STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	CASE NO. 12,140
APPLICATION OF MATADOR PETROLEUM CORPORATION FOR AN UNORTHODOX GAS WELL LOCATION, LEA COUNTY, NEW MEXICO	ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

March 18th, 1999

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, March 18th, 1999, 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

March 18th, 1999
Examiner Hearing
CASE NO. 12,140

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E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	8	14
Exhibit 2	9	14
Exhibit 3	20	32
Exhibit 4	10	14

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A P P E A R A N C E S

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FOR ROBERT WITTEN:

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By: WILLIAM F. CARR

* * *

WHEREUPON, the following proceedings were had at 2:25 p.m.:

EXAMINER CATANACH: Call Case 12,140.

MR. CARROLL: Application of Matador Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico.

EXAMINER CATANACH: 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.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge and Sheridan. We represent Robert Witten.

I can advise the Examiner that today Mr. Witten and Matador have reached an agreement that -- we're entering our appearance, but that as soon as the agreement is confirmed in writing I will advise you that we will be at that time withdrawing our appearance in this case. We have resolved our differences.

EXAMINER CATANACH: Any additional appearances?

Will the witness please stand to be sworn in?

(Thereupon, the witnesses were sworn.)

MR. KELLAHIN: Mr. Examiner, let me take a moment and describe what we're seeking to accomplish.

If you'll look at Exhibit 1, you have an area that's color-coded. Ms. Ables in a moment will explain the color codes and describe for you what Matador is proposing to do.

In summary fashion, though, if you'll find Section 32, there's an open circle in the southwest quarter. That's the subject well that Matador proposes to drill. It's identified as the Red Hills Well Number 4. It will be at an unorthodox location 450 feet from the south line and 1500 feet from the west line of Section 32.

The primary targeted formation is the Red Hills Devonian Pool. That pool is spaced on 640 acres and has 1650 setbacks.

Up the hole from that reservoir is the Red Hills Wolfcamp Gas Pool. It also is spaced on 640 acres, and it has 1650 well setbacks. Any shallower production in gas would either be on 320 or 160 acres.

We're going to show you a geophysical presentation based upon a structural interpretation in the Devonian, which is the primary reservoir at some 17,000 feet. That primary objective controls the fact that this wellbore, if unsuccessful in the Devonian, would then be unorthodox for uphole potential. We're seeking to have you collectively approve this well as to all other zones, including the Devonian.

Ms. Ables will describe to you a rather unique circumstance, and in summary you'll find that the area blocked out and identified is a long-standing exploratory voluntary working interest, with the exception that in Section 5 not all the interest owners have agreed to participate in this long-standing unit.

One of those owners, Mr. Robert Witten, has filed an objection to which Mr. Carr referenced. We'll describe for you what Mr. Witten's interest is and describe for your our belief that he has withdrawn his objection based upon a settlement we've made this afternoon.

His was the single objection filed. There were no other objections filed by any interest owner. The offsetting operators have not filed objections. Kaiser-Francis operates the well in the northeast quarter of Section 6, and they've agreed to sign a waiver.

With that preliminary introduction, then, we will give you the geophysical interpretation which shows that this is a very specific effort to be at the highest point of a Devonian structural interpretation based upon significant 3-D seismic study.

That will be our presentation, at the end of which we will ask you to take this case under advisement and to approve this location without penalty as to all those formations.

MONA D. ABLES,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Ms. Ables, for the record, have you testified on prior occasions?

A. Yes, I have.

Q. And your capacity today is in what form?

A. I'm a district landman for Matador Petroleum Corporation.

Q. And where do you reside?

A. In Dallas, Texas.

Q. As part of your duties as a petroleum landman, are you familiar with the various ownership arrangements and the parties to identify in the various sections on this display?

A. Yes, I am.

Q. In addition, have you been responsible for identifying and providing the necessary addresses so that we could send notice to any affected party?

A. That is correct.

MR. KELLAHIN: We tender Ms. Ables as an expert petroleum landman.

