

CASE 6800: CAULKINS OIL COMPANY FOR
DUAL COMPLETIONS AND DOWNHOLE COMMING-
LING, RIO ARriba COUNTY, NEW MEXICO

CASE NO.

6800

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

CAULKINS OIL CO.

Post Office Box 780

Farmington, New Mexico 87401

October 13, 1980

Mr. Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico

Re: Downhole Commingled Production
Caulkins Oil Company
State A 268E
Unit P Section 16 26N 6W
Rio Arriba County, New Mexico

Dear Mr. Chavez:

Following are results of tests taken on Chacra and Mesa Verde zones before commingling well.

After all zones were fractured and cleaned up, 7" Packer and Retrievable Bridge Plug were run in hole with Bridge Plug set below Mesa Verde perforations and Packer set above Mesa Verde perforations. Well was then shut in for 48 hours.

Mesa Verde Shut In Pressure	1140#
Chacra Shut In Pressure	1020#

Opened Mesa Verde to atmosphere for 3 hours. Gas gauged 307 MCFPD with small show of oil.

Opened Chacra to atmosphere for 3 hours. Gas gauged 201 MCFPD with no show of oil.

From results of above tests we recommend following breakdown for future production:

Chacra zone	42% of all Gas
Mesa Verde zone	58% of all Gas and 100% of all Oil.

Yours very truly,

Charles Verquer
Charles Verquer, Superintendent
Caulkins Oil Company

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CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

September 29, 1980

Mr. Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico

Re: Downhole Commingled Production
Caulkins Oil Company
Breech D 346
Unit A Section 22 26N 6W

Dear Mr. Chavez:

Following are results of tests taken on Chacra and Mesa Verde zones before commingling well.

After all zones were fractured and cleaned up, 5½" Packer and Retrievable Bridge Plug were run in hole with Bridge Plug set below Mesa Verde perforations and Packer set above Mesa Verde perforations. Well was then shut in for 48 hours.

Mesa Verde Shut In Pressure	956#
Chacra Shut In Pressure	926#

Opened Mesa Verde to atmosphere for 3 hours. Gas gauged 291MCFPD with small show of oil.

Opened Chacra to atmosphere for 3 hours. Gas gauged 216MCFPD with no show of oil.

From results of above tests we recommend following breakdown for future production:

Chacra zone	42% of all Gas
Mesa Verde zone	58% of all Gas and 100% of all Oil.



Yours very truly,

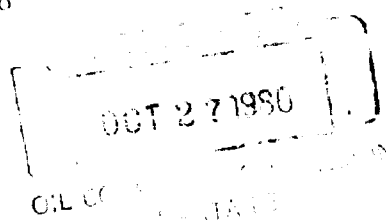
Charles E. Verquer
Charles Verquer, Superintendent
Caulkins Oil Company

LB

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401
October 13, 1980

Mr. Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico



Re: Downhole Commingled Production
Caulkins Oil Company
Breach E 54E
Unit P Section 4 25N 6W
Rio Arriba County, New Mexico

Dear Mr. Chavez:

Following are results of tests taken on Chacra and Mesa Verde zones before commingling well.

After all zones were fractured and cleaned up, 7" Packer and Retrievable Bridge Plug were run in hole with Bridge Plug set below Mesa Verde perforations and Packer set above Mesa Verde perforations. Well was then shut in for 48 hours.

Mesa Verde Shut In Pressure	1010#
Chacra Shut In Pressure	991#

Opened Mesa Verde to atmosphere for 3 hours. Gas gauged 161 MCFPD with small show of oil

Opened Chacra to atmosphere for 3 hours. Gas gauged 83 MCFPD with no show of oil.

From results of above tests we recommend following breakdown for future production:

Chacra zone	34% of all Gas
Mesa Verde zone	66% of all Gas and
	100% of all Oil

Yours very truly,

Charles Verquer, Superintendent
Caulkins Oil Company

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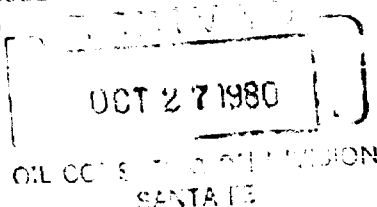
CAULKINS OIL CO.

Post Office Box 780

Farmington, New Mexico 87401

October 13, 1980

Mr. Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico



Re: Downhole Commingled Production
Caulkins Oil Company
Breech E 68E
Unit L Section 4 26N 6W
Rio Arriba County, New Mexico

Dear Mr. Chavez:

Following are results of tests taken on Chacra and Mesa Verde zones before commingling well.

After all zones were fractured and cleaned up, 7" Packer and Retrievable Bridge Plug were run in hole with Bridge Plug set below Mesa Verde perforations and Packer set above Mesa Verde perforations. Well was then shut in for 48 hours.

Mesa Verde Shut In Pressure	1045#
Chacra Shut In Pressure	1003#

Opened Mesa Verde to atmosphere for 3 hours. Gas gauged 189 MCFPD with small show of oil.

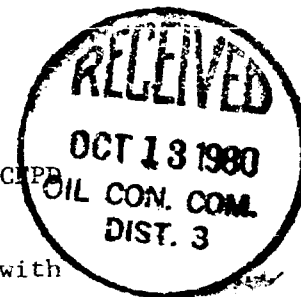
Opened Chacra to atmosphere for 3 hours. Gas gauged 92 MCFPD with no show of oil.

From results of above tests we recommend following breakdown for future production:

Chacra zone	32% of all Gas
Mesa Verde zone	68% of all Gas and
	100% of all Oil

Yours very truly,

Charles Verquer
Charles Verquer, Superintendent
Caulkins Oil Company



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BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

February 20, 1980

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SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Thomas Kellahin
Kellahin & Kellahin
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 6800
ORDER NO. R-6266

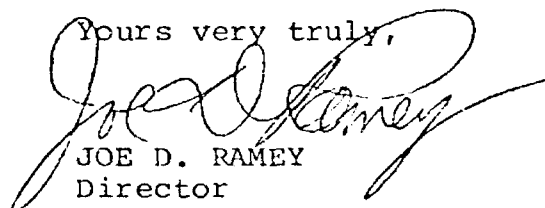
Applicant:

Caulkins Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD	<u>X</u>
Artesia OCD	<u>X</u>
Aztec OCD	<u>X</u>

Other _____

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. 6800
Order No. R-6266

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

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 30, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 13th day of February, 1980, 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 dually complete its Breech "E" Wells Nos. 83-E located in Unit L of Section 5 and 54-E and 68-E located in Units P and L of Section 4; Breech "A" No. 268-E located in Unit P of Section 16; and Breech "D" No. 346 located in Unit A of Section 22, all in Township 26 North, Range 6 West, in such a manner as to produce gas from the Dakota formation and commingled Chacra and Mesaverde production through parallel strings of tubing in each of said wells.

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

(4) That from the Chacra zone, each of the subject wells is expected to be capable of marginal production only.

Case No. 6800
Order No. R-6266

(5) That from the Mesaverde zone, each of the subject wells is expected to be 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.

(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 no such commingled well is shut-in for an extended period.

(8) 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 any time any of the subject wells is shut-in for 7 consecutive days.

(9) 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.

(10) 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 "E" Wells Nos. 93-E located in Unit L of Section 5 and 54-E and 68-E located in Units P and L of Section 4; Breech "A" No. 268-E located in Unit P of Section 16; and Breech "D" No. 346 located in Unit A of Section 22, all in Township 26 North, Range 6 West, Rio Arriba County, New Mexico, as dual completions (conventional) to produce gas from the Dakota formation through one string of tubing and to produce commingled Chacra and Mesaverde production through a parallel string of tubing, with separation of the Dakota zone from the commingled zones to be achieved by means of a packer in each of said wells.

PROVIDED HOWEVER, that the applicant shall complete, operate, 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;

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Case No. 6300
Order No. R-6266

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Deliverability Test Period for either the Blanco Mesaverde or Basin-Dakota Pool.

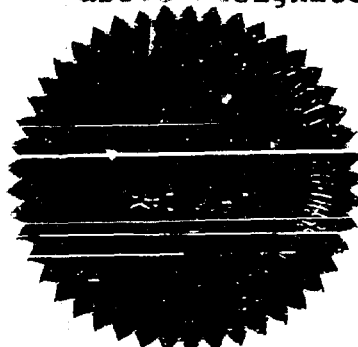
(2) That the applicant, Caulkins Oil Company, is further authorized to commingle Chacra and Mesaverde production within the wellbore of each of said wells.

(3) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(4) That the operator of the subject wells shall immediately notify the Division's Aztec district office any time any of the wells 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.



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
30 January 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Caulkins Oil Company) CASE
for dual completion and downhole) 6900
commingling, Rio Arriba County, New)
Mexico.)

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

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

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I N D E X

CHARLES VERQUER

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1 MR. STAMETS: We'll call next Case 6800.

2 MR. PADILLA: Application of Caulkins
3 Oil Company for dual completion and downhole commingling,
4 Rio Arriba County, New Mexico.

5 MR. KELLAHIN: If the Examiner please,
6 I'd the record to reflect that same appearances in this
7 case for Caulkins Oil Company, that Mr. Verquer has already
8 been sworn and qualified as an expert witness.

9 MR. STAMETS: The record will so show.

10
11 CHARLES VERQUER
12 being called as a witness and having been previously sworn
13 upon his oath, testified as follows, to-wit:

14
15 DIRECT EXAMINATION

16 BY MR. KELLAHIN:

17 Q Mr. Verquer, would you turn to what we've
18 marked as Exhibit Number One and identify that plat for
19 us?

20 A This is a map of the -- section map of
21 all the Caulkins properties with the various things listed
22 on them. The five wells that we are proposing this com-
23 mingling, are identified by the red arrow. The four wells
24 that have the --

25 Q Let me ask you for a moment, Mr. Verquer,

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1 the wells indicated by the five red arrows are all the wells
2 that are subject to this application?

3 A. That is correct.

4 Q. Now, what do you desire to do with the
5 wells?

6 A. We desire to commingle the Chacra and
7 Mesaverde zones above the permanent type packer and then have
8 the well dually completed in the Dakota zone and the Dakota
9 flowing to the surface through 2-3/8ths tubing, and the com-
10 mingled zones flowing to the surface through a separate
11 string of tubing, more than likely 1-1/4.

12 Q. All right. Let's start with the well
13 indicated by the red arrow in Section number 5 and describe
14 for me the current status of that well?

15 A. 583-M was originally a Tocito well that
16 had been plugged back to the Chacra and is now producing as
17 a single Chacra well from the zone at approximately 4000 feet.

18 Q. All right, and if you'll go to Section
19 4 now and look at the 68-E well, what's the current status
20 of that well?

21 A. That well is a Tocito injection well.
22 It has been temporarily abandoned for roughly fifteen years,
23 waiting for the infill Dakota drilling order to be passed.

24 Q. If you'll look at the location in Sec-
25 tion 4 where you've designated 54-E, what is that?

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1 A. That is a proposed new well. We have it
2 staked for 1980 development well and it would be a Dakota
3 infill well.

4 Q. Let's look down in Section 16 at the
5 location indicated 268-E. What's that?

6 A. It's a new -- a new well proposed for
7 1980 to be drilled and completed in the Chacra Mesaverde-
8 Dakota.

9 Q. Let's look in Section 22 now and what
10 does that arrow indicate?

11 A. The 346 well in the northeast quarter
12 is a Dakota well, has 5-1/2 casing cemented so that it can
13 be completed in the Chacra-Mesaverde. In fact it's cemented
14 to the surface, and it can be completed in the Chacra-Mesa-
15 verde and we propose to commingle the two zones above a
16 packer and produce the Dakota through 1-1/4 EUE tubing from
17 below the packer and the Chacra-Mesaverde from above it
18 through 1-1/4 tubing.

19 Q. Is it a common occurrence in this area,
20 Mr. Verquer, to commingle the production in the Chacra-Mesa-
21 verde?

22 A. I have started it in the last -- over
23 the last -- last year was the first time it had been done.
24 I have four wells identified in the map that are now com-
25 pleted in the Chacra-Mesaverde.

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Q How are those wells identified?

A With a red circle.

Q And all four of those wells, as I understand it, are currently completed as commingled Chacra-Mesaverde wells?

A Yes, sir, they are.

Q What do the three red squares indicate?

A The three red squares are when I came before the Commission to -- or Division to -- for permission to commingle the Chacra-Mesaverde wells, those were also approved, and they just have not been completed in the Chacra-Mesaverde.

Q If you'll turn now to what we've marked as Exhibit Number Two, would you identify that and summarize the method of completion for this well?

A All right. This Exhibit Number Two is for 583-M in Section 5.

Well, we would deepen it and then set a 4-1/2 inch liner to the Dakota, cemented, and then proceed and complete it with a packer set in the 7-inch below the Mesaverde perforations to separate the Mesaverde-Chacra from the little Model D permanent type production packer.

Q Turn to Exhibit Two-A and identify that.

A Two-A is the same procedure, except -- well, it is -- we would run -- deepen it and run 4-1/2 inch

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1 liner from the present TD in that well and cement it and
2 then complete the well in the Chacra-Mesaverde above a
3 packer. And on this well, the first well was cemented over
4 the -- over the Mesaverde already. This well will have to
5 be cemented behind the pipe before it can be completed in
6 the Mesaverde-Chacra.

7 Q All right, and identify Exhibit Number
8 Two-B.

9 A All right, Two-B is just a schematic
10 drawing of the proposed well completion. We propose to
11 drill 8-3/4 hole and set 7-inch casing to TD. It will be
12 mud drilled all the way, and then cemented in three stages,
13 so we'll cement it to the surface and perforate and com-
14 plete the well and set a packer below the Mesaverde, above
15 the Dakota, with tubing through the packer to produce the
16 Dakota to surface and a second string of tubing to produce
17 the Mesaverde-Chacra to the surface.

18 Q All right, sir, and Exhibit Number Two-C.

19 A It's the same as Two-B, except for the
20 well location. It's a new well to be drilled.

21 Q All right, and Exhibit Two-D.

22 A Two-D is the 346 Well in Section 22, has
23 the 5-1/2 casing in it. We would go in and set a bridge
24 plug above the Dakota and complete the Chacra-Mesaverde,
25 clean it up and test it, and go back and remove the bridge

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1 plug and set a packer, and then complete it with the con-
2 ventional dual with tubing through the packer seals and
3 separating the Mesaverde and Dakota.

4 Q All right. Now would you turn to Ex-
5 hibit Number Three and summarize briefly the information
6 contained in that exhibit?

7 A Exhibit Number Three is a present condi-
8 tion of the well and where the cement is and what we propose
9 to do to deepen it and complete it in the Dakota, Chacra-
10 Mesaverde.

11 Q Exhibit Three-A?

12 A Three-A is Well No. 68-E. It's the
13 same, same information. Shows when it was abandoned as a
14 Tociito water injection well and also that the unorthodox
15 approval has been approved and then our proposal of how
16 we will do it.

17 The well does have a 5-1/2 inch liner
18 in it now. This one here is 90 feet long. We are going to
19 attempt to drill it out, but if that's not successful, we
20 will set a whipstock and to deepen the well to the Dakota.

21 Q Exhibit Three-B.

22 A Three-B is our proposed plan for the
23 new well, what our casing program is and where we plan to
24 complete it.

25 Q Exhibit Three-C.

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1 A Is the same as Three-B for the new well,
2 268.

