

1 STATE OF NEW MEXICO  
2 ENERGY AND MINERALS DEPARTMENT  
3 OIL CONSERVATION DIVISION  
4 STATE LAND OFFICE BUILDING  
5 SANTA FE, NEW MEXICO

6  
7  
8 13 February 1985

9 EXAMINER HEARING

10 IN THE MATTER OF:

11 Application of BTA Oil Producers CASE  
12 for compulsory pooling, 8478  
13 Lea County, New Mexico.

14 BEFORE: Michael E. Stogner, Examiner

15 TRANSCRIPT OF HEARING

16 A P P E A R A N C E S

17  
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23 For the Applicant: William F. Carr  
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MR. STOGNER: Call next Case Number 8478.

MR. TAYLOR: The application of BTA Oil Producers for compulsory pooling, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I represent Chama Petroleum Company who has a parallel application seeking pooling of the same lands for a well at a different location.

We have requested that this application be continued -- the BTA application be continued and set on the 27th of this month at the same time the Chama application will be heard.

MR. STOGNER: Case Number 8478 will so be continued to the Examiner Hearing scheduled for February 27th, 1985.

(Hearing concluded.)

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case no. 8478, heard by me on 13 February, 1983.

Michael D. Stagner Examiner  
Oil Conservation Division

1 STATE OF NEW MEXICO  
2 ENERGY AND MINERALS DEPARTMENT  
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5 SANTA FE, NEW MEXICO

6 27 February 1985

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 Application of BTA Oil Producers  
10 for compulsory pooling, Lea County,  
New Mexico.

CASE  
8478

11 Application of Chama Petroleum Com-  
12 pany for compulsory pooling and unor-  
thodox gas well location, Lea County,  
New Mexico.

CASE  
8505

13 BEFORE: Michael E. Stogner, Examiner  
14  
15

16 TRANSCRIPT OF HEARING

17 A P P E A R A N C E S  
18

19 For the Oil Conservation  
20 Division:

Jeff Taylor  
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A P P E A R A N C E S

For Chama Petroleum:                    William F. Carr  
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3 MR. STOGNER: This hearing will  
4 come to order.

5 We will call now Case Number  
6 8478.

7 MR. TAYLOR: The application of  
8 BTA Oil Producers for compulsory pooling, Lea County, New  
9 Mexico.

10 MR. STOGNER: We'll now call  
11 for appearances.

12 MR. KELLAHIN: If the Examiner  
13 please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing  
14 on behalf of the applicant.

15 MR. CARR: May it please the  
16 Examiner, my name is William F. Carr, with the law firm  
17 Campbell and Black, appearing on behalf of Chama Petroleum  
18 Company.

19 The next case on the docket is  
20 Case 8505. That case involves pooling of the same acreage.  
21 We would ask that it be consolidated for purposes of hearing  
22 and separate orders to be entered.

23 MR. STOGNER: Are there any ob-  
24 jections?

25 MR. KELLAHIN: No objection.

MR. CARR: I'd also like to  
note that when the case was originally advertised, it's a  
very lengthy and complicated advertisement due to the fact

1  
2 at the time it was advertised there was an application pen-  
3 ding filed by Chama seeking the limitation of the pool rules  
4 for the Lea Pennsylvanian Gas Pool.

5 The application was denied;  
6 therefore it is unnecessary to consider any 320-acre pooling  
7 in this case, and so any portion of that or which relates to  
8 that and anything in our application which relates to 320-  
9 acre pooling may be dismissed.

10 MR. STOGNER: Mr. Carr, you are  
11 in fact pooling from the surface --

12 MR. CARR: To the base of the  
13 Morrow under the northeast quarter of Section 25, which I  
14 believe is the same acreage involved in the BTA application.

15 MR. STOGNER: Okay, the BTA ap-  
16 plication is pooling interest in the Pennsylvanian formation  
17 only, so the Wolfcamp in this particular area is still  
18 developed on 320 acres.

19 MR. KELLAHIN: I'm not sure.

20 MR. CARR: I'm not either.

21 MR. STOGNER: The Wolfcamp only  
22 because the Pennsylvanian is in the Lea Pennsylvanian Pool  
23 that has 160 acres.

24 Our rules say that 320 acres  
25 persists on all formations older than the Wolfcamp formation  
age, so therefore, the 320 acres still exists in the Wolf-  
camp.

MR. KELLAHIN: And if we get a

1  
2 Wolfcamp well I guess we'll have to come back and redo this  
3 or work out some agreement because we're only seeking to  
4 pool 160 acres because of special pool rules in the Lea  
5 Penn, is all it will allow.

6 MR. STOGNER: Well, let me see.  
7 The BTA application is pooling all interest in the Pennsyl-  
8 vanian formation only, is that correct?

9 MR. ZOLLER: Right.

10 MR. STOGNER: Whereas Chama has  
11 everything else plus the stuff in the Pennsylvanian, is that  
12 correct?

13 MR. CARR: Well, the purpose of  
14 my statement was to simply concede that we no longer have  
15 the problem that would spring from the application filed by  
16 Chama, and that to the extent that we are only looking at  
17 160-acre spacing, anything else that was involved in that  
18 prior case is now mooted by that decision and we want it  
19 clear that we are now not considering 320 acres, that we're  
20 accepting the fact that the pool rules for the Lea Penn Pool  
21 have not been limited as the earlier --

22 MR. STOGNER: We do have that  
23 straight.

24 MR. KELLAHIN: Yes, sir.

25 MR. STOGNER: Okay. We will  
now at this time call Case 8505.

MR. TAYLOR: The application of  
Chama Petroleum Company for compulsory pooling and an unor-

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thodox gas well location, Lea County, New Mexico.

MR. STOGNER: These two cases will be consolidated for purposes of testimony. Let the record show that these two parties also enter an appearance in this case number.

Is there any other appearances in this matter, these matters?

Will you please continue.

MR. KELLAHIN: I have three witnesses to be sworn, Mr. Stogner.

MR. CARR: And I have two.

MR. STOGNER: All witnesses please stand and be sworn.

(Witnesses sworn.)

MR. KELLAHIN: If the Examiner please, we'll call as our first witness Robin Hughes.

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Miss Hughes, for the record would you please state your name and occupation?

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A Robin Hughes, Landman, BTA Oil Producers.

Q Miss Hughes, have you previously testified before the Oil Conservation Division as a petroleum landman?

A Yes.

Q And are you familiar with the land title arrangement with regards to BTA's application and the various efforts on behalf of the BTA to attempt to form a voluntary unit with Chama?

A Yes.

MR. KELLAHIN: We tender Miss Hughes as an expert petroleum landman.

MR. STOGNER: Are there any objections?

MR. CARR: No objection.

MR. STOGNER: She is so qualified.

Q Miss Hughes, let me direct your attention to the land plat that we have tendered as BTA Exhibit Number One and so that we all have a clear understanding of the issues involved in this hearing, have you identify for us the 160-acre spacing and proration unit that is the subject of the forced pooling application.

A Yes, I have. That would be the northeast quarter of Section 25, Township 20 South, Range 34 East, Lea County, New Mexico.

Q Within that 160-acre spacing and prora-

1  
2 tion unit would you identify for us who are the working in-  
3 terest owners?

4 A Okay. BTA owns 50 percent of the working  
5 interest in the 160 acres.

6 Q All right.

7 A Chama, or Charles Nearburg, owns the  
8 other 50 percent of the working interest, being the west  
9 half of the northeast quarter.

10 Q Your exhibit shows the east half of the  
11 northeast quarter with Exxon's name on that.

12 A Yes. BTA's working interest in the  
13 northeast quarter comes by virtue of a farmount agreement  
14 with Exxon.

15 Q So for the spacing and proration unit the  
16 east half working interest is controlled by BTA and the west  
17 half is controlled by Chama, or Mr. Nearburg.

18 A That's right.

19 Q From your understanding and recollection  
20 of the events transpiring between BTA and Mr. Nearburg,  
21 and/or Chama, would you describe for us in chronological or-  
22 der the efforts that have transpired between your company  
23 and Mr. Nearburg with regards to drilling a well in the  
24 northeast quarter of this section?

25 A Okay. Our first correspondence with Mr.  
Nearburg came on May the 9th of 1984.

Q I have marked that letter as Exhibit Num-  
ber Two.

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A Okay.

Q All right. Is this the first attempt by BTA to propose the formation of a Morrow test in the Lea Pennsylvanian Pool for the northeast quarter of this section?

A Yes, it was. At that time BTA approached several working interest owners in the area and attempted to negotiate farmout agreements. The first test well had not been drilled. A proposed test well was to be located in the southeast quarter of Section 24, where we subsequently drilled the Lynch No. 1 Well.

As I said, on May the 9th we first approached Mr. Nearburg for a farmout agreement of his acreage in the west half of the northeast quarter of Section 25 and proposed to drill the first well in the southeast quarter of 24 and operate the area under 180-day continuous development provision.

Q The first well in the Lea Penn --

A Right.

Q -- drilled by BTA was located in the southeast quarter of Section 24?

A That's right.

Q The section to the north of 25.

A That's right.

Q When was the second well drilled, approximately?

A The second well was commenced December

1 the 21st, 1984.

2 Q And that is located where?

3 A That's located in the southwest quarter  
4 of Section 24.

5 Q In discussing a well for the northeast  
6 quarter of Section 25, were there any efforts, to your know-  
7 ledge, by either Chama or Mr. Nearburg prior to May 9th,  
8 1984, by which Chama had approached BTA to either farm out  
9 its acreage or to participate in a well operated by Chama or  
10 Mr. Nearburg?

11 A No.

12 Q Would you describe for us generally what  
13 were the proposed terms of the offer by BTA to Mr. Nearburg  
14 concerning his acreage in this spacing unit?

15 A Okay. We asked Mr. Nearburg to farmout  
16 his interest in the west half of the northeast quarter of  
17 Section 25 to BTA, retaining an overriding royalty interest,  
18 being the difference between 25 percent and present lease-  
hold burden, with a 25 percent back-in at pay out.

19 Q Did you propose to Mr. Nearburg at this  
20 point the opportunity to participate in the well?

21 A Not at this point, no.

22 Q All right. Would you describe for us  
23 what then is the next event that took place after the May  
9th letter?

24 A Okay. After the May 9th letter, as I  
25 said, we drilled the Lynch No. 1 in the southeast quarter.

1  
2 We drilled the Lynch No. 2 in the south-  
3 west quarter, and then we again approached Chama on January  
4 the 4th and asked for support for a well in the northeast  
5 quarter of Section 25.