EXAMINER CATANACH: She is so qualified.

Q. (By Mr. Kellahin) Let me direct your attention to Exhibit Number 1. This is a display that you prepared?

A. That's correct.

Q. And based upon your study, background and experience, are you satisfied that the information shown on this display is accurate and correct?

A. Yes, I am.

Q. Let's take a moment and lead the Examiner through the various color codes. If you'll start with the index at the bottom, identify for us what you mean when you have hached part of this display with the diagonal green lines.

A. I was designating that for the Red Hills Unit Number 3 well, which is operated by Matador Petroleum, at one time it did produce from the Devonian formation. It's not currently active from that formation. The hached line represents the 640-acre spacing unit that was dedicated to the well that is circled in red.

Q. Matador's proposed well for the subject of this hearing is located where and identified how?

A. Our proposed well is in the southwest quarter of Section 32. It's identified as the Red Hills Unit Number 4 well.

Q. There is an area that's shaded in yellow. What does that represent?

A. The six sections that are shaded in yellow

represent Matador's leasehold position. In Section 28 and 29, we own that 100 percent, and the other four sections are part of the Red Hills Unit.

Q. How do we identify the area that's included within what you've identified as the Red Hills Unit?

A. There's a gray outline that identifies the boundaries of the Red Hills Unit.

Q. And that boundary includes all of Sections 33, 32, 5 and 4?

A. Right, 32 and 33 are in Township 25 South, 33 East; Sections 4 and 5 are in Township 26 South, 33 East, of Lea County.

Q. Have all the interests in Section 5 been committed to the working interest unit that is contained within 5, 4, 32 and 33?

A. No, they have not. There's two tracts that are included within the Red Hills Unit that comprise the north half north half, the southeast northeast and the east half southeast of Section 5. That's 280 gross acres. And the owners of 15/16 interest within that 280 gross acres, which represent 262.5 net acres, are uncommitted to the Red Hills Unit. Matador has leased 50 percent of those interests.

Q. Let's turn to Exhibit Number 2 for a moment. There is a tabulation shown on this display. It's indicating ownership below a certain depth?

A. That's correct.

Q. When Mr. Carr refers to representing Mr. Robert Witten, your understanding is that he's representing these three trusts?

A. That is correct.

Q. And these three trusts would be among a group of owners that have not committed their interests to the Red Hills Unit?

A. That is correct.

Q. Let me take a moment and direct your attention to Exhibit 4, which is the notice certificate. If you'll turn to the notice, let me have you go down the sheet here on Exhibit A and identify for the Examiner where these parties that were sent notice had an interest.

A. Okay, Kaiser-Francis, JN Exploration, West Texas Gas, DGQ Passive Income Partners, Mitchell Energy Corporation all had an interest in Sections 31 and in -- of 25 South, 33 East, and in Section 6 of 26 South, 33 East.

Q. Those would be the affected parties, which are affected by the fact that this well is 1500 feet from the west boundary, as opposed to 1650?

A. That is correct.

Q. And they would be affected for the deep gas, including the gas spaced upon 640 acres?

A. That is correct.

Q. All right. When we look at the parties towards whom the well encroaches in Section 5, how are those parties identified? Are they the ones shown on Exhibit 2 that you just described? Are these the --

A. Right. There's -- Mr. Witten represents three trusts that have an interest in the north half northwest -- north half north half of Section 5, and then the southeast of the northeast and the east half of the southeast of Section 5.

Q. Okay, and the Schuman interest is also uncommitted to the unit?

A. That's correct.

Q. And then you have a Red Hills Unit WIO, 6.25 percent. What does that represent?

A. That represents the 1/16 interest that is within that acreage that's been described, that was committed to the unit.

Q. When you go back to Exhibit A on Exhibit 4, the tabulation of parties noticed, and go through the balance of the list from Kauffman on down --

A. Okay.

Q. -- do these parties represent interest owners towards whom this well encroaches?

A. Yes, starting with Jennis Kauffman and then going on to the second page, ending with Mr. Arnold Fleischman

for the J. Harold Schuman Testamentary Trust, are owners within Section 5.

