[redacted]

Case No.

1696

Application, Transcript,
Small Exhibits, Etc.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6-26-59

CASE NO. 1696 HEARING DATE 6-24-59

My recommendations for an order in the above numbered case(s) are as follows:

1. Approve Caulkins Triple completion in S. Blanco P.C, Blanco M.V. and S. Blanco - Dakota..

2. The well is the Caulkins - Breech "P" #4 PMO-8,990' N+E 34-27N-6W.

3. The P.C. will flow thru 3/4" EUE tubing; the M.V. thru 3½" seamless tubing ~~and the Dakota~~ from 5855 to 4608 thru a crossover into 1¼" EUE to the surface and the Dakota thru 2 3/8 EUE.

4 The Mesaverde and the Dakota will be separated by a permanent Model "D" Baker 1 Packer. The M.V and P.C by a permanent Baker Model "FA".

Louis A. Dutcher

5. The usual dual order should apply otherwise. ZEA

Staff Member

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

July 2, 1959

COPY

Mr. Jason Kellahin
Box 1713
Santa Fe, New Mexico

Dear Mr. Kellahin:

On behalf of your clients, Continental Oil Company and Caulkins Oil Company, we enclose two copies of Order R-1432 for Continental and two copies of Order No. R-1430 for Caulkins Oil Company. These orders were issued July 2, 1959 by the Oil Conservation Commission.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Enclosures

R-1430
Copy sent
Hobbs + Artesia acc
R-1432 to Hobbs acc

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. 1696
Order No. R-1430

APPLICATION OF CAULKINS OIL
COMPANY FOR A GAS-GAS-GAS
TRIPLE COMPLETION IN THE SOUTH
BLANCO-PICTURED CLIFFS POOL,
THE BLANCO-MESAVERDE POOL AND
THE DAKOTA FORMATION, RIO ARRIBA
COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8 o'clock a.m. on June 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 2nd day of July, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 "F" Well No. PMD-8, located 990 feet from the North line and 990 feet from the East line of Section 34, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant proposes to triple complete the above-described Breech "F" Well No. PMD-8 in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Pool through the casing-tubing annulus with a bleed-off string of 3/4-inch EUE tubing, the production of gas from the Blanco-Mesaverde Pool through 3½-inch seamless tubing from 5365 feet to 4608 feet thence through a crossover assembly into 1¼-inch EUE tubing to the surface, and the production of gas from the Dakota formation through 2-3/8-inch EUE tubing.

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

(5) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

That the applicant, Caulkins Oil Company, be and the same is hereby authorized to dually complete its Breech "F" Well No. PMD-8, located 990 feet from the North line and 990 feet from the East line of Section 34, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Pool through the casing-tubing annulus, the production of gas from the Blanco-Mesaverde Pool through 3½-inch seamless tubing from 5365 feet to 4608 feet thence through a crossover assembly into 1¼-inch EUE tubing to the surface, and the production of gas from the Dakota formation through 2-3/8-inch EUE tubing.

PROVIDED HOWEVER, That applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for the South Blanco-Pictured Cliffs Pool.

IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order, after proper notice and hearing the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

A. L. PORTER, Jr., Member & Secretary.

OIL CONSERVATION COMMISSION

120 EAST CHACO

AZTEC, NEW MEXICO

NOTICE OF GAS CONNECTION

DATE July 9, 1959

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR THE PURCHASE OF

GAS FROM THE Caulkins Oil Company
OPERATOR

Brogan F
LEASE

PHD 8
WELL UNIT

NE(A) 34 27N 06W
S - T - R

South Blanco Pictured Cliff
POOL

Southern Union Gas Company
NAME OF PURCHASER

WAS MADE ON July 8, 1959
DATE

, FIRST DELIVERY July 8, 1959
DATE

1,233 mcfpd
INITIAL POTENTIAL

MAIN OFFICE OCC
JUL 8 11 23
1959

Southern Union Gas Company
PURCHASER

Orson Parsons
REPRESENTATIVE

Transmission Superintendent
TITLE

cc TO OPERATOR
OIL CONSERVATION COMMISSION - SANTA FE
Mr. Phil McGrath
Mr. J. R. Dyman - 2
Mr. Bill McGehee
Mr. Don Clatfelter

OIL CONSERVATION COMMISSION

120 EAST CHACO

AZTEC, NEW MEXICO

NOTICE OF GAS CONNECTION

MAIN OFFICE OCC
1959 JUL 13 AM 8:29

DATE July 9, 1959

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR THE PURCHASE OF GAS FROM THE Caulkins Oil Company
OPERATOR

Brecek F	PMD 8	NE(A) 34 27N 06W
LEASE	WELL UNIT	S - T - R

South Blanco Mesa Verde	Southern Union Gas Company
POOL	NAME OF PURCHASER

WAS MADE ON July 8, 1959 (DATE), FIRST DELIVERY July 8, 1959 (DATE)

1,609 mcfpd
INITIAL POTENTIAL

Southern Union Gas Company
PURCHASER

Anna Perona
REPRESENTATIVE

Transmission Superintendent
TITLE

cc TO OPERATOR
OIL CONSERVATION COMMISSION - SANTA FE
Mr. Phil McGrath
Mr. J. R. Byram - 2
Mr. Bill McGehee
Mr. Don Clatfelter

MAIN OFFICE OCC
1959 JUL 23 AM 8:13

OIL CONSERVATION COMMISSION
120 EAST CHACO
AZTEC, NEW MEXICO

NOTICE OF GAS CONNECTION

DATE June 11, 1959

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR THE PURCHASE OF GAS FROM THE Caulkins Oil Company
OPERATOR

Breech F	PMD 8	NE(A) 34 27N 06W
LEASE	WELL UNIT	S - T - R

South Blanco Dakota	Southern Union Gas Company
POOL	NAME OF PURCHASER

WAS MADE ON June 9, 1959 DATE, FIRST DELIVERY June 9, 1959 DATE

3,915 mcfpd
INITIAL POTENTIAL

Southern Union Gas Company
PURCHASER

Amos Parsons
REPRESENTATIVE

Transmission Superintendent
TITLE

RECEIVED
JUL 2 1959
OIL CON. COM.
DIST. 3

cc TO OPERATOR
OIL CONSERVATION COMMISSION - SANTA FE
Mr. Phil McGrath
Mr. J. R. Bynum - 2
Mr. Bill McGehee
Mr. Don Clatfelter

