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 MATADOR PETROLEUM CORPORATION FOR COMPULSORY POOLING AND AN UNORTHODOX SUBSURFACE WELL LOCATION, EDDY COUNTY, NEW MEXICO CASE NO. 12,594

)

)

)

ORIGINAL

01 MIR -8 AM 9:

OL CONSERVICION DW

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

February 22nd, 2001

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, February 22nd, 2001, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

| INDEX | |
|--|---------------|
| February 22nd, 2001 Examiner Hearing CASE NO. 12,594 | |
| | PAGE |
| EXHIBITS | 3 |
| APPEARANCES | 4 |
| APPLICANT'S WITNESSES: | |
| <u>MARK A. VIRANT</u> (Landman) Direct Examination by Mr. Kellahin Cross-Examination by Mr. Carr Examination by Examiner Catanach | 8 15 17 |
| <u>MIKE MILLER</u> (Geologist) Direct Examination by Mr. Kellahin Examination by Examiner Catanach | 19 25 |
| <u>MARK A. VIRANT</u> (Landman, recalled) Examination by Examiner Catanach | 27 |
| REPORTER'S CERTIFICATE | 30 |
| * * * | |
| | |
| | |
| | |
| | |
| | |
| | |

2

STEVEN T. BRENNER, CCR (505) 989-9317

EXHIBITS

| Applicant's | Identified | Admitted |
|-------------|------------|----------|
| Exhibit 1 | 9 | 15 |
| Exhibit 2 | 10 | 15 |
| Exhibit 3 | 11 | 15 |
| Exhibit 4 | 12 | 15 |
| Exhibit 5 | 12 | 15 |
| Exhibit 6 | 13 | 15 |
| Exhibit 7 | 13 | 15 |
| Exhibit 8 | 14 | 15 |
| Exhibit 9 | 14 | 15 |
| Exhibit 10 | 15 | 15 |
| Exhibit 11 | 15 | 15 |
| Exhibit 12 | 20 | 25 |
| Exhibit 13 | 21 | 25 |
| Exhibit 14 | 22 | 25 |
| Exhibit 15 | 23 | 25 |

* * *

APPEARANCES

FOR THE APPLICANT:

KELLAHIN & KELLAHIN 117 N. Guadalupe P.O. Box 2265 Santa Fe, New Mexico 87504-2265 By: W. THOMAS KELLAHIN

FOR CHEVRON USA PRODUCTION COMPANY:

HOLLAND & HART, LLP, and CAMPBELL & CARR 110 N. Guadalupe, Suite 1 P.O. Box 2208 Santa Fe, New Mexico 87504-2208 By: WILLIAM F. CARR

FOR KERR-MCGEE OIL AND GAS ONSHORE, LLC:

JAMES G. BRUCE, Attorney at Law 3304 Camino Lisa Santa Fe, New Mexico 87501 P.O. Box 1056 Santa Fe, New Mexico 87504

* * *

STEVEN T. BRENNER, CCR (505) 989-9317 4

| 1 | WHEREUPON, the following proceedings were had at |
|----|--|
| 2 | 10:00 a.m.: |
| 3 | EXAMINER CATANACH: All right, at this time we'll |
| 4 | call Case 12,594, the Application of Matador Petroleum |
| 5 | Corporation for compulsory pooling and an unorthodox |
| 6 | subsurface well location, Eddy County, New Mexico. |
| 7 | Call for appearances in this case. |
| 8 | MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of |
| 9 | the Santa Fe law firm of Kellahin and Kellahin, appearing |
| 10 | on behalf of the Applicant, and I have two witnesses to be |
| 11 | sworn. |
| 12 | EXAMINER CATANACH: Any additional appearances? |
| 13 | MR. CARR: May it please the Examiner, William F. |
| 14 | Carr with the Santa Fe office of the law firm Holland and |
| 15 | Hart. We represent Chevron USA Production Company. I do |
| 16 | not have a witness. |
| 17 | MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, |
| 18 | representing Kerr-McGee Oil and Gas Onshore, LLC. I have |
| 19 | no witnesses. |
| 20 | EXAMINER CATANACH: Any additional appearances? |
| 21 | Will the witnesses please stand to be sworn in? |
| 22 | (Thereupon, the witnesses were sworn.) |
| 23 | MR. KELLAHIN: Mr. Examiner, Matador's case, in |
| 24 | addition to the standard compulsory pooling items that |
| 25 | you're obviously aware of has some additional items I want |

1 | to bring to your attention.

| 2 | I've handed you, Mr. Carr and Mr. Bruce a summary |
|----|---|
| 3 | sheet to show you where we are. The first page of that |
| 4 | handout is a locator map that shows you the Indian Basin- |
| 5 | Upper Pennsylvanian Gas Pool. The section we're dealing |
| 6 | with is down in the far southern end of the pool; it's in |
| 7 | Section 20. That is immediately adjacent to the Upper |
| 8 | Penn-Indian Basin Gas Pool. That's on 640-acre spacing. |
| 9 | The first item is that the surface location |
| 10 | cannot be located at the proposed bottomhole location. |
| 11 | There's a surface obstruction, so it's going to be |
| 12 | directionally drilled. We're going to ask for a drilling |
| 13 | window in the Cisco so that it is not closer to the north |
| 14 | line of Section 20 than 660 feet nor closer to the eastern |
| 15 | boundary than 660 feet. |
| 16 | In addition, as you know, the Indian Basin-Upper |
| 17 | Penn is a prorated gas pool. It has been the convention |
| 18 | and practice of the operators in unorthodox well locations |
| 19 | to discuss and to agree upon a stipulated penalty. |
| 20 | Mr. Carr and I for a number of years did those |
| 21 | cases in the Indian Basin, and the practice now is to use a |
| 22 | two-part formula. One is a presumed productive acreage |
| 23 | component, and the other one is the footage encroachment |
| 24 | component. |
| 25 | I'm here to tell you that the offsetting operator |