3 Q And Exhibit Three-D.

4 A The present condition of the well with
5 a 5-1/2 casing and how it's cemented and average monthly
6 production on the Dakota is 4-1/2 million, kind of a stinker,
7 and how we -- what we propose -- how we propose to complete
8 it.

9 Q Would you turn to Exhibit Number Four,
10 now. Each of these wells, what acreage would be dedicated
11 to the Dakota for each of the wells?

12 A All right. In the case of the -- there
13 would be 320 acres dedicated; four of them are all infill
14 wells and they will be dedicated with the same as the other
15 one. I don't have it listed here but I do know by looking
16 at the map the way it would go.

17 The south half of the section is for
18 583.

19 Q All right, that's the 320-acre Dakota
20 dedication for that well?

21 A Yes, sir.

22 Q And what is the acreage dedication for
23 the Chacra-Mesaverde?

24 A The Chacra would be the southwest quarter
25 and the Mesaverde would be the same as the Dakota. On that

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1 583-M I did have the east half dedicated to a Mesaverde well
2 in the southeast corner, and I have changed that dedication
3 to the south half. It has been done.

4 Q All right. Show me the acreage dedi-
5 cation for the two wells in Section 4.

6 A 68-E would have the west half of the
7 section in both Mesaverde and Dakota, 320 acres. The Chacra
8 would be the southwest quarter.

9 The east half would be dedicated to 54-E
10 for the Dakota and Mesaverde, and the southeast quarter for
11 the Chacra.

12 Q All right, and the well in Section 16.

13 A In Section 16 is the unorthodox location
14 we asked for in Case Number 6799. That's the 268 State
15 well, and it would be the south half of the northeast quarter.

16 Q You said unorthodox location.

17 A I mean --

18 Q This is the non-standard proration unit.

19 A -- proration unit.

20 Q All right.

21 A Okay.

22 Q Now, for the well in Section 22.

23 A In Section 22 it is the east half of
24 the section.

25 Q All right.

1 Now, for each of those proration units
2 for the well, is the ownership in common with the Chacra
3 and Mesaverde formations?

4 A Yes, it is.

5 Q We don't have any conflict with mineral
6 ownership of the Chacra and Mesaverde?

7 A No, under every unit it is the same.

8 Q All right. Would you describe Exhibit
9 Four, please?

10 A Exhibit Four is production records for
11 the Chacra-Mesaverde commingled of the four wells that were
12 circled on Exhibit Number One. As you'll notice, 104 was
13 the first one that was completed. I have records from
14 October, '78, through December, '79, of the monthly pro-
15 duction.

16 Q This is commingled production.

17 A This is the total commingled production,
18 yes, sir. Then the other three wells, 224-A, 679, and 812,
19 were all completed in 1979 and they were turned on the line
20 in -- the 224-A in November, and the commingled production
21 from the Chacra-Mesaverde is 1606 for the month and December
22 is 1903, which is not too bad for a Chacra-Mesaverde. Very
23 surprised, in fact, I expected less from them.

24 Those are on the west end of the pro-
25 perty, quite a ways from these. They're much different than

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1 the wells that are close.

2 The 679 well, which is in Section 8, or
3 9 -- it's in Section 9, that well commingled in the Chacra-
4 Mesaverde, I was able to get a real good cement job behind
5 the pipe on the 7-inch and I believe that accounts for pro-
6 bably the difference in some of these Chacra-Mesaverdes.
7 These old wells that have cement behind the pipe from the
8 original, you have no problems fracing them, but these that
9 you're cementing up the channels, it gives you some problems;
10 and that's 224-A and A-12 were both cemented as new wells top
11 to bottom, so I have no problems at all fracing those wells.

12 Q How would you propose to work out the
13 productions between the Chacra and Mesaverde formations?

14 A I would propose that I test, complete
15 them and clean the wells up and test each zone individually
16 and get a shut in pressure and production rate and then con-
17 sult with the Aztec supervisor to come up with a split in
18 production. I've done that with the 224-A and A-12 and it's
19 by far the best way, not knowing blind what they will do.

20 Q Based upon your experience, Mr. Verquer,
21 are the proposed downhole commingling of the Chacra and
22 Mesaverde formations an effective and efficient way to pro-
23 duce those formations?

24 A Yes. The economics of it, you couldn't
25 produce or drill a well and complete them in the Chacra-

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1 Mesaverde and dual complete them and produce them separately.
2 It just seems to add enough gas to them to be able to carry
3 what little fluid the Mesaverde zone will make out of the
4 hole and keeps them clean, and just makes a little bit better
5 efficient operation. It helps in the field to keep them on
6 the line.

7 Q In your opinion then will the proposed
8 downhole commingling of the Chacra and Mesaverde zones pose
9 any risk of damaging either formation?

10 A In view of the well that I have com-
11 pleted that way, I don't think so, no.

12 Q In your opinion will it result in greater
13 ultimate recovery by commingling these zones rather than
14 producing them as a dual completion?

15 A Yes, it will.

16 Q Were Exhibits One through Four prepared
17 by you?

18 A They were.

19 Q And in your opinion will approval of
20 this application be in the best interests of conservation,
21 the prevention of waste, and the protection of correlative
22 rights?

23 A Yes.

24 MR. KELLAHIN: We move the introduction
25 of Exhibits One through Four.

1 MR. STAMETS: These exhibits will be
2 admitted.

3
4 CROSS EXAMINATION

5 BY MR. STAMETS:

6 Q Mr. Verquer, on Exhibit Four I see
7 you've got some information on Wells 224-A and A-12 on shut
8 in pressures and potentials between the Chacra and Mesa-
9 verde zones, but I don't see Well No. 104 or 679 on there.
10 Is there any significance in their deletion?

11 A Those were the first ones that I run in
12 here and I gave you a proposed split and they passed on that,
13 so they were not tested in the subject case. I believe
14 this other way is the best way to test them.

15 Q The evidence that you've seen so far
16 indicates that there's not a great deal of difference in the
17 pressures or potentials between these two wells.

18 A There sure isn't. It surprised me that
19 they were as close as they are.

20 MR. STAMETS: Any other questions of this
21 witness? He may be excused.

22 Anything further in this case?

23 The case will be taken under advisement.

24
25 (Hearing concluded.)

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REPORTER'S CERTIFICATE

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

Sally W. Boyd C.S.R.

SALLY W. BOYD, C.S.R.

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I do hereby certify that the foregoing is a complete record of the proceedings in the Examining hearing of Case No. 6800, heard by me on 1-30, 1980.
Richard L. Hume, Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
30 January 1980

EXAMINER HEARING

IN THE MATTER OF:

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

CASE
6800

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

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I N D E X

CHARLES VERQUER

Direct Examination by Mr. Kellahin 3

Cross Examination by Mr. Stamets 14

E X H I B I T S

Applicant Exhibit One, Map 3

Applicant Exhibit Two, Schematics 6

Applicant Exhibit Three, Documents 8

Applicant Exhibit Four, Document 9

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1 MR. STAMETS: We'll call next Case 6900.

2 MR. KELLAHIN: Application of Caulkins
3 Oil Company for land completion and leasehold commingling,
4 Rio Arriba County, New Mexico.

5 MR. KELLAHIN: If the Examiner please,
6 I'd the record to reflect that same appearances in this
7 case for Caulkins Oil Company, that Mr. Verquer has already
8 been sworn and qualified as an expert witness.

9 MR. STAMETS: The record will so show.

10
11 CHARLES VERQUER
12 being called as a witness and having been previously sworn
13 upon his oath, testified as follows, to-wit:

14
15 DIRECT EXAMINATION

16 BY MR. KELLAHIN:

17 Q Mr. Verquer, would you turn to what we've
18 marked as Exhibit Number One and identify that plat for
19 us?

20 A This is a map of the -- section map of
21 all the Caulkins properties with the various things listed
22 on them. The five wells that we are proposing this com-
23 mingling, are identified by the red arrow. The four wells
24 that have the --

25 Q Let me ask you for a moment, Mr. Verquer,

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1 the wells indicated by the five red arrows are all the wells
2 that are subject to this application?

3 A. That is correct.

4 Q. Now, what do you desire to do with the
5 wells?

6 A. We desire to corringled the Chacra and
7 Mesaverde zones above the permanent type packer and then have
8 the well dually completed in the Dakota zone and the Dakota
9 flowing to the surface through 2-3/8ths tubing, and the com-
10 rringled zones flowing to the surface through a separate
11 string of tubing, more than likely 1-1/4.

12 Q. All right. Let's start with the well
13 indicated by the red arrow in Section number 5 and describe
14 for me the current status of that well?

15 A. 583-M was originally a Tocito well that
16 had been plugged back to the Chacra and is now producing as
17 a single Chacra well from the zone at approximately 4000 feet.

18 Q. All right, and if you'll go to Section
19 4 now and look at the 68-E well, what's the current status
20 of that well?

21 A. That well is a Tocito injection well.
22 It has been temporarily abandoned for roughly fifteen years,
23 waiting for the infill Dakota drilling order to be passed.

24 Q. If you'll look at the location in Sec-
25 tion 4 where you've designated 54-E, what is that?

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4 C Let's look down in Section 16 at the
5 location indicated 202-D. What's that?

9 ? Let's look in Section 22 now and what
10 does that arrow indicate?

1. The 346 well in the northeast quarter is a Dakota well, has 5-1/2 casing cemented so that it can be completed in the Chacra-Mesaverde. In fact it's cemented to the surface, and it can be completed in the Chacra-Mesaverde and we propose to corringe the two zones above a packer and produce the Dakota through 1-1/4 EUE tubing from below the packer and the Chacra-Mesaverde from above it through 1-1/4 tubing.

19 Q Is it a common occurrence in this area,
20 Mr. Verguen, to commingle the production in the Chacra-Mesa-
21 verde?

22 A. I have started it in the last -- over
23 the last -- last year was the first time it had been done.
24 I have four wells identified in the map that are now com-
25 pleted in the Chacra-Mesaverde.

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1 Q How are those wells identified?

2 A With a red circle.

3 Q And all four of those wells, as I under-
4 stand it, are currently completed as commingled Chacra-Mesa-
5 verde wells?

6 A Yes, sir, they are.

7 Q What do the three red squares indicate?

8 A The three red squares are when I came
9 before the Commission to -- or Division to -- for permission
10 to commingle the Chacra-Mesaverde wells, those were also
11 approved, and they just have not been completed in the Chacra-
12 Mesaverde.

13 Q If you'll turn now to what we've marked
14 as Exhibit Number Two, would you identify that and summarize
15 the method of completion for this well?

16 A All right. This Exhibit Number Two is
17 for 583-M in Section 5.

18 Well, we would deepen it and then set
19 a 4-1/2 inch liner to the Dakota, cemented, and then pro-
20 ceed and complete it with a packer set in the 7-inch below
21 the Mesaverde perforations to separate the Mesaverde-Chacra
22 from the little Model D permanent type production packer.

23 Q Turn to Exhibit Two-A and identify that.

24 A Two-A is the same procedure, except --
25 well, it is -- we would run -- deepen it and run 4-1/2 inch

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1 liner from the present TD in that well and cement it and
2 then complete the well in the Chacra-Mesaverde above a
3 packer. And on this well, the first well was cemented over
4 the -- over the Mesaverde already. This well will have to
5 be cemented behind the pipe before it can be completed in
6 the Mesaverde-Chacra.

7 Q All right, and identify Exhibit Number
8 Two-B.

9 A All right, Two-B is just a schematic
10 drawing of the proposed well completion. We propose to
11 drill 8-3/4 hole and set 7-inch casing to TD. It will be
12 mud drilled all the way, and then cemented in three stages,
13 so we'll cement it to the surface and perforate and com-
14 plete the well and set a packer below the Mesaverde, above
15 the Dakota, with tubing through the packer to produce the
16 Dakota to surface and a second string of tubing to produce
17 the Mesaverde-Chacra to the surface.

18 Q All right, sir, and Exhibit Number Two-C.

19 A It's the same as Two-B, except for the
20 well location. It's a new well to be drilled.

21 Q All right, and Exhibit Two-D.

22 A Two-D is the 346 Well in Section 22, has
23 the 5-1/2 casing in it. We would go in and set a bridge
24 plug above the Dakota and complete the Chacra-Mesaverde,
25 clean it up and test it, and go back and remove the bridge

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1 plug and set a packer, and then complete it with the con-
2 ventional dual with tubing through the packer seals and
3 separating the Mesaverde and Dakota.

4 Q All right. Now would you turn to Ex-
5 hibit Number Three and summarize briefly the information
6 contained in that exhibit?

7 A Exhibit Number Three is a present condi-
8 tion of the well and where the cement is and what we propose
9 to do to deepen it and complete it in the Dakota, Chacra-
10 Mesaverde.

11 Q Exhibit Three-A?

12 A Three-A is Well No. 68-E. It's the
13 same, same information. Shows when it was abandoned as a
14 Tociito water injection well and also that the unorthodox
15 approval has been approved and then our proposal of how
16 we will do it.

17 The well does have a 5-1/2 inch liner
18 in it now. This one here is 90 feet long. We are going to
19 attempt to drill it out, but if that's not successful, we
20 will set a whipstock and to deepen the well to the Dakota.

21 Q Exhibit Three-B.

22 A Three-B is our proposed plan for the
23 new well, what our casing program is and where we plan to
24 complete it.

25 Q Exhibit Three-C.

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1 A Is the same as Three-B for the new well,
2 268.

3 Q And Exhibit Three-D.

4 A The present condition of the well with
5 a 5-1/2 casing and how it's cemented and average monthly
6 production on the Dakota is 4-1/2 mill'on, kind of a stinker,
7 and how we -- what we propose -- how we propose to complete
8 it.

9 Q Would you turn to Exhibit Number Four,
10 now. Each of these wells, what acreage would be dedicated
11 to the Dakota for each of the wells?

12 A All right. In the case of the -- there
13 would be 320 acres dedicated; four of them are all infill
14 wells and they will be dedicated with the same as the other
15 one. I don't have it listed here but I do know by looking
16 at the map the way it would go.

17 The south half of the section is for
18 583.

19 Q All right, that's the 320-acre Dakota
20 dedication for that well?

21 A Yes, sir.

22 Q And what is the acreage dedication for
23 the Chacra-Mesaverde?

24 A The Chacra would be the southwest quarter
25 and the Mesaverde would be the same as the Dakota. On that

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1 583-M I did have the east half dedicated to a Mesaverde well
2 in the southeast corner, and I have changed that dedication
3 to the south half. It has been done.

4 Q All right. Show me the acreage dedi-
5 cation for the two wells in Section 4.

6 A 68-E would have the west half of the
7 section in both Mesaverde and Dakota, 320 acres. The Chacra
8 would be the southwest quarter.

9 The east half would be dedicated to 54-E
10 for the Dakota and Mesaverde, and the southeast quarter for
11 the Chacra.

12 Q All right, and the well in Section 16.

13 A In Section 16 is the unorthodox location
14 we asked for in Case Number 6799. That's the 268 State
15 well, and it would be the south half of the northeast quarter.

16 Q You said unorthodox location.

17 A I mean --

18 Q This is the non-standard proration unit.

19 A -- proration unit.

20 Q All right.

21 A Okay.

22 Q Now, for the well in Section 22.

23 A In Section 22 it is the east half of
24 the section.

25 Q All right.

1 Now, for each of those proration units
2 for the well, is the ownership in common with the Chacra
3 and Mesaverde formations?

