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Santa Fé, New Mexico 87504-2265  
April 7, 1989

Mr. David Catanach  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

HAND DELIVERED

Re: Application of BHP Petroleum Company, Inc.  
for compulsory pooling  
NMOCD Case 9631

Dear Mr. Catanach:

Near the conclusion of the Examiner's hearing held on March 29, 1989 in the referenced case, one of the issues raised was whether BHP Petroleum Company would still earn an interest under the Valley Oil & Gas Company's Option Farmout Agreement if it does not drill and operate the well over which Yates Petroleum Company was contesting operations.

I regret to inform you that Valley Oil & Gas has refused to grant us permission to submit a copy of the subject Farmout Agreement to you.

Accordingly, with the exception of the fact that the well must be commenced not later than May 20, 1989, I am precluded from discussing any of the other terms of that agreement.

Very truly yours,

  
W. Thomas Kellahin

WTK/dm

cc: Chad Dickerson, Esq.  
Randall Davis

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W. Thomas Kellahin  
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March 9, 1989

Mr. William J. LeMay  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Re: NMOCD Case No. 9629 *m. S.*  
Yates Petroleum Company  
for Compulsory Pooling

NMOCD Case No. 9630  
Yates Petroleum Company  
for Unorthodox Location

NMOCD Case No. 9631  
BHP Petroleum Company, Inc.  
for Compulsory Pooling and  
Unorthodox Location

HAND DELIVERED

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MAR 10 1989

OIL CONSERVATION DIVISION

Dear Mr. LeMay:

Mr. Chad Dickerson represents Yates Petroleum Company and I represent BHP Petroleum Company, Inc. in the above referenced cases now scheduled for hearing on March 15, 1989.

We have each been directed by our respective parties to request that all three cases be continued until the Examiner's hearing now set for March 29, 1989.

It is hoped that a continuance will facilitate the settlement of all or part of the contested matters.

Very Truly Yours,

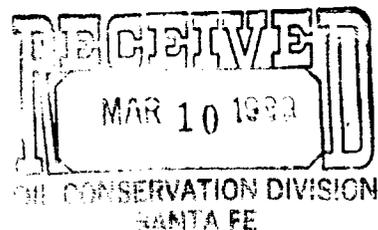


W. Thomas Kellahin

WTK/rs

cc: Mr. Chad Dickerson  
Mr. Randall Davis

March 8, 1989



Energy and Minerals Department  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504

*M.S.*

Re: Case Nos. 9629 and 9630  
Township 10 South, Range 26 East, NMPM  
Section 36: E/2  
Chaves County, New Mexico

Gentlemen:

Please continue the hearings set on the Applications of Yates Petroleum Corporation, which are scheduled for March 15, 1989, until the Examiner Hearing of March 29, 1989.

Thank you.

Sincerely yours,

DICKERSON, FISK & VANDIVER

A handwritten signature in cursive script that reads "Chad Dickerson".

Chad Dickerson

CD:pvw

cc: Ms. Kathy Colbert  
Mr. W. Thomas Kellahin

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

6 15 March 1989

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 In the matter of cases called on this  
10 date and continued or dismissed with-  
11 out testimony presented.

CASES  
9610  
9619  
9624  
9626  
9627  
9628  
9629  
9630  
9631

12 *Transcript in*  
13 *Case 9610*

14 BEFORE: Michael E. Stogner, Examiner  
15

16 TRANSCRIPT OF HEARING  
17

18 A P P E A R A N C E S  
19

20 For the Division:

21 Robert G. Stovall  
22 Attorney at Law  
23 Legal Counsel to the Division  
24 State Land Office Bldg.  
25 Santa Fe, New Mexico

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

6 29 March 1989

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 Application of Yates Petroleum Corp-  
10 oration for compulsory pooling,  
11 Chaves County, New Mexico, and

CASE  
9629

12 Application of Yates Petroleum Corp-  
13 oration for an unorthodox gas well  
14 location, Chaves County, New Mexico,  
15 and

9630

16 Application of BHP Petroleum Company,  
17 Inc. for compulsory pooling and an un-  
18 orthodox gas well location, Chaves  
19 County, New Mexico.

9631

20 BEFORE: David R. Catanach, Examiner

21 TRANSCRIPT OF HEARING

22 A P P E A R A N C E S

23 For the Division:

24 For Yates Petroleum  
25 Corporation:

Chad Dickerson  
Attorney at Law  
DICKERSON, FISK & VANDIVER  
Seventh & Mahone/Suite E  
Artesia, New Mexico 88210

For BHP Petroleum Company  
Inc.

W. Thomas Kellahin  
Attorney at Law  
KELLAHIN, KELLAHIN & AUBREY  
P. O. Box 2265  
Santa Fe, New Mexico 87504

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24

25

1 MR. DICKERSON: Mr. Cata-  
2 nach, the subject matter of Cases 9629, 9630 and 9631 de-  
3 scribe -- Case 9630 was filed for an unorthodox location.  
4 Since the filing of these applications it's my understand-  
5 ing that all the parties have agreed that the nonstandard  
6 location described in Case 9630, which is also described in  
7 BHP's application 9631, are the preferable -- or is the  
8 preferable location for a well, so your file will, in Case  
9 9629 will reflect a letter by myself last week requesting  
10 that the Yates application in that case be amended to the  
11 unorthodox location which has been requested in Case 9630.

12  
13 KATHY COLBERT,

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

16  
17 DIRECT EXAMINATION

18 BY MR. DICKERSON:

19 Q Ms. Colbert, will you state your name,  
20 your occupation and by whom you're employed, please?

21 A My name is Kathy Colbert. I'm employed  
22 by Yates Petroleum Corporation, Artesia, New Mexico, as a  
23 landman.

24 Q You have previously testified before  
25 this Division as a landman several times, have you not?

1           A           Yes, I have.

2           Q           And are you familiar with the underlying  
3 land ownership situation in the area involved in these con-  
4 solidated cases?

5           A           Yes, I am.

6           Q           Will you summarize briefly for us the  
7 purpose of Yates' applications in these cases?

8           A           Yates Petroleum is seeking an order  
9 pooling all the mineral interests from the surface to the  
10 base of the Ordovician formation underlying the east half  
11 of Section 36, Township 10 South, Range 26 East, to form a  
12 standard 320-acre gas spacing unit, with Yates Petroleum  
13 designated as operator.

14          Q           And what --

15          A           We --

16          Q           -- excuse me --

17          A           Excuse me.

18          Q           -- go ahead.

19          A           We are also requesting approval of an  
20 unorthodox gas well location to be located 1650 from the  
21 north line, 2310 from the east line of the said Section 36.

22          Q           Now Yates anticipates drilling the well  
23 from the surface to the base of the Ordovician but the  
24 pooling order is understood to affect only the zones which  
25 would be developed on 320-acre spacing, is that correct?

1           A           Yes, that's correct.

2           Q           Okay, refer to the plat submitted as  
3 Exhibit Number One and describe for us the information  
4 you've shown on that.

5           A           Exhibit Number One is the land plat that  
6 shows this proposed unorthodox location and its relation-  
7 ship to the surrounding acreage.

8                       We have colored all the surrounding ac-  
9 reage where Yates does have an interest.

10          Q           Now notwithstanding the amendment by  
11 Yates of its application in Case 9629, all the parties ne-  
12 cessary to be notified of either application have been  
13 notified --

14          A           Yes, they have.

15          Q           -- prior to this point.

16          A           Yes.

17          Q           So it did not change any parties or the  
18 true situation.

19          A           That's correct.

20          Q           Before we leave Exhibit Number One, just  
21 orient us with respect to the development which is taking  
22 place in this area and tell us who's doing it and over what  
23 period of time it's occurred.

24          A           During the last twelve months this has  
25 been a very active area. Yates and BHP have been drilling

1 the Ordovician gas wells. BHP is primarily located with  
2 their wells to the south of this particular location.

3 Q Indicate for Mr. Catanach where those  
4 wells that you're referring to are shown on the plat.

5 A Okay. The most recent one would be the  
6 BHP well located in the west half of Section 36, their well  
7 that's located there in the north half of 5 in the township  
8 directly below on the plat.

9 Q So the well in Section 5 was drilled  
10 first. Approximately when was that drilled?

11 A I am not familiar with the exact date.  
12 I understand that that was the first well drilled.

13 Q The last quarter of 1988, you would  
14 think?

15 A Oh, I would, yes, sir.

16 Q Refer to Exhibit Number Two, Ms.  
17 Colbert, and tell us what that is.

18 A Exhibit Number Two is simply a summary  
19 covering the acreage in the 320 acres located in the east  
20 half of 36. It shows the parties that own the acres, the  
21 percentage that they would have out of the 320-acre spacing  
22 unit. It further goes on to show what the interest would  
23 be in an initial test well in the east half before and  
24 after payout.

25 Q And tell us what those figures show.

1 What -- what do the Yates Petroleum Corporation parties  
2 control in the east half of Section 36?

3 A Yes. Yates has 160 acres out of the  
4 east half, being -- being the southeast quarter.

5 Valley Oil and Gas out of Roswell owns  
6 the oil and gas lease covering the northeast quarter. This  
7 is the 160 acres that has been later reflected to be split  
8 up between BHP and Samedan where they would be drilling  
9 with that 50 percent interest with Yates on the other 50  
10 percent.

11 Q So this exhibit takes into account the  
12 contractual agreements of the various parties as they ac-  
13 tually exist to the best of your knowledge?

14 A That's correct. It reflects the farmout  
15 which gives BHP and Samedan their interest before payout.

16 It also reflects when Valley backed in  
17 after payout, if they exercise their option.

18 Q And summarize these figures for us.  
19 What amount, 50 percent of the acreage is controlled by  
20 Yates Petroleum Corporation?

21 A That's correct. Yates would have 50  
22 percent of the interest not only before payout but after  
23 payout of this well.

24 After payout BHP and Samedan each are  
25 reduced to 18-3/4. That leaves Valley with the remaining

1 12-1/2 percent.

2 Q And that is prepared based on your un-  
3 derstanding of the arrangement between Valley Oil & Gas and  
4 BHP and Samedan?

5 A That's correct.

6 Q All right. Identify Exhibit Number  
7 Three and tell us what those letters are.

8 A Exhibit Number Three are copies of the  
9 transmittal letters sent to BHP and Samedan when the formal  
10 operating agreement and AFE covering this unorthodox loca-  
11 tion was sent. It was sent certified return receipt. That  
12 notification is on the back of the transmittal letter.

13 Q Ms. Colbert, what is your understanding  
14 of the nature of the dispute between these parties because  
15 of which we're here today?

16 A As far as I understand it, as you  
17 earlier stated, both parties do agree that the best loca-  
18 tion for all involved, including the State of New Mexico,  
19 is the unorthodox location. There is no argument or discus-  
20 sion between Yates, Samedan, BHP. The only question here  
21 is that Yates feels with their majority interest that they  
22 should be the operator. We feel we have the expertise in  
23 the area. We feel our costs are lower, not only drilling  
24 but overhead costs, and that is our main case, that we feel  
25 that controlling interest should drill the well.

1           Q           All right, identify Exhibit Number Four  
2 for us and tell us what it is.

3           A           Exhibit Number Four is an operating  
4 agreement covering our proposed well in the east half of  
5 36. This is on the standard AAPL Form 610, the 1977  
6 agreement. This was a copy of the agreement that was  
7 transmitted with the certified letters.

8           Q           All right, and Exhibit A to that joint  
9 operating agreement is another summary, is it not, of the  
10 ownership of the various parties within the east half of  
11 Section 36?

12          A           That's correct. It lists all the  
13 parties and shows their before and after payout status  
14 under this east half.

15          Q           So as I understand your earlier state-  
16 ment, the current controversy revolves solely around which  
17 party, BHP or Yates Petroleum Corporation, should be desig-  
18 nated the operator of this proposed well?

19          A           That's correct.

20          Q           Does it appear from the communication  
21 between the parties that all are, in fact, desirous of  
22 drilling a well at the proposed unorthodox location?

23          A           Yes.

24          Q           So even though these cases are set up as  
25 forced pooling cases, it would appear that most likely who-

1 ever is designated as operator, as far as you know the  
2 other parties still intend to participate?

3 A Oh, I feel that's certain because all  
4 parties have stated that they agree that this is a good  
5 location if it's to be drilled at this unorthodox -- like  
6 you stated, it's simply both parties feel that they should  
7 be the operator.

8 Q In addition to designating Yates Petro-  
9 leum Corporation as operator under your proposed operating  
10 agreement, Exhibit Number Four, does it set forth the over-  
11 head and supervision charges requested by Yates in the  
12 event that it is designated as operator of this spacing  
13 unit?

14 A Yes. The COPAS form does set out our  
15 drilling and producing rates. The one that we transmitted  
16 to BHP and Samedan is no different than any other we've  
17 been using in the area. It shows a drilling rate of 3500,  
18 producing rate of 350.

19 Q And what was the basis, how were those  
20 rates arrived at, to your knowledge?

21 A Every year we review the COPAS recom-  
22 mendation that's sent out by the petroleum accountants and  
23 also we do look at the Ernst and Whinney Survey that they  
24 send out.

25 Our rates have not been changed during

1 the last year. Like I say, this is what we have been using  
2 for a well of this depth.

3 Q You previously mentioned Yates' exper-  
4 ience in the area. Do you have other Ordovician wells  
5 which have been drilled in the general area, and if so,  
6 tell us generally where those wells are.

7 A They are located for the most part north  
8 of the proposed location in Section 36; I believe somewhere  
9 around ten wells, maybe even twelve.

10 Q And do your requested overhead rates in  
11 these cases coincide with voluntary rates which are paid by  
12 the parties in your existing wells?

13 A That's correct.

14 MR. DICKERSON: Mr. Catanach,  
15 I'd move admission of Yates Exhibits One, Two, Three and  
16 Four. I have no further questions of Ms. Colbert.

17 MR. KELLAHIN: No objection.

18 MR. CATANACH: Exhibits One  
19 through Four will be admitted as evidence.

20 Mr. Kellahin, any questions?

21 MR. KELLAHIN: Yes. sir.

22

23

CROSS EXAMINATION

24 BY MR. KELLAHIN:

25 Q Ms. Colbert, let me ask you to direct

1 your attention to your Exhibit Number One.

2 A Yes.

3 Q In response to Mr. Dickerson's question  
4 you told us there was approximately ten to twelve Yates'  
5 wells north of this specific area of Section 36.

6 A Uh-huh.

7 Q Are those each Ordovician wells?

8 A I do not know if exactly Ordovician  
9 would be the right. I know sometimes they're completed  
10 considering Montoya --

11 Q Ellenburger, --

12 A Yes.

13 Q -- Ordovician, in that general --

14 A It's my understanding that it's the Or-  
15 dovician formation. I know that some of them up to the  
16 north may be dually completed and I would not have the  
17 facts to tell you which ones are.

18 Q Can we find on -- by looking on Exhibit  
19 One, any of those ten to twelve wells?

20 A I don't believe so. You notice we did  
21 not use a legal size. We cut it down to letter size.

22 Q My question is where is the closest of  
23 the ten or twelve wells that --

24 A Okay, in the --

25 Q -- Yates operates in this general forma-

1 tion?

2 A Okay, the Pathfinder over in Section 21  
3 of 10, 27, would be on the east end of your map, north and  
4 east?

5 Q Yes, ma'am.

6 A The others would be, let's see --

7 Q The others are farther away, are they  
8 not?

9 A Five, six miles. I'm guessing, because  
10 I don't have the rest of this map. I believe that there is  
11 two wells, there are two wells up in 36 in the next town-  
12 ship.

13 Q The Pathfinder Well has just been re-  
14 cently potentialized by Yates in the last few weeks, has it  
15 not?

16 A You're probably right. I do not have  
17 that information.

18 Q Okay. Does Yates operate any of the  
19 wells located in any of the acreage outlined in yellow for  
20 this formation?

21 A Outlined in yellow?

22 Q Yes, ma'am.

23 A No, sir, there's only one well outlined  
24 in yellow.

25 Q The initial well was drilled by BHP.

1 That's that Urban Ranch well in the north half of 5

2 A That's my understanding, yes.

3 Q And then the second well is the well in  
4 which Yates does have an interest in the west half of 36.

5 A An interest, right.

6 Q Yes. Did you participate on behalf of  
7 your company with negotiations with BHP concerning the  
8 drilling of the well in the west half?

9 A Did I personally? No, sir.

10 Q Have you reviewed the documentation to  
11 understand that Yates farmed out its acreage in the west  
12 half of 36 to BHP --

13 A Yes, sir.

14 Q -- for the drilling of that well?

15 A Yes, sir, I do know that.

16 Q Okay. You did not seek to operate that  
17 well, did you?

18 A No, sir, we farmed out.

19 Q When we look at the Exhibit Number Two,  
20 which is the summary of ownership, have you examined the  
21 Valley Oil & Gas Company's farmout agreement with BHP Pet-  
22 roleum Company?

23 A No, sir, that is not with our company.  
24 It is with BHP.

25 Q You said you were familiar with the

1 Valley farmout and utilized that information in the tabula-  
2 tion.

3 A Sir, I said I was familiar with the  
4 interest because we were furnished those interests by BHP.

5 Q So you have not examined the farmout  
6 agreement.

7 A No, sir, we are not privy to that.

8 Q You would not know, then, to what ex-  
9 tent, if the Division allowed Yates to be the operator in  
10 the east half of 36, what impact that might have, if any,  
11 on the farmout agreement with Valley and BHP.

12 A I would have no idea to any of the con-  
13 ditions.

14 Q Are you aware of any of the time con-  
15 straints with regards to when BHP must spud the well on the  
16 Valley acreage in order to earn its farmout interest?

17 A Yes, sir, simply through BHP. We have  
18 not contacted Valley.

19 Q And what is your understanding of the  
20 date at which the well must be commenced in the east half  
21 of 36?

22 A It was our understanding through tele-  
23 phone conversations that it must be commenced by May 15th.  
24 That is under the original agreement with no consideration  
25 given for any kind of time extensions.

1           Q           Is Yates in a position where they can  
2 commence the well in order to satisfy the conditions of the  
3 spud date, using May 15th as the date by which the well  
4 must be started?

5           A           Yes, sir, and we have indicated this to  
6 the other parties.

7           Q           Exhibit Number Three represents Yates'  
8 first correspondence to BHP in which it proposes that Yates  
9 drill the Valley State No. 1 Well in the east half of 36?

10          A           Yes, sir, this is the first formal  
11 transmittal, that's correct.

12          Q           Am I correct in understanding that it in  
13 fact was BHP Petroleum Company that first proposed the well  
14 to Yates?

15          A           They first proposed an orthodox location  
16 to Yates before the well in the west half was even down.

17          Q           The proposal for the drilling of a well  
18 in the east half of 36, the initial proposal, came from BHP  
19 to Yates in January of this year, did it not?

20          A           That's correct.

21          Q           In response to BHP's request to have  
22 Yates participate in the well in the east half of 36, then,  
23 the parties discussed sharing data, developing new seismic  
24 information from which to agree upon a well location, is  
25 that not correct?

1           A           That's my understanding, yes, sir.

2           Q           Is it also your understanding that the  
3 parties have now agreed on the unorthodox location which  
4 would be located in the northeast quarter of Section 36 on  
5 the Valley Oil & Gas Company lease?

6           A           That is my understanding, that the other  
7 parties have agreed with our proposed location.

8           Q           In responding to BHP Operating -- BHP  
9 Petroleum Company's request that they operate the well in  
10 the east half of 36, regardless of where it's drilled --

11          A           Uh-huh.

12          Q           -- what specific reasons did Yates com-  
13 municate to BHP were the reasons that Yates sought to oper-  
14 ate instead of BHP?

15          A           The main reason being the majority in-  
16 terest.

17          Q           All right, that was the main reason.  
18 Did you communicate or anyone else on behalf of Yates, to  
19 your knowledge, communicate to BHP personnel any other  
20 reasons?

21          A           Sure.

22          Q           What are they?

23          A           Mainly our expertise in the area under  
24 which would come into account the drilling cost, completion  
25 costs, being the AFE, and, of course, the operating agree-

1 ment, the reduced overhead that are using in this Foor  
2 Ranch area.

3 Q There are no other reasons that you're  
4 using to contend before this Division that Yates ought to  
5 be the operator.

6 A There are no other reasons that we wish  
7 to bring forth.

8 Q Have you expressed to BHP personnel that  
9 these were the reasons that you were opposing BHP being the  
10 operator of the well in the east half of 36?

11 A It is my understanding; I did not do it  
12 personally.

13 Q Who was the land person in charge of  
14 negotiating with BHP over the operations?

15 A Robert Bullock would have been the ini-  
16 tial contact. Most of the conversations after the first  
17 proposal was received before the west half well was com-  
18 pleted, were between the geologists, because when it was  
19 first proposed to us, we did not agree with the location;  
20 we weren't sure it was prudent to drill a well then, and  
21 like I say, discussions passed from the Land Department to  
22 the geologist based on the technical data.

23 Q Did land discussions take place between  
24 the corresponding land personnel with regards to the oper-  
25 ating agreements?

1           A           On a limited basis.

2           Q           Did not BHP propose an operating  
3 agreement and furnish it to Yates before they furnished  
4 their operating agreement back to BHP?

5           A           That's correct.

6           Q           And in fact you have utilized one of the  
7 exhibits in your Exhibit Number Four taken from the BHP  
8 operating agreement, haven't you?

9           A           That is correct. Exhibit Eight is the  
10 BHP one because we were not privy to the Valley farmout.

11          Q           On top of Exhibit Eight, Ms. Colbert, it  
12 says, "Attached to and made a part of that certain  
13 operating agreement dated January 12th, 1989, between BHP  
14 Petroleum Company, Inc. as operator and Yates Petroleum  
15 Corporation, et al, as non-operators"?

16          A           Right, because the landman did copy the  
17 agreement exactly as it was in the operating agreement sent  
18 to him.

19          Q           That is certainly not your intent,  
20 though. You're --

21          A           No, sir.

22          Q           -- going to change that language?

23          A           No, sir.

24          Q           Have you satisfied yourself that the  
25 other information on Exhibit A is correct?

1           A           Yes, they have.

2           Q           What's your understanding of Mr. Randy  
3 Patterson's involvement with regards to negotiating your  
4 company's position with BHP Petroleum?

5           A           He is the Land Manager and when it be-  
6 came obvious that the problem was not going to be easily  
7 resolved, as I'm sure BHP and Yates and Samedan would have  
8 liked to have seen it avoid a hearing, he became active in  
9 the negotiations. He is more experienced than the landman  
10 handling this. He had many conversations simply because he  
11 was dealing with the land manager of BHP.

12          Q           Is Mr. Patterson here today?

13          A           No, he's not.

14          Q           Tell me specifically what your personal  
15 involvement was?

16          A           My personal involvement?

17          Q           Yes, ma'am.

18          A           I am Robert Bullock's direct supervisor.  
19 I attended the January meeting between Yates, BHP, Samedan,  
20 at which time we formally showed the geology, some back-  
21 ground as to why we thought the location in the east half  
22 should be unorthodox rather than the standard location pro-  
23 posed to us by BHP.

24                        So I have to say I was present, as BHP  
25 knows, on many of the telephone calls with the land

1 manager speaking to their land manager.

2 Q Are there any particular reasons that  
3 Yates has utilized the 1977 GAO form as opposed to the 1982  
4 form?

5 A That is our -- the (unclear) that we use  
6 for all wells. We have not formally changed our policy,  
7 our way of doing things. We are still using the 1977 form,  
8 not only in this area, throughout our other dealings.

9 Q I want to make sure I'm focused on the  
10 areas in which there is an opportunity for disagreement  
11 that the Examiner must resolve.

12 Am I correct in understanding that BHP's  
13 operating agreement submitted to you was on the 1982 form?

14 A That's correct.

15 Q Is there any material difference between  
16 the two companies as to what form is utilized, in your  
17 opinion?

18 A I don't think as far as the form. There  
19 are a couple of options that we did not like in the BHP  
20 agreement; however, we did not argue them because we pre-  
21 ferred to try and operate and use the '77 form, but we have  
22 used the '82 form with other people operating. We like to  
23 see the language where it says each party shall take in  
24 kind, we like to add in there, shall have the right to take  
25 in kind. There are a few minor changes, but we have no ob-

1 jections that we can state against using the 1982 form.

2 Q So that is one of the issues that's not  
3 in contention today.

4 A No, sir. Like I say, the basic form, we  
5 have no problems with '77 or '82.

6 Q During any of these conversations in  
7 which you participate or have knowledge between your com-  
8 pany and the BHP personnel in negotiating a resolution of  
9 who should operate the interests and the wells in the east  
10 half of 36, were you ever present or did you understand  
11 that one of the principal contentions of your company was  
12 that they had the ability to obtain a price advantage by  
13 the connection of this well to Transwestern's pipeline  
14 system only if Yates was the operator?

15 MR. DICKERSON: Excuse me.  
16 Mr. Catanach would you and Mr. Kellahin have any problem  
17 with us going off the record for just a minute? We have a  
18 very brief --

19 MR. CATANACH: Sure, go ahead  
20 and do that.

21

22 (Thereupon a recess was taken.)

23

24 MR. CATANACH: Call the  
25 hearing back to order and I believe Mr. Kellahin was still

1 cross examining the witness.

2 MR. KELLAHIN: Thank you, Mr.  
3 Examiner.

4 Q Ms. Colbert, let me ask you some ques-  
5 tions with regards to your position on the fact that you  
6 believe Yates has the ability to drill the well using AFE  
7 costs that are lower than BHP costs. All right, you raised  
8 that this morning as one of your points for urging the Ex-  
9 aminer to award operations to Yates.

10 A Based on the AFE's, that's true.

11 Q All right. Have you made a comparison  
12 of other wells that Yates either operates or has an inter-  
13 est in to see what the AFE costs were versus the completed  
14 well costs for those various wells?

15 A Yes, sir, we have.

16 Q Are you prepared as part of your presen-  
17 tation to talk about those points or is that another wit-  
18 ness?

19 A I believe that's another witness. Drill-  
20 ing is not my field.

21 Q Well, sure. You also mentioned one of  
22 your points was the opinion that the overhead rates that  
23 Yates had proposed for the well were going to be lower than  
24 the BHP rates.

25 Let me see if I remember correctly, I

1 believe your JOA has got 3500 and 350 --

2 A 350, that's correct.

3 Q -- as the proposed overhead rates?

4 Have you utilized those overhead rates on any similar well  
5 in the immediate vicinity?

6 A Yes.

7 Q For this depth?

8 A For all the Ordovician gas wells, that's  
9 correct.

10 Q Okay. When we look at your Exhibit Num-  
11 ber One, there is an area up in the northwest corner of  
12 that display which is the Yates Petroleum operated  
13 Sunnyside Unit?

14 A That's correct. It's a State unit.

15 Q Okay. The overhead rates in that unit  
16 agreement to which BHP participates are \$5400 and \$540 a  
17 month, are they not?

18 A I could not tell you. I haven't looked  
19 at this unit since it was put together.

20 Q All right. I understand. The unit  
21 operation --

22 A It is a unit, State exploratory unit,  
23 not a single spacing unit well.

24 Q You do not know what rates Yates, as  
25 operator, is using in the Sunnyside Unit?

1           A           I'm sorry, I don't. I should because I  
2 did that, but, like I say, since it was put together last  
3 year and drilled, I have not looked at it.

4           Q           Okay. Let's look at the overhead  
5 charges in the west half of 36. Now, that's -- that's an  
6 area in which after payout, then, Yates will participate as  
7 a working interest owner.

8           A           That's correct, yes.

9           Q           And Yates has signed the BHP operating  
10 agreement for the well in the west half of 36, haven't you?

11          A           I'm sure we have.

12          Q           And that agreement, to which Yates has  
13 signed, provides for overhead rates on that well of \$4100 a  
14 month drilling well and then a producing well rate of \$410  
15 a month. Is that not true?

16          A           I'm sorry, I don't know.

17          Q           You don't know?

18          A           No. I would assume they sent the AFE,  
19 the operating agreement on the east half that it would  
20 match a west half, but I don't know this.

21          Q           You made a comment this morning about  
22 looking at the Ernst and Whinney overhead rates that are  
23 tabulated by the accounting firm?

24          A           When we set our rates every year, that's  
25 correct.

1 Q Have you looked at the 1988 Ernst and  
2 Whinney publication for wells at this depth to determine  
3 what they show to be the average prices for wells?

4 A No, sir, not recently.

5 Q Okay. Let me show you the 1988 book,  
6 Ms. Colbert, and I'll turn to page 18 and 19 and if you'll  
7 go down that schedule and find for me the particular depth  
8 and locate for me, then, what they suggest for overhead  
9 rates.

10 A Well, where you turned is the Gulf of  
11 Mexico and I --

12 Q I'm sorry, did I miss the page?

13 A -- don't think will apply.

14 Q You don't work there?

15 A No, sir.

16 Q That wasn't a quiz. That was just a  
17 mistake on my part.

18 A Oh, I thought it was a test. Okay.

19 Okay, this would fall under this 1988  
20 survey results for Region V, which is West Texas/Eastern  
21 New Mexico.

22 Q That's found on what page of the report?

23 A It's found on page 15 as to the gas  
24 wells and, of course, they refer to a gas well over 5000  
25 feet but not over 10,000, with the average being 4109 and,

1 of course, they trim that down to 5 -- 419.

