STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

CASE 9866

EXAMINER HEARING

IN THE MATTER OF:

Application of Amoco Production Company for Special Pool Rules or Pool Redesignation and Special Pool Rules, Lea County, New Mexico.

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

February 7, 1990

ORIGINAL

CUMBRE COURT REPORTING
(505) 984-2244

A P P E A R A N C E S

FOR THE DIVISION:	ROBERT G. STOVALL Attorney at Law Legal Counsel to the Divison State Land Office Building Santa Fe, New Mexico
FOR THE APPLICANT:	DANIEL R. CURRENS, ESQ. Amoco Production Company Houston Region-Law Department Post Office Box 3092 Houston, Texas 77253

I N D E X

E X H I B I T S

APPLICANT'S EXHIBITS:

EXAMINER CATANACH: At this time we'll call Case 9866, Application of Amoco Production Company for special pool rules or, in the alternative, pool redesignation and special pool rules, Lea County, New Mexico. Appearances in this case.

MR. CURRENS: Mr. Examiner, Daniel R. Currens, attorney for Amoco Production Company, Houston, Texas. I'll have one witness in this case.

EXAMINER CATANACH: Any other appearances? Let me swear the witness in.

(Thereupon, the witness was sworn.)

MR. CURRENS: Mr. Examiner, I believe your file should reflect a copy of a letter from William F. Carr, a local attorney, entering an appearance, with Campbell & Black in this case, for Amoco Production Company, and I'm associated with Mr. Carr in this matter.

EXAMINER CATANACH: Okay, Mr. Currens, I found that in the file.

MR. CURRENS: The Fowler-Upper Silurian pool was discovered in 1959 by the completion of a well called the South Mattix Unit #3. That well had produced in several other horizons prior to the time it was recompleted to the Silurian.

The pool area that we're talking about or

field area we're talking about is a local high in the eastern part of Lea County that has probably had production from six or seven different horizons. But the Fowler-Upper Silurian pool was originally designated as an oil pool, since the discovery well for the pool potential for 90 barrels of oil a day with a gas/oil ratio of around 3500 to 1.

The second well was also completed in that pool in 1959. Both of these wells continued to produce for several years, but in 1965 production ceased from the Silurian. Since that time there has been no production from that horizon. Both wells were recompleted in the Yeso at that time, although it may have been termed something else.

Since then, and in recent years, two wells have tested the upper Silurian, they're South Mattix Unit Wells #5 and #15, and they've been found productive of dry gas. The Commission properly reclassified the pool to gas, and we now have, on our books as a result of Order R-8667, the Fowler-Upper Silurian gas pool.

Our application today is for special rules for the Fowler-Upper Silurian gas pool, and the reason we included an alternate in this was since it had been 25, 30 years ago classified as an oil pool, in the

event anyone felt it ought to go back to an oil pool, we're asking for special oil pool rules as well, with a higher than normal gas/oil ratio feature.

With that as some background, I'm ready to proceed with my witness.

JAMES W. (JIM) COLLIER, JR.

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

EXAMINATION

BY MR. CURRENS:

Q. Will you state your name, please.

A. My name is James W. Collier, Jr.

Q. By whom are you employed, Mr. Collier?

A. By Amoco Production Company.

Q. And what location and in what capacity?

A. I am employed as a senior petroleum engineering associate in Houston Texas, in the region office.

Q. In conjunction with your duties as a senior petroleum engineering associate, have you had occasion to investigate the Fowler-Upper Silurian pool in Lea County?

A. Yes, sir.

Q. Have you testified before this Commission before?

A. Yes, sir, I have.

Q. And your qualifications as an expert petroleum engineer are a matter of public record, are they not?

A. Yes, sir, they are.

Q. In conjunction with this case and this hearing in the matter here today, have you prepared or had prepared under your direction or supervision, or via the business records of Amoco Production Company, certain exhibits that you will present today?

A. Yes, I have.

MR. CURRENS: We would submit his qualifications.

EXAMINER CATANACH: He is so qualified.

Q. Let me direct your attention to Exhibit 1 and ask what you're showing us there on that exhibit, Mr. Collier?

A. Exhibit 1 is simply a location map indicating, by the arrow, the location of the Fowler Field in the southern third of Lea County, New Mexico.