1 towards whom this encroaches is Kerr-McGee in Section 16 and Chevron in Section 17, and there's an agreement as to 2 the stipulated penalty. The allowable will be 41.5 3 4 percent. We have a letter agreement that demonstrates 5 that. In addition, while the primary target is the 6 Cisco on 640 acres, we're asking in the unlikely event 7 there's deep gas production in the wellbore, that the 8 spacing unit being pooled for the 320 gas would be the east 9 half of the section. 10 In addition, Mr. Carr and I have talked about the 11 possibility that Matador may have to extend the drilling of 12 this well beyond the normal 90-day period. And in the 13 event that occurs, we would like the order to reflect an 14 opportunity for Chevron to make its election within 90 days 15 of actually commencing the well. 16 I was surprised to find in reviewing the various 17 forms of Division compulsory pooling orders that that 18 language which I am familiar with is not always 19 consistently in the current orders, and so I will show you 20 language that I think satisfies Mr. Carr's concern on 21 behalf of Chevron and ask that it be inserted into this 22 pooling order so that they will have an election within the 23 90-day period of actually commencing the well. 24 25 We're dealing with two federal leases, they're

| 1 | divided north half-south half. The only party to be pooled |
|----|---|
| 2 | is Chevron. |
| 3 | And with that introduction I'll call my first |
| 4 | witness. |
| 5 | EXAMINER CATANACH: You may proceed. |
| 6 | MARK A. VIRANT, |
| 7 | the witness herein, after having been first duly sworn upon |
| 8 | his oath, was examined and testified as follows: |
| 9 | DIRECT EXAMINATION |
| 10 | BY MR. KELLAHIN: |
| 11 | Q. All right, Mr. Virant, sir, would you please |
| 12 | state your name and occupation? |
| 13 | A. Mark Virant, land manager for Matador Petroleum. |
| 14 | Q. On prior occasions, Mr. Virant, have you |
| 15 | testified before the Division concerning compulsory pooling |
| 16 | cases? |
| 17 | A. I have. |
| 18 | Q. As part of your duties for Matador, have you |
| 19 | become familiar with the ownership in Section 20? |
| 20 | A. Yes, sir, I am. |
| 21 | Q. In addition, are you familiar with the offset |
| 22 | operators towards whom this unorthodox well location |
| 23 | encroaches? |
| 24 | A. Yes, sir. |
| 25 | Q. Have you been dealing with the parties that would |
| • | |

- ----

| 1 | participate in sharing the costs of this well? |
|----|--|
| 2 | A. I have. |
| 3 | Q. And it's been your responsibility to attempt to |
| 4 | reach a voluntary agreement with those parties? |
| 5 | A. That's correct. |
| 6 | MR. KELLAHIN: We tender Mr. Virant as an expert |
| 7 | petroleum landman. |
| 8 | EXAMINER CATANACH: He is so qualified. |
| 9 | Q. (By Mr. Kellahin) Mr. Virant, would you turn, |
| 10 | sir, to what is marked Exhibit Number 1 and identify that |
| 11 | for us? |
| 12 | A. Exhibit Number 1 is a plat that outlines several |
| 13 | items. The first one is the surface and bottomhole |
| 14 | location. The unit outline for the IB Federal Com Number 1 |
| 15 | well will be the entirety of Section 20. It's two federal |
| 16 | leases. Chevron owns the northern half, and Matador owns |
| 17 | the southern half. |
| 18 | Q. Let's deal with the location of the well. The |
| 19 | technical people have proposed an unorthodox well location |
| 20 | 660 out of the north and east sides of the section. |
| 21 | A. Correct. |
| 22 | Q. Is Matador able to locate the well at a surface |
| 23 | location that corresponds to the proposed bottomhole |
| 24 | location? |
| 25 | A. No, sir, we were not. |
| | |

9

| 1 | Q. And why not? |
|----|---|
| 2 | A. There were surface restrictions out there, there |
| 3 | was a creek that would have been necessary to cross. |
| 4 | Q. For surface use, is the proposed surface location |
| 5 | the closest surface location available in which to access |
| 6 | the proposed bottomhole location? |
| 7 | A. That's correct. |
| 8 | Q. If the well is successful in the Indian Basin- |
| 9 | Upper Penn Gas Pool, the dedication would be 640 acres to |
| 10 | that pool? |
| 11 | A. Yes, sir. |
| 12 | Q. Let's turn to your efforts to consolidate on a |
| 13 | voluntary basis the various spacing units. One spacing |
| 14 | unit would be the whole section? |
| 15 | A. Correct. |
| 16 | Q. And if there is 320-acre gas spacing, what is the |
| 17 | orientation for that? |
| 18 | A. That would be the east half of the section. |
| 19 | Q. And the parties are the same and the interests |
| 20 | are the same there? |
| 21 | A. Yes, sir. |
| 22 | Q. Summarize for us what we're looking at when we |
| 23 | look at Exhibit Number 2. |
| 24 | A. Exhibit Number 2 are the owners in the IB Federal |
| 25 | Com Number 1 well. Matador has 50 percent, we're the |
| | |