4 A Yes, it is.

5 Q We don't have any conflict with mineral
6 ownership of the Chacra and Mesaverde?

7 A No, under every unit it is the same.

8 Q All right. Would you describe Exhibit
9 Four, please?

10 A Exhibit Four is production records for
11 the Chacra-Mesaverde commingled of the four wells that were
12 circled on Exhibit Number One. As you'll notice, 104 was
13 the first one that was completed. I have records from
14 October, '78, through December, '79, of the monthly pro-
15 duction.

16 Q This is commingled production.

17 A This is the total commingled production,
18 yes, sir. Then the other three wells, 224-A, 679, and 812,
19 were all completed in 1979 and they were turned on the line
20 in -- the 224-A in November, and the commingled production
21 from the Chacra-Mesaverde is 1606 for the month and December
22 is 1903, which is not too bad for a Chacra-Mesaverde. Very
23 surprised, in fact, I expected less from them.

24 Those are on the west end of the pro-
25 perty, quite a ways from these. They're much different than

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1 the wells that are close.

2 The 679 well, which is in Section 8, or
3 9 -- it's in Section 9, that well commingled in the Chacra-
4 Mesaverde, I was able to get a real good cement job behind
5 the pipe on the 7-inch and I believe that accounts for pro-
6 bably the difference in some of these Chacra-Mesaverdes.
7 These old wells that have cement behind the pipe from the
8 original, you have no problems fracing them, but these that
9 you're cementing up the channels, it gives you some problems;
10 and that's 224-A and A-12 were both cemented as new wells top
11 to bottom, so I have no problems at all fracing those wells.

12 Q How would you propose to work out the
13 productions between the Chacra and Mesaverde formations?

14 A I would propose that I test, complete
15 them and clean the wells up and test each zone individually
16 and get a shut in pressure and production rate and then con-
17 sult with the Aztec supervisor to come up with a split in
18 production. I've done that with the 224-A and A-12 and it's
19 by far the best way, not knowing blind what they will do.

20 Q Based upon your experience, Mr. Verquer,
21 are the proposed downhole commingling of the Chacra and
22 Mesaverde formations an effective and efficient way to pro-
23 duce those formations?

24 A Yes. The economics of it, you couldn't
25 produce or drill a well and complete them in the Chacra-

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1 Mesaverde and dual complete them and produce them separately.
2 It just seems to add enough gas to them to be able to carry
3 what little fluid the Mesaverde zone will make out of the
4 hole and keeps them clean, and just makes a little bit better
5 efficient operation. It helps in the field to keep them on
6 the line.

7 Q In your opinion then will the proposed
8 downhole commingling of the Chacra and Mesaverde zones pose
9 any risk of damaging either formation?

10 A In view of the well that I have com-
11 pleted that way, I don't think so, no.

12 Q In your opinion will it result in greater
13 ultimate recovery by commingling these zones rather than
14 producing them as a dual completion?

15 A Yes, it will.

16 Q Were Exhibits One through Four prepared
17 by you?

18 A They were.

19 Q And in your opinion will approval of
20 this application be in the best interests of conservation,
21 the prevention of waste, and the protection of correlative
22 rights?

23 A Yes.

24 MR. KELLAHIN: We move the introduction
25 of Exhibits One through Four.

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MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Verquer, on Exhibit Four I see you've got some information on Wells 224-A and A-12 on shut in pressures and potentials between the Chacra and Mesa-verde zones, but I don't see Well No. 104 or 679 on there. Is there any significance in their deletion?

A Those were the first ones that I run in here and I gave you a proposed split and they passed on that, so they were not tested in the subject case. I believe this other way is the best way to test them.

Q The evidence that you've seen so far indicates that there's not a great deal of difference in the pressures or potentials between these two wells.

A There sure isn't. It surprised me that they were as close as they are.

MR. STAMETS: Any other questions of this witness? He may be excused.

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that
the attached Transcript of Hearing 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.

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I do hereby certify that the foregoing is
a complete and true transcript of the proceedings in
the Examiners' hearing of Case No. _____,
heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

Dockets Nos. 4-80 and 5-80 are tentatively set for February 13 and 27, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 30, 1980

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 6787: (Continued from January 16, 1980, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to consider the approval of 12 non-standard proration units ranging in size from 261.51 acres to 334.24 acres for 320-acre spaced pools, and 19 non-standard proration units ranging in size from 162.65 acres to 207.57 acres for 160-acre spaced pools, all of the aforesaid units being in and resulting from the irregular size and shape of Sections 1 thru 7 and 18, 19, 30, and 31, along the North and West sides of Township 28 North, Range 3 West, Rio Arriba County.

CASE 6796: Application of Union Oil Company of California for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the SW/4 SW/4 of Section 1, Township 8 South, Range 28 East, 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 6797: Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Penn formations underlying the N/2 of Section 28, Township 18 South, Range 29 East, 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 6798: Application of Estoril Producing Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Curry Federal Well No. 1, to be drilled 1980 feet from the South line and 660 feet from the East line of Section 22, Township 23 South, Range 34 East, Antelope Ridge-Morrow Gas Pool, the S/2 of said Section 22 to be dedicated to the well.

CASE 6799: Application of Caulkins Oil Company for a non-standard gas proration unit, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 320-acre non-standard gas proration unit comprising the SE/4, S/2 NE/4 and S/2 SW/4 of Section 16, Township 26 North, Range 6 West, Blanco Mesaverde Pool, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6794: (Continued from January 16, 1980, 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 Totito Gallup and Dakota production in the wellbore of its Breech "D" Well No. 140 located in Unit A of Section 11, Township 26 North, Range 6 West.

CASE 6800: Application of Caulkins Oil Company for dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Breech "E" Wells Nos. 83-E located in Unit L of Section 5 and 54-E and 68-E located in Units P and L of Section 4; Breech "A" No. 268-E located in Unit P of Section 16; and Breech "D" No. 346 located in Unit D of Section 22, all in Township 26 North, Range 6 West, in such a manner as to produce gas from the Dakota formation and commingled Chacra and Mesaverde production through parallel strings of tubing.

CASE 6801: 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 dually complete its Breech "C" Well No. 248-E located in Unit D of Section 13, Township 26 North, Range 6 West, in such a manner as to produce commingled Tapacito-Gallup and Dakota production and commingled Chacra and Mesaverde production through parallel strings of tubing.

CASE 6790: (Continued from January 16, 1980, Examiner Hearing)

Application of Merrion & Bayless for gas well commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to temporarily commingle certain of its Pictured Cliffs gas wells in Sections 1, 2, 3, 9, 10, and 11, Township 26 North, Range 13 West, in a common gathering system and meter the entire lease output through the purchaser's sales meter located in Unit M of said Section 7.

CAULKINS OIL COMPANY

Case No. 6800

Proposal

Downhole commingle production from Chacra and Mesa Verde and then Dual Complete those two zone's with the Dakota Zone.

Permanent type production packer will be set between Mesa Verde and Dakota Zones.

Dakota Zone would flow to surface from below packer thru 2 3/8" tubing. Schematic drawing for each well listed exhibit's #2 thru 2 D.

Chacra-Mesa Verde Commingled Zones would flow thru 1 1/4" NU tubing to surface.

Following list of wells and locations:

Breech E	583 M	Unit L	Section 5	26 North 6 West
Breech E	68 E	Unit L	Section 4	26 North 6 West
Breech E	54 E	Unit P	Section 4	26 North 6 West
State A	268 E	Unit P	Section 16	26 North 6 West
Breech D	346	Unit D	Section 22	26 North 6 West

Should be Unit A

History of present condition of each well listed in exhibits 3 thru 3 D.

Exhibit #1

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

Wells involved identified by red arrow.

Caulkins Oil Company wells commingled in Chacra and Mesa Verde identified by red circle.

Caulkins Oil Company wells with approval to commingle Chacra and Mesa Verde but not done, identified by red square.

<u>Exhibit #2</u>	Schematic drawing of Proposed Completion	583 M
	2A Schematic drawing of Proposed Completion	68 E
	2B Schematic drawing of Proposed Completion	54 E
	2C Schematic drawing of Proposed Completion	268 E
	2D Schematic drawing of Proposed Completion	346

<u>Exhibit #3</u>	Present Condition and Well History	583 M
	3A Present Condition and Well History	68 E
	3B Present Condition and Well History	54 E
	3C Present Condition and Well History	268 E
	3D Present Condition and Well History	346

Exhibit #4

Pressure and Production Tabulation for Four Wells now complete and producing from commingled Chacra-Mesa Verde.

Proposed production split for Chacra and Mesa Verde Zones for each well.

We recommend each zone be tested and then confer with Aztec District Engineer to determine production split for each well.

CAULKINS OIL COMPANY

Case No. 6800

Proposal

Downhole commingle production from Chacra and Mesa Verde and then Dual Complete those two zone's with the Dakota Zone.

Permanent type production packer will be set between Mesa Verde and Dakota Zones.

Dakota Zone would flow to surface from below packer thru 2 3/8" tubing. Schematic drawing for each well listed exhibit's #2 thru 2 D.

Chacra-Mesa Verde Commingled Zones would flow thru 1 1/4" NU tubing to surface.

Following list of wells and locations:

Breech E	583 M	Unit L	Section 5	26 North 6 West
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Breech E	54 E	Unit P	Section 4	26 North 6 West
State A	268 E	Unit P	Section 16	26 North 6 West
Breech D	346	Unit D	Section 22	26 North 6 West

History of present condition of each well listed in exhibits 3 thru 3 D.

Exhibit #1

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

Wells involved identified by red arrow.

Caulkins Oil Company wells commingled in Chacra and Mesa Verde identified by red circle.

Caulkins Oil Company wells with approval to commingle Chacra and Mesa Verde but not done, identified by red square.

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2D	Schematic drawing of Proposed Completion	346

<u>Exhibit #3</u>	Present Condition and Well History	583 M
3A	Present Condition and Well History	68 E
3B	Present Condition and Well History	54 E
3C	Present Condition and Well History	268 E
3D	Present Condition and Well History	346

Exhibit #4

Pressure and Production Tabulation for Four Wells now complete and producing from commingled Chacra-Mesa Verde.

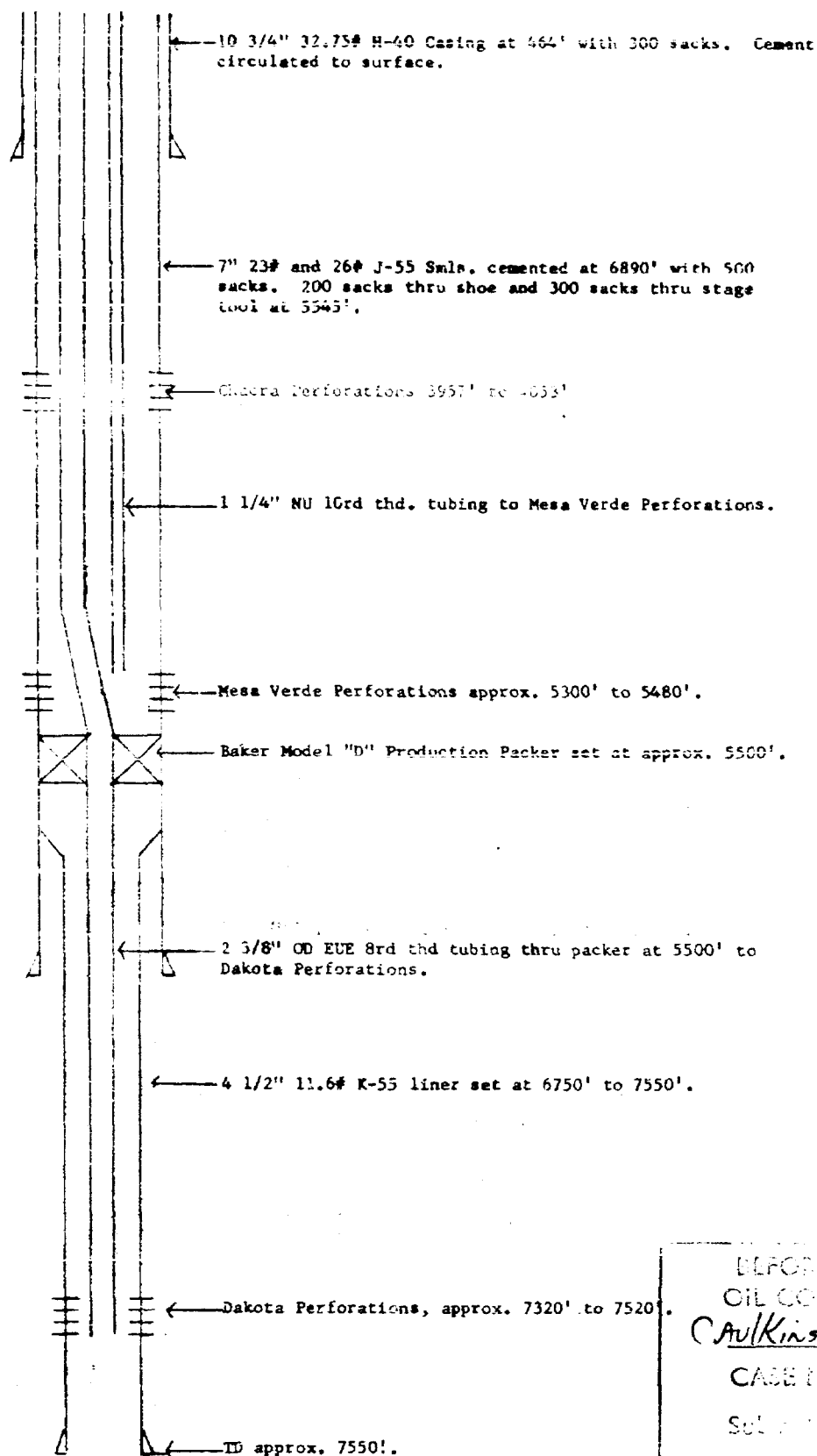
Proposed production split for Chacra and Mesa Verde Zones for each well.

We recommend each zone be tested and then confer with Aztec District Engineer to determine production split for each well.

BY
CHD. BY
DATE

SUBJECT

SHEET NO.
JOB NO.