6 At that time we asked that Chama either  
7 elect to participate in the well with their 50 percent work-  
8 ing interest or to farm out to BTA, retaining the difference  
9 between 30 percent and present leasehold burden.

10 Q Attached to Exhibit Number Three, which  
11 is BTA's letter of January 4th, '85, is an AFE.

12 A Right.

13 Q Is this the AFE that was submitted to Mr.  
14 Nearburg?

15 A Yes, it is.

16 Q All right, what then is the next event  
17 that occurred?

18 A Mr. Nearburg, or Chama, responded to BTA  
19 on January the 14th, stating that they were also interested  
20 in developing the acreage but that they had different ideas  
21 about how it should be developed.

22 They stated in their letter that they had  
23 on January the 4th staked a location 660 feet from the north  
24 line and 1980 from the east line of Section 25.

25 In that letter they stated that BTA's  
farmout terms would not be acceptable to them and that in  
terms of participating they felt that BTA's AFE was exces-  
sive.

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Q All right, what then is the next event that occurs after the January 14th letter?

A There was a meeting between Chama and BTA on -- well, I'm sorry.

The next thing that happened was that BTA applied for compulsory pooling on January the 16th.

Q All right, what then is the next thing that happened?

A On February the 4th we received correspondence from Chama indicating that they also had filed for compulsory pooling.

Q All right, so by Exhibit Number Five, which is Chama's letter of February 4th, both companies have traded applications to force pool the other.

A That's right.

Q All right. After the February 4th letter, what then is the next event?

A There was a meeting between Chama and BTA on February the 15th and more terms were discussed and no --

Q Was an agreement reached?

A No.

Q Following the February 15th meeting, what then is the next event?

A Chama wrote BTA on February the 21st and proposed farmout terms whereby Chama would farmout to BTA retaining an overriding royalty interest being the difference between 25 percent and leasehold burdens, and also re-

1  
2 taining a 40 percent back-in at payout.

3 Q All right, let's look at Exhibit Number  
4 Six, which is the February 21st letter, Miss Hughes.

5 What, if any, response has Chama given  
6 you with regards to a proposed location for the subject well  
7 in the northeast quarter of this section?

8 A Well, I think their proposed location was  
9 1980 from the east line, and as far as BTA operating the  
10 well, in the February 21st letter they said that the well  
11 could be operated at a location of BTA's choice if we ac-  
12 cepted their farmout terms.

13 Q With regards to the AFE that BTA submit-  
14 ted to Chama, was there any resolution of the differences  
15 between the operators with regards to AFE costs for the  
16 well?

17 A Well, I don't really think so. They --  
18 they said that they would like to discuss certain items, but  
19 basically that it would probably be acceptable.

20 Q As of today's hearing, Miss Hughes, has  
21 Chama and BTA come to any agreement with regards to forming  
22 a voluntary unit for the drilling of this well or come to  
23 terms with regards to a farmout of Chama's interest to BTA?

24 A No.

25 Q Do you have, Miss Hughes, a proposed rate  
to be included in any forced pooling order with regards to  
the overhead charges to be assessed while drilling and then  
while producing?

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2           A           Yes.    We would propose drilling overhead  
3 rates of \$5150 and producing rates of \$560.

4           Q           Would you describe for me upon what basis  
5 you make that recommendation?

6           A           Well,  the number -- our Lynch No. 2 Well  
7 was  also -- was operated under a joint operating  agreement  
8 and these are the terms that -- these are the overhead rates  
9 that  we  used for that well and it's been agreeable to  the  
10 non-operators and --

11          Q           The No.  2 Well is in the southwest quar-  
12 ter of Section 24?

13          A           Yes.

14          Q           Would you identify for us who  the non-  
15 operating working  interest owners,  some of them who  have  
16 committed to that rate?

17          A           It's Union Oil Company of California.

18          Q           And that well was drilled in 1984?

19          A           Yes.    That well has not been  completed  
20 yet.

21          Q           Do you know how the estimated well  cost  
22 on the AFE that was submitted to Chama by letter dated  Jan-  
23 uary 4th, 1985, upon what basis that was prepared?

24          A           Well,  the No.  1 Well has total drilling  
25 and completing  costs of about \$1.8-million and the  No.  2  
Well,  which  has  not  yet  been  completed,  I  think  is  now  
around \$888,000.

          Q           How then was the estimated well costs on

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this Exhibit Number Five -- I'm sorry, Exhibit Number Three, been compiled and prepared?

Was it based just upon the costs for those two wells as projected or based upon some other costs?

A Well, I can't really say --

Q All right.

A -- for certain. I assume that the costs on the 1 and 2 wells were certainly taken into consideration.

Q Except for the AFE, Miss Hughes, were the other Exhibits One through Seven either prepared by you or represent correspondence received by BTA from Chama in files that are subject to your control and supervision?

A Yes.

MR. KELLAHIN: That concludes my examination of Miss Hughes.

We move the introduction of Exhibits One through Seven.

MR. STOGNER: Is there any objection?

MR. CARR: No objection.

MR. STOGNER: Exhibits One through Seven will be admitted into evidence.

Mr. Carr, your witness.

CROSS EXAMINATION

BY MR. CARR:

1  
2 Q Miss Hughes, my name is Bill Carr. I  
3 represent Chama. I have several questions for you.

4 If you would look at your Exhibit Number  
5 One, the three spacing units are indicated. As to the spac-  
6 ing unit which is comprised of the southwest quarter of 24,  
7 did that case require that BTA come in and seek a compulsory  
pooling order?

8 A We did at one time seek a compulsory  
9 pooling order but it was later dismissed.

10 Q Okay. Was there ever a hearing, to your  
11 knowledge on that well?

12 A Yes, there was a hearing.

13 Q Did you testify in that hearing?

14 A Yes, I did.

15 Q And what was the subject of that hearing?

16 A Well, the subject of that hearing was the  
forced pooling of the west half of the southwest quarter.

17 Q Now no hearing, I assume, was required on  
18 the southeast quarter.

19 A That's right.

20 Q Does BTA own all the working interest in  
21 that, in that quarter section?

22 A Yes, it does.

23 Q And so we're now on the second pooling  
24 hearing in three units.

25 The first letter in your -- which I be-  
lieve is Exhibit Number Two, is dated May the 9th. I be-

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lieve you stated this was BTA's first attempt to contact Charles Nearburg of Chama Petroleum --

A Yes.

Q -- Company. Was there any follow-up, that you're aware of, on the part of BTA after this letter was sent in May?

A No.

Q Are you aware of any telephone calls or anything mailed to Chama?

A No, I'm not.

Q Was this -- it doesn't seem to indicate it was mailed by certified mail. Do you know if it was or not?

A I don't believe it was.

Q Are you aware that the address on this letter is incorrect?

A No, I'm not aware of that.

Q That the true address of Chama Petroleum Company is Box 31405 and that the zip code is 75231?

A I was not aware of that.

Q Did -- I assume you didn't receive any response from Chama to this letter.

A No, sir.

Q Are you aware of the hearing that was held before the Division on January the 3rd concerning the change in spacing, or the limitation of the pool rules for the Lea Penn Gas Pool?



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A I was aware of that, yes.

Q That took place the day before your letter was sent to Chama proposing the -- the second letter to Chama proposing development of the northeast quarter of 25, is that correct?

A You said it took place on January the 3rd?

Q Yes.

A Then that would be the day before our letter.

Q And you received a response to your January 4th letter ten days later, that being the next exhibit in the packet of material --

A Right.

Q -- dated January 14th.

Now that letter requested a personal meeting between the parties, did it not?

A Yes.

Q But prior to a personal meeting there was an exchange of applications for compulsory pooling, is that right?

A Well --

Q Or was there a meeting before the application for compulsory pooling was filed by BTA, do you know?

A I don't think there was a meeting before we filed our compulsory pooling application now.

Q But we are in a position where we don't

1  
2 have agreement between the parties for the development of  
3 the tract. That's fair to say.

4 The overhead charges that you have re-  
5 commended, those are the figures that were actually used on  
6 the Lynch No. 2 or was it the Lynch No. 1?

7 A The Lynch No. 2.

8 Q Okay, and are those figures in line, the  
9 figures for the Lynch No. 2 and these, are they figures that  
10 were used for other wells in the area prior to the drilling  
11 of the Lynch No. 2?

12 A Well, I don't know.

13 MR. CARR: I have no further  
14 questions.

15 MR. STOGNER: Mr. Kellahin, no  
16 redirect?

17 CROSS EXAMINATION

18 BY MR. STOGNER:

19 Q Miss Robin, on Exhibit Number Six there  
20 is a P.S. in the letter from Chama Petroleum concerning  
21 changes in number two and number five.

22 Does that correspond with BTA's letter of  
23 -- what number two and number five are they actually talking  
24 about?

25 A I believe they're talking about number  
two and number five of their own letter of --

Q Their own letter.

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A -- February 21st.

Q Okay. Did BTA respond to these two changes in any way?

A We responded by letter dated February 22nd. Do you have a copy of that?

Q That's Exhibit Number Seven, right?

A Yes, sir.

Q Do you know if there was any phone conversations between them?

A Well, I think that the February 21st letter was written and then the postscript was made as a result of a telephone conversation between Mr. Nearburg and Bob Crawford of BTA's office.

Q Do you know if these are the only two disagreements between BTA and Chama?

A As far as I know.

Q Okay.

MR. STOGNER: I have no further questions of Miss Robin.

Are there any other questions of this witness?

If not, she may be excused at this time.

Mr. Kellahin?

MR. KELLAHIN: Mr. Examiner, at this time we'll call Mr. T. B. O'Brien.

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3 T. B. O'BRIEN,

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

6 DIRECT EXAMINATION

7 BY MR. KELLAHIN:

8 Q Mr. O'Brien, would you please state your  
9 name and occupation, sir?

10 A I'm T. B. O'Brien. I'm a drilling engin-  
11 eer. I'm President of O'Brien-Goins-Simpson, Incorporated,  
12 which is a drilling engineering firm.

13 Q What is your relationship to BTA, the ap-  
14 plicant in this case?

15 A I was asked by Mr. Johnson of BTA to re-  
16 view their drilling records on the No. 1 and 2 Lynch Wells,  
17 to review their AFE and give them an opinion as to the accu-  
18 racy, or probably accuracy, of their AFE.

