

CASE 6438: CAULKINS OIL COMPANY FOR  
DUAL COMPLETIONS AND DOWNHOLE COMMINGLING  
RIO ARriba COUNTY, NEW MEXICO

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CASE NO.

6438

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APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,

ETC.

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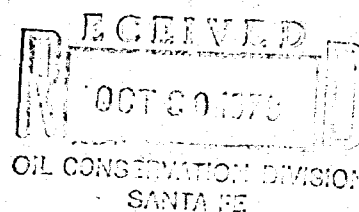
BRUCE KING  
GOVERNOR  
LARRY KEHOE  
SECRETARY

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-8178

*Case file*

October 26, 1979



Mr. Charles Verquer  
Caulkins Oil Company  
P. O. Box 780  
Farmington, New Mexico 87401

Re: Downhole Commingled Production  
Caulkins Oil Company  
Breach #224A  
D-13-26N-7W  
Order R-5922 Case No. 6438

*RLS*

*Hamets*

Dear Mr. Verquer:

We agree to the production split for the subject well as follows:

Chacra	54% of all gas
Mesaverde	46% of all gas, 100% of all oil produced.

If there are questions, please contact us.

Yours very truly,

*A. R. Kendrick*  
A. R. Kendrick  
District Supervisor

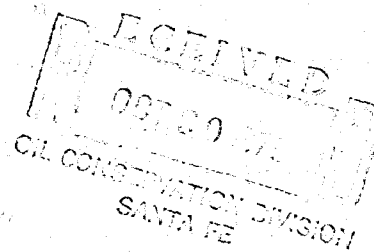
xc: Oil Conservation Division, Santa Fe  
Gas Company of New Mexico  
Shell Pipeline Corporation

ARK:no

## CAULKINS OIL CO.

Post Office Box 780  
Farmington, New Mexico 87401  
October 23, 1979

Mr. A. R. Kendrick  
Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico



Re: Downhole Commingled Production  
Caulkins Oil Company  
Breech 224-A  
Unit D 13-26N-7W

Dear Mr. Kendrick:

Following are results of tests taken on Chacra and Mesa Verde Zones.

After treating all Zones and recovering Bridge Plug set between Chacra and Mesa Verde Zones, retrievable packer was set on 2" tubing between Chacra and Mesa Verde. Chacra Zone cleaned up and flowed through annulus and Mesa Verde Zone swabbed in through tubing.

Chacra Zone gauged 890 MCFPD after flowing 30 hours. Mesa Verde Zone gauged 782 MCFPD after 24 hours with show of Oil. Chacra Shut In Pressure 960# after 24 hours. Mesa Verde Shut In Pressure 1017# after 24 hours.

We recommend breakdown for two Zones as follows:

Chacra 54% of all Gas.

Mesa Verde 46% of all Gas and all Oil.

Your very truly,

Charles Verquer  
Supt., Caulkins Oil Company



STATE OF NEW MEXICO  
 ENERGY AND MINERALS DEPARTMENT  
 OIL CONSERVATION DIVISION  
 State Land Office Building  
 Santa Fe, New Mexico  
 31 January 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Caulkins Oil Company  
 for dual completions and downhole  
 commingling, Rio Arriba County,  
 New Mexico.

CASE  
 6438

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
 Division:

Lynn Teschendorf, Esq.  
 Legal Counsel for the Division  
 State Land Office Bldg.  
 Santa Fe, New Mexico 87503

For the Applicant:

W. Thomas Kellahin, Esq.  
 KELLAHIN & KELLAHIN  
 500 Don Gaspar  
 Santa Fe, New Mexico 87501

**Nye Reporting Service, Inc.**  
 Certified Shorthand Reporters  
 621 Old Santa Fe Trail - Suite 7  
 Santa Fe, New Mexico 87501

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I N D E X

CHARLES VERQUER

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3  
1 MR. STAMETS: The hearing will please come to  
2 order. We will call at this time Case 6438.

3 MS. TESCHENDORF: Case 6438, application of the  
4 Caulkins Oil Company for dual completions and downhole com-  
5 mingling, Rio Arriba County, New Mexico.

6 MR. KELLAHIN: I'm Tom Kellahin, of Santa Fe,  
7 New Mexico, appearing on behalf of Caulkins Oil Company, and  
8 I have one witness.

9 (Witness sworn.)  
10

11 CHARLES VERQUER  
12 being called as a witness and having been duly sworn upon  
13 his oath, testified as follows, to-wit:  
14

15 DIRECT EXAMINATION  
16

17 BY MR. KELLAHIN:

18 Q Would you please state your name, by whom you  
19 are employed and in what capacity.

20 A My name is Charles Verquer. I am a superin-  
21 tendent with Caulkins Oil Company in the Farmington, New  
22 Mexico area.

23 Q Mr. Verquer, have you previously testified on  
24 behalf of Caulkins Oil Company before the Oil Conservation  
25 Division?

A I have.

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1 Q Have your qualifications as an expert witness  
2 been accepted and made a matter of record?

3 A They were.

4 MR. KELLAHIN: We tender Mr. Verquer as an  
5 expert.

6 MR. STAMETS: He is considered so-qualified.  
7 BY MR. KELLAHIN:

8 Q Would you refer to the plat we have marked as  
9 Exhibit Number One, Mr. Verquer, and identify that and tell  
10 us what Caulkins Oil Company is seeking?

11 A This is a map of the Caulkins property. The  
12 shaded area is all operated by Caulkins Oil Company. The  
13 wells identified by the arrows are the proposed wells in  
14 this hearing. Well No. 224-A in the northwest quarter of  
15 13-26-7 and in the southwest quarter of 18-26-6. Also  
16 identified on this map by just a circle in Section 5-26-6  
17 is Well No. 104, which is a commingled Chacra Mesaverde well  
18 that was proved one year ago.

19 Q Let's do that again, Mr. Verquer please. The  
20 first well is this Breech well No. 812 in unit N of Section  
21 18.

22 A Yes, sir.

23 Q What do you propose to do with that particular  
24 well?

25 A It is proposed to dig a well to the Dakota,

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1 then dual complete it as a single Dakota that would produce  
2 through the tubing and commingle with the Chacra-Mesaverde  
3 above it to produce through the tubing, commingled in the  
4 well-bore. Both wells would be the same.

5 Q The other well then is the 224-A well, located  
6 in unit B of Section 13?

7 A Unit D, yes, sir.

8 Q Is that unit D?

9 A It should be.

10 Q Yes, it says unit B on the advertisement.

11 MR. STAMETS: Does that change the offset  
12 operator in any way, shape or form, whether it's unit B or  
13 unit D?

14 MR. KELLAHIN: It does not, Mr. Examiner.

15 MR. STAMETS: We will amend the application to  
16 so reflect that it's unit D and not unit B.

17 BY MR. KELLAHIN:

18 Q All right, sir. Let's look at Exhibit Number  
19 Two and have you identify that.

20 A Exhibit Number Two is just a plat showing the  
21 direct offset wells in the 224-A.

22 Q What does the number indicate adjacent to the  
23 wells?

24 A The letters indicate what formation it's  
25 producing from and the number is the well number. For the

1 224 it's proposed that the Chacra-Mesaverde-Dakota and the  
2 little well right next to it is the Pictured Cliff number  
3 221. The 224-A will also be an infill Mesaverde well if this  
4 be approved. The 224 well is in unit A.

5 Q What is Exhibit Number Three?

6 A Exhibit Number Three is a plat for the Well  
7 No. 12.

8 Q I'm sorry. You have marked that as Exhibit  
9 2-A, have you not?

10 A Yes.

11 Q That's Exhibit 2-A, the plat for the Well 812?

12 A Yes.

13 Q What's Exhibit Number Three?

14 A Exhibit Number Three is a tabulation of the  
15 pressures and annual production in the Mesaverde and Chacra  
16 Zones in all the wells that are in those zones on that plat,  
17 on 2 and 2-A. Some of them are twenty years for the 224  
18 Mesaverde. The 307 Mesaverde is for approximately ten years.  
19 These Chacra wells we have are not quite that old. The  
20 oldest one is four year.

21 Q Let's look at Exhibit Number Four and have you  
22 identify the information contained on that exhibit.

23 A The information on this well is just the pro-  
24 duction and initial pressures and initial potential of the  
25 well that was commingled in the Chacra-Mesaverde. We

1 identified it on the Well No. 104 on Exhibit One with a  
2 circle around it. That's the well I plugged back and re-  
3 completed in the Chacra-Mesaverde and commingled them in  
4 1978. I had approval to do three, but only got one done in  
5 1978.

6 MR. STAMETS: Which well is that, sir.

7 MR. VERQUER: This Exhibit Four is for Well  
8 No. 104, with the circle around it in Section 5-26-6.

9 MR. STAMETS: Okay, all right. Exhibit Four.  
10 I'm with you now. I'm sorry I was behind.

11 BY MR. KELLAHIN:

12 Q The second page of Exhibit Number Four, what  
13 is that information?

14 A This is the information off of the well that  
15 was commingled; drilled and commingled in the well-bore of  
16 the Pictured Cliffs-Chacra-Mesaverde, I just added it to the  
17 information for this well. We're not asking for this  
18 Pictured Cliffs to be commingled in this, this is a record  
19 for the production for the Dakota Zone and the commingled  
20 zones from July through December of '78.