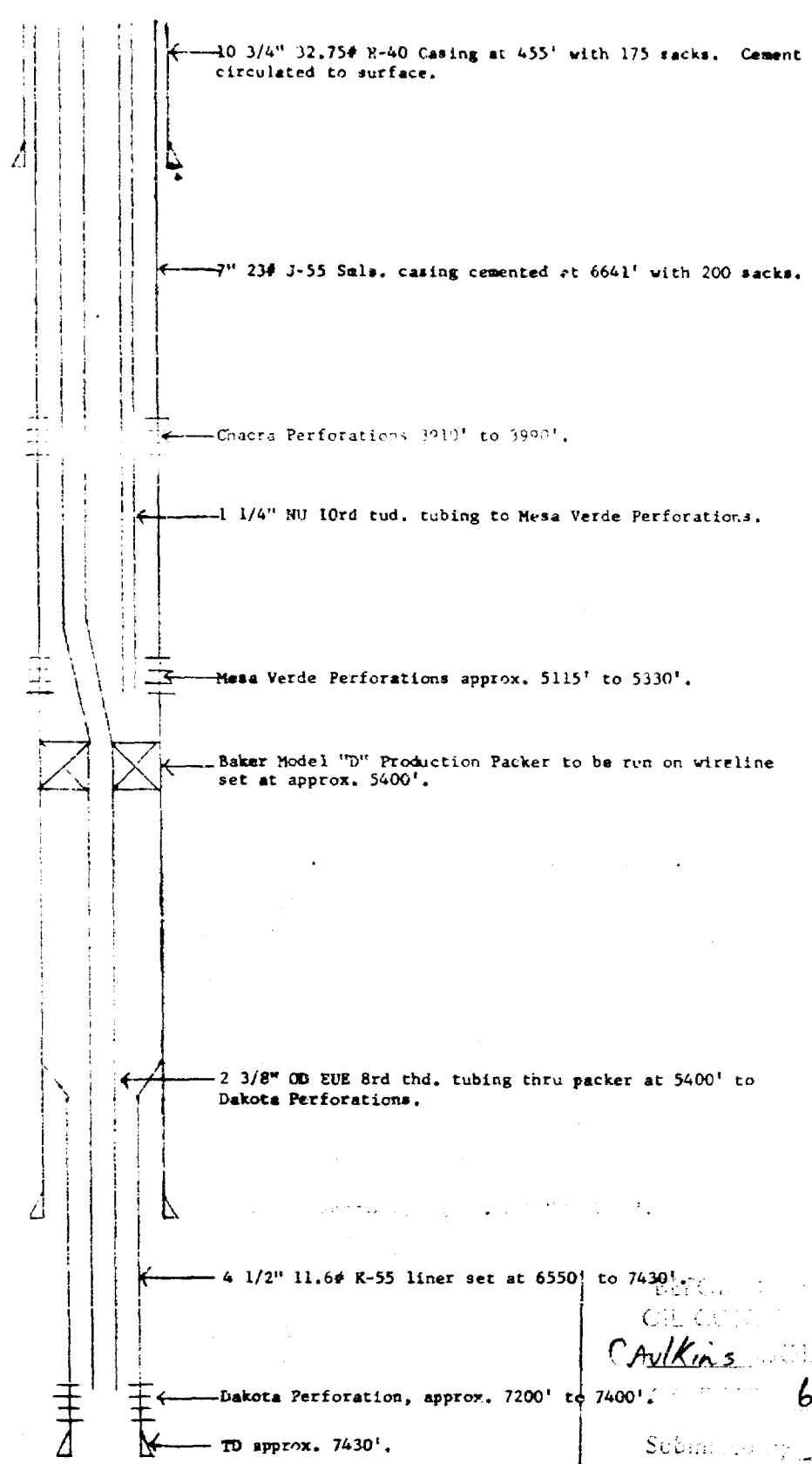


ELFORO OIL FIELD
OIL COMPANY
CAULKINS OIL COMPANY
CASE NO. 6800
Selling Price
Hearing Date 30 Jan 80

CAULKINS OIL COMPANY

Proposed Dual Completion
Well No. 583 M (Old No. 581)
1940' from South 720' from West
Section 5, 26 North 6 West
Rio Arriba County, New Mexico

BY _____ DATE _____
 CHRD. BY _____ DATE _____
 SUBJECT _____
 SHEET NO. _____ OF _____
 JOB NO. _____

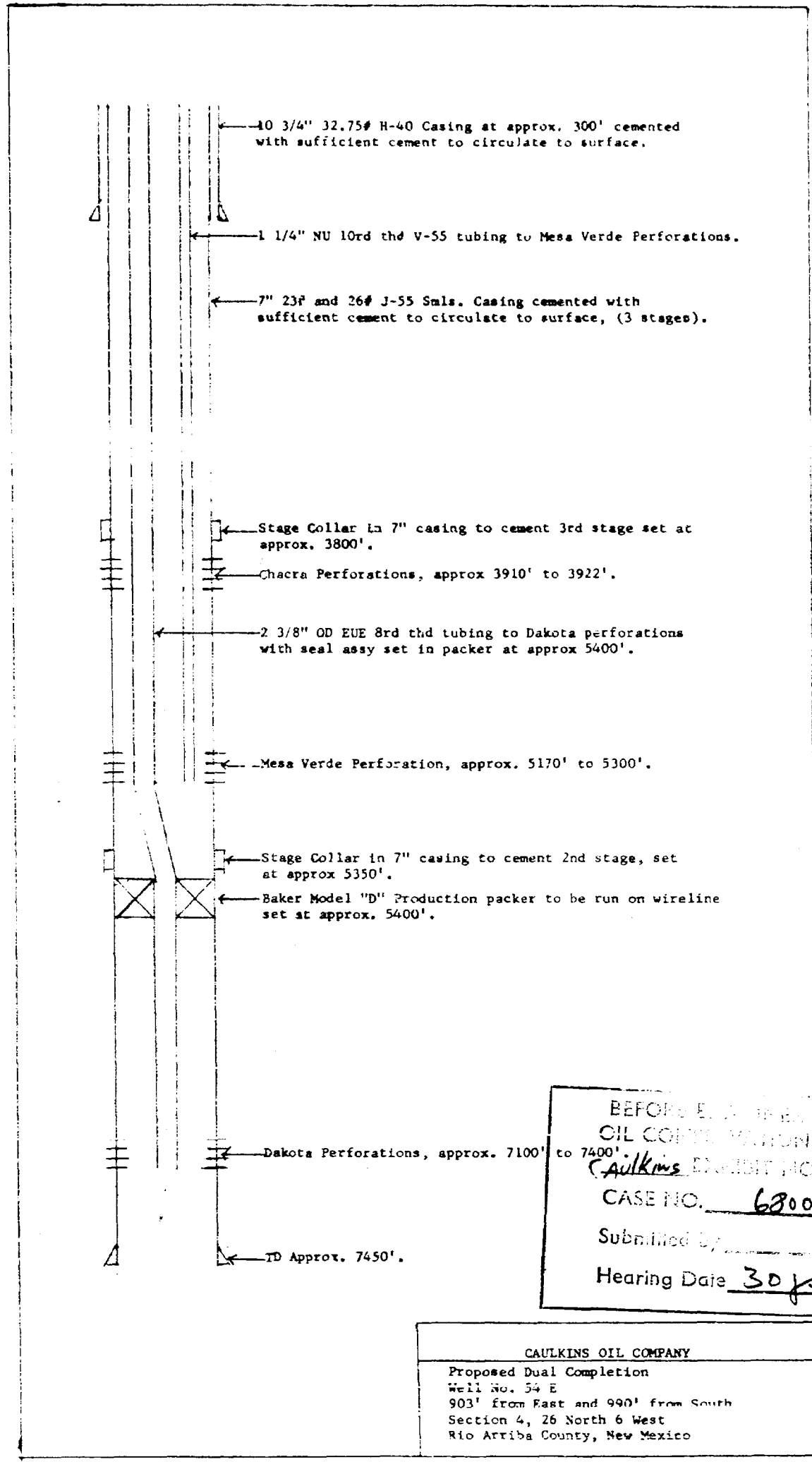


PETROLEUM ENGINEERING OIL COMPANY DIVISION <i>Caulkins</i> <i>WILLIAMS</i> <i>2 A</i>	
Submit by _____ 6800	Hearing Date <i>30 Jan 80</i>

CAULKINS OIL COMPANY

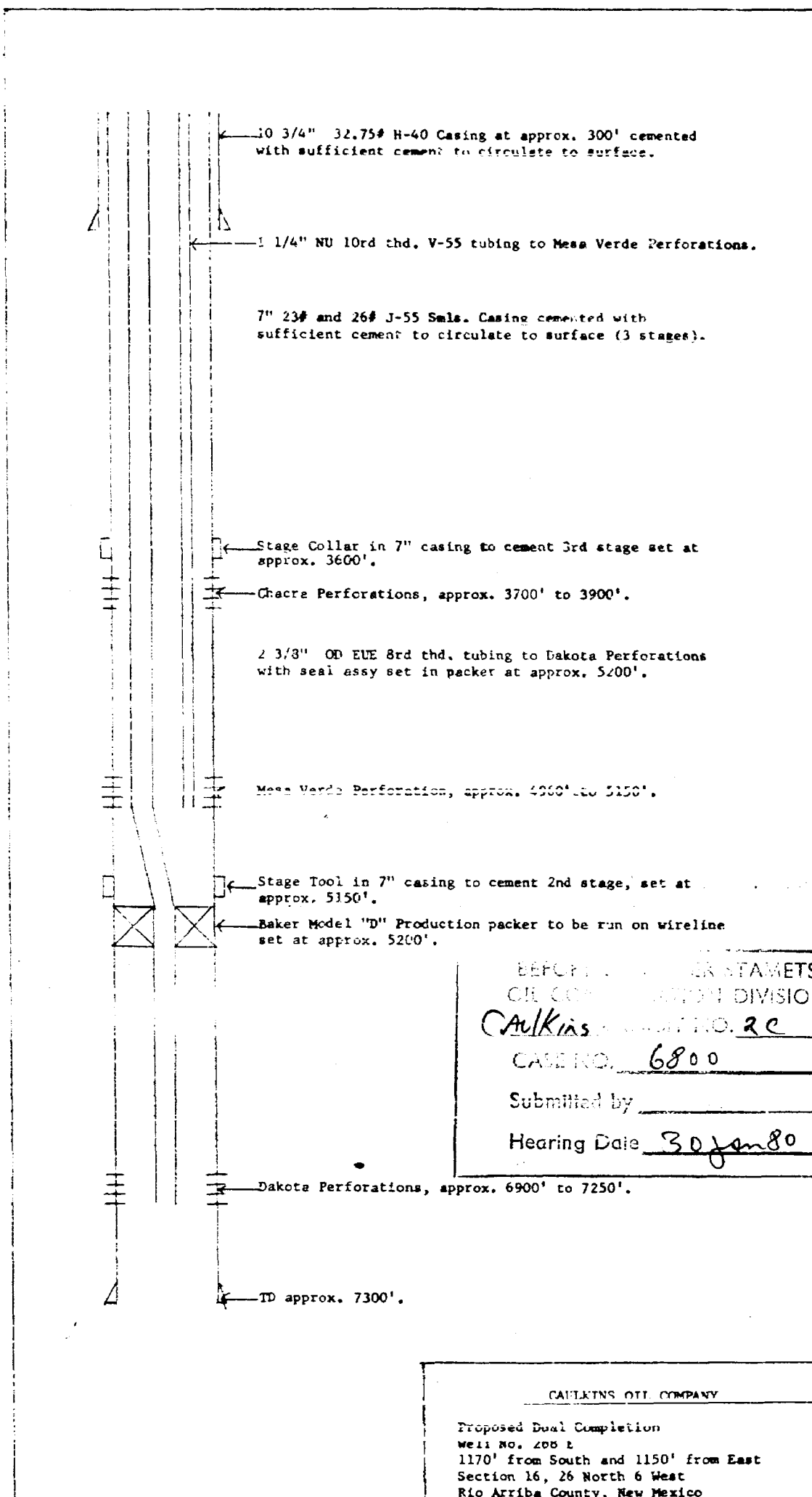
Proposed Dual Completion
 Well No 68 E (Old No. 585)
 1980' from South 600' from West
 Section 4, 26 North 6 West
 Rio Arriba County, New Mexico

DATE _____
 PREPARED BY _____
 SUBJECT _____
 SHEET NO. _____ OF _____
 JOB NO. _____



BEFORE ENGINEER, OIL & GAS
 OIL COMPLETION DIVISION
 CAULKINS EXHIBIT NO. 2 B
 CASE NO. 6800
 Submitted by _____
 Hearing Date 30 Jan 80

CAULKINS OIL COMPANY
 Proposed Dual Completion
 Well No. 54 E
 903' from East and 990' from South
 Section 4, 26 North 6 West
 Rio Arriba County, New Mexico



BEFORE THE ORDER STAMETS OIL COMMISSION DIVISION Calkins Case No. 2081	
CASE NO.	6800
Submitted by	
Hearing Date	30 Jan 80

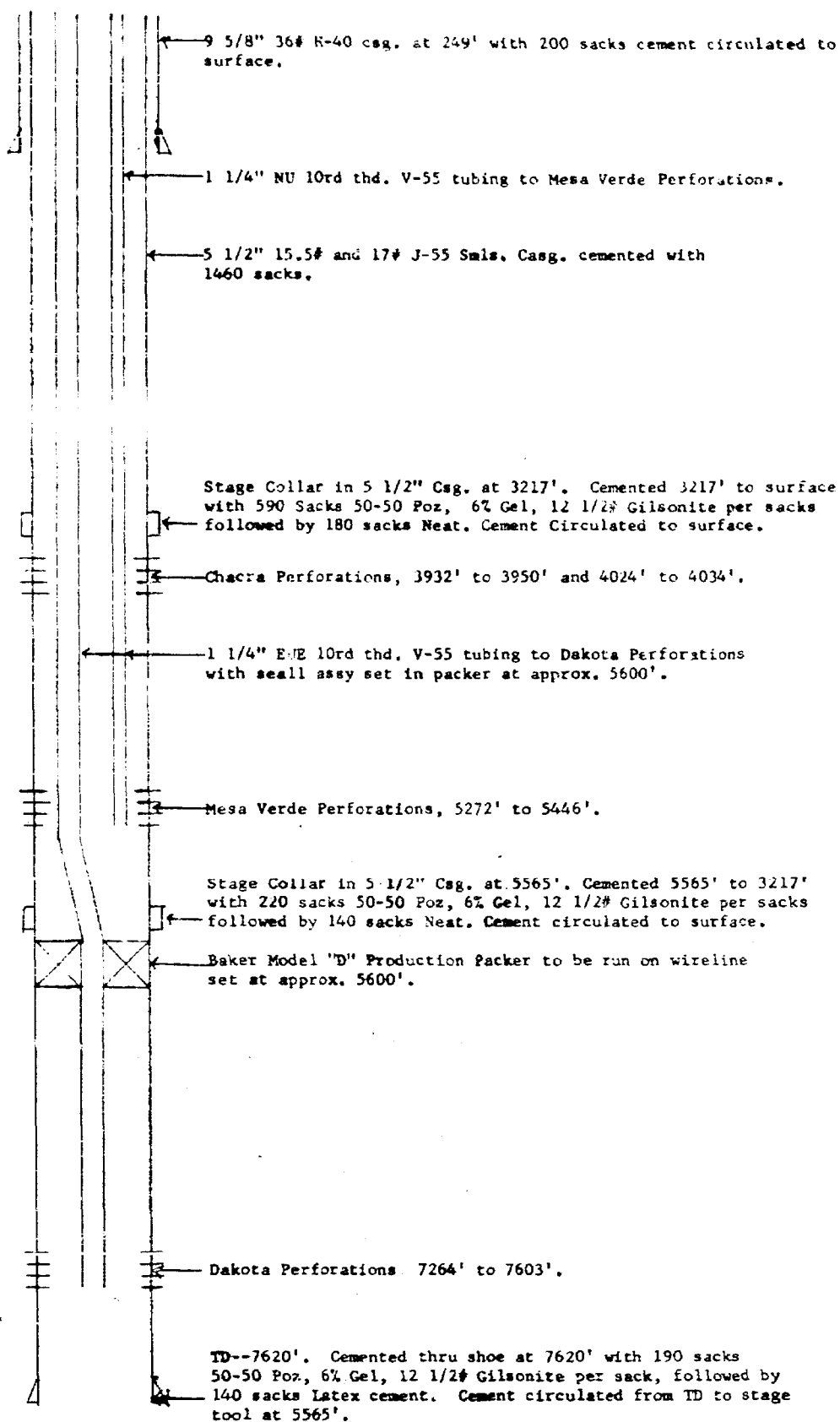
CALKINS OIL COMPANY

Proposed Dual Completion
 Well No. 2081
 1170' from South and 1150' from East
 Section 16, 26 North 6 West
 Rio Arriba County, New Mexico

BY DATE
CHKD. BY DATE

SUBJECT

SHEET NO. OF
JOB NO.