Q. And then starting with Comet Petroleum and finishing the notice list, who are these individuals or companies?

A. These are working interest owners within the Red Hills Unit.

Q. All right. So you've notified all the interest owners in the unit, plus all affected parties adjacent to the unit or within the unit boundary, not committed to the unit?

A. That is correct.

Q. Let's go back to Exhibit 1 now and have you finish identifying your color codes for us. We've talked about the yellow.

A. Okay.

Q. What are the rest of the color codes?

A. The blue haching in Section 27 is to identify the 640 spacing unit that is attributed to the Rojo 7811 JV-P Number 1 well, which is currently active from the Devonian formation and is operated by BTA Oil Producers.

Immediately to the west of that, the orange haching indicates the 640-acre spacing unit that's attributed to the Red Hills 28 Federal Number 1 well. It's also active from the Devonian formation, and it's operated

by Matador.

Q. There is an existing wellbore in Section 32, shown as the Matador Red Hills Unit Well Number 1?

A. That's correct.

Q. That well is at an unorthodox location, is it not?

A. That's right.

Q. And how old is that well? Do you remember?

A. I believe it was drilled in the early 1960s.

Q. All right, and that was before Matador was operator of the unit?

A. That's correct.

Q. But that well is at an unorthodox location, is it not?

A. That's right.

Q. It was not subject to any production penalties, was it? There were no penalties on the production for that well, do you know?

A. No, there were not.

Q. Other than the objection of Mr. Witten on behalf of the three trusts, are you aware of any other objecting party that's affected by this Application?

A. Other than Kaiser-Francis, who we've come to terms with.

Q. All right. With regards to Kaiser-Francis, do

you have a settlement with them that causes them to waive any objection?

A. That's correct.

MR. KELLAHIN: All right. That concludes my examination of Ms. Ables.

We move the introduction of her Exhibits 1 and 2, as well as the notice certificate, Number 4.

EXAMINER CATANACH: Exhibits 1, 2 and 4 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Ms. Ables, what is the status of that Number 1 well in Section 32?

A. It is currently producing from the Wolfcamp formation.

Q. And let's see, the well in Section 28, that's an active Devonian producing well?

A. That's right, that's circled in red?

Q. Yeah.

A. Right.

Q. And the one in Section 27, is that a --

A. That is also active.

Q. Devonian?

A. Right, uh-huh.

Q. Okay, What's the status of the wells in Section

5?

A. The Number 2 well is currently producing from the Wolfcamp formation. And the Number 3 well is also producing from the Wolfcamp formation, the upper Wolfcamp formation. Because the Wolfcamp formation is on 640-acre spacing, what Unocal did is, they got an approval to produce both of these wells within the 640-acre spacing unit, because they are from different Wolfcamp intervals.

Q. Okay. Who operates those wells?

A. Matador.

EXAMINER CATANACH: Okay.

MR. CARROLL: What is that second well in 28 producing from, the Red Hills 28 Federal?

THE WITNESS: The Number 2 well?

MR. CARROLL: Yeah.

THE WITNESS: It's not producing, is it?

MR. DUC: Wolfcamp.

THE WITNESS: Wolfcamp.

Q. (By Examiner Catanach) And the Number 3 well in Section 5 was previously a Devonian producer?

A. That's right.

Q. The well in Section 6 is a Wolfcamp?

A. Wolfcamp.

Q. And that's operated by Kaiser-Francis?

A. That's correct.

Q. And I assume that whole section is dedicated to that well?

A. That's right.

Q. Okay. Now, the interest owners within the interest units, those are shown on your -- on notice exhibit as all the interest owners from Comet Petroleum on?

A. That's correct.

Q. Okay. So those would be the interest owners that are participating in the well that you're drilling in Section 32?

A. They've been offered the opportunity to participate. The way that the unit agreement was set up -- This was back in November of 1962. It's an old form, and they're actually not required to make an election to participate until we have an approved location.