| 1 | operator and we're proceeding with this hearing. Chevron |
|----|--|
| 2 | would be the nonoperator with 50 percent. |
| 3 | Chevron has indicated they will not dispose of |
| 4 | any assets because of the pending merger with Texaco. |
| 5 | Chevron has advised us it will be necessary to initiate |
| 6 | force pooling proceedings in order to force a decision. |
| 7 | Q. Have you tabulated for the benefit of the |
| 8 | Examiner the various dates and kinds of discussions you've |
| 9 | had with Chevron and others concerning your well? |
| 10 | A. Yes, sir, and that's detailed on Exhibit 3. |
| 11 | Q. Without going through all the details for us, Mr. |
| 12 | Virant, have you advised Chevron of the need to |
| 13 | directionally drill this well? |
| 14 | A. We have. |
| 15 | Q. And have you provided them with a current AFE for |
| 16 | the cost of drilling this well? |
| 17 | A. They have a current AFE, yes, sir. |
| 18 | Q. And the summary here, then, shows your various |
| 19 | efforts to attempt to reach a solution or agreement with |
| 20 | Chevron? |
| 21 | A. That's correct. |
| 22 | Q. At this point, then, is there any opposition by |
| 23 | Chevron to your proposal to drill this well? |
| 24 | A. No, sir. |
| 25 | Q. All right. Have they raised any disagreement or |
| - | |

| 1 | objection with you concerning the costs of the well, the |
|----|---|
| 2 | AFE? |
| 3 | A. No, sir. |
| 4 | Q. Do you have a proposal for the Examiner as to |
| 5 | overhead rates to charge Chevron pursuant to a compulsory |
| 6 | pooling order? |
| 7 | A. The operating agreement provides for \$7000 and |
| 8 | \$700 monthly rate. |
| 9 | Matador has no operations in the area, in the |
| 10 | immediate area. We've had a discussion with Chevron. |
| 11 | Chevron has indicated that \$6000 and \$600 is a more |
| 12 | reasonable number, and we're prepared to accept that. |
| 13 | Q. All right, sir. Let's go through the |
| 14 | correspondence then. If you'll start with Exhibit 4, |
| 15 | identify that for me. |
| 16 | A. Exhibit 4 is an October 12th, 2000, letter. It's |
| 17 | a proposal from Matador to Chevron to acquire Chevron's |
| 18 | leasehold position in the north half of Section 20 via term |
| 19 | assignment or farmout. |
| 20 | Q. All right, following the October 12th letter, |
| 21 | what did you do then? |
| 22 | A. On October 27th we proposed the current location |
| 23 | to Chevron, with an operating agreement and an AFE. |
| 24 | Q. All right. The October 27th letter, then, is the |
| 25 | formal proposal for this subject well and including an AFE? |
| - | |

| | 10 |
|----|---|
| 1 | A. Yes, sir. |
| 2 | Q. Okay. After that, what's the next |
| 3 | correspondence? |
| 4 | A. The December 22nd letter is a reproposal of the |
| 5 | original well, due to the fact that we had originally |
| 6 | proposed that well on a 320-acre spacing unit, and it |
| 7 | should have been 640. |
| 8 | None of the ownership changed, but it was merely |
| 9 | procedural. |
| 10 | Q. All right, sir, the next letter? |
| 11 | A. The January 30th letter is just confirmation of a |
| 12 | meeting and discussion we had with Chevron whereby we |
| 13 | advised we just confirmed that the bottomhole location |
| 14 | in the original proposal and the second proposal were the |
| 15 | same. |
| 16 | Q. And as of today, then, what's your understanding |
| 17 | about Chevron's position and ability to reach a voluntary |
| 18 | agreement with Matador concerning this well and your |
| 19 | proposal? |
| 20 | A. They are limited by the pending merger with |
| 21 | Texaco, to make an immediate decision. |
| 22 | Q. They've advised you that you have no alternative |
| 23 | but to have a compulsory pooling order issued? |
| 24 | A. That's correct, this is the third time we've done |
| 25 | that with Chevron. |

| | 14 |
|----|---|
| 1 | Q. Let's turn to a different topic now, Mr. Virant. |
| 2 | Let's talk about the proposed unorthodox well |
| 3 | location. The well is to be 660 out of the north and east |
| 4 | sides. |
| 5 | Have you discussed with the offsetting operator |
| 6 | how to satisfy their concerns about the encroachment? |
| 7 | A. Yes, sir, and that's outlined on the February |
| 8 | 16th letter, which is Exhibit 8. |
| 9 | Q. Who were you dealing with concerning this |
| 10 | correspondence in this issue? |
| 11 | A. Kerr-McGee, but Chevron and Marathon are in |
| 12 | agreement with this acreage factor. |
| 13 | Q. All right. And the stipulation, then, is that |
| 14 | the order will contain an acreage factor pursuant to the |
| 15 | prorationing system for the pool such that you will have an |
| 16 | allowable of 41 1/2 percent? |
| 17 | A. That's correct. |
| 18 | Q. All right, sir, let's turn to the AFE. Would you |
| 19 | identify and describe for us Exhibit 9? |
| 20 | A. Exhibit 9 is the AFE which was provided to |
| 21 | Chevron. |
| 22 | Q. Okay. Again, you did not receive any objection |
| 23 | as to your estimated costs? |
| 24 | A. No, sir, we've had discussions and meetings, and |
| 25 | there's been no discussion of the cost on the AFE. |
| - | |

