

CASE 2731: Application of TEXACO
for the dual completion of its
STATE OF N.M. "O" NCT-1 WELL #12.

-asa / No.

2131

petition, Transcript,
and Exhibits, Etc.

DRAFT

JMD/esr.
January 15, 1963

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. 2731

Order No. R- 2413

APPLICATION OF TEXACO INC.,
FOR A DUAL COMPLETION, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 23, 1963, 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 _____ day of January, 1963, 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, Texaco Inc., seeks authority to complete its State of New Mexico "O" NCT-1 Well No. 12, located in Unit J of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion (tubingless) to produce oil from ~~the Glorieta and Blinberry formations~~ *an undesignated Glorieta Pool and an undesignated Blinberry Pool* through parallel strings of 2 7/8-inch casing cemented in a common well bore.

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

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to complete its State of New Mexico "O" NCT-1 Well No. 12, located in Unit J of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion (tubingless) to produce oil from ~~the~~ ^{an undesignated Pool} Glorieta and ^{an undesignated Pool} Blinbry ~~formations~~ through parallel strings of 2 7/8-inch casing cemented in a common well bore.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, That the applicant shall take ^{zone} ~~packer~~ ^{segregation} ~~leakage~~ tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the ^{Blinbry} formation.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

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

Texaco Inc.

Leak (Ingress)

State of N.M. "O" NCT-1 well No 12
Undesignated Glauconite^{oil} Under Blinburg, ^{oil}
Lea County.

Sec 36, T17S R. 34E Unit J

2731

TEXACO
INC.

PETROLEUM PRODUCTS

DOMESTIC PRODUCING DEPARTMENT
MIDLAND DIVISION



P. O. BOX 3109
MIDLAND, TEXAS

December 31, 1962

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attn: Mr. A. L. Porter, Jr.

Gentlemen:

Texaco Inc. respectfully requests that a hearing be set to consider its application for a dual tubingless completion for its State of New Mexico "O" NCT-1 Well No. 12. It is proposed that the subject well will be dually completed in an Undesignated Glorieta Oil Pool and an Undesignated Blinebry Oil Pool, Lea County, New Mexico. Production from each zone is to be through individual strings of 2-7/8" tubing cemented as casing in a common well bore. In support of our application we wish to state the following facts:

1. Texaco Inc. is the operator of the State of New Mexico "O" NCT-1 lease containing approximately 400 acres and consisting of the S/2 N/2, SE/4, S/2 SW/4, Section 36, T-17-S, R-34-E, Lea County, New Mexico.
2. The State of New Mexico "O" NCT-1 Well No. 12 is located in Unit J, said Section 36.
3. The Glorieta zone is to be an oil completion through casing perforations 5835' to 5885'.
4. The Blinebry zone is to be an oil completion through casing perforations 6300'-6400'.
5. It is anticipated that both zones will flow initially.

DOCKET MAILED

Date 1-11-63
gh

NMOCC

-2-

December 31, 1962

Attached is an application for dual completion for the subject well along with a plat of the Texaco State of New Mexico "O" NCT-1 lease and the area immediately surrounding. It is respectfully requested that this application be set for hearing on the first available Examiner hearing docket.

Yours very truly,

C.R. Black

C. R. Black
Division Proration Engineer

CRB-MM
Attach.

(Case 2731)

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Case 2131
7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name	Undesignated Glorieta & Blinebry	County	Lea	Date	12-31-62
Operator	Texaco Inc., P. O. Box 728, Hobbs, New Mexico	Lease	State of NM "0" NCT-1	Well No.	12
Location of Well	Unit J	Section 36	Township 17-S	Range	34-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 _____
2. If answer is yes, identify one such instance: Order No. _____; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Glorieta	Blinebry
b. Top and Bottom of Pay Section (Perforations)	5835-5885 (est.)	6300-6400 (est.)
c. Type of production (Oil or Gas)	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flow	Flow

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

- No 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.

Continental Oil Company	Box 68	Eunice, N. M.
Shell Oil Company	Box 1858	Roswell, N. M.
Amerada Petroleum Corporation	Box 668	Hobbs, N. M.
Phillips Petroleum Co.	Box 2105	Hobbs, N. M.
Mobil Oil Company	Box 2406	Hobbs, N. M.
Pacific Western c/o Tidewater Oil Co.	Box 547	Hobbs, N. M.

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 _____.

CERTIFICATE: I, the undersigned, state that I am the Divn. Proration Engr. of Texaco Inc. 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.

