for the field was 1.073 at 60 degrees Fahrenheit, so it's a rich gas. Water gravity was 1.035 at 60 degrees so, you know, it's standard water.

The bubble point for the crude is 1608 p.s.i.g. out of about 190 degrees Fahrenheit, which is low. That's what they determined. At the same point in time, the formation volume factor, B_o, was determined to be 2.38 barrels per stock tank barrels, at about 5000 p.s.i.g.

Q. Describe for us the drive mechanism of the reservoir.

A. The drive mechanism appears to be a strong water drive.

Q. You're still substantially above the bubble point in the reservoir --

A. Yes.

Q. -- at this point?

A. Yes.

Q. Do you believe there's any opportunity for

concern by the regulators of forming a gas cap in the reservoir?

A. Not in this reservoir, not at this time, considering how low the bubble point actually is, we're at minimum of -- what? Probably about 3400 pounds above the bubble-point pressure at this time, so...

Q. In this reservoir you're asking to maintain the statewide GOR of 2000 to 1?

A. Yes.

Q. And that will continue to be appropriate in the reservoir for some period of time?

A. Yes.

Q. Let's talk about the water influence. You've asked for a pool allowable for spacing units of 900 barrels of oil a day?

A. Yes.

Q. Is there any concern that you have with regards to fluid withdrawals being taken too fast from the well and thereby causing the coning of water?

A. No.

Q. And why do you reach that conclusion?

A. Well, first off, I believe we are seeing strong pressure support from the aquifer, so we shouldn't see that great a depletion around the wellbore.

Secondly, I think the nature of the reservoir

itself is such that we would not be experiencing water coning in the traditional sense. That is, in the sandstone reservoirs that they usually talk about, that water will migrate up through the matrix around the wellbore. And the vugular fractured reservoir that we're experiencing here, if water coning is going to occur, it's going to occur very rapidly, in a very short period of time, simply because the water will be migrating up the fracture paths.

Q. And in fact, you've conducted production tests on the well --

A. Right.

Q. -- and what have those shown?

A. It showed that we were able to produce the well at the recommended rate of 900 barrels a day, without significantly impacting the water production rate.

Q. We're about to show the Examiner certain exhibits. Do those include some pressure buildup data and analysis?

A. Yes, they do.

Q. And what was the purpose of that work?

A. The purpose of that work was to try to get an idea of the areal extent that this well was influencing and try to also determine some basic reservoir properties regarding permeability and formation pressure.

Q. Have you been able to conclude from that data

that it's appropriate to establish initial spacing in this pool at 160 acres?

A. I believe so, yes.

Q. Let's turn, then, to the next display, Exhibit Number 6. Would you identify and describe this?

A. Okay, Exhibit Number 6 is a cartesian plot of the pressure buildup that we performed on the period from March 31st to April 2nd, 1997. The X axis indicates the time in hours of the buildup, with the Y axis indicating the pressure recorded at the pressure gauge.

Q. Of the data described on the exhibit, focus on that point of greatest significance to you as to the issues here today.

A. Well, there are a couple issues.

First off is, you'll notice that we experienced probably about 90 percent of our pressure buildup in this test in the first nine minutes, and that's indicative of a highly permeable situation.

There are some anomalies that occurred in the test. We actually saw a pressure drop immediately following that buildup, which is due more to a fluid-segregation issue.

Later on, we observed a hitch, you know, a change in the slope of the buildup. That was indication of a boundary effect, so we believe we contacted a boundary at

the reservoir.

And finally, the length of time, which will become significant later on, we did perform the buildup for 45 hours, and that helps us later on establish the depth of the investigation for the test.

Q. Are you satisfied the test was adequate and reliable?

A. Yes.

Q. All right, let's turn to the next display, Exhibit Number 7.

A. Okay, Exhibit Number 7 is a standard Horner plot display of the pressure buildup data, and this helps amplify some of the points that I was making earlier.

As indicated on the X axis, we have a time plus delta time, divided by delta time function, plotted on a semilog scale, with the bottomhole pressure on the Y axis.