2 Q Thank you very much. I have no further  
3 questions.

4 MR. CATANACH: Any further  
5 questions?

6 MR. DICKERSON: Just one.

7  
8 REDIRECT EXAMINATION

9 BY MR. DICKERSON:

10 Q Ms. Colbert, you -- did I understand  
11 your answer in response to question of Mr. Kellahin to be  
12 that Yates Petroleum, if designated operator of this unit,  
13 is willing to commit to spud the well to accommodate any  
14 time problems under its farmout arrangements that BHP and  
15 other parties in the northeast quarter of Section 36 have?

16 A Well, that's how I responded this  
17 morning, that not only were we able and willing to, that we  
18 had relayed that to the other parties in the well.

19 Q So Yates is firmly committed that you're  
20 not in a position where you're trying to delay the drilling  
21 of the well in order to create any problems, expiring  
22 farmout, or anything of that nature. Yates will comply  
23 with BHP's time problem if they're named operator?

24 A That's exactly correct.

25 MR. DICKERSON: I have nothing

1 further.

2 MR. CATANACH: No questions.

3 The witness may be excused.  
4

5 LESLIE BENTZ,

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

8  
9 DIRECT EXAMINATION

10 BY MR. DICKERSON:

11 Q Ms. Bentz, state your name, your occupa-  
12 tion and by whom you're employed, and in what capacity,  
13 please.

14 A My name is Leslie Bentz. I'm employed  
15 as a petroleum geologist by Yates Petroleum Corporation of  
16 Artesia, New Mexico.

17 Q And, Ms. Bentz, you have previously  
18 qualified and testified before this Division on numerous  
19 occasions as a petroleum geologist, have you not?

20 A Yes, I have.

21 Q And are you familiar with the available  
22 geologic data which is available to you regarding the area  
23 which is the subject of today's application?

24 A Yes, I am.

25 Q Refer to the structure map which was

1 submitted as Exhibit Number Five and review this for us.

2           A           The map is a subsurface structure map on  
3 top of the PrePenn unconformity. This surface is near or  
4 at the top of the productive interval Ordovician formation  
5 and it is used as it provides the best seismic marker. The  
6 contour interval used is 25 feet.

7                   Datum points are noted by circles and  
8 the appropriate datum is listed next to the well. Yellow  
9 lines indicate the seismic data incorporated into this map  
10 and the calculated subsea depth conversions are located  
11 next to the associated shot points. The well spots colored  
12 in red indicate the Ordovician producers in the area. They  
13 are the BHP Yates "36" No. 1 in Section 36, and BHP's Ervin  
14 Ranch State No. 1, which is the discovery well in Section  
15 5.

16                   Production from the Ordovician formation  
17 in this area occurs when there is sufficient structural  
18 relief to provide a trapping mechanism. The structure map  
19 provided shows a narrow, tilted fault block trending north-  
20 slightly northeast. Closure into the bounding fault, which  
21 is downthrown to the west provides the western limits of  
22 production.

23                   To the east the beds dip very steeply  
24 and provide the eastern limits to production.

25                   The north and the south limits of this

1 field have not yet been defined but indications are that  
2 anti-regional dip to the north provides the northern limits  
3 and that regional dip to the south provides the southern  
4 limits.

5 Q Ms. Bentz, we've heard previous testi-  
6 mony relating to other Yates Petroleum Corporation wells  
7 in this same general area possibly some distance away. Re-  
8 late to us a little bit more about other Ordovician wells  
9 in this vicinity in which Yates has an interest, where  
10 they're located, and tell us some of the factors which bear  
11 on both risk in drilling these Ordovician wells and in  
12 making the decision as to the best allowable location  
13 within a given spacing unit when you're dealing with the  
14 Ordovician.

15 A Okay. In 1982 Yates Petroleum drilled  
16 two wells at the Foor Ranch Field. Both of these wells  
17 were drilled in an attempt to complete in the Ordovician  
18 formation. At the time we did not employ the uses of  
19 seismic. Both of those wells, we missed our objective. One  
20 well we drilled on the PreCambrian Knob (sic) and missed  
21 the Ordovician entirely. The other well, on the eastern  
22 side of the Foor Ranch, was 200 feet low to prognosis.

23 So after that we sat back and we recon-  
24 sidered our position and area and we decided that we prob-  
25 ably needed to employ seismic. Since then we've drilled 12

1 Ordovician tests and 10 of them have been completed as  
2 producers.

3 Q Relate to us a little more about exact-  
4 ly -- you referred to the Foor Ranch Field and some of the  
5 other Ordovician wells that you're talking about. Where,  
6 in general terms, are these wells located with regard to  
7 the west half of 36 that we're concerned with?

8 A The closest Foor Ranch production is in  
9 Section 36 of 9, 26, which puts it exactly one township due  
10 north.

11 The nearest production Yates Petroleum  
12 has to this particular section is in Section 21 of Town-  
13 ship 10 South, 27 East, and that is the Pathfinder No. 3.  
14 In fact, the Pathfinder No. 3 was completed within a week  
15 of the Ervin, BHP's Ervin Ranch State No. 1.

16 We have also been to the Commission --  
17 10 of those wells that have been completed, 3 of them have  
18 been unorthodox locations.

19 Q Now why is that? Why is there seem to  
20 be a necessity in the operators' opinions for unorthodox  
21 locations when drilling to test the Ordovician in the area?

22 A Often the structure, as in the case with  
23 the Ervin Ranch area, the structures are very narrow and  
24 very complex. We have been shooting seismic lines just to  
25 pick one location and where we see the best location seis-

1 mically is where we have been drilling the wells and we  
2 don't feel like that we can compromise in where the loca-  
3 tion of the well is, not only due -- it has a bearing on  
4 whether or whether or not you make a well, but the higher  
5 you can get structurally, the longer that well will pro-  
6 duce. These are water drive reservoirs and when you start  
7 having water encroachment on a gas well it makes production  
8 really tough, and so some of these wells, because we had  
9 drilled unorthodox, we had recovered more reserves and  
10 these may produce years longer than if we had drilled at an  
11 orthodox location.

12 Q So do I understand you that you use a  
13 combination of borehole data obtained, subsurface data, and  
14 seismic information to come up with these prospective loca-  
15 tions?

16 A That's correct.

17 Q What are the yellow lines indicated on  
18 your Exhibit Number Five?

19 A Okay. The yellow lines indicate the  
20 four seismic lines that were used -- well, four of them  
21 were used picking this location. The fifth line was used,  
22 was shot to verify the location.

23 Q Okay, tell us which lines are which.  
24 Which --

25 A Okay.

1 Q -- line was used to verify?

2 A BHP Line 6 was available before the  
3 location was chosen; BHP Line 5, BHP Line 2 and Yates Line  
4 11. We shot the Ervin Ranch Line 2, or actually BHP shot  
5 the line and we paid for 50 percent of that line to verify  
6 this location.

7 Q Now that BHP Line 2 that you're refer-  
8 ring to is the vertical north/south seismic line extending  
9 --

10 A Right the Ervin Ranch Line 2 is the one  
11 that goes the proposed location.

12 Q From east to west.

13 A From east to west.

14 Q All right. By looking at the Exhibit  
15 Number Five, tell us what you see on this exhibit that con-  
16 vinces you as a petroleum geologist with access to both  
17 this borehole data and the seismic information obtained by  
18 all the parties here, that your proposed unorthodox at the  
19 footage previously given is superior to any standard loca-  
20 tion for a spacing unit on the east half of Section 36.

21 A From information obtained from the Ervin  
22 Ranch State No. 1, a drill stem test and detailed log cal-  
23 culations of Yates "36" No. 1, we have established a water  
24 -- gas/water contact at approximately -2524, and I would  
25 put this in the range of plus to minus 10 feet of error.

1           By locating the well at the unorthodox  
2 location, it is possible that we may get 90 feet of gross  
3 pay, whereas if we move this to the closest orthodox loca-  
4 tion, which would be at 1980/1980, we are down to 40 feet  
5 of gross pay.

6           The next pay the porosity comes in any-  
7 where from 20 to 30 feet below the top of the Ordovician  
8 which I define as the gross pay, so then you're down to  
9 maybe 10 to 20 feet above the gas/water contact. By the  
10 time you throw some error in there, as your agreement with  
11 seismic may be plus or minus 30 feet, it is a very real  
12 possibility that that well will be located at or below the  
13 gas/water contact.

14           Another thing is that the dolomite re-  
15 servoir, Ordovician reservoir, has very good vertical per-  
16 meability and it is fractured. If you get within 10 or 20  
17 feet of the gas/water contact, even though you may have 10  
18 or 20 feet of pay, it is possible that you may not be able  
19 to make a good completion from water coming up from below  
20 you through the fractures.

21           So I feel like that by placing it at the  
22 unorthodox location, that we are lowering our risk; we have  
23 a better chance of making a well; if we do make a well, we  
24 will be higher and that will increase the life and we will  
25 ultimately recover more reserves that would otherwise have

1 been left behind.

2 Q Is it your opinion that the proposed  
3 well location for this east half spacing unit is the best  
4 geologic location for a well to drain that east half?

5 A It is the best geological location in  
6 Section 36 without moving it completely up to the north  
7 edge of that line, which would be, you know, very unortho-  
8 dox. So I picked the best geological location I could near  
9 an orthodox location.

10 Q So as I understand it, there are two  
11 principal factors that you look at to determine risk. One,  
12 if you get below the gas/water contact, you get oil or not  
13 -- you get oil or water and not gas.

14 A That's right.

15 Q A dry hole.

16 A A dry hole.

17 Q And the other is based on structural  
18 position in the reservoir so that if you get higher rela-  
19 tively speaking, structurally you have a better opportunity  
20 for larger reserves in that spacing unit?

21 A That is correct. One other thing is  
22 you'll notice that the blue area on this map indicates  
23 areas in which the Mississippian formation, which is the  
24 PrePenn unconformity surface, too, doesn't exist in the Er-  
25 vin Ranch State No. 1 and the Yates "36" State No. 1 we've

1 picked up approximately 50 feet of Mississippian.

2 By moving east regionally you may pick  
3 up more Mississippian section, so we feel like by staying  
4 as far west as we can that we have a chance to not pick up  
5 a lot of additional Mississippian section which would de-  
6 finitely make (unclear) and again increase the risk.

7 Q So except as noted by blue, the Missis-  
8 sippian either does not exist there or was not deposited or  
9 has been eroded away in the interim.

10 A On the blue area the Mississippian has  
11 been eroded away or nondeposition, probably erosion. In  
12 the white area you do have a Mississippian section where  
13 the PrePenn nonconformity was (unclear).

14 Seismically you cannot distinguish  
15 between the top of the Mississippian and the top of the  
16 Ordovician in this area, so this is the best we can do .

17 Q Do you have anything further you'd like  
18 to add about Exhibit Number Five?

19 A No.

20 Q Okay, identify your cross section, Exhi-  
21 bit Number Six and review it for us.

22 A Okay. Exhibit Number Six is a struc-  
23 tural cross section and it shows the relationship between  
24 the two completed gas wells to our proposed location. As a  
25 datum we've hung it at -2050 and it shows all of the perti-

1    nent formation tops in the area.

2                    As you will note, the PrePenn unconfor-  
3    mity is our mapping surface, which in the case of the BHP  
4    Ervin Ranch No. 1 is the top of the pay, the top of the  
5    Ordovician formation. By the time you get over to the  
6    Yates "36" State No. 1, we have picked up approximately 40  
7    to 50 feet of Mississippian, so the mapping surface is ac-  
8    tually 50 feet above where the actual pay is.

9                    What we're showing at the proposed loca-  
10   tion is we expect to be slightly down dip from the BHP  
11   Yates "36" State No. 1. I have left the Mississippian  
12   about the same interval thickness but there is a chance  
13   that may increase with a little bit more Mississippian sec-  
14   tion.

15                   We are -- I'm also showing my gas/water  
16   contact. It's at -- estimated at -2524 and again I think  
17   that's probably within 10 feet.

18                   Q            Ms. Bentz, tell us, if you would, your  
19   involvement in picking this location, specifically with BHP  
20   and the other parties which we are here for today, as far  
21   as how this current location has been evolved, been agreed  
22   upon by all parties.

23                   A            Okay. About the time that the Yates  
24   "36" No. 1 was being completed, we received an AFE from  
25   BHP.

1           Q           Now that was in January of this year,  
2 right?

3           A           That was in January of this year. The  
4 location was 1980 from the south and 1980 from the east. I  
5 did not immediately act on this until I could get in touch  
6 with Bill Morris, which is the geologist with BHP, and I  
7 felt like that neither one of us would be prudent to ap-  
8 prove or not approve the location without trying to work  
9 out some kind of seismic exchange.

10                        So BHP swapped the three existing lines  
11 that they had over that section that were pertinent to the  
12 location and I in turn swapped the one line that I had over  
13 that section.

14                        After -- I did not immediately have a  
15 problem with the location until I was able to obtain BHP's  
16 seismic data. After I reviewed not only my line, and their  
17 three lines, I felt like that that location was not the  
18 best location --

19           Q           Now let me ask you --

20           A           -- could have.

21           Q           -- what -- what location was proposed by  
22 BHP?

23           A           Okay, it was the 1980 from the south and  
24 1980 from the east.

25           Q           The standard location --

1           A           The standard location --

2           Q           -- for an east half spacing unit.

3           A           Right, but in the southeast quarter.

4           Q           All right, and upon your review of all

5 the data you determined what?

6           A           I determined that that was not the best

7 location for the east half of Section 36. Once I decided

8 that I was very worried about the location, I had talked to

9 Bill Morris with BHP about the location and he admitted

10 that he had some reservations, there was also a dipmeter on

11 the Yates "36" No. 1 that indicates that dip is 4 to 6 de-

12 grees to the southeast, which when you use the dipmeter

13 computations versus what we had with the seismic, that in-

14 dicated that there was a very real possibility that we were

15 going to be below the gas/water contact, maybe even 30 or

16 40 feet below it, plus with the Mississippian thickening to

17 the southeast.

18                               So I had thrown my well location to Bill

19 but all this was done very informally, two geologists

20 speaking over the phone discussing what we could do tech-

21 nically.

22                               Then it became my understanding through

23 conversations with the Land Department that there was a

24 very real possibility that Yates Petroleum was going to be

25 force pooled at that location.

1 Q At the standard --

2 A At the standard --

3 Q -- orthodox location proposed?

4 A -- location proposed. So we had -- and  
5 I had heard this, we made arrangements with BHP and we went  
6 to -- Kathy Colvert and I flew to Midland, went into BHP's  
7 office and I made my maps and my interpretation available  
8 to BHP at that time, and to Samedan.

9 Q And since that time has an additional  
10 seismic line been conducted?

11 A Yes. They called back several days  
12 after the meeting and said that Samedan was still exer-  
13 cising, you know, they were worried about the location in  
14 general, and they felt like the best thing we could do was  
15 shoot a seismic line through the proposed location, the new  
16 proposed location, the Yates location. We thought that  
17 that was a very prudent thing to do, so within probably two  
18 days of that Bill Morris FAX'ed an AFE to our office con-  
19 cerning seismic. We signed it and FAX'ed it back that very  
20 same afternoon.

21 So then we had put everything on hold on  
22 this location until we could get the additional seismic in,  
23 which we did shortly --

24 Q And --

25 A -- before this hearing.

1 Q And what, briefly, is the current con-  
2 sensus of the parties, if there is one?

3 A I think the current consensus after  
4 shooting this line is that we affirm that we do need an  
5 unorthodox location and this well deserves to be drilled.

6 Q So to your understanding BHP now sup-  
7 ports the same location as originally proposed by you?

8 A Their force pooling us at that location.  
9 I assume that they liked it.

10 Q Now you have discussed the factors which  
11 bear upon the risk involved in drilling an Ordovician well  
12 at this location. Based upon those factors, Ms. Bentz,  
13 have you come to an opinion as to what would be an appro-  
14 priate risk penalty to be imposed in any pooling order is-  
15 sued out of these cases?

16 A Yes, I have.

17 Q And what in your opinion is an appro-  
18 priate risk penalty?

19 A 200 percent.

20 Q The maximum 200 percent permissible?

21 A Yes.

22 Q From your study of this data which is  
23 available, Ms. Bentz, do you know whether or not these  
24 existing two wells appear to be in the same geologic reser-  
25 voir?

1           A           The pressures indicate, as well as the  
2 gas/water indicates that they are in the same reservoir.

3           Q           Would that be consistent with what you  
4 find in the other Ordovician wells in the area in which  
5 Yates has an interest?

6           A           Yes, it would.

7           Q           You generally find a reservoir defined  
8 by the structure and limited by the gas/water contact or  
9 any other factors, but once discovered there's more than  
10 one well produced from those reservoirs?

11          A           That is correct.

12          Q           Now tell us the time frame, the Ervin  
13 Ranch State No. 1 Well, do you know exactly when that well  
14 was drilled? That's the wells in the northwest quarter of  
15 Section 5. That was the first --

16          A           I can tell you when --

17          Q           -- discovery well, wasn't it?

18          A           Yes. I can tell you when they did their  
19 4-point test. It was in November and early December of  
20 1988.

21          Q           Okay, and tell us the timeframe for the  
22 drilling and completion of the Yates 36" State Well in the  
23 west half of Section 36.

24          A           Okay. I don't have an exact date on the  
25 4-point test but it was down and logged over New Year's and

1 completed shortly thereafter, so it would have put it the  
2 very first to middle of January.

3 Q Now, neither of these wells are current-  
4 ly -- there is no pipeline in the area; the wells are not  
5 currently producing, are they?

6 A No, they're not.

7 Q From -- based on your experience in de-  
8 veloping pools in the Ordovician, absent the time problems  
9 that we understand BHP has under its farmout arrangements  
10 in order to earn the additional acreage by the drilling of  
11 the third well in the east half of 36, which is the subject  
12 of this hearing, would it ordinarily be necessary to drill  
13 a third well at this time or at the end of January to a  
14 proposed third well?

15 A No. They're really not, there is no  
16 pipeline immediately accessible. I have the same problem,  
17 I've mentioned the Pathfinder, which is the closest Yates  
18 production, we know that we have additional locations in  
19 that area but as we have no pipeline connection, we feel  
20 like it is not prudent of us to go invest the money in a  
21 hole that may sit there for an indefinite period of time  
22 without producing. As soon as a pipeline becomes available  
23 we will go drill the offset well.

24 Q But notwithstanding those concerns, you  
25 share what we understand is Yates' commitment to drill that

1 third well at the proposed unorthodox location for the  
2 reason of accommodating BHP's lease expiration -- or farm-  
3 out timeframe?

4 A Yes. We intend to drill the well as  
5 soon problems are resolved to honor that commitment.

6 MR. DICKERSON: Mr. Catanach,  
7 move admission of Yates Exhibits Five and Six. I have  
8 nothing further of Ms. Bentz.

9 MR. KELLAHIN: No objection.

10 MR. CATANACH: Exhibits Five  
11 and Six will be admitted as evidence.

12 Mr. Kellahin?

13

14

#### CROSS EXAMINATION

15 BY MR. KELLAHIN:

16 Q Ms. Bentz, let me take you  
17 back to the structure map, Exhibit Number Five. Tell me  
18 again what your opinion is of the approximate location of  
19 the current gas/water contact.

20 A -2524. It's not actually located on the  
21 well but it is on the -- I mean on the map, but it's on the  
22 cross section.

23 Q Your estimate of the gas/water contact  
24 would place that gas/water contact to the east of Section  
25 36 the way this is contoured.

1           A           Yes, but you have to realize that this  
2 map is on top of the PrePenn unconformity, which is not  
3 necessarily the Ordovician top.

4           Q           What I'm looking for is to have you  
5 explain for me where you think the gas/water contact is  
6 within the boundaries of the east half of 36. What contour  
7 line do I follow?

8           A           Well, it's not quite as simple as that.

9           Q           I understand, but I'm a simple person  
10 and I can't figure it out.

11          A           Well, --

12          Q           I want to use a contour line on here and  
13 I know this is mapped --

14          A           You can't -- okay, it's mapped on the  
15 PrePenn unconformity --

16          Q           That's right.

17          A           -- which is a top of a surface.

18          Q           Yeah.

19          A           You have the Mississippian section in-  
20 creasing to the south/southeast.

21          Q           Well, I understand all that. I want --

22          A           So, okay --

23          Q           -- you to tell me where the water is.

24          A           Okay. The water is at -2524 in subsea  
25 depth. That doesn't necessarily mean that you can draw one

1 line on this map and say, you know -- you would have to map  
2 the top of the PrePenn dolomite to be able to do that.

3 Q Project this to the top of the PrePenn  
4 dolomite for me and give me your best estimate of where you  
5 think the likely gas/water contact is within the boundaries  
6 of the east half of 36.

7 A Okay, well, obviously, if I felt their  
8 location at 1980/1980 was very risky and near that, then  
9 probably what you're doing is that is going to run down the  
10 middle of that east half. So you're going to have 80  
11 acres in the northeast quarter and approximately 80 acres  
12 in the southeast quarter.

13 Q Well, it will -- you will have to honor  
14 the contour lines that you've display, will it not?

15 A Right.

16 Q Can I follow the -2425 contour line on  
17 the display? Does that approximate --

18 A Very, very roughly.

19 Q All right. Okay. What I'm trying to  
20 find out is the relationship geologically between your  
21 proposed unorthodox location that everyone, I assume, now  
22 agrees to, and the closest standard location. I'm trying  
23 to have you draw for us the distinction. All right, what  
24 are we --

25 Q Okay, I guess I'm a little curious as to

1 why we're discussing this because I thought that BHP ap-  
2 proved that location.

3 Q Because Mr. Catanach's got a memo from  
4 the Director today telling him to consider imposing a pen-  
5 alty on an unorthodox well location even if there's no  
6 opposition to that.

7 A So you're speaking for Mr. Catanach?

8 Q I'm speaking for both of us trying not  
9 to get this well penalized.

10 A Okay.

11 Q Bear with me, I'm on your side.

12 A Okay. Well, I -- that's what -- I was  
13 trying to respond there for a second.

14 Q When we look at the closest standard  
15 location for an east half well.

16 A The closest is 1980 from the north and  
17 east.

18 Q That's right.

19 A That's the location I discussed.

20 Q Well, let's look from the north 1980 and  
21 bring yourself 660 from the western boundary of the spacing  
22 unit.

23 A Okay.

24 Q All right, you said east, let me make  
25 sure we're at the same point; 1980 form the north --

- 1           A           1980 from the north.
- 2           Q           660 from the west --
- 3           A           No, no.
- 4           Q           -- 660 from the western boundary of the
- 5 spacing unit.
- 6           A           Yeah, but 1980 from the east line.
- 7           Q           Yes, all right, same point. Okay, what
- 8 structural position on this exhibit does that put you at?
- 9           A           That puts you below the -2385 but again
- 10 you're going to have additional Mississippian section,
- 11 which I threw in approximately 30 feet north of Mississip-
- 12 pian section, so you're looking at a point on the top of
- 13 the Ordovician which is 30 to 40 feet below that particular
- 14 point.
- 15           Q           So if I take -2385, approximately, sub-
- 16 tract 40 feet, that's going to get me in the top of the pay
- 17 of the Ordovician.
- 18           A           Hopefully.
- 19           Q           All right.
- 20           A           And then there is a factor for when
- 21 you're dealing with seismic there is also an error factor
- 22 or two that you could go either way on either location.
- 23           Q           And that's a plus or minus 30 feet.
- 24           A           30, 35 feet.
- 25           Q           All right. Now give me the structural

1 position on the top of the Ordovician for the proposed  
2 unorthodox location which is 1650 and 330, 330 from the  
3 western boundary of the spacing unit. What's that point?

4 A That point is between -2380 and -2375.

5 Q What then is the vertical difference --

6 A But you --

7 Q -- between the closest standard location  
8 and the unorthodox location?

9 A Okay. You're going to have less Missis-  
10 sippian there, so you're looking at roughly, maybe 10 to 15  
11 feet structurally on the Mississippian and then you had the  
12 30 to 40 feet, so you're looking at approximately, maybe 55  
13 feet of difference.

14 Q Okay, we gain approximately 55 feet of  
15 vertical structure in the primary pay formation.

16 A Yes.

17 Q All right. And that to you as a geolo-  
18 gist is a significant enough number that requires you to  
19 assert an unorthodox location as opposed to the closest  
20 standard location.

21 A That is correct.

22 Q And that coupled with the opinion of the  
23 gas/water contact is your justification, then, for the un-  
24 orthodox location.

25 A Correct.

1           Q           All right. Does this location gain any  
2 unfair advantage over the interest owners in the west half  
3 of the section?

4           A           I have not sat down and calculated the  
5 exact drainage.

6           Q           Well, it wasn't intended --

7           A           But you are --

8           Q           Excuse me.

9           A           But it wasn't intended to do that. That  
10 was not the intention of it, but it is 330 -- 330 feet  
11 nearer the line, the center line.

12          Q           I don't expect you to calculate the  
13 drainage calculations for me. Geologically, though, you  
14 have told us there's a significance in being up structure.

15          A           Right.

16          Q           And avoiding the gas/water contact.

17          A           That's correct.

18          Q           Geologically, by approval of this loca-  
19 tion without a penalty are the owners in the east half  
20 gaining an unfair advantage over the owners in the west  
21 half?

22          A           You're 330 nearer their line.

23          Q           What is the structural relationship be-  
24 tween the Yates State 36 - 1 Well in the west half of 36 to  
25 the unorthodox location?

1           A           Structurally I expect the Yates "36" No.  
2 1 to be higher than the proposed location.

3           Q           So it already has some structural ad-  
4 vantage, then.

5           A           It does have some structural advantage.

6           Q           What contour line do I follow as I move  
7 through the west half of 36 to find the -- the size and  
8 shape of the reservoir?

9           A           Well, it's the fault on the lefthand  
10 side is one boundary factor.

11          Q           Okay.

12          A           And then as you have already, around --  
13 between -2425 and -2450 would be the gas/water contact over  
14 on the eastern side. It's not bound by a fault, it's just  
15 steep dip.

16          Q           Did you participate as a geologist in  
17 Yates' decision to farmout its interest in the west half of  
18 36 rather than --

19          A           Yes, I did.

20          Q           -- participate in that well?

21          A           Yes, I did. May I explain that deci-  
22 sion or are you just wanting to know if I was involved?

23          Q           I wanted to know if you were involved.

24          A           Yes.

25          Q           You've answered my question, thank you.

1                   A            Sure.

2                                   MR. DICKERSON:  Would you like  
3 to explain --

4                                   MR. KELLAHIN:  Well, when you  
5 get a chance to.

6                                   MR. DICKERSON:  I'm sorry, I  
7 thought you were --

8                                   MR. KELLAHIN:  It's my turn,  
9 honey.

10                   Q            Using Ms. Colbert's Exhibit Number One  
11 that she talked about Yates' acreage position, am -- am I  
12 correct in understanding that Yates, other than a working  
13 interest owner in its -- in the well, the BHP well on the  
14 west half of 36, there aren't any other of these similar  
15 type gas wells in which Yates operates or has a working in-  
16 terest?

17                   A            On the -- are you talking about the yel-  
18 low colored acreage?

19                   Q            The yellow color, yes, ma'am.

20                   A            Well the only well on the yellow  
21 coloring that is an Ordovician well is the Yates "36" No.  
22 1.

23                   Q            Okay, and then to the south of that we  
24 have the Ervin Ranch well in the northeast of 5.

25                   A            Right.

1 Q And that's outside the yellow, and then  
2 we have to move over into the northeast corner in Section  
3 21 to the Pathfinder Well.

4 A It's not the northeast quarter; it's the  
5 southwest quarter.

6 Q Would it be your responsibility for your  
7 company to make an analysis of the availability and the  
8 cost in bringing a pipeline into this particular portion of  
9 the pool to have the wells connected and then produced;  
10 just not something you would do, would it be?

11 A No.

12 MR. KELLLAHIN: Thank you, Mr.  
13 Examiner.

14 MR. CATANACH: Redirect, Mr.  
15 Dickerson?

16 MR. DICKERSON: Just a couple  
17 of questions.

18

19 REDIRECT EXAMINATION

20 BY MR. DICKERSON:

21 Q Ms. Bentz, in picking your location for  
22 this proposed well, you weigh the geologic factors and the  
23 risk factors that you've discussed, do you not?

24 A Yes, I do.

25 Q You don't -- you don't weigh and take

1 into consideration the relative merits as to how far it is  
2 from the boundary line.

3 A No, other than I almost never go beyond  
4 330 towards the particular boundary.

5 Q But in choosing that particular unortho-  
6 dox location you have attempted to pick the best geologic  
7 location for the maximum recovery or chance of recovery of  
8 oil and gas anywhere in that spacing unit that we're rele-  
9 gated with since the west half is already dedicated.

10 A That's right.

11 Q All right.

12 A Without going on top of the lease line.

13 Q Mr. Kellahin asked you whether or not  
14 you were involved and you stated that you were in the deci-  
15 sion to farmout the Yates acreage in the west half of Sec-  
16 tion 36. Would you like to explain your participation in  
17 that decision?

18 A Yes, I would. At the time BHP brought  
19 the Ervin Ranch prospect to us we were looking at joining  
20 them in this project but also at the same time we were  
21 drilling numerous step out wells in the Foor Ranch area and  
22 at the same time they were drilling the Ervin Ranch State  
23 No. 1 we were drilling the Pathfinder. So we had two other  
24 areas that we were involved with that were the same forma-  
25 tion that we felt like we should do.