21 Q Let's start with the Breech-well No. 12. You  
22 are going to commingle the Chacra and the Mesaverde in that  
23 well?

24 A Yes, sir.

25 Q Let's look at that portion of Exhibit Number

1 Five that shows the diagram for the completion on that well.

2 A This is a diagram of the proposed dual comple-  
3 tion with a Packer set between the Mesaverde perforations  
4 and the Dakota perforations and tubing and seal set in that  
5 packer Dakota production would be separated completely to  
6 the surface from the upper completions. As you may notice,  
7 I propose to run seven-inch casings and cement in three stages  
8 to try to circle the cement to the surface.

9 Q Now, the Well No. 812 has not yet been drilled?

10 A Negative. Neither has the 224-A. Neither one  
11 has been drilled.

12 Q All right. By what method then do you propose  
13 to allocate the production between the Chacra and the Mesa-  
14 verde in each of those wells?

15 A From the tabulations of the Exhibit Number  
16 Three, I used the four-year average for the production of  
17 the Chacra and came up with 100 Mcf per day, is what the  
18 three wells averaged over -- one of them was 126 Mcf. The  
19 258 was 61. The other was 114. When you average that, you  
20 come up with 100 Mcf per day. The two Mesaverde in that  
21 same area, the 224 Well averaged 188 Mcf per day. But going  
22 in the other direction in Section 13, we had a Mesaverde  
23 well that produced only 18 Mcf per day, for an average of  
24 103 between the two.

25 I would propose a split of 50% of all the gas

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1 to the Chacra zone and 50% of all the gas and 100% of all  
2 oil to the Mesaverde zone on the basis of those tests.

3 Q That's your proposed allocation for each of  
4 those wells?

5 A For those wells, yes, sir.

6 Q Is the ownership in each of the wells common  
7 with regard to those formations?

8 A Yes, sir. Common working interest. Everything  
9 is common.

10 Q To your knowledge, does the Chacra formation  
11 in this particular area produce any fluids?

12 A Negative. It does not produce any fluid.  
13 After the frac water is dissipated, there's hardly any water  
14 produced from the Chacra zone.

15 Q It's the Mesaverde zone that does produce the  
16 fluids then?

17 A Yes.

18 Q Are there significant pressure differentials  
19 encountered between the Chacra and Mesaverde with regards  
20 to this particular area?

21 A It is less than 200 pounds. I don't have all  
22 the information with this, but I presented it at some hearings  
23 last year and between the Chacra and Mesaverde there is less  
24 than 200 pounds from initial, and we have rapidly got to  
25 approximately the same pressure. The Mesaverde is a little

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1 more permeable than the Chacra and it drops off a little  
2 faster. The Mesaverde is the highest of the two.

3 Q In your opinion then, the pressure differentials  
4 between the Chacra and the Mesaverde formation is sufficient-  
5 ly low enough that it will not damage either formation?

6 A That is correct. Should be a stipulation that  
7 it shouldn't be shut in too long. Seven days or so.

8 Q In your opinion, Mr. Verquer, is this the most  
9 efficient and economical way in which the Chacra, Mesaverde  
10 and Dakota formations can be produced in either of these  
11 wells?

12 A Yes, sir, it is. That is actually the main  
13 reason for going this route. The economics of it is that  
14 you can't drill a straight out Dakota in that one nor a  
15 straight Mesaverde.

16 Q At the second page of your Exhibit Number  
17 Five, this schematic, and that is the diagram on the Breech  
18 224-A well. Is there any differences in the completion of  
19 this well as opposed to the Breech 812 well?

20 A The only difference will be that the 224-A  
21 is going to be shallower by approximately 300 feet.

22 Q Were Exhibits One through Five prepared by  
23 you directly or compiled under your direction and supervision?

24 A They were.

25 Q In your opinion, Mr. Verquer, will approval of

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1 this application be in the best interests of conservation,  
2 prevention of waste and the protection of correlative rights?

3 A They will.

4 MR. KELLAHIN: That concludes my examination.  
5 I move the introduction of our Exhibits.

6 MR. STAMETS: These Exhibits will be admitted.  
7 Are there questions of Mr. Verquer? There will be some.

8 EXAMINATION

9 BY THE EXAMINER:

10 Q Mr. Verquer, these will both be new wells in  
11 the Mesaverde. One of them an infill well and the other  
12 appears to be a new well. Have you drilled any Mesaverde  
13 wells in this area recently?

14 A No, sir. We did complete one in the Mesaverde  
15 that we commingled a year ago, which is in the northeast  
16 quarter of Section 18, the Well No. 228. They're really  
17 dog land is what it amounts to. We can't anticipate too  
18 much production. The Pictured Cliffs-Chacra and Mesaverde  
19 is producing approximately 400,000 now after producing  
20 six months -- a day, but it's on a rapid decline. I anti-  
21 cipate it will level out at probably 200,000 a day.

22 Q I'm just wondering if you had any information  
23 of what might be expected in the way of initial pressures  
24 in Mesaverde?

25 A For a single Mesaverde?

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1 Q Yes.

2 A Nothing except initial pressure which was  
3 taken ten years ago -- that was a single Mesaverde -- as  
4 shown on Exhibit -- this one here isn't affected so terribly.  
5 This is Exhibit Number Three. The Mesaverde pressures  
6 started out at 588, 524, 626, then jumped to 859. And down  
7 there ten years we're back up to 774 again. Then it has  
8 just tapered off immensely. That one there has commingled  
9 now with the Dakota, that this Mesaverde has. We have no  
10 way of checking the pressure. At the time those pressures  
11 were taken, there was probably quite a lot of fluid in the  
12 wells which affected the surface pressures.

13 Q You have a number of owners that authorized a  
14 lot of downhole commingling in this area?

15 A Yes, sir.

16 Q Are these two zones that have not been author-  
17 ized in general for commingling, or are you only here for  
18 the dual completion?

19 A We're out of the area that was authorized for  
20 the Chacra-Mesaverde.

21 Q Where does that end?

22 A It's in 27-6 isn't it? Rincon Unit generally  
23 is out of it and everything that borders us on the north is  
24 Rincon Unit. Eleven and Twelve there is Rincon Unit. I  
25 think that the authorization came into Section 25 -- 26

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1 26 north -- 27 north 6 west and then went north from there.  
2 Just on the corner, the northeast-most corner of our property  
3 is where that order was written for. We would like to see it  
4 the other direction.

5 Q How were you planning to complete these wells?  
6 Will you be able to get a indication of the pressure and the  
7 production from the Mesaverde or Chacra independently, or  
8 are you going to poke holes in it all at one time?

9 A It will be -- the way I completed them a year  
10 ago was just one right after another, which did not give me  
11 any information except for a pickup in gas as we unloaded the  
12 hole, cleaning it up. That was all, the only indication that  
13 we had that we had Mesaverde production, in other words. Of  
14 course, the Mesaverde makes some oil, and you will have that  
15 when you pick up the Mesaverde. It's dog land. These two  
16 Chacra-Mesaverde, if they make 200,000 a day, we will be more  
17 than happy. I anticipate a hundred thousand from the  
18 commingled production.

19 Q Would you object to a provision in the order  
20 that if you wind up with a well that has a very high poten-  
21 tial, or a well that has very high pressures, that you would  
22 be required to test such a well and determine where in the  
23 production the pressure was coming from and report the same  
24 to the Division for possible remedial action?

25 A I think it would be a very good idea. Set a

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1 limit somewhere so that if the well produced, say, over  
2 500,000 into the line, we should be looking at it; or a  
3 million or something or another. I am going to run seven-  
4 inch casing and that is another reason for that. I would  
5 have room to trim completely then.

6 Q I think perhaps we can do this just simply by  
7 allowing you to consult with the District Supervisor and  
8 if he sees anything that he's concerned about, he can relay  
9 that to the Director.

10 A All right.

11 Q Now, the 50/50 gas split and the 100% oil is  
12 all based on the wells shown on Exhibit Three, is that cor-  
13 rect?

14 A Yes, sir.

15 Q Why were those wells selected for this?

16 A They are direct off-set wells right in the  
17 area. The 224 Well is in unit A of Section 13 and the 307  
18 Well should be in unit M of 13.

19 Q These are the closest wells to the proposed  
20 well?

21 A Yes, sir.

22 Q If those zones producing?

23 A Yes, sir.

24 MR. STAMETS: Okay. Any other questions of the  
25 witness? He may be excused. Anything further in this case?

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1 Take the case under advisement.

2 (Hearing Concluded.)

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REPORTER'S CERTIFICATE

I, STEFANIE XANTHULL, a court reporter, DO HEREBY  
CERTIFY that the foregoing and attached Transcript of  
Hearing before the Oil Conservation Division was reported  
by me; that the said transcript is a full, true, and correct  
record of the hearing, prepared by me to the best of my  
ability, knowledge, and skill, from my notes taken at the  
time of the hearing.

