

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 10, 1960

EXAMINER HEARING

IN THE MATTER OF:)

Application of Texaco Inc. for an oil-oil-)
oil triple completion. Applicant, in the)
above-styled cause, seeks an order author-)
izing the triple completion of its C. P.)
Falby "B" Well No. 4, located in unit L,)
Section 8, Township 22 South, Range 37)
East, Lea County, New Mexico, in such a)
manner as to produce oil from the Eumont)
Gas Pool, oil from the Penrose-Skelly)
Pool, and oil from the Drinkard Pool through)
3 parallel strings of 2 3/8 inch tubing.)

Case 2043

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. WHITE: Case 2043.

MR. PAYNE: Application of Texaco Inc. for an oil-oil-oil
triple completion.

MR. WHITE: Will the record show the same appearances and the
same witness as in Case 2042?

MR. PAYNE: Let the record show that the witness has been
sworn for this case.

(Texaco, Inc. Exhibits 1 and
2 were marked for identi-
fication.)



J. E. ROBINSON, JR.

called as a witness, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Robinson, will you briefly state what Texaco is seeking by this application?

A Texaco is seeking an application to triply complete its C. P. Falby "B" Well No. 4 in the Drinkard, Penrose-Skelly and Eumont Oil Pools and to produce these three zones through parallel strings of 2-3/8 inch O.D. tubing.

Q That will be three parallel strings?

A Yes, sir, three parallel strings.

Q Has this well been spudded in as yet?

A No, sir, it has not. It has been staked, but that is the only action that we've taken on the well.

Q Pending the outcome of this hearing?

A That is correct.

Q Will you refer to Exhibit No. 1 and explain that exhibit?

A Exhibit No. 1 is a plat showing Texaco's C. P. Falby "B" lease, which is outlined by the yellow border, located in the Southwest Quarter of Section 8, Township 22 South, Range 37 East, Lea County, New Mexico. At the present time we have three wells

located on this lease; Wells 1 and 2 are both Penrose-Skelly wells,

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Well No. 3 is a Penrose-Skelly and a Eumont oil well, and we propose to drill and complete Well No. 4 in the Drinkard, Penrose-Skelly and the Eumont Oil Pools.

There are some other Drinkard production in the immediate area; however, this is the only well that is completed, or will be completed in all three zones. The plat also shows all the zones the wells are producing from, as well as a list of offset operators with their current addresses.

Q Will you refer to Exhibit No. 2?

A Exhibit No. 2 is a diagrammatic sketch of the proposed completion of this triply-completed well. We will drill and set 10-3/4 inch casing at 330 feet, with the cement being circulated to the top of the ground. We will then drill and set 7-5/8 inch casing at 3925 feet, with cement also being circulated to the surface. The cement will be tied in with the 10-3/4 inch casing and will be cemented on to the surface. After we set the 7-5/8 inch casing, we propose to reduce the hole size and set a 4-1/2 inch liner at "T. D.". It will be hung on a liner hanger about a hundred feet up into the 7-5/8 inch casing. We will cement around the bottom of this liner with 200 sacks of cement. We will then squeeze around the top of the 4-1/2 inch liner with 200 sacks of cement. We will then perforate the Drinkard zone, estimated from 6475 to 6525, or a 50-foot interval. We will set a Baker Model D packer at 6450, excuse me, we will not set it at this time. We will



go ahead and complete the other two intervals, then we will set a Baker Model D packer at 6450, we will set a Baker Model F.A. packer at 3600 feet after completing the Penrose-Skelly Field, the Grayburg formation from 3650 to 3750, or approximately a hundred-foot interval, and the Eumont oil from 3440 to 3540 or another hundred-foot interval. We will set the Baker Model F.A. packer at 3600 feet.

To effectively separate these three intervals on the 2-3/8's O.D. tubing that will be run to produce the lower string, a Baker dual zone flow tube will be made up on the long string. The long string will be run first with the parallel flow tube latched in to the Baker Model F.A. packer at 3600 feet. Continuing on downhole, the 2-3/8 inch tubing will have the seal assembly located on this long string with the proper locator subs, and it will seat inside the 4-1/2 inch, the Baker Model D packer set in the 4-1/2 inch liner, that will effectively separate these two zones, one from another.