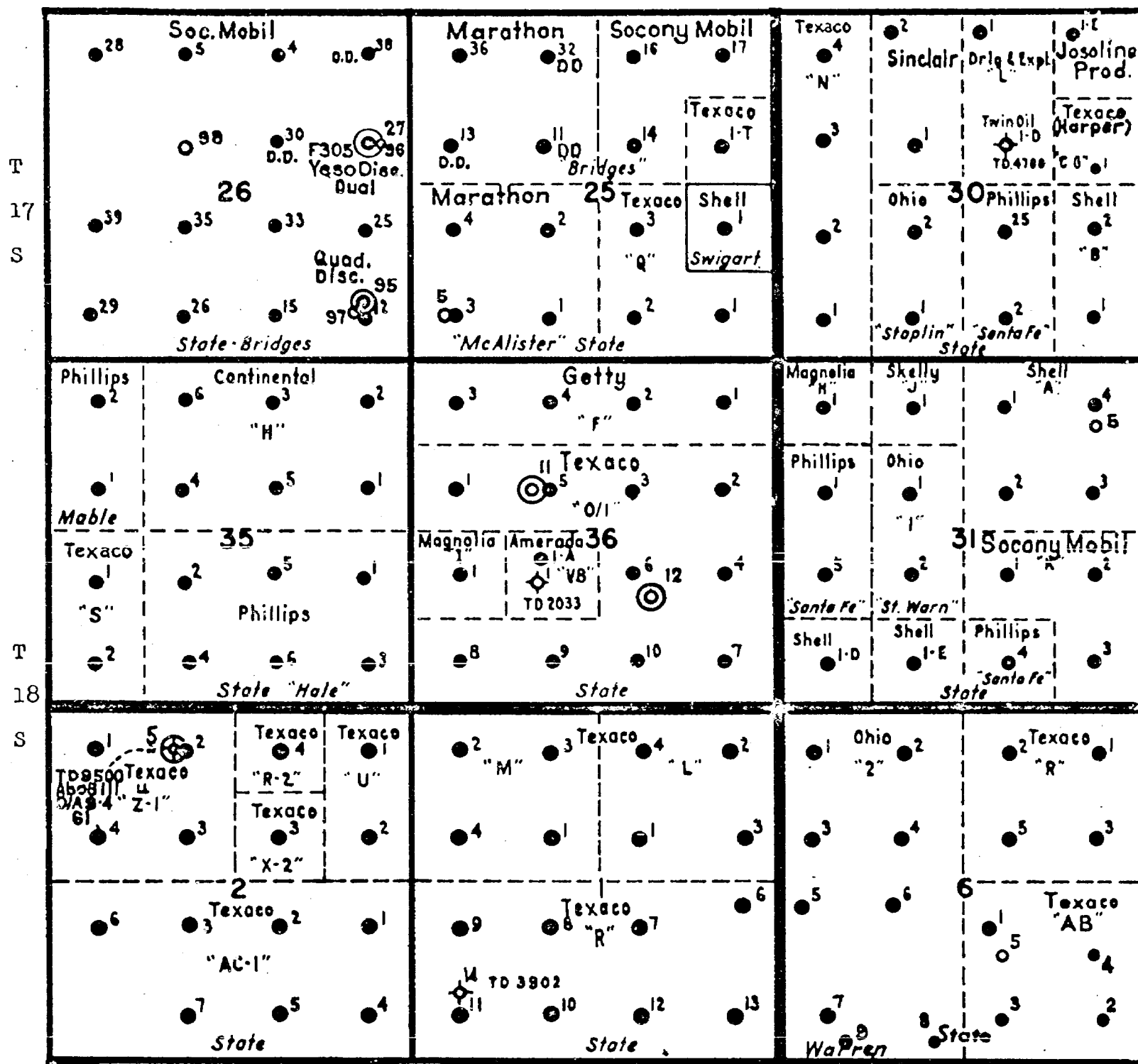
C. R. Black
C. R. Black

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 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.

