

CASE 6120: CAULKINS OIL COMPANY FOR
DOWNHOLE CORRELATING, RIO ARriba COUNTY, *ny*
NEW MEXICO

*Cont to
Jan 18*

Case Number

6120

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 18, 1978.

EXAMINER HEARING

IN THE MATTER OF:

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

CASE
6120

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
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State Land Office Building
Santa Fe, New Mexico

For the Applicant: Jason W. Kellahin, Esq.
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I N D E X

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1 MR. STAMETS: We will call next Case 6120.

2 MS. TESCHENDORF: Case 6120, application of Caulkins
3 Oil Company for downhole commingling, Rio Arriba County,
4 New Mexico.

5 MR. KELLAHIN: May the record show the same appear-
6 ance and witness and that the witness has been sworn.

7 MR. STAMETS: The record will so reflect.

8
9 CHARLES VERQUER

10 called as a witness, having been previously sworn, was
11 examined and testified as follows:

12 DIRECT EXAMINATION

13 BY MR. KELLAHIN:

14 Q Mr. Verquer, what does the applicant propose in
15 Case Number 6120?

16 A In this case we are asking to commingle the Chacra-
17 Mesaverde in the wellbore of old temporarily abandoned Tocito
18 oil wells or injection wells that are just standing there, of
19 course, to salvage the well and also to produce some gas that
20 wouldn't otherwise be produced because you cannot straight
21 out drill a Chacra-Mesaverde well in the area of these wells.

22 Q You say you can't drill one, do you mean economical-
23 ly drill one?

24 A Economically drill one, that's right.

25 Q Would you give the Examiner a very brief history of

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1 how these wells happened to be there? I don't mean in any
2 detail, just account for them.

3 A The wells were originally drilled as Tocito develop-
4 ment wells in the South Blanco Tocito Pool and the discovery
5 well is the well that is now marked as No. 679 which is in
6 Section 9 in the southeast quarter. The well produced oil
7 at a high gas-oil ratio and later on was changed some after
8 the waterflooding project and ultimately, I have the records
9 in here, but they watered out to a hundred percent from the
10 waterflood project and they have just been sitting there
11 since.

12 Q They have been temporarily abandoned for how long?

13 A I have the records, but mostly since 1954.

14 Q Now referring to what has been marked as Applicant's
15 Exhibit One, would you identify that exhibit, please?

16 A This is another map of the Caulkins' properties, the
17 shaded area being all of the Caulkins' property and the wells
18 in question identified with a red arrow.

19 Q Could you give the footage location of each of those
20 wells? Do you want that?

21 MR. STAMETS: I don't think it's necessary, surely
22 it is identified somewhere in this.

23 A I think I have it on each individual well record.

24 Q (Mr. Kellahin continuing.) Are they all standard
25 oil well spacing locations?

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1 A They are all standard oil well spacings, six
2 hundred and sixty feet from the line.

3 Q Now you do propose to dedicate a half section to
4 each one of them, as far as the Mesaverde is concerned?

5 A Yes.

6 Q Is that also shown on the well record?

7 A I didn't list that.

8 MR. KELLAHIN: If the Examiner please, attached to
9 the list of exhibits is a tabulation of those wells and the
10 proposed dedication. Could you make reference to that for
11 purposes of this case?

12 MR. STAMETS: That is the cover sheet to these
13 exhibits, is that right?

14 MR. KELLAHIN: That's right, yes, sir. If you could
15 just make reference to that then we wouldn't burden the
16 record with it.

17 MR. STAMETS: All right, I will mark my copy as
18 cover sheet and the locations, well numbers and so on and
19 dedications are shown on the cover sheet.

20 Q (Mr. Kellahin continuing.) Now in three instances
21 I believe they will be nonstandard locations, is that right?

22 A Yes, the Mesaverde is, it should be drilled in the
23 northeast quarter of the southwest quarter on the first
24 wells and some of these are not that way.

25 MR. STAMETS: Do you know which those are?

1 A Yes.

2 MR. KELLAHIN: It's on the cover sheet there, "NS".

3 MR. STAMETS: Okay.

4 Q (Mr. Kellahin continuing.) Had you completed your
5 discussion of Exhibit Number One, Mr. Verquer?

6 A I believe so.

7 Q Now referring to what has been marked as Exhibit
8 Number Two, would you identify that exhibit?

9 A That's the well records, the present status and
10 the mechanics of recompletion for each of the six wells. I
11 have a sheet for each well and on that one I do show the
12 footage.

13 Q And it shows the proposed operations in completing
14 them to commingle the production, doesn't it?

15 A Right.

16 Q And that's at the bottom of each page?

17 A At the bottom of each page, yes.

18 Q Briefly what do you propose to do in each case?

19 A Well, we will plug back to the base of the Mesaverde
20 with an approved plugging program from the Oil Commission,
21 perforate the seven and five-eighths casing on this first
22 sheet, on Well 109, and then cement behind the pipe because
23 the top of the cement as listed above is not that high and
24 cement it up over the top of the Alamo, which is a require-
25 ment in the San Juan Basin at this time. Then we will

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1 perforate the Mesaverde zone, sand and water frac it and do
2 the same to the Chacra and then run tubing.

3 Q And that's the same procedure generally you will
4 follow for each one of the wells?

5 A Yes, on the second one, the Breech E 104, there is
6 cement over the Mesaverde and Chacra now. It was a well that
7 we completed in the Tocito sand much later and it does have
8 cement over the zones which eliminates that high cost.

9 Q But in each instance where there is no cement you
10 will re-cement those wells?

11 A Yes, that's right, we will re-cement them.

12 Q Will that be a calculated cement or will you run a
13 temperature survey?

14 A I run temperature surveys. I didn't put it on the
15 record but I do run temperature surveys to determine that I
16 definitely have cement there, bond logs and so forth.

17 Q Now referring to what has been marked as Exhibit
18 Number Three, if you will identify that exhibit?

19 A Here we are back to the same tabulations as shown
20 in Case Number 6119. This is the Chacra pressure tabulations
21 for all of the Chacra wells, ours and the offset Chacra wells.

22 Q And Exhibit Four is the same information for the
23 Mesaverde?

24 A That's correct.

25 Q And that's the same information offered in the

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1 previous exhibit?

2 A Yes.

3 Q Now referring to what has been marked as Exhibit
4 Number Five, would you identify that exhibit?

5 A This is a tabulation of the pressure declines, it
6 is the average pressure in the Exhibits Three and Four.

7 Q So at the present time you show a pressure differen-
8 tial of three fifty-five to four hundred and thirty pounds,
9 is that correct?