1 Q. All right, to the best of your knowledge this is still current and correct? 2 3 Α. Yes, sir. 4 ο. Then finally Exhibit Number 10, would you 5 identify that for us? Exhibit Number 10 is the joint operating 6 Α. 7 agreement which includes the overhead rate which I've 8 mentioned. 9 MR. KELLAHIN: All right, sir. Finally, then, Mr. Examiner, Exhibit 11 is my 10 certificate of compliance with the notification 11 12 requirements for this proceeding. And with your permission, we'll ask that you introduce Exhibits 1 through 13 14 11. 15 EXAMINER CATANACH: Exhibits 1 through 11 will be admitted as evidence. 16 17 MR. KELLAHIN: That concludes my examination of Mr. Virant. 18 EXAMINER CATANACH: Mr. Carr? 19 20 CROSS-EXAMINATION BY MR. CARR: 21 Mr. Virant, Matador has plans to drill additional 22 **Q**. 23 wells in this area, do they not? 24 Α. We would like to. We don't have anything in 25 concrete.

| 1 | Q. Are you planning to drill a well in Section 21? |
|----|---|
| 2 | A. We would like to drill a well in Section 21, but |
| 3 | at this time we don't own any acreage. |
| 4 | Q. So you don't have any definite plans at this |
| 5 | time? |
| 6 | A. That's correct. |
| 7 | Q. And so this location is not going to be proven up |
| 8 | by wells on an offsetting tract? |
| 9 | A. If we're fortunate enough to acquire the offset |
| 10 | tract, then in a perfect world we would prefer to drill in |
| 11 | Section 21 first. |
| 12 | Q. Are you trying to acquire that acreage? |
| 13 | A. Yes, we are. |
| 14 | Q. If that comes to pass and you drill a well in |
| 15 | Section 21 prior to drilling the well here, that would |
| 16 | necessitate extending this pooling order, would it not? |
| 17 | A. Most likely, yes, sir. |
| 18 | Q. If you find yourself in that situation and are |
| 19 | seeking an extension of the pooling order, would you be |
| 20 | willing to provide notice to Chevron of your request for an |
| 21 | extension of that pooling order? |
| 22 | A. We would. |
| 23 | Q. If, in fact, you drill that other well in 21, is |
| 24 | it possible that it could, in fact I mean, that you |
| 25 | would not go forward with the well in 20? |

| 1 | A. Possibly, depending upon the results. |
|----|--|
| 2 | Q. And it could impact the risk associated with the |
| 3 | wells in addition to that; is that not correct? |
| 4 | A. Yes, sir. |
| 5 | MR. CARR: That's all I have. Thank you. |
| 6 | EXAMINATION |
| 7 | BY EXAMINER CATANACH: |
| 8 | Q. Mr. Virant, is Matador going to monitor the |
| 9 | production from the well so as to make sure to comply with |
| 10 | the penalty for the allowable? |
| 11 | A. We will. |
| 12 | Q. And is there going to be any notice or any kind |
| 13 | of anything to Chevron to verify that or |
| 14 | A. We'll be glad to. We haven't discussed it. |
| 15 | Q. Okay. The surface obstruction, you said, was a |
| 16 | creek? |
| 17 | A. Yes, sir. |
| 18 | Q. And is there going to be any evidence presented |
| 19 | on that, the location of that? |
| 20 | A. No, sir. |
| 21 | Q. Okay. The joint operating agreement is at |
| 22 | this point Matador is the only operator subject to that, |
| 23 | the interest owner? |
| 24 | A. Matador and Chevron. |
| 25 | Q. Chevron hasn't signed it? |
| L | |

| 10 |
|---|
| A. No, sir, that's correct, that's correct. |
| Q. Do you anticipate ultimately that Chevron will |
| join in the well? |
| A. Well, I'm not sure exactly what they'll do. I |
| mean, this merger with Texaco is basically, all bets are |
| off. |
| Q. Okay. On the front of this operating agreement, |
| it says the contract area is the east half of Section 20. |
| A. Well, this was the operating agreement that we |
| sent out on the original proposal, and that will need to be |
| changed to reflect the reproposal on December 22nd. |
| Q. Okay. And your pooling Application requests |
| pooling all mineral interests from the surface to the base |
| of the Morrow formation. |
| In fact, if you obtain production in anything |
| that's spaced on less than 320, Matador would not have any |
| interest in that completion; is that correct? |
| A. That's correct. |
| EXAMINER CATANACH: That's all I have of the |
| witness, Mr. Kellahin. |
| MR. KELLAHIN: All right, sir. For your |
| information, Mr. Catanach, the advertisement qualifies that |
| first phrase by being specific as to the 640 and the 320 |
| spacing units, and so would by necessity exclude any other |
| combination. |
| |

| 1 | MIKE MILLER, |
|----|---|
| 2 | the witness herein, after having been first duly sworn upon |
| 3 | his oath, was examined and testified as follows: |
| 4 | DIRECT EXAMINATION |
| 5 | BY MR. KELLAHIN: |
| 6 | Q. All right, sir, would you please state your name |
| 7 | and occupation? |
| 8 | A. Mike Miller, geologist. |
| 9 | Q. Mr. Miller, has it been your responsibility for |
| 10 | Matador to prepare the geology for this prospect? |
| 11 | A. That's correct. |
| 12 | Q. And have you done so? |
| 13 | A. Yes. |
| 14 | Q. Where do you reside, sir? |
| 15 | A. Midland, Texas. |
| 16 | Q. Based upon your geologic study, do you now have |
| 17 | an opinion as to the appropriate level of risk to associate |
| 18 | with this well? |
| 19 | A. Yes, it's high, a high level of risk. |
| 20 | Q. In reference to the statutory maximum, which is |
| 21 | cost plus 200 percent, do you have an opinion as to what |
| 22 | that percentage risk should be, pursuant to compulsory |
| 23 | pooling orders? |
| 24 | A. It should be the penalty as proposed. |
| 25 | Q. The maximum, then? |
| L | |