R-34-E

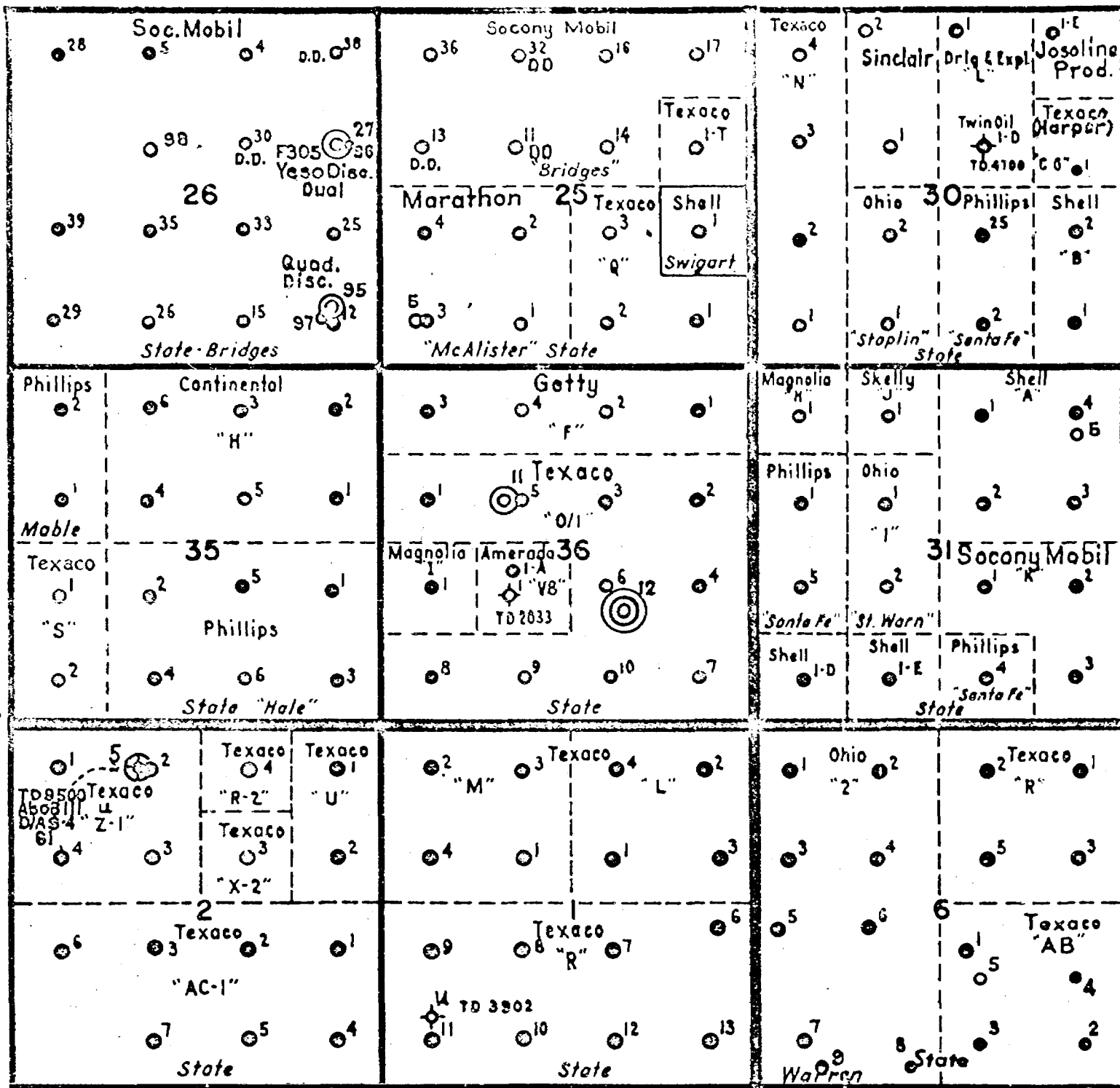
R-35-E



(over 273)