*Stefanie Xanthull*  
STEFANIE XANTHULL, C.S.R.

I do hereby certify that the foregoing is  
a complete report of the proceedings in  
the Examiner hearing on Case No. 6438  
heard by me on 7-31-79.  
*Richard L. Slam*, Examiner  
Oil Conservation Division

**Nye Reporting Service, Inc.**  
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STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
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State Land Office Building  
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31 January 1979

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Lynn Teschendorf, Esq.  
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## I N D E X

CHARLES VERQUER

PAGE

Direct Examination by Mr. Kellahin

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Examination by Mr. Stamets

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## E X H I B I T S

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Exhibit Number Two-A, Plat of Well No. 812

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9 (Witness sworn.)

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2 through the tubing and commingle with the Chacra-Mesaverde  
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4 well-bore. Both wells would be the same.

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18 Q All right, sir. Let's look at Exhibit Number  
19 Two and have you identify that.

20 A Exhibit Number Two is just a plat showing the  
21 direct offset wells in the 224-A.

22 Q What does the number indicate adjacent to the  
23 wells?

24 A The letters indicate what formation it's  
25 producing from and the number is the well number. For the

1 224 it's proposed that the Chacra-Mesaverde-Dakota and the  
2 little well right next to it is the Pictured Cliff number  
3 221. The 224-A will also be an infill Mesaverde well if this  
4 be approved. The 224 well is in unit A.

5 Q What is Exhibit Number Three?

6 A Exhibit Number Three is a plat for the Well  
7 No. 12.

8 Q I'm sorry. You have marked that as Exhibit  
9 2-A, have you not?

10 A Yes.

11 Q That's Exhibit 2-A, the plat for the Well 812?

12 A Yes.

13 Q What's Exhibit Number Three?

14 A Exhibit Number Three is a tabulation of the  
15 pressures and annual production in the Mesaverde and Chacra  
16 Zones in all the wells that are in those zones on that plat,  
17 on 2 and 2-A. Some of them are twenty years for the 224  
18 Mesaverde. The 307 Mesaverde is for approximately ten years.  
19 These Chacra wells we have are not quite that old. The  
20 oldest one is four year.

21 Q Let's look at Exhibit Number Four and have you  
22 identify the information contained on that exhibit.

23 A The information on this well is just the pro-  
24 duction and initial pressures and initial potential of the  
25 well that was commingled in the Chacra-Mesaverde. We

1 identified it on the Well No. 104 on Exhibit One with a  
2 circle around it. That's the well I plugged back and re-  
3 completed in the Chacra-Mesaverde and commingled them in  
4 1978. I had approval to do three, but only got one done in  
5 1978.

6 MR. STAMETS: Which well is that, sir.

7 MR. VERQUER: This Exhibit Four is for Well  
8 No. 104, with the circle around it in Section 5-26-6.

9 MR. STAMETS: Okay, all right. Exhibit Four.  
10 I'm with you now. I'm sorry I was behind.

11 BY MR. KELLAHIN:

12 Q The second page of Exhibit Number Four, what  
13 is that information?

14 A This is the information off of the well that  
15 was commingled; drilled and commingled in the well-bore of  
16 the Pictured Cliffs-Chacra-Mesaverde, I just added it to the  
17 information for this well. We're not asking for this  
18 Pictured Cliffs to be commingled in this, this is a record  
19 for the production for the Dakota Zone and the commingled  
20 zones from July through December of '78.

21 Q Let's start with the Breech-well No. 12. You  
22 are going to commingle the Chacra and the Mesaverde in that  
23 well?

24 A Yes, sir.

25 Q Let's look at that portion of Exhibit Number

1 Five that shows the diagram for the completion on that well.

2 A This is a diagram of the proposed dual comple-  
3 tion with a Packer set between the Mesaverde perforations  
4 and the Dakota perforations and tubing and seal set in that  
5 packer Dakota production would be separated completely to  
6 the surface from the upper completions. As you may notice,  
7 I propose to run seven-inch casings and cement in three stages  
8 to try to circle the cement to the surface.

9 Q Now, the Well No. 812 has not yet been drilled?

10 A Negative. Neither has the 224-A. Neither one  
11 has been drilled.

12 Q All right. By what method then do you propose  
13 to allocate the production between the Chacra and the Mesa-  
14 verde in each of those wells?

15 A From the tabulations of the Exhibit Number  
16 Three, I used the four-year average for the production of  
17 the Chacra and came up with 100 Mcf per day, is what the  
18 three wells averaged over -- one of them was 126 Mcf. The  
19 258 was 61. The other was 114. When you average that, you  
20 come up with 100 Mcf per day. The two Mesaverde in that  
21 same area, the 224 Well averaged 188 Mcf per day. But going  
22 in the other direction in Section 13, we had a Mesaverde  
23 well that produced only 18 Mcf per day, for an average of  
24 103 between the two.

25 I would propose a split of 50% of all the gas

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1 to the Chacra zone and 50% of all the gas and 100% of all  
2 oil to the Mesaverde zone on the basis of those tests.

3 Q That's your proposed allocation for each of  
4 those wells?

5 A For those wells, yes, sir.

6 Q Is the ownership in each of the wells common  
7 with regard to those formations?

8 A Yes, sir. Common working interest. Everything  
9 is common.

10 Q To your knowledge, does the Chacra formation  
11 in this particular area produce any fluids?

12 A Negative. It does not produce any fluid.  
13 After the frac water is dissipated, there's hardly any water  
14 produced from the Chacra zone.

15 Q It's the Mesaverde zone that does produce the  
16 fluids then?

17 A Yes.

18 Q Are there significant pressure differentials  
19 encountered between the Chacra and Mesaverde with regards  
20 to this particular area?

21 A It is less than 200 pounds. I don't have all  
22 the information with this, but I presented it at some hearings  
23 last year and between the Chacra and Mesaverde there is less  
24 than 200 pounds from initial, and we have rapidly got to  
25 approximately the same pressure. The Mesaverde is a little

1 more permeable than the Chacra and it drops off a little  
2 faster. The Mesaverde is the highest of the two.

3 Q In your opinion then, the pressure differentials  
4 between the Chacra and the Mesaverde formation is sufficient-  
5 ly low enough that it will not damage either formation?

6 A That is correct. Should be a stipulation that  
7 it shouldn't be shut in too long. Seven days or so.

8 Q In your opinion, Mr. Verquer, is this the most  
9 efficient and economical way in which the Chacra, Mesaverde  
10 and Dakota formations can be produced in either of these  
11 wells?

12 A Yes, sir, it is. That is actually the main  
13 reason for going this route. The economics of it is that  
14 you can't drill a straight out Dakota in that one nor a  
15 straight Mesaverde.

16 Q At the second page of your Exhibit Number  
17 Five, this schematic, and that is the diagram on the Breech  
18 224-A well. Is there any differences in the completion of  
19 this well as opposed to the Breech 812 well?

20 A The only difference will be that the 224-A  
21 is going to be shallower by approximately 300 feet.

22 Q Were Exhibits One through Five prepared by  
23 you directly or compiled under your direction and supervision?

24 A They were.

25 Q In your opinion, Mr. Verquer, will approval of

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1 this application be in the best interests of conservation,  
2 prevention of waste and the protection of correlative rights?

3 A They will.

4 MR. KELLAHIN: That concludes my examination.  
5 I move the introduction of our Exhibits.

6 MR. STAMETS: These Exhibits will be admitted.  
7 Are there questions of Mr. Verquer? There will be some.

8 EXAMINATION

9 BY THE EXAMINER:

10 Q Mr. Verquer, these will both be new wells in  
11 the Mesaverde. One of them an infill well and the other  
12 appears to be a new well. Have you drilled any Mesaverde  
13 wells in this area recently?

14 A No, sir. We did complete one in the Mesaverde  
15 that we commingled a year ago, which is in the northeast  
16 quarter of Section 18, the Well No. 228. They're really  
17 dog land is what it amounts to. We can't anticipate too  
18 much production. The Pictured Cliffs-Chacra and Mesaverde  
19 is producing approximately 400,000 now after producing  
20 six months -- a day, but it's on a rapid decline. I anti-  
21 cipate it will level out at probably 200,000 a day.

22 Q I'm just wondering if you had any information  
23 of what might be expected in the way of initial pressures  
24 in Mesaverde?

25 A For a single Mesaverde?

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1 Q Yes.

2 A Nothing except initial pressure which was  
3 taken ten years ago -- that was a single Mesaverde -- as  
4 shown on Exhibit -- this one here isn't affected so terribly.  
5 This is Exhibit Number Three. The Mesaverde pressures  
6 started out at 588, 524, 626, then jumped to 859. And down  
7 there ten years we're back up to 774 again. Then it has  
8 just tapered off immensely. That one there has commingled  
9 now with the Dakota, that this Mesaverde has. We have no  
10 way of checking the pressure. At the time those pressures  
11 were taken, there was probably quite a lot of fluid in the  
12 wells which affected the surface pressures.

13 Q You have a number of owners that authorized a  
14 lot of downhole commingling in this area?

15 A Yes, sir.

16 Q Are these two zones that have not been author-  
17 ized in general for commingling, or are you only here for  
18 the dual completion?