CAULKINS OIL COMPANY

Proposed Dual Completion
Well No. Breech D 346
900' from North 900' from East
Section 22, 26 North 6 West
Rio Arriba County, New Mexico

EXhibit 20
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Formington, New Mexico 87401

Exhibit #3

583 M (Old Number 581)

TD 6890'. 7" 23# J-55 Smls casing cemented at 6890' with 500 sacks in two stages. Calculated cement top 3300'.

Well presently plugged back from Tocito Zone to 4200' and completed and producing from Chacra Zone 3957' to 4053'.

Average Monthly Production from Chacra Zone 500 MCF.

Application for unorthodox location for Mesa Verde and Dakota Gas Zones applied for.

It is now proposed to clean out then deepen well to Dakota Zone at approx. 7550'. Run 4 1/2" liner approx. 6750' to TD, then complete well in Dakota, Mesa Verde and Chacra Zones, with Chacra and Mesa Verde commingled above a permanent type production packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

BEFORE ENGINEERS
OIL & GAS DIVISION
Caulkins NO. 3
CEILING 6800
Submitted by _____
Hearing Date 30 Jan 80

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3A

68 E (Old Number 585)

TD 6691'. 7" 23# J-55 Smls casing cemented at 6641' with 200 sacks. Cement top 5300'. (Temperature Survey) 5 1/2" 17# J-55 casing liner 6580' to 6690' cemented with 25 sacks. Liner perforated 4 holes per foot 6659' to 6671'.

Abandoned as South Blanco Tociro Water Injection Well 5-30-56.
Temporary abandoned 5-30-56 to present.

Approval for unorthodox location number NSL 1133.

It is now proposed to mill out liner then deepen well to 7430' to complete well in Dakota Zone.

4 1/2" 11.6# liner will be cemented approx. 6550' to TD, then 7" casing will be perforated at 5290' and cemented from 5290' to surface by circulating and squeezing.

After cementing well would be completed in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION <i>Caulkins</i> NO. <i>3A</i> CASE NO. <i>6800</i> Submitted by _____ Hearing Date <i>30 Jan 80</i>
--

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3B

54 E. Proposed new well to drilled to Dakota at approx. 7450'.

New 7" 23 and 26# K-55 Smls casing to be cemented TD to surface in three stages.

Completion will be in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

BEFORE EXAMINER STAMETS OIL COMMISSION DIVISION Caulkins Exhibit NO. <u>3B</u> CASE NO. <u>6800</u> Submitted by _____ Hearing Date <u>30 Jan 80</u>

CAULKINS OIL CO.

Post Office Box 780

Farmington, New Mexico 87401

Exhibit #3C

268 E. Proposed new well to drilled to Dakota at approx. 7300'.

New 7" 23 and 26# K-55 Smls casing to be cemented TD to surface in three stages.

Completion will be in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

Caulkins PRO. BY NO. 3C

CASE NO. 6800

Submitted by _____

Hearing Date 30 Jan 80

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3D

346 TD--7620'.

5 1/2" 15.5# and 17# J-55 Smls casing cemented with 1460 sacks in three stages circulated to surface.

5 1/2" casing perforated 7264' to 7603' in Dakota formation and is presently producing as a single Dakota well.

Average Monthly Production 4,500 MCF.

It is now proposed to recomplete well in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate string of tubing.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

CAULKINS WELL NO. 3D

CASE NO. 6800

Submitted by _____

Hearing Date 30 Jan 80

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Case No. 6800

Exhibit #4

Caulkins Oil Company Wells now commingled and producing from Chacra-Mesa Verde.

Monthly Prod.

	104	224 A	679	812
Oct., 1978	2444			
Nov.	3493			
Dec.	5766			
Jan., 1979	4403			
Feb.	1607			
Mar.	4607			
Apr.	3087			
May	3257			
June	2745			
July	2176			
Aug.	1810			
Sept.	2237			
Oct.	1808		230	711
Nov.	1731	16,620	11,250	18,007
Dec.	1788	19,363	6,743	12,406

Pressure Information

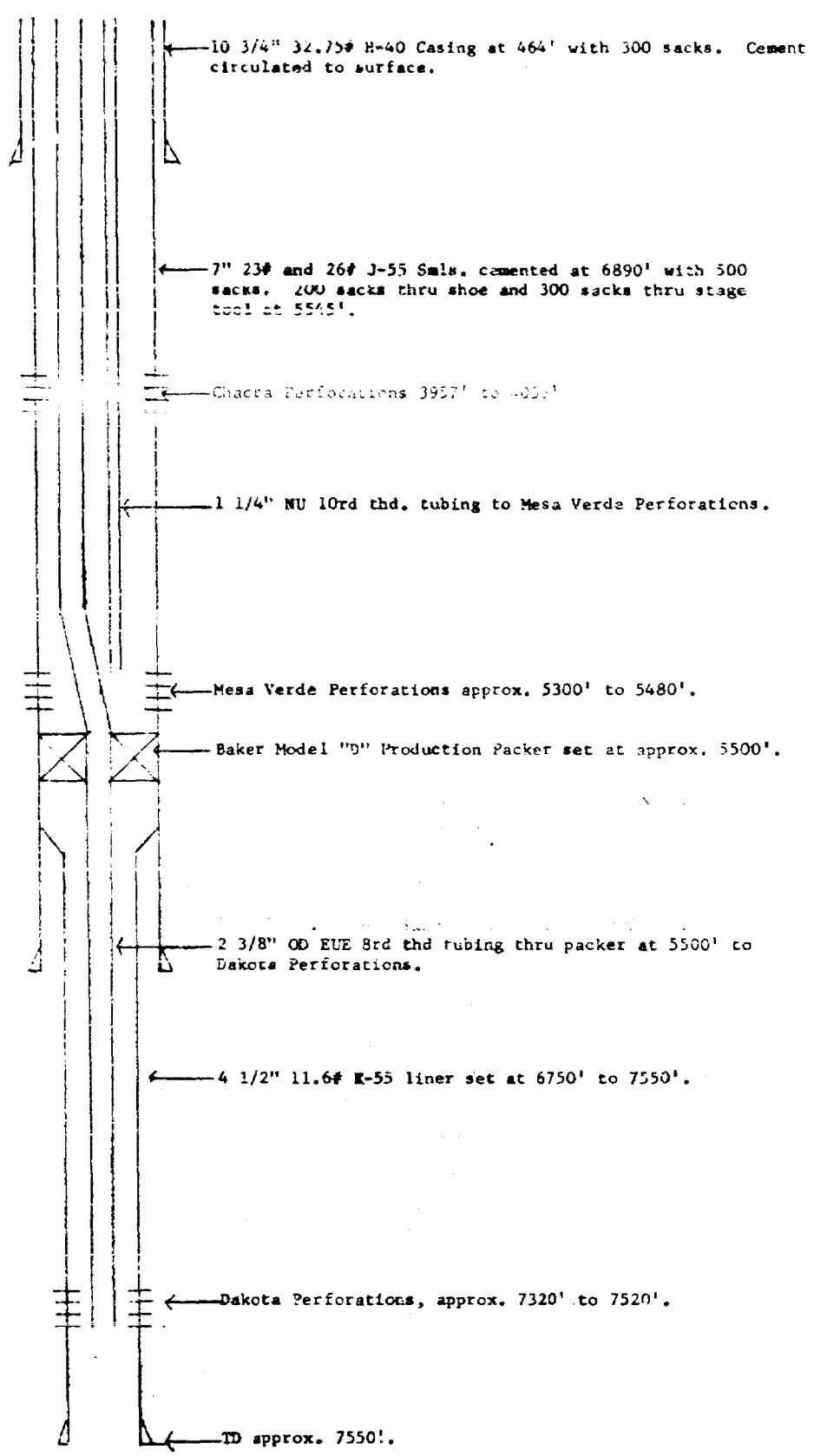
224 A and 812 were tested before commingling. Following are results of those tests:

Wells	Chacra Zone		Mesa Verde Zone	
	SI Pressure	IP thru 3/4" Choke	SI Pressure	IP thru 3/4" Choke
224 A	960	890	1017	782
812	995	906	1060	863

104 } not separately
679 } Tested

BEFORE THE ENGINEERS OIL COMMISSION DIVISION Caulkins Oil Co. No. 4 CASE NO. 6800 Submitted By _____ Hearing Date 30 Jan 80
--

BY
CARD BY
DATE
SUBJECT
SHEET NO. OF
JOB NO.



CAULKINS OIL COMPANY

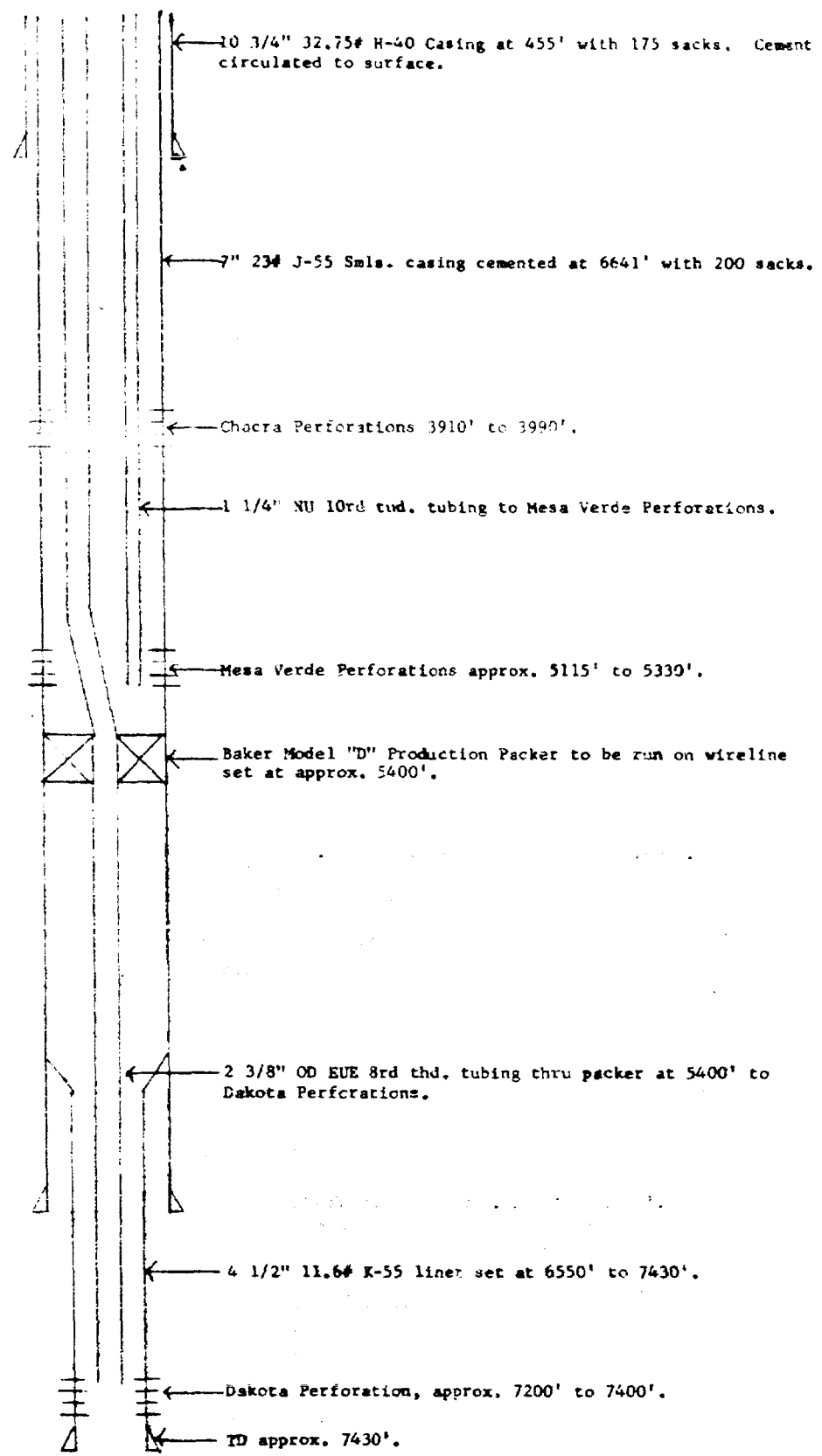
Proposed Dual Completion
Well No. 583 M (Old No. 581)
1925' from South 720' from West
Section 5, 26 North 6 West
Rio Arriba County, New Mexico

Exhibit 2
Case 6800

BY DATE
CMD BY DATE

SUBJECT

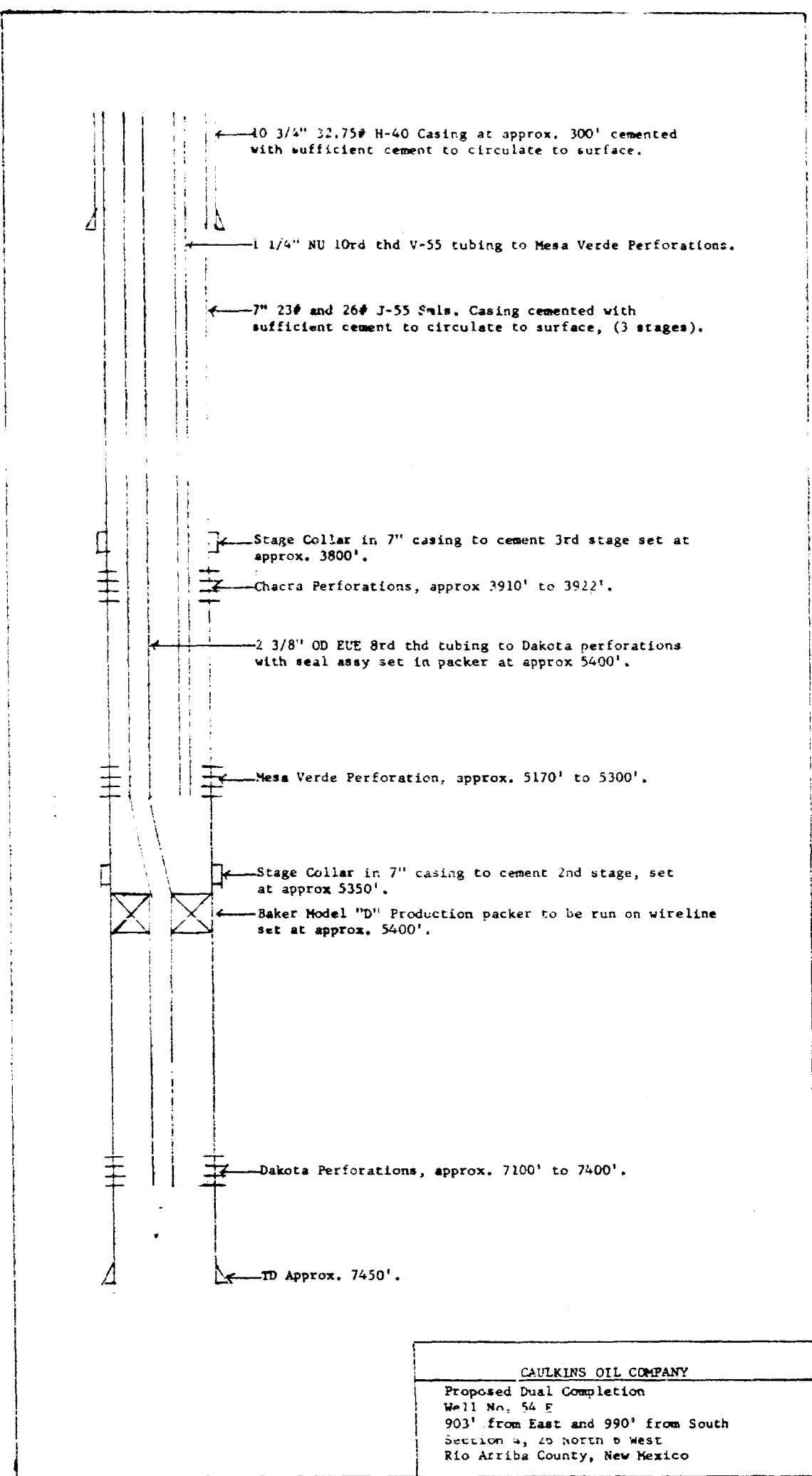
SHEET NO. OF
JOB NO.