R-34-E

R-35-E

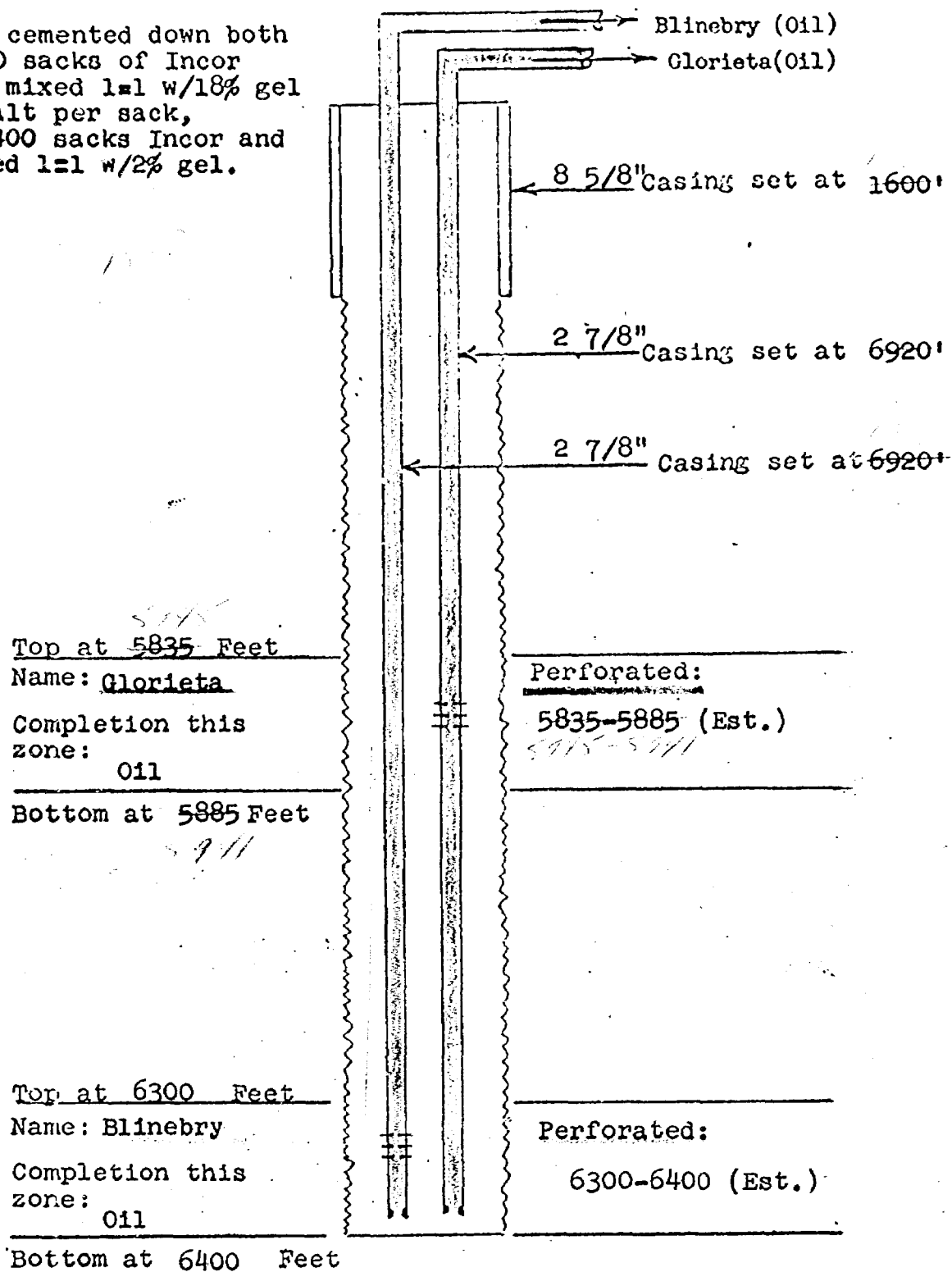


TEXACO INC.
 State of New Mexico "O" NCT-1 Lease
 Vacuum Pools
 Lea County New Mexico
 Scale 1"-2000

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 1
 CASE NO. 731

DIAGRAMMATIC SKETCH SHOWING DUAL COMPLETION INSTALLATION (TUBINGLESS)

Note: To be cemented down both strings w/500 sacks of Incor and Pozzolan mixed 1=1 w/18% gel and 3 lbs. salt per sack, followed by 400 sacks Incor and Pozzolan mixed 1=1 w/2% gel.



TEXACO Inc.

LEASE: State of New Mexico "O" (Net-1) Well No. 12
 FIELD: Undesignated (Glorieta and Blinebry) Pools
 DATE: January 2, 1963

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 2
 CASE NO. 2731

COMPLETION DATA
GLORIETA AND BLINEBRY FORMATIONS
VACUUM POOL AREA
LEA COUNTY, NEW MEXICO

	<u>Glorieta</u>	<u>Blinebry</u>
Oil Gravity °API @ 60°F	39.3	36.2
Gas-Oil Ratio ft ³ /bbl.	300	1428
Type Crude	Not Known	Inter-Sweet
BHP psi	2209 (-1950)	2420 (-2453)
Stimulation	1000 gal. acid	1000 gal. acid 15,000-20,000 gal. fracture 2 lbs. sand/ gal.
Producing Method	Flow	Flow

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 2231

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 23, 1963

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

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, as alternate examiner:

CASE 2729: (Continued)

Application of Scanlon-Shepard for a waterflood project, Chaco Wash Oil Pool, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject water into the Mesaverde formation through certain wells in Sections 21, 22, 27 and 28, Township 20 North, Range 9 West, McKinley County, New Mexico.

CASE 2731: Application of Texaco, Inc., for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State of New Mexico "O" NCT-1 Well No. 12, located in Unit J of Section 36, Township 17 South, Range 34 East, as a dual completion (tubingless) to produce oil from the Glorieta and Blinberry formations, Lea County, New Mexico.

CASE 2732: Application of Sinclair Oil & Gas Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Mahaffey-Federal (ARC) Well No. 1 located in Unit C of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico, to produce Bone Springs oil and Pennsylvanian gas through parallel strings of tubing.

CASE 2733: Application of Charles B. Read for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 48.99-acre non-standard oil proration unit in an undesignated Delaware pool consisting of Lots 4 and 5 of Section 31, Township 26 South, Range 32 East, Lea County, New Mexico.