19 Q Would you describe for the Examiner what  
20 background you have that allows you to provide that service  
21 to someone like BTA?

22 A I've been in the business of drilling oil  
23 wells for something over thirty-eight years.

24 I have been a drilling engineer for that  
25 period of time.

I've made estimates, cost estimates on I  
can't tell you how many wells.

1  
2 I have managed the operations for an oil  
3 company.

4 One of my primary occupations within the  
5 business of being a drilling engineer is to design wells, to  
6 estimate costs, to manage drilling operations, to trouble-  
7 shoot wells that are in -- having problems.

8 I appear as a technical witness or expert  
9 witness, if you please, quite frequently. I on occasion ar-  
10 bitrate disputes regarding the cost and techniques, problems  
11 incurred in drilling wells.

12 Q Have you previously testified as a drill-  
13 ing expert before the New Mexico Oil Conservation Commis-  
14 sion?

15 A Yes, sir.

16 MR. KELLAHIN: We tender Mr.  
17 O'Brien as an expert drilling engineer.

18 MR. CARR: We'll stipulate that  
19 Mr. O'Brien is an expert witness.

20 MR. STOGNER: He is so quali-  
21 fied.

22 Q Mr. O'Brien, in reference to the work  
23 you've performed for BTA in reviewing their drilling program  
24 and the information from their first two wells, have you  
25 compared that program and those costs to the estimated well  
costs for the subject Lynch No. 3 Well?

A Yes, sir.

Q I show you what has been introduced as an

1  
2 attachment to BTA Exhibit Number Three, which purports to be  
3 a well cost estimate, an Authority for Expenditure, and ask  
4 you if you can identify that document?

5 A This was the -- is a copy of the AFE that  
6 was furnished me by BTA to consider in this investigation  
7 that I did.

8 Q And have you completed that investigation  
9 for BTA?

10 A Yes, sir.

11 Q In terms of a drilling program that you  
12 would prepare or pass on as being adequate for a well to  
13 this particular depth in this particular area, have you  
14 reached an opinion?

15 A Yes, sir.

16 Q And what is that opinion?

17 A I think this is an accurate or reasonably  
18 accurate, appropriate AFE and drilling program.

19 Q Are there any unusual circumstances or  
20 conditions about drilling a well in this area to this depth  
21 that we ought to know about?

22 A Probably the most unusual thing in this  
23 well program is the fact that there are three strings of  
24 casing required to the depth of 5500 feet in addition to  
25 conductor pipe.

There's a 700-foot string of 20-inch set  
to cover water, possible fresh water zones.

There's 3500 feet of 13-3/8ths set to go

1  
2 through the salt and this being in the potash area, to cover  
3 the potash.

4 Then a string of 9-5/8ths is set at 5500  
5 feet.

6 The regulatory bodies, the BLM, primari-  
7 ly, require that both the 20-inch and the 13-3/8ths be  
8 cemented from shoe to surface.

9 The reason for the, what be thought to be  
10 an extra string of casing here, is that between 3500 and  
11 5500 feet lost circulation occurs even when using fresh  
12 water. It is impractical, another point that is important  
13 here is there are no water wells in this immediate vicinity  
14 that are adequate to provide drilling water. Water has to  
15 be hauled.

16 Then between 3500 and 5500 feet lost cir-  
17 culation occurs with fresh water. If an attempt were made  
18 to drill that interval with saturated brine, which would be  
19 in use when 3500 feet is reached, then lost circulation  
20 would be complete and the cost would be excessive.

21 That same problem applies to the portion  
22 of the hole below 5500 feet. The mud density required to  
23 drill the remainder of the hole reaches in excess of 10.2 or  
24 3 to the order as much as 10.5 or so pounds per gallon, and  
25 the 3500 to 5500 foot zone simply will not stand that mud  
density.

Therefore, the unusual number of casing  
strings is required in this particular locality. This is

1  
2 not a particularly common thing in the area but it is a  
3 problem that occurs in this particular locality.

4 Q You made reference to the potash/oil  
5 area. Is this an area that is designated as a potash/oil  
6 area under the Commission's R-111-A rules or this an area  
7 designated by the Secretary of Interior as being contained  
8 within the Federal Potash Enclave?

9 A It is my understanding that is it within  
10 the area designated by the Secretary of Interior.

11 Q And not within the area designated by the  
12 Oil Conservation Commission?

13 A That's my understanding.

14 Q In your opinion is the casing and  
15 cementing and drilling program outlined for this well one  
16 that will adequately protect potential fresh water sources  
17 and minimize the potential risk to any potash operations  
18 that may take place in this area?

19 A It will do that.

20 Q In terms of drilling this type of well,  
21 Mr. O'Brien, in your opinion are the estimate costs fair and  
22 reasonable?

23 A Yes, they are.

24 Q Can you characterize for us the type of  
25 risk involved in drilling this type of well in this area as  
26 opposed to drilling the ordinary garden-variety Morrow well  
27 outside of a potash area?

28 A There are, of course, limitations imposed

1  
2 by BLM on wells that are drilled within the potash area; re-  
3 quirements for running and cementing casing and this kind of  
4 thing, and with those restrictions, well, those are the  
5 restrictions that are imposed because of the presence or  
6 possible presence of potash.

7 Q Has BTA as the proposed operator for this  
8 well properly budgeted for and planned for those contingen-  
9 cies or those potential risks?

10 A Yes, they have.

11 MR. KELLAHIN: That concludes  
12 my examination of Mr. O'Brien.

13 MR. STOGNER: Mr. Carr, your  
14 witness.

15 CROSS EXAMINATION

16 BY MR. CARR:

17 Q Mr. O'Brien, could you tell me what AFE  
18 stands for?

19 A Authority for Expenditure, I think it  
20 says.

21 Q So this document is a tool used at the  
22 beginning to sort of set out what the estimated costs for  
23 drilling a well in this area would be.

24 A That is correct.

25 Q And then payments that would be made ul-  
timately would be adjusted to reflect the actual costs.

A That is correct.

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Q So if there is a surprise, the costs would go up and if there's a surprise, savings likewise, of course, might come down.

A That's correct.

Q Now you talked about the three strings of casing that are being required. I want to be sure I understand your testimony.

Are they required by BLM or a government agency or are they actually required by the physical situation encountered out there?

A I think to a degree both. There is a requirement for a water string. There is a requirement for a salt string, and then the physical conditions require the third string.

Q And so there is a government regulation in place to -- that requires this casing because of the physical characteristics. Is that a fair statement?

A To a degree.

Q How is that not fair?

A Because the government regulations do not require the 9-5/8ths. They do --

Q Okay.

A -- require the 20-inch and 13-3/8ths or casing in those places but they do not require the 9-5/8ths.

Q Do you actually go out when they're drilling the well or is that your responsibility in your job?

A Not near as much as I used to. That's

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one of the things about getting old.

Q Things are getting better in some respects.

A I'm glad you added the last part of that.

Q When you look at an AFE like this and you testified that it's fair and reasonable, it's possible, is it not, that some figures might in another AFE for a similar well be some columns slightly higher, others slightly lower, and that you still could have, although some variation, still a reasonable AFE?

A If you -- depends on how much variation you want to accept as reasonable, I suppose.

Q But these are not the only possible figures.

A Absolutely not.

Q Okay. That's all I have.

MR. STOGNER: Mr. Kellahin, any redirect?

MR. KELLAHIN: No, sir.

#### CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. O'Brien, are you a drilling contractor or a drilling consultant?

A I'm not a contractor. I am a consultant, yes, sir.

Q Did you consult for BTA on the Lynch No.

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1 and No. 2 Wells?

A No, sir.

Q Are you familiar with those two wells?

A I am, having reviewed their drilling reports.

Q Was their casing program similar to these?

A Yes, sir, almost identical.

Q Almost identical. And if I remember right, the 13-3/8ths and 9-5/8ths were both circulated with cement?

A No, sir, the 20-inch and 13-3/8ths were circulated. The 9-5/8ths, if I recall, the cement came up to some point within the 13-3/8ths. I seem to remember 3100 feet, but I may be off on that.

Q Anyway, back up to the shoe of the 13-3/8ths.

A It was within the 13-3/8ths.

MR. STOGNER: I have no further questions of Mr. O'Brien at this time.

Are there any other questions of this witness?

MR. KELLAHIN: No, sir.

MR. STOGNER: The witness may be excused.

Mr. Kellahin?

MR. KELLAHIN: Mr. Zoller.

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3 MARVIN L. ZOLLER,

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

6 DIRECT EXAMINATION

7 BY MR. KELLAHIN:

8 Q Mr. Zoller, for the record, would you  
9 please state your name?

10 A Marvin Zoller.

11 Q Mr. Zoller, would you describe for us  
12 what it is that you do for BTA Oil Producers?

13 A I'm the Chief Operations Geologist for  
14 BTA, which is primarily the drilling, for instance last year  
15 I believe 93 wells.

16 Q Mr. Zoller, have you previously testified  
17 as a petroleum geologist on behalf of your company before  
18 this Division?

19 A Yes, sir.

20 Q And were you involved as the geologist  
21 for your company in the drilling of the other two Lynch  
22 wells that we have discussed in the hearing this afternoon?

23 A Yes, sir.

24 Q And have you prepared a geologic study  
25 and certain exhibits with regards to BTA's forced pooling  
application this afternoon?

A Yes, sir.

1  
2 MR. KELLAHIN: We tender Mr.  
3 Zoller as an expert petroleum geologist.

4 MR. STOGNER: Are there any ob-  
5 jections?

6 Mr. Zoller is so qualified.

7 Q Mr. Zoller, let me direct your attention  
8 to what we've marked as BTA Exhibit Number Eight, which is a  
9 contour map on top of the Morrow Clastics.

10 A Yes, sir.

11 Q I would like you first of all to identify  
12 the exhibit before we get into describing what it means and  
13 how you interpret it and what conclusions you reach.

14 If you'll simply describe the exhibit for  
15 us.

16 A It's merely a structural map made on a  
17 point about midway down in the Morrow section, which is a  
18 point where the Morrow becomes a clastic or sand-shale sec-  
19 tion instead of primarily a limestone section, which is the  
20 case in the top 3-or-400 feet of the Morrow.

21 Q When we look at a possible well location  
22 for the well to be drilled in the northeast quarter of Sec-  
23 tion 25, do you have an opinion as to where that well ought  
24 to be located?

25 A Well, I have proposed it 660 out of the  
north and east corner of Section 25. I don't see anything  
wrong with that location. It's certainly it's not planted  
in cement, however.