OIL CONSERVATION COMMISSION

120 EAST CHACO

AZTEC, NEW MEXICO

NOTICE OF GAS CONNECTION **CORRECTED COPY**

DATE **July 22, 1959**

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR THE PURCHASE OF GAS FROM THE **Caulkins Oil Company**
OPERATOR

Breech F	**FWD #8**	**NE(A) 3k 27N 06W**
LEASE	WELL UNIT	S - T - R

Blanco Mesa Verde	**Southern Union Gas Company**
POOL	NAME OF PURCHASER

WAS MADE ON **July 8, 1959**, FIRST DELIVERY **July 8, 1959**
DATE DATE

1,609 MCFPD
INITIAL POTENTIAL

MAIN OFFICE OCC
1959 JUL 24 AM 8:41

Southern Union Gas Company
PURCHASER

Amos Perrone
REPRESENTATIVE

Transmission Superintendent
TITLE

cc TO OPERATOR
OIL CONSERVATION COMMISSION - SANTA FE
Mr. Phil McGrath
Mr. J. R. Byram - 2
Mr. Bill McCabee
Mr. Don Clotfelter

R-6-W

EL PASO NAT'L. GAS CO. 28 62 USA	EL PASO NAT'L. GAS CO. PM-5 27 USA	EL PASO NAT'L. GAS CO. PM-100 26 P-122 USA
CAULKINS MD-4 33 PC-25 USA	E.P.N.G. CO. CAULKINS PMD-8 34 USA	CAULKINS PM MU-12 35 USA
CAULKINS 4 T-85 T-87 PC-85 PC-87 USA	CAULKINS 3 PC-89 T-109 USA	CAULKINS 2 PC-93 State

T 27 N

T 26 N

Case No. 1696
Caulkins Oil Co.
Exhibit No. 1

AREA SURROUNDING CAULKINS OIL CO. PC., MV, DK., TRIPLE COMPLETION WELL NO. PMD. 8.
LOCATED 990'F/NL AND 990' F/EL SEC. 34 T27N R6W RIO ARRIBA CO., NEW MEXICO.

SCALE: 2" = 1 MILE

El Paso Natural Gas Company

El Paso, Texas

RECEIVED
JUN 4 - 1959

June 1, 1959

Caulkins Oil Company
Box 967
Farmington, New Mexico

Attention: Mr. Frank Gray

Dear Sir:

We have received your notice of application for dual completion on your Pictured Cliffs - Mesaverde gas well designated as the Breech PMD-224 well located in Section 13, Township 26 North, Range 7 West and for your triple completion, Pictured Cliffs, Mesaverde, Dakota, gas well designated as the Breech "F" PMD-8 well located in Section 34, Township 27 North, Range 6 West.

This is to advise that El Paso Natural Gas Company as off set working interest owner has no objection to these completions.

Very truly yours,

D. N. Canfield

D. N. Canfield
Division Landman
Land Department

DNC:bjs

Case No. 1696
Caulkins Oil Co.
Exhibit No. 2

BEFORE THE
OIL CONSERVATION COMMISSION
EXAMINER HEARING
Santa Fe, New Mexico
June 24, 1959

IN THE MATTER OF: Case 1696

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

BEFORE THE
OIL CONSERVATION COMMISSION
EXAMINER HEARING
Santa Fe, New Mexico
June 24, 1959

IN THE MATTER OF:	
Application of Caulkins Oil Company for a triple completion. Applicant, in the above-styled cause, seeks an order authorizing it to triple complete its Breech "F" Well No. PMD-8, located in the NE/4 NE/4 of Section 34, Township 27 North, Range 5 West, Rio Arriba County, New Mexico, in such a manner as to produce gas from the South Blanco-Pictured Cliffs Pool, gas from the Mesaverde formation, and gas from the Dakota formation through parallel strings of tubing.	Case 1696

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The next case will be 1696.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe, New Mexico, appearing for the Applicant. We have one witness, Mr. Bray.

(Witness sworn.)

FRANK BRAY

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q State your name, please.

A Frank Bray.

Q By whom are you employed and in what position, Mr. Bray?

A I am employed by Caulkins Oil Company as Field Superintendent.

Q Have you previously testified before this Commission as an expert and had your qualifications accepted?

A Yes, sir.

MR. KELLAHIN: Are the witness's qualifications accepted?

MR. UTZ: They are.

Q (By Mr. Kellahin) Mr. Bray, are you familiar with the application in Case 1696?

A Yes, sir.

Q Just briefly state what is proposed in this application.

A We're asking for approval on the triple completion of a well located in the Northeast of the Northeast of Section 34, Township 27 North, Range 5 West. This well is the Caulkins Oil Company Breech "F" PMD No. 8, and it's to be completed so as to produce simultaneously but separately from the Pictured Cliffs, Mesaverde and Dakota formations.

(Applicant's Exhibit No. 1 marked for identification.)

Q Referring to what has been marked as Exhibit No. 1,

would you state what that shows?

A Exhibit No. 1 shows the ownership of the acreage in the sections adjoining the section in which this well is located.

Q It likewise shows the location of the subject well?

A And the location of the subject well, yes.

Q Is that location a standard location for all the producing horizons involved?

A Yes, sir, it satisfies the requirements for all three zones.

Q What other operator has interests offsetting this acreage?

A Only El Paso Natural Gas Company.

(Applicant's Exhibit No. 2 marked for identification.)

Q Referring to what has been marked as Exhibit No. 2, would you state what that is?

A Exhibit No. 2 is a letter from El Paso Natural Gas Company in which they advise that El Paso Natural Gas Company as offset working interest owner has no objection to the triple completion of this well.

(Applicant's Exhibit No. 3 marked for identification.)

Q Now referring to what has been marked as Exhibit No. 3, state what that shows.

A Exhibit No. 3 is a Schlumberger induction electrolog which shows the top of the zones which are to produce and also the

perforations in those zones.

Q Have these perforations already been made?

A Yes, sir, those perforations have been made and the well is presently producing from the Dakota zone only.

(Applicant's Exhibit No. 4 marked for identification.)

Q Now referring to what has been marked as Exhibit No. 4, will you discuss that exhibit, please?

A Exhibit No. 4 is a diagramatic sketch showing the arrangements of the tubing and packers that were used to obtain separation between zones.

Q Referring to the exhibit, would you discuss just how this well has been completed?