19

STEVEN T. BRENNER, CCR (505) 989-9317

- - - -

| | | 20 |
|----|-----------|---|
| 1 | Α. | Correct. |
| 2 | Q. | In addition, has it been your recommendation to |
| 3 | locate th | nis well at an unorthodox well location? |
| 4 | А. | Yes. |
| 5 | Q. | Okay. Let's turn to your displays. Are all the |
| 6 | displays | we're about to see your work product? |
| 7 | Α. | Yes. |
| 8 | | MR. KELLAHIN: We tender Mr. Miller as an expert |
| 9 | geologist | |
| 10 | | EXAMINER CATANACH: He is so qualified. |
| 11 | Q. | (By Mr. Kellahin) Let's look at Exhibit Number |
| 12 | 12, Mr. M | Ailler. What are we seeing here? |
| 13 | Α. | This is a cumulative production map of the Indian |
| 14 | Basin are | ea. |
| 15 | Q. | Let me have you locate Section 20. We're simply |
| 16 | looking a | t half the section there? |
| 17 | Α. | Correct. |
| 18 | Q. | In the north half of 20 there appears to have |
| 19 | been a we | ell that penetrated to or through the Cisco? |
| 20 | Α. | That is correct. |
| 21 | Q. | What's the status of that wellbore? |
| 22 | Α. | That well is plugged and abandoned. |
| 23 | Q. | And why was that? |
| 24 | Α. | It encountered a heavy flow of water. |
| 25 | Q. | With that reference display, let's turn now to |

| | 12 |
|----|---|
| 1 | Exhibit 13 and have you tell us what we're looking at here. |
| 2 | A. This is a net pay isopach of the Cisco reef or |
| 3 | upper Penn reef pay. |
| 4 | Q. What's the significance of the vertical green |
| 5 | line on the left side of the display? |
| 6 | A. That is the large west-bounding fault of the |
| 7 | Indian Basin structure. |
| 8 | Q. Do you know precisely where that fault is in |
| 9 | relation to Section 20? |
| 10 | A. Not exactly. |
| 11 | Q. When we look at the southern end of Section 20, |
| 12 | there is a blue line running east to west. It's marked |
| 13 | "Dolomite-Limestone". What does that mean? |
| 14 | A. That represents the change in the Cisco pay from |
| 15 | a complete dolomite facies to a complete limestone facies. |
| 16 | Q. When we look at the color coding, explain to us |
| 17 | what the significance of the color code is. |
| 18 | A. The yellow colors represent thinning, and of |
| 19 | course the red colors represent thickening of the Cisco net |
| 20 | pay. |
| 21 | Q. Can you use this display to illustrate why you're |
| 22 | proposing a location that is approximately 660 feet out of |
| 23 | the corner, north and east corner of Section 20? |
| 24 | A. Yes, that would be to mitigate the two main risk |
| 25 | factors, which are the transition to the dolomite/limestone |

| 1 | and the main west-bounding fault of the Indian Basin |
|----|--|
| 2 | structure. |
| 3 | Q. Do you mitigate the risk to the extent that you |
| 4 | reduce the risk to less than the maximum 200 percent? |
| 5 | A. NO. |
| 6 | Q. Are there any other geologic components that |
| 7 | affect your decision on where to locate the well? |
| 8 | A. Only hints of fracturing in or near the plugged |
| 9 | and abandoned BTA well. |
| 10 | Q. Let's look at your structure map on Exhibit 14. |
| 11 | Describe for us the relationship of the structural |
| 12 | interpretation to your well proposal. |
| 13 | A. As you move from south to north in the section, |
| 14 | you gain structural advantage. |
| 15 | Q. And is that important to you in this reservoir? |
| 16 | A. It is generally advantageous. |
| 17 | Q. And why would that generally be true? |
| 18 | A. Because overall the Indian Basin, there's a |
| 19 | transition from a water to an oil to a gas-cap structure, |
| 20 | favoring the gas cap. |
| 21 | Q. Do you have any geologic opinions as to why the |
| 22 | BTA well in Section 20 failed to produce? |
| 23 | A. There were a number of problems with the |
| 24 | operations of that well, but probably the main |
| 25 | consideration was, it was located in or near a small fault |