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2 Q What advantage does it give to the abil-  
3 ity to produce the potential gas in this northeast quarter  
4 to have a well located similar to a position as you have in-  
5 dicated for us?

6 A Well, what I was attempting to do, of  
7 course, one, I wanted to get on BTA acreage. Two, I wanted  
8 to get just as high on the structure as I could get because  
9 some of the sands appear to have a gas/water contact; some  
of them apparently do not have.

10 Q Have you had an opportunity to consider  
11 the proposed location that Chama has suggested in their ap-  
12 plication which would be a location, as I see from the ad-  
13 vertisement, of 660 from the north line and 1980 from the  
14 east line?

15 A Yes, I'm familiar with that.

16 Q All right, sir. Do you have an opinion  
17 with regards to which of the two proposed locations for  
18 which you have a preference?

19 A Well, naturally I prefer my own but with  
20 the control you've got, you know, it's hard to stand here  
21 and beat a drum and fight for 1320 feet when you're talking  
22 about a hole that's 13,600 feet deep. So there's certainly  
room for disagreement.

23 Q Have you had an opportunity to discuss  
24 the geologic considerations in this prospect with anyone re-  
presenting Chama?

25 A No, sir.

1  
2 Q All right. Let us turn now to the cross  
3 section, which is the C-C' cross section. I believe it's  
4 marked as Exhibit Number Nine.

5 A Okay.

6 Q And have you identify the cross section  
7 for us.

8 A Do you want to put this on the wall?

9 Q I think it might be helpful. It seems to  
10 be a little longer --

11 A It's seven feet long.

12 Q Using the line of cross section shown on  
13 Exhibit Number Eight, would you identify for us what you've  
14 done in preparing Exhibit Number Nine?

15 A Yes. If I can recap a little bit here,  
16 Mr. Examiner, out of all the hearings we have I'm running  
17 out of exhibits.

18 There is a cross section A-A' down  
19 towards the south end of the section which is already in  
20 your files twice.

21 There's a B-B', which goes from the  
22 northwest to southeast, which is already in your files and  
23 which Chama has; in fact, Chama has both of those.

24 That cross section, those two cross  
25 sections covered twelve wells, so in an attempt to cover one  
more aspect of risk, I decided to make one more cross  
section and cover the only two dry holes in the immediate  
area of the field, since dry holes is another form of risk.

1  
2 Up on the left end of your cross section,  
3 which would be Wells Nos. 1 and 3, are the two dry holes.

4 Well No. 1 has a number of sands, most of  
5 which were extremely tight. We ran two drill stem tests and  
6 we got mud on both of them. They ran a couple of wireline  
7 formation tests and got very small quantities of water out  
8 of what's colored as the gray sand.

9 Well No. 3, which is on the east flank of  
10 the structure ran three drill stem tests, two within the  
11 Morrow, one within the -- probably the Barnett. One got 10  
12 feet of mud, the other one got 63 feet of mud; obviously,  
13 neither one had porosity and permeability, or either.

14 The only significance that I really place  
15 on these two wells is that both of them are higher structur-  
16 ally than producing wells on the west flank of the field.

17 They either had sand or didn't have sand  
18 and if they had sand, they didn't have any permeability. It  
19 was to show that additional element of risk, but now we have  
20 a cross section that goes through every well in the field  
21 except two out on the very western flank and both of those  
22 didn't make enough gas to worry about drawing a cross sec-  
23 tion through them.

24 Q Do you have an opinion, Mr. Zoller, with  
25 regards to the risk factor penalty that ought to be assessed  
against any nonconsenting working interest owner by the Di-  
vision should it enter a forced pooling order in this case?

A Well, it's my believe that every Morrow

1  
2 well in New Mexico deserves the 200 percent penalty, which-  
3 ever side I'm on.

4 Q Have you discovered anything in examining  
5 this area that would cause you to change that general opin-  
6 ion?

7 A Maybe I've discovered some things that  
8 would cause me to believe it stronger. These sands are, if  
9 anything, a little more erratic than normal.

10 I will say that this cross section does  
11 just exactly what the other two does, if you just go down it  
12 well by well and shows the erratic nature of the sands pro-  
13 bably better than the other two.

14 Q Can you express an opinion on behalf of  
15 your company with regards to a selection of the operator for  
16 this well between BTA and Chama?

17 A Of course it's my opinion that BTA is the  
18 one that stepped out and took all the risk to make the ex-  
19 tension to this field, or this reservoir. We spent a Mil-  
20 lion and a Half Dollars, or so, on that well. We have since  
21 spent a Million and a Half Dollars on the second well, and  
22 I'm a little perplexed to see why in the world we can't go  
23 ahead and finish the job and drill the third location, which  
24 is the last location we've got.

25 Q Have you participated in any wells in  
which Chama is the operator?

A Not that I'm familiar with.

Q Were Exhibits Eight and Nine prepared by

1  
2 you or compiled under your direction and supervision?

3 A They were prepared by me.

4 MR. KELLAHIN: We move the in-  
5 troduction of Exhibits Eight and Nine.

6 MR. STOGNER: If there is no  
7 objection, these exhibits will be admitted into evidence.

8 MR. KELLAHIN: That concludes  
9 my examination by Mr. Zoller.

10 MR. STOGNER: Mr. Carr, your  
11 witness.

12 CROSS EXAMINATION

13 BY MR. CARR:

14 Q Mr. Zoller, when we look at your struc-  
15 ture map I believe that I've seen this structure map before,  
16 is that correct?

17 A Very similar.

18 Q Very similar? Have there been changes?

19 A There's been one change on the map, Mr.  
20 Carr. In the process of making the cross section I got up  
21 to the north end, the farthest well away from the whole pro-  
22 blem and to save my life, I don't know where I got that  
23 point on the other map, but this one's right.

24 Q All right, you have not adjusted the con-  
25 tours?

A No.

Q All right.

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2           A           In fact, let me volunteer something for  
3 you. We logged our well yesterday and the top of the Clas-  
4 tics on the second well is -9263, if you'd like to put it on  
5 your map.

6           Q           All right, and what was that? It was --

7           A           -9263.

8           Q           And what did that figure show?

9           A           Huh?

10          Q           That figure shows what?

11          A           That is the top of the Morrow Clastics,  
12 which is the point we're contoured on here, and it's 17 feet  
13 low to the No. 1.

14          Q           Now on this structure map, does this  
15 show the gas/water contact?

16          A           No.

17          Q           In your Lynch No. 1 did you encounter any  
18 water?

19          A           In the Lynch No. 1, if you remember, I  
20 submitted an exhibit showing a foot-to-foot correlation or  
21 calculation in which it indicated that we had 44 feet of --  
22 possible 44 feet of gas column before we were definitely in-  
23 to what we calculated to be wet.

24                       We drilled 1320 feet west and came in 17  
25 feet low.

                      The first sand, the main sand, has no  
water calculation whatsoever on the second well that we can  
see.

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2 Q Now, as I understood your testimony, you  
3 stated that one of the considerations in recommending the  
4 well location in Section 25 in the northeast of 25, was that  
5 you wanted to be as high structurally as possible.

6 Isn't one of the reasons for that to try  
7 and stay as far above the water that might be in any of  
8 these zones as possible?

9 A That's not really a major consideration  
10 here because the sand colored yellow on all the cross  
11 sections is the main sand in the No. 1 Lynch. It will be  
12 the main sand in the No. 2 Lynch.

13 The No. 1 Lynch is the one that  
14 attempted, or seemed to have a water down in the bottom of  
15 that sand. We're going to be too low for that sand unless  
16 that sand goes completely out, comes back in at a separate  
17 reservoir, it's not an objective in the No. 3 well.

18 Q So that same sand, if I understand your  
19 testimony, you do not believe that the sand that's producing  
20 in the Lynch No. 1 is going to be a main objective in the  
21 No. 3.

22 A If a sand of that age produces in the No.  
23 3, it has to be separated from the No. 2 -- yeah, No. 1.

24 Q And tell me then why is it that you'd  
25 like to be structurally high, as high structurally as possible.

A Well, there's just something about anybody  
that's been in this business very long that if you've

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got a choice of being high or low, you want to be high.

There are -- there is at least one other sand, and I can't tell you offhand which one it is, that had a little water. I think it's one of the brown up higher on one of the cross sections. There is a sand up there that had a little water in one well.

So again, it just makes sense to try to drill wells as structurally high as you can, even if you know it's almost all a stratigraphic trap.

Q And is the reason for trying to be high to avoid any water that might be there?

A Well, it in this case it certainly is. There's some slight amount of evidence that some of the better wells are up near the crest of the structure, but that's not a cardinal rule, and some indication that some of the thickest sands are fairly high on structure, but that's not -- that doesn't fit every well, either.

Q Are you aware that the Chama Well in Section 25 is producing from a sand that's below the main sand in the Lynch Well?

A Oh, yes.

Q And you're aware that that's producing no water.

A Oh, yes, but that has nothing to do with this. That's a different reservoir.

Q That's a different reservoir and that's -- would it be your opinion that that's more stratigraphic

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trap than, perhaps, a structural trap you're looking at down there, or do you know?

A I think they're all stratigraphic traps. There's just some of them that aren't completely full of gas.

Q But structure is an important aspect as you go in and start working in this area, is it not?

A Well, it is if you're in one of those sands that does have some water in the bottom.

Q Like in the Lynch No. 1?

A Like in the Lynch No. 1.

Q And I believe you've previously testified that in that sand that it's a -- it's very sensitive to structure in the Lynch No. 1.

A Very sensitive? I don't know what that term means, but I testified that we, I think we perforated 14 feet at the top of it. We have calculations of about 30 feet of gas above water. We have a tight section that we don't know about, which might give us a total section of 44 feet above water.

Q Mr. Zoller, you testified at the hearing on the 28th of November concerning the Lynch No. 2 Well, did you not?

A I've testified at all of them, so I must have.

Q And at that time you were placed under oath and were asked certain questions by Mr. Kellahin, and

1  
2 at that time Mr. Kellahin -- and this is, Tom, on Page 19,  
3 Line 7 -- Mr. Kellahin asked you:

4 "The structural relationship to production  
5 insofar as it affects the southwest quarter of 24 is one  
6 that's very sensitive to structure, is it not?"