CASE 2734: Application of Aztec Oil & Gas Company for approval of a unit agreement, Lea and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks approval of the Aztec-Robinson Waterflood Unit, comprising approximately 682 acres of State and Federal Lands in the E/2 SE/4 and SW/4 SE/4 of Section 36, Township 16 South, Range 31 East, the SW/4 SE/4 of Section 30, the W/2, W/2 E/2 and SE/4 SE/4 of Section 31, Township 16 South, Range 32 East Lea and Eddy Counties, New Mexico.

CASE 2735: Application of Amerada Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State BT "G" Well No. 2 located in Unit P, Section 27, Township 12 South, Range 33 East, Hightower Field, Lea County, New Mexico, in such a manner as to dispose of produced salt water into the Pennsylvanian formation.

- CASE 2736: Application of Gulf Oil Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 120-acre non-standard gas proration unit in the Blinebry Gas Pool, comprising the N/2 SW/4 and SE/4 NW/4 of Section 31, Township 22 South, Range 38 East, Lea County, New Mexico, said unit to be dedicated to the Scarborough Estate Well No. 4 located in Unit F of Section 31.
- CASE 2737: Application of Gulf Oil Corporation for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, including provisions for 640-acre spacing therein.
- CASE 2738: Application of BCO, Inc. for a no-flare exception, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the no-flare provisions of Order No. R-2267 for its Campos Well No. 1-10 located in Unit J of Section 10, Township 23 North, Range 7 West, Lybrook-Gallup Pool, Rio Arriba County, New Mexico.
- CASE 2739: Application of Socony Mobil Oil Company, Inc., to create a new pool for Abo production, and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for Abo production in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, and the establishment of temporary special pool rules therefor, including a provision for 80-acre spacing units.
- CASE 2740: Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Vacuum-Wolfcamp Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.
- CASE 2741: Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Vacuum-Devonian Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.
- CASE 2742: Application of Pan American Petroleum Corporation for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Fowler-Blinebry Oil Pool, Lea County, New Mexico, including a provision for 80-acre proration units.
- CASE 2743: Application of Pan American Petroleum Corporation for the creation of a Tubb Gas Pool, for approval of a non-standard gas unit, and for special temporary pool rules. Applicant, in the above-styled cause, seeks the creation of a new Tubb gas pool, and the establishment of temporary special pool rules therefor, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks establishment of a non-standard unit in said pool, comprising the NE/4, E/2 NW/4, and the N/2 SE/4 of Section 22, Township 24 South, Range 37 East.

CASE 2744: Application of Pan American Petroleum Corporation for special pool rules and approval of a non-standard gas unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Fowler-Paddock Gas Pool, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks establishment of a non-standard unit in said pool, comprising the NE/4, E/2 NW/4, and the N/2 SE/4 of Section 22, Township 24 South, Range 37 East.

Case 2731

Heard 1-23-63

Rec. 1-24-63

1. Grant Texaco permission to Dually
complete their New Mexico "O" No. 1 #12
J-36-175-34E, in Under. Florida Oil Pool.
and. Under. Blinby Oil Pool.

2. This is a "Tubingless" completion using
2 strings of 2 7/8" tubing.

Use usual Grant order otherwise.

Thos A. VLF.

State of New Mexico
Oil Conservation Commission



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY • DIRECTOR

Re: Case No. 2731
Order No. R-2413
Applicant:
Texaco Inc.

OTHER _____

DE. RNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1112

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 23, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Texaco, Inc., for a
dual completion, Lea County, New Mexico.
Applicant, in the above-styled cause,
seeks authority to complete its State of
New Mexico "O" NCT-1 Well No. 12, located
in Unit J of Section 36, Township 17
South, Range 34 East, as a dual complet-
ion (tubingless) to produce oil from the
Glorieta and Blinbry formations, Lea
County, New Mexico.

Case. No. 2731

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case on the docket is Case 2731.

MR. DURRETT: Application of Texaco, Inc., for a dual
completion, Lea County, New Mexico.

MR. KELLY: Booker Kelly of Gilbert, White and Gilbert,
Santa Fe, appearing on behalf of Texaco, I have one witness and
ask that he be sworn.

(Witness sworn)

MR. UTZ: Are there other appearances in this case?

You may proceed.

C. R. BLACK

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

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, your position and your employer, please?

A I am C. R. Black. I am employed by Texaco, Incorporated as the Division Proration Engineer out of Midland, Texas.

Q You have previously testified before this Commission, haven't you, Mr. Black?

A Yes, I have.

Q Could you tell the Examiner what Texaco seeks by this application?

A This is the application of Texaco, Inc. for a dual tubeless completion for our State of New Mexico "O" NCT-1 Well Number 12. This well will be completed in the Glorieta and Blinebry formations with production from each zone being produced through individual strings of 2 7/8 inch tubing cemented in the well bore as casing.

Q Are either zones completed now?

A At the present time there are Blinebry completions in the area, however this is the first completion in the Glorieta formation in this immediate area.