Once again, this indicates that the bulk of the initial pressure buildup occurred in the first nine minutes. A slight decrease in pressure was observed over the next few hours, and that was due to what I call the fluid segregation effects.

There was a boundary effect that came into play at that point, which, you know, we'll go over in a minute. And then there apparently was a second fluid segregation effect that occurred late time.

And those are some of the significant points off of that.

Q. Let's go to Exhibit 8 and have you show us the summary of the buildup analysis.

A. Okay. The summary of the buildup analysis is identified as Item Number II on Exhibit 8. What we derived from this analysis was that the reservoir pressure as of April 1st, 1997, was approximately 5285 p.s.i.g. at mid-perf depth. The well had a formation capacity, a KH, of about 8100 millidarcy-feet. The test exhibited a skin factor of 100 plus.

There was an estimated depth of investigation from the test of 2000 feet, and additionally there was a no-flow boundary, which we're calling a fault, was identified approximately 500 feet from the wellbore.

Q. Okay. Let's skip the production data at the top of the exhibit and we'll come back to that in a minute. Let's take your buildup analysis results, now, and have you take us into the drainage calculation shown on Exhibit Number 9.

A. Okay. Exhibit Number 9 is an attempt to determine a drainage area for the well based upon the depth of investigation of the test. We assume that since only one boundary was -- you know, one boundary was detected in the test, that we still have essentially radial drainage

out from the wellbore to that boundary.

Q. Now, the boundary you're talking about is --

A. -- the fault.

Q. -- the fault that Mr. --

A. -- Cole.

Q. -- Cole has identified on his Exhibit Number 2?

A. That's correct. And that fault was, once again, identified on his maps at approximately 500 feet. So this finding is consistent with the geologic mapping.

Q. Am I understanding that your engineering information and conclusions showed a barrier at approximately 500 feet?

A. Right.

Q. That means that you have validated the approximation of where that fault is in relation to the Elvis 1 well?

A. Yes.

Q. How then do you solve for further boundaries?

A. You would look for additional anomalies in the buildup that we did not see, given the length of time of this buildup, you know, additional breaks or changes in the slope of the buildup.

Q. So for the period of data run, you concluded that the next possible boundary was at least 2000 feet away?

A. Correct.

Q. And that footage, then, became part of the calculation for the drainage area?

A. Yes.

Q. Show us the rest of the calculation.

A. Okay, the rest of the calculation simply is to assume that the drainage area for this well would be equal to a semicircle with radius of 2000 feet. That's the unaffected side.

And then the area between the well and the fault, that area was calculated by assuming you had the arc of about -- calculated about 14.47 degrees to, you know, determine the area under that, and a triangle with a base of about 1936 feet -- which is, you know, you go through the trig, that's the distance of that leg -- with a height of about 500 feet. You just simply do, you know, some trigonometry there and add it up, and you -- result that you've got a calculated drainage area of about 189.65 acres.

Q. Based upon this pressure data and your analysis, would you recommend to the Division that we establish spacing at less than 160 acres?

A. No.

Q. That would be too close, wouldn't it?

A. Right, because at that point we would probably have the wells in interference with each other.

Q. Based upon the pressure data, then, would you request that a single well per 160 be the initial rules for the pool?

A. Yes.

Q. Let's go to the next step. From a reservoir engineering perspective, is -- would it be appropriate to try to establish spacing at 320, or do you want a second well, under the circumstances?

A. I think we prefer a second well in the 320 because, as I said, we feel we have an idea of what's happening out to a distance of about 2000 feet, but we do not know whether there are any boundaries or, you know, those compartments that Mr. Cole identified present, say, 2001 feet. You know, that's the depth of our investigation at this time.

So because of the possibility of those reservoir heterogeneities, it would seem appropriate to develop on 160 acres.

Q. If it's greater than 160 acres, then we may have not drilled the spacing units at a great enough density?

A. Right.

Q. Currently there is no data available that you've seen that would support larger spacing than 160 acres?

A. No.

Q. Let's turn to the topic of the rate.

A. Uh-huh.

Q. You have a display on Exhibit 10 that shows the depth bracket out of the statewide rule book, does it not?

A. Yes, it does.

Q. In the absence of a special depth bracket allowable on 160 acres for wells at this depth, what would your rate be?

A. It would be 695 barrels a day.

Q. And you're asking for 900 a day?

A. That's correct.

Q. Let's turn, now, to Exhibit 11 and have you describe for the Examiner what you've done to satisfy yourself that 900 a day is not excessive and is an appropriate allowable?