7 Does that sound like a familiar question?

8 A (Not clearly understood.)

9 Q Your answer at that time was: "Was  
10 very."

11 A That's very in the sense that we did have  
12 water in the phase of this same sand in the No. 1 Well.

13 Q Okay, and the only point I was after with  
14 my question was that there are -- it's a mixed bag here.  
15 You may have some -- some stringers or some reservoirs in  
16 the Morrow that structure is an important factor.

17 A We very definitely do have.

18 Q Now if we look at the Lynch No. 1 Well,  
19 that's an extremely good well, is it not, for this area?

20 A Well, it had an extremely high potential.

21 Q Is it -- does it have the highest poten-  
22 tial of any well in the Lea Penn Pool?

23 A No, sir. There's a well just north of  
24 it, the Marathon No. 11, that potentialled for 17,000,000  
25 cubic feet a day and out of that completion didn't make but  
240,000,000 cubic feet of gas.

Q Is it -- would you characterize it as a  
good well?

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A           It was after they plugged it back to similar sands, but it wasn't out of that zone.

Q           As for the Lynch No. 1, is it a good well in that yellow sand body that we're -- we're talking about?

A           The Lynch No. 1 has an extremely high potential and next year I'll try my best to answer the rest of your question.

Q           But it has an unusually high potential and that's what you can --

A           Well --

Q           -- what do you judge a well on at this stage in its life, its potential.

A           At this stage in its life?

Q           Yes.

A           Oh, you base it on its potential, its porosity; there's all kinds of engineering things that we might get to later.

I'm tremendously impressed by high potentials but when I've got a well a half, three-quarters of a mile away that potentialized for 17,000,000 cubic feet and day and didn't make but 240,000,000 cubic feet of gas, I'm not going to sit here and tell you that the Lynch No. 1 is an extremely good well.

It has an extremely nice potential.

Q           And a year from now you might be able to tell me that it was and you might tell me wasn't.

A           That's right.

1  
2 Q Now the zone that we're talking about,  
3 the yellow zone on your Exhibit Number Nine, I believe, that  
4 is present in the Lynch No. 1 Well, you've been able to cor-  
5 relate that over a fair portion of the Lea Penn Gas Pool,  
6 have you not?

7 A I've been able to correlate every one of  
8 those zones all the way -- over every cross section I've  
9 got. Some of them come in and go out but the thickness is  
10 still there whether there's a sand there developed or not.  
11 There's shale to replace it or shaley silt.

12 Q And you testified that even though that  
13 sand body may be present in the north of Section 25, you  
14 don't consider that a primary objective in the well that's  
15 being proposed. Is that -- is that a correct statement?

16 A I don't consider it to be one but some-  
17 thing happened in the No. 2 Well that gives me faith.

18 Q Faith that it is or that it isn't?

19 A The bottom part of the sand that we found  
20 in the No. 1 Well, they calculated wet?

21 Q Yes.

22 A Was extremely dirty 1320 feet to the  
23 west.

24 What sand we had that was clean was ex-  
25 tremely tight.

If that can happen 1320 feet to the west,  
there is no telling what's going to happen 2000 feet to the  
southeast. We may hit a sand of that age that's a complete-

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ly separate reservoir, even if it is low.

Q And you may hit the same sand body, also.  
It's just a --

A Right.

Q You have to drill to see.

A It can be the same age and not be connected.

Q But it may be, and you won't really know that till you drill. Isn't that a fair statement?

A Well, if we drill it and it produces gas, I'm going to separate the two wells, because one of them calculates wet, and if we're down dip to a wet well producing gas, I'm going to build another reservoir down here.

Q Now, when we look at any of these wells, they're -- I believe you testified earlier that some wells in this pool may be able to drain in excess of 160 acres.

A Don't see any reason in the world why it wouldn't.

Q And that depends on the quality of the well. A better well would drain more -- I hope I'm right on this -- than a poor well would.

A The quality of the permeability and porosity is what it is.

Q Now, if we -- if we look at the subject proration unit in Section 25, doesn't it make sense that the closer we would get to the Lynch Well the higher structurally we would be?

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A I don't know how you can do any better than you're doing unless you move 330 or 467, or something, from the north line, but we moved it 660 and I believe that's what the rule says is as close as we can get.

Q But it would be desireable to get as close to the Lynch as possible. That would mean that we're hopefully up structure, isn't that correct?

A I'm all for proximity. I just don't know how to get there from here.

Q Now I've asked this before but I'd like to get it in the record.

Have you attempted to map the Morrow in this area?

A You talking about Isopach?

Q Yes.

A I don't think I own enough paper to Iso-pach all the different zones that are out there and I don't think I'm qualified or capable or doing it if I did.

Q Do you know if anyone in BTA has done that or would you be the person?

A I can guarantee you no one in BTA did it.

Q Now if I look at the structure map, I see a fault.

A Right.

Q Can you tell me just what that fault is based upon?

A It's based on two things. It's based on

1  
2 some geology that was brought to us off the street when we  
3 first looked at this deal, plus when I mapped it and found  
4 out that the Kell Oil State 30 Com in Section 30 was, oh,  
5 what is it, 800 feet lower now than we know the BTA well is,  
6 for instance, it was also 500 feet lower than the geology  
7 that we looked at when we bought this deal, so I proceeded  
8 to put that fault in there myself because there's just no  
9 doubt in my mind, there wasn't then and there sure isn't  
10 now, with 800 feet of dip between BTA's No. 1 and the Kell  
11 Oil well, that there's a fault out there.

12 All that fault says is, in my opinion, up  
13 in Section 7 you'll see a Sinclair State, I don't think  
14 there's any doubt that fault is east of the Sinclair State.  
15 It's somewhere west of the Kell Oil Well.

16 I don't propose to use it as exactly  
17 where I've got it.

18 Q That's an -- that's an interpretation  
19 based really on those -- on limited points, and there's a  
20 fault somewhere in there.

21 A That's right, sir.

22 Q On this structure map again, if we look  
23 at your proposed location in Section 25, it is -- would be  
24 below the 9300-foot contour, is that correct?

25 A 9305, I guess would be a fair figure if  
you one.

MR. KELLAHIN: I'd be willing  
to accept that.

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Q If you look at the Chama location plotted 660 out of the northwest corner of that proposed spacing unit, it would actually be above the 9300-foot contour, would it not?

A Probably all the way up to 9290, if you like it.

Q So actually the Chama location would be structurally higher, would it not, than yours?

A If my map was 100 percent right.

Q This is your best estimate, is it not?

A It's the best I could do.

Q This is your best interpretation --

A Best I know how to do.

MR. CARR: I have no further questions.

MR. STOGNER: Mr. Kellahin, any redirect?

MR. KELLAHIN: Yes, sir.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Yes, sir. How far about physically on the surface are the two proposed well locations?

A 1320 feet.

Q And if we use the numbers that Mr. Carr has developed in terms of structural position, there's about 15 feet of difference in structure between the wells?

1  
2           A           That's my interpretation of my own map.  
3 It's the best I can do.

4           Q           Is this map to such a degree of  
5 reliability that we can map down to a difference of 15 feet  
6 in structure?

7           A           Well, let me put it this way. I lucked  
8 out on the No. 2 Lynch but I don't expect to do that very  
9 often.

10          Q           Will 15 feet of structure make a material  
11 difference in the quality of this well?

12          A           It won't make any difference in the in-  
13 terpretation of the sand colored yellow and everything else  
14 out there, every other sand at that location is a wildcat,  
15 anyway.

16          Q           In your opinion is there any material  
17 difference between the two locations?

18          A           No, none.

19                   MR. KELLAHIN: Nothing further.

20                   MR. STOGNER: Is this Exhibit  
21 Nine?

22                   MR. KELLAHIN: Yes, sir.

23          A           Yes, sir.

24                   MR. STOGNER: I don't have any  
25 questions of the witness, Mr. Zoller, at this time.

Are there any other questions  
of this witness?

MR. KELLAHIN: No, sir.

1  
2 MR. STOGNER: If not, he may be  
3 excused.

4 Mr. Kellahin, you alluded sev-  
5 eral times to several different cases previous to this. Do  
6 you know the case numbers on them, Mr. Carr or Mr. Kellahin?

7 MR. KELLAHIN: I would suggest  
8 for your reference, Mr. Examiner, that you take administra-  
9 tive notice of the case in January 3rd, which was a consoli-  
dated case. Those are Cases 8446 and 8447.

10 There is another hearing tran-  
11 script and the number is -- Mr. Carr may have it.

12 MR. CARR: The number of that  
13 case is 8420. That matter was heard November 11 -- I mean,  
14 I'm sorry, November 28th, 1984.

15 We have no objection to your  
16 taking administrative note of both of those cross sections  
referred to as exhibits.

17 MR. STOGNER: The hearing exa-  
18 miner will take administrative notice of all three of the  
19 cases that you just talked about.

20 MR. KELLAHIN: That concludes  
21 my presentation on behalf of BTA.

22 MR. STOGNER: Thank you, Mr.  
23 Kellahin.

24 Mr. Carr?

25 MR. CARR: At this time I would  
call Mr. Mark Nearburg.

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MARK NEARBURG,

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

DIRECT EXAMINATION

BY MR. CARR:

Q Would you state your full name and place of residence?

A I'm Mark Nearburg. Dallas, Texas.

Q By whom are you employed?

A Chama Petroleum Company.

Q In what capacity?

A Landman.

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

A Yes.

Q Are you familiar with the application filed in each of these cases by BTA and by Chama?

A Yes.

Q Are you familiar with the subject acreage and the proposed wells?

A Yes.

MR. CARR: Are the witness' qualifications acceptable?

MR. STOGNER: Are there any ob-

1  
2 jections?

3 MR. KELLAHIN: No, sir.

4 MR. STOGNER: Mr. Nearburg is  
5 so qualified.

6 Q Mr. Nearburg, will you briefly state what  
7 Chama is seeking with this application?

8 A Chama Petroleum Company seeks an order  
9 pooling all mineral interests from the surface to the base  
10 of the Morrow formation underlying the northeast quarter of  
11 Section 25, Township 20 South, Range 34 East, Lea County,  
12 New Mexico, to form a standard gas spacing and proration  
13 unit for any and all formations and/or pools dedicated on  
14 160-acre spacing to be dedicated to a well to be drilled at  
15 a standard gas well location, 660 feet from the north line  
16 and 1980 feet from the east line of said Section 25.

17 Chama would also ask the Commission to  
18 establish the cost of drilling and completing said well and  
19 the allocation of the cost thereof, as well as actual oper-  
20 ating costs and charges for supervision, designation of Cha-  
21 ma Petroleum Company as operator of the well, and a charge  
22 for risk involved in drilling said well.