10 A Correct and the first pressures on there are the
11 initial pressures of the wells.

12 Q And all of these pressures are seven-day shut in
13 pressures?

14 A Yes, sir.

15 Q Now referring to what has been marked as Exhibit
16 Number Six, would you identify that exhibit?

17 A That is the decline curves for the Chacra and Mesa-
18 verde zones from that tabulation.

19 Q Based on your Exhibit Number Five?

20 A Yes, sir.

21 Q Now Exhibits Number Seven, Eight and Nine, would
22 you discuss those?

23 A Seven and Eight are the same Chacra, excuse me, these
24 are the Chacra production records as used in Case Number 6119
25 of all of Caulkins' Chacra dual wells, Pictured Cliffs-Chacra

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1 dual wells, they use the same information as used in the other
2 case.

3 Q But this only covers the Chacra?

4 A Yes, that one covers the Chacra and the next exhibit
5 covers the Mesaverde for the yearly.

6 Q And that is the same as in the other case?

7 A Yes, sir.

8 Q You have already discussed that. Exhibit Number
9 Nine?

10 A Exhibit Number Nine is where I run the tabulation
11 of the average pressures and added them together and come up
12 with a total and the break down to come up with an average
13 Chacra-Mesaverde break down for the group of wells.

14 Q And based on those averages would you allocate forty
15 percent to the Chacra and sixty percent to the Mesaverde on
16 gas and all of the oil to the Mesaverde?

17 A Correct, for each well.

18 Q And that's based on your averages as shown on the
19 other exhibits and this exhibit, is this correct?

20 A Yes.

21 Q Now referring to what has been marked as Exhibit
22 Number Ten, would you identify that exhibit?

23 A It is a decline curve on the production of the
24 Mesaverde being the solid line and the Chacra the broken line
25 and this is a monthly with the average per year on the Mesaverde

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1 which has a decline but it is not as erratic as some of the
2 others and showing where they are coming down at about the
3 same rate.

4 Q So on that basis you consider the sixty-forty alloca-
5 tion on gas to be reasonable?

6 A Yes, sir.

7 Q Now referring to Exhibits Number Eleven-A and
8 Eleven-B, would you identify those two exhibits, please?

9 A They are a log strip for each well, the one that
10 I was able to run off the film. I have both the Chacra and
11 the Mesaverde all on one strip, the first one there, Well No.
12 109. In the mechanics I missed a little on my homework and
13 didn't mark these on the logs, I do have the pretty to stick
14 on the mechanics sheets on each well but to the Chacra zone
15 up there at thirty-nine thirty on this 109, there is approxi-
16 mately ten feet that could be productive, if you are a
17 dreamer, and then most of the production will come out of the
18 Point Lookout, fifty-one eighty to approximately fifty-three
19 hundred, out of the Mesaverde zone, the rest of that.

20 Q Insofar as the Chacra is concerned would that be
21 something of a salvage operation?

22 A Yes, it would.

23 Q Would that same statement be true of the Mesaverde?

24 A Yes.

25 Q Would you be able to produce either zone separately

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1 economically?

2 A Negative. I don't know what we would do for salvage
3 of the wells but neither one could be made to produce pro-
4 ductively and we need what little gas the Chacra will make to
5 help carry what fluid the Mesaverde makes out of the hole to
6 make it an economical situation. You can't pump for two or
7 three barrels at the most a day, not from that depth, and I
8 think you are dreaming if you figure on three barrels a day.

9 I have a copy of each log for the zones for all of
10 the six wells.

11 Q That is shown on Exhibits Eleven-C and Eleven-D, E,
12 and F, is that correct?

13 A Yes, that is correct.

14 Q So you have a log section on each well that you
15 are talking about here?

16 A That's right.

17 Q Now, Mr. Verquer, in the event that the Commission
18 approves the recompletion of these Tocito wells and commingling
19 as proposed, will that enable you to produce gas and oil that
20 would not otherwise be recovered?

21 A Yes. The only other alternative is to plug. We
22 have already tried the Gallup which is above the Tocito and
23 we are not very encouraged with that. We have three that we
24 tried there and between the three of them we are not selling
25 but about three million a month, a million a month per well

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1 and that's not good, it cost sixty-five thousand to do that
2 job.

3 Q Will the commingling of the Chacra with the Mesaverde
4 cause any damage to either horizon?

5 A I don't anticipate any because they are both very
6 tight zones and a very small amount of gas, there isn't
7 enough to migrate really and the initial pressures will be
8 close together.

9 Q Is the ownership common throughout as to each of
10 these wells?

11 A Yes.

12 Q As to each zone?

13 A Yes.

14 Q So there is no problem with either working interest,
15 royalty or overriding royalty?

16 A None, no.

17 Q Were Exhibits One through Eleven-F prepared by you
18 or under your supervision?

19 A They were.

20 MR. KELLAHIN: At this time we would like to offer
21 Exhibits One through Eleven-F.

22 MR. STAMETS: These exhibits will be admitted.

23 (THEREUPON, Applicant's Exhibits One through
24 Eleven-F were admitted into evidence.)

25 MR. KELLAHIN: That's all we have, Mr. Stamets.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Verquer, on your Exhibit Number One, you identified this shaded area as Caulkins' and you have indicated that the ownership is not different. When you say that, were you speaking as to each individual proration unit or for this entire shaded area?

A For each individual well. Under most cases the ownership is correct but, of course, we don't have a State section involved in this one but there is a State section in there and the interests are different but all of the interests under each proration unit in the State section are the same also.

Q Is this within the confines of the Blanco-Mesaverde Gas Pool?

A Yes, it is, and the South Blanco-Pictured Cliffs Pool.

Q Will any of these be infill wells in the Mesaverde?

A No, sir, none of these will.

MR. KELLAHIN: They would be infill wells of the three nonstandard locations. The first well was in the second place.

A Yes, that's right. That's why I listed them as nonstandard. We have a well in Section 10, in the west half, the No. 182 Well, is a Mesaverde well that was completed in

1 1977, three and a half million a month, but I did that kind
2 of a completion just for the Mesaverde on that well, cemented,
3 fraced it and come up with three and a half million. That was
4 the November production and I dedicated the west half of that
5 Section 10 to 182 so this 207 Well will have the east half.