A The well was drilled with rotary equipment using mud to a depth of 147 feet, at which depth 10-3/4 inch casing was run and cemented from top to bottom. It was then drilled to a depth of 4662 and at that depth 7-5/8 inch casing was cemented with 375 sacks of common cement. The cement was staged, the first batch of 325 sacks from 4662 to 3322; the second stage from 3300 to a calculated top of 1809 -- that is not a surveyed top.

The well was then gas drilled to a total depth of 7749, which would be a little less than 100 feet into the Morrison formation. To all practical purposes the pipe was cemented solid from the "D" back to 4600. There was a full string of casing run, but it was cut and pulled from 46 -- well, it's approximately

4600, I don't have those exact figures. So that all zones of interest in the well have been cemented. In making certain they were cemented, there was some squeezing necessary, and in each case these zones were squeezed and made to hold a pressure of 3500 pounds before additional operations were started. When all of the bridge plugs and squeeze packers and what-not were drilled out prior to beginning the drilling operation, the casing was tested with 3500 pounds. That is approximately 500 pounds more than any expected reservoir pressure.

Q Was there any leakage shown on the pressure test?

A There was no leakage.

Q Discuss how the triple completion has been effected in this well.

A After fracking the well and removing the bridge plugs that were used in the fracking operation, we ran two inch tubing, or rather we ran the 5-1/2 inch Model "D" Baker production packer and a 7-5/8 "FA" Baker production packer on a wire line and set the 5-1/2 inch packer at 7370, and the Model "FA" 7-5/8 packer at 4600. Two inch tubing was then run to a depth of 7380, with Baker seal nipples spaced to seal off in both packers. A Baker Parallel Flow Tube was also run on the two inch tubing and latched into the packer at 4600 feet. That portion of the two inch tubing string from 4609 to 5431 is Hardy-Griffin Integral Joint Tubing. 3-1/2 inch 9.3 pound J-55 Internal-External Flush Joint Tubing was joined to the tail pipe of the Baker Parallel

Flow Tube and run concentrically with the Hardy-Griffin Tubing from 4608 to 5365. Inch and a quarter tubing was then run and sealed into the parallel flow tube at 4600 feet so that production from the Mesaverde zone must flow through the 2-3/8 by 3 inch annulus of the Hardy-Griffin and 3-1/2 inch flush joint tubing from 5365 to 4600, then through 1-1/4 inch tubing to the surface. This tubing was installed in this manner in an effort to prevent the Mesaverde zone from loading up with liquids of any kind. Any gas produced from the Mesaverde zone must come from a depth of 5365. The 3/4 inch external upset tubing was run from surface to 3157. It is proposed to produce the Pictured Cliff zone through casing using the 3/4 inch tubing as a purge string to prevent the accumulation of liquids in the Pictured Cliff zone.

Q Now does the production of the Mesaverde zone through the casing, the annulus as described by you, will that result in any friction loss, Mr. Gray?

A It will; however, in this particular well the friction loss would be more or less negligible because we have a very small production from the Mesaverde zone. However, all zones can be tested for deliverability as required by the Commission. There is the problem of an annular flow of gas from the Mesaverde tubing at 5665 to 4600, for which there is no published friction loss values. That would be necessary in figuring or calculating a wellhead working pressure for use in the deliverability formula. However, there is included in the Commission's publication, Method

of Calculating Pressure Loss Due to Friction in Gas Well Strings, a formula for calculating this friction loss value for annuluar gas flows and this formula could be used in calculating the pressure loss in this portion of the string. There are published values for calculating friction loss in the inch and a quarter tubing.

Q In your opinion would the pressure loss be significant?

A No, just a trial calculation on the gas well flowing at the rate of half a million feet a day through that much pipe and at four hundred pounds pressure, which is the line pressure, average line pressure that we have, would result in a friction loss of approximately 12 pounds, it probably would be less than 12 pounds.

Q Do any of these horizons make any fluids?

A The Dakota zone is producing about 10 barrels a day of high gravity distillate. The Mesaverde zone has not been tested because it has been shut in since the packer leakage tests were made.

Q Taking the Dakota zone,was it possible to swab that to total depth?

A The Dakota zone can be swabbed to total depth.

Q How about the Mesaverde?

A It can be swabbed to 3-1/2 inch tubing, to 4600 feet.

Q How about the Pictured Cliffs?

A It cannot be swabbed. There is no swab that can be

run through that tubing.

Q What are the pressure differentials in the various zones?

A The bottom hole pressure of the Dakota formation was tested just prior to the potential test and found to be slightly in excess of 2800 pounds. The bottom hole pressure of the Mesaverde zone is estimated to be 1100 pounds maximum. The Pictured Cliffs zone, about a little over a thousand pounds maximum.

Q Do you anticipate any leakage through the tubing, Mr. Bray?

A The tests that we have conducted thus far indicate no leak in the tubing, and as a safeguard against leaks, the tubing that was run in this well was new. None of it had ever been run previously.

Q How was it set in?

A All of the pipe was run with either slip type elevators or elevators that the manufacturer, that suited the manufacturer's recommendation; and the pipe was all made up with power torks so that the tork applied was in keeping with the manufacturer's specifications.

Q Have any packer leakage tests been made on the well?

A Only the preliminary packer leakage test as required by the Commission.

Q How was that conducted?

A The first test was made by opening or rather the well was shut in seven days after the tubing was landed in all three zones for all three strings. At the end of the seven-day period, the Mesaverde zone was opened and tested through the inch and a quarter tubing using a three-quarter inch choke in the top of the tubing head. The Dakota zone and Pictured Cliffs zones were both shut in during that test. There was no pressure loss whatever detected in either the Pictured Cliff or Dakota zones using a dead-weight tester for the purpose during this test.

After this test was completed, the well was shut in for seven days more and tested by opening or flowing the Dakota through a three-quarter inch "O"tubing, and the Pictured Cliffs through three-quarter inch choke on casing and simultaneously with the Mesaverde zone shut in. There was no apparent change in the Mesaverde pressure during this three-hour test.

Q Was the Oil Conservation Commission notified of these tests?

A Yes, sir. The Oil Conservation Commission was notified by telephone, also by writing, and also the same notice was given to the El Paso Natural Gas Company.

Q Will the gas production from the three zones be metered separately?

A Yes, sir.

Q In the event it is necessary, will you provide separate storage facilities for the fluid production?

A Fluid production from the -- or facilities for taking care of the fluid production from the Dakota zone are installed and in operation now. Facilities for taking care of any distillate production from the Mesaverde zone will be installed if the amount of fluid caught when we start producing the well justifies it. At the present time the Mesaverde zone is shut in.