1                   We wanted to see BHP drill a well;  
2 therefore we gave them support in the form of a farmout  
3 option on the west half of Section 36. We did not give  
4 them all of our acreage in 36. Yates has a back-in in that  
5 well and we left ourselves an offset location if we so de-  
6 sired. So it was a business decision.

7                   Q           But that decision to support BHP's  
8 drilling of the Yates "36" State Well, as it turned out BHP  
9 took the risk in drilling that well, it appears to have  
10 established a commercial well, and have benefitted not  
11 only themselves but Yates Petroleum Corporation as a prac-  
12 tical matter.

13                  A           That is correct.

14                  Q           And in your experience is that the way  
15 this business customarily operates, the companies support-  
16 ing each other in a mutual endeavor to establish oil and  
17 gas production?

18                  A           Yes.

19                  Q           Okay, I have nothing further.

20  
21                                   CROSS EXAMINATION

22 BY MR. CATANACH:

23                  Q           Ms. Bentz, just a couple of questions.  
24 You said that you gain approximately 55 feet structure at  
25 the proposed location.

1           A           Yes.

2           Q           Yet the -- you said that the standard  
3 location would be at about -2385?

4           A           Yes.

5           Q           And at the proposed between 2375 and  
6 2380.

7           A           Yes, but I expect by moving further to  
8 the south and to the east, as would be the proposed loca-  
9 tion, your Mississippian section is going to thicken very  
10 rapidly, so I'm expecting to pick up 30, 40, and maybe even  
11 50 feet of additional Mississippian section. From the  
12 Ervin Ranch State No. 1, which was original discovery well,  
13 there was no Mississippian present whatsoever. By moving  
14 up to Yates "36" State No. 1 they have picked up addition-  
15 al nearly 50 feet of Mississippian and they're basically  
16 still on the structural ridge, so when you get off on the  
17 flanks you're going to pick up Mississippian very rapidly.

18           Q           Ms. Bentz, if you -- if you were forced  
19 to drill a standard location, would you recommend that lo-  
20 cation to your management? Would you recommend that well  
21 be drilled?

22           A           I would have to think about it very  
23 seriously and point out to them the additional risk and  
24 then I think from there forward it would be a management  
25 decision.

1 MR. CATANACH: No further  
2 questions.

3  
4 ROBERT G. SPRINGER,  
5 being called as a witness and being duly sworn upon his  
6 oath, testified as follows, to-wit:

7  
8 DIRECT EXAMINATION

9 BY MR. DICKERSON:

10 Q Mr. Springer, will you state your name,  
11 your occupation and by whom you're employed, please?

12 A My name is Robert G. Springer, III. I'm  
13 employed by Yates Petroleum Corporation, Artesia, New Mexi-  
14 co; engineer over drilling operations.

15 Q You have previously testified before  
16 this Division as an engineer, have you not?

17 A Yes, I have.

18 Q And in connection with the applications  
19 pending here today have you reviewed certain of the costs  
20 inherent in drilling an Ordovician well in this area for  
21 the purpose of making some cost comparisons between the  
22 Yates proposed cost and those proposed by BHP?

23 A Yes, I have.

24 Q All right, identify the AFE's for us  
25 that we have submitted as Exhibit Number Seven and review

1 those for us.

2           A           Exhibit   Number   Seven   has   two   AFE's  
3 composed in it, the first one being Yates Petroleum AFE and  
4 that was made out by myself; the second (unclear) location  
5 that we feel that we being the operator could save a sub-  
6 stantial amount of money in drilling this well.

7                        To back that up I'll have to go into a  
8 little background. This area has an individual drilling  
9 characteristics. About a year and a half ago our manage-  
10 ment asked me to take a look at the area to see if we  
11 couldn't come up with some way to substantially cut costs.  
12 If we could, we could drill a lot more wells.

13                        So I went about it by looking at the  
14 area that causes us the most risk and the most potential  
15 cost in drilling that area and that turns out to be shale  
16 problems from the Abo shales and the Wolfcamp shales. They  
17 tend to be very water sensitive in this entire region. Be-  
18 cause of that you have to mud up early and carry your mud  
19 for a long time, it slows down drilling and adds to costs.

20                        So I, along with some other people, have  
21 been working on that particular problem, since it was the  
22 most costly one.

23                        During that period of time and original-  
24 ly the cheapest way to drill a well was just plain with  
25 fresh water. You couldn't even get a well down if you

1 factors that you've related, which come from Yates' exper-  
2 ience in drilling through these Abo and Wolfcamp formations  
3 in this area.

4 A That's correct.

5 Q Now, your calculation shows an estimated  
6 dry hole cost of \$191,300.

7 A That's correct.

8 Q The BHP AFE, I presume this is the one  
9 furnished to Yates when BHP proposed this well?

10 A That's correct.

11 Q What's the correlative figure for a dry  
12 hole under that AFE?

13 A \$210,950.

14 Q And for the completed well cost?

15 A \$396,450.

16 Q For BHP as compared to what estimate for  
17 Yates?

18 A \$334,400.

19 Q Now we all understand that these AFE's  
20 are merely estimates. Actual costs incurred may be more or  
21 less than the estimate.

22 A That is right.

23 Q And so for what it's worth, there is  
24 some difference shown in the estimates of the two parties.

25 A I might point out one thing that may be

1 of interest. The -- it's hard to see how this compares be-  
2 cause your contracts with drilling contractors and every-  
3 thing are different and I don't have access to them, but  
4 the footage rate that we have on ours is \$12.80, and that's  
5 for a partial turnkey type basis.

6 Looking at their footage rate for their  
7 drilling contractor, they're showing \$14.00 a foot and with  
8 the day work I don't know how close it would be to our kind  
9 of contract, but it certainly isn't any more turnkey.

10 Q What you're saying is since you did not  
11 have the BHP actual data you had to make projections and to  
12 some extent some estimates of -- of what those figures  
13 were?

14 A That's correct.

15 Q All right, and Exhibit Number Eight is  
16 where you summarized these projections?

17 A Yeah, Exhibit Number Eight, the informa-  
18 tion, the best information I could get for correlation is  
19 going back to daily drilling records that were submitted on  
20 our wells and theirs and it's difficult to compare apples  
21 to apples, so I took a point, as noted on here, of -- to  
22 determine a cost after the well had been drilled and the  
23 production pipe had been put in place and cemented in the  
24 Wrigley lease.

25 I did not continue on further than that

1 for the purpose that once you get past that point you've  
2 got several zones you may be testing and various other  
3 things, it's too hard to compare one well to the other one;  
4 too many different approaches that you could take. That's  
5 the best cutoff point I could find. And these are just the  
6 numbers I came up with on BHP's two wells, which are about  
7 350 feet deeper than ours as an average. They were 263,000  
8 -- well, the two wells on the bottom left column here aver-  
9 age \$266,128.

10 The two wells that we drilled at that  
11 same time, or approximately the same time, we drilled these  
12 the first month and a half of this year, these are about  
13 five miles north of there, averaged \$239,556 at that point,  
14 which is approximately \$24,000 difference. This is an  
15 indicator of a difference and the difference that I claim  
16 to have primarily is a new technology and mud system that  
17 we've come up with recently.

18 Q Let me ask you to talk about that in  
19 just a minute.

20 A Okay.

21 Q State again why you chose the two --  
22 it's obvious you chose the two BHP wells because they're  
23 the most recent wells in the -- involved in the pool which  
24 is the subject of this hearing.

25 A Right.

1           Q           Are the Yates Petroleum Corporation  
2 wells which you've used the most recent chronologically in  
3 time to be relevant to this hearing?

4           A           They're the most recent ones that we've  
5 drilled in time, approximately the same time, only a month  
6 later. They're also, with the exception of the Pathfinder,  
7 probably as close as any of the other ones. Pathfinder has  
8 been mentioned before. I did not compare that because the  
9 first part of that well was drilled with cable tool.

10          Q           All right, why did you exclude, let's  
11 say, some of the other approximately 7 or 8 Yates Ordovi-  
12 cian wells within five or six miles of this location?

13          A           Well, we've been drilling those wells  
14 over the last five or six years and we've had all sorts of  
15 changes in the industry. We've had cost of casing double  
16 in price and drop back again. We've had changes in mud  
17 system, as I kind of pointed out, drilling.

18                       The only way I could compare at all, and  
19 it's a tough comparison, is to go with the closest things  
20 we have, which are these four wells right here.

21          Q           Okay, and to the best of your ability  
22 from the limited information you've had, how do you explain  
23 the apparent difference between Yates' cost in drilling  
24 these wells and similar wells drilled by BHP?

25          A           Okay. As of about December through the

1 research that I've been doing to develop a -- a new techno-  
2 logy, if you would, it turned into that, we had done some  
3 experimenting with a new polymer. It's not a new polymer,  
4 it's been around, but we started trying different types of  
5 polymers to see what kind of effect they had. In the pro-  
6 cess of doing that we found some very interesting stuff on  
7 some samples.

8                   We decided to try it in -- Pathfinder  
9 No. 1 was the first well we tried it in; had some very in-  
10 teresting results from it. It eliminated pretty much as you  
11 would drill, if you made connections you'd get fill; if you  
12 made the trip with fill, and sometimes you tried to do a  
13 DST, you couldn't get back down; or try to get a log, some-  
14 times it would take 3 or 4 attempts to get logs because of  
15 shales, washouts, make it difficult.

16                   We saw from using it, we were kind of  
17 primitive at that time because it was the first time that  
18 the polymer in combination with the brine allowed us to  
19 eliminate the oil and the KCL and we did that on the next  
20 well, the Energy No. 1 that we drilled, and with each one,  
21 the last one, the Energy No. 2, I don't believe that we had  
22 fill on any of our trips at all, but the nice thing about  
23 it, it really is kind of an exciting thing. I do not have  
24 enough data to present a technical paper on it; at the  
25 moment we're developing it, but it's going -- it has shown

1 the drilling contractors that we use that it has made their  
2 risk so much less that they have dropped their cost to us  
3 considerably, in the range of -- just here in the last few  
4 months -- of \$1.00 to \$1.50 a foot, plus they are willing  
5 to take more of the responsibility for getting logs down  
6 and pulling DST's off than they used to be able to, prim-  
7 arily through the fact that they're slowly becoming com-  
8 fortable. We're just getting into it and I think, as we  
9 develop it more, they will become more comfortable for it  
10 and I think it's really going to promote drilling in the  
11 area, to be honest with you, and it's got other things for  
12 other areas, too.

13 Q As I understand it, anyone drilling in  
14 this area was faced with a problem, heaving shale, what-  
15 ever, caused by water absorption into these Abo and Wolf-  
16 camp formations?

17 A That's correct.

18 Q And your development of this technique  
19 is an attempt to avoid or decrease some of those problems  
20 which come up in the drilling?

21 A Now, it's primary advantage is that it  
22 reduces the risk involved in drilling considerably.

23 Q All right, and how does that correlate  
24 to a cost saving in drilling the well?

25 A Well, I don't have the numbers yet.

1 That's why I'm using these numbers as exhibits for, oh, a  
2 way to get at an idea of what -- how it does change the  
3 risk. The things it does do is it may save on an extra day  
4 of day work if you have to make an extra attempt on a DST;  
5 save extra money for mud because you had to mud up more  
6 because of the shale. It saves extra money because you  
7 don't have these tremendous wash-ups, if you look on the  
8 logs, in the Abo and Wolfcamp. We are both cementing our  
9 wells back to surface right now. It saves on that cost  
10 quite a bit on cement that goes back to the wash-up, plus  
11 you get better bonding because your hole is more (unclear).

12 Q And from your review of this limited in-  
13 formation, Mr. Springer, is it your opinion that the cost  
14 of Yates drilling the wells in accordance with its tech-  
15 niques developed in this area would lead to a substantial  
16 cost savings if those techniques are not used by BHP in  
17 drilling its well?

18 A Yes, it would. It would definitely add  
19 to both of our cost savings, plus it's a (not clearly un-  
20 derstood.)

21 Q And any costs saved incurred in drilling  
22 and completing these wells would correlate, would it not,  
23 to prevent economic waste caused by expending those unnec-  
24 essary costs?

25 A Exactly.

1 MR. DICKERSON: Move admis-  
2 sion of Yates Exhibits Seven and Eight, Mr. Catanach. I  
3 have nothing further of Mr. Springer.

4 Exhibit Nine consists of affi-  
5 davits of mailing to the parties in accordance with Rule  
6 1207 and I believe the parties involved are here.

7 MR. CATANACH: Exhibits Seven,  
8 Eight and Nine will be admitted into evidence.

9 Mr. Kellahin?

10 MR. KELLAHIN: Thank you, Mr.  
11 Examiner.

12  
13 CROSS EXAMINATION

14 BY MR. KELLAHIN:

15 Q Mr. Springer, when we look at Exhibit  
16 Number Seven, the first two pages are the AFE you proposed  
17 for the subject well?

18 A Just one page.

19 Q The second page on mine doesn't have  
20 anything on it.

21 A Yeah. That's correct, on yours and one  
22 on mine.

23 Q And then on the last two pages are Mr.  
24 Hal Crabb's AFE for the same well.

25 A Correct.

1           Q           I heard you express two, if not three,  
2 times in your direct case, Mr. Springer, that the compari-  
3 son between the two AFE's and the position of information  
4 of both engineers that did the work, this was a difficult  
5 task.

6           A           Yes, it is, indeed it is, to be precise  
7 and correct on it. Without the information, without having  
8 access to your information.

9           Q           Let me make sure I understand the se-  
10 quence.

11                       Mr. Crabb's AFE is, at least the revised  
12 one we have here, is dated February 21st of '89. Shown in  
13 the middle of the third page next to his signature.

14                       Am I correct in understanding you had  
15 available to you his AFE at the time you were working on  
16 your AFE dated March 7th of '89?

17           A           No, I did not.

18           Q           You worked independently of his AFE?

19           A           Yes, I did.

20           Q           When did you receive his AFE?

21           A           I did not see his AFE until just the  
22 other day.

23           Q           How many days ago was that?

24           A           Three days.

25           Q           Do you know when you received the AFE

1 from BHP into Yates Petroleum Corporation?

2 A I don't know when Yates Petroleum re-  
3 ceived it, no, I do not, unless it's stamped. I don't see  
4 a stamp.

5 Q Do you know Mr. Crabb with BHP?

6 A No, I don't. I do not.

7 Q The gentleman sitting right here; never  
8 met him before?

9 A No, I have not.

10 Q Did you call him and seek to obtain in-  
11 formation from him on how he prepared his AFE?

12 A No, I did not.

13 Q Your AFE shows that you haven't allo-  
14 cated any expenditures to drill stem test the well? Is  
15 that correct?

16 A That's correct.

17 Q Is it not the customary practice of the  
18 operators to drill stem test these wells?

19 A It is and it isn't. It depends on the  
20 well.

21 Q Why have you chosen not to drill stem  
22 test this particular well?

23 A I do not recall exactly why I left that  
24 one off.

25 I might tell you how we develop these

1 AFE's.

2 Q Well, if I ask you that question, you  
3 can answer that.

4 When we look at Exhibit Number Eight,  
5 the Yates Petroleum well in the top right column, the  
6 Energy "AFY" State 1 Well? I'm looking here at only the --

7 A Yes.

8 Q I don't have completion costs on this,  
9 right?

10 A That is correct.

11 Q Okay.

12 A That's a rig release from drilling.

13 Q All right. Does that well in this cost  
14 number have a charge for a drill stem test?

15 A I believe it did. In fact, we've got  
16 some variables in here. These are the best ones I had. I  
17 believe both of the wells were DST'd.

18 Q Both of the Yates wells on the display  
19 here?

20 A Both of your wells, one of our wells  
21 was.

22 Q The State No. 2 was not, or you don't  
23 know, just one of those was not.

24 A No. 2 was not.

25 Q Okay. All right, when we look at the

1 Ervin Ranch State No. 1 Well, that's the -- that's the well  
2 in Section 5. That's -- that's the wildcat exploratory  
3 well, is it not?

4 A Yes, it is.

5 Q All right. When we look at the develop-  
6 ment well, which is the north offset, the Yates "36" State  
7 1 Well?

8 A Uh-huh.

9 Q It looks like that number is about \$6000  
10 less than the comparable charges for the Energy "AFY" State  
11 No. 2 Well.

12 A Okay. What I did, when I pulled these  
13 off the drilling reports --

14 Q Yes, sir.

15 A -- I added in -- they did not have a  
16 figure cumulative in there for casing. I put in a figure,  
17 and that's why the stars are there, for a conservative  
18 price for that casing to make an attempt at making it com-  
19 parable. If you look at the --

20 Q Let's back it up the other way, Mr.  
21 Springer. What's the casing charge on the State No. 2  
22 Well, so I can back it out of the number?

23 A Probably about \$38,000.

24 Q Okay. Is that a similar casing charge  
25 for the State No. 1?

1           A           Yes. I would assume so without looking  
2 at it.

3           Q           All right. So we come up with a price  
4 differential of about 20,000 plus, maybe?

5           A           24 is about right.

6           Q           24 between the two AFE's? Into which  
7 major components, then, of the AFE do you attribute that  
8 cost difference?

9           A           It's hard to contribute. You've got,  
10 probably, 101 different components that make up those  
11 costs. I feel because of the mud programs, I'm trying to  
12 get at a representative risk. It's like determining risk  
13 geologically, it's hard to say this number is going to say  
14 how much risk is. This is just an indicator to me of the  
15 potential savings one might have. It's still a little bit  
16 early. Full potential savings are to be seen in the next  
17 few wells.

18          Q           You said initially in your direct exam-  
19 ination words to the effect that Yates has continued to  
20 modify and change its drilling program and its AFE's for  
21 these type of wells.

22          A           That's correct.

23          Q           All right. How far back can we take  
24 this AFE from March of '89 in time to find out when you  
25 have stopped making significant alterations in the AFE's?

1           A           Well, this exact AFE? I'm not -- I  
2 couldn't tell you, exactly, but I imagine four months,  
3 maybe.

4           Q           Okay. Can you describe for us in a  
5 general way what significant alterations, if any, that re-  
6 sulted in material price differences, have existed between  
7 early '88 in the type of wells you were drilling, and the  
8 type of well you propose to drill here under the current  
9 AFE?

10          A           In early '88. Cost of casing was pro-  
11 bably changing then, I'm not sure. That is usually a  
12 dominant factor in a lot of these things.

13                   Other than the cost of casing, drilling  
14 contractors that you use make a difference, too, availabil-  
15 ity of drilling contractors, and I'm not sure what the  
16 availability was then.

17          Q           Okay. At the bottom of your Exhibit  
18 Seven on the first page just above your signature, it has a  
19 note in here. It says, "Approval of this AFE constitutes  
20 approval of the operator's option to charge the joint ac-  
21 count with tubular goods from operator's warehouse stock at  
22 the rate stated above."

23          A           Yes, sir, it says that.

24          Q           I know what it says, I don't know what  
25 it means, though. What does that mean, Mr. Springer?

1           A           Well, I couldn't honestly -- I didn't  
2 put it there. What it is, it says basically that we can  
3 charge you for casing at these rates so posted.

4           Q           Well, in my own simple way --

5           A           As I understand it.

6           Q           Well, are you buying at wholesale and  
7 charging the working --

8           A           No, we're not.

9           Q           -- interest owners retail on tubular  
10 goods?

11          A           I do not personally buy. You can go  
12 through a purchasing agent, but we bid out all our tubular  
13 goods (not clearly understood), all the tubular goods from  
14 local people, Houston, Midland, north Texas, all over the  
15 place, and we go (not clearly understood) figures (unclear)  
16 have it delivered directly from the factory.

17          Q           Let me ask you this. On the tubular  
18 goods, when you start preparing an AFE, you know approxi-  
19 mately the quantity of tubular goods you're going to use  
20 and you put a price on it and fill in the column, right?

21          A           Yeah.

22          Q           It's in here.

23          A           Uh-huh.

24          Q           Okay, when you get the price from the  
25 warehouse, is there a profit factor applied to the number

1 so that it's different than what you paid for it?

2 A Not to my knowledge.

3 Q Okay, so you --

4 A I don't do that but I don't believe it's  
5 done, but not to my knowledge. I'm not responsible for  
6 that.

7 Q All right, so the figure in here is what  
8 you had to pay for those tubular goods.

9 A No.

10 Q It's not?

11 A No. The figure that's in there is the  
12 figure that I guessed might be the approximate value at the  
13 time.

14 Q Mr. Springer, let me show you an AFE  
15 that you prepared dated February 16th, 1988, which is on  
16 the Sunnyside State Unit 1 Well. That's going to be up in  
17 your Sunnyside Unit up to the north and west of -- of the  
18 subject well. It's dated February 16th and it shows a  
19 total dry hole cost of \$237,000 and a completed well cost  
20 of \$394,000.

21 Does that represent your work for that  
22 well?

23 A I do not recall how (unclear) the cost  
24 comparison. I did not. By saying does it represent my  
25 work, does that mean if I made up these numbers or are you

1 asking me does it compare with the actual costs?

2 Q No, I'm asking you did you do it. Your  
3 name's on it. Is that your signature?

4 A Yes.

5 Q Okay, that represents your work?

6 A Uh-huh.

7 Q That's a similar type well to the well  
8 that you're proposing that Yates operate in this case, is  
9 it not?

10 A It's similar. It has one difference  
11 that I can think of, but it's similar, yes.

12 Q Okay. What is the material difference  
13 that you can think of?

14 A Well, vague differences. One of them  
15 that we have potential for some lost circulation up at this  
16 point to the north in the surface hole. And then the  
17 shales are slightly -- they tend to grade as you go to the  
18 north and east, slightly more sensitive to water, but basi-  
19 cally they're similar, yes.

20 Q Okay. When we look at Exhibit Number  
21 Eight, are either one of your Yates wells classified in  
22 your understanding as wildcat wells?

23 A The No. 1 definitely was a wildcat.

24 Q Okay. How about the number --

25 A No. 2, I don't know how we classified

1 it. It could have been.

2 MR. KELLAHIN: Thank you, Mr.  
3 Examiner.

4 MR. CATANACH: I have no ques-  
5 tions. Anything further, Mr. Dickerson?

6 MR. DICKERSON: No.

7 MR. CATANACH: The witness may  
8 be excused.

9 MR. DICKERSON: We rest, Mr.  
10 Catanach.

11 MR. CATANACH: Let's take a  
12 short break here.

13

14 (Thereupon a recess was taken.)

15

16 MR. CATANACH: Go ahead.

17 MR. KELLAHIN: Mr. Examiner,  
18 at this time I'd like to call Mr. Randall Davis, who is a  
19 petroleum landman with BHP Petroleum Corporation.

20

21 RANDALL L. DAVIS,  
22 being called as a witness and being duly sworn upon his  
23 oath, testified as follows, to-wit:

24

25

## DIRECT EXAMINATION

1  
2 BY MR. KELLAHIN:

3 Q Mr. Davis, for the record would you  
4 please state your name and occupation?

5 A My name is Randall Davis. I'm the  
6 Regional Land Manager for BHP Petroleum in Midland, Texas.

7 Q Mr. Davis, would you summarize for us  
8 what has been your educational background?

9 A Yes. I was graduated from Texas Tech  
10 University in December of 1984 with a degree in business  
11 management and I have worked for Cities Service Company --  
12 I worked for Cities Service Company from January of '75 to  
13 February of '79 and have been with BHP Monsanto, combined  
14 companies, since February of '79.

15 Q Has it been your direct responsibility  
16 as a petroleum landman for your company to negotiate, ob-  
17 tain title opinions, obtain administrative approvals, for  
18 various well locations and, in essence, manage the land  
19 title matters with regards to BHP's development of what is  
20 called the Ervin Ranch prospect?

21 A Yes, sir.

22 Q When did your first involvement with  
23 that prospect begin?

24 A My first involvement with the prospect  
25 actually began several years ago with Monsanto Oil Company,

1 who actually developed the prospect under the name Mon-  
2 santo Oil Company.

3                   Monsanto was acquired in December of '85  
4 by BHP Petroleum and I have been in the capacity of Region-  
5 al Land Manager with BHP Petroleum since the acquisition.

6           Q           When we make reference to the Ervin  
7 Ranch prospect, can you take what is marked as BHP Exhibit  
8 Number Five and show us generally what area that describes?

9           A           Yes, sir. On Exhibit Number Five, what  
10 we have here, the acreage that's colored in yellow is the  
11 acreage that BHP Petroleum actually has under lease or has  
12 obtained by way of farm in from other companies, and has  
13 either drilled the wells on the acreage and earned the ac-  
14 reage, or is in the process of drilling wells -- a well on  
15 the acreage to earn the acreage.

16                   The area that's outlined in red is the  
17 working interest unit that's in question today. The blue  
18 acreage is the State Lease LG-6319, of which Yates, the  
19 Yates, et al, group has the interest in.

20                   The northeast quarter of Section 36 is  
21 the acreage that BHP has acquired by farm in from Valley  
22 Oil & Gas.

23           Q           Have you continued with your involvement  
24 and responsibility for the land management matters with re-  
25 gards to the Ervin Ranch prospect all the way down through

1 the negotiations with Yates Petroleum Corporation and the  
2 other Yates entities for participation in the well in the  
3 east half of 36?

4 A Yes, sir. Basically, for BHP I have  
5 been the project leader for this particular prospect from  
6 the onset, from the time that we sought a partnership with  
7 Yates till the time that we have drilled all of the Ervin  
8 Ranch discovery well, the subsequent Yates "36" Well, the  
9 well that we're currently drilling in the north half of  
10 Section 8, and the well that we've proposed in the east  
11 half of Section 36.

12 MR. KELLAHIN: At this time,  
13 Mr. Examiner, we tender Mr. Randall Davis as an expert pet-  
14 roleum landman.

15 MR. CATANACH: He is so qual-  
16 ified.

17 Q In order to bring us down to your cur-  
18 rent position on behalf of your company with regards to  
19 the development of the east half of 36, would you begin by  
20 explaining to us in chronological order the first occasion  
21 in which you had reason to contact any of the Yates person-  
22 nel concerning their interest ownership in the oil and gas  
23 minerals to be developed in this particular area?

24 A Yes. My first contact was actually in  
25 January of 1988 with Randy Patterson, first by telephone

1 conservation of January the 20th, and a follow-up letter of  
2 January 21st, 1988, in which we proposed the formation of a  
3 working interest unit for the drilling of the initial Ervin  
4 Ranch State No. 1 Well.

5 Q What was the general area to be included  
6 in this working interest unit area?

7 A The initial contact that we made with  
8 Yates was actually only going to cover the east half of  
9 Section 5, and Section 5 is an odd section, so I'm refer-  
10 ring to that quarter section and the odd lots to the north,  
11 and the southwest quarter of Section 36.

12 Q And Yates' interest at that time in the  
13 property was in the southwest quarter of 36?

14 A That's correct.

15 Q All right. Tell us what proceeded.

16 A Okay. What proceeded after we proposed  
17 the formation of the working interest unit was that Yates  
18 had wanted to review our seismic before making a decision.  
19 In a normal course of business generally you make an agree-  
20 ment with the company if they're going to review your seis-  
21 mic and you get them to agree that they will, after having  
22 reviewed your seismic, they will either agree to partici-  
23 pate or to farm out on some specific terms.

24 We did work out an arrangement whereby  
25 Yates did review the seismic. We took the seismic to Arte-

1    sia.  Bill Morris and one of our other landmen took the  
2    seismic for the initial prospect to Artesia.  We had worked  
3    out an agreement with Yates whereby Yates would either  
4    agree to participate or to farm out based upon a 30 percent  
5    back-in.

6                    After Yates had reviewed the seismic,  
7    they had made the decision, actually the decision was  
8    around May the 27th, to go ahead and farm out to BHP, but  
9    at that time they had asked BHP to consider the formation  
10   of a State working interest -- or State exploratory unit,  
11   which would include the west half of Section 36, because  
12   there was some question.  Initially there was some question  
13   about whether the production would be oil or gas and we  
14   went ahead and included the west half of the section as  
15   well as all of the -- all of Section 5, in the event that  
16   we established gas production or it would have been  
17   40-acres spacing if it had been oil production.  So we  
18   needed to have the whole proration unit for additional  
19   drilling.

20                   It turned out, though, that after some  
21   thought there would be some segregation problems by not  
22   including all of State Lease LG-6319, which is the west  
23   half and southeast quarter of Section 36.  So all parties  
24   eventually agreed in July that Yates would grant BHP an op-  
25   tion farm out of the southwest quarter of Section 36 if we

1 got an oil discovery in Ervin Ranch, or they would grant us  
2 an option farm out of the west half of Section 36 if we  
3 made a gas discovery, and at that time we entered into the  
4 agreement. BHP drilled the Ervin Ranch well in Section 5  
5 and made the initial well discovery.

6 Q Was Yates at that time interested in  
7 being either operator of the well or participating in the  
8 well?

9 A No. Yates did farm out to us. They did  
10 not -- they did not participate in the initial well. Under  
11 our agreement with Yates we had until November the 15th in  
12 which to actually drill on the Yates lease in the west half  
13 of Section 36, having completed the well as a gas well.