Q. Okay. But those are the total number of working interest owners within the unit?

A. Yeah.

Q. Okay.

A. The only -- Just to eliminate any confusion, I've got Comet and RAM listed on here, and that's actually the same entity. They just purchased -- RAM just purchased Comet, so I notified both of them just to cover --

Q. Okay. So in addition to those interest owners within Section 5, you've got the Witten interests?

A. That's right, he represents three trusts, Barbara Ann Witten for Andrew Witten, Elizabeth Witten and Judith Lee Witten are the three trusts that they have.

Q. Okay, plus the Fleischman?

A. Right. And then starting on the first page with Jennis Kauffman --

Q. Yes.

A. -- on down.

Q. Those four, those additional four interest owners. And --

A. The owners that are listed on this first page have leased their interest to Matador.

Q. Okay, the Kauffman on down?

A. Right.

Q. So you've got that tied up in the lease?

A. Uh-huh.

Q. Okay, so anything from Kauffman on down to -- actually to the end of the list, to Altura, that is the total number of interest owners within Section 5?

A. Right.

Q. And the only objection you had was the Witten who is now going to withdraw his objection?

A. That's right.

Q. Okay. And Kaiser-Francis, you've reached an agreement with them as well?

A. That's correct.

Q. Are you aware that under the current rules, if you decide to complete that proposed well in the Wolfcamp, you'll probably have to come back in for another hearing?

A. Yes, sir.

Q. Okay, you are aware of that, okay. But you're asking for unorthodox approval for all gas formations?

A. That's correct.

Q. For all formations on 160 or 320.

A. Right.

Q. Or 640.

A. It's understanding that if we needed to, we could alternately produce the wells from the Wolfcamp at that point until we could...

EXAMINER CATANACH: Okay, this witness may be excused.

MR. KELLAHIN: Mr. Examiner, our next witness is Mr. Charles Duc. He spells his last name D-u-c. Mr. Duc is a geophysicist.

CHARLES DUC,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. For the record, sir, would you please state your

name and occupation?

A. It's Charles Duc, senior geophysicist with Matador Petroleum in Dallas.

Q. And where do you reside?

A. In Dallas.

Q. On prior occasions have you testified before the Division?

A. No, I haven't.

Q. Summarize your education for us.

A. I received a bachelor of science in geology, 1977, from the College of Charleston in Charleston, South Carolina. I then received a master of science in geology at the University of South Carolina in 1980.

Q. Describe us your experience as a specialist in examining and evaluating seismic data.

A. I have 19 years as an exploration geophysicist, experience in various basins throughout the world. Most of that time has been with the divisions of ARCO. I've been with Matador Petroleum since May, 1998.

Q. Are we about to see your interpretation of this seismic data?

A. Yes.

Q. Is this specific well location based upon your personal recommendation?

A. Yes, it is.

Q. The work product here is yours?

A. Yes.

MR. KELLAHIN: We tender Mr. Duc as an expert geophysicist.

EXAMINER CATANACH: He is so qualified.

Q. (By Mr. Kellahin) Let's take a moment before we talk about the details, to explain to the Division the three parts to the montage, the montage being Exhibit 3, and if you'll start in the upper left corner, let's identify each one of these, and then we'll come back and talk about what you do with them.

A. Okay, in the upper left-hand corner is a Devonian structure map in depth, which represents the Devonian gas enclosed in that structure, top of reservoir.

The map in the middle, upper middle, is the Devonian time structure. This is the actual time-structure map made from the 3-D data that we had over this area.

And then the small map in the upper right-hand corner is the Devonian average-velocity map derived from well data which is used to convert the time-structure interpretation to depth.

Q. When we look at the montage, then, the display in the upper left-hand corner is the Devonian depth-structure map?

A. Yes.

Q. And you have prepared both a time-structure and a depth-structure map?

A. Yes.

Q. Why do you use them both?

A. The interpretation a geophysicist makes off of seismic data is basically in time. He then makes a time-structure map. We then have to go to the next step to get the depth, and that's to find that velocity field that the seismic sees in time so that we can then construct a depth map.