A. Well, there was some concern as to whether the well could, in fact, deliver 900 barrels a day with its existing completion and as to whether that would have an impact on the water production rate. So from April 3rd through April 17th of this year, we essentially performed a production test on the well where we increased the oil production rate in stages and monitored the production. This plot on Exhibit displays the results of that.

As it indicates, the squares on the graph are the oil rates in barrels of oil per day. The little triangles are the water cut that was experienced, in percent.

What you see on the graph is that essentially we increased the rate from about April 3rd of slightly under 500 barrels a day to April 17th, when we were producing about 900 barrels of oil a day, yet the water cut remained relatively constant, around 43 to 44 percent.

Q. This deliverability test and performance is being conducted only on the three-foot perforated interval of this wellbore?

A. That is correct.

Q. What's the explanation for the fact that the water cut did not increase as the oil rate increased?

A. We're probably not seeing any coning, and the interval that we're completed in has some mobile water phase that we're producing.

Q. Let's go back to Exhibit 8 now and look at the top portion of Exhibit 8 and talk about the production information.

A. Okay, this simply -- The top portion of Exhibit 8, identified as Item Number, you know, I, indicates that we had -- the initial true IP from the well was 526 barrels of oil, 131 barrels of water, and 554 MCF of gas in an 11-hour period, which works out to be a 24-hour equivalent of 902 barrels of oil, 225 barrels of water, and 1208 MCF of gas. At this time the well was flowing on a 24/64 choke with 700 p.s.i. surface tubing pressure.

The current production rate for the well, as of April 27th, 1997, is 538 barrels of oil per day, 371 barrels of water per day, and 820 MCF per day. The well is flowing on a 28/64 choke with 475 p.s.i. surface tubing pressure.

The cumulative production volumes for the well as of April 27th, 1997, are 66,289 barrels of oil, 42,456 barrels of water and 89,772 MCF of gas.

Q. On Exhibit 11 you have shown in a graphical manner the deliverability test. If you'll look at Exhibit 12, you've shown the deliverability test in a tabular form with the actual numbers?

A. That is correct.

Q. Okay. Have you been involved in other Devonian production, Mr. Schulz?

A. No, I have not.

Q. Do you see the -- How do you see this reservoir being produced to depletion? What's the strategy for exploration, development and production?

A. Well, I believe what we do is continue with the drilling of the Elvis Number 2 to try to delineate the boundaries of the reservoir, and at that point we would produce the well at what's determined to be its legal efficient rate until such time as the edge water coming up would, you know, water out the reservoir.

Q. In terms of additional perforations in the discovery well -- right now you're only in a small portion of it --

A. Yes.

Q. -- what would be the strategy?

A. I think the strategy would be try to open additional perforations in the lower interval, to try to remove this skin damage. See, that's kind of a misnomer. Although that factor of 100 is identified as skin damage, what it does is, as a result of the partial penetration of the interval, in this -- you know, assuming that the H is, in fact, 50 feet, we only have three feet open.

So what that's saying is, right now we're taking a tremendous pressure drop in the well, simply from the convergence flow, from the flow from a 50-foot interval being compressed up and trying to exit the well through a three-foot perforated section. So that's what we'll do is, we'll try to increase the perforated interval in the well.

Q. Any indication of decline in the producing capacity of the well?

A. No.

Q. You're currently flowing it at less than the requested 900 barrels of oil a day. That is not a function of making a decision in terms to avoid damage to the reservoir, is it?

A. No.

Q. It's just an operational --

A. Right.

Q. -- choice?

A. Uh-huh.

Q. All right. Well above the bubble point in the reservoir at this point, no indication that we're going to have to control production to avoid releasing gas drive energy too quickly?

A. No. As I said first off, water drive is probably the major energy component for the drive mechanism in this reservoir.