CAULKINS OIL COMPANY

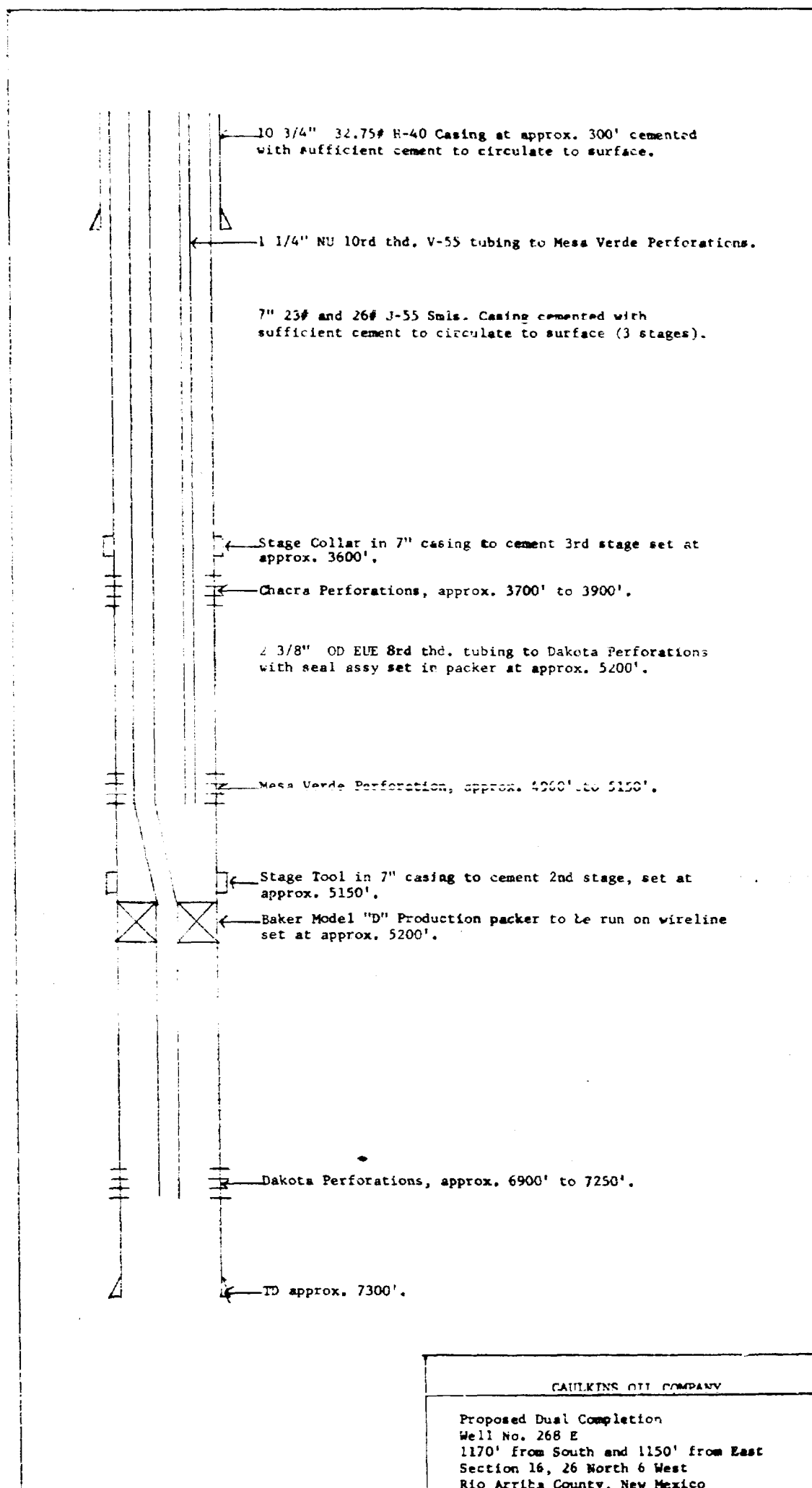
Proposed Dual Completion
Well No 68 E (Old No. 585)
1080' from South 660' from West
Section 4, 26 North 6 West
Rio Arriba County, New Mexico

Exhibit 2A
Case 6800



CAULKINS OIL COMPANY Proposed Dual Completion Well No. 54 E 903' from East and 990' from South Section 4, 20 North & West Rio Arriba County, New Mexico
--

Exhibit 2 B
 Case 6800



CAULKINS OIL COMPANY

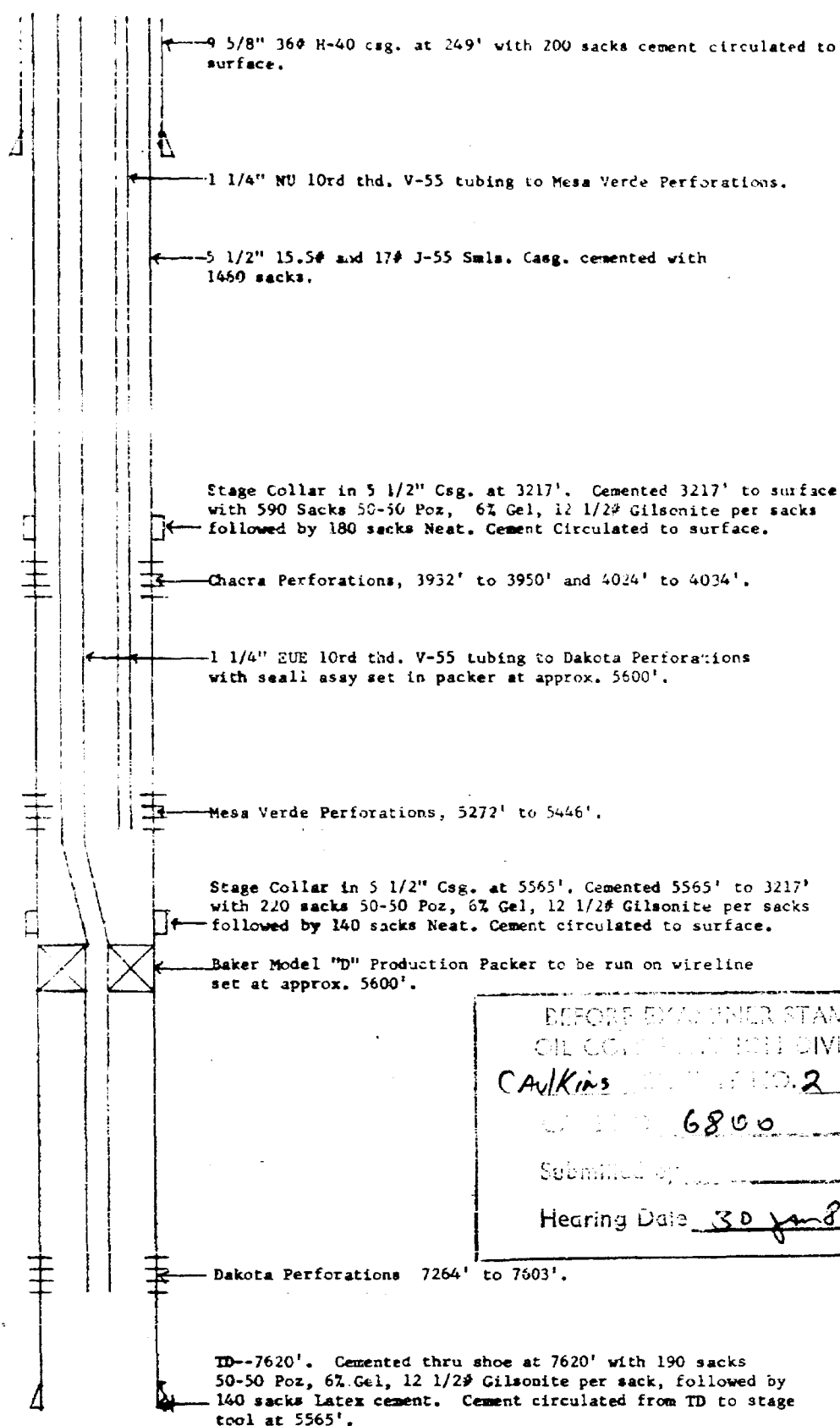
Proposed Dual Completion
Well No. 268 E
1170' from South and 1150' from East
Section 16, 26 North 6 West
Rio Arriba County, New Mexico

Exhibit 2
Case 6800

BY DATE
CHD BY DATE

SUBJECT

SHEET NO. OF
JOB NO.



BEFORE EXAMINER STAMETS
OIL COMPLETION DIVISION
CAULKINS OIL COMPANY NO. 2 D

6800

Submitted by

Hearing Date 30 Jan 80

CAULKINS OIL COMPANY

Proposed Dual Completion
Well No. Breech D 346
200' from North 500' from East
Section 22, 26 North 6 West
Rio Arriba County, New Mexico

Unit A

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3

583 M (Old Number 581)

TD 6890'. 7" 23# J-55 Smls casing cemented at 6890' with 500 sacks in two stages. Calculated cement top 3300'.

Well presently plugged back from Tocito Zone to 4200' and completed and producing from Chacra Zone 3957' to 4053'.

Average Monthly Production from Chacra Zone 500 MCF.

Application for unorthodox location for Mesa Verde and Dakota Gas Zones applied for.

It is now proposed to clean out then deepen well to Dakota Zone at approx. 7550'. Run 4 1/2" liner approx. 6750' to TD, then complete well in Dakota, Mesa Verde and Chacra Zones, with Chacra and Mesa Verde commingled above a permanent type production packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3A

68 E (Old Number 585)

TD 6691'. 7" 23# J-55 Smls casing cemented at 6641' with 200 sacks. Cement top 5300'. (Temperature Survey) 5 1/2" 17# J-55 casing liner 6580' to 6690' cemented with 25 sacks. Liner perforated 4 holes per foot 6659' to 6671'.

Abandoned as South Blanco Tocito Water Injection Well 5-30-56.
Temporary abandoned 5-30-56 to present.

Approval for unorthodox location number NSL 1133.

It is now proposed to mill out liner then deepen well to 7430' to complete well in Dakota Zone.

4 1/2" 11.6# liner will be cemented approx. 6550' to TD, then 7" casing will be perforated at 5290' and cemented from 5290' to surface by circulating and squeezing.

After cementing well would be completed in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3A
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3B

54 E. Proposed new well to drilled to Dakota at approx. 7450'.

New 7" 23 and 26# K-55 Smls casing to be cemented TD to surface in three stages.

Completion will be in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3B
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3C

268 E. Proposed new well to drilled to Dakota at approx. 7300'.

New 7" 23 and 26# K-55 Smls casing to be cemented TD to surface in three stages.

Completion will be in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3C
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3D

346 TD--7620'.

5 1/2" 15.5# and 17# J-55 Smls casing cemented with 1460 sacks in three stages circulated to surface.

5 1/2" casing perforated 7264' to 7603' in Dakota formation and is presently producing as a single Dakota well.

Average Monthly Production 4,500 MCF.

It is now proposed to recomplete well in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3D
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Case No. 6800

Exhibit #4

Caulkins Oil Company Wells now commingled and producing from Chacra-Mesa Verde.

Monthly Prod.

	104	224 A	679	812
Oct., 1978	2444			
Nov.	3493			
Dec.	5766			
Jan., 1979	4403			
Feb.	1607			
Mar.	4607			
Apr.	3087			
May	3257			
June	2745			
July	2176			
Aug.	1810			
Sept.	2237			
Oct.	1808		230	711
Nov.	1731	16,620	11,250	18,007
Dec.	1788	19,363	6,743	12,406

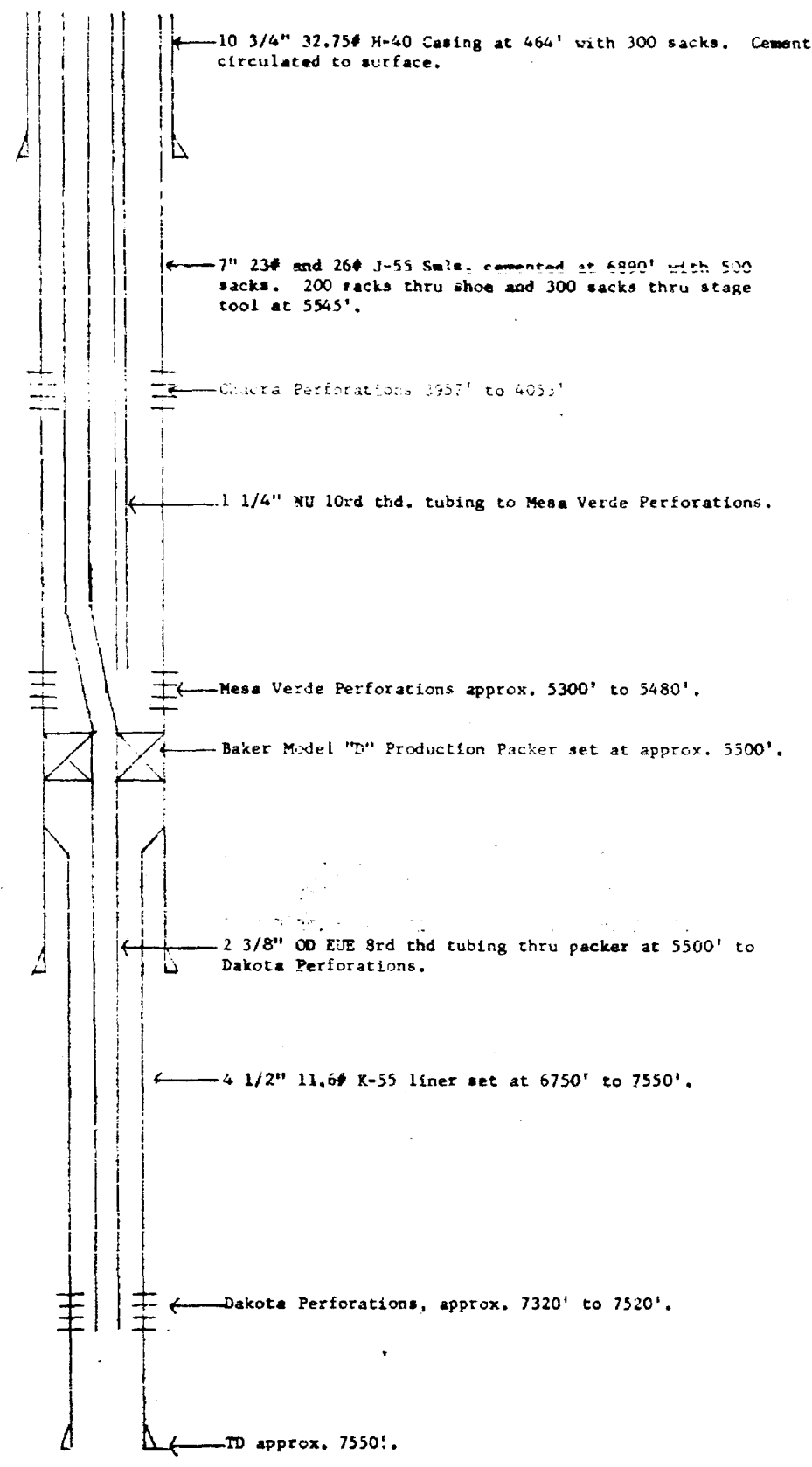
Pressure Information

224 A and 812 were tested before commingling. Following are results of those tests:

Wells	Chacra Zone		Mesa Verde Zone	
	SI Pressure	IP thru 3/4" Choke	SI Pressure	IP thru 3/4" Choke
224 A	960	890	1017	782
812	995	906	1060	863