Q. Moving on to Exhibit 2, what do you show on that exhibit?

A. Exhibit 2 is a portion of a county map. Outlined in red is the South Mattix Unit. This is a federal exploratory unit located in Township 24 South,

Range 37 East in Sections 15 and 22, 600 acres in the unit in Section 15 and 240 acres to the south of Section 22.

Q. All right, is the Fowler-Upper Silurian pool contained entirely within the South Mattix unit?

A. Yes, sir.

Q. Anything else on Exhibit 2?

A. No.

Q. Let me ask you, then, to move to Exhibit 3 and tell us what you're showing on that exhibit?

A. I want to make several points from Exhibit No. 3. This is a stick section going through wells on the eastern part of the South Mattix unit. It does not contain any wells outside that unit.

On the left-hand side of the cross-section we start with Well #9, that's the middle number designation at the top.

Q. On the right-hand side of this exhibit you have a land plat and a squiggly line going all over the place with part of it outlined in red. Are the red portions of that line the wells that are included on this stick section?

A. Yes, sir. I simply adopted this stick section in condensed form for a much larger stick section, just to cut down on the amount of unnecessary

paper here.

Q. And focus on the area of interest?

A. True. The red trace is the trace of this particular cross-section. It extends, as I said, from Well #9 in the north down to the south to Well #12, and back again to the north where it finally terminates with South Mattix Unit #10 on the far right-hand side of the stick section.

Q. The well numbers on the stick section are the center numbers in the set of three numbers at the top?

A. Yes, sir, that's true.

Q. Go ahead.

A. You notice that I have several symbols and colors on this stick section. There are four wells at the top that have a red dot symbol on them, those being Wells 3, 13, 5 and 15. In addition, two of the wells, 5 and 15, also have a gas well symbol. The reason I've done this, I'm designating the two wells, 5 and 15, that tested dry gas in the past two years in Fowler-Upper Silurian, whereas Wells 3 and 13 do not have the gas well symbols, were the two wells that produced oil as you mentioned in your opening statement.

Also, there's an arrow pointing to Well

#15. The reason I've singled that well out is because that is the well we would like to produce from initially in this gas reservoir in the Fowler-Upper Silurian.

Q. What are all these green portions on this stick section?

A. As you mentioned earlier, this is a multiple pay field area. What I've shown by the green section is the current producing interval from the wells currently that are on this particular cross-section.

The solid black intervals in the sticks are the zones which previously produced but which are now abandoned. And then the red intervals, you can see on the four wells in the Upper Silurian, are the intervals that we either tested or actually produced from, either oil or gas, in the Upper Silurian.

Q. The exceptions to the black interval description that you've just given us, would be where you show the red in Wells #3 and #13, which are now abandoned in the Silurian, being the two--

A. That's true. Those are abandoned wells. I showed the intervals in red just to highlight the Silurian interval that did produce.

Q. You seem to be in a rather hashy area, if I

look in the bottom of this stick section. What are you depicting there?

A. All right. If you notice, the top of the Upper Silurian is shown with an uneven line. That is to designate that this is a nonconformed surface. We have a very complex system of thrust and normal faulting down in the basement rocks which extends up through the Ellenburger, the Joins, McKee, the Simpson, the Montoya, the Fusselman and into the Upper Silurian. The nonconformed surface on top of the Upper Silurian was the result of this basement faulting plus nonuniform erosion on the deposits which did form the Upper Silurian. So those two things, basement faulting and nonconformed erosion, controls the surface structural top of the Upper Silurian here.

Q. Speaking of structures, do you have a structure map which you've prepared for this hearing?

A. Yes, we do.

Q. Would that be our Exhibit No. 4?

A. Yes.

Q. Why don't we look at it. What are you showing us on Exhibit No. 4, Mr. Collier?

A. On Exhibit 4 I've mapped, in lieu of the top of the Upper Silurian, I've mapped the top of the first major porosity zone in the Upper Silurian.

Q. Is that a good correlative marker throughout the area?

A. Yes, it is. I'll show you later it is a very good marker.

Q. Continue.

A. Here you see the nature of the faulting. You can see, again I've shown the two wells that tested gas with red dots with gas well symbols. The northern one is Well #15. That's the well we would like to produce initially. The southern well with the gas well symbol is #5. We have no plans to try to produce that well, although it did test good gas rates, as I'll show you later.

The two red dots without gas well symbols are Wells 3, to the northwest, and 13 to the south. These are the two wells that produced oil back in the late 50's and early 60's and have been abandoned since the mid-60's in the Silurian. They both now produce from other zones.