Q Those would be separate storage facilities so the fluid can be measured separately?

A Yes.

Q Is the ownership of the various zones in this area common?

A Yes, sir.

Q Have you made any study of the economics of the three formations, Mr. Bray?

A Yes, I have.

Q Would you discuss that for the benefit of the Commission?

A This particular well is drilled in an area that is not likely to contribute any large Pictured Cliff or Mesaverde wells. The open flow of the two zones at the time this well was completed was approximately one million feet a day. Now these two zones have both been flowing almost continuously for eight days prior to this gauge. That was during the cleaning-up operation following the fracking of the well. So based on our experience with other wells in the area, we probably could not expect the

two zones to have a combined deliverability of more than eight hundred fifty thousand feet a day. As a matter of fact, I think that would be a little bit high. But assuming that they would produce at that rate, probably three hundred fifty thousand feet of that would come from the Pictured Cliff and the remaining five hundred thousand from the Mesaverde. Now if a Pictured Cliff well should be drilled in that area, we would expect the cost to be approximately $34,000.00. Figuring the deliverability or the allowable that the well would gain or be assigned from having three hundred fifty thousand deliverability test and declining that some thirty-five percent in seven years or declining it at that rate it would take it about fifteen years to pay out.

Q Have you figured interest on the cost of the well?

A That's figuring six percent interest on the unpaid portion of the cost of the well annually.

Q What would be the same figures for the Mesaverde formation?

A I used the same figures, the same decline rate for the Mesaverde. We have not had very much experience with Mesaverde production because we have just the one well producing. However, using that figure as the best that we have available, the payout time under the same conditions with the allowable that would be earned by having a five hundred thousand cubic feet per day deliverability, it wouldn't pay out.

Q You never would recover your money?

A You never would get your money back.

MR. UTZ: What would be the cost of the Mesaverde well?

A The Mesaverde, $90,000.00. Now the two zones can be combined into a dual completion. I do not have the figures worked up on that, but obviously it wouldn't improve the situation a great deal.

Q (By Mr. Kellahin) In your opinion would it be economical to make a dual completion in the Pictured Cliffs and the Mesaverde?

A No, sir, not in that area.

Q In your opinion would it be economical to complete single completions in either or both of these formations?

A No, sir.

Q Mr. Gray, in your opinion is the type of completion which is shown on the exhibit effective to maintain separation between the producing horizons?

A We believe it is. We feel probably the most severe test that the well will ever be called upon to pass was the blowing down of the Mesaverde with the Dakota shut in.

Q Does this type of completion enable you to make all the tests which are required by the Oil Conservation Commission?

A Yes, sir, we can make all of the tests that are required at this time with the exception -- well, it's not an exception, it's the procedure used in making the packer leakage

test is essentially the same as those required for the duals, but we do have the third zone to be concerned with. However, the proof of no leak can be made with the three zones.

Q Are you willing to make any and all tests which may be required by this Commission in the operation of this well?

A Yes, sir, at any time.

Q Would you want those tests witnessed by the Commission?

A We would be pleased to have the Commission or the offset operator or any other operator who is interested in it to be a witness.

Q Is the type of equipment used in the well, aside from the triple, standard for that that is used in dual completions?

A Yes, with the possible exception of the three-quarter upset tubing. As far as I know, that has not been used but I see no reason why it wouldn't be completely effective for our purposes.

Q Were Exhibits 1 through 4 prepared by you or under your direction and supervision?

A Yes, sir.

MR. KELLAHIN: At this time we would like to introduce in evidence Exhibits 1 through 4.

MR. UTZ: Without objection, Exhibits 1 through 4 will be admitted in evidence.

Q (By Mr. Kellahin) Do you have anything to add?

A I would like to add a few more statistics of the economics of the thing.

Q Do so, please.

A The estimated cost of a single Dakota well in the area is approximately $130,000.00. That is a minimum figure from our experience, because we have a bad loss circulation condition in that area that does run the well costs up. However, that's about the most optimistic figure we have. The payout time for a well that would produce a million feet of gas or have an average of one million feet for the first year plus ten barrels of distillate per day would be about four years. Now the extra cost for completing the Mesaverde and Pictured Cliffs zones at the time the Dakota well is completed would be approximately $35,000.00. The estimated payout time on the same deliverabilities that I quoted before would be about four years, so that the estimated payout on a triple completion would be approximately the same as a single Dakota completion, or approximately four years. Those figures are all based on a gas price of ten cents per thousand feet to the owner and a price of two thousand a barrel for the distillate, net to the owner.

Q Now in your opinion if this application is not approved would the Pictured Cliffs and Mesaverde be produced in this area?

A At the present time we could not justify the drilling of those wells. There would have to be a great improvement in stimulation methods perfected before we could ever justify either the Pictured Cliffs or the Mesaverde in that immediate area.

MR. KELLAHIN: That's all the questions I have.

MR. UTZ: Are there other questions of the witness?

MR. PAYNE: Yes.

MR. UTZ: Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Are all three zones of this well flowing?

A No, sir. We have only the Pictured Cliff flowing, and that was with the approval of the Aztec office of the Oil Conservation Commission.

Q What I mean, all three will flow?

A Yes, sir, they're all gas zones and all will flow.

Q On this Baker Model "FA" production packer, could you give us a little more information on that type of packer?

A There's relatively little difference between a Model "FA" packer, and a Model "D" packer, if you are familiar with the Model "D" packer. The basic difference is in the bore or the inside diameter of the packer. The inside diameter of the Model "D" packer is, I believe, two, and -- well, I'm quoting from memory, but it's slightly over two inches. It would be, the 7-5/8 Model "FA" packer has a bore of four and a quarter inches.

Q It's a non-retrievable type packer?

A It is a non-retrievable type packer and it was run on a wire line. There was particular caution used in seeing to it that neither packer was set in a cupcake.

MR. PAYNE: That's all.

MR. UTZ: Mr. Nutter.

BY MR. NUTTER:

Q Mr. Gray, now the packer leakage test that you outlined that you had performed --

A Yes.

Q -- did that test the lower packer both ways; that is, with the pressure on top and the small pressure on the bottom and later with the high pressure on the bottom and low pressure on the top?

A Yes, sir.

Q Was the upper packer tested in the same manner?

A The upper was tested in approximately the same manner.