6 MR. STAMETS: Are there any questions of the witness?

7 MR. KELLAHIN: No.

8 MR. STAMETS: He may be excused.

9 (THEREUPON, the witness was excused.)

10 MR. STAMETS: Is there anything further in this
11 case?

12 MR. KELLAHIN: That's all, Mr. Stamets.

13 MR. STAMETS: We will take the case under advise-
14 ment.

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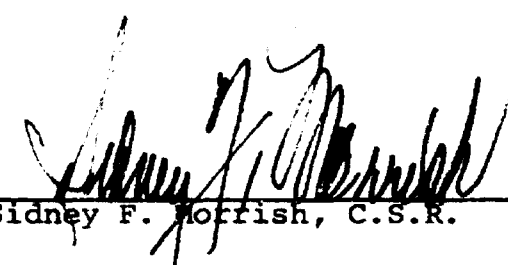
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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


 Sidney F. Morrish, C.S.R.

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do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner's hearing of Case No. 6120
heard by me on 1-18-78, 1978.
Richard K. Starnes, Examiner
New Mexico Oil Conservation Commission

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 6120
Order No. R-5647

APPLICATION OF CAULKINS OIL COMPANY
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 18, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 21st day of February, 1978, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Caulkins Oil Company, is the owner and operator of the Breech E Wells Nos. 109 in Unit M of Section 3 and 104 in Unit P of Section 5, and its Breech A Wells Nos. 627 in Unit B of Section 8, and 677 and 679 in Units L and J, respectively, of Section 9, and 207 in Unit O of Section 10, all in Township 26 North, Range 6 West, Rio Arriba County, New Mexico.
- (3) That the applicant seeks authority to recomplete said wells in such a manner as to commingle Chacra and Mesaverde production within the wellbores therein.
- (4) That from the Chacra zone, the subject wells are expected to be capable of low rates of production only.
- (5) That from the Mesaverde zone, the subject wells are expected to be capable of low rates of production only.
- (6) 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.

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Case No. 6120
Order No. R-5647

(7) 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 wells are not shut-in for an extended period.

(8) That to afford the Commission 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 Commission any time any of the subject wells are shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject wells, 40 percent of the commingled gas production should be allocated to the Chacra zone, and 60 percent of the commingled gas production and 100 percent of all the commingled oil production to the Mesaverde zone.

(10) That all of said Breech E and Breech A Wells are at non-standard locations for the Blanco Mesaverde Pool and such locations must be separately approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to commingle Chacra and Mesaverde production within the wellbores of its Breech E Wells Nos. 109 in Unit M of Section 3 and 104 in Unit P of Section 5 and its Breech A Wells Nos. 627 in Unit B of Section 8, and 677 and 679 in Units L and J, respectively of Section 9, and 207 in Unit O of Section 10, all in Township 26 North, Range 6 West, Rio Arriba County, New Mexico.

(2) That 40 percent of the commingled gas production shall be allocated to the Chacra zone and 60 percent of the commingled gas production and 100 percent of the commingled oil production shall be allocated to the Mesaverde zone.

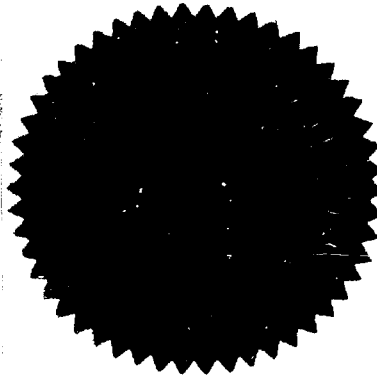
(3) That the operator of the subject wells shall immediately notify the Commission's Aztec district office any time any of the wells have been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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Case No. 6120
Order No. R-5647

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

S E A L

jr/

CAULKINS Oil COMPANY

Case No. 6120

Cover SheetProposal

Plug back oil wells and recompleate as commingled Chacra-Mesa Verde Gas Wells.

All wells located at standard oil well spacing.

Lease	Well	Location	Section Dedicated
Breech E	109	660 F/S and 660 F/W Sec. 3 26N 6W	West Half
Breech E	104	660 F/S and 660 F/E Sec. 5 26N 6W	East Half (NS)
Breech A	627	660 F/N and 1980 F/E Sec. 8 26N 6W	East Half
Breech A	677	1980 F/S and 660 F/W Sec. 9 26N 6W	West Half
Breech A	679	1980 F/S and 1980 F/E Sec. 9 26N 6W	East Half (NS)
Breech A	207	660 F/S and 1980 F/E Sec. 10 26N 6W	East Half (NS)

NS
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Authorization is requested to recompleate wells in gas zones at Non-standard locations.

Ownership and all working interests are common for each well.

Exhibit # 1

Section map showing all Caulkins Oil Company wells and all offset wells.

Exhibit #2

Well records, present status and mechanics of recompletion for each of the 6 wells.

Exhibit # 3

Chacra pressure tabulations to show average initial pressure and each year average decline.

Exhibit # 4

Mesa Verde pressure tabulations to show average initial pressure and each year average decline.

Exhibit # 5

Tabulation of yearly average pressure decline from exhibits 3 and 4.

Exhibit # 6

Pressure decline curves from tabulations exhibit # 5.

Exhibit # 7

Tabulations of monthly Chacra production from Caulkins Oil Company Chacra wells.

Exhibit # 8

Tabulation of yearly Mesa Verde production from all Caulkins Oil Co. Mesa Verde wells.

Exhibit # 9

Tabulation of monthly average production per well for Chacra and Mesa Verde zones, with proposed production split.

Note: Mesa Verde production averaged from yearly production.

Exhibit # 10

Decline curves for production from exhibit # 9.

Exhibit # 11

Electric Log sections of Mesa Verde and Chacra Zones for each well.

CAULKINS OIL COMPANY

Breech E 109

Location: 660 from the South and 660 from the West

Section 3 26 North 6 West, Rio Arriba County, New Mexico.

TD 6735'.

7 5/8" 26.4# J-55 casing cemented at 6674' with 175 sacks. Cement top 5580'.

5 1/2" 15.5# J-55 casing liner cemented 6587 to 6735' with 25 sacks.

Liner perforated 6 holes per foot 6673 to 6690.

Discontinued as Tocito producer and converted to water injection well 12-7-1958.

Cumulative oil production 137,427 bbls.

Cumulative gas production 154,441 MCF.

Cumulative water production 24,530 bbls.

Water injection discontinued June 1, 1966.

