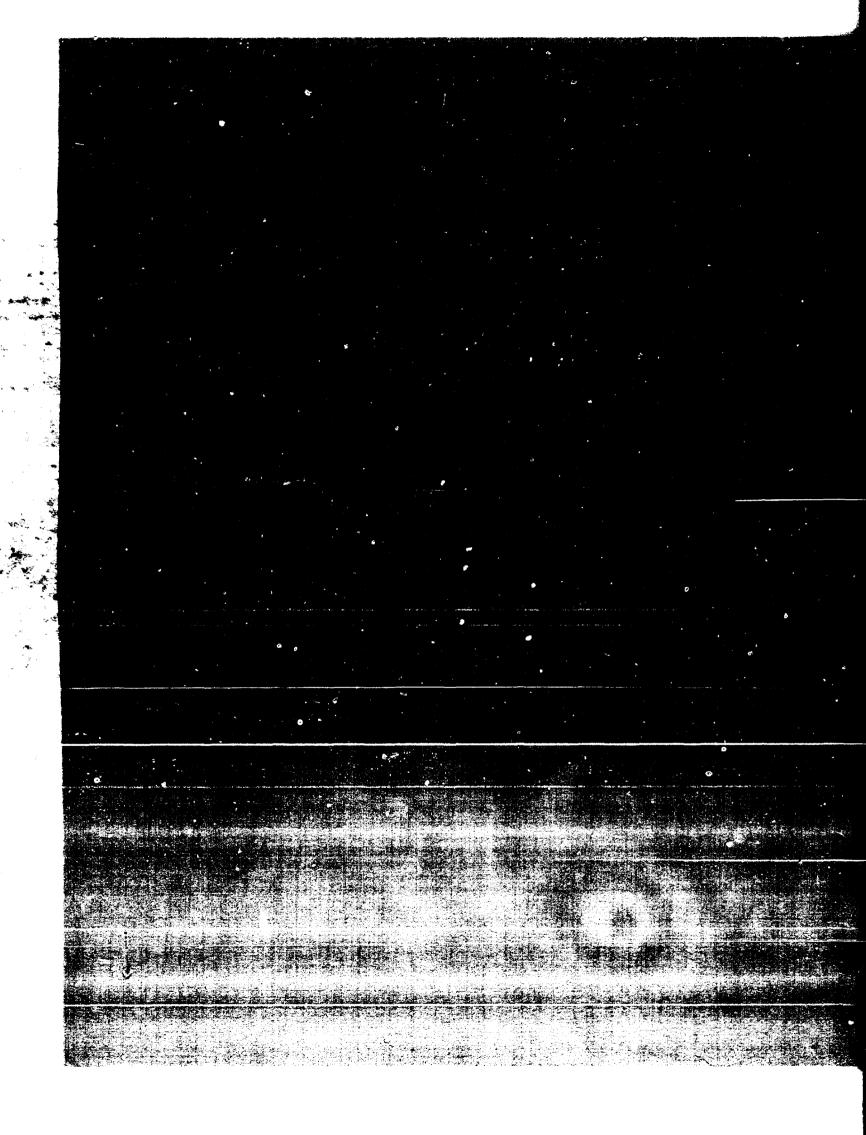
CASE 1831: Application of TEXACO INC For oil-oil dual of its United Bayalty "A" Well No. 4 in Unit K.

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# Casa Mo.

1831

Application, Transcript,
5 mall Exhibits, Etc.



Case 1830

Case 1831

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BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico December 11, 1959 EXAMINER HEARING

### IN THE MATTER OF:

Application of Texaco Inc. for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its United Royalty "A" Well No. 3 located in Unit F, Section 19, Township 24 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Dollarhide-Queen Pool and the production of oil from the Dollarhide-Drinkard Pool through parallel strings of tubing.

### IN THE MATTER OF:

Application of Texaco Inc. for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its United Royalty "A" Well No. 4, located in Unit K, Section 19, Township 24 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Dollarhide-Queen Pool and the production of oil from the Dollarhide-Drinkard Pool through parallel strings of tubing.

### BEFORE:

Mr. Daniel S. Nutter, Examiner

### TRANSCRIPT OF HEARING

MR. NUTTER: We will take next Case 1830.

MR. PAYNE: Case 1830: Application of Texaco Inc.

for an oil-oil dual completion.

MR. WHITE: If the Examiner please, Charles White of Gilbert, White and Gilbert, appearing on behalf of the Applicant,



If it please the Examiner, we would like to consolidate Texaco Inc. the cases for the purpose of the hearing.

MR. NUTTER: Is there objection to consolidation of the Cases 1830 and 1831?

MR. PAYNE: For the purposes of taking testimony?

MR. WHITE: That's right.

(Applicant's Exhibits 1-A through 4-A, and 1-B through 4-B marked for identification.)

MR. WHITE: May the record show that the Exhibits 1-A through 4-A are in reference to Case 1831; and Exhibits 1-B through 4-B are in regard to Case No. 1830.