or a large fracture that conducted water, large amounts of 1 2 water. When we look at the isopach, can we presume 3 Q. 4 that --EXAMINER CATANACH: Mr. Kellahin? 5 Yes, sir? 6 MR. KELLAHIN: 7 EXAMINER CATANACH: I don't have an isopach map. I have two structure maps. 8 9 MR. KELLAHIN: All right, sir. We can fix that right now. 10 11 EXAMINER CATANACH: Thank you. 12 0. (By Mr. Kellahin) When you look at the isopach 13 map, Mr. Miller, am I correct in understanding your 14 interpretation that if you're north of the zero line, then all that acreage is potential productive acreage that could 15 be applicable to this well? 16 17 Α. Yes, north of the zero line and also north of the dolomite-limestone transition. 18 As you move north, then, you improve the 19 ο. thickness and hopefully the quality of the dolomite? 20 21 Α. Correct. Let's turn to the cross-section, have you 22 Q. 23 identify Exhibit 15, please. The cross-section is, as you can see, on the 24 Α. Cisco reef isopach in blue. It consists of two wells. 25

| 1 | The north well on the left-hand side of your |
|----|---|
| 2 | isopach I mean on the left-hand side of your structural |
| 3 | cross-section, is the Mobil Bogle Flats Unit Number 9, |
| 4 | which was drilled in 1965. |
| 5 | And on the right-hand side of the cross-section |
| 6 | is the BTA Indian well, which was drilled in 1992, in |
| 7 | Section 20. |
| 8 | Q. And then in the north-south direction, those are |
| 9 | the closest two wells |
| 10 | A. Correct. |
| 11 | Q to your proposed location? |
| 12 | A. Correct. |
| 13 | Q. At the proposed location, then, when you look at |
| 14 | the cross-section, you are hopefully to be north of the BTA |
| 15 | well, and therefore potentially avoid this stray shale |
| 16 | problem that they encountered? |
| 17 | A. Correct. |
| 18 | Q. And to move away from any kind of fracturing |
| 19 | problem that they may have encountered that caused water to |
| 20 | move into the wellbore? |
| 21 | A. Correct. |
| 22 | MR. KELLAHIN: That concludes my examination of |
| 23 | Mr. Miller, Mr. Catanach. |
| 24 | We move the introduction of his Exhibits 12 |
| 25 | through 15. |
| | |