You can see that we have in this V-shaped fault block, structural high extending to the southeast part of the fault block, so our high is in the southeast part of that fault block.

Q. What about Well #13? It looks like it may not have been in the same fault block.

A. Yes. On this map here, it's mapped as being on the down side of that fault. I do believe, however, that production data does indicate that there was a different producing characteristic from 13, but it's questionable whether 13 is completely sealed off from the fault block producing to the north.

Q. So it may have some partial communication at least there?

A. It appears to.

Q. Anything else with respect to the structure map?

A. I would point out there's also some test information in the form of drill stem tests, but if you'll notice Well #24, down dip of--actually, it's bed on strike with Well #3, has never been tested on a production test or a flow test in the Upper Silurian, but we did have a drill stem test. This was run in 1968. The tool on that test was open two hours and we recovered 10 feet of free oil, 560 feet of drilling fluid, with an initial shut-in pressure after an hour and a half of just under 3100 pounds, and a final shut-in pressure of 3,011 pounds. That was not a good enough test for us to authorize, at that time, any kind of production test in the Upper Silurian.

Q. When did you say that was?

A. That was in May of 1968.

Q. That's after, if I recall from my opening statement, when the oil production had ceased from the other two wells?

A. Yes.

Q. I think we'll examine that more in a minute, won't we?

A. Yes.

Q. All right. You were talking about this porosity zone that was a good correlative marker. Do you depict that on Exhibit No. 5?

A. Yes, I do.

Q. What is Exhibit No. 5 besides a great big long cross-section?

A. Exhibit 5 is a log cross-section which I constructed. I've hung these wells on a subsea data of minus 3500 feet. The section goes from Well #3 on the left-hand side, which is a well that produced oil, then to 15, which is a well that had tested gas in the same correlative interval, then to 32, which has never been tested or had any kind of formation test in the Upper Silurian, and the fourth position well is #5, which has also tested gas, and then the fifth position well is Well #11 which has never been tested in the Upper Silurian, and the far right-hand position is

Well #13, which was the other oil-productive well back in the 50's and 60's.

Q. Essentially these are all of the wells that are in that V-shaped fault block, with the lowest most of the wells in that block being Well #3, which produced oil back in the early 60's?

A. Yes, sir. Actually, Well #13, as I showed you earlier, it's questionable whether it's in that fault block or partially in it. I've marked the top of the Upper Silurian here with a solid line. The Upper Silurian, if you get off of the Fowler anticline, would approach a gross overall thickness of 800 feet. However here, because of the erosion on the crest of the Fowler anticline, we have a thinning of that Upper Silurian; so that if you move from Well #3, the overall gross thickness of the Silurian is about 520 feet and it's 540 to Well #15.

As you get up on top of the structure in Well 32, it starts thinning. It's down to about 436 feet there. Well #5, it's only 400 feet thick, so we've lost about half of our gross thickness remote from this area. And #11 is, again, about 400 feet overall gross thickness, and then that, off-structure, we again start to thicken back up in Well #13. The overall thickness is 470 feet.

If you look at the base of the Upper Silurian, which is also the top of the Fusselman, and you move up about 250 to 300 feet you'll see a very characteristic marker on the SP curve. You'll see a very clean section. It's about, overall, oh, maybe 40-feet thick or so. You can see that as moving to the left on the SP curve. That's very repeatable throughout this entire cross-section.

Q. I've noticed there are indications that a number of these wells that were tested were all tested in that same zone?

A. Yes. That same porosity zone has been tested in the four wells which have been tested in the Upper Silurian.

Q. The two that produced oil and the two you tested gas on?

A. That's correct.

Q. That's where those things came from?

A. That's correct. So what we have, again, is a very correlatable porosity zone of about 40-feet thick that downdip it back in 25, 30 years ago produced oil, but in the last two years that same zone has not produced but tested gas. The wells have never been produced but they did test gas.

Q. Are those two wells that tested gas, I

guess all of this is cumulative from your stick section and your structure map and this map, since the structure map was on the porosity zone, those wells were the highest wells in that porosity zone and I guess that's reflected on this cross-section and your stick section as well, the gas-test well?

A. Yes. For instance, I'll give you an example. Well #3, that upper porosity zone, the top of it was at about minus 3920 feet or so. Well #15, the top of that same porosity zone is at about minus 3760. There's a difference of about 150 feet structurally there.