19 A We're out of the area that was authorized for  
20 the Chacra-Mesaverde.

21 Q Where does that end?

22 A It's in 27-6 isn't it? Rincon Unit generally  
23 is out of it and everything that borders us on the north is  
24 Rincon Unit. Eleven and Twelve there is Rincon Unit. I  
25 think that the authorization came into Section 25 -- 26

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1 26 north -- 27 north 6 west and then went north from there.  
2 Just on the corner, the northeast-most corner of our property  
3 is where that order was written for. We would like to see it  
4 the other direction.

5 Q How were you planning to complete these wells?  
6 Will you be able to get a indication of the pressure and the  
7 production from the Mesaverde or Chacra independently, or  
8 are you going to poke holes in it all at one time?

9 A It will be -- the way I completed them a year  
10 ago was just one right after another, which did not give me  
11 any information except for a pickup in gas as we unloaded the  
12 hole, cleaning it up. That was all, the only indication that  
13 we had that we had Mesaverde production, in other words. Of  
14 course, the Mesaverde makes some oil, and you will have that  
15 when you pick up the Mesaverde. It's dog land. These two  
16 Chacra-Mesaverde, if they make 200,000 a day, we will be more  
17 than happy. I anticipate a hundred thousand from the  
18 commingled production.

19 Q Would you object to a provision in the order  
20 that if you wind up with a well that has a very high poten-  
21 tial, or a well that has very high pressures, that you would  
22 be required to test such a well and determine where in the  
23 production the pressure was coming from and report the same  
24 to the Division for possible remedial action?

25 A I think it would be a very good idea. Set a

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1 limit somewhere so that if the well produced, say, over  
2 500,000 into the line, we should be looking at it; or a  
3 million or something or another. I am going to run seven-  
4 inch casing and that is another reason for that. I would  
5 have room to trim completely then.

6 Q I think perhaps we can do this just simply by  
7 allowing you to consult with the District Supervisor and  
8 if he sees anything that he's concerned about, he can relay  
9 that to the Director.

10 A All right.

11 Q Now, the 50/50 gas split and the 100% oil is  
12 all based on the wells shown on Exhibit Three, is that cor-  
13 rect?

14 A Yes, sir.

15 Q Why were those wells selected for this?

16 A They are direct off-set wells right in the  
17 area. The 224 Well is in unit A of Section 13 and the 307  
18 Well should be in unit M of 13.

19 Q These are the closest wells to the proposed  
20 well?

21 A Yes, sir.

22 Q If those zones producing?

23 A Yes, sir.

24 MR. STAMETS: Okay. Any other questions of the  
25 witness? He may be excused. Anything further in this case?

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1 Take the case under advisement.

2 (Hearing Concluded.)

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REPORTER'S CERTIFICATE

I, STEFANIE XAHNTULL, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

STEFANIE XANTHULL, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6438, heard by me on 1-31-1979.  
*Richard H. [Signature]*, Examiner  
Oil Conservation Division

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STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6438  
Order No. R-5922

APPLICATION OF CAULKINS OIL COMPANY  
FOR DUAL COMPLETIONS AND DOWNHOLE  
COMMINGLING, RIO ARriba COUNTY,  
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on January 31, 1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 20th day of February, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Caulkins Oil Company, seeks authority to complete its Breech Well No. 812 located in Unit N of Section 18, Township 26 North, Range 6 West, and its Breech Well No. 224-A, located in Unit D of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, each as a dual completion (conventional) to produce gas from the Dakota formation through one string of tubing and to produce commingled Chacra and Mesaverde gas production through a second string of tubing.
- (3) That from the Chacra zone, the subject well is expected to be capable of low marginal production only.
- (4) That from the Mesaverde zone, the subject well is expected to be capable of low marginal production only.

(5) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(6) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that neither of the wells is shut-in for an extended period.

(7) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division of the pressure and productivity encountered upon completion and to further notify said district office any time either of the subject wells is shut-in for 7 consecutive days thereafter.

(8) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

(9) That the Director of the Division should be authorized to rescind the commingling authority granted by this order whenever it appears that waste would be prevented thereby.

(10) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(11) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to complete its Breech Well No. 812 located in Unit N of Section 18, Township 26 North, Range 6 West, and its Breech Well No. 224-A, located in Unit D of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, each as a dual completion (conventional) to produce gas from the Dakota formation through one string of tubing and to produce Chacra and Mesaverde gas production, hereby authorized to be commingled in the wellbore, through a second string of tubing with separation of the Dakota zone from the other zones achieved by means of a packer set at approximately 5400 feet and 5100 feet, respectively.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said wells in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

-3-

Case No. 6438  
Order No. R-5922

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for gas wells in North-west New Mexico.

(2) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine a formula for the allocation of production to the Chacra and Mesaverde zones in each of the subject wells following completion of such well and submittal of pressure and potential data.

(3) That the operator of the subject wells shall immediately notify the Division's Aztec district office any time either of the wells has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That the Director of the Division may rescind the authority to commingle the Chacra and Mesaverde zones in either or both of said wells if it appears that waste will be prevented thereby.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



*Joe D. Ramey*  
JOE D. RAMEY  
Director

fd/



CAULKINS OIL COMPANY  
Breech 812 - 224 A

Case No.

Proposal

Dual Complete Dakota and Commingled Chacra and Mesa Verde.

Ownership and all working interests common for both of these wells.

Exhibit # 1

Section map showing all Caulkins Wells, proposed wells and all offset wells.

Exhibit # 2

Plat for 224-A showing well location, direct offset wells in Sections 12, 13, 24 and East half 11, 14, and 23 all in 26 North 7 West Rio Arriba County, New Mexico.

Exhibit # 2 A

Plat for 812 showing well location, direct offset wells in Sections 7, 18 and 19 all in 26 North 6 West and East half of Sections 12, 13, 14 all in 26 North 7 West Rio Arriba County, New Mexico.

Exhibit # 3

Individual well records for direct offset wells Chacra and Mesa Verde Zones.

Proposed Production split.

CAULKINS OIL COMPANY  
Breech 812 - 224 A

Case No.

Exhibit # 4

Production and pressure information for Well No. 104, Commingled  
Chacra-Mesa Verde during 1978. Approved R-5647.

Production and pressure information for Well No. 228, Commingled  
Pictured Cliffs, Chacra and Mesa Verde.

Exhibit # 5

Diagram showing proposed Commingling and Dual Completion.

CAULKINS OIL COMPANY  
Breach §12 - 224 A

Case No.

Proposal

Dual Complete Dakota and Commingled Chacra and Mesa Verde.

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Plat for 224-A showing well location, direct offset wells in Sections 12, 13, 24 and East half 11, 14, and 23 all in 26 North 7 West Rio Arriba County, New Mexico.

Exhibit # 2 A

Plat for §12 showing well location, direct offset wells in Sections 7, 18 and 19 all in 26 North 6 West and East half of Sections 12, 13, 14 all in 26 North 7 West Rio Arriba County, New Mexico.

Exhibit # 3

Individual well records for direct offset wells Chacra and Mesa Verde Zones.

Proposed Production split.

CAULKINS OIL COMPANY  
Breech 812 - 224 A

Case No.