The time map has less interpretation. Visually, we can see that time map on the 3-D, we understand where it came from. To get to the depth map, we have to go through another process, and it's -- to really understand the processes, you really need to see all three of these maps.

Q. Why would you go through the trouble of converting the time-structure map into a depth map? What do you achieve by doing so?

A. The actual trap, obviously, is a depth-type structure, not a time structure. But unfortunately, seismic only measures the time, so we then have to interpret another step to get to that depth structure.

Q. When we look at the bottom row of displays on the montage, starting with the lower left corner, what are we looking at here?

A. We're looking at arbitrary seismic lines through the 3-D volume. The one on the lower left is an east-west line that shows the Red Hills Unit Number 1, which was drilled in the early 1960s. This actually tested gas out of the Devonian, which is the yellow horizon in that trough in that red area. It tests at 10 million a day out of the Devonian but was not produced because of the sour content of the gas, and was later completed up at a more shallow level.

Our objective is to get higher to that well. Getting higher in these type of accumulations is critical because of the water-drive nature of the reservoir.

If we move to the west of the Red Hills Unit Number 1, we believe that we will move upstructure, and that's highlighted by the Red Hills Number 4 location that you can see.

Q. When you talk about an arbitrary line, the significance of "arbitrary" is nothing more than the data is sophisticated enough that you can arbitrarily select not only an orientation but a distance and let yourself generate this vertical profile?

A. That's correct.

Q. You've generated one east-west, and you also have drawn one north-south?

A. That's correct, and that's represented in the

middle, again with the Red Hills Number 4 located on that north-south line.

Q. All right, we'll come back to all of these. Identify for us the last one on the far lower right. What's that?

A. The last one on the bottom right is another view of that 3-D volume, but it's a horizontal view of the 3-D, commonly called a time-slice. It's at 2.45 seconds, but it quickly shows one where the structure resides as far as the high goes. The black area actually represents the overlying Woodford shale, and then the red area in the middle of that circular black outline would be the highest point for the Devonian structure.

Q. When we look at this last display, then, you can take the data, you can look at it in a bird's-eye view, if you will?

A. Yes.

Q. And you have taken a certain point in that database and sliced off the upper portion so that we can see in a bird's-eye view what the structural feature would look like at a certain depth?

A. That's correct.

Q. What is the significance of the color code?

A. The color code represents the energy that's input into the ground. As it returns, the wave field that comes

reflecting back is both a positive and negative energy, and we represent those positive and negative numbers by colors in the spectrum. In this case, black represents a positive number, red represents a negative number.

Q. The north-south-east-west red lines that intersect at the Red Hills 4 well is an indication of where the two vertical profile lines are?

A. That's correct.

Q. That's the line each one of these arbitrary lines --

A. That's correct.

Q. -- shows?

A. Yes.

Q. When we look at this display, does it also accurately show where the section boundaries are for each section?

A. Not on the seismic displays themselves, on the vertical, but on the horizontal one, yes.

Q. Okay, let's look at the horizontal one, and you can see the common boundary between Section 5 and 32?

A. Yes.

Q. Do you find that line? All right.

Within the area identified for the Red Hills 4 well there's a pink or a reddish-pink area. What does that represent?

A. That represents the high point of the Devonian reflection.

Q. Okay. Let's move back, then, to the north-south vertical arbitrary line.

A. Yes.

Q. Let's find the highest point of that structural feature with this illustration, and mark it for us.

A. I've actually marked that by spotting the Red Hills Number 4 location on that.

Q. Okay. As we read the Red Hills 4 location with the red vertical line, we follow the line down. At what point does it hit the highest structural point of the Devonian feature?