| 1EXAMINER CATANACH: Exhibits 12 through 15 will2be admitted as evidence.3MR. CARR: I have no questions.4EXAMINATION5BY EXAMINER CATANACH:6Q. Mr. Miller, I'm sorry, they did have a frac'ing7problem in that well?8A. No, the well was actually not frac'd. Pipe was9run to the Cisco pay, and it was perforated after a series10for DSTs which had shows of gas in them.11MR. KELLAHIN: You're talking about fracturing of12the reservoir itself that may have affected that13THE WITNESS: Oh, I see what you're saying, yes.14I thought you meant a mechanical frac. No, the In15sample examination, I did find that the reservoir, which is16common in this area, is fractured.17Q. (By Examiner Catanach) The large water18production, is that a result of its structural position, or19is it a result of the fracturing?20A. I surmise that it's a result of either a very21small fault or a fracture that is conducting water into the22PTA wellbore. However, there are wells on top of the23Indian Basin structure which produce large amounts of24water.25Q. By moving your well to the north, you hope to get | | 25 |
|--|----|---|
| 3 MR. CARR: I have no questions. 4 EXAMINATION 5 BY EXAMINER CATANACH: 6 Q. Mr. Miller, I'm sorry, they did have a frac'ing problem in that well? 8 A. No, the well was actually not frac'd. Pipe was run to the Cisco pay, and it was perforated after a series of DSTs which had shows of gas in them. 11 MR. KELLAHIN: You're talking about fracturing of the reservoir itself that may have affected that 13 THE WITNESS: Oh, I see what you're saying, yes. 14 I thought you meant a mechanical frac. No, the In 15 sample examination, I did find that the reservoir, which is common in this area, is fractured. 17 Q. (By Examiner Catanach) The large water 18 production, is that a result of its structural position, or 19 is it a result of the fracturing? 20 A. I surmise that it's a result of either a very 21 small fault or a fracture that is conducting water into the 22 BTA wellbore. However, there are wells on top of the 23 Indian Basin structure which produce large amounts of 24 water. | 1 | EXAMINER CATANACH: Exhibits 12 through 15 will |
| 4EXAMINATION5BY EXAMINER CATANACH:6Q. Mr. Miller, I'm sorry, they did have a frac'ing7problem in that well?8A. No, the well was actually not frac'd. Pipe was9run to the Cisco pay, and it was perforated after a series10of DSTs which had shows of gas in them.11MR. KELLAHIN: You're talking about fracturing of12the reservoir itself that may have affected that13THE WITNESS: Oh, I see what you're saying, yes.14I thought you meant a mechanical frac. No, the In15sample examination, I did find that the reservoir, which is16common in this area, is fractured.17Q. (By Examiner Catanach) The large water18production, is that a result of its structural position, or19is it a result of the fracturing?20A. I surmise that it's a result of either a very21small fault or a fracture that is conducting water into the22BTA wellbore. However, there are wells on top of the23Indian Basin structure which produce large amounts of24water. | 2 | be admitted as evidence. |
| BY EXAMINER CATANACH: Q. Mr. Miller, I'm sorry, they did have a frac'ing problem in that well? A. No, the well was actually not frac'd. Pipe was run to the Cisco pay, and it was perforated after a series of DSTs which had shows of gas in them. MR. KELLAHIN: You're talking about fracturing of the reservoir itself that may have affected that THE WITNESS: Oh, I see what you're saying, yes. I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 3 | MR. CARR: I have no questions. |
| Q. Mr. Miller, I'm sorry, they did have a frac'ing problem in that well? A. No, the well was actually not frac'd. Pipe was run to the Cisco pay, and it was perforated after a series of DSTs which had shows of gas in them. MR. KELLAHIN: You're talking about fracturing of the reservoir itself that may have affected that THE WITNESS: Oh, I see what you're saying, yes. I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 4 | EXAMINATION |
| problem in that well? A. No, the well was actually not frac'd. Pipe was run to the Cisco pay, and it was perforated after a series of DSTs which had shows of gas in them. MR. KELLAHIN: You're talking about fracturing of the reservoir itself that may have affected that THE WITNESS: Oh, I see what you're saying, yes. I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 5 | BY EXAMINER CATANACH: |
| A. No, the well was actually not frac'd. Pipe was run to the Cisco pay, and it was perforated after a series of DSTs which had shows of gas in them. MR. KELLAHIN: You're talking about fracturing of the reservoir itself that may have affected that THE WITNESS: Oh, I see what you're saying, yes. I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 6 | Q. Mr. Miller, I'm sorry, they did have a frac'ing |
| 9 run to the Cisco pay, and it was perforated after a series 10 of DSTs which had shows of gas in them. 11 MR. KELLAHIN: You're talking about fracturing of 12 the reservoir itself that may have affected that 13 THE WITNESS: Oh, I see what you're saying, yes. 14 I thought you meant a mechanical frac. No, the In 15 sample examination, I did find that the reservoir, which is 16 common in this area, is fractured. 17 Q. (By Examiner Catanach) The large water 18 production, is that a result of its structural position, or 19 is it a result of the fracturing? 20 A. I surmise that it's a result of either a very 21 small fault or a fracture that is conducting water into the 22 BTA wellbore. However, there are wells on top of the 23 Indian Basin structure which produce large amounts of 24 water. | 7 | problem in that well? |
| of DSTs which had shows of gas in them. MR. KELLAHIN: You're talking about fracturing of the reservoir itself that may have affected that THE WITNESS: Oh, I see what you're saying, yes. I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 8 | A. No, the well was actually not frac'd. Pipe was |
| MR. KELLAHIN: You're talking about fracturing of the reservoir itself that may have affected that THE WITNESS: Oh, I see what you're saying, yes. I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 9 | run to the Cisco pay, and it was perforated after a series |
| the reservoir itself that may have affected that THE WITNESS: Oh, I see what you're saying, yes. I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 10 | of DSTs which had shows of gas in them. |
| 13THE WITNESS: Oh, I see what you're saying, yes.14I thought you meant a mechanical frac. No, the In15sample examination, I did find that the reservoir, which is16common in this area, is fractured.17Q. (By Examiner Catanach) The large water18production, is that a result of its structural position, or19is it a result of the fracturing?20A. I surmise that it's a result of either a very21small fault or a fracture that is conducting water into the22BTA wellbore. However, there are wells on top of the23Indian Basin structure which produce large amounts of24water. | 11 | MR. KELLAHIN: You're talking about fracturing of |
| I thought you meant a mechanical frac. No, the In sample examination, I did find that the reservoir, which is common in this area, is fractured. Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 12 | the reservoir itself that may have affected that |
| 15 sample examination, I did find that the reservoir, which is 16 common in this area, is fractured. 17 Q. (By Examiner Catanach) The large water 18 production, is that a result of its structural position, or 19 is it a result of the fracturing? 20 A. I surmise that it's a result of either a very 21 small fault or a fracture that is conducting water into the 22 BTA wellbore. However, there are wells on top of the 23 Indian Basin structure which produce large amounts of 24 water. | 13 | THE WITNESS: Oh, I see what you're saying, yes. |
| 16 common in this area, is fractured. 17 Q. (By Examiner Catanach) The large water 18 production, is that a result of its structural position, or 19 is it a result of the fracturing? 20 A. I surmise that it's a result of either a very 21 small fault or a fracture that is conducting water into the 22 BTA wellbore. However, there are wells on top of the 23 Indian Basin structure which produce large amounts of 24 water. | 14 | I thought you meant a mechanical frac. No, the In |
| Q. (By Examiner Catanach) The large water production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 15 | sample examination, I did find that the reservoir, which is |
| production, is that a result of its structural position, or is it a result of the fracturing? A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 16 | common in this area, is fractured. |
| 19 is it a result of the fracturing? 20 A. I surmise that it's a result of either a very 21 small fault or a fracture that is conducting water into the 22 BTA wellbore. However, there are wells on top of the 23 Indian Basin structure which produce large amounts of 24 water. | 17 | Q. (By Examiner Catanach) The large water |
| A. I surmise that it's a result of either a very small fault or a fracture that is conducting water into the BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 18 | production, is that a result of its structural position, or |
| 21 small fault or a fracture that is conducting water into the 22 BTA wellbore. However, there are wells on top of the 23 Indian Basin structure which produce large amounts of 24 water. | 19 | is it a result of the fracturing? |
| BTA wellbore. However, there are wells on top of the Indian Basin structure which produce large amounts of water. | 20 | A. I surmise that it's a result of either a very |
| 23 Indian Basin structure which produce large amounts of 24 water. | 21 | small fault or a fracture that is conducting water into the |
| 24 water. | 22 | BTA wellbore. However, there are wells on top of the |
| | 23 | Indian Basin structure which produce large amounts of |
| 25 Q. By moving your well to the north, you hope to get | 24 | water. |
| | 25 | Q. By moving your well to the north, you hope to get |

· · · ____ · · ·

.