Exhibit # 4

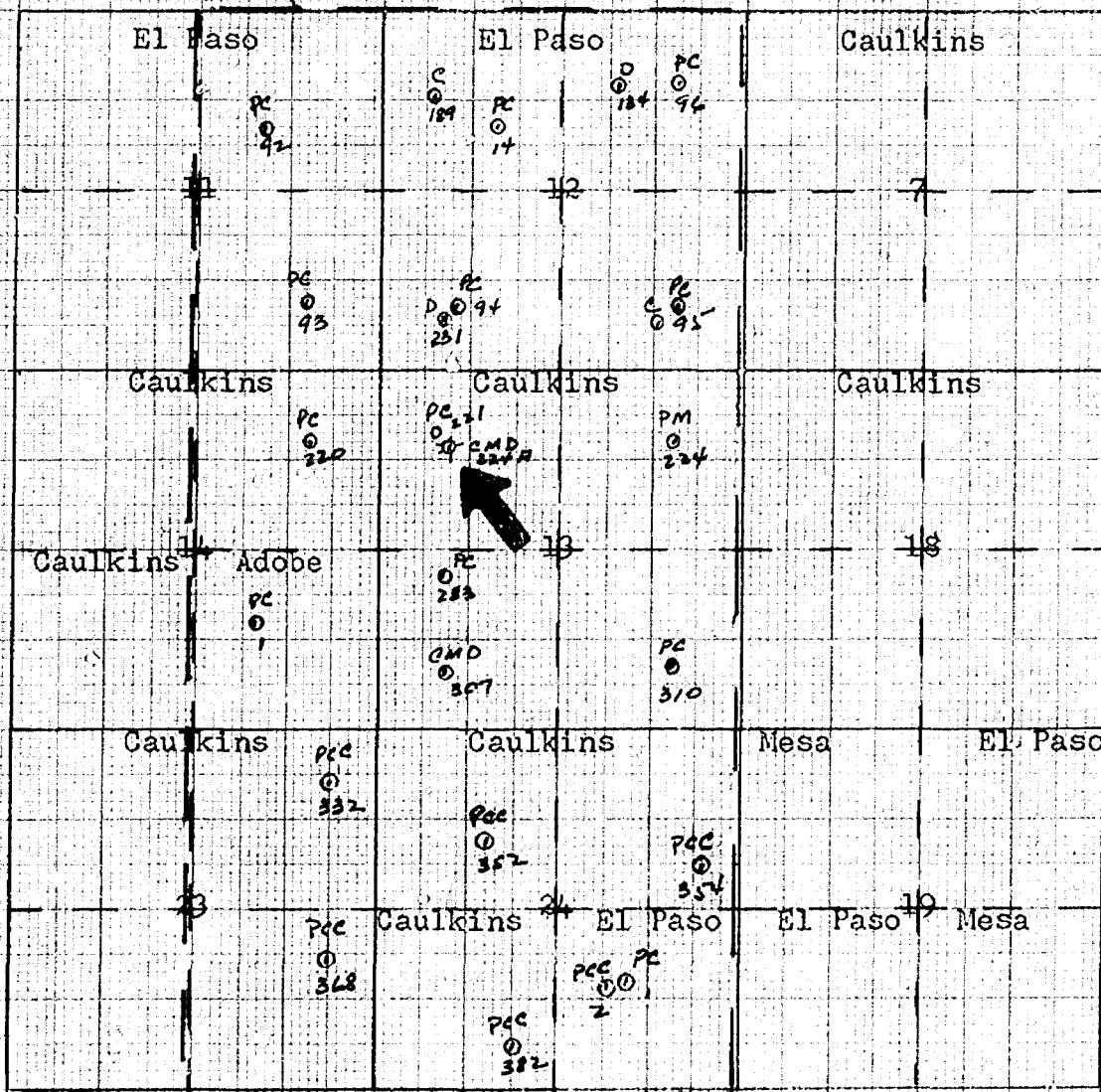
Production and pressure information for Well No. 104, Commingled  
Chacra-Mesa Verde during 1978 Approved R-5647.

Production and pressure information for Well No. 228, Commingled  
Pictured Cliffs, Chacra and Mesa Verde.

Exhibit # 5

Diagram showing proposed Commingling and Dual Completion.

CAULKINS OIL COMPANY  
 Breech 224A  
 Unit D Section 13 26N 7W  
 Rio Arriba County, New Mexico



pc Pictured Cliffs  
 pd Pictured Cliffs - Dakota  
 pcc Pictured Cliffs - Chacra  
 pm Pictured Cliffs - Mesa Verde  
 cmd Chacra - Mesa Verde - Dakota

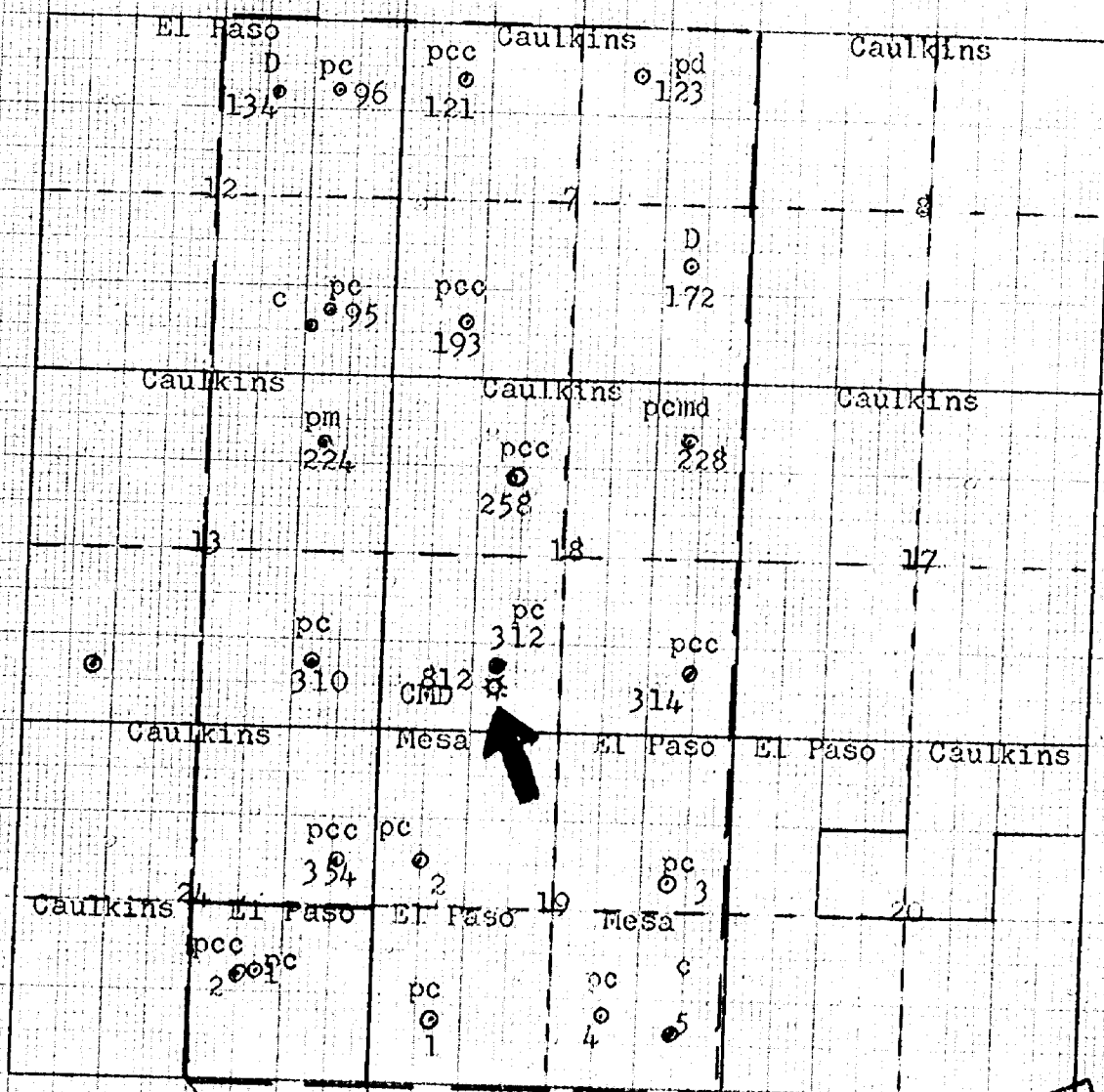
BEFORE EXAMINED  
 ON COMPLETION OF  
 2

6438  
 1-21-78

46 1473

19 X 19 TO 1/4 INCH 7 1/2 X 19 INCHES  
 REUFEL & ESSER CO. MADE IN U.S.A.

CAULKINS OIL COMPANY  
 Breech 812  
 Unit N Section 18 26N 6W  
 Rio Arriba County, New Mexico



d Dakota  
 pc Pictured Cliffs  
 pcc Pictured Cliffs - Chacra  
 pd Pictured Cliffs - Dakota  
 pm Pictured Cliffs - Mesa Verde  
 cmd Chacra - Mesa Verde - Dakota  
 c Chacra

BEFORE EXAMINER STAMPS  
 OIL COMMISSION  
 6438  
 1-31-78

46 1473

10 X 10 TO 1/4 INCHES  
 NEUTEL & ESSER CO. MADE IN U.S.A.

Wells 224 A - 812

Exhibit # 3

# Chacra

Mesa Verde

	314	258	354	224	307
	Pressure Prod.	Pressure Prod.	Pressure Prod.	Gas Prod.	Oil Prod.
59				588	1193
60				524	650
61				626	318
62				859	143
63				662	92
64				864	134
65				862	251
66				685	462
67				774	497
68				707	557
69				645	698
70				625	620
71				643	586
72				587	765
73				459	544
74			955	503	532
75		895	657	417	728
76		641	416		763
77	1,003	15,012	403	450	316
78	435	46,294	407		339
					273
					*920
					*854
					9,078
					8,199
					9,093
					6,164
					8,802
					15,621
					19,040
					12,790
					8,612
					4,055
					7,749

\*Commingle with Dakota 1977

1 Year Average

126 MCFPD.

61 MCFPD.

114 MCFPD.

Last 3 Year Average

188 MCFPD.

18 MCFPD.

3. Wells Average 100 MCFPD.

2 Wells Average 103 MCFPD.

commend production be split.

50% of all gas to Chacra Zone.

50% of all gas and 100% of all oil to Mesa Verde Zone.

CAULKINS OIL COMPANY  
Breech E 104  
Unit P Sec. 5 26N 8E

BEFORE FMA REVENUE  
OIL COMPANY  
Case No. 6438  
Hearing Date 1-23-78

Exhibit # 4

Chacra, Mesa Verde Commingled Order No. R-5647, approved  
21st February 1978.

9-7-78	Initial Pressure	1198
9-7-78	Initial Potential	951

Connected to pipeline 9-27-78.

1978 Deliverability Test.

Rate of Flow during Test.