Q Is that the only reason that you are having to have this by hearing rather than administrative approval?

A Yes, this application does not qualify administratively because there are no similar duals in this area.

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

Q Referring to what has been marked Exhibit 1, could you explain that to the Commission, please?

A Exhibit Number 1 is a plat showing the Texaco State of New Mexico "O" NCT-1 Lease bordered in yellow. The subject well is circled in red; the immediate area surrounding this plat is also shown, and most of the offsetting wells are San Andres completions in the shallower interval.

Q Is this well an orthodox location?

A Yes, sir, at the present time this well is under the existing rules, an orthodox location, and it is located 1,800 feet from the south and east lines of Section 36, Township 17 South, Range 34 East.

Q I don't recall, did you give the Examiner the locations of the nearest Glorieta and/or Blinebry production on this?

A The nearest Blinebry production is the Socony-Mobil State Bridges Well Number 13, shown up in Section 25 on this Exhibit 1, and it's approximately a mile and a half to the northwest. The nearest Glorieta or Paddock production is in the Lovington Paddock Pool, approximately twelve miles to the east;



and other production in the Maljamar Paddock Pool is approximately 14 miles to the west.

(Marked Applicant's Exhibit No. 2, for identification.)

Q Going to what has been marked Exhibit Number 2, would you explain that, Please?

A Exhibit Number 2 is a diagrammatic sketch of the dual completion installation. It should be noted that this sketch was prepared actually prior to the physical completion and the reaching of total depth for this well, so therefore some of the information was estimated, and as I proceed through this exhibit I will correct this information to reflect the actual conditions as they are, and exist in this well bore.

An eleven inch hole was drilled to 1,602 feet and at 1,599 feet we set 8 and 5/8 inch casing and circulated cement to the surface with 580 sacks. We proceeded on with a 7 and 7/8 inch hole to a total depth of 6,920 feet. We then ran two strings of 2 and 7/8 inch casing, setting one string, the string shown as the green or glorieta string at 6,918 feet and setting the yellow string shown as the Blinebry producing string at 6,919 feet. We cemented down both strings of tubing with 500 sacks of Encore and Poslyn mix cement, and followed it with 400 sacks of Encore and Poslyn mix cement with two percent jell. A temperature survey run after these indicated the top of the cement at 1,850 feet.

Q Do you have any estimate of crude characteristics?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1172SANTA FE, N. M.
PHONE 983-3971ALBUQUERQUE, N. M.
PHONE 243-6691

A Yes, sir, we have perforated the Glorieta formation. The actual perforations were from 5945 to 5941. We had four feet of perforations at one shot per foot and on potential test after acidizing with a thousand gallons, this zone flowed 82 barrels of oil in eight hours, for a 24-hour rate of 246 barrels of oil per day, with a 1964 inches choke, a tubing pressure of 300 pounds, and a gravity, a reported gravity of 35.8 degrees.

I would like to clarify one point now, since we will bring something up on our next exhibit. This gravity was taken and this test was completed on a morning that the outside temperature was a minus five degrees, and the reported gravity we have found was in error, and we have found that since that time, under more favorable conditions, the actual gravity of this crude is 39.3 degrees.

The Blinebry formation is in the process of being completed and we will shoot one hole at the following intervals: at 6388, 6407, 6420, 6434, 6457, 6468 and 6488. We estimate an intermediate sweet crude with a gravity of approximately 36 degrees; a gas-oil ratio of approximately 1,500 cubic feet per barrel and a bottom hole pressure of approximately 2,420 pounds. We expect both zones, or we have found that the Glorieta flowed at completion, and we anticipate that the Blinebry will flow, and they should flow for several years.

Q If need be can both zones be lifted artificially?

A Yes, sir, when and if it becomes necessary we can arti-



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6631

PAGE 7

ficially lift both of these zones simultaneously.

Q Do you expect to experience any corrosion or paraffin problems?

A Based upon our experience we do not anticipate any corrosion problems, however we will maintain a periodic coupon survey and if we find excessive corrosion we will protect this by the squeeze type inhibitor treatment. We anticipate mild paraffin in both zones and, therefore, we have plastic coated the upper two thousand foot of each string in order to prevent the accumulation of paraffin in these tubing strings.

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

Q Now, Exhibit Number 3 reflects your completion data on the Glorieta and Blinebry. The Glorieta is from the subject well, isn't it, the information from the subject well?

A That is correct. Exhibit Number 3 is a tabulation of the completion data for these two zones involved in this well. The Glorieta information is based upon actual production and data gathered from our Glorieta completion. The Blinebry information is based upon the information received from Socony Mobil on their State Bridges Wells Number 13 and Number 27 which are north of the subject well. As the Examiner I am sure is aware, this is a relatively new area of development as far as these zones are concerned, and there is not a great deal of data available at this time.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1192SANTA FE, N. M.
PHONE 983-3971ALBUQUERQUE, N. M.
PHONE 243-6691

The gravity in the Glorieta was found to be 39.3, as I pointed out previously. The gravity in the Blinebry is 36.2. The gas-oil ratio from the Glorieta is 300 cubic feet per barrel, and the average gas-oil ratio from the two Mobil wells is 1,428 cubic feet per barrel.