A. It would -- as far as --

Q. You have a vertical scale on the left that says 2.400?

A. That's -- The 2.45 seconds or --

Q. Yeah.

A. Oh, you mean what -- to a time?

Q. I'm trying to get into this point.

A. Right.

Q. Okay, following the red line down --

A. Okay.

Q. -- and following the vertical scale on the left --

A. Yes.

Q. -- there's going to be a point to orient him, and how do we do that?

A. It basically -- at approximately 2.45 seconds is where you would intersect the Devonian unconformity.

Q. And the top of that feature is indicated by looking at what color code?

A. The red.

MR. KELLAHIN: All right. Mr. Examiner, the witness has identified the structural feature as being the area I have described with my blue pen. The high point of the structure is the intersection of the red-shaded area with the red vertical line.

Q. (By Mr. Kellahin) Looking in the north-south direction on this display, as we move to the right we're moving north?

A. That's correct.

Q. All right. So as we look at this, if you move footage to --

A. I'm sorry, I think that's moving to the south.

Q. All right, when I'm looking at the center vertical profile --

A. Yes, the north-south.

Q. -- which direction is north?

A. To the left.

Q. Okay.

Q. As I move to the left I'm moving north?

A. Yes.

Q. Right? And as I move left, if you look at the data, you lose structure, do you not?

A. That's correct.

Q. In your opinion, can you drill this well successfully at the closest standard location?

A. No.

Q. Why not?

A. I believe that you'll be moving approximately 50 feet downdip from our proposed location. For this depth, over 17,000 feet, there's going to be a degree of error, and that's not an error that I'd be willing to accept.

Q. Let's go now to the east-west arbitrary line and go through the same exercise of finding the structural feature and seeing what happens when you move east and west along that point.

A. As you move to the west, you'll hit the fault that's indicated by the black line. You'll then drop downdip considerably. If you move to the east, again, you'll hit another fault and start dropping and losing structural closure very rapidly.

Q. Okay, let's come back up to the top center Devonian time-structure map and try to put it all together.

A. Okay.

Q. Starting with here, now, you've got contoured intervals. What's your contour interval? What are you contouring on? Intervals of -- what? Is this 25 feet?

A. Five milliseconds.

Q. Five milliseconds. It's a time- --

A. Yes.

Q. -- -based contour?

When we find the Red Hills location at the intersection of the two red lines --

A. Yes.

Q. -- what do you achieve at that location that you can't achieve at any other location?

A. At this particular location we will be higher in time from the Red Hills Unit Number 1 well.

Q. Is that of importance to you?

A. Yes.

Q. Why?

A. Well, that's our main control point for this structural closure. That gives us our sort of ground-truth measured top of the Devonian, and the objective would be to get high to that.

Q. And there's a water-drive component to this reservoir?

A. Yes.

Q. And therefore the strategy is to get the highest point onstructure to avoid the water for the longest period of time?

A. That's correct.

Q. Let's take this over, now, and look at the depth-structure map, and describe for us what you're seeing on the depth-structure map that you cannot interpret for us on the time-structure map. What are we doing that's a little different?

A. Because from well data we can identify a gradient in the velocity field in this area, the time structure and the depth structure do not overlay exactly. Things shift a little bit to the south when we convert to depth. And again, that's because -- if you look at the map in the upper right, that's because of that gradient that -- from the well data, we observe in the -- from the well data, a gradient in the velocity that goes from high velocity to the north, to slow velocity to the south.

So we will then shift -- After we do our depth conversion, we end up shift that depth high a little bit to the south.

Q. Can you find a point on this display by moving north on the north-south arbitrary line that's superimposed on this display? Can you show us where we will get to approximately 1650 on the structural feature?

A. On the depth map, it would be approximately at the subsea 14,000, if we move north on that north-south line.

Q. And how will we know that line on this display?

A. It's the first heavy contour as you move north along that north-south line, indicated in red.

Q. And there's a significant enough structural difference in depth elevation to make that location unacceptable?

A. Yes.

Q. In your opinion, the optimum location is as you have proposed it?

A. Yes, it is.

Q. The color code, can we use the color code on this display to show us what you think is the potential accumulation of gas in place?