7 Day Shut in Pressure after Test.

October 1978 Gas Production	2444 MCF.
November 1978 Gas Production	3493 MCF.
December 1978 Gas Production	5766 MCF.

Above order approved 40% Gas to Chacra and 60% Gas and 100%  
Oil to Mesa Verde.

Oil Production from well less than 5bbbls per month.



CAULKINS OIL COMPANY  
Breech 224 & 812

Case No.

Exhibit # 4

Production records for Well No. 228 Commingled Order No. 5634,  
located  $1\frac{1}{4}$  miles east of this well.

Dakota Initial Potential	7-3-78	1,683 MCFPD.
Dakota Initial Shut in Press	7-3-78	1975 #
Commingled Initial Potential	6-26-78	3,132 MCFPD.
Commingled Initial Shut in Press	6-26-78	794 #

Dakota Zone connected to line 7-17-78.

Commingled Zones connected to line 8-3-78.

	Dakota Zones	Commingled Zones
July 1978	3421	
August	7403	3925
September	8509	4041
October	8909	2676
November	7138	4062
December	6682	4169
Cum. Total	42,062	18,873

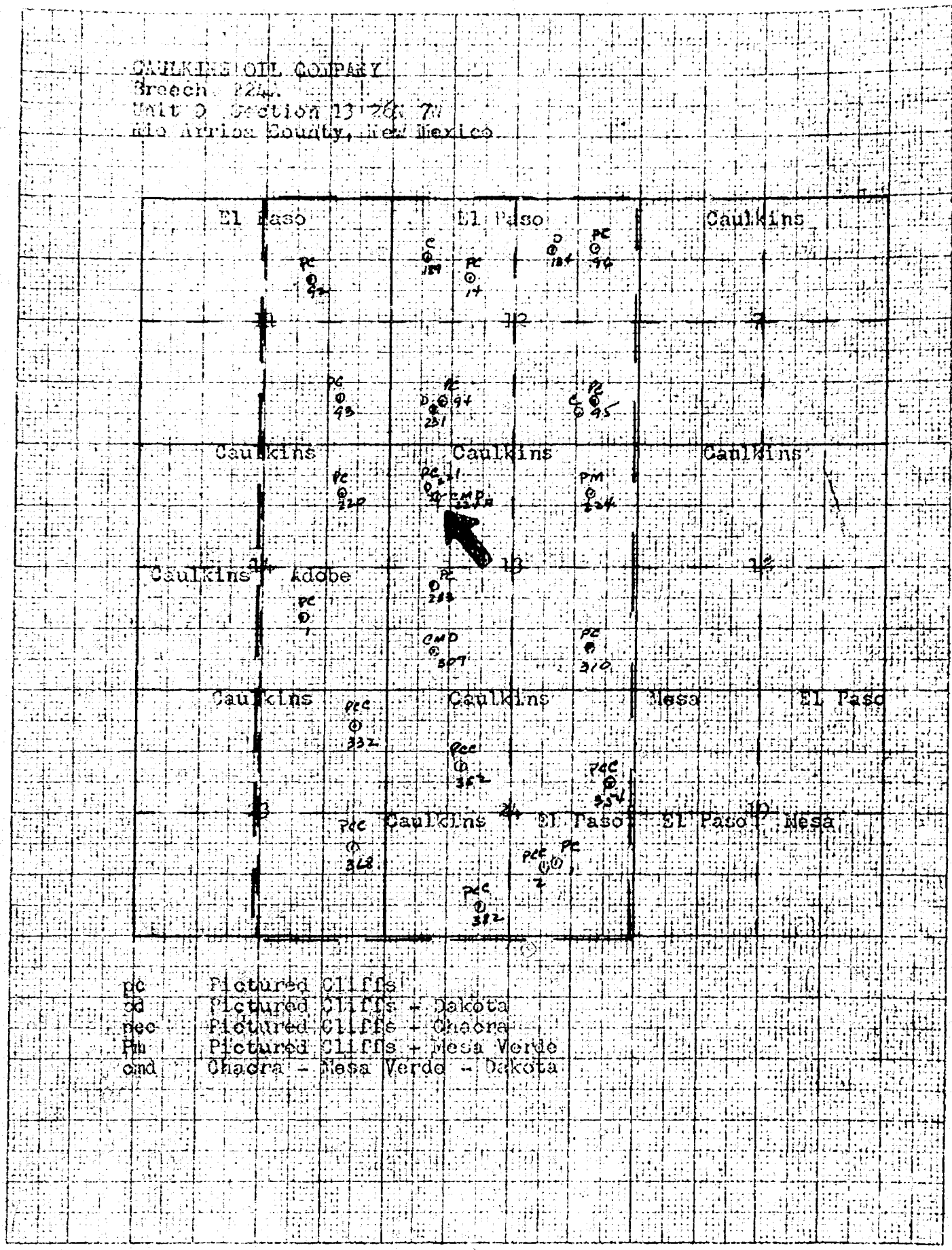
Deliverability Tests

Pressure	1635	685
Rate of Flow	202	245
Deliverability	168	135

6438  
612

46 1473

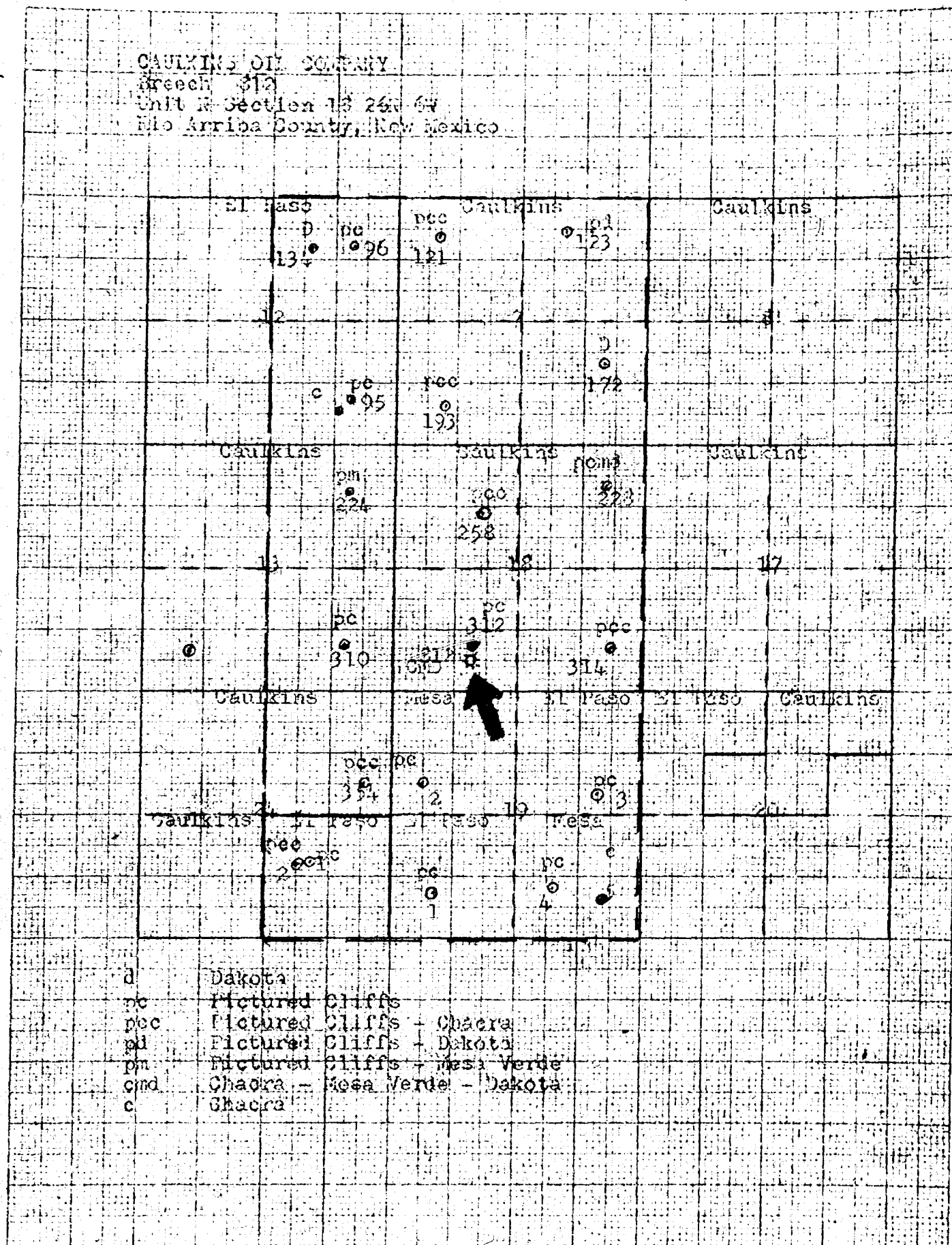
K-E 10 X 10 TO 1/2 INCH • 7 1/2 X 11 INCHES  
KEUFFEL & ESSER CO. MADE IN U.S.A.