I would like to point out one thing at this point. The top of the uppermost perforations in the Glorieta is at a minus 1,942 subsea, and the top of the uppermost perforations in the Blinebry is at a minus 2,371, so therefore the Glorieta perforations are some 400 feet higher than the Blinebry and the gas-oil ratio is only approximately one fifth of what the Blinebry zone is. So we certainly believe this is further evidence that we are dealing with two separate reservoirs and they have their own distinct characteristic.

The top of the crude in the Glorieta, at the present time we have not had a crude oil analysis, but we anticipate that it will be an intermediate sweet crude. The Blinebry is an intermediate sweet crude. The bottom hole pressure in the Glorieta, we have actually taken a bottom hole pressure and find that the pressure at a minus 1,950 feet subsea is 2,209 PSI, and the pressure in the Blinebry formation at a minus 2,453 is 2,420 PSI. With regard to stimulation it was necessary only to acidize the Glorieta formation with a thousand gallons, run a swab in the well one time and it kicked off and flowed, as I said, with a tubing pressure of three hundred pounds. The Blinebry formation, Mobil



has found that it is necessary to acidize with a thousand gallons and follow this with a fracture treatment, ranging from fifteen to twenty thousand gallons, and two pounds of sand per gallon, so again we believe this indicates a definite distinct characteristic for each reservoir. Both zones flow, the initial producing method is flowing for both zones.

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

Q Go on to Exhibit 4 and explain that to the Commission.

A Exhibit Number 4 is a cross section in this area and for the purpose of explanation I put this exhibit on the wall here behind the Examiner. The trend of this cross section is shown by the insert map. It begins up with Mobil's State Bridges Well Number 36, goes into their Bridges Number 27, down through their State Bridges Number 95, which is the deep well in this area, and a discovery well in some deeper pays. It crosses the location and the drilling location of our State "O" Well Number 11, which is shown by this thick diagram. This well is drilling to the definite formation, however we did do some testing in this area. It goes on down and ends in the subject well, the State of New Mexico "O" Number 12.

Starting with the State Bridges Number 36, we are showing two correlation points. One point is the top of the Glorieta formation; the other point is the Blinbry marker, which is recognized by the Commission, and is used in the establishment



of reservoir limits in their Blinebry pools in southeast Lea County.

As the Examiner may be aware, there was a meeting held of the operators in this immediate area, at the Commission Office, approximately two weeks ago, and the nomenclature with regard to these two formations was discussed, and at the conclusion of that meeting this was the basic concensus of opinion, that this should be, probably should be the vertical limits of these two reservoirs. This particular correlation point here is 275 feet above the Blinebry marker.

The Mobil State Bridges Well Number 36, as I stated, is completed in the Blinebry formation only. It's completed through this interval through various perforated, selectedly perforated sections. It has an initial potential of 105 barrels of oil a day. The Mobil Number 27 Bridges is a Blinebry completion through various perforated intervals, shown as the Blinebry pay section. It has an initial potential test of 304 barrels of oil per day. Mobil did run some drillstem tests in the Glorieta formation and the drillstem test Number 1, the tool was open one hour and it recovered 550 foot of gas and 5,100 foot of salt water; and drillstem test Number 2 the tool was open one hour and they recovered -- Correction, Mr. Examiner, drillstem test Number 1 they recovered a thousand and ten feet of gas and 830 foot of salt water; and drillstem test Number 2 they recovered 550 foot of gas and 5,150 foot of salt water. They then tested



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27 barrels of oil in 30 minutes for a 24-hour rate of 1,290 barrels of oil per day. We then reversed out 33 barrels of oil and no water. As I stated, our drillstem test Number 2 was in the lower portion of the Glorieta formation, the gas was to the surface in 70 minutes, it flowed 15 barrels of oil for a 24-hour rate of 720 barrels of oil per day, and we recovered 120 foot of salt water below the sub, which would lead us to indicate that we have found evidence of water in the lower portion of this formation as Mobil did in their State Bridges Number 95. Also, in the Blinebry pay section, according to our sample logs and the drilling time, while we were drilling this zone, drilling time indicated porosity breaks and sample logs indicated shows in the samples.

With regard to the subject well, as I stated, we have completed the Glorieta formation. It has been potential tested, we will complete and are in the process of completing the Blinebry formation and should have a potential test in the near future. We believe that this geological evidence, along with the engineering evidence presented in Exhibit Number 3 is indicative of the fact that we do have two separate reservoirs that have distinct characteristics.