14 Q This is November 15th of 1988.

15 A '88, that's correct, in the west half of  
16 Section 36, and State Lease LG-6319 had an expiration date  
17 of 2-1-89, contrary to what it has on the Midland land map.  
18 It actually had an expiration of February 1st, not -- not  
19 January the 1st.

20 We picked our location of 1980 from the  
21 south and 990 from the west in Section 36. It was on  
22 November the 9th that we got a call from one of the Yates  
23 landmen who advised us that Yates management believed that  
24 our proposed location of 1980 from the south and 990 from  
25 the west would actually not make a well and that Yates

1 would lose a valuable lease. We advised Yates the next day  
2 by letter that we were going to go ahead and proceed with  
3 that particular location that we had chosen.

4 At the time that we had the conversa-  
5 tion with the landman from Yates we had been requested to  
6 actually swap some acreage as opposed to having the west  
7 half be the farmout area, make the south half be the farm-  
8 out area and we felt like, well, if they felt like we  
9 weren't going to make a well, why would you want to swap  
10 the acreage and have them participate in the south half  
11 location. So we chose not to swap the acreage and just to  
12 continue on with the west half as we had planned.

13 We did go ahead and drill and complete  
14 the well, the Yates "36" State No. 1 Well, in the southwest  
15 quarter as a shut-in Montoya gas producer.

16 Q That was completed when, Mr. Davis?

17 A That was completed, the actual comple-  
18 tion reports, I believe, were filed on January the 20th,  
19 1989. And that, we had talked about the Valley farmout or  
20 farm in agreement that BHP had and the time constraint that  
21 we had under our farmout agreement from Valley.

22 Q Let's talk about the terms of the Valley  
23 farmout agreement. What were you required to do?

24 A Okay. We were required to furnish  
25 Valley with information from the drilling of the well that

1 we were drilling, the Yates "36" State No. 1 Well. By  
2 furnishing them that information we would have the right to  
3 drill a well, to begin the drilling operations of a well  
4 within 120 days from the completion date, which would have  
5 been the January 20th date, so it would have put it, you  
6 know, circa around May 19th or 20th for our obligation date  
7 to actually drill on the Valley lease or on something that  
8 would be pooled with the Valley lease.

9 Under our farmout agreement from Valley  
10 we have a consent to assign, so in order for us to even  
11 change operations at all or in order for us to have brought  
12 in the partner Samedan that we did, we had to have Valley  
13 consent to Samedan's, to our consenting to assign to Same-  
14 dan, and we would have to do the same thing if we ever  
15 changed operations in here.

16 Q Well, let me make sure I understand the  
17 point.

18 If the Division grants Yates' request to  
19 be operator of the well in the east half of 36, is there  
20 currently in place a contractual arrangement with Valley  
21 that will allow BHP to earn an interest in the Valley lease  
22 if Yates operates it?

23 A Yates -- Valley would have to consent to  
24 Yates' operation under our farmout agreement.

25 Q And nothing the Commission order --

1           A           No.

2           Q           -- would do would require, then, the  
3 commitment of Valley to allow you to participate in that  
4 acreage.

5           A           That is correct.

6           Q           Where is the well to be located, Mr.  
7 Davis?

8           A           The well in the east half of 36?

9           Q           Yes, sir.

10          A           It's to be located 1650 from the north  
11 line and 2310 from the east line.

12          Q           When did you first propose to Yates  
13 Petroleum Corporation and the other Yates entities that  
14 they participate with BHP in the drilling of the well in  
15 the east half of 36?

16          A           I had an initial telephone conversation  
17 on January the 10th with one of the Yates landmen in which  
18 I advised that we were nearing the completion of the Yates  
19 "36" State No. 1 Well and that we would shortly after the  
20 well was completed, we would be proposing a location in the  
21 east half of Section 36. We did follow up that conversa-  
22 tion, a letter did go from our Land Department to Yates and  
23 that letter is Exhibit One-A, B and C.

24          Q           All right, let me distribute the exhibit  
25 package, Mr. Davis.

1                   This first set of documents comes from  
2 your file.

3                   A           Yes.

4                   Q           And it's marked Exhibit One.

5                   A           One-A, B, C, D, E.

6                   Q           All right.

7                   A           And the markings are on the backs of the  
8 exhibits starting from One-A on the top.

9                   The letter of January the 20th was from  
10 Robert Elliott from BHP Petroleum, who works directly for  
11 me, to Robert Bullock at Yates Petroleum, proposing the  
12 formation of the working interest unit in the east half of  
13 Section 36 and our initial proposal was the location of  
14 1980 from the south and 1980 from the east line, and the  
15 initial AFE that went out with that, which is Exhibit  
16 One-B, does indicate that location of 1980 from the south  
17 and 1980 from the east.

18                   The operating --

19                   Q           The initial AFE that went out was on  
20 January 19th?

21                   A           January the 20th.

22                   Q           January 20th --

23                   A           Yes.

24                   Q           -- of 1989 --

25                   A           -- 19 -- yes.

1           Q           You caused Mr. Elliott to send this  
2 letter along with the AFE to --

3           A           Along with the --

4           Q           -- Yates.

5           A           And the operating agreement that are  
6 attached thereto.

7           Q           And the AFE is dated on January 19th of  
8 '89.

9           A           That's correct.

10          Q           All right, what then happened?

11          A           After we had sent the proposal to Yates  
12 we had several subsequent telephone conversations in the  
13 Land Department. On February the 2nd was the actual first  
14 time that we had been advised by Yates that they wanted to  
15 operate the well in the east half and they wanted to oper-  
16 ate -- the primary reason for operations at that time that  
17 we were informed of, was that they would be able to get, by  
18 their operations not only Yates but anybody else's gas that  
19 they sold under the working interest unit, a premium  
20 through Transwestern.

21          Q           Did they raise with you at that time the  
22 contentions made this morning in the hearing that the pri-  
23 mary reason that they chose to seek operations were they  
24 were a majority interest owner in the east half of Section  
25 36?

1           A           We have had a telephone conversation  
2 concerning that. That was not the primary reason for  
3 operations. That was my understanding and in my telephone  
4 conversations, my subordinate telephone conversations with  
5 the Yates representatives, that the primary reason was not  
6 what we've just discussed but was instead the trend's  
7 western gas premium.

8           Q           Was it ever a subject of contention as  
9 you understand it between you and Yates that they should  
10 have operation based upon the fact that they believe they  
11 had a 50 percent interest in the acreage in the east half?

12          A           One of the landmen, and also Leslie  
13 Bentz, had raised that point at the time that they were --  
14 at the time Leslie was in the Midland office in our Feb-  
15 ruary 21st meeting, stating the fact that Yates had 50  
16 percent interest. My contention of that was that we also  
17 had a 50 percent interest committed to the working interest  
18 unit with the BHP and Samedan partnership.

19                       I do not know what relationship the four  
20 Yates corporations have and why they are separate. I pre-  
21 sume that they are separate for tax purposes or for some  
22 other unknown reason to me. But we looked at it, the situ-  
23 ation that, you know, here was the fact that we were pro-  
24 posing the working interest unit. We had done all the  
25 groundwork for the working interest unit, and it is not a

1 highly unusual situation for even in the end result, if  
2 that were the case, it's not a terribly, highly unusual  
3 circumstance for an operator to have less interest than  
4 some other parties in a unit agreement.

5 BHP is the operator of the Madden Unit  
6 in Wyoming, which at one time, it may still be, the largest  
7 Federal on-shore unit, and we have a 12 percent interest  
8 compared to with some other parties that have a 25 percent  
9 interest.

10 Q Did the Yates personnel ever raise with  
11 you their contention that they ought to operate the proper-  
12 ty in the east half of 36 based upon the fact that they  
13 were contending that their overhead costs attached to the  
14 operating agreement were significantly lower than the rates  
15 you propose?

16 A No, they did not. As a matter of fact,  
17 from the time that we sent the operating agreement on  
18 January the 20th to them with the overhead rates that we  
19 had in the operating agreement of \$4100 and \$410, we never  
20 received anything from Yates until after March. So there  
21 was a long -- there was almost a month and a half lag time  
22 before we even saw Yates' overhead rates.

23 Q Describe for us your understanding and  
24 recollection of whether or not Yates ever made a contention  
25 that their AFE costs for the well were so significantly be-

1 low yours that that should be the reason by which they  
2 should operate the property.

3 A Again, we sent the AFE to Yates on the  
4 -- the first AFE with the 1980 and 1980 location, to Yates  
5 on January the 20th. We revised the AFE the day that  
6 Leslie was in our office on February the 21st and re-sent  
7 them that same AFE, same cost, the only thing we changed  
8 was the well location, and, again, we did not receive an  
9 AFE from Yates until after the March 7th date when they  
10 sent the AFE by mail to us.

11 Q After the correspondence of January  
12 20th, 1989, and the subsequent meeting in February, I be-  
13 lieve it was, refresh my recollection on the February  
14 meeting, what that the 2nd or the 21st?

15 A That was the 21st.

16 Q You've referred to the 21st meeting,  
17 okay.

18 What was the next bit of correspondence  
19 that transpired between you and Yates Petroleum and the  
20 other Yates entities with regards to the drilling of the  
21 well in the east half of 36?

22 A Okay. At that particular meeting of  
23 February the 21st, we left the meeting with several under-  
24 standings at least from BHP's point of view. The Yates  
25 group had asked that, again, that we exchange some acreage,

1 the southeast quarter and the northwest quarter, and lay  
2 down our Yates "36" State No. 1 Well and just make the  
3 north half the proration unit for the well that would be  
4 drilled. That would create quite a bit of additional paper-  
5 work for us, for the Commission. We would have had to gone  
6 back and gotten a nonstandard location approved for the  
7 well that had already been drilled. We had, at the meeting  
8 of the 21st, advised Yates that we would not exchange the  
9 acreage.

10 Leslie had brought up the point about  
11 the location and moving it from 1980 from the south and  
12 1980 from the east to the 2310 and 1650. When she brought  
13 her data here, or to Midland, we had already made an ex-  
14 change of seismic data for three BHP lines for one Yates  
15 line in order to give us a little bit better handle on  
16 where a better location might be. Certainly any operator  
17 would want to have all the facts available to them that  
18 were possible prior to spudding a well. The object is, of  
19 course, to drill producing wells, not to drill dry holes.

20 At the end of the meeting it was my im-  
21 pression that I felt like I had left upon the participants  
22 of the meeting that BHP would consider very strongly the  
23 new proposed location and that we would so advise Yates of  
24 what our position would be.

25 At that particular meeting I was asked

1 by the Yates people (unclear) and get on the docket in  
2 order to establish the rights of operations here.

3 So from that point, the next day, the  
4 very next day, in Santa Fe was the state land sale and  
5 Robert Elliott from my office did advise Robert Bullock in  
6 person that BHP was in fact force pooling Yates at the non-  
7 standard location that we had discussed in the February  
8 21st meeting, and we proceeded with that and our next con-  
9 versations pursued basically were by -- we then also  
10 received in turn forced pooling procedures at the 1980 from  
11 the north and 1980 from the east location from Mr. Dicker-  
12 son's office, as well as Yates had proposed the nonstandard  
13 location.

14 We had not, to my recollection, talked  
15 about the standard location of 1980 from the north and 1980  
16 from the east, at least in the February 21st meeting. Per-  
17 haps the geologists had talked about that independently. I  
18 do not know.

19 But from that point on we began to have  
20 various conversations with the Yates representatives  
21 through the Land Departments and I specifically was told by  
22 telephone conversations from Yates representatives that  
23 they believed that the Transwestern premium was the key is-  
24 sue to operations, but, in turn, they could not fully dis-  
25 close the Transwestern issues because it was a confidential

1 settlement and therefore we were in a Catch 22 situation.  
2 BHP could not make a reasonable business decision about  
3 what Yates was offering to us without actually knowing what  
4 the terms of the settlement agreement were. We didn't  
5 know, for example, if the contract had takes or pays in it.  
6 Did those takes or pays apply only to Yates' gas? We  
7 didn't know if the contract settlement between Transwestern  
8 and Yates gave Yates a preferential right into the Trans-  
9 western line and when Yates -- when Transwestern was ready  
10 to cut other people off, that they could cut off other  
11 people's gas without cutting off Yates.

12 Those were questions that were unknown  
13 to us and we asked to see either the settlement or for  
14 Yates to put something in writing to the effect so that we  
15 could make a rational business decision upon -- about oper-  
16 ations for the east half of Section 36.

17 Q Were either of those forthcoming?

18 A No. On March the 8th we received by  
19 certified mail Yates' two proposals, two working interest  
20 proposals covering the east half of Section 36.

21 Q Those are marked, are they, Mr. Davis,  
22 as --

23 A Yes, they are, they're --

24 Q -- Exhibit Two-A --

25 A A through C, and Exhibit Three-A

1 Q -- through C?

2 A -- through C, and they're highlighted in  
3 blue on the cover letter to tell you which exhibit applies  
4 to which well.

5 Q Go ahead.

6 A Again, this was the first notice that we  
7 had had of an operating agreement or an AFE from the Yates  
8 group.

9 Q All right, what was the next thing that  
10 transpired, then, Mr. Davis?

11 A Okay. After we received the Yates AFE's  
12 and operating agreements, of course we made an analysis of  
13 the operating agreements, the differences between the two  
14 operating agreements, and we made a quick analysis of the  
15 AFE's; at least we did through the Land Department, and not  
16 being an expert on AFE's we at least had sources that we  
17 could refer to on AFE cost in the particular area.

18 We had been invited a year before to  
19 join Yates in the Sunnyside Unit in the acreage north of us  
20 and they had sent us an operating agreement and an AFE.  
21 The only thin that they never told us initially was where  
22 the initial well was going to be drilled. We had asked  
23 them to tell us where the well would be drilled, we could  
24 make a decision. They went to the hearing and then carved  
25 our acreage out of the State working interest unit, but we

1 at least did have the benefit of the operating agreement  
2 and the AFE that were utilized for the Sunnyside Unit.

3 We went back to some current operations  
4 in the surrounding are and I visited with some represent-  
5 atives of Terra Resources and tried to determine what their  
6 AFE costs were for a well that had been drilled up in Sec-  
7 tion 35, Township 9 South, 26 East, and their AFE costs  
8 were actually a little bit -- they were higher than ours  
9 and Yates was a participant in that particular well, and I  
10 really don't know the well name but it is in Section 35, 9  
11 South, 26 East, but their -- their AFE cost, and I don't  
12 know what the actual well costs were, but their AFE costs  
13 were \$244,000 dry and \$419,000 completed well cost.

14 Q What is represented by the package of  
15 exhibits marked Exhibit Three-A through C?

16 A Three-A through C?

17 Q Yes, sir.

18 A Three-A through C, that is the letter  
19 and the AFE and the operating agreement from Yates Petro-  
20 leum to BHP at the standard location of 1980 from the north  
21 and 1980 from the east.

22 Again the operating agreements and the  
23 AFE's and the letters are essentially the same except the  
24 locations are different. One is the standard location, one  
25 is the unorthodox location.

1           Q           All right. Where do you stand with the  
2 other interest owners apart from the Yates entities with  
3 regards to their participation in the well in the east half  
4 of 36 with BHP as the operator, including their approvals,  
5 if any, of the AFE you submitted and the overhead charges  
6 you have recommended?

7           A           Okay, I would submit, then, Exhibit  
8 Four, which is three pages, which is a letter from Samedan  
9 to Yates, a signed AFE from Samedan from BHP's operatorship  
10 perspective on the nonstandard location of 1650 from the  
11 north and 2310 from the east, and Samedan does advise Yates  
12 that their are going to join the BHP proposal because we  
13 had proposed the working interest unit first, and we had a  
14 joint area of operations with Samedan in this particular  
15 area.

16           Q           What is your understanding, then, of the  
17 status of the remaining 50 percent interest in the spacing  
18 unit in the east half of 36?

19           A           Well, I presume that the remaining 50  
20 percent is tied up with Yates, but on the operating agree-  
21 ment that we received, only Yates Petroleum signed the  
22 operating agreement and none of the other Yates corpora-  
23 tions signed the operating agreement, as well as I don't  
24 have the signatures for the Yates companies, I don't  
25 believe, on the AFE's; only Yates Petroleum signed the AFE

1 that we have and, again, I presume that being Yates cor-  
2 porations, that was a matter of business and they have  
3 probably signed the operating agreements and AFE's long  
4 before this date.

5 Q Let me ask you whether or not you  
6 undertook any type of investigation to determine what  
7 overhead rates to recommend and to apply for among the in-  
8 terest owners in the operating agreement and before the  
9 Examiner this afternoon?

10 A Yes, we did. As a matter of fact, we  
11 did also utilize the Ernst and Whinney book that you re-  
12 ferred to earlier for the rates, and the rates that we're  
13 using at 4100 and 410 are actually directly out of the  
14 Ernst and Whinney book, just rounded to the -- to the near-  
15 est \$10.00 figure.

16 Q We further did your investigation again  
17 based upon what we knew about the area. We had access to  
18 the operating agreement for the Sunnyside State explora-  
19 tory unit, which the rates in there were different.

20 We had access --

21 Q What -- what Yates -- what rates are  
22 Yates using for the Sunnyside Unit up to the northwest of  
23 this well?

24 A I believe if you'll bear with me one  
25 second, I believe it was \$5400 and \$540. Yes, that was --

1 that was the --

2 Q Go to the documents on the Sunnyside  
3 Unit, Mr. Davis, and refresh your recollection.

4 A And again the only thing that I can say  
5 about this, this is the information that we have in house.  
6 This perhaps could have been changed after the unit was  
7 approved. I do not know that information.

8 Additionally, we utilized the same rates  
9 of the 4100 and the 410 for the operating agreement cover-  
10 ing the west half, of which all the parties in the room  
11 have signed.

12 We farmed out, gave Yates and option  
13 farmout offsetting their Dragonfly State No. 2 Well, of  
14 which our farmout agreement had language that when the  
15 operating agreement would be entered into the drilling and  
16 producing well rates would be 4100 and 410.

17 So we used what we had available in the  
18 area.

19 Q Have you continued your discussions with  
20 Yates personnel to determine whether or not you're going to  
21 be able to reach a voluntary agreement with regards to the  
22 drilling of this well without the assistance of a compul-  
23 sory pooling order?

24 A Yes, sir, we have had numerous telephone  
25 conversations with representatives of Yates. I personally

1 have had several telephone conversations with representa-  
2 tives of Yates where again the primary reason that Yates  
3 has proposed the operatorship for the Yates Petroleum Cor-  
4 poration is the premium. Our contention is that we cannot  
5 make that business decision without knowing the facts and  
6 we cannot be expected to do anything less than that.

7 Q Do you have an opinion as a petroleum  
8 landman as to why the Examiner ought to award operations of  
9 this well in the east half of 36 to your company?

10 A Yes, I do. For one thing, number one,  
11 BHP initiated the prospect. It was a prospect that our  
12 geological group and land group put together. It was a  
13 situation where we went and asked Yates from the onset be-  
14 fore drilling the initial well, before drilling the initial  
15 discovery well in the prospect, we asked them to join us in  
16 the operations here, but Yates chose to farm out their in-  
17 terest to us.

18 We drilled and we completed the discov-  
19 ery well. We drilled and completed the confirmation well  
20 on State Lease LG-6319, which was actually going to expire  
21 on February the 1st, 1989.

22 It was a situation where we have pro-  
23 posed the working interest unit. I know there's some con-  
24 sideration about, well, who proposed the well location. It  
25 is not unusual for an operator, once an operator has addi-

1 tional information, to change the well location based upon  
2 the best information that they have on hand, and we cer-  
3 tainly seek out the best information that we have on hand  
4 and if somebody can provide us with some additional infor-  
5 mation and we as a group confirm that by shooting the  
6 additional seismic line.

7 BHP, from our position is developing a  
8 field. We're not developing a one well situation. We're  
9 looking to get that product to market for the field that  
10 will not only make BHP money, it will make our partner Sam-  
11 edan, it will make Yates, as well as the royalty interest  
12 owners, who are the State of New Mexico and the Federal  
13 government. We cannot take a -- make a business decision  
14 based upon hearsay from Yates about a premium that they can  
15 get for themselves and for all the parties. There are many  
16 marketing details that we must know before we could ever  
17 make a decision that would have -- that could ultimately  
18 have some effect on the field development as well as -- as  
19 opposed to a single well development.

20 Q What is the position with regards to  
21 your company and the Valley farmout agreement and what im-  
22 pact will the forced pooling operations have on that farm-  
23 out agreement?

24 A We have gone to Valley five times to ask  
25 for an extension of time because of the hearing that we're

1 having today. The hearing, of course, was set two weeks  
2 ago and we continued it.

3 We have now approached them five differ-  
4 ent times for an extension of the May 20th deadline date.  
5 They have told us that it is too far away for them to think  
6 about an extension, that we could come to them ten to fif-  
7 teen days before our farmout agreement is going to expire  
8 but they gave me no guarantee that they would grant us that  
9 extension.

10 We have spent a lot of time, a lot of  
11 money, and a lot of manpower in this effort to -- to dev-  
12 elop this field and to drill this Yates Valley State No. 1  
13 Well.

14 Q In the event the Division does not award  
15 operations to BHP Petroleum Company for this well, do you  
16 have currently in place contractual arrangements with  
17 Valley that will allow you to preserve an interest in the  
18 northeast quarter of the section in compliance with the  
19 farmout agreement?

20 A Only if Valley consents to the assign-  
21 ment to Yates Petroleum. Short of that we have no guar-  
22 antee.

23 Q At this point, then, in order to earn  
24 the interest under the farmout agreement BHP Petroleum must  
25 be the operator?

1           A           We must drill the well.

2                           MR. KELLAHIN: That concludes  
3 my examination of Mr. Davis, Mr. Catanach.

4                           We move the introduction of  
5 his Exhibits One through Five.

6                           MR. DICKERSON: No. objection.

7                           MR. CATANACH: Exhibits One  
8 through Five will be admitted into evidence.

9                           Mr. Dickerson?

10

11

CROSS EXAMINATION

12 BY MR. DICKERSON:

13           Q           Mr. Davis, do I understand the terms of  
14 the Valley farmout to be that you think restrict BHP's  
15 rights to participate in this well as a non-operator with  
16 Yates operating?

17           A           They could. There is a consent to as-  
18 sign provision in the operating agreement. Yates has it in  
19 their agreements, we have it in our agreements. It be-  
20 comes, the farmout (unclear) choice, again it's a business  
21 decision that they must make.

22           Q           But you're not -- you haven't heard any-  
23 thing from Yates, have you, that they expect to earn any  
24 interest under your farmout from Valley?

25           A           No, they will not earn anything under

1 our interest, that's correct. We are proposing the working  
2 interest unit through our farmout from Valley.

3 Q But the usual and customary restriction  
4 on assignments of rights under that, if Yates were merely  
5 the operator and carrying its 50 percent collective inter-  
6 est in the well, would not require an assignment of  
7 Valley's interest to Yates, would it?

8 A The well would actually be being drilled  
9 on Valley's lands, so, yes, Valley would have to -- Valley  
10 would have to consent to that.

11 Q Have you sought their consent or raised  
12 the question --

13 A We have not at this particular point but  
14 the point that we have been seeking with Valley is to try  
15 to get the extension of time.

16 Q Do you know, Mr. Davis, how much, appro-  
17 ximately, gas BHP delivers through wells operated or the  
18 working interest is owned by BHP in Chaves County?

19 A I do not.

20 Q Do you have any idea how many wells BHP  
21 operates in Chaves County?

22 A I do not.

23 Q Are there any wells in addition to the  
24 existing two wells that we've talked about today?

25 A I don't know if we still have any of the

1 wells that we operated in the, I believe, in the Peterson  
2 Field, and I just -- I really don't know. We have sold  
3 quite a bit of our producing properties in Chaves County in  
4 the last few years and so I -- I just do not know that.

5 Q You do know, don't you, that Yates is  
6 the biggest operator delivering gas in --

7 A Yes, sir.

8 Q -- Chaves County?

9 A Yes.

10 Q Would it follow from that that by  
11 reasons of the scale of the gas delivered by Yates that an  
12 advantage in marketing may exist there?

13 A No, sir, big does not make you good.

14 Q Are you saying that it does not give you  
15 any advantage at all?

16 A I am saying that this is a situation for  
17 a development of a new field and I don't believe that  
18 whether or not we have ten wells or 400 wells, as far as  
19 the purpose of operations here, and this is my opinion, and  
20 I believe that we're dealing on some principles here of the  
21 development of the field and the prudent operation and de-  
22 velopment of that particular field.

23 We are looking at the sale of the gas on  
24 a field-wide basis. We're not looking at the sale of the  
25 gas because Yates operates 350 wells in the New Mexico and

1 sells gas to Transwestern.

2                   We may be able to sell gas under one  
3 well, the Yates well, if Yates operates it, but what are we  
4 going to do with the rest of the field if Yates has a pre-  
5 ferential right to a pipeline and we do not. We must --  
6 there are two -- there are options as opposed to Transwes-  
7 tern in the field. So I can only answer from my particular  
8 point of view. Because Yates has this tremendous volume of  
9 wells, that's wonderful between Yates and Transwestern and  
10 we recognize that they -- or we understand that they have a  
11 preferential right into the Transwestern line. That does  
12 not guarantee BHP's interest, BHP's royalty, Valley, or any  
13 of the offset wells that preferential right into that  
14 Transwestern line.

15                   Q           Let's assume that BHP is designated the  
16 operator of this proposed third well so that in this pool  
17 that's the subject of these hearings there will be three  
18 BHP operated wells. Would BHP propose to, if requested by  
19 Yates and if the situation were reversed so that BHP had  
20 the opportunity to sell its gas and that of non-working  
21 interest owners, would BHP offer to Yates the opportunity  
22 to participate in any arrangement that you might make with  
23 any of the gas purchasers?

24                   A           We are in the process right now through  
25 the development of this particular field of exploring all

1 of the avenues of how to get our product to market. We are  
2 looking at independents building lines to this particular  
3 area to connect with either Transwestern or El Paso. We  
4 are looking to find the most economical way to do that.

5           It is a situation where you must look at  
6 all of the variables. If it means looking at the possibil-  
7 ity of a partnership between BHP, Samedan, Yates, or who-  
8 ever the developers of the field, the working interest par-  
9 ties of the field are, that, I'm sure, would be a consider-  
10 ation. That is out of my line of expertise. That actual-  
11 ly falls into the marketing department of our corporation,  
12 but I would presume that we as a prudent operator, as a  
13 party that wants to get that product to market as quickly  
14 as possible so that we can all realize revenue from it,  
15 that we will do what a prudent operator would do in that  
16 situation.

17           Q           With due regard, not only for its own  
18 interest, but with those interests of its other owners in  
19 the well?

20           A           We must protect the interest of all the  
21 interest -- of all the parties that have an interest in our  
22 well. We can't make side agreements for ourselves at the  
23 expense of our royalty owners or we can't make side agree-  
24 ments at the expense of our working interest partners, but  
25 I can't tell you how we'll market the gas. We're not going

1 to -- we're not in the business to dupe people. We're in  
2 the business to sell a product and to make money for us, as  
3 well as for our partners, our partnerships.

4 Q How would BHP make the decision among  
5 the three existing wells, assuming a successful completion  
6 on the east half of Section 36? What -- what rates of de-  
7 livery of gas from those wells, how would that be deter-  
8 mined?

9 A I do not know. That again would be out  
10 of my line of expertise. Again, I think you have to refer  
11 to probably four wells because we are actually in the pro-  
12 cess of drilling today the well in the northeast quarter of  
13 Section 8 of which we operate with 50 percent interest.

14 Q In the course of the conversations that  
15 you've detailed, Mr. Davis, do you recall an offer by Yates  
16 to commit in the event that it is designated operator of  
17 this proposed well in the east half of Section 36 to -- to  
18 not hook up that well and sell gas from it with the possi-  
19 bility of draining gas from this common reservoir until BHP  
20 was successful in obtaining the pipeline for its well?

21 A Yes, on March the 22nd in a  
22 conversation that I had with one of the Yates representa-  
23 tives through his chain of command and management, yes, I  
24 was told that Yates would agree in writing if they were the  
25 operator to hook up all three wells at the same time to

1 prevent drainage. I don't know if that is -- again, I  
2 can't response to that because I don't know if that falls  
3 outside of the rules and regulations of the State of New  
4 Mexico, because if you're under an oil and gas lease with a  
5 shut-in provision, and you have a market, say, in this  
6 particular case three of the companies had a market and two  
7 of them didn't, the three companies that had the market are  
8 saying that they won't send their gas to market until the  
9 other two do, and I think that, that violates the State of  
10 New Mexico Oil and Gas Lease.