Q Both packers have sustained tests in which the thing was tested in both directions?

A Yes.

Q You didn't go into the potential of the Dakota, I don't think, did you?

A I would be glad to.

Q You just mentioned it was a million, is that what the potential is?

A I estimated that it will estimate a million feet a day for the first year. The present production of the Dakota, it's been producing now for some ten days, and it's making about a million and a quarter feet.

Q You think the one year average will be about it?

A It won't be more than that.

Q How about the liquids, are they changing or do you expect they will change?

A The liquids have stabilized at about ten barrels a day. If there is any change it will be to decrease rather than increase.

Q Neither of the other two zones is making any liquids to speak of?

A I think I could say safely that the Pictured Cliff zone does not make any liquids at all, other than, oh, possibly a small amount of water from frack job. The Mesaverde zone may make some distillate but the only test we have had on it was during the open flow period while we were cleaning the well up following the frack job, and then the two three-hour tests that we made for the initial packer leakage test.

Q Now you stated you estimated it would cost $130,000.00 for a single Dakota completion, correct?

A Yes.

Q The additional cost of the triple completion was about $35,000.00?

A Yes, sir.

Q And that the single Dakota completion would pay out in about four years and that the additional cost of the triple would also pay out in about four years?

A Yes, sir, it would pay out during the fourth year.

Q But that a single well to the Pictured Cliffs would pay out in fifteen years and a Mesaverde would never pay out?

A Yes, sir.

Q Were all three of these pays treated?

A Yes, sir.

Q In the usual manner for treating those particular zones?

A I think we used probably about the maximum amount that's commonly used. There have been some jobs done in the Basin that use more sand, but not many. I'd be glad to go back to the record here and get that information for you, if you like.

Q Well, if you could just read that into the record, I think it would be appropriate. Just the amount of frack job that you used on each pay.

A The lower Dakota was fracked with 80,000 pounds of 40-60 sand. The upper Dakota or Graneros was fractured with 60,000 pounds. The Point Lookout section of the Mesaverde was fracked with 60,000 pounds of 20-40 sand. The Cliff House section of the Mesaverde was fracked with 60,000 pounds of 40-60 sand. The Pictured Cliffs was fracked with 40,000 pounds of 10-20 sand.

Q Just what do you mean by that, Mr. Gray, does that include the gallons there?

A No, that is sand only.

Q How about the gallons -- that's just the weight of sand you used?

A That's the amount of sand.

Q How many gallons did you use?

A The lower Dakota used 73,056 gallons of water, flushed with 13,146 gallons. The Upper Dakota, we used 38,345 gallons of water, flushed with 13,146. The Point Lookout, we used 41,980 gallons, flushed with 11,000 gallons. The Cliff House used 48,675 gallons and flushed with 11,000. The Pictured Cliffs was fracked with 24,104 gallons of water and flushed with 7300.

Q Now, Mr. Bray, you stated that in this upper packer Model "FA" that the flow tube was latched into the packer?

A Yes, sir.

Q Well, now, is the tubing latched into the flow tube?

A The parallel flow tube is a part of the two inch string of tubing.

Q So the tubing is an integral part of the tubing itself?

A As far as the two-inch is concerned.

Q That is latched into the packer?

A That is latched into the packer.

Q How about the lower packer, is the tubing latched into that?

A No, the lower packer, the tubing is not latched in but an excessive number of seals were used so that if there is any shrinking or what we in the field call jacking of the tubing from pressure differentials, there will be more than enough to take care of any condition that may be encountered in the well.

Q What is the length of the bore of the packer, approximately?

A This is approximately two feet.

Q Approximately two feet. Now you say that an excessive number of seals have been used. What length do these seals cover as far as the sealed section there?

A I'm not certain that I have the exact figures on it. I do not have. However, those, there were six of them run and they are approximately eighteen inches long, each of them, so that the overall length of it would be about nine feet.

Q You have nine feet of seals, in effect, then?

A Yes.

Q They have that much travel, they have to fit in a two foot packer but you have nine feet of seals?

A Yes. And in spacing the seals, we tried to measure the tubing closely enough so that the bulk of these seals would be below the packer when the pressures were equalized.

Q At any time is it possible for that tubing to move and not have a seal in the packer?

A No, sir.

Q Will you always have at least one seal in there?

A The tube is two feet long, approximately, and the seals are eighteen inches, so no matter what the contraction or expansion is, one of the seals will be in the bore of the five and a half inch packer.

MR. NUTTER: That's all, thank you.

MR. UTZ: Any other questions? If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements to be made in this case? The case will be taken under advisement.

We'll take a ten minute recess.

(Recess.)

*****

C E R T I F I C A T E

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in Stenotype, and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill, and ability.

DATED this 1st day of July, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My Commission Expires:

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1696, heard by me on June 24, 1959.

New Mexico Oil Conservation Commission, Examiner

STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I, Ada Dearnley, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 5th day of July, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1963.

El Paso Natural Gas Company

El Paso, Texas

RECEIVED
JUN 4 - 1959

June 1, 1959

Caulkins Oil Company
Box 967
Farmington, New Mexico

Attention: Mr. Frank Gray

Dear Sir:

We have received your notice of application for dual completion on your Pictured Cliffs - Mesaverde gas well designated as the Breech PHD-224 well located in Section 13, Township 26 North, Range 7 West and for your triple completion, Pictured Cliffs, Mesaverde, Dakota, gas well designated as the Breech "F" PMD-8 well located in Section 34, Township 27 North, Range 6 West.

This is to advise that El Paso Natural Gas Company as off set working interest owner has no objection to these completions.

Very truly yours,

D. N. Canfield

D. N. Canfield
Division Landman
Land Department

DNC:bjs

Case No. 1696
Caulkins Oil Co.
Exhibit No. 2

R-6-W

EL PASO NAT'L. GAS CO.	EL PASO NAT'L. GAS CO. PM-99	EL PASO NAT'L. GAS CO. PM-100
28	27	26 P-122
62		
USA	USA	USA
CAULKINS MD-4	E P.N.G. CO. / CAULKINS PMD-8	CAULKINS PM MU-12
33 PC-25	34 I	35
USA	USA	USA
CAULKINS	CAULKINS	CAULKINS
4 T-85 T-87 PC-85 PC-87	3 PC-89 T-109	2 PC-93
USA	USA	State

Standard Location

T 27 N

T 26 N

Case No. 1696
Caulkins Oil Co
Exhibit No. 1

AREA SURROUNDING CAULKINS OIL CO. P.C., MV., DK., TRIPLE COMPLETION WELL NO. PMD. 8.
LOCATED 990' F/NL AND 990' F/EL SEC. 34 T27N R6W RIO ARRIBA CO., NEW MEXICO.