We will then run a string of 2-3/8 inch tubing that will be latched in to the upper part of the preliminary flow tube, and it will be from this string of tubing that we will produce the middle horizon, or the Penrose-Skelly. Then we will run a string of 2-3/8 inch tubing to approximately 3425, from which we will produce the Eumont oil. The long string will be latched into the Baker Model F.A. packer. The middle string will be latched into the



dual flow tube, and the short string, or the string that we will produce the Eumont oil from will be hung free in the well. The tubing will all be 2-3/8 inch J-55 tubing with turndown and beveled couplings; the couplings will be N-80 couplings.

Q Mr. Robinson, what type of crudes are these?

A All three crudes are sour crudes.

Q Have you experienced any difficulty with these crudes?

A No, sir, we have not had any trouble at all with these crudes, even though they're all three sour, but they have not presented any corrosion problems here.

Q Which zones do you expect to flow and which do you expect to pump?

A The Eumont, or the upper zone, we expect to flow to completion. You may recall that we drilled our C. P. Falby "B" Well No. 3, which was located sufficiently upstructure to get a gas well and, quite to our astonishment, we found that we completed in an oil reservoir rather than gas, so we expect that the Eumont will flow to depletion.

The middle zone, or the Penrose-Skelly, the Grayburg formation, will have to be pumped initially. The Drinkard zone, we expect that this zone will flow for quite some time. If this well has any indication of any of the others in the area, it will flow at least ten years. Both of our Drinkard wells were completed in 1951, and they are still flowing wells.



Q Will it be possible to pump the lower zone with this type of installation?

A Oh, yes, sir. Parallel flow tube is a full-opening tube and we can run a pump right on down and seat in a pump seat where we could pump the Drinkard formation from the long string of tubing.

Q Can you give us any information as to what you anticipate the respective GOR's to be?

A If the Eumont, or the upper zone, is anything like our well that we have recently completed in the Eumont oil zone, it will have a gas-oil ratio of 5,000 to 1. The Grayburg formation, or the middle zone, will have a gas-oil ratio that will probably be too small to measure. The Drinkard will have a gas-oil ratio varying probably between 2500 to 3000 cubic feet per barrel.

Q Were these exhibits prepared by you or under your direction?

A Yes, sir, they were.

MR. WHITE: We offer the exhibits in evidence at this time.

MR. UTZ: Without objection, the exhibits will be entered into the record.

MR. WHITE: That completes our testimony on direct.

CROSS EXAMINATION

BY MR. UTZ:

Q Do you have any idea what you might expect in the way



of gravity from these three zones as well as pressure?

A The gravity of the Eumont will be approximately 33.5 degrees A.P.I., the Penrose-Skelly will be 36.0 degrees. Off-hand, I do not have estimated gravity, what we expect the Drinkard will give us. It will be roughly in this range of, oh, from 33 to 37 degrees A.P.I.

Q Do you have any idea about the pressures?

A No, sir, I don't.

Q What kind of a pressure did you have in your Eumont well, the one that you spoke of? I don't recall the name of it.

A I don't have that. I'm sorry, I don't have the figures with me, Mr. Utz, but I can say that all of this equipment will certainly be adequate to withstand any of the pressures that will be encountered. Nothing within the range of 10,000 pounds would be expected in here, and this equipment will withstand 10,000 pounds pressure upon it.

Q Differential?

A Yes, sir.

Q How about the type of crudes, do you have any idea about those?

A Yes, sir, all three crudes will be sour crudes.

Q All sour?

A We evidence no difficulties or experience with corrosion in here. We will run coupon tests periodically to check any corrosion that might start occurring, and in case it should, well

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then we would use the squeeze method of injecting some type of a commercial inhibitor into the zone at whatever periods it would be necessary to combat adequately a corrosion problem.

Q Is this the first triple completion that Texaco has tried in New Mexico?

A No, sir. It is the first triple completion that we have tried in New Mexico where all three zones are oil zones. We have one other triple completion where we have two oil zones and a gas zone.

Q Have you used this type of completion anywhere else?

A Yes, sir. We used this same type of completion in Texas on three oil zones.

Q Has it proved to be satisfactory there?

A Yes, sir.

Q Were all three zones sour crude?

A Maybe all three zones might not have been sour crudes.

Q Do you have much trouble with corrosion?

A In places where we do have corrosion we would use all precautions in selecting our equipment and in installing our equipment when handling corrosive fluids, but in cases where we are handling a sour type crude, as long as it is not corrosive, well then we do not install any specially protected equipment.

Q Which you will install in this well?

A Sir?

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Q You will install protective equipment in this well?

A No, sir, we plan on installing just standard equipment in this well. As I have previously testified, that we have experienced in this area over the last ten years no corrosive problems even though it is a sour crude, and we do not plan to install any specially designed or treated equipment, but we will run coupon tests and certainly undertake an adequate testing program for corrosion.