| | 20 |
|----|---|
| 1 | away from that possible fracturing problem? |
| 2 | A. Correct, to the north and east. |
| 3 | Q. But you also gain structure in that interval? |
| 4 | A. Yes, and that is advantageous, normally. But I |
| 5 | feel the critical risk is, in this case, moving away from |
| 6 | the dolomite/limestone transition and any associated faults |
| 7 | with the major west-bounding fault of the Indian Basin |
| 8 | structure. |
| 9 | Q. Is there any advantage to you seem in |
| 10 | moving north, you again would encounter a greater amount of |
| 11 | thickness in that Cisco section. Is that to your advantage |
| 12 | also? |
| 13 | A. Yes. Again, we only have a control point more |
| 14 | than two-thirds of a mile on the left-hand side of your |
| 15 | cross-section. But I would guess that, yes, you would gain |
| 16 | a greater thickness moving north, of net pay. |
| 17 | Q. Okay. What's the likelihood of obtaining |
| 18 | production below the Cisco, Mr. Miller? |
| 19 | A. Fairly remote, in that the BTA well tested the |
| 20 | or actually logged through the Morrow interval, which is |
| 21 | the only other producing pay zone in this area. |
| 22 | Q. They didn't find anything in the Morrow? |
| 23 | A. No. |
| 24 | EXAMINER CATANACH: Okay, I think that's all the |
| 25 | questions I have. |
| | |

| 1 | Mr. Kellahin, could you supply a map, a topo map |
|----|--|
| 2 | that shows the location of the creek that we've been |
| 3 | talking about? |
| 4 | MR. KELLAHIN: Yes, sir, I'd be happy to do that. |
| 5 | EXAMINER CATANACH: And also I had one more |
| 6 | question of Mr. Virant if I could do that. |
| 7 | MARK A. VIRANT (Recalled), |
| 8 | the witness herein, having been previously duly sworn upon |
| 9 | his oath, was examined and testified as follows: |
| 10 | EXAMINATION |
| 11 | BY EXAMINER CATANACH: |
| 12 | Q. Mr. Virant, I just wanted to make sure I |
| 13 | understood where the offset operators were with respect to |
| 14 | the unorthodox location. I believe you said that Kerr- |
| 15 | McGee operated the wells in Section 16? |
| 16 | A. Yes, sir, Kerr-McGee is in Section 16. |
| 17 | Q. And in Section 17 I believe it was |
| 18 | A Chevron. |
| 19 | Q. Chevron. |
| 20 | Now, there appears to be a well in Section 21. |
| 21 | Do you know who operates that well? |
| 22 | A. That's Marathon. That well is temporarily |
| 23 | abandoned. |
| 24 | Q. And with respect to the unorthodox location, was |
| 25 | Marathon notified? |
| - | |

| | 20 |
|----|--|
| 1 | MR. KELLAHIN: Yes, sir. |
| 2 | THE WITNESS: Yes, sir. |
| 3 | MR. KELLAHIN: It will show in Exhibit 11, I |
| 4 | think it is. |
| 5 | EXAMINER CATANACH: And that is an Indian Basin |
| 6 | well that's temporarily abandoned |
| 7 | MR. KELLAHIN: Right, that was a nonstandard |
| 8 | proration unit for that section in the north half of 21, |
| 9 | and the well is temporarily abandoned, but it's still |
| 10 | operated by Marathon. And we sent them notice. |
| 11 | EXAMINER CATANACH: Who operates Is there any |
| 12 | operations in the south half? |
| 13 | MR. KELLAHIN: No, sir, it's excluded. |
| 14 | EXAMINER CATANACH: Do you know who owns it? |
| 15 | MR. KELLAHIN: No, sir. |
| 16 | Q. (By Examiner Catanach) But you said you're |
| 17 | trying to acquire the interest in Section 21; is that |
| 18 | correct? |
| 19 | A. We've been approached by Marathon about possibly |
| 20 | doing something in Section 21. |
| 21 | Q. Would that involve any interest in the south half |
| 22 | of that section, Mr. Virant? |
| 23 | A. Talking with Mr. Kellahin, we believe we could |
| 24 | drill it on the north half of 21. It would not involve the |
| 25 | south half. |
| - | |

MR. KELLAHIN: Mr. Examiner, for your 1 information, there is an order that deals with Section 21 2 in which after noticing the hearing, the Commission back in 3 1969 found that there was no productive acreage in the 4 south half of Section 21, and therefore those parties 5 should not participate in the Indian Basin-Upper Gas Pool 6 7 [sic] production in the north half. They approved a nonstandard proration unit, they 8 9 approved the well at an unorthodox location. It's Order 10 Number 3737, issued in March of -- I'm sorry, April of 1969. 11 12 So based upon that order, we notified Marathon as 13 the current operator. EXAMINER CATANACH: Thank you, Mr. Kellahin. 14 That's all I have. 15 Is there anything further in this case? 16 17 There being nothing further, Case 12,594 will be taken under advisement. 18 (Thereupon, these proceedings were concluded at 19 20 10:30 a.m.) 21 * * I do hereby certify that the foregoing is 22 e complete record of the proceedings in g the Examiner hearing of Case No. 25 23 192001. heard by me on februng 22 24 Exeminer Divisioa Conservation 25

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 February 24th, 2001.

STEVEN T. BRENNER CCR No. 7

My commission expires: October 14, 2002

STEVEN T. BRENNER, CCR (505) 989-9317 30