Q. Anything else on this exhibit?

A. No.

Q. I'll fold it up while you get out your Exhibit No. 7. Tell us what Exhibit No. 7 is.

A. I think we're on 6.

Q. Excuse me. Get out your Exhibit No. 6, then, and tell us what that is.

A. Exhibit 6 is an abbreviated well history for South Mattix Well Unit #3. Initially it was completed in 1950 as an Ellenburger well. It had a very high initial rate but it only cum'd 18,000 barrels of oil. The reason for that is, most of its life as an Ellenburger completion it was shut-in as an

observation well. This is a federal exploratory unit. I'm not sure I mentioned that. We were trying to prove correct spacing for each of these different zones, so this was drilled mostly as an observation well to gather data to prove 80-acre drainage in the Ellenburger.

In January of 57 we moved up-hole into the Connell. This is a multiple pay area, so we were trying to test every zone on the way up. The Connell was uneconomical. It only cum'd about 1,600 barrels of oil. We then, in August of 1957, we recompleted at the Fusselman. The first attempt was wet, the second attempt we potentialed 83 barrels of oil and only produced it for right at a year.

And then, in February of 1959, we came up-hole to the Upper Silurian, and initially perforated in three separate intervals. The first interval there is the main porosity zone which I showed you on the cross-section. We acidized the well with 10,000 gallons of acid, and a potential flowing 90 barrels of oil with no water and 312 Mcf of gas per day, which was an initial potential gas/oil ratio of 3467. So it was fairly gassey from the very initial potential. This is Well #3.

We also later in its life, it's not really

shown on here, but we did some selective testing and verified that the two lower sets of perforations were not contributing significant amounts of hydrocarbons to this well stream. We did verify that only that upper zone was producing oil and gas.

We did a workover in April of 1960 as part of that testing, and didn't have much of an effect. We were trying to lower the GOR there. It was not successful. The GOR at that time was up to about 9800 cubic feet per barrel. Then, in August of 1963, we came on up-hole to the Tubb and Upper Yeso after having accumulated the 21,300 barrels of oil in the Upper Silurian.

Q. Do you have a similar history--

A. One more point. I failed to put this on Exhibit 3, but in addition to the 21,300 barrels of oil that #3 accumulated, it also produced about 225,000,000 cubic feet of gas.

Q. Do you have a similar exhibit for No. 7, if you're finished with 6, that is?

A. Yes, I do. 7 is a similar history on Well #13, which was the other oil-productive well in the Upper Silurian. It was initially completed in the Fusselman in January of 1955. It accumulated in the Fusselman 165,000 barrels of oil.

Upon reaching its economic limit, it was then recompleted to the Upper Silurian in August of 1959. Again, in that same porosity member that I showed you earlier. This is a 14-foot zone it's perforated in, a potential-- Again, it was also flowing 96 barrels of oil, no water, and only 61 Mcf per day, which was an initial potential gas/oil ratio of only 635 as compared to, as I showed you earlier, about 33- to 3400 on Well #3.

Q. Would it be fair to say with respect to the next two things on the exhibit, a couple of workovers were attempted, they had some success in increasing oil production, but the GOR after all of those was always relatively low?

A. Yes. It appeared to be below 2000, and I can show you that on the next exhibit. We did finally abandon the Upper Silurian in January of 1965 and recompleted up to a shallower zone. That well, accumulated in its life 27,166 barrels of oil, and 64.9 million cubic feet of gas.

Q. All right. You said you had a production curve on these two wells. Would that be Exhibit 8?

A. Yes, sir.

Q. Let's look at that. Let's hit the high spots on it.

A. I show four things on this exhibit. I show an oil decline curve, which is the solid black line for the South Mattix #3. You can see it came on in early 59. The dashed, black line is the decline curve for the South Mattix #13, through their entire lives as oil producers. The blue circles, as well as the blue line that I've highlighted, is the gas/oil ratio for Well #13; and then the red are selected gas/oil ratio tests for Well #3.

You can see that Well #3 started out above 3000 gas/oil ratio, and within a year of its initial completion it was up near 10,000 cubic feet per barrel and stayed there throughout its life. In fact, it even exceeded it. #13, for the most part throughout its life, remained at 2000 to, say, 2500 or less cubic feet per barrel, until the very last few months of production when the well just appeared to be gassing out, which it did, in the very last few months approach and even exceed 10,000 cubic feet per barrel, but this was at the very tail end of production.