6438  
W 2-A

46 1473

**3-X-3**  
10 X 10 TO 15 INCH • 7/8 X 10 INCHES  
KEUFFEL & ESSER CO  
MADE IN U.S.A.



Wells 224 A - 812

Case.No. 6438

Ex 3

ibit # 3

Chacra

Mesa Verde

314			258			354			224			307		
Pressure	Prod.		Pressure	Prod.		Pressure	Prod.		Pressure	Gas Prod.	Oil Prod.	Pressure	Gas Prod.	Oil Prod.
									588	49,150	1193			
									524	64,495	650			
									626	50,988	318			
									859	42,456	143			
									662	28,665	92			
									864	60,447	134			
									862	45,833	251			
									685	76,686	462			
									774	79,189	497			
									707	80,033	557	1,004	9,078	
									645	84,438	698	809	8,199	
									625	87,732	620	778	9,093	
									643	91,987	586	765	6,164	
									587	89,778	544	769	8,802	
									459	85,465	532	728	15,621	
									503	83,893	262	763	19,040	
									417	67,637	316	694	12,790	
									450	68,367	339	573	8,612	
										75,932	273	*920	4,055	
												*854	7,749	
1,003	15,012	895				955								
435	46,294	641				657	62,850							
		487		5,748	416	46,233								
		407		28,679	403	45,481								
				15,969		33,365								

\*Commingled with Dakota 1977

Year Average

Last 3 Year Average

126 MCFPD.

61 MCFPD.

114 MCFPD.

188 MCFPD.

18 MCFPD.

3 Wells Average 100 MCFPD.

2 Wells Average 103 MCFPD.

Recommend production be split.

50% of all gas to Chacra Zone.

50% of all gas and 100% of all oil to Mesa Verde Zone.

CAULKINS OIL COMPANY

Breech E 104

Unit P Sec. 5 26N 6W

Case No. 6138

EA 7

Exhibit # 4

Chacra, Mesa Verde Commingled Order No. R-5647, approved  
21st February 1978.

9-7-78	Initial Pressure	1198
9-7-78	Initial Potential	951

Connected to pipeline 9-27-78.

1978 Deliverability Test.

Rate of Flow during Test.

7 Day Shut in Pressure after Test.

October 1978 Gas Production	2444 MCF.
November 1978 Gas Production	3493 MCF.
December 1978 Gas Production	5766 MCF.

Above order approved 40% Gas to Chacra and 60% Gas and 100%  
Oil to Mesa Verde.

Oil Production from well less than 5bbbls per month.

CAULKINS OIL COMPANY  
Breech 224 & 312

Case No.

Exhibit # 4

Production records for Well No. 223 Commingled Order No. 5634,  
located  $1\frac{1}{4}$  miles east of this well.

Dakota Initial Potential	7-3-78	1,683 MCFPD.
Dakota Initial Shut in Press	7-3-78	1975 #
Commingled Initial Potential	6-26-78	3,132 MCFPD.
Commingled Initial Shut in Press	6-26-78	794 #

Dakota Zone connected to line 7-17-78.

Commingled Zones connected to line 8-3-78.

	Dakota Zones	Commingled Zones
July 1978	3421	
August	7403	3925
September	8509	4041
October	8909	2676
November	7138	4062
December	6682	4169
Cum. Total	42,062	18,873

Deliverability Tests

Pressure	1635	685
Rate of Flow	202	245
Deliverability	168	135

Dockets Nos. 5-79 and 6-79 are tentatively set for hearing on February 14 and 28, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 31, 1979

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 6422: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Helton Engineering & Geological Services, Inc., Travelers Indemnity Company, and all other interested parties to appear and show cause why the Brent Well No. 1 located in Unit M of Section 29 and the Brent Well No. 3 located in Unit G of Section 19, both in Township 13 North, Range 6 East, Sandoval County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6415: (Continued from January 17, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp thru Devonian formations underlying the W/2 of Section 20, Township 14 South, Range 36 East, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6419: (Continued from January 17, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Lanning JC Well No. 1 located in Unit B of Section 7, Township 18 South, Range 26 East, Eagle Creek Field, Eddy County, New Mexico, to produce gas from the Strawn formation through the casing-tubing annulus and from the Morrow formation through tubing.

CASE 6423: Application of Yates Petroleum Corporation for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jackson AT Well No. 9 located 650 feet from the South and West lines of Section 13, Township 17 South, Range 25 East, Eddy County, New Mexico, to test the Wolfcamp, Pennsylvanian, and Mississippian formations, the S/2 of said Section 13 to be dedicated to the well.

CASE 6424: Application of Yates Petroleum Corporation for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Superior Fed. KJ Well No. 1 located 990 feet from the North and West lines of Section 7, Township 20 South, Range 29 East, Eddy County, New Mexico, to test the Wolfcamp and Pennsylvanian formations, the N/2 of said Section 7 to be dedicated to the well.

CASE 6425: Application of T. B. Knox Estate for exception to Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing/cementing rules for the Oil-Potash Area as promulgated by Order No. R-111-A to permit its Lucia Brookes Well No. 2 located in Unit K of Section 14, Township 18 South, Range 30 East, Eddy County, New Mexico, to be completed in the following manner: set surface casing and circulate cement; eliminate salt protection string; and do not circulate cement on production casing.

CASE 6426: Application of C. W. Trainer for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be located 660 feet from the North and West lines of Section 24, Township 20 South, Range 32 East, South Salt Lake-Morrow Pool, Lea County, New Mexico, the N/2 of said Section 24 to be dedicated to the well.

CASE 6427: Application of Caribou Four Corners, Inc., for an unorthodox well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Caribou/Kirtland Well No. 1 to be located 1214 feet from the North line and 650 feet from the East line of Section 13, Township 29 North, Range 15 West, Cha Cha-Gallup Pool, San Juan County, New Mexico, the E/2 NE/4 to be dedicated to the well.

CASE 6428: Application of Mobil Oil Corporation for the amendment of Order No. R-5801, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5801 to delete the requirements for lined tubing in injection wells in the North Vacuum Abo East Pressure Maintenance Project, Lea County, New Mexico.



- CASE 6429:** Application of Zia Energy, Inc., for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its Elliott State Well No. 2 to be located in Unit B of Section 34, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6430:** Application of Phoenix Resources Company for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Buckhorn Canyon Unit Area comprising 23,009 acres, more or less, of Federal and state lands in Township 19 South, Ranges 19 and 20 East, Chaves County, New Mexico.
- CASE 6431:** Application of HNG Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 35, Township 23 South, Range 28 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6432:** Application of John Yuronka for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Langlie Mattix Pool underlying the NE/4 NW/4 and the SE/4 NW/4 of Section 29, Township 24 South, Range 37 East, Lea County, New Mexico, to form two 40-acre units, each to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the wells and a charge for risk involved in drilling said wells.
- CASE 6433:** Application of Cities Service Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formations underlying the S/2 of Section 8, Township 23 South, Range 28 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6434:** Application of Amerada Hess Corporation for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its State "O" Well No. 5 to be located in Unit H of Section 30, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6435:** Application of Amerada Hess Corporation for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its W. A. Weir "B" Well No. 3 located in Unit B of Section 26, Township 19 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6436:** Application of Amerada Hess Corporation for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its State "U" Gas Com Well No. 2 to be located in Unit C of Section 32, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6437:** Application of Curtis Little for approval of infill drilling and a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of a well to be located 1085 feet from the South line and 285 feet from the West line of Section 12, Township 28 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well. Applicant further seeks rescission of Order No. R-4556 and approval of a 344.36-acre non-standard gas proration unit comprising all of Section 11, and Lot 4 and the SW/4 SW/4 of Section 12 for said well.
- CASE 6438:** Application of Caulkins Oil Company for dual completions and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Breech Well No. 812 located in Unit N of Section 18, Township 26 North, Range 6 West, and its Breech Well No. 224-A located in Unit B of Section 13, Township 26 North, Range 7 West, Rio Arriba County, New Mexico, to produce gas from the Dakota formation through a separate string of tubing and to commingle Chacra and Mecaverde production in the wellbores of said wells.



- CASE 6439:** Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Mesaverde and Dakota production in the wellbore of its Breech A Well No. 229 located in Unit D of Section 17, Township 26 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 6440:** Application of Caulkins Oil Company for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Breech F Well No. 8 located in Unit A of Section 34, Township 27 North, Range 6 West, Rio Arriba County, New Mexico, to produce gas from the Pictured Cliffs formation through a separate string of tubing and to commingle Mesaverde and Dakota production in the wellbore of said well.
- CASE 6441:** Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pictured Cliffs and Mesaverde production in the wellbore of its Breech F Well No. 12 located in Unit A of Section 35, Township 27 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 6442:** Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pictured Cliffs, Chacra and Mesaverde production in the wellbore of its Breech E Well No. 109 located in Unit M of Section 3, Township 26 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 6443:** Application of Caulkins Oil Company for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Breech B Well No. 220-R located in Unit B of Section 14, Township 26 North, Range 7 West, to produce gas from the Dakota formation through a separate string of tubing and to commingle Pictured Cliffs, Chacra and Mesaverde production in the wellbore of said well.
- CASE 6444:** Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pictured Cliffs, Mesaverde, Chacra and Greenhorn production in the wellbore of its Breech Well No. 224 located in Unit A of Section 13, Township 26 North, Range 7 West, Rio Arriba County, New Mexico.