23 Q Mr. Nearburg, does Chama also seek a de-  
24 nial of the application of BTA?

25 A Yes.

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

A Yes.

1  
2 Q Would you please refer to what's been  
3 marked for identification as Chama Exhibit Number One and  
4 review this for the Examiner?

5 A Chama Exhibit Number One is a land map  
6 with the subject acreage, the northeast quarter of Section  
7 25, outlined in orange.

8 Chama acreage is shown in yellow. BTA  
9 acreage is the east half northeast in white. Chama's  
10 proposed well location is the red dot.

11 Q And what is that location on a footage  
12 basis?

13 A 660 feet from the north line and 1980  
14 feet from the east line.

15 Q And in the northeast quarter of Section  
16 25 Chama, or Charles Nearburg, own 50 percent of the  
17 acreage. BTA owns the remaining 50 percent working  
18 interest. Is that correct?

19 A That's correct. I assume BTA has the  
20 whole working interest under their agreement with Exxon.

21 Q And what is the primary objective in the  
22 Chama well?

23 A The Morrow formation.

24 Q The same as BTA?

25 A Yes.

Q Would you now refer to what has been  
marked as Chama Exhibit Number Two and review this for the  
Examiner?

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A This is Chama's AFE for the proposed well.

Q And --

A A dry hole cost is \$815,000 and completed cost is \$1,221,230.

Q And there's a difference in this AFE and the one supplied by BTA, is there not?

A Yes, that's correct.

Q Is it by and large a result of casing cost?

A By and large it's -- it is a difference in the casing program.

Q And if Chama is successful in this case and drills the well, they will comply with all requirements of any government agency concerning the casing of the well, will they not?

A Yes, they will.

Q And if savings can be affected, that would be reflected in the actual cost, and if additional expenses are required, that would also be reflected in the actual cost.

A That's correct.

Q Are these costs, in your opinion, in line with what's being charged by other operators in the area for similar wells?

A Yes.

Q Would you please briefly so we don't repeat the testimony of Miss Hughes, would you briefly just

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summarize the efforts you have made to obtain voluntary joinder in the well?

A We received our first communication from BTA on January 4th, 1985.

Miss Hughes summarized all the correspondence accurately and there's not much need to go back through it.

We were -- I would like to point out we were force pooled before there was any communication about a meeting which we requested, and that's why we responded with a forced pooling.

Q Have you continued to negotiate with BTA?

A We have continued to talk to BTA right up to yesterday morning and my conversation with Mr. Crawford. As yet we have not resolved any differences.

Q Do you remain willing to continue those negotiations if there is any reason to think they might produce voluntary agreement?

A Yes.

Q Would you just identify Exhibit Number Three for the Examiner, please?

A Exhibit Number Three is a series of letters, being the correspondence between BTA, Chama, and the OCD.

I would like to point out that we have include the May -- a copy of the May 9th, 1984, letter, which was given to me by Mr. Bob Crawford and Mr. C. R.

1 Pearson on the 15th of February at our meeting in Midland.

2 We'd never received a copy of this let-  
3 ter.  
4

5 Q In your opinion has Chama made a good  
6 faith effort to reach voluntary agreement concerning the de-  
7 velopment of this spacing unit?

8 A Very much so.

9 Q Have you drilled other Morrow wells in  
10 the area?

11 A Yes.

12 Q And are you prepared to -- have you made  
13 an estimate of the overhead and administrative costs while  
14 drilling this well and also while producing it, if in fact  
15 it's a successful well?

16 A Yes. We had slightly higher figures than  
17 BTA did. We have \$5300 drilling and \$585 overhead.

18 Q \$5300 drilling?

19 A Yes.

20 Q Do you believe these costs to be in line  
21 with what's being charged with other operators in the area?

22 A Yes.

23 Q And do you recommend that these figures  
24 be incorporated into any order which results from this hear-  
25 ing?

A Yes.

Q Mr. Nearburg, does Chama Petroleum Com-  
pany seek to be designated the operator of the proposed

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well?

A Yes, we do.

Q And why do you seek to be designated operator?

A We seek to be designated operator because the basic difference with BTA through all of this has been the well location and we believe, as testimony indicates, everyone wants to get as close to the producing wells as possible. We also have geologic testimony to support our position.

That naming Chama as operator and giving them the right to drill the well at the location they would like will definitely prevent waste and protect correlative rights which would otherwise not be protected.

Q Were Exhibits One through Three prepared by you or compiled from the Chama files?

A Yes.

MR. CARR: At this time, Mr. Stogner, we would offer into evidence Chama Exhibits One through Three.

MR. STOGNER: Are there any objections?

MR. KELLAHIN: No, sir.

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

MR. CARR: And that concludes my direct examination of Mr. Nearburg.

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2 MR. STOGNER: Mr. Kellahin,  
3 your witness.

4  
5 CROSS EXAMINATION

6 BY MR. KELLAHIN:

7 Q Mr. Nearburg, I have forgotten what the  
8 producing rate overhead charge was that you proposed.

9 A \$585.

10 Q I direct your attention to Exhibit --  
11 your Exhibit Number Two, sir.

12 A The map?

13 Q No, sir, the AFE.

14 A Okay.

15 Q In these various discussions and negotia-  
16 tions that have gone on with BTA, has Chama ever submitted  
17 to BTA a proposed AFE by Chama for this well?18 A We have never gotten to the point of  
19 having that be a concern in our meetings.20 Q So the AFE that says prepared on February  
21 24th, '85, is the only AFE that has been prepared for this  
22 well by Chama?23 A That's correct. No AFE was previously  
24 requested, as I recall.25 Q Were you involved in the negotiations  
yourself, Mr. Nearburg, with BTA about Chama's interest in  
the well and the various details in drilling this well?

A Personally?

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Q Yes, sir.

A Yes.

Q Isn't the reason that Chama did not prepare until February 24th, 1985, a proposed AFE just the reason, the one, the fact that Chama's negotiating position with regards to this well has been one where Chama proposes to farmout acreage to BTA?

A No, the AFE was not prepared because the person who does that was in Hawaii.

So it was prepared immediately their return.

Q If you'll look at Exhibit Number Three, you've just told us that the principal reason that Chama wants to drill this well and be operator is because of the location, yet I see in Exhibit Number Three in paragraph three, it says the well will be at a location of BTA's choice.

Will you explain that to me?

A Simply in a cooperative effort to get a good well drilled. We feel that the farmout terms are a trade-off in not having the well where we want it. As we have not reached farm-out terms, we are here to take operations and try to drill the well where we want it.

Q In terms of a farm-out, Chama proposed to farm-out its acreage to BTA and I think the negotiations stagnated or broke down over the percentage of back-in after payout that Chama would receive.

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2           A           That's -- no, that's not correct. The  
3 negotiations have always broken down over geologic interpre-  
4 tation of where the well should be located.

5                       And in my conversation yesterday morning  
6 with Mr. Crawfords, I reiterated this P. S. terms and he  
7 said, well, we will not consider them now. We'll go ahead  
8 with the hearing and see what happens.

9                       So I don't know that those terms were ac-  
10 tually -- how don't know how seriously they were considered  
11 by BTA, but these are certainly not the only terms we've  
12 discussed through the course of these negotiations.

13           Q           All right. I need you to summarize for  
14 me what Chama's position was in terms of farming out its  
15 acreage and what response BTA has given on those essential  
16 terms.

17           A           Would you be a little more specific. I  
18 don't really -- that's an awfully vague question, given the  
19 amount of negotiations we've had.

20           Q           In terms of this February 21st letter --

21           A           Uh-huh.

22           Q           -- from Chama to BTA --

23           A           Right.

24           Q           The proposal from Chama was that BTA  
25 would earn before payout 100 percent working interest and a  
75 percent net revenue interest.

          A           That's correct.

          Q           And that before payout Chama would retain

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a royalty interest of 25 percent?

A No, the difference between 25 percent and presently existing lease burdens.

Q All right. So that there is a net burden as acquired by BTA of 25 percent?

A They would earn a 75 percent net revenue interest under our proposal, yes.

Q And that after payout, then, the overriding royalty would be converted to a 40 percent working interest.

A That's correct.

Q With regards to that portion of the negotiations, what was the best offer that BTA made to you?

A The only offers I have from BTA are the ones in writing that you see in their letters.

Now, in the February 15th meeting I asked both Mr. Pearson and Mr. Crawford if they would go back and accept the original offer made, made in 1984, and they said, no, they did not think the economics would justify it.

At that point I said, well, I don't see much point in continuing the conversation.

Q What is the largest back-in after payout percentage that BTA offered to Chama for its interest?

A Back-in, working interest back-in?

Q Yes, sir.

A 25 percent working interest in the May 9, 1984, letter.

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Q 25 percent back-in working interest after payout was what BTA said? I think the last --

A Which they have now stated they will not agree to.

Q All right. From looking at the correspondence, I guess the lowest working interest back-in percentage that Chama was willing to accept was a third.

A The lowest working interest back-in that Chama was willing to accept for ourselves on a farmout to BTA --

Q Yes.

A -- we've got to keep it clear.

Q I'm sorry.

A Is 33-1/3 as the P. S., yes.

Q All right.

Has BTA ever proposed to Chama that BTA would farmout its acreage to Chama?

A Only under the terms you see in these letters. No, they haven't, I'm sorry.

They, the whole point of this 33-1/3 percent was when Bob Crawford called me back and said will you take a 33-1/3 percent farmout, and I said, well, let me look into it.

When I ran the economics on it I did not have any figures for the Exxon trade, which, of course, we would be subject to if we take a farmout from BTA. If you look at the net revenue interest, which I won't get into

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unless you really want me to, but if you look at the net revenue interest after payout when the option is -- for the working interest back-in is exchanged, you'll find that under the agreement with Exxon, the BTA net revenue interest decreases whereas the Chama net revenue interest increases.

So it's actually of benefit to BTA to take our farmout rather than us to take theirs. Theirs just doesn't work on the economics.

Q Thank you.

MR. STOGNER: Mr. Carr, any re-direct.

REDIRECT EXAMINATION

BY MR. CARR:

Q Mr. Nearburg, if Chama is successful in this case, is Chama prepared to drill the well?

A Yes.

MR. CARR: No further questions.

CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Nearburg, would you please just recap what Chama's position is, other than BTA's? What does Chama disagree with?