Cumulative water injected 1,759,912 bbls.

Temporarily abandoned 6-1-66 to present.

Mechanic's

Plug back.

Cement 7 5/8" casing 5580 to 2300'.

Perforate Mesa Verde zone 4660 to 5310'.

Sand-Water frac.

Set retrievable bridge plug above Mesa Verde perforations.

Perforate Chacra zone 3938 to 3948.

Sand-Water frac.

Recover bridge plug.

Run 1 1/4" tubing to Mesa Verde perforations.

BEFORE EXAMINER STAMETS	
OIL AND GAS COMMISSION	
Caulkins	NO. 2
6120	
Vargner	
1-18-78	

CAULKINS OIL COMPANY

Breech E 104

Location: 660 from the South and 660 from the East

Section 5 26 North 6 West, Rio Arriba County, New Mexico

TD 6746'.

7" 23# J-55 Smls. casing cemented at 6746' with 150 sacks thru shoe and 525 sacks thru stage tool set at 5401. Cement top 3450'.

Abandoned as Tocito producer 5-7-65.

Cumulative oil production 132,475 bbls.

Cumulative gas production 735,262 MCF

Cumulative water production 762 bbls.

Temporarily abandoned 5-7-65 to present.

Mechanic's

Plug back.

Perforate Mesa Verde zone 4580 to 5324.

Sand-Water frac.

Set retrievable bridge plug above Mesa Verde perforations.

Perforate Chacra zone 3808 to 3904.

Sand-Water frac.

Recover bridge plug.

Run 1 1/4" tubing to Mesa Verde perforations.

CAULKINS OIL COMPANY

Breech A 627

Location: 660 from the North and 1980 from the East
Section 8 26 North 6 West, Rio Arriba County, New Mexico

TD 6677

7" 23# J-55 Smls. casing cemented at 6620' with 200 sacks. Cement top at 5215'.

Open hole 6620 to 6677.

Cumulative oil production 366,044 bbls.

Cumulative gas production 2,045,046 MCF

Cumulative water production 1,318 bbls.

Abandoned as Tocito producer 8-1-1968.

Temporarily abandoned 8-1-68 to present.

Mechanic's

Plug back

Cement 7" casing 5215 to 2200'.

Perforate Mesa Verde zone 4558 to 5295.

Sand-water frac.

Set retrievable bridge plug above Mesa Verde Perforations.

Perforate Chacra Zone 3765 to 4000'.

Recover bridge plug.

Run 1 1/4" tubing to Mesa Verde Perforations.

CAULKINS OIL COMPANY

Breech A 677

Location: 1980 from the South and 660 from the West

Section 9 26North 6 West, Rio Arriba County, New Mexico

TD 6645'.

7" 23# J-55 casing cemented at 6591' with 200 sacks. Cement top 5066'.

5 1/2" 15.5# J-55 casing liner 6574 to 6644. Cemented with 25 sacks.

Liner perforated 6 holes per foot 6605 to 6630.

Cumulative oil production 299,638 bbls.

Cumulative gas production 1,171,223 MCF

Cumulative water production 33,311 bbls.

Abandoned as Tocito producer 11-1-63.

Temporarily abandoned 11-1-63 to present.

Mechanic's

Plug back

Cement 7" casing 5060 to 2200'.

Perforate Mesa Verde zone 4550 to 5262'.

Sand-Water frac.

Set retrievable bridge plug above Mesa Verde perforations.

Perforate Chacra zone 3790 to 3845.

Sand-Water frac.

Recover bridge plug.

Run 1 1/4" tubing to Mesa Verde perforations.

CAULKINS OIL COMPANY

Breech A 679

Location: 1980 from the South and 1980 from the East
Section 9 26North 6 West, Rio Arriba County, New Mexico.

TD 6692'.

7" 26# J-55 smls. casing cemented at 6615' with 150 sacks. Cement top 5633'.

5 1/2" 15.5# J-55 smls. casing liner set 6542 to 6690. Cemented with 50 sacks.

Liner perforated 6 holes per foot 6637 to 6647'.

Abandoned as Tocito producer 7-1-62.

Cumulative oil production 442,633 bbls.

Cumulative gas production 895,429 MCF.

Cumulative water production 424,070 bbls.

Temporarily abandoned 7-1-62 to present.

Mechanic's

Plug back.

Cement 7" casing 5630 to 2100'.

Perforate Mesa Verde zone 4600 to 5295'.

Sand-Water frac.

Set retrievable bridge plug above Mesa Verde perforations.

Perforate Chacra zone 3785 to 4040'.

Sand-Water frac.

Recover bridge plug.

Run 1 1/4" tubing to Mesa Verde perforations.

CAULKINS OIL COMPANY

Breech A 207

Location: 660' from the South and 1980' from the East

Section 10 26 North 6 West, Rio Arriba County, New Mex.

TD - 6688'

7 5/8" 26.4# casing cemented at 6635' with 200 sacks. Cement top 5650'.

5 1/2" 15.5# Liner 6614' to 6687'. Cemented with 25 sacks.
Perforated 6645 to 6661'.

Cumulative oil production 338,109 barrels.

Cumulative gas production 590,681 MCF

Cumulative water production 168,295 barrels.

Converted to water injection well 9-18-61.

Water injection discontinued May 1, 1965.

Cumulative water injected 866,833 barrels.

Temporarily abandoned May 1, 1965 to present.

Mechanic's

Plug back.

Cement 7 5/8" casing 5490 to 2300'.

Perforate Mesa Verde zone 4686 to 5322 and sand-water frac.

Set retrievable bridge plug above Mesa Verde perforations then
perforate Chacra zone 3905 to 3915 and sand water-frac.

Recover bridge plug and run 1 1/4" tubing to Mesa Verde perfs.