11 Q Well, the offer was made in an attempt  
12 to be conciliatory -- I mean to represent that Yates would  
13 not sell its gas, if able, to the detriment of BHP, who at  
14 that time might not be able to --

15 A Well --

16 Q -- sell it.

17 A Yes, and I understand that, yes, on  
18 March the 22nd I was informed on that.

19 Q Okay.

20 MR. DICKERSON: I have no fur-  
21 ther questions.

22 MR. CATANACH: Anything fur-  
23 ther?

24 MR. KELLAHIN: No, sir.  
25

## 1 CROSS EXAMINATION

2 BY MR. CATANACH:

3 Q Mr. Davis, I just want to verify a  
4 question that Mr. Kellahin asked you.5 If Yates is appointed operator of this  
6 unit, Valley has to consent to this before you gain an in-  
7 terest?8 A We have a farmout agreement that covers  
9 the northeast quarter of Section 36 of which we're sharing  
10 50/50 with Samedan. Under the farmout agreement there is a  
11 consent to assign provision. The way I would understand  
12 it, because somebody else is coming in and operating on  
13 this particular lease that they have no interest in, and,  
14 yes, we would need to get Valley's approval for Yates to  
15 come in and operate on the farmout that we have. Now,  
16 again, technically that may not be correct but that would  
17 be my understanding and it would be my understanding that  
18 certainly we, as the farmouttee (sic) in this particular in-  
19 stance would certainly advise Valley of that particular  
20 situation and give Valley the opportunity to respond to  
21 that based upon the language of consent to assign. Again,  
22 it's an interpreted matter.

23 Q That's all I have.

24 MR. KELLAHIN: Let me follow  
25 up on that question, Mr. Examiner.

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REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Let me make sure I understand what your opinion on that subject is, Mr. Davis, if you have an opinion.

Is it possible under this farmout arrangement to have a situation where Yates has force pooled the interest owners in the east half and if they are the operator, then, you have not fulfilled the terms and the conditions of the farmout agreement and therefore BHP would not earn an interest in the east half but that the interest, then, is one where Valley has 50 percent of the well and Yates has the other 50 percent. You know, that was a statement but I intended it for a question for you to answer, if you can, based upon your knowledge of that agreement and your expertise as a landman.

A Based upon my knowledge of the agreement and based upon my lack of information on the situation like this particular situation that we're involved in today, I do not know what the implications of the forced pooling would have upon us.

Q Thank you.

MR. KELLAHIN: I have nothing further.

1 MR. DICKERSON: One question,  
2 Mr. Catanach.

3  
4 RE CROSS EXAMINATION

5 BY MR. DICKERSON:

6 Q Mr. Davis, you have given your inter-  
7 pretation. Is there any objection to anything BHP would  
8 object to simply submitting the farmout agreement in  
9 question?

10 A To submitting the farmout agreement in  
11 question?

12 Q Sure.

13 A For what?

14 Q Well, so that we can all see the langu-  
15 age if we're arguing over whether it does or does not and  
16 you asked Mr. Catanach to follow your interpretation of it  
17 and we certainly don't have a copy of it.

18 A If Valley has no objection to that, I  
19 will, I will send you a copy of that agreement, but I would  
20 like at least to check with Valley to get their consent.

21 MR. KELLAHIN: I like Mr.  
22 Dickerson's notion that we need to further examine the  
23 legal aspects of that language. It pales me to think that  
24 we could get force pooled out of the well entirely and if  
25 you will check with Valley and get their concurrence, I'd

1 like to submit that document to Mr. Dickerson and to the  
2 Commission and let us all look at it and see if based upon  
3 our own particular expertise we see any kind of glitch that  
4 creates that unfortunate situation where you're out of the  
5 wells.

6 A We certainly would not want that to  
7 happen with what we have gone through up to the point.

8 MR. CATANACH: Can you also  
9 submit an interpretation of that?

10 MR. KELLAHIN: Can certainly  
11 look at it; be happy to.

12 A I'll defer that to my attorney.

13 MR. DICKERSON: Which side do  
14 you want?

15 MR. KELLAHIN: I don't care.

16  
17 WILLIAM J. MORRIS,  
18 being called as a witness and being duly sworn upon his  
19 oath, testified as follows, to-wit:

20  
21 DIRECT EXAMINATION

22 BY MR. KELLAHIN:

23 Q Mr. Morris, for the record would you  
24 please state your name and occupation?

25 A My name is William J. Morris. I'm a

1 petroleum geologist for BHP Petroleum Company in Midland,

2 Q Mr. Morris, you have on prior occasion  
3 testified before the Division as a petroleum geologist?

4 A Yes, I have.

5 Q Would you refresh our recollection and  
6 tell us generally on what occasions that you testified be-  
7 fore the Division as a geologist?

8 A Okay. The most recent case was on the  
9 unorthodox location on the Ervin Ranch Well in Section 5  
10 that's in this pool.

11 I've also testified on a case in the  
12 Indian Basin Field in Eddy County. That was an unorthodox  
13 location that was contested by Amoco.

14 Q Have you been the geologist that has  
15 been involved from the inception of the exploration for  
16 production out of this formation in the Ervin Ranch area?

17 A Yes, I've been working on this prospect  
18 for -- or I've been responsible for it for the last five  
19 years, approximately.

20 MR. KELLAHIN: We tender Mr.  
21 Morris as an expert petroleum geologist.

22 MR. CATANACH: He is so qual-  
23 ified.

24 Q Mr. Morris, let me have you identify and  
25 describe the display that you've marked as Exhibit Number

1 Six.

2 A Okay. Exhibit Six is a base of the Penn  
3 structure map. We have two well values on here for the two  
4 wells that we've discussed that we drilled at -2338, the  
5 base of the Pennsylvanian section top and our well in  
6 Section 5 at -2368, the Yates State Well in Section 36.

7 The other values that are on the map are  
8 interpretational based upon seismic data that we have shot  
9 or have obtained in this area.

10 Q Before we describe all the details and  
11 conclusions about Six, let me have you go ahead and de-  
12 scribe for us the Exhibit Seven.

13 A Okay. Exhibit Seven is our structure map  
14 on top of the Montoya formation, which is the dolomite pay  
15 section in the two wells.

16 Q All right, then, finally I'll ask you to  
17 find a copy of Ms. Bentz' Exhibit Number Five, which is her  
18 structure map on top of the PrePenn. Do you have a copy of  
19 that?

20 A Yes, I do.

21 Q Okay. On each of your two displays  
22 you've located a well spot by the red arrow?

23 A Right, that is the proposed unorthodox  
24 location.

25 Q And that's the current location that

1 both you and Ms. Bentz concur on at this point?

2 A That's correct.

3 Q Describe four us in a general way, Mr.  
4 Morris, what information is important for us to understand  
5 in looking at Exhibits Six and Seven.

6 A Well, the Exhibit Six generally shows  
7 the structural attitude of the reservoir in this vicinity.

8 Exhibit Seven is more precisely on the  
9 producing reservoir zone and --

10 Q Where does Ms. Bentz' structure map  
11 integrate itself with these other two structures?

12 A It is the same as our Exhibit Six. Her  
13 -- yes, her map and our Exhibit Six are on the same -- same  
14 zone.

15 Q Let's look at the more specific struc-  
16 ture map on the top of the Montoya, which is Exhibit Number  
17 Seven.

18 A Okay.

19 Q All right, what is your opinion with  
20 regards to the preference of accepting the unorthodox  
21 location as opposed to the closest standard location?

22 A It is -- the unorthodox location is  
23 structurally much better.

24 Q Describe for us or quantify for us in  
25 what particular way it's much better.

1           A           We should be anywhere from, oh, you  
2 know, 20 to 50 feet in a higher structural position than  
3 what an orthodox location would give us, and that's the ad-  
4 vantage to going to the unorthodox location.

5           Q           Ms. Bentz commented on the occurrence of  
6 a gas/water contact generally lying in the eastern portion  
7 of the east half of 36 and she approximated for us where on  
8 her contour line on her structure map she thought it might  
9 be located.

10                       Can -- can you undertake a similar dis-  
11 cussion with me and locate for me, first of all, whether or  
12 not you concur that there is a gas/water contact in the  
13 vicinity of the east half of 36?

14           A           I'm in -- generally in excellent agree-  
15 ment with Ms. Bentz' estimation of where the contact is. I  
16 personally would put it a little bit further to the west,  
17 which would be a little bit more pessimistic interpreta-  
18 tion, but, you know, that's just the differences between  
19 one geologist and another.

20           Q           Do you see any other standard location  
21 in the east half of 36 that provides an equal opportunity  
22 for the production of hydrocarbons from this formation that  
23 the unorthodox location demonstrates?

24           A           No, I do not.

25           Q           In looking at the general geology for

1 this specific formation in the entire Section 36, do you  
2 have an opinion as to whether the approval of this location  
3 without a penalty will give the owners in the east half of  
4 36 an unfair advantage over the owners in the west half of  
5 36?

6 A You're moving closer to the lease line  
7 but I think that location will give them the opportunity to  
8 produce the gas that is on their lease and not, you know,  
9 overly drain the up dip acreage too much. I mean it will  
10 drain some.

11 Q Is there a -- is there a structural re-  
12 lationship between the existing Yates State "36" Well in  
13 the west half of 36 to the proposed location in the east  
14 half?

15 A Based on the seismic interpretation, we  
16 should be, you know, 20 to 25 feet higher in our -- in the  
17 well that we've drilled to the unorthodox location.

18 Q Are you comfortable, Mr. Morris, with  
19 the concept that the well in the southwest quarter of 36 is  
20 going to have the opportunity to produce its share of the  
21 hydrocarbons in the west half of 36 without undue inter-  
22 ference from the well in the east half of 36?

23 A Yeah, there shouldn't be any problem. I  
24 don't see any major drainage problem. That well is a  
25 decent distance away.

1           Q           Ultimately, then, do you have an opin-  
2 ion as to whether or not this location ought to be penal-  
3 ized?

4           A           I don't object to it being penalized, I  
5 guess, but I'm not, you know, there's no need for it to be.

6           Q           Well, my question is not the objection  
7 but the need in order to balance the correlative rights  
8 between the owners in each portion, whether there is a  
9 compelling need that you see as a geologist for the penalty  
10 on the well.

11          A           No, I don't see a definite need.

12          Q           Let's look at Exhibit Number Eight, Mr.  
13 Morris, and have you identify and describe that for us.

14          A           Okay, that's a schematic diagram of  
15 three wells in the area. The two wells on the left are the  
16 wells that we have drilled and the well further to the  
17 right falls just off the right edge of the map here in  
18 Section 31. That would be due -- well, it's approximately  
19 9000 feet east/northeast of our Yates State Well.

20                       I've drawn the unorthodox location on  
21 there to show that it should be down dip from the two wells  
22 that we've drilled. There's a good chance that the Missis-  
23 sippian section is going to get thicker there and that's  
24 going to move the Montoya pay zone a little bit lower and  
25 those are some of the reasons why we need the unorthodox

1 location approved.

2 Q Am I correct in understanding, then,  
3 that you and Ms. Bentz come to the same ultimate geologic  
4 conclusion about the location?

5 A Absolutely.

6 Q There is no material difference in your  
7 conclusions having examined the new seismic information  
8 that's been made available?

9 A I think the new seismic data has con-  
10 firmed that we need to go to the unorthodox location.

11 MR. KELLAHIN: That concludes  
12 my examination of Mr. Morris.

13 We move the introduction of  
14 his Exhibits Six, Seven and Eight.

15 MR. DICKERSON: No objection.

16 MR. CATANACH: Exhibits Six,  
17 Seven and Eight will be admitted into evidence.

18 MR. DICKERSON: I have no  
19 questions of Mr. Morris.

20

21

CROSS EXAMINATION

22 BY MR. CATANACH:

23 Q Mr. Morris, one question.

24 A Sure.

25 Q Was it just Yates and BHP that were

1 involved in choosing this location or was Samedan also  
2 involved?

3 A Samedan was involved, yes.

4 Q And do they concur?

5 A They concur, yes, absolutely. They were  
6 the ones who recommended shooting this seismic line and we  
7 have talked to them since that and they are in full agree-  
8 ment with us to join at that location.

9 Q Thank you.

10 MR. CATANACH: That's all I  
11 have.

12 MR. KELLAHIN: Mr. Examiner,  
13 at this time we'll call Mr. Hal Crabb. He's a petroleum  
14 engineer with BHP Petroleum Corporation.

15  
16 HAL CRABB,  
17 being called as a witness and being duly sworn upon his  
18 oath, testified as follows, to-wit:

19

20 DIRECT EXAMINATION

21 BY MR. KELLAHIN:

22 Q Mr. Crabb, for the record would you  
23 please state your name and occupation?

24 A My name is Hal Crabb and I'm a petroleum  
25 engineer for BHP Petroleum.

1           Q           Have you on prior occasions testified  
2 before the Division as a petroleum engineer?

3           A           Yes, I have.

4           Q           Pursuant to your employment did you  
5 prepare and have circulated the AFE that was attached to  
6 the Yates Petroleum Corporation Exhibit Number Seven?

7           A           Yes, I did.

8           Q           And you also prepared the original AFE  
9 that was dated in January of the same year for the subject  
10 well?

11          A           Yes.

12          Q           In addition, pursuant to your employ-  
13 ment, have you studied in general the engineering aspects  
14 of this particular Ervin Ranch Field and the three produc-  
15 ing wells in the field?

16          A           Yes, I have.

17                           MR. KELLAHIN:    We tender Mr.  
18 Crabb as an expert petroleum engineer.

19                           MR. CATANACH:   He is so qual-  
20 ified.

21          Q           Mr. Crabb, let me commence my discussion  
22 with you by going directly to the topic of the AFE's that  
23 each of the companies have proposed.

24                           Did you receive and have an opportunity  
25 to examine the AFE that Mr. Springer prepared for his com-

1 pany for the well?

2 A Yes, I did.

3 Q Will you take us through a discussion  
4 and show us what in your opinion as an engineer are the  
5 material differences that occur in the two AFE's?

6 A Yes. First I would like to direct your  
7 attention to Exhibit Number Eight, which was submitted by  
8 Yates.

9 Q That's the four well comparison of  
10 costs?

11 A Yes, it is.

12 Q All right.

13 A I think this is very revealing and we  
14 can explain the differences between the two well costs to  
15 show that the dry hole cost for all of these wells is es-  
16 sentially the same, and the first thing that I'd like to do  
17 is direct your attention to the dry hole cost here on BHP  
18 Petroleum Ervin Ranch State No. 1 of \$263,883, which I will  
19 accept as a reasonable estimate, and we compare that with  
20 Yates Petroleum, the Energy "AFY" State No. 1, where we had  
21 the cost of \$239,220.

22 Now I'm not familiar with the well that  
23 Yates drilled here, but I will comment on the difference.

24 That gives us a difference, or a delta  
25 between the two well costs of \$24,663.

1                   Now, first of all, we DST'd this parti-  
2 cular well, the Ervin Ranch, our discovery well in the  
3 field, on two separate occasions. There were two DST's and  
4 two separate zones were tested and potentialized and these  
5 two DST's, plus the day work involved, would in my quick  
6 estimation, which I believe is reasonably correct, account  
7 for \$18,000 of that difference. That would leave a differ-  
8 ence of \$6,663, which could easily be accounted for with  
9 differences in the open hole log suite chosen, location,  
10 building location differences. There are going to be  
11 reasonable differences or discrepancies between any AFE and  
12 there are reasonable differences, or choices, that prudent  
13 operators can make as to what they decide to do with re-  
14 spect to logging or other -- or other things along this  
15 line.

16                   Now let's go to the next well, the  
17 Yates "36" State No. 1, which you've estimated as costing  
18 \$268,374 through casing point. Compared with your Energy  
19 "AFY" State No. 2, which you've estimated as costing  
20 \$239,892, and you have stated that this was a confirmation  
21 well, or development well. Once again I'm not familiar  
22 with your particular well here; however, the differences  
23 between the two wells amount of \$28,482.

24                   Now, on the Yates "36" State No. 1, we  
25 cored this particular well and the coring plus the day work

1 also would rough out to about \$18,000, which would take the  
2 difference down to, let's say about \$10,000, and we DST'd  
3 this well, also. Now the DST and the day work involved  
4 would account for \$9000 of this remaining \$10,000 differ-  
5 ence. So that leave us with a remaining difference of ap-  
6 proximately \$1000, which once again is a very minor differ-  
7 ence, can be accounted for in differences in logging pro-  
8 gram, location costs, and things such as this.

9                   And once again we're talking about dry  
10 hole costs and the completed well costs haven't been ad-  
11 dressed here.

12                   As far as our drilling in the field, we  
13 have not had any real problems as far as slushing shale or  
14 sticking our drill pipe or not being able to get down with  
15 our DST. I believe our mud costs, our mud programs, are  
16 approximately the same cost as Yates and like I said, we've  
17 -- we've been successful. As I recall we didn't have any  
18 problems with our Ervin Ranch, which was down to TD in 18  
19 days, including the two DST's.

20                   Now, --

21                   Q           Do you have some actual costs on the  
22 Ervin Ranch Well?

23                   A           The Ervin Ranch? Yes, I do. We have  
24 completed well costs of, I believe, \$422,000, which, like I  
25 said, includes extensive testing and completion, completion

1 work, because we were dealing and treating two separate  
2 producing intervals within the Montoya formation.

3 Q When you compare the estimated dry hole  
4 cost to the actual costs up to the last item on the dry  
5 hole entires, what is the total cost there? Have you  
6 separated that out?

7 A Would you run that by me again?

8 Q Yes, sir. When we look at the Ervin  
9 Ranch Well --

10 A On the AFE?

11 Q -- on the AFE, we've got \$263,000 plus?

12 A Yes.

13 Q What is the comparable actual cost,  
14 then, for those items that compose that portion of the ex-  
15 hibit?

16 A Are you talking about on the AFE or --

17 Q Yes, sir, on the AFE, now.

18 A Okay, I'm not sure I followed the ques-  
19 tion. I'm sorry.

20 Q All right, the actual cost on the Ervin  
21 Ranch Well --

22 A Uh-huh.

23 Q -- when you back out the completion  
24 costs --

25 A Oh, okay.

1           Q           -- and the stimulation costs, those  
2 items that are attributable to dry hole were estimated.  
3 Now what were the actual numbers?

4           A           The actual numbers were, let me guess, I  
5 don't have it at my fingertips here.

6           Q           Well, at the break you gave them to me.

7           A           Okay, well, let me see that.

8           Q           See if that refreshes your recollection.

9           A           Oh, these are -- these are just mud  
10 costs.

11          Q           Oh, all right, I misunderstood what  
12 you're doing.

13          A           You threw me there.

14          Q           Well, you and I are not talking the same  
15 thing.

16          A           Yeah, these are just mud costs --

17          Q           Okay.

18          A           -- that I gave you.

19          Q           All right.

20          A           So I would -- I would -- I feel comfor-  
21 table with the numbers that we've used here on Exhibit  
22 Eight as far as showing the differences in the costs and  
23 how they were accounted for.

24          Q           All right. Do you see any material  
25 difference, then, between the two AFE's that should be used

1 as a significant factor by this Examiner in deciding who  
2 operates the well?

3 A No, I don't. I think that the Exhibit  
4 Eight here really shows that we can operate or we can drill  
5 and we can complete the well just as cheaply as Yates.  
6 We've shown that on the two wells that we've drilled with  
7 the lack of problems that we've had while drilling and I've  
8 shown here by accounting for the differences that we can  
9 drill the wells competitive with Yates.

10 Q Let's talk about BHP's experience as an  
11 operator in the immediate area. How successful have you  
12 been with your other wells?

13 A Well, we've been very successful. We  
14 drilled the, of course, the discovery well, Ervin Ranch  
15 State No. 1, which was a significant discovery of a new  
16 reservoir and we confirmed it shortly thereafter with the  
17 Yates "36" State No. 1, which was drilled without incident  
18 and made a successful confirmation well in Section -- the  
19 west half of Section 36.

20 Q What's the current status of the well in  
21 the northeast quarter of 8 down to the south?

22 A It is currently being drilled. We're  
23 drilling the Conoco 8 Federal No. 1.

24 Q And what is its current status as of  
25 now, do you recall?

1           A           Well, it's in the process of being  
2 drilled. That's all I can say.

3           Q           You're not at the point where you're  
4 ready to complete the well?

5           A           No, not at this time.

6           Q           Mr. Crabb, let me ask you, sir, do you  
7 have an opinion as an engineer as to why you believe your  
8 company ought to be the operator for the well in the east  
9 half of 36?

10          A           Well, yes, I do.

11          Q           And what is the reason? What is that  
12 opinion?

13          A           My opinion is that BHP should be the  
14 operator on this well for a number of reasons, many of  
15 which were enunciated by Mr. Davis: The fact that we have  
16 developed the field; we have the expertise in the immediate  
17 area; we drilled two successful wells; we're in the process  
18 of drilling a third one; and also, going back to what we  
19 thought was the primary reason for this -- Yates wanting to  
20 have operations here, was this premium that they were to  
21 get for their gas price. We feel that this is not going to  
22 necessarily be, or it will not be, for the good of the en-  
23 tire field. It will just possibly benefit Yates and maybe  
24 the other operators if what they say is true, but it could  
25 even be detrimental to the other two wells that we current-

1 ly have shut in that are waiting on a pipeline.

2 Q Let me ask you to identify and describe  
3 for us what is marked as Exhibit Number Nine, Mr. Crabb.  
4 Let me ask you, sir, am I correct in understanding that  
5 Section 36 that's the subject of this hearing is located at  
6 this point on the display where I've placed the numbers  
7 "36"?

8 A Yes, that is correct. Right.

9 Q Let me do that on all the copies so that  
10 --

11 A Now these are townships here but --

12 Q Excuse me, let me borrow that back from  
13 you so we won't have to search for Section 36.

14 What is Exhibit Number Nine, Mr. Crabb?

15 A Exhibit Number Nine is a schematic of  
16 the pipelines in the area and the gas well there which  
17 you've highlighted is the approximate location of the field  
18 at this point.

19 Q Has -- has BHP undertaken the task to  
20 study the physical arrangement as well as the economic cost  
21 of installing a gathering line system to take field produc-  
22 tion --

23 A Yes, we have.

24 Q -- to the transmission line?

25 A Yes.

1           Q           What are the two choices of available  
2 potential markets in the area?

3           A           Well, the line to the north, which is  
4 running from the northwest to the southeast there, is  
5 Transwestern's line and the line to the south below it,  
6 which takes a sharper drop to the south, is the El Paso  
7 line, and as you can see, the field sits pretty much equi-  
8 distant from the two lines.

9           Q           Has BHP undertaken an analysis of the  
10 costs that are going to be required to install a gathering  
11 system to take the production in the field to either one of  
12 these pipelines?

13          A           Yes, we have.

14          Q           And what does that study show?

15          A           Well, it shows us that it's going to  
16 require a substantial investment in order to be able to put  
17 in this pipeline to -- to install the treating facilities,  
18 the tie-in, and the other miscellaneous expenses. Our  
19 study told us that -- well, the briefly summarize the  
20 results of this study, it was concluded that an initial  
21 investment of \$1.75-million would be required for the pipe-  
22 line construction, the tie-in, the amine (sic) plant, et  
23 cetera, and that we ran some preliminary economics based on  
24 this capital outlay and the scenario that we used was based  
25 on ultimate recovery of 7 to 7-1/2 BCF and an initial rate,

1 deliverability, of 10-million cubic feet per day, and based  
2 on these parameters, the economics of the installation of  
3 such a facility are very marginal unless you charge a  
4 transportation fee of around 50 cents per MCF, and of  
5 course that's a very high transportation fee, unreasonable,  
6 and in order to get a more reasonable fee, along the order  
7 of 25 cents per MCF transportation, an initial rate of  
8 15-million to 20 a day would really be desirable to make  
9 this economic for someone to do, and of course more the  
10 more deliverability you have, the more favorable the  
11 economics are going to look.

12           Now, the pipeline is not going to put in  
13 a line like this, either one of them, at this time, and in  
14 the existing economic climate. So it will either be up to  
15 one operator, such as BHP, or a joint effort to share the  
16 cost and to put in a line and a processing plant. Until  
17 that happens all the wells are going to remain shut-in in  
18 that field.

19           Now where I'm going with all this and  
20 the reason that it's important is that due to the high cost  
21 involved, a pipeline is not going to be constructed in this  
22 area and all this large capital outlay is not going to come  
23 about or be installed based on the reserves or the deliver-  
24 ability of one well, such as the Valley State No. 1, or the  
25 well in the east half of Section -- Section 36. In fact a

1 large number of wells, an entire field, will have to be  
2 included before we can make it -- make the economics at-  
3 tractive enough to -- to engage in such a venture.

4 So whether or not Yates plans to have a  
5 good deal with Transwestern for selling this gas at a pre-  
6 mium will by itself not move one MCF of gas and we have to  
7 think about the benefit to the -- to the whole field in  
8 general.

9 Q What is the current deliverability of  
10 the two wells that currently are completed and shut-in now  
11 in the field?

12 A Well, let me give you a little informa-  
13 tion about these -- these wells to really show why they  
14 need to be given a major consideration as far as the pur-  
15 chaser, which we eventually choose in this field.

16 Of course as we've already stated, the  
17 discovery well, Ervin Ranch State No. 1, was potentialized in  
18 December of '88 for a little over 4-million cubic feet per  
19 day CAOF in the lower zone, which I alluded to previously,  
20 and over 10-million cubic feet per day in the upper zone,  
21 both in the Montoya formation, and the pressure transient  
22 testing and reservoir limits analysis that we did indicated  
23 substantial reserves for this particular well, along the  
24 order of 6-to-7 BCF, and we estimate that the combined de-  
25 liverability of both zones in the Ervin Ranch State No. 1

1 to be on the order of 3-to-4-million cubic feet per day.

2 Now the confirmation well in Section 36  
3 was potentialled for over 37-million cubic feet per day CAOF  
4 in January of 1989 and this was from the single zone in the  
5 Upper Montoya and reservoir limits testing on this well, as  
6 well as volumetrics, indicate reserves on the order of 3  
7 BCF, or better, and this particular well could have a de-  
8 liverability of anywhere from 2 to 5-million cubic feet per  
9 day, we estimate. Now it's reasonable we're a little un-  
10 certain on this one as it's down structure, it's closer to  
11 the water table, we're going to be more careful about how  
12 we produce this particular well.

13 So for the field, as it stands, to date  
14 we have reserves from these two wells of 9 to 10 BCF, we  
15 estimate, with a combined deliverability of around 5-mil-  
16 lion cubic feet per day, so we're talking about substantial  
17 reserves here and any decisions we may make as to the pipe-  
18 line that we choose would have to consider the benefit to  
19 these wells. This would have to weigh in there very great-  
20 ly.

21 Q Do you currently have sufficient daily  
22 deliverability into a pipeline to make the cost of bringing  
23 that gathering system to the field economic at this point?

24 A No, we don't. We will continue to deve-  
25 lop the field and hopefully soon we'll be at the point

1 where we can justify the installation of this facility.

2 Q In your opinion as a petroleum engineer,  
3 is it a significant matter to you to have the operations  
4 for the subject well decided based upon the contention that  
5 Yates has a 50 percent interest collectively in the well?

6 A No, we do not.

7 Q Do you believe as a reservoir engineer  
8 that the operation of the well ought to be decided based  
9 upon overhead costs or the difference between the existing  
10 AFE's?

11 A No, we do not, because we have shown  
12 that those are insignificant.

13 Q What to you are the significant factors  
14 that ought to be decided in determining who the operator is  
15 for the well?

16 A Well, the significant factors would be  
17 the individual that discovered the field, which is us; the  
18 fact that we have the expertise in the immediate area; our  
19 success in drilling of these wells; and looking at the mar-  
20 keting of the primary product on a fieldwide basis and not  
21 on an individual well basis.

22 Q Is there anything else that you'd like  
23 to comment on, Mr. Crabb?

24 A No.

25 Q All right, sir.





1 and Whinney overhead rates. We have used the same over-  
2 head rates that Yates has agreed to in the west half of  
3 this section and the overhead rates, notwithstanding the  
4 contention of Ms. Colbert this morning, I don't think is a  
5 material basis upon which to decide the case.

6 Another way in which the Com-  
7 mission on occasion decides pooling cases is to say that  
8 there is a significant and material difference in the cost  
9 of the wells. I think you can see from Mr. Crabb's testi-  
10 mony that if you adjust some of the numbers based upon  
11 whether or not you run a particular type of log or a drill  
12 stem test, make some reasonable judgments as operator,  
13 you're going to come in with either AFE. There is not an  
14 appropriate way to make a material difference in the two  
15 AFE's by which to decide the case.

16 One way we sometimes decide  
17 these cases is decide which operator is the operator with  
18 the greatest experience. It's conceded that Yates is a  
19 good operator, a prudent operator, and certainly knowledge-  
20 able.

21 We contend, however, that the  
22 fact that BHP undertook the risk of exploring for and de-  
23 veloping this prospect and this field with the discovery  
24 well and the confirmation well, ought to be awarded. They  
25 ought to be awarded in having the operations for the well

1 in the east half of 36 granted to them as a continuing  
2 benefit for their ability to gather sufficient daily pro-  
3 duction to take the gas to market. We think it is import-  
4 ant that you remember that it was Yates who was given the  
5 opportunity to share that risk with BHP and they elected  
6 not to do that. They elected to farmout their interest in  
7 the west half of 36 and it was BHP that took that risk for  
8 the benefit, then, ultimately of themselves when they were  
9 successful and certainly of Yates. Had they not been suc-  
10 cessful then the adverse economic consequences of that  
11 decision would have been on BHP alone.

12 We think that ought to be re-  
13 warded, particularly in view of the fact that the only con-  
14 tentions that Yates asserts for being awarded operations of  
15 the well is they mistakenly believe that they have a signi-  
16 ficant controlling interest in the well and that there is a  
17 material difference in the overhead cost in the AFE.