A Chama --

Q In a nutshell.

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A In a nutshell?

Q Yes, sir.

A The location of the well.

Q In your meetings with BTA have you -- how much have the two parties discussed this?

A Oh, we had a lengthy discussion, Mr. Pearson and Crawford and I. It was, as you know, it was an amiable discussion. It was very -- it was a very intense business discussion. It was not very emotional and we just came down to the fact that we couldn't agree on where the well should be located and therefore, here we are.

MR. STOGNER: Mr. Carr, do you plan to provide a geological witness?

MR. CARR: Yes, I do.

MR. STOGNER: I have no further questions of this witness.

Are there any other questions of Mr. Nearburg at this time?

MR. KELLAHIN: No, sir.

MR. STOGNER: He may be excused.

Mr. Carr, I want to take a little break, about four minutes or five.

(Thereupon a brief recess was taken.)

MR. STOGNER: Okay, the hearing

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will resume to order.

Mr. Carr?

MR. CARR: At this time I'd call Louis Mazzullo.

LOUIS MAZZULLO,

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

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your full name and place of residence?

A My name is Louis Mazzullo and I reside in Midland, Texas.

Q By whom are you employed and in what capacity?

A I'm a petroleum geological consultant and I represent Chama Petroleum Company's geological work.

Q Would you briefly summarize for Mr. Stogner your educational background and your work experience?

A I have a Master's degree in geology and I've been working as an exploration geologist for nine, almost nine years now, most of which was involved in the interpretation and mapping, subsurface mapping of sedimentary -- sedimentary reservoirs, both for uranium and oil and gas.

I have been involved more recently in ex-

1  
2 extensive study of the Morrow formation, which I had under-  
3 taken under contract to the GeoMap Company of Midland.

4 During the course of this study I had the  
5 privilege of looking at well cuttings, cores, and samples,  
6 from over 750 wells, and I've looked at over 1200 well logs  
7 from the entire Morrow depositional basin in Eddy, Lea, and  
8 Chavez Counties.

9 I have, among the various other forma-  
10 tions that I've worked, I've done a lot of work mapping the  
11 Morrow for Chama Petroleum, as well as for the various pub-  
12 lications that I have written on the subject.

13 These publications are with the West  
14 Texas Geological Society, the Southwest Section of the Amer-  
15 ican Association of Petroleum Geologists, and more recently  
16 the Society of Professional -- of Petroleum Engineers.

17 Q And these articles that were published,  
18 were they on mapping the Morrow?

19 A They were specifically addressed on map-  
20 ping reservoir trends in the Morrow, as well as potential  
21 clay problems encountered in the Morrow.

22 Q In your nine years of work as a geolo-  
23 gist, have you been employed by any particular companies or  
24 have you worked as a consultant during that time?

25 A I have been employed by -- my first em-  
ployer when I first got out of school was Energy Resources  
Corporation of Dallas, Texas. After that I worked with  
Phillips Petroleum Company in their Northwestern New Mexico

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Uranium Project.

Following that I worked with The Superior Oil Company in Midland, and then I went on my own and have been in independent geological consultant for three years.

Q Are you familiar with the area that is the subject of today's hearing?

A Yes, I am.

Q Are you familiar with the applications filed by BTA and Chama?

A I am.

Q When did you first study the area which is the subject of today's hearing?

A I first studied the area on a regional scale as part of an extensive geological study for GeoMap Company, and that was over two years -- in fact, that was almost three years ago.

I have been working on the particular area for -- for Chama, the specific Lea South Area, as we call it, for over a year now.

Excuse me, for almost two years.

MR. CARR: Are the witness' qualifications as a geologist acceptable?

MR. STOGNER: Any objections?

MR. KELLAHIN: No, sir.

MR. STOGNER: He is so qualified.

Q Have you prepared certain exhibits for

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introduction in this case?

A I have.

Q Would you refer to what's been marked for identification as Chama Exhibit Number Four, identify this and review it for the Examiner?

A Chama Exhibit Number Four is a structure contour map which was drawn on top of what I consider the Morrow Clastic section.

This marker horizon is basically similar to the one which BTA has submitted in this and previous hearings before this Commission.

There are some subtle differences in correlation and interpretation, but by and large, the two maps generally show the same thing.

On the map, as well as the -- is the fault which BTA has shown us in a slightly different position on their map. I base the location of this fault on some seismic mapping which was done as Marathon's original submittal for the Lea -- for the Lea Pennsylvanian Pool Unit, which -- which -- the interpretation of which has been modified by subsequent drilling in the area, and so the fault is drawn to the best of my knowledge based on old seismic work and subsurface control.

Now you'll note that the subsurface control is not that good, particularly towards Section 25, the area of the subject of this hearing.

I have arrows on the fault zone which in-

1  
2 dicate that that fault could actually be a lot closer to  
3 both proposed locations than I've had it mapped, but in the  
4 interest of optimism, I left it where it was.

5 Q Now, when -- when did you originally pre-  
6 pare this map?

7 A This map was originally prepared in March  
8 of -- in November of 1983.

9 Q And it was subsequently revised?

10 A It was subsequently revised, as my date  
11 indicates, this month.

12 Q And when you revised the map, what infor-  
13 mation did you include that you hadn't previously had avail-  
14 able to you?

15 A I included information from BTA No. 1 JVP  
16 Lynch in Section 24, the information which was acquired from  
17 the material submitted by BTA before this Commission on the  
18 last -- on the aforementioned hearings.

19 Q Would you look now at Section 24 and com-  
20 pare the locations, the proposed locations of Chama and BTA?

21 A Excuse me, you mean Section 25?

22 Q Yes, I do.

23 A Okay. We are basically in agreement as  
24 to the structural, the relative structural merits of the two  
25 proposed locations; that is, I'm basically in agreement with  
BTA that the Chama location is slightly up dip relative to  
the BTA location.

Our mapping, or my mapping, has indicated

1  
2 that the degree of -- of difference in the depth to the top  
3 of this marker horizon can be as much as 50 feet, these are  
4 50-foot contours as I've drawn them, not 100, as presented  
5 by BTA. Nevertheless, the structural difference between the  
6 two locations can be as much as 50 feet. I believe BTA says  
7 there could be as much as 15 feet or so. It's a matter of  
8 interpretation.

8 Q Would you explain to Mr. Stogner what the  
9 color coding indicates?

10 A Yes. The color coding indicates wells  
11 which are producing from two primary reservoir zones, and  
12 they are by far not the only reservoir zones that produce in  
13 the area, but there are two major reservoir zones.

14 The wells that are color coded in red  
15 produce from the zone which corresponds to Mr. Zoller's yel-  
16 low, captioned yellow zone, on his cross sections, both from  
17 this hearing and previous hearings.

17 Q And what does the green indicate?

18 A The green, the wells which are indicated  
19 in green, came from a stratigraphic horizon which is lower  
20 than the yellow zone on Mr. Zoller's cross sections.

21 Q Is this the zone which is producing in  
22 the Chama well currently producing in Section 25?

23 A That's correct.

24 Q What general conclusions can you draw  
25 from this structure map?

25 A Okay. From this structure map the main

1  
2 conclusion that can be drawn is that the proposed location  
3 that Chama submits in this application for their No. 2-L  
4 Federal is in a structurally more favorable position to the  
5 BTA proposed location. Structure may be an important factor  
6 in terms of getting above the water table or in any particu-  
7 lar zone, but as Mr. Zoller, has so state, so would I, that  
8 any time you can get higher, that's what you want to do.

9 Q Would you now refer to what's been marked  
10 as Chama Exhibit Number Five, identify that, and review it,  
11 please?

12 A Chama Exhibit Number Five is an Isopach  
13 map. That is a map showing the thickness of a genetic sand-  
14 stone unit which I have defined in this immediate area, the  
15 Lea Pool area and surrounding wells. It's a structure map  
16 -- I'm sorry, it's a thickness map of a specific sandstone  
17 unit; that is, the unit which correlates to the pay forma-  
18 tion in BTA's No. 1 JVP Lynch, and that is the yellow cap-  
19 tioned unit on Mr. Zoller's cross sections.

20 Q Now have you mapped the part -- is it the  
21 same producing zone, is that what you've just said, that's  
22 in the Lynch No. 1?

23 A This -- this map shows that there is 53  
24 feet of sand within their No. 1 JVP Lynch, which I assign to  
25 this specific zone I call Number 11.

Q Would you just briefly describe how this  
map was prepared?

A This map was prepared on the basis of de

1  
2 tailed sample evaluation on a number of wells in this imme-  
3 diate area, looking at the well cuttings in great detail;  
4 looking at the lithologic associations on the various sand  
5 zones, or what I term to be genetic units, or packages, of  
6 sand; as well as on a knowledge of the local geology, the  
7 local reservoir trends, as I established from my mega-study  
8 of a couple of years ago.

9 So it's a combination of detailed sedi-  
10 mentology combined with a knowledge of the regional setting  
11 of the Morrow in this part of Lea County.

12 This mapping technique has been described  
13 in the literature, it has by far -- it hasn't been invented  
14 by me; it's a standard sedimentological practice, and it's  
15 accepted by Chama as valid and it's utilized in their ex-  
16 ploration strategy.

17 Q Now, can you generally summarize the con-  
18 clusions that you reached from this map; what it actually  
19 shows?

20 A Okay. The map indicates, at least it  
21 suggests when we look at this in line with the structure map  
22 previously presented, indicates the combination nature of  
23 the Morrow reservoirs in this area. In other words, these  
24 reservoirs are stratigraphic in nature and -- but they're  
25 also structurally enhanced.

The map shows that stratigraphy seems to  
be a major factor in the No. 1 -- the BTA No. 1 JVP Lynch,  
inasmuch as it's producing from one of the thickest sections

1  
2 of this unit that I've been able to map in the area.

3           Structure controls the localization of  
4 the reservoir, particularly reservoir marginal wells. For  
5 example, the wells, the three wells on the north part of the  
6 section -- of the map in Sections 11 and 14, are getting to-  
7 wards the flattening of the thickest portions of the sands  
8 and they're probably productive there, or helped in produc-  
9 tion there, because they're getting up on the structure as  
we've defined it in this area.

10           Q           So in essence you can trace the sand  
11 units in this area?

12           A           I have shown both here and with other  
13 projects that I've done, and in the literature, that you can  
14 -- that these sands are traceable. I don't think -- I think  
15 Mr. Zoller has said the same thing, basically, in submitting  
his cross sections.