Q. Would that pretty well summarize all of the activity in the oil completions back in the early days?

A. Yes.

Q. Let's move on to where we are today and

turn to Exhibit No. 9. What is Exhibit 9?

A. Exhibit 9 is a NMOCD Form C-122, which is a four-point backpressure test for a gas well. This is for South Mattix Unit #5. This happened to be the first well that we tested. This was done in 1987.

This well on a four-point backpressure test we calculated an absolute open flow of 1.432 million cubic feet of gas per day, with a final rate of flow of 1.149 million cubic feet per day, with a flowing tubing pressure of 1087 p.s.i.g.

Q. All right. Was there any liquid produced with this?

A. No liquid was reported on this test.

Q. How about the other well that was tested?

A. Okay, that #15, again this was a little bit later, in 1987. Again this was completing that same porosity member.

Q. Are we talking now about Exhibit 10, which is also a Form C-122?

A. Yes, for South Mattix Unit #15. We calculate an absolute flow on that well of 3.247 million cubic feet of gas per day. The final flow rate was 1.88 million a day, or 1122 p.s.i.g. tubing pressure.

Q. What about the fluid on this test?

A. There was no fluid reported on this one, either.

Q. Is it your opinion that this pool is now, for all purposes, a gas pool?

A. Yes, sir, I believe it is.

Q. And the classification the Division has for that is proper?

A. Yes, I believe it is.

Q. All right. Have you made any just rough kinds of estimates of what recovery or reserves might be from this gas area?

A. Yes, sir, I have.

Q. Would they be shown on Exhibit 11?

A. Yes. Exhibit 11 is a calculation I made to estimate reserve recovery on a volumetric basis from Well #15, assuming we were allowed to produce it in this gas zone. The top part of the exhibit is a pay analysis where I've broken down into four intervals the overall productive interval that has been perforated. I show the footage, and the total there is 36 feet of net pay. The average porosity for each one of those four subzones, the average water saturation, and then I've Phi-H weighted the water saturation to come up with an average water saturation of 39 percent.

Moving on down, I show an initial bottom-hole pressure of 2350 p.s.i. This was a 71-hour pressure build-up test run on #15 in 1987. Bottom-hole temperature of 129 degrees, gas gravity of .72, and an initial pressibility factor of .77. I just assumed an abandonment pressure of 500 p.s.i., and then taking this data and using the equation for a nonideal gas, I've calculated volumetrically what I believe this well can produce to a 500-pound abandonment pressure.

I think I've talked about all the factors in the equation with the exception of drainage, area, and I've used a planimetered area of 56.6 acres, which is strictly an area which I planimetered off of the structure map, between subsea depths of minus 3800 and minus 3700 feet, and confined by the two branch faults that I showed on the structure map.

Q. That was an arbitrary determination of--

A. It's fairly arbitrary. I know I had wells downdipped that gassed out. This is just for the sake of making a calculation. I did planimeter that area and came up with 56 acres. Substituting all those factors in, I believe the well will produce about 687,000,000 cubic feet of gas as a salvage recompletion.

Q. Okay. Anything else on Exhibit 11?

A. No.

Q. Let me ask you what your recommendations are for special rules for the Fowler-Upper Silurian gas pool.

A. I'm recommending 80-acre drilling tracts in lieu of state-wide 320s for this depth. I'm also recommending that standard location--well, let me back up. The 80-acre drilling tract would consist of either the east half, north half, west half or south half of a governmental quarter section, and then a standard location for a well on those drilling tracts would be within 200 feet of the center of a quarter quarter section.

Q. All right. In the event that for some reason this were redesignated the Fowler-Upper Silurian oil pool, would you also have recommendations for special pool rules?

A. I would recommend the same proration unit size, 80 acres, with the same description--it would be half of a quarter section--and I would recommend depth bracket allowable, which for this depth would be 267 barrels a per day, with a 10,000 to 1 gas/oil ratio.

Q. Same kind of well location requirements?

A. Yes.

Q. All right, sir.

A. Not that I think any well is going to produce 267 barrels, but with that depth bracket and that GOR, there would be enough allowable to produce what I feel will be attainable rates from a gas well.

Q. Is it your opinion that approval of your recommendation here would prevent waste and protect correlative rights?

A. Yes, I believe it will.

Q. Do you have anything further to add?

A. No, sir.

Q. Were Exhibits 1 through 11 prepared by you, under your direction or supervision, or taken from Amoco's business records?