CAULKINS OIL COMPANY

Case No. 6120

Yearly Average Pressure Tabulations

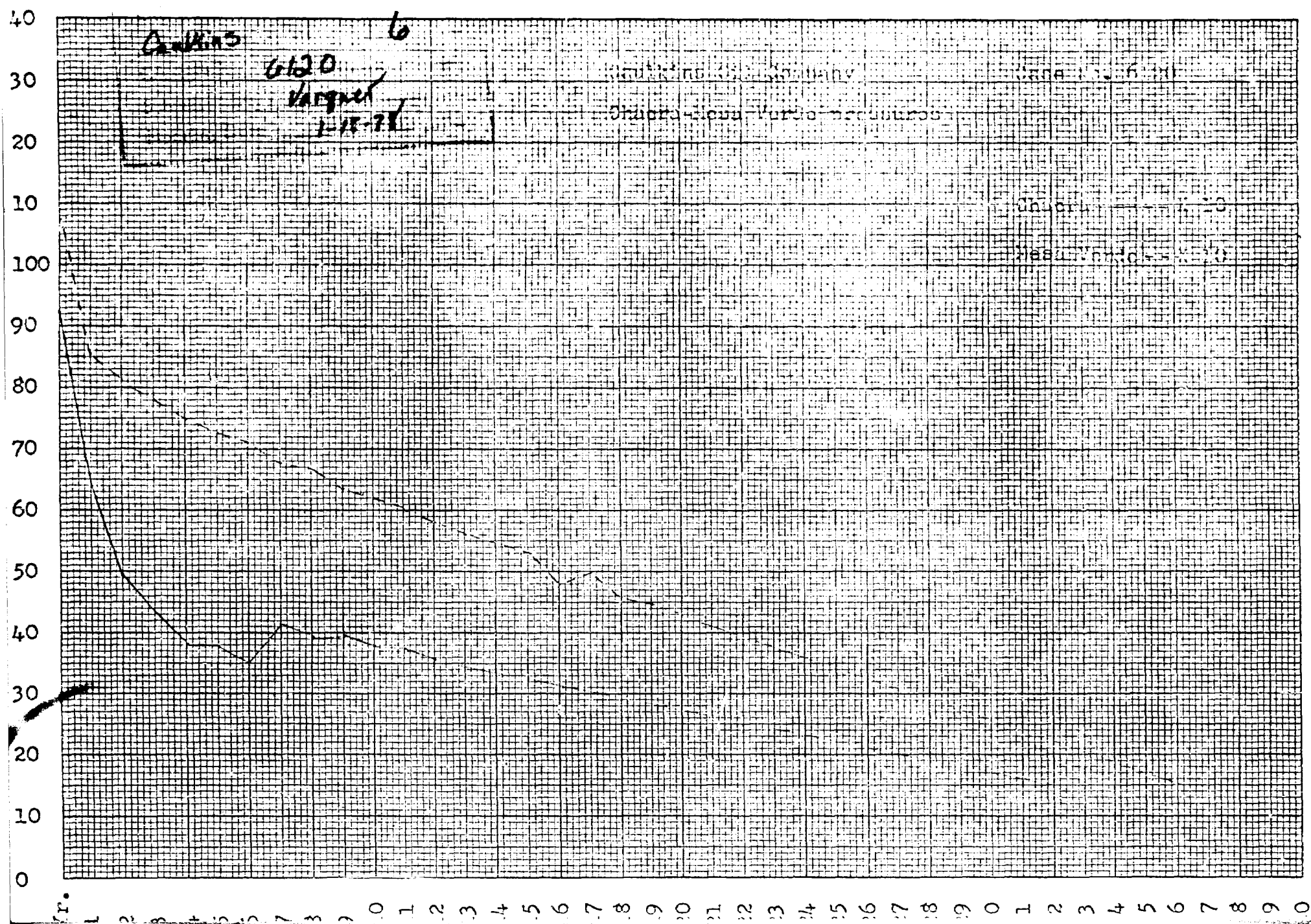
Chacra

912
646
494
433
382
379
351
416
395
395
379
371
355

Mesa Verde

1074
861
814
782
749
729
712
676
619
636
622
601
581
561
548
533
479
498
458
448
430

EXAMINER STAMETS
FEDERAL BUREAU OF INVESTIGATION
Caulkins NO. 5
6120
Vargner
1-18-78



CAULKINS OIL COMPANY
Cinema Production
Monthly

		1	2	3	4	5	6	7	8	9	10
Sanchez	5	9617	8587	5568	5216	5673	3254	4719	3600	4370	4156
Breech E	51	1120	785	226	430	371	465	457	566	396	439
Breech	217	14038	10172	8828	7113	5698	5111	4629	5061	4586	3823
Breech	258	173	2209	3366	2751	3177	2879	3300	2798	2032	2380
Breech	307	7144	2697	6370							
Breech	330	5820	6193	4491	4341	3488	2869	1798	2923	2832	634
Breech	332	56	640	411	819	918	1721	465	611	1255	313
Breech D	342	376	3985	2805	3079	2677	2316	2210	1982	1853	1661
Breech	352	3899	2886	2409	2807	2813	2353	2500	1812	1723	1614
Breech	354	13376	9392	8758	7656	7158	6505	5817	5881	6251	5432
Breech	368	3281	2646	2326	2323	1132	1308	1825	2360	1355	1215
Breech	382	4271	5011	4351	3189	3089	2261	2687	3096	2258	2477
Breech D	383	5243	3554	3641	2022	2128	2026	1354	2259	2044	2381
Breech D	385	7824	4106	3538	3402	2866	2699	2520	2475	2214	2053
Breech D	387	9904	5046	3803	2955	2357	2324	1879	1806	2039	1564
Breech E	581	3271	2135	1994	1457	1150	912	817	832	734	
		89,413	69,734	62,885	49,560	44,695	39,003	36,077	38,062	35,942	30,142
Average		5888	4358	3930	3304	2980	2602	2465	2537	2396	2153

11	12	13	14	15	16	17	18	19	20	21	22
3570	3508	2583	3454	2832	3054	3036	2390	3050	2378	3014	2969
493	186	368									
1381	4245	3778	3621	3602	2848	3099	2998	3151	3736	3182	3208
1994	1950	1913									
2012											
1243											
1670	1572	1173	1570	1514	1574	1323	1193	1221	1189	1195	1336
692	358	636	1398	1665	1034	1356	1505	1582	977	1244	1509
4972	4379	3542	4619	4214	3883	4322	3275	3359	1638	3377	4663
930	1267	1654	1600	884	663	759	843	188	864	777	1051
2195	2528	2472	2500	1893	2074	1776	574	—	423	1971	1978
2294	2127	2249	2268	2331	2022	2128	2026	1354	2259	2044	2021
2035	1829	1878	2190	2069	1928	1863	1721	921	1938	1838	1660
1417	1772	1652	1577	1806	1321	1495	1296	532	1078	1811	1340

26898	25,721	23,898	24,797	22,810	20,401	21,157	17,821	15,358	16,470	20,453	21,735
1921	2143	1991	2480	2281	2040	2116	1782	1539	1647	2043	2174