18 Those are not material differ-  
19 ences by which you should seize operations from the company  
20 that proposed the well first. This is third, fourth well  
21 in the immediate area and we are the company that went to  
22 Yates and asked them if they would like to participate with  
23 us. We proposed the well first and when all things other-  
24 wise are equal, the Commission historically, and I think  
25 fairly, has awarded operations to the party that proposes



1 on the well location. Sometimes we can decide these cases  
2 based upon that. This does not present you that choice.

3                   Therefor we conclude and hope  
4 that you will also conclude that operations belong to the  
5 party first proposing the well and that is beyond dispute  
6 BHP Petroleum Company.

7                   Thank you.

8                   MR. CATANACH: Thank you. Mr.  
9 Dickerson?

10                   MR. DICKERSON: Mr. Catanach,  
11 the testimony again uncontroverted as much of the testimony  
12 was today, was that Yates has drilled approximately 12 Or-  
13 dovician wells, 10 of which are producers in the general  
14 area with similar geologic and drilling considerations in-  
15 volved in the drilling of those wells.

16                   BHP, on the other hand, has  
17 drilled 2.

18                   As did Mr. Kellahin, we con-  
19 cede that BHP is a prudent operator. It's certainly qual-  
20 ified to operate oil and gas wells, but -- and it's true  
21 that BHP first proposed a well in the east half of Section  
22 36. But think about the testimony as to what happened. At  
23 that point all parties were in possession of roughly equal  
24 data in that they had shared among themselves the existing  
25 seismic data. If anything, BHP had some advantage to the

1 extent that it had all the actual results, at least by that  
2 point had actually drilled its well in the northeast quart-  
3 er of Section 5 and the Yates "36" 1 Well in the west half  
4 of Section 36, and yet the location that BHP proposed was  
5 at a standard location. Now, upon consideration by the  
6 parties and Yates' objection to that standard, the parties  
7 got together, and reasonable people are supposed to get to-  
8 gether, but we would submit that that is an indication that  
9 Yates experience in the area counts for something. It  
10 counted for enough to convince BHP that, yes, the location  
11 proposed by Yates is superior to the one initially pro-  
12 posed by BHP, and changed its mind; a reasonable and pru-  
13 dent thing to; that's what we should all do when confronted  
14 with differing opinions which upon review appear to be sub-  
15 stantiated. It's what happened here.

16 I also agree with Mr. Kellahin  
17 and I offer a case that you might find instructive, Mr.  
18 Catanach, in Order No. R-119 -- 8119, which Mr. Kellahin  
19 and I are both familiar with, several findings, beginning  
20 on about the Findings 8 or 9, were made concerning the rel-  
21 ative merits of the positions of the parties. Now in that  
22 case the parties were diametrically opposed on each and  
23 every point in contention, the location of the well, not  
24 only who should be operator. But the substance of the or-  
25 der entered was that absent any compelling reason to do it,

1 in a situation such we have here our geologists are in  
2 total agreement.

3                   The well costs, while we con-  
4 tend that Yates can drill for something less and complete  
5 these wells than can BHP, I wouldn't quarrel with -- it's  
6 opinion at this point and history will tell, but that or-  
7 der goes further and points out that there is another sig-  
8 nificant factor and notwithstanding the fact that it's  
9 denegated by BHP, the fact remains that Yates Pet controls  
10 50 percent of the acreage. Yeah, the other 50 percent is  
11 owned by other parties, but Samedan controls its own inter-  
12 est half the size of the Yates interest. BHP controls the  
13 remaining 25 percent interest and in the absence of other  
14 compelling reasons to decide a case based on any other  
15 factors, that would be a perfectly reasonable case in which  
16 to provide this one.

17                   We've also pointed out, Mr.  
18 Catanach, that here we have a new pool, discovery, through  
19 the efforts not along of BHP, but through its drilling,  
20 which has resulted in two producers that did not exist be-  
21 fore, and yet because of the realities of the situation and  
22 the economics of the oil business these days, there is an  
23 advantage to a party to have control over the operations.  
24 We submit that for whatever advantage that would be, it  
25 would be equitable and fair in these circumstances to allow



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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 (Commission) 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 CSE*

I do hereby certify that the foregoing is a true and correct record of the proceedings in the Estimator hearing of Case No. 9629, 9630, 9631 heard by me on March 29, 1955.  
*David R. Cabanel*, Examiner  
Oil Conservation Division



EXHIBIT "A"

Township 10 South, Range 26 East  
 Section 36: E/2  
 Containing 320 acres, more or less  
 Chaves County, New Mexico

NAME	ACRES	% OF SPACING UNIT	TEST WELL BEFORE PAYOUT	TEST WELL AFTER PAYOUT
YATES PETROLEUM CORPORATION	40	12.5%	12.5%	12.50%
YATES DRILLING COMPANY	40	12.5	12.5	12.50
ABO PETROLEUM CORPORATION	40	12.5	12.5	12.50
MYCO INDUSTRIES, INC.	40	12.5	12.5	12.50
BHP PETROLEUM COMPANY INC.	-0-	-0-	25.0	18.75
SAMEDAN OIL CORPORATION	-0-	-0-	25.0	18.75
VALLEY OIL & GAS COMPANY	160	50.0	F/O	12.50
	320	100.0%	100.0%	100.00%

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

March 7, 1989

BHP Petroleum Company Inc.  
6 Desta Drive, Suite 3200  
Midland, Texas 79705-5510

Re: Township 10 South, Range 26 East  
Section 36: E/2  
Chaves County, New Mexico

Gentlemen:

Yates Petroleum Corporation proposed to drill its Valley AGK State #1 well to 6900' to test the Fusselman/Montoya and Ellenburger formations at a location 2310' FEL and 1650' FNL of Section 36, T-10-S, R-26-E. The anticipated spud date is April 15, 1989.

This unorthodox location resulted out of our meeting on February 21, 1989 in your office. Shortly after this meeting Yates filed with the New Mexico Oil Conservation Division a hearing for the drilling of our well at this unorthodox location.

For your consideration, please find enclosed an Operating Agreement and Authority for Expenditure for the drilling of this well. Please execute and return one copy of AFE and the extra signature page for the Operating Agreement to our office.

Thank you.

Very truly yours,

YATES PETROLEUM CORPORATION

A handwritten signature in cursive script that reads 'Robert Bullock'.

Robert Bullock  
Landman

RB/mw

Enclosures

YATES PETROLEUM CORPORATION  
Case Nos. 9629, 9630 & 9631  
3/29/89 Examiner Hearing  
Exhibit No. 3

P 920 344 526

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse) 2310/1650

Sent to BHP Petroleum Co. Inc.	
Street and No. 6 Desta Dr., Ste 3200	
P.O. State and ZIP Code Midland, TX 79705-5510	
Postage	S
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	S
Postmark or Date	

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

- 1.  Show to whom delivered, date, and addressee's address.
- 2.  Restricted Delivery.

3. Article Addressed to: BHP Petroleum Company Inc. 6 Desta Drive, Suite 3200 Midland, TX 79705-5510		4. Article Number p 920 344 526
		Type of Service: <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> COD
5. Signature - Addressee X <i>Randall Davis</i> 6861		Always obtain signature of addressee or agent and DATE DELIVERED.
6. Signature - Agent X _____		8. Addressee's Address (ONLY if requested and fee paid) Operating Agreement E/2 36, T10S-R26, Chaves
7. Date of Delivery X <i>3/8/86</i>		

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

March 7, 1989

Samedan Oil Corporation  
10 Desta Drive, Suite 240E  
Midland, Texas 79705

Re: Township 10 South, Range 26 East  
Section 36: E/2  
Chaves County, New Mexico

Gentlemen:

Yates Petroleum Corporation proposed to drill its Valley AGK State #1 well to 6900' to test the Fusselman/Montoya and Ellenburger formations at a location 2310' FEL and 1650' FNL of Section 36, T-10-S, R-26-E. The anticipated spud date is April 15, 1989.

This unorthodox location resulted out of our meeting on February 21, 1989 in your office. Shortly after this meeting Yates filed with the New Mexico Oil Conservation Division a hearing for the drilling of our well at this unorthodox location.

For your consideration, please find enclosed an Operating Agreement and Authority for Expenditure for the drilling of this well. Please execute and return one copy of AFE and the extra signature page for the Operating Agreement to our office.

Thank you.

Very truly yours,

YATES PETROLEUM CORPORATION

  
Robert Bullock  
Landman

RB/mw

Enclosures

P 920 344 527

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse) 2310/1650

Sent to Samedan Oil Corporation	
Street and No. 10 Desta Dr., Ste. 240E	
P.O., State and ZIP Code Midland, TX 79705	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

- 1.  Show to whom delivered, date, and addressee's address.
- 2.  Restricted Delivery.

3. Article Addressed to: Samedan Oil Corporation 10 Desta Drive, Suite 240E Midland, Texas 79705	4. Article Number p 920 344 527
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature -- Addressee X <i>[Signature]</i>	8. Addressee's Address (ONLY if requested and fee paid) Operating Agreement E/2 36, T10S-R26, Chaves
6. Signature -- Agent X	
7. Date of Delivery 5-8-89	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

A.A.P.L. FORM 610 - 1977

MODEL FORM OPERATING AGREEMENT

OPERATING AGREEMENT

DATED

March 7, 1989,

OPERATOR YATES PETROLEUM CORPORATION

CONTRACT AREA Township 10 South, Range 26 East, NMPM

Section 36: E/2

COUNTY ~~OR PARISH~~ OF CHAVES STATE OF NEW MEXICO

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AMERICAN ASSOCIATION OF PETROLEUM LANDMEN  
APPROVED FORM. A.A.P.L. NO. 610 - 1977 REVISED  
MAY BE ORDERED DIRECTLY FROM THE PUBLISHER  
KRAFTBILT PRODUCTS, BOX 800, TULSA 74101

YATES PETROLEUM CORPORATION  
Case Nos. 9629, 9630 & 9631  
3/29/89 Examiner Hearing  
Exhibit No. 4

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OPERATING AGREEMENT

THIS AGREEMENT, entered into by and between YATES PETROLEUM CORPORATION, a New Mexico corporation, 105 S. 4th Street, Artesia, NM, hereinafter designated and referred to as "Operator", and the signatory party or parties other than Operator, sometimes hereinafter referred to individually herein as "Non-Operator", and collectively as "Non-Operators",

WITNESSETH:

WHEREAS, the parties to this agreement are owners of oil and gas leases and/or oil and gas interests in the land identified in Exhibit "A", and the parties hereto have reached an agreement to explore and develop these leases and/or oil and gas interests for the production of oil and gas to the extent and as hereinafter provided:

NOW, THEREFORE, it is agreed as follows:

ARTICLE I. DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them:

A. The term "oil and gas" shall mean oil, gas, casinghead gas, gas condensate, and all other liquid or gaseous hydrocarbons and other marketable substances produced therewith, unless an intent to limit the inclusiveness of this term is specifically stated.

B. The terms "oil and gas lease", "lease" and "leasehold" shall mean the oil and gas leases covering tracts of land lying within the Contract Area which are owned by the parties to this agreement.

C. The term "oil and gas interests" shall mean unleased fee and mineral interests in tracts of land lying within the Contract Area which are owned by parties to this agreement.

D. The term "Contract Area" shall mean all of the lands, oil and gas leasehold interests and oil and gas interests intended to be developed and operated for oil and gas purposes under this agreement. Such lands, oil and gas leasehold interests and oil and gas interests are described in Exhibit "A".

E. The term "drilling unit" shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a drilling unit is not fixed by any such rule or order, a drilling unit shall be the drilling unit as established by the pattern of drilling in the Contract Area or as fixed by express agreement of the Drilling Parties.

F. The term "drillsite" shall mean the oil and gas lease or interest on which a proposed well is to be located.

G. The terms "Drilling Party" and "Consenting Party" shall mean a party who agrees to join in and pay its share of the cost of any operation conducted under the provisions of this agreement.

H. The terms "Non-Drilling Party" and "Non-Consenting Party" shall mean a party who elects not to participate in a proposed operation.

Unless the context otherwise clearly indicates, words used in the singular include the plural, the plural includes the singular, and the neuter gender includes the masculine and the feminine.

ARTICLE II. EXHIBITS

The following exhibits, as indicated below and attached hereto, are incorporated in and made a part hereof:

- A. Exhibit "A", shall include the following information:
  - (1) Identification of lands subject to agreement,
  - (2) Restrictions, if any, as to depths or formations,
  - (3) Percentages or fractional interests of parties to this agreement,
  - (4) Oil and gas leases and/or oil and gas interests subject to this agreement,
  - (5) Addresses of parties for notice purposes.
- B. Exhibit "B", Form of Lease.
- C. Exhibit "C", Accounting Procedure.
- D. Exhibit "D", Insurance.
- E. Exhibit "E", Gas Balancing Agreement.
- F. Exhibit "F", Non-Discrimination and Certification of Non-Segregated Facilities.

If any provision of any exhibit, except Exhibit "E", is inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.

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ARTICLE III.  
INTERESTS OF PARTIES

A. Oil and Gas Interests:

If any party owns an unleased oil and gas interest in the Contract Area, that interest shall be treated for the purpose of this agreement and during the term hereof as if it were a leased interest under the form of oil and gas lease attached as Exhibit "B". As to such interest, the owner shall receive royalty on production as prescribed in the form of oil and gas lease attached hereto as Exhibit "B". Such party shall, however, be subject to all of the provisions of this agreement relating to lessees, to the extent that it owns the lessee interest.

B. Interest of Parties in Costs and Production:

Exhibit "A" lists all of the parties and their respective percentage or fractional interests under this agreement. Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne and paid, and all equipment and material acquired in operations on the Contract Area shall be owned by the parties as their interests are shown in Exhibit "A". All production of oil and gas from the Contract Area, subject to the payment of lessor's royalties ~~which will be borne by the Joint Account~~, shall also be owned by the parties in the same manner during the term hereof; provided, however, this shall not be deemed an assignment or cross-assignment of interests covered hereby.

ARTICLE IV.  
TITLES

A. Title Examination:

Title examination shall be made on the drillsite of any proposed well prior to commencement of drilling operations or, if the Drilling Parties so request, title examination shall be made on the leases and/or oil and gas interests included, or planned to be included, in the drilling unit around such well. The opinion will include the ownership of the working interest, minerals, royalty, overriding royalty and production payments under the applicable leases. At the time a well is proposed, each party contributing leases and/or oil and gas interests to the drillsite, or to be included in such drilling unit, shall furnish to Operator all abstracts (including Federal Lease Status Reports), title opinions, title papers and curative material in its possession free of charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the examination of title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or by outside attorneys. Copies of all title opinions shall be furnished to each party hereto. The cost incurred by Operator in this title program shall be borne as follows:

~~Option No. 1: Costs incurred by Operator in procuring abstracts and title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be a part of the administrative overhead as provided in Exhibit "C," and shall not be a direct charge, whether performed by Operator's staff attorneys or by outside attorneys.~~

Option No. 2: Costs incurred by Operator in procuring abstracts and fees paid outside attorneys for title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be borne by the Drilling Parties in the proportion that the interest of each Drilling Party bears to the total interest of all Drilling Parties as such interests appear in Exhibit "A". Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

Each party shall be responsible for securing curative matter and pooling amendments or agreements required in connection with leases or oil and gas interests contributed by such party. The Operator shall be responsible for the preparation and recording of Pooling Designations or Declarations as well as the conduct of hearings before Governmental Agencies for the securing of spacing or pooling orders. This shall not prevent any party from appearing on its own behalf at any such hearing.

No well shall be drilled on the Contract Area until after (1) the title to the drillsite or drilling unit has been examined as above provided, and (2) the title has been approved by the examining attorney or title has been accepted by all of the parties who are to participate in the drilling of the well.

B. Loss of Title:

1. Failure of Title: Should any oil and gas interest or lease, or interest therein, be lost through failure of title, which loss results in a reduction of interest from that shown on Exhibit "A", this agreement, nevertheless, shall continue in force as to all remaining oil and gas leases and interests, and (a) The party whose oil and gas lease or interest is affected by the title failure shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development

1 or operating costs which it may have theretofore paid, but there shall be no monetary liability on its  
2 part to the other parties hereto for drilling, development, operating or other similar costs by reason of  
3 such title failure; and

4 (b) There shall be no retroactive adjustment of expenses incurred or revenues received from the  
5 operation of the interest which has been lost, but the interests of the parties shall be revised on an acre-  
6 age basis, as of the time it is determined finally that title failure has occurred, so that the interest of  
7 the party whose lease or interest is affected by the title failure will thereafter be reduced in the Contract  
8 Area by the amount of the interest lost; and

9 (c) If the proportionate interest of the other parties hereto in any producing well theretofore drilled  
10 on the Contract Area is increased by reason of the title failure, the party whose title has failed shall  
11 receive the proceeds attributable to the increase in such interests (less costs and burdens attributable  
12 thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well;  
13 and

14 (d) Should any person not a party to this agreement, who is determined to be the owner of any in-  
15 terest in the title which has failed, pay in any manner any part of the cost of operation, development,  
16 or equipment, such amount shall be paid to the party or parties who bore the costs which are so refund-  
17 ed; and

18 (e) Any liability to account to a third party for prior production of oil and gas which arises by  
19 reason of title failure shall be borne by the party or parties in the same proportions in which they shared  
20 in such prior production; and

21 (f) No charge shall be made to the joint account for legal expenses, fees or salaries, in connection  
22 with the defense of the interest claimed by any party hereto, it being the intention of the parties  
23 hereto that each shall defend title to its interest and bear all expenses in connection therewith.  
24

25 2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight,  
26 any rental, shut-in well payment, minimum royalty or royalty payment, is not paid or is erroneously  
27 paid, and as a result a lease or interest therein terminates, there shall be no monetary liability against  
28 the party who failed to make such payment. Unless the party who failed to make the required payment  
29 secures a new lease covering the same interest within ninety (90) days from the discovery of the fail-  
30 ure to make proper payment, which acquisition will not be subject to Article VIII.B., the interests of  
31 the parties shall be revised on an acreage basis, effective as of the date of termination of the lease in-  
32 volved, and the party who failed to make proper payment will no longer be credited with an interest in  
33 the Contract Area on account of ownership of the lease or interest which has terminated. In the event  
34 the party who failed to make the required payment shall not have been fully reimbursed, at the time of  
35 the loss, from the proceeds of the sale of oil and gas attributable to the lost interest, calculated on an  
36 acreage basis, for the development and operating costs theretofore paid on account of such interest, it  
37 shall be reimbursed for unrecovered actual costs theretofore paid by it (but not for its share of the  
38 cost of any dry hole previously drilled or wells previously abandoned) from so much of the following  
39 as is necessary to effect reimbursement:

40 (a) Proceeds of oil and gas, less operating expenses, theretofore accrued to the credit of the lost  
41 interest, on an acreage basis, up to the amount of unrecovered costs;

42 (b) Proceeds, less operating expenses, thereafter accrued attributable to the lost interest on an  
43 acreage basis, of that portion of oil and gas thereafter produced and marketed (excluding production  
44 from any wells thereafter drilled) which, in the absence of such lease termination, would be attributable  
45 to the lost interest on an acreage basis, up to the amount of unrecovered costs, the proceeds of said  
46 portion of the oil and gas to be contributed by the other parties in proportion to their respective in-  
47 terests; and

48 (c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or  
49 becomes, the owner of the interest lost, for the privilege of participating in the Contract Area or be-  
50 coming a party to this agreement.  
51

52 3. Other Losses: All losses incurred, other than those set forth in Articles IV.B.1. and IV.B.2.  
53 above, shall not be considered failure of title but shall be joint losses and shall be borne by all parties  
54 in proportion to their interests. There shall be no readjustment of interests in the remaining portion of  
55 the Contract Area.  
56

57 **ARTICLE V.**  
58 **OPERATOR**

59  
60 **A. DESIGNATION AND RESPONSIBILITIES OF OPERATOR:**

61 YATES PETROLEUM CORPORATION, 105 South 4th Street, Artesia, NM 88210 shall be the  
62 Operator of the Contract Area, and shall conduct and direct and have full control of all operations on  
63 the Contract Area as permitted and required by, and within the limits of, this agreement. It shall con-  
64 duct all such operations in a good and workmanlike manner, but it shall have no liability as Operator  
65 to the other parties for losses sustained or liabilities incurred, except such as may result from gross  
66 negligence or willful misconduct.  
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1 **B. Resignation or Removal of Operator and Selection of Successor:**

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3 1. Resignation or Removal of Operator: Operator may resign at any time by giving written notice  
4 thereof to Non-Operators. If Operator terminates its legal existence, no longer owns an interest in the  
5 Contract Area, or is no longer capable of serving as Operator, it shall cease to be Operator without any  
6 action by Non-Operator, except the selection of a successor. Operator may be removed if it fails or  
7 refuses to carry out its duties hereunder, or becomes insolvent, bankrupt or is placed in receivership,  
8 by the affirmative vote of two (2) or more Non-Operators owning a majority interest based on owner-  
9 ship as shown on Exhibit "A", and not on the number of parties remaining after excluding the voting  
10 interest of Operator. Such resignation or removal shall not become effective until 7:00 o'clock A.M.  
11 on the first day of the calendar month following the expiration of ninety (90) days after the giving of  
12 notice of resignation by Operator or action by the Non-Operators to remove Operator, unless a successor  
13 Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after effect-  
14 ive date of resignation or removal, shall be bound by the terms hereof as a Non-Operator. A change of  
15 a corporate name or structure of Operator or transfer of Operator's interest to any single subsidiary,  
16 parent or successor corporation shall not be the basis for removal of Operator.

17  
18 2. Selection of Successor Operator: Upon the resignation or removal of Operator, a successor Op-  
19 erator shall be selected by the Parties. The successor Operator shall be selected from the parties owning  
20 an interest in the Contract Area at the time such successor Operator is selected. If the Operator that  
21 is removed fails to vote or votes only to succeed itself, the successor Operator shall be selected by the  
22 affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown  
23 on Exhibit "A", and not on the number of parties remaining after excluding the voting interest of the  
24 Operator that was removed.

25  
26 **C. Employees:**

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28 The number of employees used by Operator in conducting operations hereunder, their selection,  
29 and the hours of labor and the compensation for services performed, shall be determined by Operator,  
30 and all such employees shall be the employees of Operator.

31  
32 **D. Drilling Contracts:**

33  
34 All wells drilled on the Contract Area shall be drilled on a competitive contract basis at the usual  
35 rates prevailing in the area. If it so desires, Operator may employ its own tools and equipment in the  
36 drilling of wells, but its charges therefor shall not exceed the prevailing rates in the area and the rate  
37 of such charges shall be agreed upon by the parties in writing before drilling operations are com-  
38 menced, and such work shall be performed by Operator under the same terms and conditions as are  
39 customary and usual in the area in contracts of independent contractors who are doing work of a sim-  
40 ilar nature.

41  
42 **ARTICLE VI.**  
43 **DRILLING AND DEVELOPMENT**

44  
45 **A. Initial Well:**

46  
47 On or before the 15th day of April, 1989, Operator shall commence the drill-  
48 ing of a well for oil and gas at the following location:

49 2310' FEL & 1650' FNL  
50 Township 10 South, Range 26 East, NMPM  
51 Section 36

52 Chaves County, New Mexico  
53 and shall thereafter continue the drilling of the well with due diligence to adequately test  
54 the Fusselman/Montoya and Ellenburger formations at approximately 6,900 feet.

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58 unless granite or other practically impenetrable substance or condition in the hole, which renders  
59 further drilling impractical, is encountered at a lesser depth, or unless all parties agree to complete or  
60 abandon the well at a lesser depth.

61  
62 Operator shall make reasonable tests of all formations encountered during drilling which give in-  
63 dication of containing oil and gas in quantities sufficient to test, unless this agreement shall be limited  
64 in its application to a specific formation or formations, in which event Operator shall be required to  
65 test only the formation or formations to which this agreement may apply.

66  
67 If, in Operator's judgment, the well will not produce oil or gas in paying quantities, and it wishes  
68 to plug and abandon the well as a dry hole, it shall first secure the consent of all parties and shall  
69 plug and abandon same as provided in Article VI.E.1. hereof.

## 1 B. Subsequent Operations:

2

3 1. Proposed Operations: Should any party hereto desire to drill any well on the Contract Area  
 4 other than the well provided for in Article VI.A., or to rework, deepen or plug back a dry hole drilled  
 5 at the joint expense of all parties or a well jointly owned by all the parties and not then producing  
 6 in paying quantities, the party desiring to drill, rework, deepen or plug back such a well shall give the  
 7 other parties written notice of the proposed operation, specifying the work to be performed, the loca-  
 8 tion, proposed depth, objective formation and the estimated cost of the operation. The parties receiv-  
 9 ing such a notice shall have thirty (30) days after receipt of the notice within which to notify the  
 10 parties wishing to do the work whether they elect to participate in the cost of the proposed operation.  
 11 If a drilling rig is on location, notice of proposal to rework, plug back or drill deeper may be given  
 12 by telephone and the response period shall be limited to forty-eight (48) hours, exclusive of Saturday,  
 13 Sunday or legal holidays. Failure of a party receiving such notice to reply within the period above fixed  
 14 shall constitute an election by that party not to participate in the cost of the proposed operation. Any  
 15 notice or response given by telephone shall be promptly confirmed in writing.

16

17 2. Operations by Less than All Parties: If any party receiving such notice as provided in Article  
 18 VI.B.1. or VI.E.1. elects not to participate in the proposed operation, then, in order to be entitled to  
 19 the benefits of this article, the party or parties giving the notice and such other parties as shall elect  
 20 to participate in the operation shall, within sixty (60) days after the expiration of the notice period of  
 21 thirty (30) days (or as promptly as possible after the expiration of the forty-eight (48) hour period  
 22 where the drilling rig is on location, as the case may be) actually commence work on the proposed  
 23 operation and complete it with due diligence. Operator shall perform all work for the account of the  
 24 Consenting Parties; provided, however, if no drilling rig or other equipment is on location, and if Op-  
 25 erator is a Non-Consenting Party, the Consenting Parties shall either: (a) request Operator to perform  
 26 the work required by such proposed operation for the account of the Consenting Parties, or (b) desig-  
 27 nate one (1) of the Consenting Parties as Operator to perform such work. Consenting Parties, when  
 28 conducting operations on the Contract Area pursuant to this Article VI.B.2., shall comply with all terms  
 29 and conditions of this agreement.

30

31 If less than all parties approve any proposed operation, the proposing party, immediately after the  
 32 expiration of the applicable notice period, shall advise the Consenting Parties of (a) the total interest  
 33 of the parties approving such operation, and (b) its recommendation as to whether the Consenting Par-  
 34 ties should proceed with the operation as proposed. Each Consenting Party, within forty-eight (48)  
 35 hours (exclusive of Saturday, Sunday or legal holidays) after receipt of such notice, shall advise the  
 36 proposing party of its desire to (a) limit participation to such party's interest as shown on Exhibit "A",  
 37 or (b) carry its proportionate part of Non-Consenting Parties' interest. The proposing party, at its  
 38 election, may withdraw such proposal if there is insufficient participation, and shall promptly notify  
 39 all parties of such decision.

40

41 The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in  
 42 the proportions they have elected to bear same under the terms of the preceding paragraph. Consenting  
 43 Parties shall keep the leasehold estates involved in such operations free and clear of all liens and  
 44 encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such  
 45 an operation results in a dry hole, the Consenting Parties shall plug and abandon the well at their sole  
 46 cost, risk and expense. If any well drilled, reworked, deepened or plugged back under the provisions  
 47 of this Article results in a producer of oil and/or gas in paying quantities, the Consenting Parties shall  
 48 complete and equip the well to produce at their sole cost and risk, and the well shall then be turned  
 49 over to Operator and shall be operated by it at the expense and for the account of the Consenting Parties.  
 50 Upon commencement of operations for the drilling, reworking, deepening or plugging back of any such  
 51 well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party  
 52 shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and  
 53 be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's  
 54 interest in the well and share of production therefrom until the proceeds of the sale of such share,  
 55 calculated at the well, or market value thereof if such share is not sold (after deducting production  
 56 taxes, crude oil excise taxes, royalty, overriding royalty and other interests  
 57 existing on the effective date hereof, payable out of or measured by the produc-  
 58 tion from such well accruing with respect to such interest until it reverts) shall  
 59 equal the total of the following:

60

(a) 100% of each such Non-Consenting Party's share of the cost of any newly acquired surface  
 61 equipment beyond the wellhead connections (including, but not limited to, stock tanks, separators,  
 62 treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the  
 63 cost of operation of the well commencing with first production and continuing until each such Non-  
 64 Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being  
 65 agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which  
 66 would have been chargeable to each Non-Consenting Party had it participated in the well from the be-  
 67 ginning of the operation; and

68

(b) 300% of that portion of the costs and expenses of drilling, reworking, deepening, or plugging  
 69 back, testing and completing, after deducting any cash contributions received under Article VIII.C., and  
 70

1 300 % of that portion of the cost of newly acquired equipment in the well (to and including the well-  
2 head connections), which would have been chargeable to such Non-Consenting Party if it had partici-  
3 pated therein.