JASON W. KELLAHIN  
W. THOMAS KELLAHIN  
KAREN AUBREY

KELLAHIN and KELLAHIN  
ATTORNEYS AT LAW  
800 DON GASPAR AVENUE  
P. O. BOX 1769  
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4279  
AREA CODE 308

January 6, 1979

New Mexico Energy and Minerals Dept.  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87502

Gentlemen:

Attached are seven applications filed on behalf of  
Caulkins Oil Company, and one filed on behalf of  
Amerada Hess Corporation.

We request that these applications be set for hearing  
at the January 31, 1979, examiner hearing.

Yours very truly,

*Jason Kellahin*  
JASON KELLAHIN

JK:ss

Also the application of John Yuronka for compulsory pooling.

BEFORE THE  
NEW MEXICO ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

JAN 10 1979

IN THE MATTER OF THE APPLICATION  
OF CAULKINS OIL COMPANY FOR  
APPROVAL OF TWO DUAL COMPLETIONS  
RIO ARriba COUNTY, NEW MEXICO

Case 6438

A P P L I C A T I O N

Comes now Caulkins Oil Company and applies to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of the dual completion of its well No. 812, located in Unit N, Section 18 Township 26 North, Range 6 West, N.M.P.M., and its Well No. 224-A. located in Unit D, Section 13, Township 26 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Division:

1. Applicant proposes to commingle production from the Chacra and the Measverde formations, and to dually complete the commingled production with production from the Dakota formation as to each of these wells.

2. Approval of this application is in the interests of conservation and the prevention of waste, and will result in the production of gas and liquid hydrocarbons that would not otherwise be produced.

WHEREFORE Applicant prays that this application be set for hearing at the last examiner hearing in January, 1979, and that after notice and hearing as required by law, the Division enter its order granting approval of the dual

completions as required.

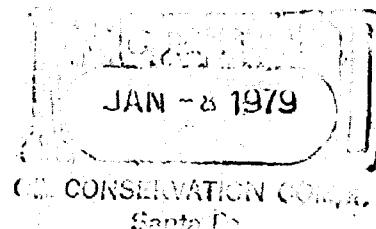
Respectfully submitted,  
CAULKINS OIL COMPANY

By James Kellahin  
Kellahin & Kellahin  
P. O. Box 1769  
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

BEFORE THE  
NEW MEXICO ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION  
OF CAULKINS OIL COMPANY FOR  
APPROVAL OF TWO DUAL COMPLETIONS  
RIO ARRIBA COUNTY, NEW MEXICO



*Case 6438*

A P P L I C A T I O N

Comes now Caulkins Oil Company and applies to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of the dual completion of its well No. 812, located in Unit N, Section 18 Township 26 North, Range 6 West, N.M.P.M., and its Well No. 224-A. located in Unit D, Section 13, Township 26 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Division:

1. Applicant proposes to commingle production from the Chacra and the Measverde formations, and to dually complete the commingled production with production from the Dakota formation as to each of these wells.

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WHEREFORE Applicant prays that this application be set for hearing at the last examiner hearing in January, 1979, and that after notice and hearing as required by law, the Division enter its order granting approval of the dual

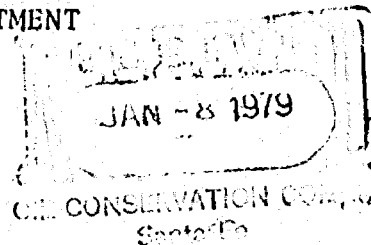
completions as required.

Respectfully submitted,  
CAULKINS OIL COMPANY

By Jason Kellahin  
Kellahin & Kellahin  
P. O. Box 1769  
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

BEFORE THE  
NEW MEXICO ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION



IN THE MATTER OF THE APPLICATION  
OF CAULKINS OIL COMPANY FOR  
APPROVAL OF TWO DUAL COMPLETIONS  
RIO ARriba COUNTY, NEW MEXICO

A P P L I C A T I O N

Case 6438

Comes now Caulkins Oil Company and applies to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of the dual completion of its well No. 812, located in Unit N, Section 18 Township 26 North, Range 6 West, N.M.P.M., and its Well No. 224-A. located in Unit D, Section 13, Township 26 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Division:

1. Applicant proposes to commingle production from the Chacra and the Measverde formations, and to dually complete the commingled production with production from the Dakota formation as to each of these wells.

2. Approval of this application is in the interests of conservation and the prevention of waste, and will result in the production of gas and liquid hydrocarbons that would not otherwise be produced.

WHEREFORE Applicant prays that this application be set for hearing at the last examiner hearing in January, 1979, and that after notice and hearing as required by law, the Division enter its order granting approval of the dual

completions as required.

Respectfully submitted,  
CAULKINS OIL COMPANY

By Jason Kellahin  
Kellahin & Kellahin  
P. O. Box 1769  
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT



ROUGH

dr/

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6438

Order No. R- 5922

APPLICATION OF CAULKINS OIL COMPANY  
FOR DUAL COMPLETION<sup>S</sup> AND DOWNHOLE COMMINGLING, RIO ARRIBA  
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on  
January 31, 1979, at Santa Fe, New Mexico, before  
Examiner Richard L. Stamets.

NOW, on this \_\_\_\_\_ day of February, 1979, the  
Division Director, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Division has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Caulkins Oil Company,  
seeks authority to complete its Breech Well No. 812 located in Unit N  
of Section 18, Township 26 North, Range 6 West, and its Breech ~~Well~~  
Well No. 224-A, located in Unit D of Section 13, Town-  
ship 26 North, Range 7 West, NMPM, Rio Arriba  
County, New Mexico, as a dual completion <sup>each</sup> (conventional) to  
(combination;  
(tubingless)

~~oil~~ produce gas from the Dakota formation through ~~separate~~ string  
of tubing and to <sup>produce commingled</sup> ~~combine~~ Chacra and Mesaverde <sup>commingled</sup> production ~~in the~~  
~~wellbore of said wells~~ Through a second string of tubing.

(3) 145 That from the Chacra zone, the <sup>expected to be</sup> subject well is capable of low marginal production only.

(4) 155 That from the Menavende zone, the <sup>expected to be</sup> subject well is capable of low marginal production only.

(5) 165 That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(6) 175 That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is <sup>neither of</sup> shut-in for an extended period.

(7) 185 That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division <sup>of the pressure and productivity encountered upon completion and</sup> any time the subject well is <sup>either of</sup> shut-in for 7 consecutive days. <sup>Thereafter</sup>

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, \_\_\_\_\_ percent of the commingled \_\_\_\_\_ production should be allocated to the \_\_\_\_\_ zone, and \_\_\_\_\_ percent of the commingled \_\_\_\_\_ production to the \_\_\_\_\_ zone.

~~(ALTERNATE)~~

(8) 195 That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

(9) 207 That the Director of the Division should be authorized to rescind the commingling authority granted by this order whenever it appears that waste would be prevented thereby.

To further  
notify said  
district office

(10) (3) That the mechanics of the proposed dual completion <sup>s</sup> are feasible and in accord with good conservation practices.

(11) (4) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to complete its Breech Well No. 812 located in Unit N of Section 18, Township 26 North, Range 6 West, and its Breech Well No. 224-A, located in Unit D of Section 13,

Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, <sup>each</sup> as a dual completion (conventional) ~~(combination)~~ ~~(tubingless)~~

~~xxxx~~ to produce gas from the Dakota formation through ~~one separate~~ string of tubing and to ~~produce~~ <sup>produce</sup> ~~Chacra and Mesaverde~~ production in the wellbore of said wells. ~~and~~, hereby authorized to be

*Separation of the Dakota zone by means of a packer set at approximately 5400 feet and PROVIDED HOWEVER, that the applicant shall complete, operate,*

*from the other zones achieved*

and produce said well, in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take

Packer & packer leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for gas wells in No. 1 & 2 New Mexico.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

*5100 feet respectively.*

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulking Oil Company, is hereby authorized to commingle Chacra and Mesaverde production within the wellbore of the \_\_\_\_\_, located in Unit \_\_\_\_\_ of Section \_\_\_\_\_, Township \_\_\_\_\_, Range \_\_\_\_\_, NMPM, \_\_\_\_\_ County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Artec district office of the Division and determine <sup>a</sup> ~~an allocation~~ formula for the allocation of production ~~to each zone in each of~~ <sup>The Chacra and Mesaverde</sup> the subject wells <sup>following completion of such well and submittal of pressure and product potential data.</sup>  
(ALTERNATE)

(2) That \_\_\_\_\_ percent of the commingled \_\_\_\_\_ production shall be allocated to the \_\_\_\_\_ zone and \_\_\_\_\_ percent of the commingled \_\_\_\_\_ production shall be allocated to the \_\_\_\_\_ zone.

(3) That the operator of the subject well shall immediately notify the Division's Artec district office <sup>either at</sup> any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

(4) That the Director of the Division may rescind the commingling authority to commingle the Chacra and Mesaverde zones in either or both of said wells if it appears that waste will be prevented thereby.