Secondly, we have a very long way to go. We have, like I said, at least probably 3600 p.s.i. of reservoir pressure to go down before we hit the bubble point at, you know, reservoir temperature.

MR. KELLAHIN: Okay. Mr. Stogner, that concludes my examination of this witness.

We move the introduction of Mr. Schulz's exhibits 5 through 12.

EXAMINER STOGNER: Exhibits 5 through 12 will be admitted into evidence.

EXAMINATION

BY EXAMINER STOGNER:

Q. Mr. Schulz, the additional perforations, would

you initially see an increase in the production rate, or do you --

A. What I would envision is that actually by the initial increase in perforation would reduce the drawdown, the pressure drawdown in the reservoir. We'd still produce at whatever -- you know, assume we produced at the 900 barrels a day, but this would allow us to produce the well for a longer period of time before we'd be forced to go to artificial lift.

But it would -- I mean, the other hand, if you're -- you know, for the same delta P that you would be experiencing in your wellbore versus your formation, the increase in perforation would increase the rate.

Q. If this well had been perforated initially with the additional perforations, would you have seen a higher rate, or how --

A. Oh, a scale -- well, the damage -- the skin damage, if you accept the calculations, you know, the equations, equates to this well as 93-percent damaged. So if you theoretically would have perforated the entire 50 feet you could have potentially produced in excess of 9000 barrels of oil a day at the same drawdown we're seeing now.

Q. Well, do you accept that skin --

A. I accept the -- Whether it's 100 or 50, I don't know. I know that there is a damage, though, there is a

high damage. The actual magnitude of the damage is probably open to interpretation.

Q. You had mentioned no indication of the occurrence of coning. Can a reservoir such as this -- can it cone, or will it cone later on? Or does it have the --

A. I don't know. To be honest, that's a tough question to answer, because a lot -- you know, you have to kind of define coning to begin with. If you're -- As I said when I referred back to the sandstone, if you're considering coning as the movement of, you know, water from, say, an aquifer up near the wellbore through a matrix, you know, like a matrix perm, yes, it can happen.

In this reservoir, where you've got a fracture, I guess my feeling is, if you have a fracture that is in contact with the aquifer, you know, at the base, if you're going to -- you know, if you're going to have this water movement, it's going to occur really rapidly.

And, you know, just simply as your transient -- You know, if your fracture is near the wellbore, it's going to occur almost immediately, regardless of your production rate.

Q. So coning is -- I normally think about it in a homogeneous type of a reservoir, like a sand, a very --

A. A porous sand, yes. I don't -- My interpretation is, that mechanism wouldn't occur in this type of

reservoir.

Q. Okay. But when you talk about occurring, you're talking about coming up the fracture --

A. Right.

Q. -- the least amount of resistance --

A. Right.

Q. -- coming from the lower --

A. Uh-huh.

Q. -- zone?

A. Uh-huh.

Q. What's your testing plans for the Elvis Number 2?

A. We haven't formulated them yet. I imagine what we'll do is, we will perform a pressure buildup in the Elvis Number 2 well to see if we -- you know, assuming we are successful in our completion, to see if we are, in fact, in pressure communication with the Elvis Number 1.

Q. I assume you're expecting that you're going to find out that you are, aren't you?

A. We will see what happens when we penetrate the Devonian.

Q. And you would also want it to be in pressure communication?

A. Yes, we would.

Q. Okay. So when you say pressure communication in this instance, we're not using it like we're normally

talking about it, like a detrimental effect, are we?

A. In that the two wells will be -- if they are in communication, they will be producing from a common reservoir. In the communication I'm -- To be honest, what I would hope to see is, we actually, through the test, could see the Elvis Number 1 well, you know, from a pressure standpoint, from the Elvis Number 2. If nothing else, that will help us determine we have a large reservoir, relatively large, I should say.

EXAMINER STOGNER: Are you going to ask him, Mr. Kellahin, or am I?

MR. KELLAHIN: Oh, I'll let you ask him.

THE WITNESS: Yeah.