A. Yes, they were.

MR. CURRENS: I would offer Exhibits 1 through 11 and tender the witness for any questions you might have, Mr. Examiner.

EXAMINER CATANACH: Exhibits 1 through 11 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Collier in your opinion, is the potential for production limited to that area inside the unit in this formation?

A. Inside the South Mattix unit?

Q. Right.

A. Mr. Catanach, I don't know. As you have seen, there has been very limited testing. We do have, as I pointed out, a drill stem test downdip to the interior of the unit, which was not really that encouraging. Outside the unit, to the east, there could possibly be a location at a structural high. I don't know. I really haven't studied anything over there.

Q. If I understand correctly, the pool was reclassified to gas in what year, do you know?

A. 1988. I believe it was June 1st.

Q. And it's currently on 320-acre spacing, is that correct?

MR. CURRENS: It would be under state-wide rules having been designated a gas pool after the magic date of 320 for this depth.

Q. You assumed a drainage area of 56.6 acres on the #15 well?

A. Right.

Q. Why was that done? Why did you do that?

A. I assumed we were bounded by the two faults. If you look at Exhibit 4, I just assumed that we were bounded by the two faults on the north and

south, and I just planimetered between minus 3800 feet and minus 3700 feet, and that area between the two faults come up to be 56.6 acres. It could be more, it could be less.

It's a situation where we had two downdip wells, that in one case was a very gassey oil completion, and the other it was a low to moderate gassey oil completion. As I showed you, both of those wells essentially gassed out after having produced somewhere around 20- to 30,000 barrels each.

And then we tested dry gas in two wells at the top of the structure. Basically, for convenience sake, I planimetered down to a depth of minus 3800 and assumed that we could drain gas reserves up to minus 3700. That's the area I chose. It could be 60 acres, it could be 70, it could be 50; but 56 is the number I came up with.

Q. Could it be more than 80?

A. It's highly unlikely. Well #3, as I showed you, was an oil well. It did have a high GOR. Well #24, which was just about on strike with #3, recovered only free oil and drilling fluid on the drill stem test back in 68. I don't believe there's 80 acres of gas reservoir here to drain, that's even available.

Q. What are the chances of extending the

reservoir into another area? Do you have an opinion on that?

A. If this interpretation is correct, there's a potential location outside the unit in that same fault block, it would appear to me. I don't have much hope to extend it to the north or to the south. If you go in that same fault block to the northwest, we're hurting for any test data down there. I might also mention that #3 did produce water during its life. So there's evidence that there might be a water leg down there, too.

To answer your question, I would say very slim. Right now 15 appears to be our only shot to salvage anything out of this Upper Silurian. Even though #5 also produced gas, we have already recompleted it to a different zone. We have no intention to produce it. That's the southern gas well that was tested in 87.

Q. So the 15 is going to be the only well producing for the time being?

A. That's our current plans, that's right.

Q. Just one more question, Mr. Collier. Do you have an opinion as to why this initially started out as an oil reservoir and it seems to have gone to gas? Is it just the location of the wells, or do you

have another opinion on that?

A. Well, it appears to me to be--well, it could be an associated gas cap on top of an oil reservoir that maybe we were very close to that gas cap on our initial completion, produced some oil and then gassed out. That's what it appears to me to be. I don't hold out any hope that there's any oil productivity left. It appears to have gone to a gas reservoir.

Q. Okay. Would Well #15 fall in the proposed location requirements? Would that be under those requirements, or would that conform to the requirements?

A. Yeah. 15 is right in the geographic center of the quarter quarter section, so that's within 200 feet of the center.

Q. How did you arrive at 200 feet?

A. I think I chose some other field rules, and by example I chose 200 feet. There's nothing magic about it.

EXAMINER CATANACH: I believe that's all I have for the witness. He may be excused.

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

EXAMINER CATANACH: There being nothing

further in this case, Case 9866 will be taken under advisement.

CERTIFICATE OF REPORTER

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

I, Carla Diane Rodriguez, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I caused my notes to be transcribed under my personal supervision; 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 February 25, 1990.

CARLA DIANE RODRIGUEZ
CSR No. 91

My commission expires: May 25, 1991

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9866, heard by me on February 7 1990.

David R. Catanach, Examiner
Oil Conservation Division