23	24	25	26	27	28	29	30	31	Cum. Total	
2097	2804								95,499	
									6302	
2910									110,818	
									30,922	
									16,211	
									37,401	
									8,452	
1213	1190	1233							43,110	
532	1932								41,286	
4087	4174	3775	4312	3793	3699	4185	3596	3122	160,875	
917	935	1331	874	690	1071	840	1781	1054	50,744	
1323	1697	2045	2197	1463	1802	1980	946	2089	67,650	
1911	1735	1881	1889	1816	1829	1765	1530	1616	67,747	
1544	1367	1472	1400	1575	1529	1475	1380	1403	72,612	
1117	982	1059	1020	1059	1162	1112	1051	1035	60,472	
									13,302	
17,651	16,816	12,796	11,692	10,396	11,093	11,357	10,284	10,319	873,403 MCF	
1765	1868	1828	1949	1732	1849	1893	1714	1720		

CAULKINS OIL COMPANY
Caulkins
6/20
Vargner
1-18-78

Caulkins Oil Company
Mesa Verde Production
Yearly

		1	2	3	4	5	6	7	8
Breech A	229	4,584	22,328	7,368	7,582	6,156	6,827	10,675	15,772
Breech	224	49,150	64,495	50,988	42,456	60,477	45,833	76,686	79,289
Breech	307	9,078	8,199	9,093	6,164	8,802	15,621	19,040	12,790
Breech F	4	11,557	20,231	10,055	9,573	20,240	11,788	9,229	6,119
Breech F	8	31,413	38,723	41,712	36,955	37,145	25,259	29,765	27,713
Breech F	12	43,597	197,968	138,223	93,534	38,089	67,057	80,812	67,125
Breech F	45	26,448	50,736	62,903	58,159	27,259	27,805	56,363	61,908
Breech E	58	67,478	84,431	30,711	65,966	65,796	45,291	66,919	53,514
State A	62	24,664	64,071	70,256	42,386	64,691	47,043	40,733	24,001
Breech E	64	28,025	52,282	67,442	50,238	26,541	17,396	10,153	27,748
Breech D	341	32,239	30,324	18,749	12,729	21,901	25,922	28,646	20,523
		328,232	633,788	507,500	425,742	377,097	335,842	429,021	396,502
Yearly Avg. Per			57,610	46,140	38,700	34,280	30,530	39,000	36,050
9	10	11	12	13	14	15	16	17	18
16,365	22,361	17,938	15,470						
80,033	84,438	87,732	91,987	89,778	85,465	83,893	62,637	68,367	
8,612	4,055								
6,032	5,196	3,690	5,552	6,659	8,379	9,424	11,780	7,853	9,470
22,573	23,160	14,542	21,051	22,501	22,074	23,695	21,103	23,563	23,827
58,398	39,505	40,510	16,353	15,633	27,451	92,437	85,622	98,781	79,917
58,242	59,724	49,291	45,650						
47,342	23,108	32,633	60,678	70,990	65,409	69,404	52,906	46,305	
26,159	49,532	50,932	46,352	49,452	44,094	36,796			
51,658	45,287	47,541	35,374	26,053					
25,261	24,561	24,396							
400,670	380,917	369,205	338,717	281,166	252,872	315,649	234,048	244,869	113,214
36,420	34,630	36,920	37,640	40,160	42,150	52,110	46,810	48,975	37,738

LITTON & COMPANY STAMETS
OIL COMPANY COMMISSION
Caulkins 8
6120
Vargue
1-18-78

AVERAGE PRODUCTION TABULATIONS

Monthly

Case No. 6120

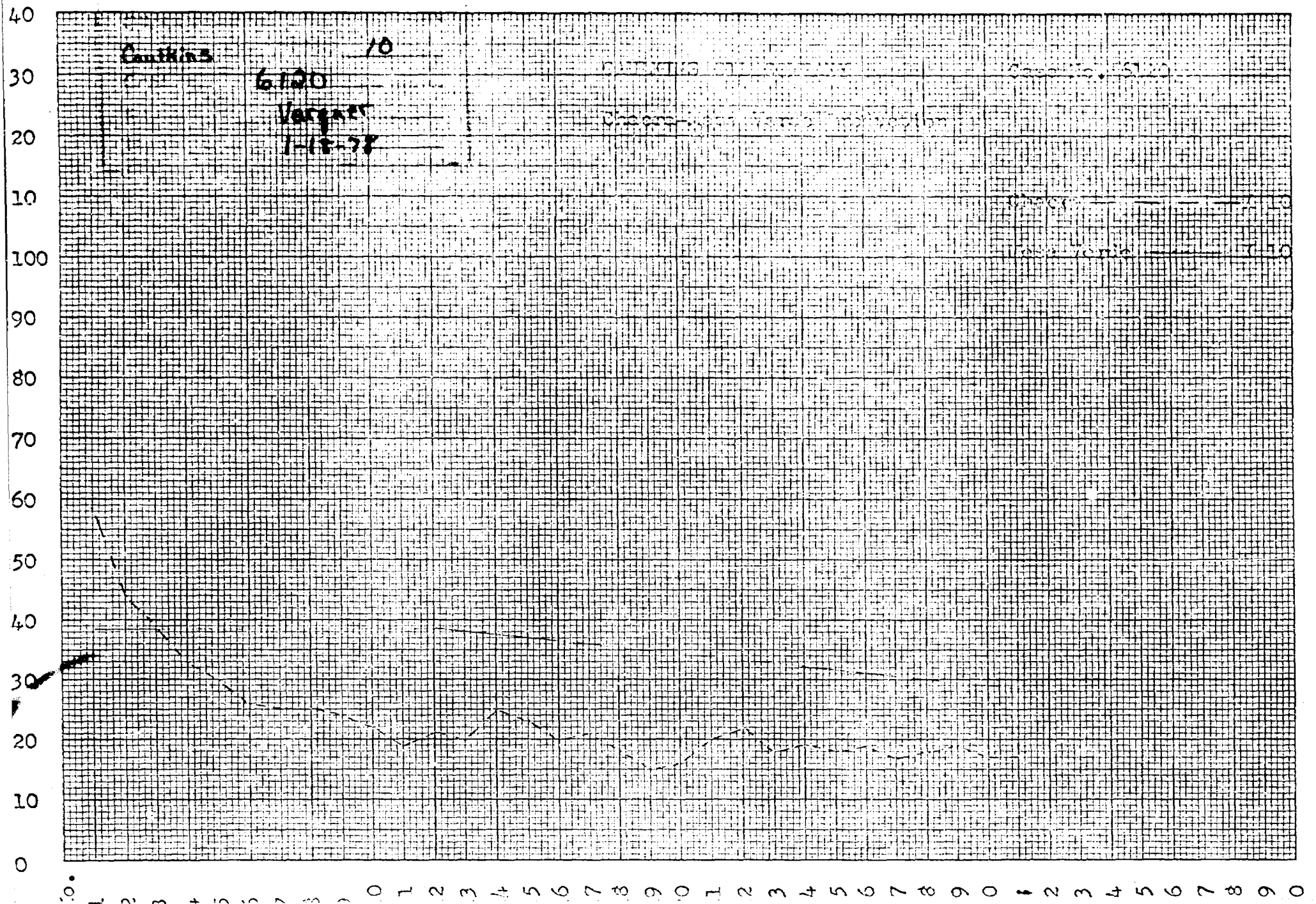
Chacra	Mesa Verde	Total	Breakdown	
			Chacra	Mesa Verde
5888 MCF	3845 MCF	9733MCF	60%	40%
4358	3845	8203	53	47
3930	3845	7775	51	49
3304	3845	7149	46	54
2980	3845	6825	44	56
2602	3845	6447	40	60
2465	3845	6310	39	61
2537	3845	6382	40	60
2396	3845	6241	38	62
2153	3845	5998	36	64
1921	3845	5766	33	67
2143	3845	5988	36	64
1991	3225	5216	38	62
2480	3225	5705	43	57
2281	3225	5506	41	59
2040	3225	5265	39	61
2116	3225	5341	40	60
1782	3225	5007	36	64
1539	3225	4764	32	68
1647	3225	4872	34	66
2043	3225	5268	39	61
2174	3225	5398	40	60
1765	3225	4990	35	65
1868	3225	5093	37	63
1828	2857	4685	39	61
1949	2857	4806	40	60
1732	2857	4589	38	62
1849	2857	4706	39	61
1893	2857	4750	40	60
1714	2857	4571	37	63
1720	2857	4577	37	63
		Avg.	40	60