SCALE: 2" = 1 MILE

No. 23-59

DOCKET: EXAMINER HEARING JUNE 24, 1959

OIL CONSERVATION COMMISSION - 1120 CERRILLOS ROAD, HIGHWAY DEPARTMENT AUDITORIUM, 9 a.m., SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or A. L. Porter, Jr., Secretary-Director.

CONTINUED CASE

CASE 1666: Application of Sunray Mid-Continent Oil Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Central Bisti-Lower Gallup Sand Unit embracing approximately 7389 acres of federal, state, and allotted Indian lands in the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico.

NEW CASES

CASE 1692: Application of Continental Oil Company for the establishment of a non-standard gas proration unit in the Tubb Gas Pool. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas proration unit in the Tubb Gas Pool consisting of lot 15, the N/2 SE/4 and the SE/4 SE/4 of Section 3, Township 21 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to applicant's Hawk B-3 Well No. 2-T, located 1650 feet from the South and East lines of said Section 3.

CASE 1693: Application of Amerada Petroleum Corporation for three non-standard oil proration units. Applicant, in the above-styled cause, seeks an order establishing three 43.7 acre non-standard oil proration units for Mississippian production in the SE/4 of Section 11, Township 13 South, Range 38 East, Lea County, New Mexico. Applicant further seeks approval of one unorthodox oil well location.

CASE 1694: Application of Texas Crude Oil Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Big Eddy Unit 1-30 Well, located in the SE/4 SE/4 of Section 30, Township 20 South, Range 31 East, Eddy County, New Mexico, in such a manner as to produce oil from an undesignated Tansil pool and to produce oil from an undesignated Delaware pool through parallel strings of tubing.

CASE 1695: Application of Texaco, Inc. for a triple completion, for permission to commingle the production from three separate pools, and for the establishment of two non-standard gas proration units, Applicant, in the above-styled cause, seeks an order authorizing it to triple complete its A. H. Blinebry NCT-4 Well No. 1, located in the SE/4 SE/4 of Section 31, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit production from the Blinebry formation, production of gas from the Tubb Gas Pool, and production of oil from the Drinkard Pool through tubing, the annulus via cross-over, and tubing respectively. Applicant further seeks the establishment of a 160-acre non-standard gas proration unit in both the Tubb Gas Pool and Blinebry Gas Pool each consisting of the S/2 S/2 of said Section 31. Applicant further seeks permission to commingle the liquid production from the Blinebry, Tubb, and Drinkard formations underlying said acreage.

CASE 1696: Application of Caulkins Oil Company for a triple completion. Applicant, in the above-styled cause, seeks an order authorizing it to triple complete its Breech "F" Well No. PMD-8, located in the NE/4 NE/4 of Section 34, Township 27 North, Range 5 West, Rio Arriba County, New Mexico, in such a manner as to produce gas form the South Blanco-Pictured Cliffs Pool, gas from the Mesaverde formation, and gas from the Dakota formation through parallel strings of tubing.

CASE 1697: Application of Universal Oil Corporation for the creation of a new oil pool for Gallup production, and for an exception to Rules 104 and 107 for wells in said pool. Applicant, in the above-styled cause, seeks an order creating a new pool for Gallup production to be designated the Shiprock-Gallup Oil Pool and located in Sections 16 and 17, Township 29 North, Range 18 West, San Juan County, New Mexico. Applicant further seeks the promulgation of pool rules to permit wells in said pool to be located closer than 660 feet to the nearest producing well in exception to Rule 104, and to permit certain exceptions to the casing requirements of Rule 107 of the Commission Rules and Regulations.

CASE 1698: Application of Shell Oil Company for an exception to Rule 502 I (a). Applicant, in the above-styled cause, seeks an order which would exempt all wells in the Carson Unit Area and all other Shell wells in Township 25 North, Ranges 11 and 12 West, Bisti-lower Gallup Oil Pool, San Juan County, New Mexico, from the daily tolerance provisions of Rule 502 I (a) of the Commission Rules and Regulations.

CASE 1195: Application of Graridge Corporation for capacity allowables for certain wells in a water flood project. Applicant, in the above-styled cause, seeks an order authorizing capacity allowables for three wells in the project area of its water flood in the Caprock-Queen Pool in Lea and Chaves Counties, New Mexico.

CASE 1196: Application of Graridge Corporation for an order amending Order No. R-966. Applicant, in the above-styled cause, seeks an order amending Order No. R-966 to establish administrative procedures for development of its Artesia Water Flood Projects No. 2 and 3, Artesia Pool, Eddy County, New Mexico, and for approval of unorthodox locations for 27 wells in said projects, for authority to convert six wells in said projects to water injection, and for capacity allowables for five wells in said projects.

CASE 1185: Application of Graridge Corporation for an order amending Order No. R-952. Applicant, in the above-styled cause, seeks an order amending Order No. R-952 to establish administrative procedures for development of its Artesia Water Flood Project No. 1, Artesia Pool, Eddy County, New Mexico, and for approval of unorthodox locations for fifteen wells in said project, and for capacity allowables for five wells in said project.

CASE 1699: Application of J. W. Brown for an order authorizing a pilot water flood project. Applicant, in the above-styled cause seeks an order authorizing it to institute a pilot water flood project in the Brown Pool, Chaves County, New Mexico, by the injection of water into the Queen formation through four wells located in the SE/4 NW/4 of Section 26, Township 10 South, Range 26 East, Chaves County, New Mexico.

CASE 1337: Application of Gulf Oil Corporation for an order amending Order No. R-1093-A. Applicant, in the above-styled cause, seeks an order amending Order No. R-1093-A to permit the commingling of Paddock production with the commingled Blinebry, Drinkard, and Langlie-Mattix production from its Learcy McBuffington lease consisting of the S/2 of Section 13, Township 25 South, Range 37 East, Justis Field, Lea County, New Mexico.

CASE 1700: Application of Gulf Oil Corporation for permission to commingle the production from two separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the East Millman Queen-Grayburg Pool from two separate non-contiguous leases in Township 19 South, Range 28 East, Eddy County, New Mexico.