MR. UTZ: Any other questions?

MR. PAYNE: Yes, sir.

BY MR. PAYNE:

Q Is this F.A. packer a permanent type packer?

A Yes, sir, it is. It is a permanent type packer along with the Baker Model D. About the only difference between the two packers, the Baker Model F.A. packer has a larger opening through it than the Baker Model D.

Q I see.

A That would permit us to seat this parallel flow tube in it.

MR. PAYNE: Thank you.

MR. UTZ: Any other questions?

MR. WHITE: I have one other question.

REDIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Robinson, if the occasion should arise where you should



take some necessary steps to prevent corrosion, will you do so?

A Yes, sir, we certainly will. We would think it would be to our advantage. Well, it would be to our advantage, and we would certainly undertake any type of an inhibitor program that would protect us here. However, we would not expect any corrosion.

Q You don't think such measure would be justified in the present situation?

A Not under the present situation. If it would develop later on, we would certainly do it.

MR. WHITE: That's all.

MR. UTZ: The witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements in this case? The case will be taken under advisement. We'll take a ten-minute recess.

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STATE OF NEW MEXICO)
 : SS
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 13th day of August, 1960.


 Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2043 heard by me on Aug. 12, 1960.


 Examiner
 New Mexico Oil Conservation Commission

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ALBUQUERQUE, NEW MEXICO



GILBERT, WHITE AND GILBERT
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
TEXACO INC. FOR PERMISSION TO TRIPLY
COMPLETE ITS C. P. FALBY "b" WELL
NUMBER 4 LOCATED IN SECTION 8 TOWNSHIP
22 SOUTH, RANGE 37 EAST, LEA COUNTY,
NEW MEXICO.

Case No. 2043

A P P L I C A T I O N

Comes now Texaco Inc. and makes application for permission to triple complete its C. P. Falby "b" well Number 4 in the Drinkard, Penrose-Skelly and Eumont (Oil) pools and states:

1. In support of the application to triple complete the subject well reference is made to Exhibit "A" which is hereby incorporated by reference.

2. A plat showing location of the lease, the subject well and all the off-set operators so far as known is attached hereto marked Exhibit "B" and made a part hereof by reference.

3. That the proposed manner and method of installing the triple completion is set forth on the diagrammatic sketch attached hereto as Exhibit "C" and made a part hereof by reference.

4. Applicant anticipates that the Drinkard and Eumont will be flowing oil completions and the Penrose-Skelly will be produced by artificial lift. Three parallel strings of two and three-eighths inch O.D. tubing will be run in the well bore thereby permitting each individual zone to be produced through two and three-eighths inch O. D. tubing.

WHEREFORE, applicant prays that this matter be set down for hearing before an examiner, that notice be given in accordance with law and that the application be granted upon such terms and conditions as may be just and reasonable in the premises.

GILBERT, WHITE AND GILBERT

By *L. White*
One of its attorneys

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

TRIPLE APPLICATION FOR DUAL COMPLETION

Field Name Drinkard, Penrose-Skelly & Eumont (Oil)		County Lea	Date 7-1-60
Operator TEXACO Inc.		Lease C. P. Falby "b"	Well No. 4
Location of Well L	Unit 8	Township 22-S	Range 37-E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X **triple**
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	Penrose	Grayburg	Drinkard
b. Top and Bottom of Pay Section (Perforations)	3440' - 3540'	3650' - 3750'	6475' - 6525'
c. Type of production (Oil or Gas)	Oil	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flowing	Artificial Lift	Flowing

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

- Yes a. Diagrammatic Sketch of the Dual 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.
- No 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.*
- No 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.

Shell Oil Company, Box 845, Roswell, New Mexico

Pan American Petr. Corp., Box 268, Lubbock, Texas

Permian Oil Company, 1223 Petroleum Life Bldg., Midland, Texas

Neville G. Penrose, Inc. - Box 988, Eunice, New Mexico

Gulf Oil Corp., P. O. Drawer 669, Roswell, New Mexico

Texas-Pacific Coal and Oil Co., Box 1688, Hobbs, New Mexico

Carper Drilling Company, Inc., 200 Carper Bldg., Artesia, New Mexico

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

Proration

CERTIFICATE: I, the undersigned, state that I am the Div. XXXXXXXXXX Engr. of the TEXACO Inc.

(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.

J. E. Robinson, Jr. Signature

- * 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 at 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.