Q. (By Examiner Stogner) Where did you come up with the name "Elvis"?

A. I had to ask the geologist, and the reason for the Elvis well, as referred to me by Mr. Cole, is, this is the well that never died.

EXAMINER STOGNER: There's always a story behind these. I like that. That's good. Well, I hope your Elvis Number 2 sees the Elvis Number 1.

I have no other questions of this witness. Any other questions?

MR. KELLAHIN: No, sir.

EXAMINER STOGNER: Mr. Kellahin, I was looking

at, I believe, Exhibit Number 13, which was the notification --

MR. KELLAHIN: Yes.

EXAMINER STOGNER: -- and I'll throw this question out to whoever is here:

Was there any additional notice or conversations with the people that were notified about what the special well location requirements mentioned in this letter, your letter of March 27th?

MR. KELLAHIN: I do not believe any occurred -- Let me check with my --

EXAMINER STOGNER: Okay.

(Off the record)

MR. KELLAHIN: Mr. Examiner, there were no inquiries from the parties notified on any of the topics applied for. They did get a copy of the complete application.

EXAMINER STOGNER: Okay, they did?

MR. KELLAHIN: Yes, sir.

EXAMINER STOGNER: All righty. Do you -- Can you verify that with a -- Was the application with a cc to those parties?

MR. KELLAHIN: The certificate of notice that I've provided to you contains language in the certification.

EXAMINER STOGNER: That's talking about the --

MR. KELLAHIN: Yes, sir.

EXAMINER STOGNER: -- Exhibit 13?

MR. KELLAHIN: It attests to the fact that they got a copy of the actual Application.

EXAMINER STOGNER: Okay, where exactly are you referring to? I'm looking at that letter now.

MR. KELLAHIN: Here's the Application that they received. The -- "Please find our enclosed Application..."

EXAMINER STOGNER: Okay, that satisfies what I wanted to hear.

Mr. Kellahin, could you provide me a rough draft order?

MR. KELLAHIN: Yes, sir.

EXAMINER STOGNER: And before we --

(Off the record)

MR. KELLAHIN: Just a comment in closing, Mr. Examiner.

EXAMINER STOGNER: Yes, sir.

MR. KELLAHIN: Based upon experiences in Dagger Draw, we toyed with how to develop rules for such a high-capacity pool as this Devonian one. And I chose to suggest and then present to you the limitation of a single well in a 160.

In addition, we've asked for flexibilities in

well locations, and I realize the dilemma that gives you concerning why you're spacing yet closely drilled wells, and if it troubles you, you may simply tell me that you're concerned about that issue and we will withdraw the request for the 330 well locations and have those processed in the usual fashion, at least through hearing or administratively.

We recognize that may be of concern to you, and if it's an issue we'll simply withdraw that portion of the Application. We'll let you think about it. If you want to advise me later or in the draft order, you may edit it appropriately, but --

EXAMINER STOGNER: Oh, believe me, I would edit it appropriately.

MR. KELLAHIN: I understand.

EXAMINER STOGNER: You probably would --

MR. KELLAHIN: We're not here to bleed and die and fight over the well location. I don't think that's an important part of the presentation.

EXAMINER STOGNER: No, Mr. Kellahin, thanks for bringing that up. Yeah, it is out of the ordinary, it is unusual. The witnesses, I think, covered satisfactory for me. But that -- With that, you're giving and taking. You're requesting one well, but with the reservoir as it -- as was presented, and that was the reason I was asking

about the notification. I wanted to make sure that they were specific that it -- this is what was being asked, and was all the operators, especially like Bulldog and Chevron, Amoco and Marbob, did they know what was coming up?

No, I want you to include that in there --

MR. KELLAHIN: All right, sir. Thank you.

EXAMINER STOGNER: -- include those findings

So whenever -- It's up to you get it to me, and in whatever time fashion that you see fit.

With that, is there anything further in Case Number 11,773?

MR. KELLAHIN: No, sir.

EXAMINER STOGNER: Then this matter will be taken under advisement.

(Thereupon, these proceedings were concluded at 10:53 a.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 11773 heard by me on May 1992.

, Examiner
Oil Conservation Division

CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL May 8th, 1997.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998