CASE 1703: Application of Tidewater Oil Company to commingle the production from several separate oil pools from two separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the intermediate grade crudes produced from its Coates "D" Lease comprising the SE/4 SW/4 of Section 24, Township 25 South, Range 37 East, Justis Field, Lea County, New Mexico, with the commingled production of all intermediate grade crudes produced from its Coates "C" Lease comprising the E/2, SE/4 NW/4, and the NE/4 SW/4 of said Section 24 and to pass such commingled production through its automatic custody transfer system.

CASE 1704: Application of Cities Service Oil Company for capacity allowables for nine wells in a water flood project and for establishment of administrative procedure for expansion of said project. Applicant, in the above-styled cause, seeks an order authorizing capacity allowable for nine wells in the project area of its water flood project in the Caprock-Queen Pool, Chaves County, New Mexico. Said capacity allowables would be in exception to Order R-1128-A. Applicant further seeks establishment of an administrative procedure to expand said water flood project.

CASE 1705: Application of Neville G. Penrose, Inc., for a capacity allowable for one well. Applicant, in the above-styled cause, seeks an order authorizing a capacity allowable for its Alston Well No. 2, located in the NW/4 NW/4 of Section 11, Township 14 South, Range 31 East, Caprock Queen Pool, Chaves County, New Mexico, due to a response from the adjoining Cities Service Oil Company water flood project. Said capacity allowable would be in exception to Order R-1128-A.

pj

NEW MEXICO OIL CONSERVATION COMMISSION

Docket No. 23-59-a

In addition to the cases listed on Docket No. 23-59, the following cases will also be heard June 24, 1959, before Elvis A. Utz, Examiner, or A. L. Porter, Jr., Secretary-Director:

CASE 1701: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington Well No. 5, located in the NW/4 SE/4, Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from an undesignated Paddock Pool and oil from the Justis-Ellenburger Pool through parallel strings of tubing.

CASE 1702: Application of Humble Oil & Refining Company for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its South Four Lakes Unit Well No. 6, located in the SW/4 SE/4, Section 2, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to produce oil from a Four Lakes-Pennsylvanian Pool extension and gas from a Four Lakes-Devonian Gas Pool extension through parallel strings of tubing.

CASE 1706: Application of Sunray Mid-Continent Oil Company for an order amending Order No. R-1414. Applicant, in the above-styled cause, seeks an order amending Order No. R-1414 to include the following additional acreage: NW/4 NW/4 of Section 6, Township 25 North, Range 12 West, and the SW/4 SW/4 of Section 31, Township 26 North, Range 12 West, San Juan County, New Mexico.

Place of hearing will be Highway Department Auditorium, 1120 Cerrillos Road, Santa Fe, New Mexico.

Time of hearing will be 8:00 o'clock a.m.

ig/

1696

CAULKINS OIL COMPANY
BOX 967
FARMINGTON, NEW MEXICO

May 25, 1959

Application Filed 5-27-59
Hearing - 6-24-59

Mr. Jason Kellahin
Box 1713
Santa Fe, New Mexico

Dear Sir:

Herewith in quadruplicate is New Mexico Oil Conservation Commission "Application for Triple Completion" for our Breech "F" PMD-8, 990' from the north and east lines of Section 34-27N-6W, Rio Arriba County, New Mexico; also sent are 4 copies each of the following:

1. Letter to El Paso Natural Gas Company notifying them of the application.

2. Plat showing locations and operator of wells surrounding PMD-8.

3. Diagrammatic sketch of the triple completion.

4. Schlumberger Well Surveying Corp. Induction-Electrical Log.

5. Packer Setting Affidavit from Baker Oil Tools, Inc.

After proper notice to the Aztec Office of the Oil Conservation Commission and El Paso Natural Gas Company, initial Packer Leakage Tests and Potential Tests were made May 23, 1959, 7 days after the final string of tubing was run in the well. The Mesa Verde zone was tested first and during the 3 hour test period there was no change in pressure in either the Dakota or Pictured Cliffs, so there is no indication of communication between zones.

The diagrammatic sketch mentioned above probably shows the mechanical arrangement of the well equipment clearly enough, but we wish to add that the 5½" Model "D" Baker Production Packer and the 7-5/8" Model "FA" Baker Production Packer were run and set on a wire line by Schlumberger Well Surveying Corp. 2" tubing was then run to 7380' with seal nipples spaced to seal off in both packers. That portion of the 2" tubing string from 4609 to 5431 is Hardy-Griffin Integral Joint Tubing. 3½" 9.3# J-55 Internal-External Flush Joint Tubing was joined to the tail pipe of the Baker Parallel Flow Tube and run concentrically with the Hardy-Griffin Tubing from 4608 to 5365. The 1¼" tubing was then sealed into the parallel flow tube at 4600'. Production from the Mesa Verde zone must flow through the 2-3/8" x 3" annulus of the Hardy-Griffin and 3½" flush joint tubing from 5365 to 4600, then through 1¼" tubing to the surface. The tubing

was installed in this manner to keep the Mesa Verde portion of the well purged of liquids. The Pictured Cliffs gas will be produced through casing, using the 3/4" tubing set at 3157 to keep the Pictured Cliffs purged of liquids. Dakota gas will be produced through the 2" tubing set at 7380.

Will you please file this application with the Commission and get it scheduled for hearing at the earliest possible time.

Yours truly,

Frank Gray

June 24

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name		County	Date
SOUTH BLANCO		RIO ARRIBA	MAY 23, 1959
Operator	**Lease**		**Well No.**
CAULKINS OIL COMPANY	BREECH "F"		PMD-8

Location of Well	Unit	Section	Township	Range
	A	34	27 NORTH	6 WEST

1. Has the New Mexico Oil Conservation Commission heretofore authorized the ~~dual~~ Triple completion of a well in these same pools or in the same zones within one mile of the subject well? YES __ NO XX NO ____

2. If answer is yes, identify one such instance: Order No. _____ ; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Middle Zone	Lower Zone
a. Name of reservoir	PICTURED CLIFFS	MESA VERDE	DAKOTA
b. Top and Bottom of Pay Section (Perforations)	3180 to 3224	4844 to 5527	7392 to 7540
c. Type of production (Oil or Gas)	GAS	GAS	GAS
d. Method of Production (Flowing or Artificial Lift)	FLOW	FLOW	FLOW

4. The following are attached. (Please mark YES or NO)

YES a. Diagrammatic Sketch of the ~~Dual~~ Triple Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.