Q Does Texaco have a recommendation on the name of these reservoirs?

A This is in the Vacuum area. Texaco would recommend that the Blinebry zone be called the Vacuum Blinebry Pool, and



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one other zone on down lower, and the tool was open one hour and they recovered 210 foot of drilling mud, which would indicate that there is possibly and probably a dense streak in this formation which would separate these two reservoirs. Although this cross section is, the logs in this cross section are small scale logs, and there is actually about a hundred and twenty foot of structural difference between the Mobil well and the Texaco, the subject well of this application. So they could possibly be down in the water in the Glorieta formation.

Coming on to the Mobil Number 95, which is the deep well, Mobil had one drillstem test in the lower portion of what we call the Glorieta formation and the tool was open one hour. They recovered 3,950 foot of gas, 180 foot of oil and 1,940 feet of salt water; so we believe that there is an indication of not only a dense streak, but indication of water in the lower portion of this Glorieta formation.

Moving on to the Texaco Number 11 State of New Mexico "O", the cross section is, the information on the cross section is in error at this point, Mr. Examiner. The information with regard to this drillstem test is correct. However, this test interval was mislocated, it has been corrected on your copies of the exhibit and the interval shown by the red drillstem test sign is the actual tested interval. We had our first drillstem test in the Paddock pay, or the Glorieta pay. The tool was opened and we had gas to the surface in 47 minutes. It flowed



that the Glorieta be called the Vacuum Glorieta Pool. At the present time there has not been a nomenclature hearing for these zones and they are not designated by the Commission; however, Mobil has received a permit to dually complete their State Bridges Well Number 27 as a Blinebry and San Andres dual.

(Marked Applicant's Exhibit No. 5
for identification.)

Q You have a copy of a log on the subject well, don't you?

A Yes, sir. Exhibit Number 5 is a copy of the radioactivity log from the subject well. The Blinebry marker and the top of the Glorieta formation is shown and the perforated intervals in these two reservoirs are shown.

Q Do you feel the granting of this application would be in the best interest of efficient production and the protection of correlative rights?

A Yes, sir, I do.

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

A Yes, they were.

MR. KELLY: We move the introduction of Exhibits 1 through 5 and as modified by him by Exhibit Number 2, it is the only one that was modified by him.

MR. UTZ: Without objections, Exhibits 1 through 5, as amended will be entered into the record in this case.



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(Whereupon, Allplicant's Exhibits 1 through 5 were admitted to the record.)

MR. KELLY: I have nothing further on direct.

MR. UTZ: Any questions of the witness? You will run the usual communitization tests?

A Yes, sir, we will take the zone segregation tests in these.

MR. UTZ: You are not recommending at this hearing that these pools be delineated?

A No, sir, not at this hearing. It was my understanding that this would be proper at a nomenclature hearing.

MR. UTZ: It seems to be proper both places. Are there other questions of the witness? The witness may be excused. Are there other statements in this case? The case will be taken under advisement.



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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 28th day of January, 1963.

Ada Dearnley
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. 2731 heard by me on Jan 23, 1963.
[Signature], Examiner
New Mexico Oil Conservation Commission



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 2731
Order No. R-2413

APPLICATION OF TEXACO INC.,
FOR A DUAL COMPLETION, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 23, 1963, 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 30th day of January, 1963, 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, Texaco Inc., seeks authority to complete its State of New Mexico "O" NCT-1 Well No. 12, located in Unit J of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion (tubingless) to produce oil from an undesignated Glorieta pool and an undesignated Blinbry pool through parallel strings of 2 7/8-inch casing cemented in a common well bore.

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

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to complete its State of New Mexico "O" NCT-1 Well No. 12, located

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CASE No. 2731
Order No. R-2413

in Unit J of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion (tubingless) to produce oil from an undesignated Glorieta pool and an undesignated Blinebry pool through parallel strings of 2 7/8-inch casing cemented in a common well bore.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, That the applicant shall take zone segregation tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Blinebry formation.

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

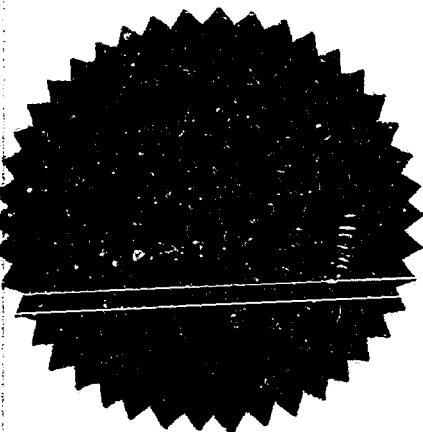
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

E. S. Walker
E. S. WALKER, Member

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



esr/