Recommend production split 40% of Gas to Chacra and 60% of Gas and all oil

to Mesa Verde on Following wells:

Breech E	109	Unit M	SEC 3 26N 6W
Breech E	104	Unit P	Sec 5 26N 6W
Breech A	627	Unit B	Sec 8 26N 6W
Breech A	677	Unit L	Sec. 9 26N 6W
Breech A	679	Unit J	Sec. 9 26N 6W
Breech A	207	Unit A	Sec 10 26N 6W

RECORDING STATEMENTS
 CAULKINS
 6120
 Vargues
 1-18-78



CASE 6119: (Continued from January 4, 1978, Examiner Hearing)

Application of Caulkins Oil Company for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Pictured Cliffs, Chacra and Mesaverde production in the wellbore of its Breech Well No. 228, to be located in Unit A of Section 18, Township 26 North, Range 6 West, Rio Arriba County, New Mexico, and to dually complete the commingled formations and the Dakota formation in said well.

CASE 6120: (Continued from January 4, 1978, Examiner Hearing)

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 Chacra and Mesaverde production in the wellbores of its Breech E Wells Nos. 109 in Unit M of Section 3 and 104 in Unit P of Section 5 and its Breech A Wells Nos. 627 in Unit B of Section 8, 677 and 679 in Units L and J, respectively, of Section 9, and 207 in Unit A of Section 10, all in Township 26 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 6121: (Continued from January 4, 1978, Examiner Hearing)

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 Chacra production in Sections 3, 4, 5, 7 thru 11, 13 thru 18, 21, 22, 24, and 25 in Township 26 North, Range 6 West, and Sections 13, 14, 23, and 24, Township 26 North, Range 7 West, Rio Arriba County, New Mexico.

CASE 6122: (Continued from January 4, 1978, Examiner Hearing)

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 wellbores of its Breech E Wells Nos. 64 and 58 located in Unit A of Section 1 and Section 3, its State A Well No. 62 in Unit A of Section 2, and its Breech D Well No. 341 located in Unit B of Section 21, all in Township 26 North, Range 6 West; and its Breech F Wells Nos. 4 and 45 located in Unit A of Section 33, Unit M of Section 35, both in Township 27 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 6096: Continued from January 4, 1978, Examiner Hearing

Application of Texas Oil & Gas Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 14, Township 21 South, Range 34 East, Lea County, New Mexico, to be dedicated to applicant's South Wilson State Well No. 1 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 6135: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the extension of the Wagon Mound Dakota-Morrison Gas Pool in Township 21 North, Range 21 East, Mora County, New Mexico.

CASE 6136: In the matter of the application of the Oil Conservation Commission of New Mexico upon its own motion for an order for the creation and extension of certain pools in Lea, Chaves, and Roosevelt Counties, New Mexico.

(a) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for San Andres production and designated as the Caprock-San Andres Pool. The discovery well is the Elk Oil Company State D.J. Well No. 1 located in Unit H of Section 2, Township 12 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 12 SOUTH, RANGE 32 EAST, NMPM
Section 2: NE/4

(b) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Yates production and designated as the West Scarborough-Yates Pool. The discovery well is the Gifford, Mitchell and Wisenbaker Horse Back Well No. 2 located in Unit G of Section 33, Township 26 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM
Section 33: NE/4

Dockets Nos. 2-78 and 3-78 are tentatively set for hearing on January 18 and February 8, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 4, 1978