YES b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

YES c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*

YES d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

EL PASO NATURAL GAS COMPANY, c/o MR. D. N. CANFIELD, P. O. BOX 997, FARMINGTON, NEW MEXICO

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES * NO ____. If answer is yes, give date of such notification May 23, 1959.

CERTIFICATE: I, the undersigned, state that I am the ~~Field Superintendent~~ of the CAULKINS OIL COMPANY (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Frank Gray
Signature

Dual Mailed 5-28-58 6-12-58

* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

STATE OF NEW MEXICO)
COUNTY OF SAN JUAN)

I, M. M. Mahaffey, being first duly sworn upon my oath depose and say as follows:

I am an employee of Baker Oil Tools, Inc., and that on May 13, 19 59, I was called to the location of the Caulkins Oil Company (Name of Company)

Breech "F" PMD-8 (Well Number) Well located in the C NE NE of Section 34, Township 27N, Range 6W, N.M.P.M., for advisory service in connection with installation of a production packer. In my presence, a Baker Model FA Production Packer was set in this well at 4600 feet in accordance with the usual practices and customs of the industry; a Baker Model D Production Packer was also set at 7370'.

Baker Oil Tools, Inc.,

M. M. Mahaffey

Subscribed and sworn to before me, a Notary Public in and for San Juan County, New Mexico, the 26th day of May, 1959

My Commission Expires June 12, 1960

Notary Public in and for San Juan County, New Mexico

CAULKINS OIL COMPANY
BOX 967
FARMINGTON, NEW MEXICO

May 25, 1959

El Paso Natural Gas Company
Box 997
Farmington, New Mexico

Attention: Mr. P. W. Canfield

Gentlemen:

This is to notify you that initial packer leakage tests and potential tests were made May 23, 1959, on our recent "F" PMD-8, a Pictured Cliffs, Mesa Verde, Dakota triple completion located in the NE¼ of Section 28-27N-6W. No communication between zones was indicated and the following potentials were established:

Zone	SIP	3 Hr. Pot.	MCF
PC	751	1234	1214
MV	844	1609	2787
Dakota	2960	3669	~~3915~~ 3915 cc

This location is a direct offset to your Rincon Lease in Section 27-27N-6W.

The attached copy of the New Mexico Oil Conservation Commission "Application for Triple Completion" and related data is sent to you as required by the Commission.

Yours truly,

Jack Gray

Attachments:
Application for Triple Completion
Well Location Plat
Diagramatic sketch of the Triple Completion
Induction-Electrical Log

R-6-W

EL PASO NAT'L. GAS CO. 28 62	EL PASO NAT'L. GAS CO. PM-99 27	EL PASO NAT'L. GAS CO. PM-100 26 P-122
CAULKINS MD-4 33 PC-25	E.P.N.G. CO. 34 1	CAULKINS PMD-8 PM MU-12 35
CAULKINS 4 T-85 T-87 PC-85 PC-87	CAULKINS 3 PC-89 T-109	CAULKINS 2 PC-93

T 27 N

T 26 N

AREA SURROUNDING CAULKINS OIL CO. P.C., M.V., DK., TRIPLE COMPLETION WELL NO. PMD. 8.
LOCATED 990' F/NL AND 990' F/EL SEC. 34 T27N R6W RIO ARRIBA CO., NEW MEXICO.

SCALE: 2" = 1 MILE

END OF ROLL

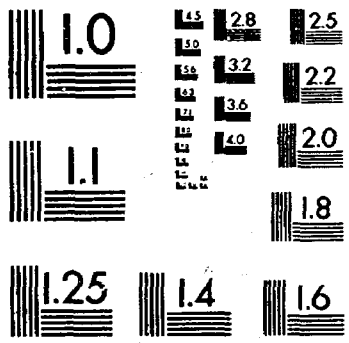
#42
ROLL NUMBER

DOCUMENT TYPE NEW MEXICO OIL CONSERVATION

DATE OF FILMING 5/28/85

CAMERA OPERATOR L. WHEELER

ENDING DOCUMENT NEW MEXICO OIL CONSERVATION #1696



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

STATEMENT OF DOCUMENT CERTIFICATION

All microphotgraphics images of documents following this certificate are of authorized documents in the possession of this Agency. These documents are routinely microfilmed as a necessary operation in the generation of an inviolate document file.

R. David Ortiz
SUPERVISOR

STATE OF NEW MEXICO)
) SS.
COUNTY OF VALENCIA)

Sworn and Subscribed to me, A Notary Public,

This 1st day of December, 1993

[signature]
NOTARY PUBLIC

MY COMMISSION EXPIRES: 10-2-96

- -

CERTIFICATE OF AUTHENTICITY

THIS IS TO CERTIFY that the microphotographs appearing on this Roll of Film are accurate and complete reproductions of the records of the, State N.M as delivered in the regular course of business for Micro Filming.

L. Wheeler
CAMERA OPERATOR

STATEMENT OF DOCUMENT CERTIFICATION

All microphotgraphics images of documents following this certificate are of authorized documents in the possession of this Agency. These documents are routinely microfilmed as a necessary operation in the generation of an inviolate document file.

R. David Ortiz
SUPERVISOR

STATE OF NEW MEXICO)
) SS.
COUNTY OF VALENCIA)

Sworn and Subscribed to me, A Notary Public,

This 1st day of December, 19 93

[signature]
NOTARY PUBLIC

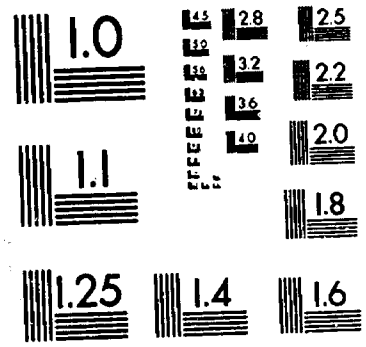
MY COMMISSION EXPIRES: 10-2-86

- -

CERTIFICATE OF AUTHENICITY

THIS IS TO CERTIFY that the microphotographs appearing on this Roll of Film are accurate and complete reproductions of the records of the, State N.M as delivered in the regular course of business for Micro Filming.

L. Wheeler
CAMERA OPERATOR



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

START OF ROLL

#42-B
ROLL NUMBER

DOCUMENT TYPE NEW MEXICO OIL CONSERVATION

DATE OF FILMING 5/28/85

CAMERA OPERATOR L WHEELER

BEGINNING DOCUMENT NEW MEXICO OIL CONSERVATION #1697