16                       They are traceable as long as you don't  
17 try to take them over miles and miles. You can do it in a  
18 local area like this fairly effectively.

19           Q           And, Mr. Mazzullo, would you now focus on  
20 Section 25 and compare the proposed locations of BTA and  
21 Chama?

22           A           In terms of this particular zone, I show  
23 that the zone is thickest in the JVP Lynch No. 1 and that's  
24 the major portion of the sand trends in the southwesterly  
25 direction towards the Chama No. 1-L Federal and even further  
than that towards the Pennzoil 1-C Federal in Section 35.

1  
2 The BTA -- the Chama proposed location in  
3 Section 25 is placed in a more stratigraphically favorable  
4 position with respect to this zone than is the BTA proposed  
5 location.

6 Q Do you believe it's fair to say that from  
7 the Chama location there's greater potential for production  
8 from the Morrow?

9 A Yes, especially considering that we're  
10 getting structurally higher, which always helps matters.

11 Q Mr. Mazzullo, when was this Isopachous  
12 map constructed?

13 A This map was constructed, originally con-  
14 structed, at the same time the original structure map was  
15 done, back in November of 1983, and subsequently revised  
16 with the addition of the data gleaned from the No. 1 JVP.

17 Q Were Exhibits Four and Five prepared by  
18 you?

19 A Yes.

20 MR. CARR: At this time, Mr.  
21 Stogner, we would offer into evidence Chama's Exhibits Four  
22 and Five.

23 MR. STOGNER: Exhibits Four and  
24 Five will be admitted into evidence.

25 Q Do you have anything further to add to  
your testimony?

A The only thing I could say is just to  
qualify my statement about the favorability of the Chama

1  
2 proposed location, is that it too is a risky location in re-  
3 spect -- in regard to relative risks; it's more risky than  
4 drilling the No. 1 JVP, but a lot less riskier by my corre-  
5 lations and my geology, than drilling the BTA proposed No. 3  
6 Lynch.

7 Q Do you concur that any well drilled in  
8 the Morrow in this area should receive the 200 percent pen-  
9 alty, risk penalty to be imposed against those who do not  
10 voluntarily participate?

11 A I do.

12 Q And Chama is desirous of being named the  
13 operator of the spacing unit?

14 A They do.

15 MR. CARR: And I have nothing  
16 further of Mr. Mazzullo on direct.

17 MR. STOGNER: Mr. Kellahin,  
18 your witness.

19 MR. KELLAHIN: No questions.

20 CROSS EXAMINATION

21 BY MR. STOGNER:

22 Q Mr. Mazzullo, did you participate in any  
23 of the meetings between BTA and Chama?

24 A No, I did not.

25 Q Was your geologic data that you said was  
put together in 1983 that you'd redone and come up with Ex-  
hibit Four and Five today, were those, do you know if those

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were used in any of the meetings between BTA and Chama?

A I wasn't there; I wouldn't know.

Q Well, did you make them available to Chama before today?

A They're their documents, prepared by me on their behalf.

Q Have you supervised drilling a well out here?

A Have I supervised? I'm not qualified to supervise drilling a well.

Q Has Chama drilled a well out here?

A Yes, they have.

Q Which one?

A The No. 1-L Federal in Section -- in the northwest quarter of Section 25.

Q What's the present status on that well?

A It's shut in awaiting pipeline connection, I understand.

Q What interval will this well be producing from?

A This well will be producing from an interval stratigraphically lower than the one being produced at the present time in the BTA JVP No. 1, and presumably the No. 2.

Q It's in the Morrow though?

A Oh, yes.

Q Did this well, particular well, go deep

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enough to encounter the "yellow zone"?

A You mean the 1-L?

Q Yes, sir.

A Yes, because it's producing from below the yellow zone.

Q Okay. Have you tested the yellow zone in that 1-L Well?

A Not yet.

Q Do you have any opinion what the yellow zone might produce in that 1-L Well?

A No, I have no opinion.

Q Did you look at the log?

A Yes, of course.

Q No opinion even after looking at the log?

A Oh, it is -- it shows characteristics that indicate that it's capable of production, and this was done by an independent -- calculations were done by an independent log analyst, not myself.

Geologically I could say that it has attributes which make that particular zone potentially productive.

However, I might add, we can be as much as 37 feet high even to that well in our proposed, new proposed location on that zone, so chances are getting better in our proposed location for that zone, regardless of what we see in the No. 1-L.

MR. STOGNER: I have no ques-

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tions, further questions of this witness.

Are there any -- is there anything else of Mr. Mazzullo?

If not, he may be excused.

Mr. Kellahin, Mr. Carr, do you wish to recall any witnesses at this time?

MR. KELLAHIN: No, sir.

MR. STOGNER: Well, I would. I'd like to call Mr. O'Brien back one more time.

T. B. O'BRIEN,

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

CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. O'Brien, I just have one question.

A Yes, sir.

Q The wells to this depth in this particular area, do they have a tendency to wander?

A Not greatly. They -- there are a few places in the hole that the hole will get in the order of two degrees or so, but the majority of the hole is in the order of one degree or less.

MR. STOGNER: I have no further questions.

MR. KELLAHIN: As long as we

1  
2 have Mr. O'Brien sitting there, let me ask a question.

3 MR. STOGNER: Sure, Mr. Kella-  
4 hin, go ahead.

5  
6 REDIRECT EXAMINATION

7 BY MR. KELLAHIN:

8 Q Mr. O'Brien, since Mr. Nearburg testified  
9 and presented us with an AFE, have you had an opportunity to  
10 review Chama's AFE dated October -- February 25th of '85?

11 A I've made what you might term a cursory  
12 examination of it.

13 Q Based upon your cursory examination of  
14 that AFE, Mr. O'Brien, do you have any comments concerning  
15 Chama's proposed method of drilling and completing this  
16 well?

17 A The Chama proposal includes casing at 800  
18 feet and at 5500 feet and I went into the need for the other  
19 string of pipe at 3500 feet.

20 Because to run only two strings they pro-  
21 pose to set 8-5/8ths at 5500 feet and 13-38ths at the sur-  
22 face.

23 The difference in cost of the casing by  
24 the two programs is about \$120,000. The remaining differ-  
25 ence between the two wells, or the two AFE's is basically,  
although they -- different people make AFE's differently, so  
it's just hard to compare them, but the remaining difference  
between the -- about the -- the total difference in the

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casing point cost is about \$230,000 and there's \$120,000 in casing cost.

The remaining difference is in drilling cost related to the drilling rig. Chama has used a footage contract where BTA uses a day work contract, and when you -- the costs there make up the majority of the difference. That's just based on Chama's estimate of what the footage contract can be obtained for; however, if they drilled the well by their program and lost circulation, then they would drill a substantial part of that hole, or they would spend a considerable amount of time on day work, anyhow, so again, because of the difference in the program, and the need for that other string of casing, then Chama's AFE is going to have to be revised substantially.

MR. KELLAHIN: I have nothing further. Thank you.

MR. STOGNER: Mr. Carr?

RE CROSS EXAMINATION

BY MR. CARR:

Q Mr. O'Brien, are you familiar with how the Marathon Wells were cased in the Lea Penn Unit?

A No, sir.

Q Then you wouldn't know if -- then you would not be able to testify whether Chama's proposal was in line with those.

A No, sir.

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2 Q Now the difference that we have basically  
3 in the two AFE's from, admittedly, cursory review, comes  
4 from casing cost and the type of contract involved, is that  
5 correct? Was that your testimony?

6 A And the -- yes, and the -- the contract  
7 being on a footage lumps the costs that are in -- that BTA  
8 details into one lump, so the difference is the result of a  
9 different estimated cost for drilling rig operation.

10 Q So this makes it difficult to make a very  
11 quick review.

12 A Yeah, almost impossible.

13 Q Okay. That's all I have.

14 MR. STOGNER: Any other ques-  
15 tions of Mr. O'Brien?

16 If not, he may be excused.

17 Mr. Zoller?

18 MR. ZOLLER: Yes.

19 MR. STOGNER: I'd like to re-  
20 call you for one question.

21 MR. ZOLLER: Okay.

22 MARVIN L. ZOLLER,

23 being recalled as a witness and being still sworn upon his  
24 oath, testified as follows, to-wit:  
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RECROSS EXAMINATION

BY MP. STOGNER:

Q Upon hearing everything today, do you think BTA and Chama can get together one more time?

A You mean get together to talk?

Q Yep.

A Oh, certainly. Now, you want to follow that up?

MR CARR: And so you don't have to recall Mr. Nearburg, Mr. Nearburg would be willing, I'm certain, to talk, also.

MR. STOGNER: Okay.

A I will even go so far as to say that I think we could find, certainly, surely, an adjustable location but I don't see any sense in talking any more about who wants to be the operator.

MR. STOGNER: I would like to take about a five minute recess and see Mr. Kellahin and Mr. Carr in my office.

(Thereupon a recess was taken.)

MR. STOGNER: The hearing will resume to order.

MR. KELLAHIN: Mr. Examiner, I would request that within a ten-day period you allow Mr. Carr and I to each submit to you our written closing com-

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2 ments with regards to this case, and a proposed order.

3 That will allow, in my opinion,  
4 an opportunity for the parties to discuss among their prin-  
5 cipals whether or not they can resolve this case, and that  
6 at the end of that ten-day period, if there is no communica-  
7 tion from Mr. Carr and I to you saying it's resolved, then  
8 we would request that you decide the case, that you will  
9 take into consideration our written comments and our respec-  
10 tive proposed orders for --

11 MR. CARR: And I concur with  
12 the request of Mr. Kellahin.

13 MR. STOGNER: Okay, Mr. Kella-  
14 hin. Thank you, Mr. Carr.

15 I'd like to make one little  
16 statement before we leave.

17 Mr. Nearburg, I think it might  
18 be advantageous as a suggestion and request that Mr. Charles  
19 Nearburg make some attempt either to go to Midland or meet  
20 halfway in between, go to Possum Kingdom, and discuss -- and  
21 discuss with BTA a little bit.

22 MR. NEARBURG: We have done  
23 that and we will do that again.

24 MR. STOGNER: That's just a  
25 suggestion.

MR. NEARBURG: We certainly  
will.

MR. STOGNER: If there is not

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anything further in either of these cases, these cases will  
be taken under advisement.

(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examination hearing of case no. 84787, 8505 heard by me on 27 February 1985.  
Michael E. Johnson, Examiner  
Oil Conservation Division