A. Yes.

Q. Is there a general indication by color?

A. Yes, basically as the color starts to turn yellow, approximately at 14,100, you feel that would be the gas, again, you know, the gas.

Q. So as you look at your opportunities here, this truly is the best one when you look at either Section 32, or Section 5 for that matter?

A. Yes.

Q. How sophisticated is this data, Mr. Duc?

A. In my opinion it's a very good 3-D data set.

Q. Are you satisfied with the method by which that data was gathered?

A. Yes, I'm satisfied with the data. The data was gathered in 1989, and we reprocessed the data set in 1998.

Q. In your opinion, it gives you a reliable and reasonable basis upon which to reach your ultimate technical conclusions?

A. Yes, it does.

Q. And in your professional opinion, this proposed location is, in fact, the optimum opportunity to drill this well?

A. In my opinion, yes.

Q. If this Application is not approved, is there an opportunity to cause waste by failing to drill at the optimum location?

A. I'm sorry?

Q. Would you waste potential recovered gas --

A. Yes.

Q. -- by not drilling at this location?

A. Yes.

MR. KELLAHIN: That concludes my examination of Mr. Duc.

We move the introduction of his Exhibit Number 3.

EXAMINER CATANACH: Exhibit Number 3 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Duc, was it the Well Number 1 in Section 32 -- It tested the Devonian, did you say?

A. Yes.

Q. Only tested, was not produced?

A. That's correct.

Q. Tested 10 million a day, rate?

A. Yes.

Q. Okay. Is that well on the other side of the fault?

A. Between our proposed location there is a fault, yes.

Q. And -- Between the 4 and the 1 --

A. Yes --

Q. -- there is a fault?

A. -- that's correct.

Q. Okay. Does that fault separate that structure, or is it a --

A. I don't think so, I think it's a --

Q. It's in communication?

A. Yes.

Q. Okay. By moving the well north to a standard

location, I believe you testified that you would lose -- is it 50 feet?

A. That's correct.

Q. That's your opinion?

A. Yes.

Q. Fifty feet of structure?

A. Fifty feet.

Q. And you said there is a water portion of this -- a water-drive portion --

A. Right.

Q. -- of this structure?

A. Yes.

Q. Do you know where that occurs at?

A. We know where -- We don't know exactly where that is. We're assuming at 14,100. The original could have been down to 14,150. But the Number 3 well to the south, in Section 5, actually produced Devonian gas.

Q. Do you know how much that well produced or --

A. Yes, .7 BCF.

Q. Do you know why it was abandoned?

A. Yes, our opinion is, the well was reworked, reperfed and acidized, and we believed that that wasn't a wise thing to do. It actually communicated, because of the acid job, to the water, and therefore it started producing water after that work. We feel like the well could have

been better produced.

Q. So in your opinion, is there a potential for drilling another well in Section 5 to produce Devonian?

A. Right at the moment, no, but really that answer will depend on the results of this Number 4 well.

Q. So that 50 feet of structure is critical, in your opinion, in gaining --

A. Yes.

Q. -- being high in the structure, away from the water?

A. Yes. And that's the key, to be as far away from the water as you can be.

Q. Okay. How does this Devonian structure relate to zones uphole, the Wolfcamp and shallower zones? Is there any relationship there?

A. There's no relationship.

Q. So have you done any geology of the Wolfcamp or any of the higher gas zones?

A. Yes, we have.

Q. And there is potential in this location?

A. We feel there is some potential, yes.

Q. Wolfcamp?

A. Yes.

Q. Anything else?

A. The Atoka. I think that's it.

Q. Wolfcamp and Atoka?

A. Yes.

EXAMINER CATANACH: I think that's all I have.

MR. KELLAHIN: That concludes our presentation, Mr. Catanach.

EXAMINER CATANACH: Okay. All right, there being nothing further in this case, Case 12,140 will be taken under advisement.

And this hearing is adjourned.

(Thereupon, these proceedings were concluded at 3:10 p.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 12140, heard by me on March 18 1999.

David R. Catanach, 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 March 23rd, 1999.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002