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

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

- CASE 6113: Application of Transocean Oil, Inc., for a unit agreement, Catron County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Cibola Unit Area comprising 30,733 acres, more or less, of Federal, State, and fee lands in Townships 1 and 2 North, Ranges 14 and 15 West, Catron County, New Mexico.
- CASE 6114: Application of Texas Oil and Gas Company for special pool rules or a spacing exception, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Shugart-Pennsylvanian Gas Pool, Eddy County, New Mexico, to provide for 320-acre spacing rather than 160 acres. In the absence of objection, this pool will be placed on the standard 320-acre spacing for Wolfcamp and Pennsylvanian gas pools rather than the present 160-acre spacing. In the alternative applicant seeks the assignment of a 320-acre gas spacing and proration unit consisting of the E/2 of Section 33, Township 18 South, Range 31 East, Eddy County, New Mexico, to a well to be drilled to the Pennsylvanian formation at a standard location thereon.
- CASE 6096: (Continued from November 30, 1977, Examiner Hearing)
- Application of Texas Oil & Gas Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 14, Township 21 South, Range 34 East, Lea County, New Mexico, to be dedicated to applicant's South Wilson State Well No. 1 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 6115: Application of Merrion and Bayless for downhole commingling, Sandoval County, New Mexico. Applicants, in the above-styled cause, seek approval for the downhole commingling of Pictured Cliffs and Chacra production in their Jicarilla 428 Wells Nos. 3, 4, and 5, located respectively, in Unit M of Section 29 and Unit D of Section 32 and Section 31, Township 23 North, Range 4 West. Applicant further seeks blanket approval for downhole commingling of said formations in Sections 29 thru 32, Township 23 North, Range 4 West, and Sections 22 thru 26 and 35 and 36, Township 23 North, Range 5 West, all in Sandoval County, New Mexico.
- CASE 6116: Application of Merrion and Bayless for salt water disposal, San Juan County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the Mesaverde formation thru the perforated interval from 3374 feet to 3395 feet in applicants' Hudson Well No. 1, located in Unit D of Section 26, Township 30 North, Range 12 West, San Juan County, New Mexico.
- CASE 6117: Application of Amoco Production Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for its South Culebra Bluff Unit Area comprising 1280 acres, more or less, of Federal and fee lands in Township 23 South, Range 28 East, Eddy County, New Mexico.
- CASE 6118: Application of Inexco Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Long Box Unit Area comprising 3,808 acres, more or less, of Federal and State lands in Townships 20 and 20 1/2 South, Ranges 23 and 24 East, Eddy County, New Mexico.
- CASE 6119: Application of Caulkins Oil Company for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Pictured Cliffs, Chacra and Mesaverde production in the wellbore of its Breech Well No. 228, to be located in Unit A of Section 18, Township 26 North, Range 6 West, Rio Arriba County, New Mexico, and to dually complete the commingled formations and the Dakota formation in said well.
- CASE 6120: 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 Chacra and Mesaverde production in the wellbores of its Breech E Wells Nos. 109 in Unit M of Section 3 and 104 in Unit P of Section 5 and its Breech A Wells Nos. 627 in Unit B of Section 8, 677 and 679 in Units L and J, respectively, of Section 9, and 207 in Unit A of Section 10, all in Township 26 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 6121: 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

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF CAULKINS OIL COMPANY FOR
AUTHORITY TO COMMINGLE PRODUCTION
FROM THE CHACRA AND MESAVERDE
FORMATIONS IN THE WELL BORE,
RIO ARriba COUNTY, NEW MEXICO

A P P L I C A T I O N

Comes now Caulkins Oil Company and applies to the Oil Conservation Commission of New Mexico for authority to commingle production in the well bore from the Chacra and the Mesaverde formations, in the following wells:

Well No.	Location
Breech E-104	Unit P, Section 5, T. 26 N., R. 6 W.
Breech A-207	Unit A, Section 10, T. 26 N., R. 6 W.
Breech A-627	Unit B, Section 8, T. 26 N., R. 6 W.
Breech A-679	Unit J, Section 9, T. 26 N., R. 6 W.
Breech A-677	Unit L, Section 9, T. 26 N., R. 6 W.
Breech E-109	Unit M, Section 3, T. 26 N., R. 6 W.

In support of this application, applicant would show that the above wells were originally either injection wells, or producing wells in applicant's Tocito pressure maintenance project. Applicant proposes to plug the wells back and re-complete them for production from the Chacra and the Mesaverde formation, which zones are expected to have low pressures and low productivity, based upon information presently available.

Approval of this application will not cause damage to the formations involved, with result in more efficient production from the two zones, prolonging the productive life of the wells, and thereby achieving greater ultimate recovery, and prevention of waste. Correlative rights will be fully protected.

WHEREFORE Applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order authorizing commingling of production as requested.

Respectfully submitted,

CAULKINS OIL COMPANY

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

Attorneys for Applicant

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 6120

Order No. R- 5647

APPLICATION OF CAULKINS OIL COMPANY
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 18,
19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this day of January, 19 78, the Commission,
a quorum being present, 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 Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Caulkins Oil Company, is the
owner and operator of the Breech E Wells Nos. 109 in Unit M of
Section 3 and 104 in Unit P of Section 5, and its Breech A Wells
Nos. 627 in Unit B of Section 8, ^{and} 677 and 679 in Units L and J,
respectively, of Section 9, and 207 in Unit ~~Q~~ of Section 10, all
in Township 26 North, Range 6 West, Rio Arriba County, New Mexico.

Under ↓
(4) That from the Chacra zone, the
subject wells ^{are expected to be} ~~are~~ capable of low ^{refined} ~~marginal~~ production only.

(5) That from the Mesaverde zone, the
subject wells ^{are expected to be capable of low rates of production} ~~are~~ ^{only} ~~capable of low marginal production~~ only.

(6) 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.

(10) That ^{all of said Breech E and Breech A Wells} ~~said Breech E Well No 104 and Breech A~~ ~~Wells Nos 627 and 679~~ ^{are} ~~are~~ ^{at non-standard locations} ~~for the Blanco Mesaverde Pool and such locations~~ ^{must be separately approved.}

-2-
Case No. _____
Order No. R- _____

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused ^{are} by the proposed commingling provided that the wells ~~is~~ ^{are} not shut-in for an extended period.

(8) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district ^{any of} ~~the~~ ^{are} office of the Commission any time/the subject wells ~~is~~ ^{are} shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject wells, 40 percent of the commingled gas production should be allocated to the Chacra zone, and 60 percent of the gas production and 100 percent of the oil commingled oil production to the Mesaverde zone.

(10)
IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to commingle Chacra and Mesaverde production within the wellbore, of 104 Breech E Wells Nos. 109 in Unit M of Section 3 and 104 in Unit P of Section 5 and its Breech A Wells Nos. 627 in Unit B of Section 8, ^{and} 677 and 679 in Units L and J, respectively, of Section 9, and 207 in Unit 9 of Section 10, all in Township 26 North, Range 6 West, Rio Arriba County, New Mexico. zone and 60 percent of ^{Under U} 100 percent of the commingled oil production shall be allocated to the Mesaverde zone.

(3) That the operator of the subject well, shall immediately notify the Commission's Aztec district office any time/^{any of} ~~the~~ wells ~~will~~ have ~~been~~ been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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