4  
5 Gas production attributable to any Non - Consenting Party's relinquished interest upon such Party's  
6 election, shall be sold to its purchaser, if available, under the terms of its existing gas sales con-  
7 tract. Such Non - Consenting Party shall direct its purchaser to remit the proceeds receivable from  
8 such sale direct to the Consenting Parties until the amounts provided for in this Article are recov-  
9 ered from the Non - Consenting Party's relinquished interest. If such Non - Consenting Party has not  
10 contracted for sale of its gas at the time such gas is available for delivery, or has not made the elec-  
11 tion as provided above, the Consenting Parties shall own and be entitled to receive and sell such Non-  
12 Consenting Party's share of gas as hereinabove provided during the recoupment period.

13  
14 During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share  
15 of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of  
16 all production, crude oil excise taxes, severance, gathering and other taxes, and all  
17 royalty, overriding royalty and other burdens applicable to Non-Consenting Party's  
18 share of production.

19 In the case of any reworking, plugging back or deeper drilling operation, the Consenting Parties shall  
20 be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of  
21 all such equipment shall remain unchanged; and upon abandonment of a well after such reworking,  
22 plugging back or deeper drilling, the Consenting Parties shall account for all such equipment to the  
23 owners thereof, with each party receiving its proportionate part in kind or in value, less cost of  
24 salvage.

25  
26 Within sixty (60) days after the completion of any operation under this Article, the party con-  
27 ducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an in-  
28 ventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling,  
29 deepening, plugging back, testing, completing, and equipping the well for production; or, at its option,  
30 the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed  
31 statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being  
32 reimbursed as provided above, the Party conducting the operations for the Consenting Parties shall furn-  
33 ish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the  
34 operation of the well, together with a statement of the quantity of oil and gas produced from it and the  
35 amount of proceeds realized from the sale of the well's working interest production during the preceding  
36 month. In determining the quantity of oil and gas produced during any month, Consenting Parties  
37 shall use industry accepted methods such as, but not limited to, metering or periodic well tests. Any  
38 amount realized from the sale or other disposition of equipment newly acquired in connection with any  
39 such operation which would have been owned by a Non-Consenting Party had it participated therein  
40 shall be credited against the total unreturned costs of the work done and of the equipment purchased,  
41 in determining when the interest of such Non-Consenting Party shall revert to it as above provided;  
42 and if there is a credit balance, it shall be paid to such Non-Consenting party.

43  
44 If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest  
45 the amounts provided for above, the relinquished interests of such Non-Consenting Party shall auto-  
46 matically revert to it, and, from and after such reversion, such Non-Consenting Party shall own the same  
47 interest in such well, the material and equipment in or pertaining thereto, and the production there-  
48 from as such Non-Consenting Party would have been entitled to had it participated in the drilling,  
49 reworking, deepening or plugging back of said well. Thereafter, such Non-Consenting Party shall be  
50 charged with and shall pay its proportionate part of the further costs of the operation of said well in  
51 accordance with the terms of this agreement and the Accounting Procedure, attached hereto.

52  
53 Notwithstanding the provisions of this Article VI.B.2., it is agreed that without the mutual consent  
54 of all parties, no wells shall be completed in or produced from a source of supply from which a well  
55 located elsewhere on the Contract Area is producing, unless such well conforms to the then-existing  
56 well spacing pattern for such source of supply.

57  
58 The provisions of this Article shall have no application whatsoever to the drilling of the initial  
59 well described in Article VI.A. except (a) when Option 2, Article VII.D.1., has been selected, or (b)  
60 to the reworking, deepening and plugging back of such initial well, if such well is or thereafter shall  
61 prove to be a dry hole or non-commercial well, after having been drilled to the depth specified in Article  
62 VI.A.

63  
64 **C. Right to Take Production in Kind:**

65 Each party electing to take in kind or separately dispose of its proportionate share of the production from the Contract Area  
66 shall keep accurate records of the volume, selling price, royalty and taxes relative to its share of production. Non-Operators  
67 shall, upon request, furnish Operator with true and complete copies of the records required to be kept hereunder whenever, under  
68 the terms of this agreement or any agreement executed in connection herewith, it is necessary for Operator to obtain said informa-  
69 tion. Any information furnished to Operator hereunder shall be used by Operator only to the extent necessary to carry out its  
70 duties as Operator and shall otherwise be kept confidential.

Each party shall have the right to take in kind or separately dispose of its proportionate share of all oil and gas produced  
from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and

1 treating oil for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate  
 2 disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of  
 3 production in kind shall be required to pay for only its proportionate share of such part of Operator's surface facilities which it  
 4 uses.

4 Each party shall execute such division orders and contracts as may be necessary for the sale of its  
 5 interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled  
 6 to receive payment direct from the purchaser thereof for its share of all production.  
 7

8 In the event any party shall fail to make the arrangements necessary to take in kind or separately  
 9 dispose of its proportionate share of the oil and gas produced from the Contract Area, Operator shall have  
 10 the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such  
 11 oil and gas or sell it to others at any time and from time to time, for the account of the non-taking  
 12 party at the best price obtainable in the area for such production. Any such purchase or sale by Op-  
 13 erator shall be subject always to the right of the owner of the production to exercise at any time its  
 14 right to take in kind, or separately dispose of, its share of all oil and gas not previously delivered to a  
 15 purchaser. Any purchase or sale by Operator of any other party's share of oil and gas shall be only for  
 16 such reasonable periods of time as are consistent with the minimum needs of the industry under the  
 17 particular circumstances, but in no event for a period in excess of one (1) year. Notwithstanding the  
 18 foregoing, Operator shall not make a sale, including one into interstate commerce, of any other party's  
 19 share of gas production without first giving such other party thirty (30) days notice of such intended  
 20 sale.

21 In the event any party hereto is not at any time taking or marketing its share of gas  
 22 production and Operator is either (i) unwilling to purchase or sell or (ii) unable to  
 23 obtain the prior written consent to purchase or sell such party's share of gas production,  
 24 or in the event any party has contracted to sell its share of gas produced from the Contract  
 25 Area to a purchaser which does not at any time while this agreement is in effect take the  
 26 full share of gas attributable to the interest of such party, then in any such event the  
 27 terms and conditions of the Gas Balancing Agreement attached hereto as Exhibit "E" and  
 28 incorporated herein shall automatically become effective.

29 **D. Access to Contract Area and Information:**

30  
 31 Each party shall have access to the Contract Area at all reasonable times, at its sole risk to inspect  
 32 or observe operations, and shall have access at reasonable times to information pertaining to the de-  
 33 velopment or operation thereof, including Operator's books and records relating thereto. Operator, upon  
 34 request, shall furnish each of the other parties with copies of all forms or reports filed with govern-  
 35 mental agencies, daily drilling reports, well logs, tank tables, daily gauge and run tickets and reports  
 36 of stock on hand at the first of each month, and shall make available samples of any cores or cuttings  
 37 taken from any well drilled on the Contract Area. The cost of gathering and furnishing information to  
 38 Non-Operator, other than that specified above, shall be charged to the Non-Operator that requests the  
 39 information.  
 40

41 **E. Abandonment of Wells:**

42  
 43 1. Abandonment of Dry Holes: Except for any well drilled pursuant to Article VI.B.2., any well  
 44 which has been drilled under the terms of this agreement and is proposed to be completed as a dry hole  
 45 shall not be plugged and abandoned without the consent of all parties. Should Operator, after diligent  
 46 effort, be unable to contact any party, or should any party fail to reply within forty-eight (48) hours  
 47 (exclusive of Saturday, Sunday or legal holidays) after receipt of notice of the proposal to plug and  
 48 abandon such well, such party shall be deemed to have consented to the proposed abandonment. All  
 49 such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost,  
 50 risk and expense of the parties who participated in the cost of drilling of such well. Any party who ob-  
 51 jects to the plugging and abandoning such well shall have the right to take over the well and conduct  
 52 further operations in search of oil and/or gas subject to the provisions of Article VI.B.  
 53

54 2. Abandonment of Wells that have Produced: Except for any well which has been drilled or re-  
 55 worked pursuant to Article VI.B.2. hereof for which the Consenting Parties have not been fully reim-  
 56 bursed as therein provided, any well which has been completed as a producer shall not be plugged and  
 57 abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall  
 58 be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense  
 59 of all the parties hereto. If, within thirty (30) days after receipt of notice of the proposed abandonment  
 60 of such well, all parties do not agree to the abandonment of any well, those wishing to continue its op-  
 61 eration shall tender to each of the other parties its proportionate share of the value of the well's salvable  
 62 material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated  
 63 cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall  
 64 assign to the non-abandoning parties, without warranty, express or implied, as to title or as to quantity,  
 65 quality, or fitness for use of the equipment and material, all of its interest in the well and related equip-  
 66 ment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the  
 67 formation or formations then open to production. If the interest of the abandoning party is or includes  
 68 an oil and gas interest, such party shall execute and deliver to the non-abandoning party or parties an  
 69 oil and gas lease, limited to the interval or intervals of the formation or formations then open to produc-  
 70 tion, for a term of one year and so long thereafter as oil and or gas is produced from the interval or inter-

1 vals of the formation or formations covered thereby, such lease to be on the form attached as Exhibit  
2 "B". The assignments or leases so limited shall encompass the "drilling unit" upon which the well is  
3 located. The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon  
4 the relationship of their respective percentages of participation in the Contract Area to the aggregate of  
5 the percentages of participation in the Contract Area of all assignees. There shall be no readjustment  
6 of interest in the remaining portion of the Contract Area.  
7

8 Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the op-  
9 eration of or production from the well in the interval or intervals then open other than the royalties  
10 retained in any lease made under the terms of this Article. Upon request, Operator shall continue to  
11 operate the assigned well for the account of the non-abandoning parties at the rates and charges con-  
12 templated by this agreement, plus any additional cost and charges which may arise as the result of  
13 the separate ownership of the assigned well.  
14

15 **ARTICLE VII.**  
16 **EXPENDITURES AND LIABILITY OF PARTIES**

17  
18 **A. Liability of Parties:**  
19

20 The liability of the parties shall be several, not joint or collective. Each party shall be responsible  
21 only for its obligations, and shall be liable only for its proportionate share of the costs of developing  
22 and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are  
23 given to secure only the debts of each severally. It is not the intention of the parties to create, nor shall  
24 this agreement be construed as creating, a mining or other partnership or association, or to render the  
25 parties liable as partners. It is not the intention of the parties that this contract is  
26 made or intended for the benefit of any third person.

27 **B. Liens and Payment Defaults:**  
28

29 Each Non-Operator grants to Operator a lien upon its oil and gas rights in the Contract Area, and a  
30 security interest in its share of oil and/or gas when extracted and its interest in all equipment, to secure  
31 payment of its share of expense, together with interest thereon at the rate provided in the Accounting  
32 Procedure attached hereto as Exhibit "C". To the extent that Operator has a security interest under the  
33 Uniform Commercial Code of the State, Operator shall be entitled to exercise the rights and remedies  
34 of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Operator  
35 for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien  
36 rights or security interest as security for the payment thereof. In addition, upon default by any Non-  
37 Operator in the payment of its share of expense, Operator shall have the right, without prejudice to  
38 other rights or remedies, to collect from the purchaser the proceeds from the sale of such Non-Operator's  
39 share of oil and/or gas until the amount owed by such Non-Operator, plus interest has been paid. Each  
40 purchaser shall be entitled to rely upon Operator's written statement concerning the amount of any de-  
41 fault. Operator grants a like lien and security interest to the Non-Operators to secure payment of Op-  
42 erator's proportionate share of expense.  
43

44 If any party fails or is unable to pay its share of expense within sixty (60) days after rendition of  
45 a statement therefor by Operator, the non-defaulting parties, including Operator, shall, upon request by  
46 Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the in-  
47 terest of all such parties. Each party so paying its share of the unpaid amount shall, to obtain reimburse-  
48 ment thereof, be subrogated to the security rights described in the foregoing paragraph.  
49

50 **C. Payments and Accounting:**  
51

52 Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses  
53 incurred in the development and operation of the Contract Area pursuant to this agreement and shall  
54 charge each of the parties hereto with their respective proportionate shares upon the expense basis pro-  
55 vided in the Accounting Procedure attached hereto as Exhibit "C". Operator shall keep an accurate  
56 record of the joint account hereunder, showing expenses incurred and charges and credits made and  
57 received.  
58

59 Operator, at its election, shall have the right from time to time to demand and receive from the  
60 other parties payment in advance of their respective shares of the estimated amount of the expense to  
61 be incurred in operations hereunder during the next succeeding month, which right may be exercised only  
62 by submission to each such party of an itemized statement of such estimated expense, together with  
63 an invoice for its share thereof. Each such statement and invoice for the payment in advance of esti-  
64 mated expense shall be submitted on or before the 20th day of the next preceding month. Each party  
65 shall pay to Operator its proportionate share of such estimate within fifteen (15) days after such es-  
66 timate and invoice is received. If any party fails to pay its share of said estimate within said time, the  
67 amount due shall bear interest as provided in Exhibit "C" until paid. Proper adjustment shall be  
68 made monthly between advances and actual expense to the end that each party shall bear and pay its  
69 proportionate share of actual expenses incurred, and no more.  
70

1 **D. Limitation of Expenditures:**

2  
3 1. Drill or Deepen: Without the consent of all parties, no well shall be drilled or deepened, ex-  
4 cept any well drilled or deepened pursuant to the provisions of Article VI.B.2. of this Agreement, it being  
5 understood that the consent to the drilling or deepening shall include:

6  
7  ~~Option No. 1: All necessary expenditures for the drilling or deepening, testing, completing and~~  
8 ~~equipping of the well, including necessary tankage and/or surface facilities.~~

9  
10  Option No. 2: All necessary expenditures for the drilling or deepening and testing of the well. When  
11 such well has reached its authorized depth, and all tests have been completed, Operator shall give im-  
12 mediate notice to the Non-Operators who have the right to participate in the completion costs. The parties  
13 receiving such notice shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holi-  
14 days) in which to elect to participate in the setting of casing and the completion attempt. Such election,  
15 when made, shall include consent to all necessary expenditures for the completing and equipping of such  
16 well, including necessary tankage and/or surface facilities. Failure of any party receiving such notice  
17 to reply within the period above fixed shall constitute an election by that party not to participate in  
18 the cost of the completion attempt. If one or more, but less than all of the parties, elect to set pipe and  
19 to attempt a completion, the provisions of Article VI.B.2. hereof (the phrase "reworking, deepening or  
20 plugging back" as contained in Article VI.B.2. shall be deemed to include "completing") shall apply to  
21 the operations thereafter conducted by less than all parties.

22  
23 2. Rework or Plug Back: Without the consent of all parties, no well shall be reworked or plugged  
24 back except a well reworked or plugged back pursuant to the provisions of Article VI.B.2. of this agree-  
25 ment, it being understood that the consent to the reworking or plugging back of a well shall include  
26 consent to all necessary expenditures in conducting such operations and completing and equipping of  
27 said well, including necessary tankage and/or surface facilities.

28  
29 3. Other Operations: Operator shall not undertake any single project reasonably estimated to require  
30 an expenditure in excess of TWENTY FIVE THOUSAND-----Dollars (\$ 25,000.00 )  
31 except in connection with a well, the drilling, reworking, deepening, completing, recompleting, or plug-  
32 ging back of which has been previously authorized by or pursuant to this agreement; provided, how-  
33 ever, that, in case of explosion, fire, flood or other sudden emergency, whether of the same or different  
34 nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with  
35 the emergency to safeguard life and property but Operator, as promptly as possible, shall report the emer-  
36 gency to the other parties. If Operator prepares "Authority for Expenditures" for its own use,  
37 Operator, upon request, shall furnish copies of its "Authority for Expenditures" for any single project  
38 costing in excess of FIFTEEN THOUSAND-----Dollars (\$ 15,000.00 ).

39  
40 **E. Royalties, Overriding Royalties and Other Payments:**

41  
42 Each party shall pay or deliver, or cause to be paid or delivered, all royalties to the extent of  
43 1/8 of 8/8ths due on its share of production and shall hold the other parties free  
44 from any liability therefor. If the interest of any party in any oil and gas lease covered by this agree-  
45 ment is subject to any royalty, overriding royalty, production payment, or other charge over and above  
46 the aforesaid royalty, such party shall assume and alone bear all such obligations and shall account  
47 for or cause to be accounted for, such interest to the owners thereof.

48 No party shall ever be responsible, on any price basis higher than the price received by such party, to any other party's lessor  
49 or royalty owner; and if any such other party's lessor or royalty owner should demand and receive settlements on a higher price basis,  
50 the party contributing such lease shall bear the royalty burden insofar as such higher price is concerned.

51 It is recognized by the parties hereto that in addition to each party's share of working interest production as shown in Exhibit  
52 "A", such party shall have the right, subject to existing contracts, to market the royalty gas attributable to each lease which it  
53 contributes to the Contract Area and to receive payments due for such royalty gas produced from or allocated to such lease or leases.  
54 It is agreed that, regardless of whether each party markets or contracts for its share of gas, including the royalty gas under the  
55 leases which it contributed to the Contract Area, such party agrees to pay or cause to be paid to the royalty owners under its lease  
56 or leases the proceeds attributable to their respective royalty interest and to hold all other parties hereto harmless for its failure  
57 to do so.

54 **F. Rentals, Shut-in Well Payments and Minimum Royalties:**

55  
56 Rentals, shut-in well payments and minimum royalties which may be required under the terms of  
57 any lease shall be paid by the party or parties who subjected such lease to this agreement at its or their  
58 expense. In the event two or more parties own and have contributed interests in the same lease to this  
59 agreement, such parties may designate one of such parties to make said payments for and on behalf of all  
60 such parties. Any party may request, and shall be entitled to receive, proper evidence of all such pay-  
61 ments. In the event of failure to make proper payment of any rental, shut-in well payment or minimum  
62 royalty through mistake or oversight where such payment is required to continue the lease in force,  
63 any loss which results from such non-payment shall be borne in accordance with the provisions of Article  
64 IV.B.2.

65  
66 Operator shall notify Non-Operator of the anticipated completion of a shut-in gas well, or the shut-  
67 ting in or return to production of a producing gas well, at least five (5) days (excluding Saturday, Sun-  
68 day and holidays), or at the earliest opportunity permitted by circumstances, prior to taking such action,  
69 but assumes no liability for failure to do so. In the event of failure by Operator to so notify Non-  
70 Operator, the loss of any lease contributed hereto by Non-Operator for failure to make timely payments

1 of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article  
 2 IV.B.3.

3

4 **G. Taxes:**

5

6 Beginning with the first calendar year after the effective date hereof, Operator shall render for ad  
 7 valorem taxation all property subject to this agreement which by law should be rendered for such  
 8 taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Prior to the ren-  
 9 dition date, each Non-Operator shall furnish Operator information as to burdens (to include, but not be  
 10 limited to, royalties, overriding royalties and production payments) on leases and oil and gas interests con-  
 11 tributed by such Non-Operator. If the assessed valuation of any leasehold estate is reduced by reason of its  
 12 being subject to outstanding excess royalties, overriding royalties or production payments, the reduction in  
 13 ad valorem taxes resulting therefrom shall inure to the benefit of the owner or owners of such leasehold  
 14 estate, and Operator shall adjust the charge to such owner or owners so as to reflect the benefit of such  
 15 reduction. Operator shall bill other parties for their proportionate share of all tax payments in the man-  
 16 ner provided in Exhibit "C".

17

18 If Operator considers any tax assessment improper, Operator may, at its discretion, protest within  
 19 the time and manner prescribed by law, and prosecute the protest to a final determination, unless all  
 20 parties agree to abandon the protest prior to final determination. During the pendency of administrative  
 21 or judicial proceedings, Operator may elect to pay, under protest, all such taxes and any interest and  
 22 penalty. When any such protested assessment shall have been finally determined, Operator shall pay  
 23 the tax for the joint account, together with any interest and penalty accrued, and the total cost shall then  
 24 be assessed against the parties, and be paid by them, as provided in Exhibit "C".

25

26 Each party shall pay or cause to be paid all production, severance, gathering and other taxes im-  
 27 posed upon or with respect to the production or handling of such party's share of oil and/or gas pro-  
 28 duced under the terms of this agreement.

29

30 **H. Insurance:**

31

32 At all times while operations are conducted hereunder, Operator shall comply with the Workmen's  
 33 Compensation Law of the State where the operations are being conducted; provided, however, that Op-  
 34 erator may be a self-insurer for liability under said compensation laws in which event the only charge  
 35 that shall be made to the joint account shall be an amount equivalent to the premium which would have  
 36 been paid had such insurance been obtained. Operator shall also carry or provide insurance for the  
 37 benefit of the joint account of the parties as outlined in Exhibit "D", attached to and made a part hereof.  
 38 Operator shall require all contractors engaged in work on or for the Contract Area to comply with the  
 39 Workmen's Compensation Law of the State where the operations are being conducted and to maintain  
 40 such other insurance as Operator may require.

41

42 In the event Automobile Public Liability Insurance is specified in said Exhibit "D", or subsequently  
 43 receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for  
 44 such insurance for Operator's fully owned automotive equipment.

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**ARTICLE VIII.**

**ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST**

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**A. Surrender of Leases:**

The leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall not be surrendered in whole or in part unless all parties consent thereto.

However, should any party desire to surrender its interest in any lease or in any portion thereof, and other parties do not agree or consent thereto, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such lease, or portion thereof, and any well, material and equipment which may be located thereon and any rights in production thereafter secured, to the parties not desiring to surrender it. If the interest of the assigning party includes an oil and gas interest, the assigning party shall execute and deliver to the party or parties not desiring to surrender an oil and gas lease covering such oil and gas interest for a term of one year and so long thereafter as oil and/or gas is produced from the land covered thereby, such lease to be on the form attached hereto as Exhibit "B". Upon such assignment, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the acreage assigned and the operation of any well thereon, and the assigning party shall have no further interest in the lease assigned and its equipment and production other than the royalties retained in any lease made under the terms of this Article. The parties assignee shall pay to the party assignor the reasonable salvage value of the latter's interest in any wells and equipment on the assigned acreage. The value of all material shall be determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. If the assignment is in favor of more than one party, the assigned interest shall

1 be shared by the parties assignee in the proportions that the interest of each bears to the interest of all  
 2 parties assignee.

3  
 4 Any assignment or surrender made under this provision shall not reduce or change the assignor's or  
 5 surrendering parties' interest, as it was immediately before the assignment, in the balance of the Contract  
 6 Area; and the acreage assigned or surrendered, and subsequent operations thereon, shall not thereafter  
 7 be subject to the terms and provisions of this agreement.

8  
 9 **B. Renewal or Extension of Leases:**

10  
 11 If any party secures a renewal of any oil and gas lease subject to this Agreement, all other parties  
 12 shall be notified promptly, and shall have the right for a period of thirty (30) days following receipt  
 13 of such notice in which to elect to participate in the ownership of the renewal lease, insofar as such  
 14 lease affects lands within the Contract Area, by paying to the party who acquired it their several proper  
 15 proportionate shares of the acquisition cost allocated to that part of such lease within the Contract Area,  
 16 which shall be in proportion to the interests held at that time by the parties in the Contract Area.

17  
 18 If some, but less than all, of the parties elect to participate in the purchase of a renewal lease, it  
 19 shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of  
 20 their respective percentage of participation in the Contract Area to the aggregate of the percentages  
 21 of participation in the Contract Area of all parties participating in the purchase of such renewal lease.  
 22 Any renewal lease in which less than all parties elect to participate shall not be subject to this agreement.

23 without warrant  
 24 Each party who participates in the purchase of a renewal lease shall be given an assignment/of its  
 25 proportionate interest therein by the acquiring party.

26  
 27 The provisions of this Article shall apply to renewal leases whether they are for the entire interest  
 28 covered by the expiring lease or cover only a portion of its area or an interest therein. Any renewal lease  
 29 taken before the expiration of its predecessor lease, or taken or contracted for within six (6) months after  
 30 the expiration of the existing lease shall be subject to this provision; but any lease taken or contracted  
 31 for more than six (6) months after the expiration of an existing lease shall not be deemed a renewal  
 32 lease and shall not be subject to the provisions of this agreement.

33  
 34 The provisions in this Article shall apply also and in like manner to extensions of oil and gas  
 35 leases. The provisions of this Article VIII-B shall only apply to leases, or portions  
 36 of leases, located within the Unit Area.

37 **C. Acreage or Cash Contributions:**

38  
 39 While this agreement is in force, if any party contracts for a contribution of cash toward the drilling  
 40 of a well or any other operation on the Contract Area, such contribution shall be paid to the party who  
 41 conducted the drilling or other operation and shall be applied by it against the cost of such drilling or  
 42 other operation. If the contribution be in the form of acreage, the party to whom the contribution is  
 43 made shall promptly tender an assignment of the acreage, without warranty of title, to the Drilling  
 44 Parties in the proportions said Drilling Parties shared the cost of drilling the well. If all parties hereto  
 45 are Drilling Parties and accept such tender, such acreage shall become a part of the Contract Area and  
 46 be governed by the provisions of this agreement. If less than all parties hereto are Drilling Parties and  
 47 accept such tender, such acreage shall not become a part of the Contract Area. Each party shall prompt-  
 48 ly notify all other parties of all acreage or money contributions it may obtain in support of any well or  
 49 any other operation on the Contract Area.

50  
 51 If any party contracts for any consideration relating to disposition of such party's share of substances  
 52 produced hereunder, such consideration shall not be deemed a contribution as contemplated in this  
 53 Article VIII.C. This paragraph shall not be applicable to the contribution of acreage  
 54 by the Contributing Parties toward the Initial, Substitute, or Option Test Well.

55 **D. Subsequently Created Interest:**

56  
 57 Notwithstanding the provisions of Article VIII.E. and VIII.G., if any party hereto shall, subsequent  
 58 to execution of this agreement, create an overriding royalty, production payment, or net proceeds inter-  
 59 est, which such interests are hereinafter referred to as "subsequently created interest", such subsequently  
 60 created interest shall be specifically made subject to all of the terms and provisions of this agreement, as  
 61 follows:

62  
 63 1. If non-consent operations are conducted pursuant to any provision of this agreement, and the  
 64 party conducting such operations becomes entitled to receive the production attributable to the interest  
 65 out of which the subsequently created interest is derived, such party shall receive same free and clear  
 66 of such subsequently created interest. The party creating same shall bear and pay all such subsequently  
 67 created interests and shall indemnify and hold the other parties hereto free and harmless from any and  
 68 all liability resulting therefrom.

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2. If the owner of the interest from which the subsequently created interest is derived (1) fails to pay, when due, its share of expenses chargeable hereunder, or (2) elects to abandon a well under provisions of Article VI.E. hereof, or (3) elects to surrender a lease under provisions of Article VIII.A. hereof, the subsequently created interest shall be chargeable with the pro rata portion of all expenses hereunder in the same manner as if such interest were a working interest. For purposes of collecting such chargeable expenses, the party or parties who receive assignments as a result of (2) or (3) above shall have the right to enforce all provisions of Article VII.B. hereof against such subsequently created interest.

**E. Maintenance of Uniform Interest:**

For the purpose of maintaining uniformity of ownership in the oil and gas leasehold interests covered by this agreement, and notwithstanding any other provisions to the contrary, no party shall sell, encumber, transfer or make other disposition of its interest in the leases embraced within the Contract Area and in wells, equipment and production unless such disposition covers either:

1. the entire interest of the party in all leases and equipment and production; or
2. an equal undivided interest in all leases and equipment and production in the Contract Area.

Every such sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement, and shall be made without prejudice to the right of the other parties.

If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion, may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interests within the scope of the operations embraced in this agreement; however, all such co-owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of the oil and gas produced from the Contract Area and they shall have the right to receive, separately, payment of the sale proceeds hereof.

**F. Waiver of Right to Partition:**

If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning an undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its undivided interest therein.

~~**G. Preferential Right to Purchase:**~~

~~Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract Area, it shall promptly give written notice to the other parties, with full information concerning its proposed sale, which shall include the name and address of the prospective purchaser (who must be ready, willing and able to purchase), the purchase price, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after receipt of the notice, to purchase on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to dispose of its interests by merger, reorganization, consolidation, or sale of all or substantially all of its assets to a subsidiary or parent company or to a subsidiary of a parent company, or to any company in which any one party owns a majority of the stock.~~

**ARTICLE IX.  
INTERNAL REVENUE CODE ELECTION**

This agreement is not intended to create, and shall not be construed to create, a relationship of partnership or an association for profit between or among the parties hereto. Notwithstanding any provisions herein that the rights and liabilities hereunder are several and not joint or collective, or that this agreement and operations hereunder shall not constitute a partnership, if, for Federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, each party hereby affected elects to be excluded from the application of all of the provisions of Subchapter "K", Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Federal Regulations 1.761. Should there be any requirement that each party hereby affected give further evidence of this election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. No

1 such party shall give any notices or take any other action inconsistent with the election made hereby.  
2 If any present or future income tax laws of the state or states in which the Contract Area is located or  
3 any future income tax laws of the United States contain provisions similar to those in Subchapter "K",  
4 Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, under which an election similar to that  
5 provided by Section 761 of the Code is permitted, each party hereby affected shall make such election as  
6 may be permitted or required by such laws. In making the foregoing election, each such party states that  
7 the income derived by such party from Operations hereunder can be adequately determined without the  
8 computation of partnership taxable income.