Exhibit 4
Case 6800

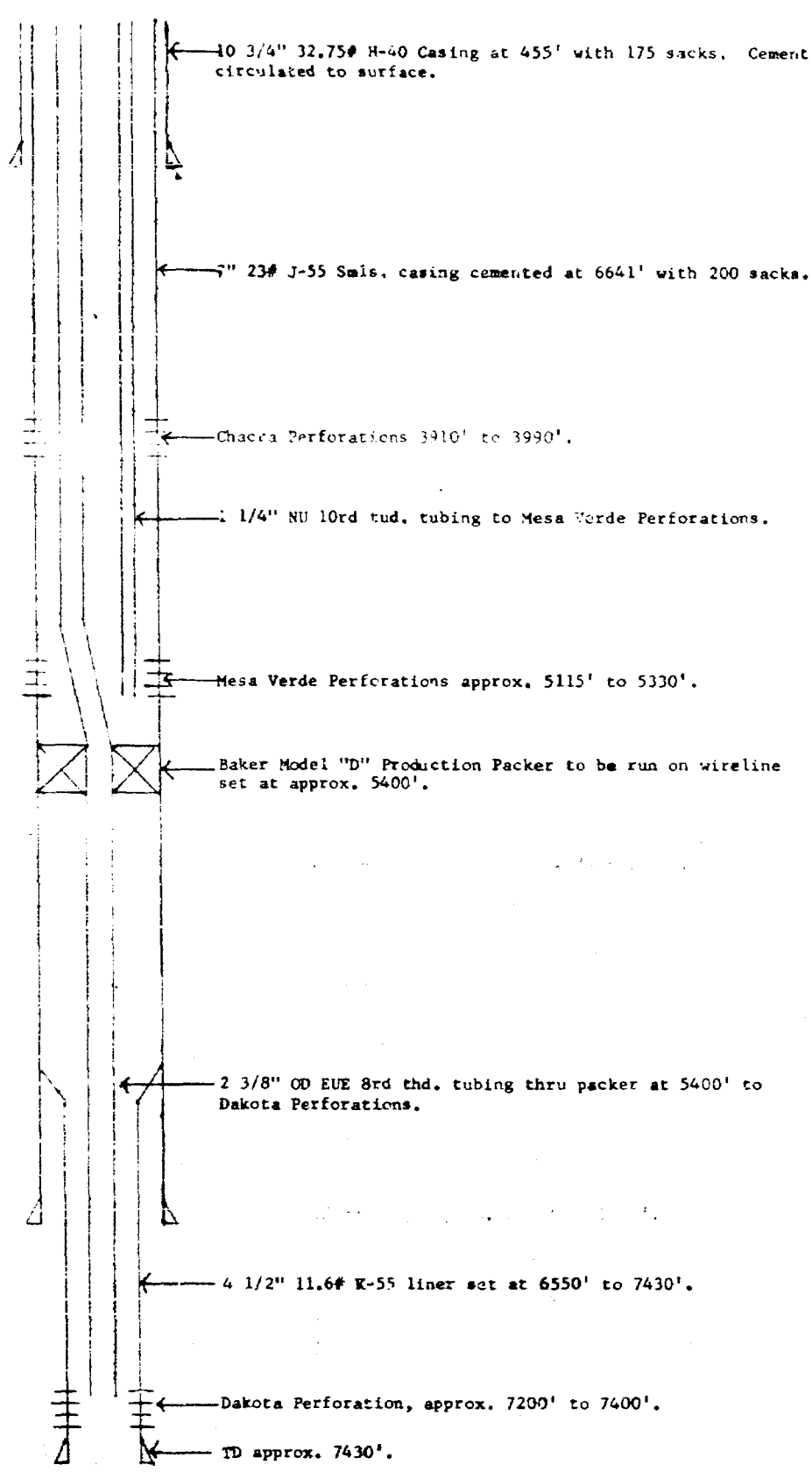
BY
CHNO. BY
DATE
SHEET NO.
JOB NO.



CAULKINS OIL COMPANY
Proposed Dual Completion Well No. 583 M (Old No. 581) 1925' from South 720' from West Section 5, 26 North 6 West Rio Arriba County, New Mexico

Exhibit 2
Case 6800

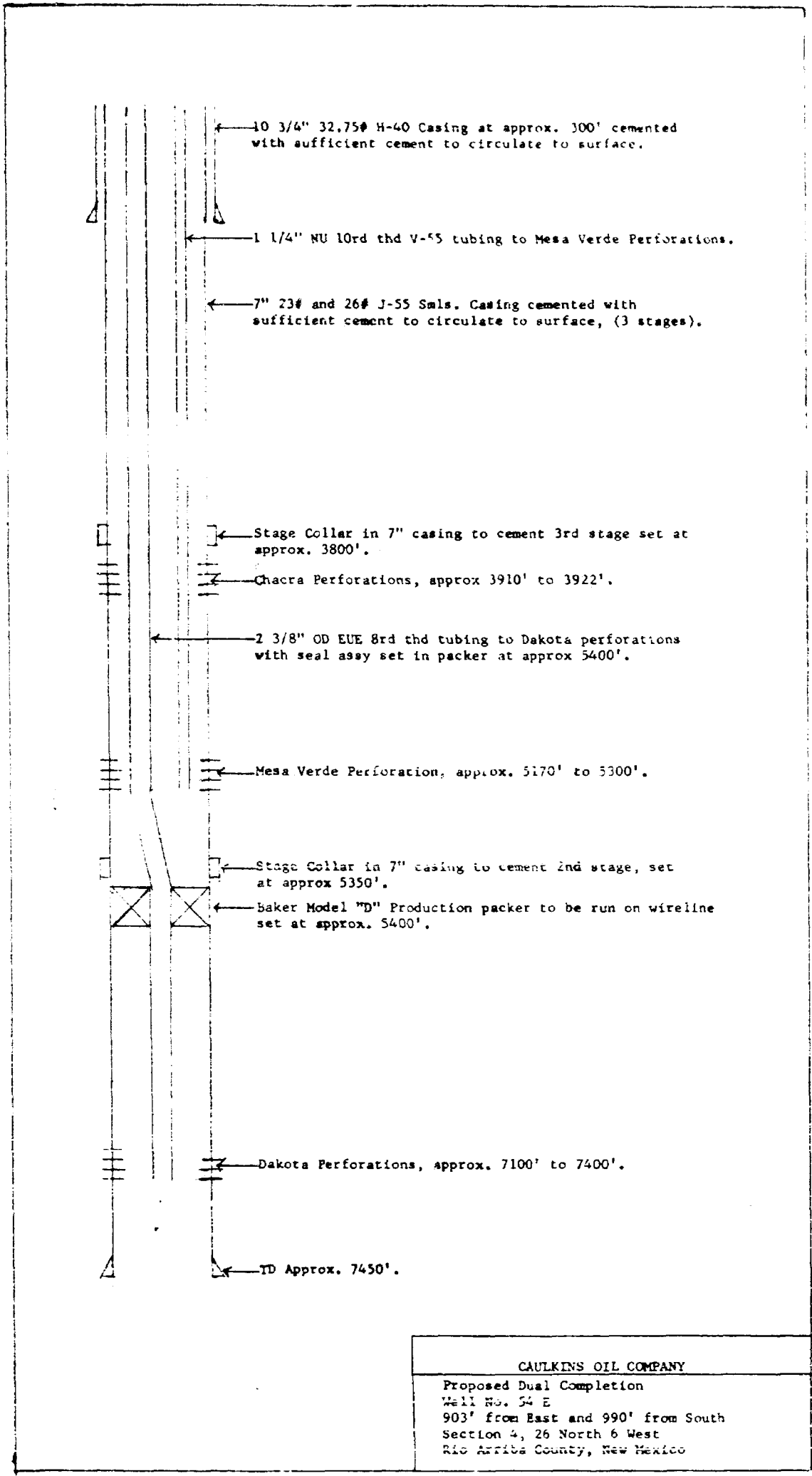
BY _____ DATE _____
 C.K.D. BY _____ DATE _____
 SUBJECT _____
 SHEET NO. _____ OF _____
 JOB NO. _____



CAULKINS OIL COMPANY
Proposed Dual Completion Well No 68 E (Old No. 585) 1960' from South 660' from west Section 4, 26 North 6 West Rio Arriba County, New Mexico

Exhibit 24
 Case 6800

DATE _____
 SUBJECT _____
 SHEET NO. _____
 JOB NO. _____



CAULKINS OIL COMPANY Proposed Dual Completion Well No. 54 E 903' from East and 990' from South Section 4, 26 North 6 West Rio Arriba County, New Mexico
--

Exhibit 2B
 Case 6800

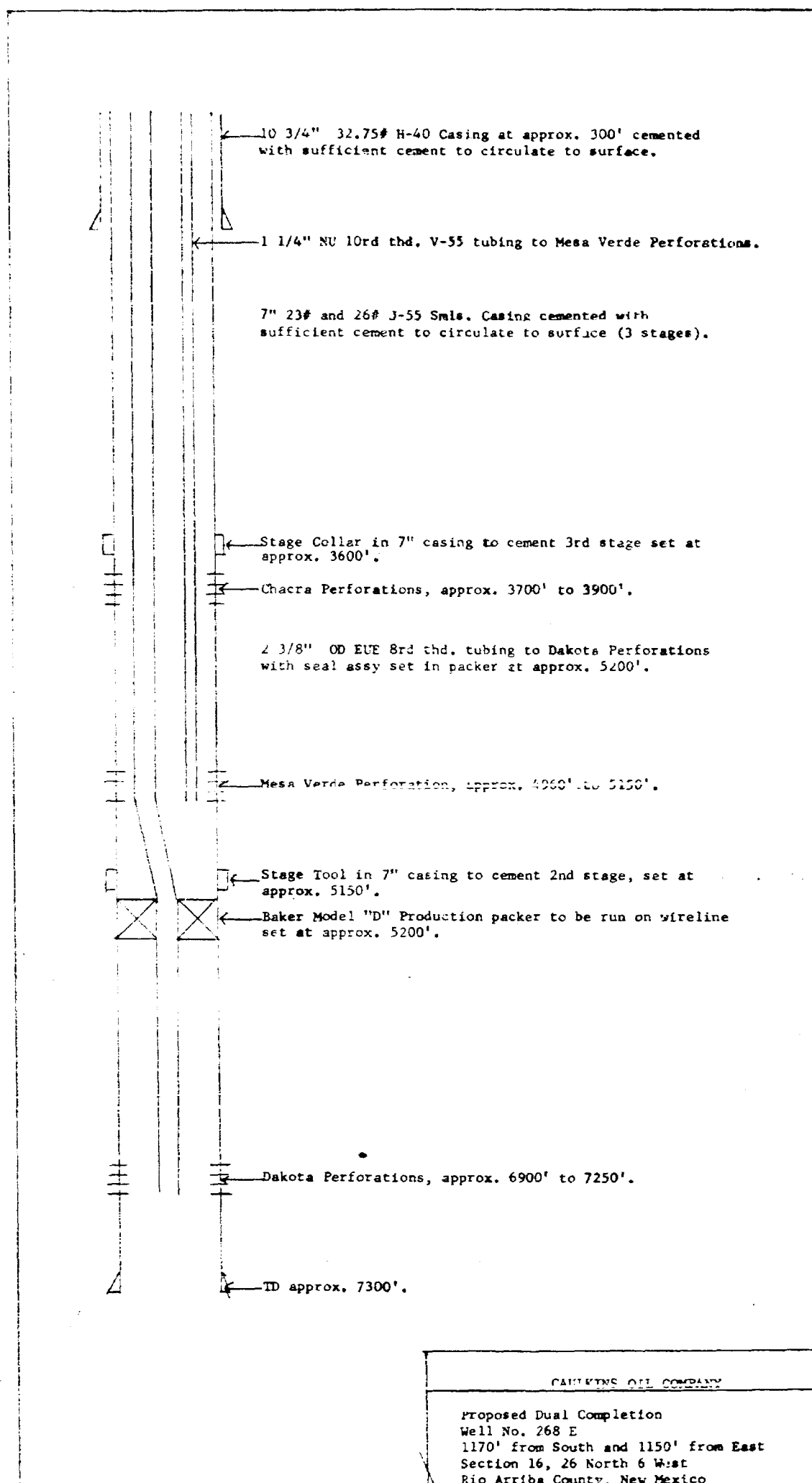
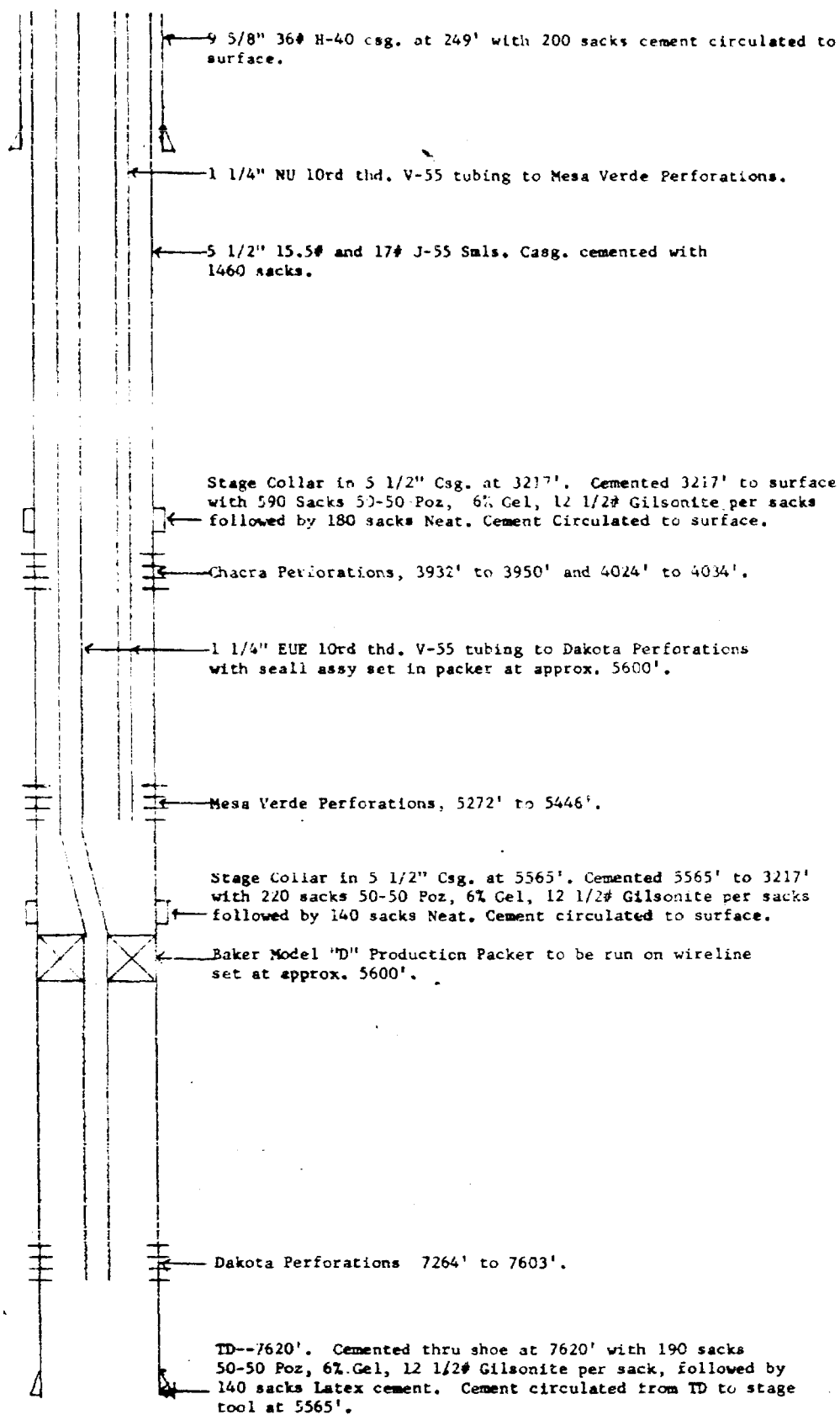


EXHIBIT 2C
 Case 6800

BY DATE
CHD. BY DATE

SUBJECT

SHEET NO. OF
JOB NO.



GAULKINS OIL COMPANY

Proposed Dual Completion
Well No. Breech D 346
900' from North 900' from East
Section 22, 26 North 6 West
Rio Arriba County, New Mexico

Exhibit 2 D
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3

583 M (Old Number 581)

TD 6890'. 7" 23# J-55 Smls casing cemented at 6890' with 500 sacks in two stages. Calculated cement top 3300'.

Well presently plugged back from Tocito Zone to 4200' and completed and producing from Chacra Zone 3957' to 4053'.

Average Monthly Production from Chacra Zone 500 MCF.

Application for unorthodox location for Mesa Verde and Dakota Gas Zones applied for.

It is now proposed to clean out then deepen well to Dakota Zone at approx. 7550'. Run 4 1/2" liner approx. 6750' to TD, then complete well in Dakota, Mesa Verde and Chacra Zones, with Chacra and Mesa Verde commingled above a permanent type production packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3A

68 E (Old Number 585)

TD 6691'. 7" 23# J-55 Smls casing cemented at 6641' with 200 sacks. Cement top 5300'. (Temperature Survey) 5 1/2" 17# J-55 casing liner 6580' to 6690' cemented with 25 sacks. Liner perforated 4 holes per foot 6659' to 6671'.

Abandoned as South Blanco Tocito Water Injection Well 5-30-56.
Temporary abandoned 5-30-56 to present.

Approval for unorthodox location number NSL 1133.

It is now proposed to mill out liner then deepen well to 7430' to complete well in Dakota Zone.

4 1/2" 11.6# liner will be cemented approx. 6550' to TD, then 7" casing will be perforated at 5290' and cemented from 5290' to surface by circulating and squeezing.

After cementing well would be completed in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3A
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3B

54 E. Proposed new well to drilled to Dakota at approx. 7450'.

New 7" 23 and 26# K-55 Smls casing to be cemented TD to surface in three stages.

Completion will be in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3B
Case 6800

CAULKINS OIL CO.

Post Office Box 780

Farmington, New Mexico 87401

Exhibit #3C

268 E. Proposed new well to drilled to Dakota at approx. 7300'.

New 7" 23 and 26# K-55 Smls casing to be cemented TD to surface in three stages.

Completion will be in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3C
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Exhibit #3D

346 TD--7620'.

5 1/2" 15.5# and 17# J-55 Smls casing cemented with 1460 sacks in three stages circulated to surface.

5 1/2" casing perforated 7264' to 7603' in Dakota formation and is presently producing as a single Dakota well.

Average Monthly Production 4,500 MCF.

It is now proposed to recomplete well in Chacra, Mesa Verde and Dakota Zones with Chacra and Mesa Verde commingled above permanent type packer set between Mesa Verde and Dakota Zones.

Zones above and below packer will be produced to surface thru separate strings of tubing.

Exhibit 3D
Case 6800

CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401

Case No. 6800

Exhibit #4

Caulkins Oil Company Wells now commingled and producing from Chacra-Mesa Verde.

Monthly Prod.

	104	224 A	679	812
Oct., 1978	2444			
Nov.	3493			
Dec.	5766			
Jan., 1979	4403			
Feb.	1607			
Mar.	4607			
Apr.	3087			
May	3257			
June	2745			
July	2176			
Aug.	1810			
Sept.	2237			
Oct.	1808		230	711
Nov.	1731	16,620	11,250	18,007
Dec.	1788	19,363	6,743	12,406

Pressure Information

224 A and 812 were tested before commingling. Following are results of those tests:

Wells	Chacra Zone		Mesa Verde Zone	
	SI Pressure	IP thru 3/4" Choke	SI Pressure	IP thru 3/4" Choke
224 A	960	890	1017	782
812	995	906	1060	863

*Per direction of Mr. [illegible]
Get SI for 12 & then consult w/ Ayteu
Super to [illegible] split*

*Exhibit 4
Case 6800*

KELLAHIN and KELLAHIN

Attorneys at Law

500 Don Gaspar Avenue

Post Office Box 1769

Santa Fe, New Mexico 87501

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

Telephone 982-4285
Area Code 505

January 2, 1979

Mr. Dan Nutter
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

re: Caulkins Oil Company

Dear Dan:

In accordance with your inquiry about Caulkins' dual completion cases which I filed with the Oil Conservation on December 21st for hearing on January 30th, I am informed that the dual completions will be produced up separate strings of tubing.

Also enclosed is another application for hearing on the same date.

Very truly yours,


W. Thomas Kellahin

cc: Mr. Charles Varquer

KELLAHIN and KELLAHIN

Attorneys at Law

500 Don Gaspar Avenue

Post Office Box 1769

Santa Fe, New Mexico 87501

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

Telephone 982-4285
Area Code 505

December 20, 1979

RECEIVED

DEC 21 1979

Oil Conservation

Case 6800

Mr. Joe Ramey
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

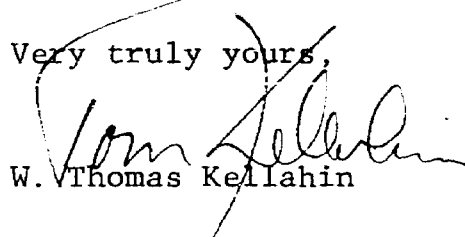
re: Caulkins Oil Company

Dear Joe:

Please set the three enclosed applications for
hearing on January 30th, 1980.

Thank you very much.

Very truly yours,


W. Thomas Kellahin

WTK:mmm
Encls.

cc: Charles Varquer
Arnold Raether

BEFORE THE
OIL CONSERVATION DIVISION
DEPARTMENT OF ENERGY
STATE OF NEW MEXICO

RECEIVED

DEC 21 1979

Oil Conservation

IN THE MATTER OF THE APPLICATION OF
CAULKINS OIL COMPANY FOR APPROVAL
OF DUAL COMPLETION AND DOWNHOLE
COMMINGLING OF FIVE WELLS, RIO ARRIBA
COUNTY, NEW MEXICO.

No. 6800

APPLICATION

COMES NOW CAULKINS OIL COMPANY and applies to the Oil Conservation Division of New Mexico for authority to commingle production from Chacra Formation and Mesa Verde Formation within the Mesa Verde and to then dually complete those two zones with the Dakota Formation, Rio Arriba County, New Mexico and in support thereof would show the Division:

1. Applicant is the operator of the following wells for which it seeks permission to downhole commingle production from the Chacra and Mesa Verde Formations then to dually complete those two zones with the Dakota Formation, within the Mesa Verde Pool, Rio Arriba County, New Mexico, to-wit:

- (a) Breech "E" No. 83-E well located in Unit L., Sec. 5, T26N, R6W, NMPM.
- (b) Breech "E" No. 68-E well located in Unit L., Sec. 4, T26N, R6W, NMPM.
- (c) Breech "A" No. 268-E located in Unit P., Sec. 16, T26N, R6W, NMPM.

(d) Breech "E" No. 54-E located in Unit P.,
Sec. 4, T26N, R6W, NMPM.

(e) Breech "D" No. 346, located in Unit D.,
Sec. 22, T26N, R6W, NMPM.

*This well is
in Unit
A, not
D.*

2. The approval of this application will recover gas
that would not otherwise be produced, would not impair the
correlative rights of others and will be in the best
interest of conservation.

Respectfully submitted,

CAULKINS OIL COMPANY

By

W. Thomas Kellahin
W. Thomas Kellahin
Kellahin & Kellahin
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: (505) 982-4285

BEFORE THE
OIL CONSERVATION DIVISION
DEPARTMENT OF ENERGY
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
CAULKINS OIL COMPANY FOR APPROVAL
OF DUAL COMPLETION AND DOWNHOLE
COMMINGLING OF FIVE WELLS, RIO ARRIBA
COUNTY, NEW MEXICO.

RECEIVED

DEC 21 1979

~~MINERAL CONSERVATION~~
~~OIL CONSERVATION~~

No. 6800

APPLICATION

COMES NOW CAULKINS OIL COMPANY and applies to the Oil Conservation Division of New Mexico for authority to commingle production from Chacra Formation and Mesa Verde Formation within the Mesa Verde and to then dually complete those two zones with the Dakota Formation, Rio Arriba County, New Mexico and in support thereof would show the Division:

1. Applicant is the operator of the following wells for which it seeks permission to downhole commingle production from the Chacra and Mesa Verde Formations then to dually complete those two zones with the Dakota Formation, within the Mesa Verde Pool, Rio Arriba County, New Mexico, to-wit:

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(d) Breech "E" No. 54-E located in Unit P.,
Sec. 4, T26N, R6W, NMPM.


(e) Breech "D" No. 346, located in Unit D.,
Sec. 22, T26N, R6W, NMPM.

2. The approval of this application will recover gas that would not otherwise be produced, would not impair the correlative rights of others and will be in the best interest of conservation.

Respectfully submitted,

CAULKINS OIL COMPANY

By


W. Thomas Kellahin

Kellahin & Kellahin

P. O. Box 1769

Santa Fe, New Mexico 87501

Phone: (505) 982-4285

BEFORE THE
OIL CONSERVATION DIVISION
DEPARTMENT OF ENERGY
STATE OF NEW MEXICO

RECEIVED

DEC 31 1979

Oil Conservation

IN THE MATTER OF THE APPLICATION OF
CAULKINS OIL COMPANY FOR APPROVAL
OF DUAL COMPLETION AND DOWNHOLE
COMMINGLING OF FIVE WELLS, RIO ARRIBA
COUNTY, NEW MEXICO.

No. 6800

APPLICATION

COMES NOW CAULKINS OIL COMPANY and applies to the Oil Conservation Division of New Mexico for authority to commingle production from Chacra Formation and Mesa Verde Formation within the Mesa Verde and to then dually complete those two zones with the Dakota Formation, Rio Arriba County, New Mexico and in support thereof would show the Division:

1. Applicant is the operator of the following wells for which it seeks permission to downhole commingle production from the Chacra and Mesa Verde Formations then to dually complete those two zones with the Dakota Formation, within the Mesa Verde Pool, Rio Arriba County, New Mexico, to-wit:

- (a) Breech "E" No. 83-E well located in Unit L., Sec. 5, T26N, R6W, NMPM.
- (b) Breech "E" No. 68-E well located in Unit L., Sec. 4, T26N, R6W, NMPM.
- (c) Breech "A" No. 268-E located in Unit P., Sec. 16, T26N, R6W, NMPM.

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Sec. 4, T26N, R6W, NMPM.
- (e) Breech "D" No. 346, located in Unit D.,
Sec. 22, T26N, R6W, NMPM.

2. The approval of this application will recover gas that would not otherwise be produced, would not impair the correlative rights of others and will be in the best interest of conservation.

Respectfully submitted,

CAULKINS OIL COMPANY

By 

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Phone: (505) 982-4285

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. 6800

Order No. R- 2266

APPLICATION OF CAULKINS OIL COMPANY
FOR A DUAL COMPLETION 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 30, 1980, at Santa Fe, New Mexico, before
Examiner Richard L. Stamets.

NOW, on this _____ day of February, 1980, 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
Wells Nos. 83-E located in Unit L of Section 5 and 54-E and 68-E located in Units P and L of Section
4; Breech "A" No. 268-E located in Unit P of Section 16; and Breech "D" No. 346 located in Unit A of
Section 22, all in Township 26 North, Range 6 West, in such a manner as to produce gas from the
Dakota formation and commingled Chacra and Mesaverde production through parallel strings of tubing.
in each of said wells.

~~No. 346 located in Unit D of Section 22, all in Town-~~
~~ship 26 North, Range 6 West, NMM, Rio Arriba~~
~~County, New Mexico, as a dual completion (conventional) to~~
~~(combination)~~
~~(tubingless)~~

~~produce gas from the Dakota formation and commingled Chacra~~
~~and Mesaverde production through parallel strings of tubing.~~

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

(4) That from the Chacra ^{each of} zone, the subject well ^{expected to be} is capable of ~~low~~ marginal production only.

(5) That from the Menaverde ^{each of} zone, the subject well ^{expected to be} is 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.

(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 ^{no such commingled well} ~~the well~~ is ~~not~~ shut-in for an extended period.

(8) 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 any time ^{any of} the subject well is shut-in for 7 consecutive days.

(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)

(9) 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.

(10) (2) 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 Wells Nos. 83-E located in Unit L of Section 5 and 54-E and 68-E located in Units P and L of Section 4; Breech "A" No. 268-E located in Unit P of Section 16; and Breech "D" No. 346 located in Unit A of Section 22, all in Township 26 North, Range 6 West, NMPM, Rio Arriba
County, New Mexico, as a dual completion (conventional) (combination) (tubingless) through one string of tubing and to produce
~~XXXXXX~~ to produce gas from the Dakota formation and commingled Chacra
and Mesaverde production through parallel strings of tubing with separation
of the Dakota zone from the commingled zones
to be achieved by means of a packer in each of
said wells.

PROVIDED HOWEVER, that the applicant shall complete, operate,
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 leakage tests upon completion and
annually thereafter during the Annual Deliverability
Test Period for the The Blanco Mesaverde or Basin Dakota Pool.

(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.

~~IT IS ORDERED~~ ORDERED

(2) That the applicant, _____, is
^{further}~~hereby~~ authorized to commingle Chacra and
Mesaverde production within the wellbore of
~~each of said wells~~ the _____, located in Unit _____ of
Section _____, Township _____, Range _____,
NMPM, _____ County, New Mexico.

(3) That the applicant shall consult with the Supervisor
of the Artec district office of the Division and
determine an allocation formula for the allocation of production
to each zone in each of the subject wells.

(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.

(4) That the operator of the subject well, shall immediately
notify the Division's Artec district office any time ^{any of} ~~the~~
wells 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.