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**ARTICLE X.  
CLAIMS AND LAWSUITS**

13 Operator may settle any single damage claim or suit arising from operations hereunder if the ex-  
14 penditure does not exceed FIFTEEN THOUSAND Dollars  
15 (\$ 15,000.00 ) and if the payment is in complete settlement of such claim or suit. If the amount  
16 required for settlement exceeds the above amount, the parties hereto shall assume and take over the  
17 further handling of the claim or suit, unless such authority is delegated to Operator. All costs and ex-  
18 pense of handling, settling, or otherwise discharging such claim or suit shall be at the joint expense  
19 of the parties. If a claim is made against any party or if any party is sued on account of any matter  
20 arising from operations hereunder over which such individual has no control because of the rights given  
21 Operator by this agreement, the party shall immediately notify Operator, and the claim or suit shall  
22 be treated as any other claim or suit involving operations hereunder.

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**ARTICLE XI.  
FORCE MAJEURE**

27 If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations  
28 under this agreement, other than the obligation to make money payments, that party shall give to all  
29 other parties prompt written notice of the force majeure with reasonably full particulars concerning it;  
30 thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure,  
31 shall be suspended during, but no longer than, the continuance of the force majeure. The affected party  
32 shall use all reasonable diligence to remove the force majeure situation as quickly as practicable.

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The requirement that any force majeure shall be remedied with all reasonable dispatch shall not  
require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its  
wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party  
concerned.

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The term "force majeure", as here employed, shall mean an act of God, strike, lockout, or other  
industrial disturbance, act of the public enemy, war, blockade, public riot, lightning, fire, storm, flood,  
explosion, governmental action,<sup>1</sup> governmental delay, restraint or inaction, unavailability of equipment,  
and any other cause, whether of the kind specifically enumerated above or otherwise, which is not  
reasonably within the control of the party claiming suspension.

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**ARTICLE XII.  
NOTICES**

48 All notices authorized or required between the parties, and required by any of the provisions of  
49 this agreement, unless otherwise specifically provided, shall be given in writing by United States mail  
50 or Western Union telegram, postage or charges prepaid, or by teletype, and addressed to the party to  
51 whom the notice is given at the addresses listed on Exhibit "A". The originating notice given under any  
52 provision hereof shall be deemed given only when received by the party to whom such notice is directed,  
53 and the time for such party to give any notice in response thereto shall run from the date the originat-  
54 ing notice is received. The second or any responsive notice shall be deemed given when deposited in  
55 the United States mail or with the Western Union Telegraph Company, with postage or charges prepaid,  
56 or when sent by teletype. Each party shall have the right to change its address at any time, and from  
57 time to time, by giving written notice hereof to all other parties.

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**ARTICLE XIII.  
TERM OF AGREEMENT**

62 This agreement shall remain in full force and effect as to the oil and gas leases and/or oil and gas in-  
63 terests subjected hereto for the period of time selected below; provided, however, no party hereto shall  
64 ever be construed as having any right, title or interest in or to any lease, or oil and gas interest con-  
65 tributed by any other party beyond the term of this agreement.

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~~Option No. 1: So long as any of the oil and gas leases subject to this agreement remain in force con-  
tinued in force as to any part of the Contract Area, whether by production, extension, renewal or other-  
wise, and/or so long as oil and/or gas production continues from any lease or oil and gas interest.~~

1 ~~X~~ **Option No. 2:** In the event the well described in Article VI.A., or any subsequent well drilled  
 2 under any provision of this agreement, results in production of oil and/or gas in paying quantities, this  
 3 agreement shall continue in force so long as any such well or wells produce, or are capable of produc-  
 4 tion, and for an additional period of 180 days from cessation of all production; provided, however,  
 5 if, prior to the expiration of such additional period, one or more of the parties hereto are engaged in  
 6 drilling or reworking a well or wells hereunder, this agreement shall continue in force until such op-  
 7 erations have been completed and if production results therefrom, this agreement shall continue in  
 8 force as provided herein. In the event the well described in Article VI.A., or any subsequent well  
 9 drilled hereunder, results in a dry hole, and no other well is producing, or capable of producing oil  
 10 and/or gas from the Contract Area, this agreement shall terminate unless drilling or reworking opera-  
 11 tions are commenced within 120 days from the date of abandonment of said well.

12  
 13 It is agreed, however, that the termination of this agreement shall not relieve any party hereto from  
 14 any liability which has accrued or attached prior to the date of such termination.

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 16 **ARTICLE XIV.**  
 17 **COMPLIANCE WITH LAWS AND REGULATIONS**

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 19 **A. Laws, Regulations and Orders:**

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 21 This agreement shall be subject to the conservation laws of the state in which the committed  
 22 acreage is located, to the valid rules, regulations, and orders of any duly constituted regulatory body of  
 23 said state; and to all other applicable federal, state, and local laws, ordinances, rules, regulations, and  
 24 orders.

25  
 26 **B. Governing Law:**

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 28 The essential validity of this agreement and all matters pertaining thereto, including, but not lim-  
 29 ited to, matters of performance, non-performance, breach, remedies, procedures, rights, duties and in-  
 30 terpretation or construction, shall be governed and determined by the law of the state in which the  
 31 Contract Area is located. If the Contract Area is in two or more states, the law of the state where most  
 32 of the land in the Contract Area is located shall govern.

33  
 34 **ARTICLE XV.**

35  
 36 **A. Substitute Well:** If, in the drilling of the Initial Well, Operator loses the hole or encounters  
 37 mechanical difficulties rendering it impracticable, in the opinion of Operator, to drill the well to the  
 38 objective depth, then and in any of such events, on or before 30 days after completion of the Initial Well,  
 39 Operator shall have the option to commence the actual drilling of another well ("Substitute Well") at a  
 40 lawful location of Operator's selection on the Unit Area, and prosecute the drilling of said well with due  
 41 diligence and in a good and workmanlike manner to the objective depth. For all purposes of this agreement,  
 the drilling of the Substitute Well shall be considered as the drilling of the Initial Well.

42 **B. Option Well:** Within 90 days after the completion of the Initial Well and, if drilled, the Substitute  
 43 Well, as a dry hole, Operator shall have the option of commencing an "Option Well" at a lawful location of  
 44 Operator's selection in the Unit Area. The Option Well shall be drilled to the objective depth in the same  
 45 manner as provided for in the Initial Well.

46 **C.** Any provision herein concerning the Initial Well shall also apply to the Substitute and Option Wells,  
 47 and any provision herein excepting the Initial Well shall also except the Substitute and Option Wells.

48 **D.** Notwithstanding any other provisions herein, if during the term of this agreement, a well is required  
 49 to be drilled, deepened, reworked, plugged back, sidetracked, or recompleted, or any other operation that  
 50 may be required in order to (1) continue a lease or leases in force and effect, or (2) maintain a unitized  
 51 area or any portion thereof in force and effect, or (3) earn or preserve an interest in and to oil and/or  
 52 gas and other minerals which may be owned by a third party or which, failing in such operation, may revert  
 53 to a third party, or, (4) comply with an order issued by a regulatory body having jurisdiction in the  
 54 premises, failing in which certain rights would terminate, the following shall apply. Should less than all  
 55 of the parties hereto elect to participate and pay their proportionate part of the costs to be incurred in  
 56 such operation, those parties desiring to participate shall have the right to do so at their sole cost,  
 57 risk, and expense. Promptly following the conclusion of such operation, each of those parties not  
 58 participating agree to execute and deliver an appropriate assignment to the total interest of each  
 59 non-participating party in and to the lease, leases, or rights which would have terminated or which  
 60 otherwise may have been preserved by virtue of such operation, and in and to the lease, leases or rights  
 within the balance of the drilling unit upon which the well was drilled, excepting, however, wells  
 theretofore completed and capable of producing in paying quantities. Such assignment shall be delivered to  
 the participating parties in the proportion that they bore the expense attributable to the  
 non-participating parties' interest.

61 **E.** No production, whether oil or gas, may be sold from the lease acreage, or lands pooled therewith, to  
 62 any party's subsidiaries, affiliates, or associates, without each party's prior written consent. All  
 63 production sold from the lease acreage, or lands pooled therewith, will be an arm's length trade with a  
 64 third party purchaser. It is expressly agreed if prior written consent is given to a party selling to  
 65 themselves, its subsidiaries, affiliates, or associates, the other parties to this agreement will have the  
 66 option to also sell to said purchaser, at the same or better price. In the event any party hereto, makes  
 67 an arm's length trade with a third party purchaser, the remaining parties will have the option to also sell  
 68 at the same or higher price.

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1977

SIGNATURE PAGE ATTACHED TO AND MADE A PART OF OPERATING AGREEMENT DATED MARCH 7, 1989 BETWEEN YATES PETROLEUM CORPORATION, "OPERATOR", AND BHP PETROLEUM COMPANY INC., "NON-OPERATORS", COVERING E/2 SECTION 36, T10S-R26E, CHAVES COUNTY, NEW MEXICO.

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ARTICLE XVI.  
MISCELLANEOUS

This agreement shall be binding upon and shall inure to the benefit of the parties hereto and to their respective heirs, devisees, legal representatives, successors and assigns.

This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes.

IN WITNESS WHEREOF, this agreement shall be effective as of \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

OPERATOR

YATES PETROLEUM CORPORATION

By \_\_\_\_\_  
Attorney-in-Fact

NON-OPERATORS

ATTEST: BHP PETROLEUM COMPANY INC.

By \_\_\_\_\_ Secretary By \_\_\_\_\_ President

STATE OF NEW MEXICO )  
: ss  
COUNTY OF EDDY )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 1989 by \_\_\_\_\_, Attorney-in-Fact for YATES PETROLEUM CORPORATION, a New Mexico corporation, on behalf of said corporation.

My commission expires: \_\_\_\_\_  
Notary Public

STATE OF TEXAS )  
: ss  
COUNTY OF MIDLAND )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 1989 by \_\_\_\_\_, for BHP PETROLEUM COMPANY INC., a \_\_\_\_\_ corporation, on behalf of said corporation.

My commission expires: \_\_\_\_\_  
Notary Public

ATTACHED TO AND MADE A PART OF OPERATING AGREEMENT DATED MARCH 7, 1989 BETWEEN YATES PETROLEUM CORPORATION, "OPERATOR", AND BHP PETROLEUM COMPANY INC., ET AL, "NON-OPERATORS", COVERING E/2 SECTION 36, T10S-R26E, CHAVES COUNTY, NEW MEXICO.

YATES DRILLING COMPANY

By \_\_\_\_\_  
Attorney-in-Fact

ABO PETROLEUM CORPORATION

By \_\_\_\_\_  
Attorney-in-Fact

MYCO INDUSTRIES, INC.

By \_\_\_\_\_  
Attorney-in-Fact

STATE OF NEW MEXICO     )  
                                  : ss  
COUNTY OF EDDY         )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 1989 by \_\_\_\_\_, Attorney-in-Fact for YATES DRILLING COMPANY, by \_\_\_\_\_, Attorney-in-Fact for ABO PETROLEUM CORPORATION, and by \_\_\_\_\_, Attorney-in-Fact for MYCO INDUSTRIES, INC., all New Mexico corporations, on behalf of said corporations.

My commission expires:

\_\_\_\_\_ Notary Public

ATTACHED TO AND MADE A PART OF OPERATING AGREEMENT DATED MARCH 7, 1989 BETWEEN YATES PETROLEUM CORPORATION, "OPERATOR", AND BHP PETROLEUM COMPANY INC., ET AL, "NON-OPERATORS", COVERING E/2 SECTION 36, T10S-R26E, CHAVES COUNTY, NEW MEXICO.

ATTEST:

SAMEDAN OIL CORPORATION

By \_\_\_\_\_  
Secretary

By \_\_\_\_\_  
President

STATE OF TEXAS     )  
                              : ss  
COUNTY OF MIDLAND )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 1989 by \_\_\_\_\_, \_\_\_\_\_ for SAMEDAN OIL CORPORATION, a \_\_\_\_\_ corporation, on behalf of said corporation.

My commission expires:  
\_\_\_\_\_

\_\_\_\_\_  
Notary Public

Exhibit "A"

Attached to and made a part of that certain Operating Agreement dated January 12, 1989 between BHP Petroleum Company Inc., as Operator, and Yates Petroleum Corporation, et al, as Non-Operators.

I. LANDS SUBJECT TO THIS AGREEMENT

T-10-S, R-26-E, N.M.P.M.

Section 36: E/2  
Chaves County, New Mexico

II. NAMES AND ADDRESSES OF THE PARTIES

BHP Petroleum Company Inc.  
6 Desta Drive, Suite 3200  
Midland, TX 79705-5510  
(915) 688-1800

Yates Drilling Company  
105 South Fourth Street  
Artesia, NM 88210  
(505) 748-1471

Samedan Oil Corporation  
10 Desta Drive, Suite 240E  
Midland, TX 79705  
(915) 684-8491

ABO Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
(505) 748-1471

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
(505) 748-1471

Myco Industries, Inc.  
105 South Fourth Street  
Artesia, NM 88210  
(505) 748-1471

Valley Oil & Gas Company  
P. O. Box 1000  
Roswell, NM 88202  
(505) 622-3140

III. WORKING INTERESTS OF THE PARTIES

<u>Company</u>	<u>BPO</u>	<u>APO and Subsequent Wells</u>
BHP Petroleum Company Inc.*	25.0%	18.75%
Samedan Oil Corporation*	25.0%	18.75%
Yates Petroleum Corporation	12.5%	12.50%
Yates Drilling Company	12.5%	12.50%
ABO Petroleum Corporation	12.5%	12.50%
Myco Industries, Inc.	12.5%	12.50%
Valley Oil & Gas Company	0%	12.50%**

\*BHP and Samedan interests are subject to that certain Letter Agreement dated October 10, 1988.

\*\*Assumes Valley elects to convert reserved ORRI to a WI APO.

IV. LEASE SUBJECT TO THIS AGREEMENT

Lessor: State of New Mexico (LG-6319)  
Original Lessee: Yates Petroleum Corporation  
Lease Date: February 1, 1979  
Description: Insofar and only insofar as said lease covers the SE/4 Section 36, T-10-S, R-26-E, N.M.P.M. Chaves County, New Mexico.

Lessor: State of New Mexico (V-1363)  
Original Lessee: Valley Oil & Gas Company  
Lease Date: February 1, 1985  
Description: NE/4 Section 36, T-10-S, R-26-E, N.M.P.M. Chaves County, New Mexico

END OF EXHIBIT "A"

EXHIBIT " C "

Attached to and made a part of Operating Agreement dated March 7, 1989 between Yates Petroleum Corporation, Operator", and BHP Petroleum Company Inc., et al, "Non-Operators", covering E/2 Section 36, T10S-R26E, Chaves County, New Mexico

ACCOUNTING PROCEDURE  
 JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits, summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

Each Non-Operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the rate of twelve percent (12%) per annum or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

5. Audits

A. Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator.

6. Approval by Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

## II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

### 1. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

### 2. Labor

- A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.
- (2) Salaries of First Level Supervisors in the field.
- (3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the Overhead rates.
- B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II. Such costs under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.
- C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II.
- D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II.

### 3. Employee Benefits

Operator's current costs of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II shall be Operator's actual cost not to exceed twenty per cent (20%), or percentage most recently recommended by COPAS.

### 4. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

### 5. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

- A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by the Parties.
- B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store, recognized barge terminal, or railway receiving point unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.
- C. In the application of Subparagraphs A and B above, there shall be no equalization of actual gross trucking cost of \$200 or less excluding accessorial charges.

### 6. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 9 of Section II and Paragraph 1. ii of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the Overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

### 7. Equipment and Facilities Furnished by Operator

- A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on investment not to exceed eight per cent (8%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.
- B. In lieu of charges in Paragraph 7A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

### 8. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

### 9. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgments and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

**10. Taxes**

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.

**11. Insurance**

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Workmen's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

**12. Other Expenditures**

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

**III. OVERHEAD****1. Overhead - Drilling and Producing Operations**

i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

- ( XX ) Fixed Rate Basis, Paragraph 1A, or  
(   ) Percentage Basis, Paragraph 1B.

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 2A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the Overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property shall (   ) shall not ( X ) be covered by the Overhead rates.

**A. Overhead - Fixed Rate Basis**

(1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate \$	<u>3,500.00</u>
Producing Well Rate \$	<u>350.00</u>

(2) Application of Overhead - Fixed Rate Basis shall be as follows:

**(a) Drilling Well Rate**

- [1] Charges for onshore drilling wells shall begin on the date the well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.
- [2] Charges for offshore drilling wells shall begin on the date when drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location or rig is released, whichever occurs first, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.
- [3] Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig, commence through date of rig release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive days.

**(b) Producing Well Rates**

- [1] An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.
- [2] Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
- [3] An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.
- [4] A one-well charge may be made for the month in which plugging and abandonment operations are completed on any well.
- [5] All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.
- (3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Fields Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

**B. Overhead - Percentage Basis**

(1) Operator shall charge the Joint Account at the following rates:

**(a) Development**

\_\_\_\_\_ Percent ( %) of the cost of Development of the Joint Property exclusive of costs provided under Paragraph 9 of Section II and all salvage credits.

**(b) Operating**

\_\_\_\_\_ Percent ( %) of the cost of Operating the Joint Property exclusive of costs provided under Paragraphs 1 and 9 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:

For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, redrilling, deepening or any remedial operations on any or all wells involving the use of drilling crew and equipment; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as Operating.

**2. Overhead - Major Construction**

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for Overhead based on the following rates for any Major Construction project in excess of \$ 25,000.00 :

- A. 5 % of total costs if such costs are more than \$ 25,000.00 but less than \$ 100,000.00 ; plus  
 B. 3 % of total costs in excess of \$ 100,000.00 but less than \$1,000,000; plus  
 C. 2 % of total costs in excess of \$1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells shall be excluded.

**3. Amendment of Rates**

The Overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

**IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS**

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

**1. Purchases**

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reason, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

**2. Transfers and Dispositions**

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following bases exclusive of cash discounts:

**A. New Material (Condition A)**

- (1) Tubular goods, except line pipe, shall be priced at the current new price in effect on date of movement on a maximum carload or barge load weight basis, regardless of quantity transferred, equalized to the lowest published price f.o.b. railway receiving point or recognized barge terminal nearest the Joint Property where such Material is normally available.
- (2) Line Pipe
  - (a) Movement of less than 30,000 pounds shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property where such Material is normally available.
  - (b) Movement of 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph 2A (1) of this Section IV.
- (3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store or f.o.b. railway receiving point nearest the Joint Property where such Material is normally available.

**3. Good Used Material (Condition B)**

Material in sound and serviceable condition and suitable for reuse without reconditioning:

**(1) Material moved to the Joint Property**

- (a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV.

**(2) Material moved from the Joint Property**

- (a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as new Material, or

- (b) at sixty-five percent (65%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as good used Material at seventy-five percent (75%) of current new price.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

**C. Other Used Material (Condition C and D)**

**(1) Condition C**

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at fifty percent (50%) of current new price as determined by Paragraph 2A of this Section IV. The cost of reconditioning shall be charged to the receiving property, provided Condition C value plus cost of reconditioning does not exceed Condition B value.

**(2) Condition D**

All other Material, including junk, shall be priced at a value commensurate with its use or at prevailing prices. Material no longer suitable for its original purpose but usable for some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose. Operator may dispose of Condition D Material under procedures normally utilized by the Operator without prior approval of Non-Operators.

**D. Obsolete Material**

Material which is serviceable and usable for its original function but condition and/or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

**E. Pricing Conditions**

- (1) Loading and unloading costs may be charged to the Joint Account at the rate of fifteen cents (15¢) per hundred weight on all tubular goods movements, in lieu of loading and unloading costs sustained, when actual hauling cost of such tubular goods are equalized under provisions of Paragraph 5 of Section II.
- (2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

**3. Premium Prices**

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

**4. Warranty of Material Furnished by Operator**

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

**V. INVENTORIES**

The Operator shall maintain detailed records of Controllable Material.

**1. Periodic Inventories, Notice and Representation**

At reasonable intervals, Inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

**2. Reconciliation and Adjustment of Inventories**

Reconciliation of a physical inventory with the Joint Account shall be made, and a list of overages and shortages shall be furnished to the Non-Operators within six months following the taking of the inventory. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable only for shortages due to lack of reasonable diligence.

**3. Special Inventories**

Special Inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

**4. Expense of Conducting Periodic Inventories**

The expense of conducting periodic Inventories shall not be charged to the Joint Account unless agreed to by the Parties.

EXHIBIT "D"

ATTACHED TO AND MADE A PART OF  
OPERATING AGREEMENT  
DATED MARCH 7, 1989 BETWEEN YATES PETROLEUM CORPORATION, "OPERATOR", AND BHP  
PETROLEUM COMPANY INC., ET AL, "NON-OPERATORS", COVERING E/2 SECTION 36, T10S-  
R26E, CHAVES COUNTY, NEW MEXICO.

ADDITIONAL INSURANCE PROVISIONS

Operator, during the term of this agreement, shall carry insurance for the benefit and at the expense of the parties hereto, as follows:

- (A) Workmen's Compensation Insurance as contemplated by the state in which operations will be conducted, and Employer's Liability Insurance with limits of not less than \$100,000.00 per employee.
  
- (B) Public Liability Insurance:  
Bodily Injury - \$500,000.00 each occurrence.
  
- (C) Automobile Public Liability Insurance:  
Bodily Injury - \$250,000.00 each person.  
\$500,000.00 each occurrence.  
  
Property Damage - \$100,000.00 each occurrence.

Except as authorized by this Exhibit "D", Operator shall not make any charge to the joint account for insurance premiums. Losses not covered by Operator's insurance (or by insurance required by this agreement to be carried for the benefit and at the expense of the parties hereto) shall be charged to the joint account.

EXHIBIT "E"

GAS BALANCING AGREEMENT

The parties to the Operating Agreement to which this agreement is attached own the working interest in the gas rights underlying the lands covered by such agreement (the "Contract Area") in accordance with the percentages of participation as set forth in Exhibit "A" to the Operating Agreement (the "participation percentage").

In accordance with the terms of the Operating Agreement, each party thereto has the right to take its share of gas produced from the Contract Area and market the same. In the event any of the parties hereto collectively owning participation percentages of less than 50% are not at any time taking or marketing their share of gas or have contracted to sell their share of gas produced from the Contract Area to a purchaser which does not at any time while this agreement is in effect take the full share of gas attributable to the interest of such parties, this agreement shall automatically become effective upon the terms hereinafter set forth.

1. During the period or periods when any parties hereto collectively owning participation percentages of less than 50% have no market for their share of gas produced from any proration unit within the Contract Area, or their purchaser does not take its full share of gas produced from such proration unit, other parties collectively owning participation percentages of more than 50% shall be entitled to produce each month 100% of the lesser of a) allowable gas production assigned to such proration unit by applicable state regulatory authority or b) the delivery capacity of gas from such proration unit; provided, however, no party who does not have gas in place shall be entitled to take or deliver to a purchaser gas production in excess of 200% of the lesser of c) its share of the volumes of gas capable of being delivered on a daily basis or d) its share of allowable gas production. All parties hereto shall share in and own the liquid hydrocarbons recovered from such gas by lease equipment in accordance with their respective interests and subject to the Operating Agreement to which this agreement is attached, but the party or parties taking such gas shall own all of the gas delivered to its or their purchaser.

2. On a cumulative basis, each party not taking or marketing its full share of the gas produced shall be credited with gas in place equal to its full share of the gas produced under this agreement, less its share of gas used in lease operations, vented or lost, and less that portion such party took or delivered to its purchaser. The Operator will maintain a current account of gas balance between the parties and will furnish all parties hereto monthly statements showing the total quantity of gas produced, the amount used in lease operations, vented or lost, the total quantity of liquid hydrocarbons recovered therefrom, and the monthly and cumulative over and under account of each party.

3. At all times while gas is produced from the Contract Area, each party hereto will make settlement with the respective royalty owners to whom they are each accountable, just as if each party were taking or delivering to a purchaser its share, and its share only. Each party hereto agrees to hold each other party harmless from any and all claims for royalty payments asserted by royalty owners to whom each party is accountable. The term "royalty owner" shall include owners of royalty, overriding royalties, production payments and other similar interests.

Each party producing and taking or delivering gas to its purchaser shall pay any and all production taxes due on such gas.

4. After notice to the Operator, any party at any time may begin taking or delivering to its purchaser its full share of the gas produced from a proration unit under which it has gas in place less such party's share of gas used in operations, vented or lost. In addition to such share, each party, including the Operator, until it has recovered its gas in place and balanced the gas account as to its interest, shall be entitled to take or deliver to its purchaser a share of gas determined by multiplying 50% of the interest in the current gas production of the party or parties without gas in place by a fraction, the numerator of which is the interest in the proration unit of such party with gas in

place and the denominator of which is the total percentage interest in such proration unit of all parties with gas in place currently taking or delivering to a purchaser.

5. Nothing herein shall be construed to deny any party the right, from time to time, to produce and take or deliver to its purchaser its full share of the allowable gas production to meet the deliverability tests required by its purchaser, provided that said test should be reasonable in length, normally not to exceed 72 hours.

6. If a proration unit ceases to produce gas and/or liquid hydrocarbons in paying quantities before the gas account is balanced, settlement will be made between the underproduced and overproduced parties. In making such settlement, the underproduced party or parties will be paid a sum of money by the overproduced party or parties attributable to the overproduction which said overproduced party received, less applicable taxes theretofore paid, at the applicable price defined below for the delivery of a volume of gas equal to that for which settlement is made. For gas, the price of which is not regulated by federal, state or other governmental agencies, the price basis shall be the price received for the sale of the gas. For gas, the price of which is subject to regulation by federal, state or other governmental authorities, the price basis shall be the rate collected, from time to time, which is not subject to possible refund, as provided by the Federal Energy Regulatory Commission or any other governmental authority, pursuant to final order or settlement applicable to the gas sold from such well, plus any additional collected amount which is not ultimately required to be refunded by such authority, such additional collected amount to be accounted for at such time as final determination is made with respect hereto.

7. Notwithstanding the provisions of ¶6, it is expressly agreed that any underproduced party shall have the optional right, with respect to each proration unit, to receive a cash settlement bringing such underproduced party's gas account into balance at any time and from time to time prior to the final settlement, by first giving each overproduced party 90 days' written notice of demand for cash settlement. If such option is so exercised, settlement shall be made (as of 7:00 o'clock A.M. on the first day of the calendar month following the date of such written demands) within 90 days following the actual receipt of such written demands by the overproduced parties, in the same manner provided for in ¶6. The option provided for in this paragraph may be exercised, from time to time, but only one time in each calendar year.

8. Nothing herein shall change or affect each party's obligation to pay its proportionate share of all costs and liabilities incurred, as its share thereof is set forth in the Operating Agreement.

9. This agreement shall constitute a separate agreement as to each proration unit approved by the applicable regulatory authority for a pool within the Contract Area, but such proration unit shall not include any producing horizon which is not within the vertical limits of said pool. This agreement shall remain in force and effect so long as the Operating Agreement to which it is attached remains in effect, and shall inure to the benefit of and be binding upon the parties hereto, their heirs, successors, legal representatives and assigns.

EXHIBIT "F"

EQUAL EMPLOYMENT OPPORTUNITY PROVISION

During the performance of this contract, the Operator agrees as follows:

- (1) The Operator will not discriminate against any employee or applicant for employment because of race, color, religion, national origin or sex. The Operator will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin or sex. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Operator agrees to post in conspicuous places, available to employees and applicants for employment notices to be provided for the contracting officer setting forth the provisions of this non-discrimination clause.
- (2) The Operator will, in all solicitations or advertisements for employees placed by or on behalf of the Operator, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin or sex.
- (3) The Operator will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Operator's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Operator will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Operator will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the Operator's non-compliance with the non-discrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the Operator may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- (7) The Operator will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Operator will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that in the event the Operator becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Operator may request the United States to enter into such litigation to protect the interests of the United States.

Operator acknowledges that it may be required to file Standard Form 100 (EEO-1) promulgated jointly by the Office of Federal Contract Compliance, the Equal Employment Opportunity Commission and Plans for Progress with Joint Reporting Committee, Federal Depot, Jeffersonville, Indiana, within thirty (30) days of the date of contract award if such report has not been filed for the current year and otherwise comply with or file such other compliance reports as may be required under Executive Order 11246, as amended and Rules and Regulations adopted thereunder.

Operator further acknowledges that he may be required to develop a written affirmative action compliance program as required by the Rules and Regulations approved by the Secretary of Labor under authority of Executive Order 11246 and supply Non-Operators with a copy of such program if they so request.

#### CERTIFICATION OF NON-SEGREGATED FACILITIES

Operator assures Non-Operators that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. For this purpose, it is understood that the phrase "segregated facilities" includes facilities which are in fact segregated on a basis of race, color, religion, or national origin, because of habit; local custom or otherwise. It is further understood and agreed that maintaining or providing segregated facilities for its employees or permitting its employees to perform their services at any location under its control where segregated facilities are maintained is a violation of the equal opportunity clause required by Executive Order 11246 of September 24, 1965.

Operator further understands and agrees that a breach of the assurance herein contained subjects it to the provisions of the Order at 41 CFR Chapter 60 of the Secretary of Labor dated May 21, 1968, and the provisions of the equal opportunity clause enumerated in contracts between the United States of America and Non-Operators.

Whoever knowingly and willfully makes any false, fictitious or fraudulent representation may be liable to criminal prosecution under 18 U.S.C. § 1001.

Exhibit "F"  
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