JOSEPH E. ROBINSON, JR.

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

### DIRECT EXAMINATION

### BY MR. WHITE:

- Mr. Robinson, will you state your full name, please?
- Joseph E. Robinson, Jr.
- By whom are you employed and in what capacity? Q
- Texaco Inc. as a petroleum engineer in our Midland Division Office.
- Q Have you previously testified as an expert witness before the Commission or its Examiners?
  - Α Yes, sir.
  - Will you briefly state what the purpose of the two



CH 3-6691

applications are in Cases 1830 and 1831?

The purpose of this application is for dual oil-oil permits for Texaco's "A" United Royalty Well No. 3 and Well No. 4. The purpose of this hearing is to gain permission to develop the Queen formation in wells that we consider to be prospective.

These two reservoirs have been previously dualed in this area?

- No. sir, they haven't.
- Will you refer to what's been marked as Exhibit 1-A and Exhibit 1-B and explain those two exhibits to the Commission, please?

Exhibit 1-A is a plat of the area showing Texaco's United Royalty "A" lease outlined in yellow, with the proposed well to be dually completed circled in red. The two plats are identical, with the exception that one plat has a Well No. 4 circled and the other plat has Well No. 3 circled.

It shows that Texaco's United Royalty "A" Wells 1 and 2 are completed in the Dollarhide-Queen Pool. Presently Texaco's Wells 3, 4 and 5 on the United Royalty "A" lease are completed in the Dollarhide-Drinkard Pool. It also indicates the offsetting leases with the wells as noted on the legend as to what they are completed in.

You will note that on Wells No. 3 and 4. we are not offset by Queen production other than our United Royalty Well No. 1, which is an offset to Well No. 4. But these, the Queen pay in



these locations is considered to be productive.

Will you now refer to what's been marked Exhibits 2-A end B and explain those diagramatic sketches?

Exhibit 2-A is a schematic diagram sketch showing the proposed dual completion installation. United Royalty "A" Well No. 4 has 13-3/8 inch casing set at 352 feet with the cement circulated; the 8-5/8 inch casing was set at 3250 with the cement circulated. The well was drilled to a total depth of 6855 feet, with 5-1/2 casing set at total depth and cemented with 400 sacks of cement. The calculated top of the cement is at 5200 feet. The well is completed in the Drinkard formation through the perforated intervals 6626 to 6670, and 6704 to 6726. The well is currently flowing approximately 40 barrels of oil per day and four barrels of water per day, with a gas-oil ratio of 2533 cubic feet per barrel.

When the long string was cemented, we did not cement it with a sufficient amount of cement to cover the proposed completion in the Queen pay. What we propose to do is to perforate the 5-1/2 casing at 4,000 feet, establish circulation, and cement with 150 sacks. Then we will follow up with block squeezes by perforating at 3770 below the Queen pay, and block squeeze with 50 sacks of cement. Then we will perforate at 3680 and block squeeze with an additional 50 sacks of cement. We then plan to perforate the Queen from 3696 to 3702, and 3710 to 3726, and 3731 to 3760. We will set a Baker Model "D" Permanent Production Packer at 6540; we will



run a combination string of 2-1/16 inch O.D. Hydril tubing to 3690, and then from 3690 to 6600, we will run 2-3/8 inch O.D. upset tubing to produce the Drinkard pay through this combination string. We will then run a string of 2-1/16 inch Hydril to 3690 and latch it into a Baker parallel latching sub which will be located at 3690.

Exhibit No. 2-B is also a diagramatic sketch showing the proposed dual completion. It is identical with the Exhibit 2-A for Well No. 4, with the exception of some of the perforations and the depths. The 13-3/8 inch casing was set at 389 feet, with cement circulated. The 8-5/8 inch casing was set at 4245 with the cement circulated. It was drilled to a total depth of 6875 with 5-1/2 inch casing set at 6875 with 400 sacks. The calculated cement top in this well is at 5200 feet, also. As in the other case, the well was also cemented with insufficient cement to cover the Queen pay, and therefore we plan to perforate the 5-1/2 casing at 4,000 feet and cement with 150 sacks, and then follow up with block squeezes of 50 sacks each at 3785 and 3695. We will then perforate 3707 to 3714, 3720 to 3736, and 3740 to 3773 through selected perforations. We will set a Baker Model "D" Permanent Type Production Packer at 6530. We will run a combination string of 2-1/16 inch O.D. Hydril set at 3700 and 2-3/8 O.D. upset tubing from 3700 to 6600 to produce the Drinkard formation through. We will then run a string of 2 and 1/16th inch Hydril to be set and latched into a Baker parallel latching sub at 3700 feet from which we will produce the Queen pay through.



Will you state to the Examiner the characteristics of these crudes and in so doing refer to Exhibits 3-A and B?

Exhibit 3-A is the production characteristics for Well No. 4. The Queen zone has a sour-type crude. It has a weightind gas-oil ratio from our two Queen wells of 1624 cubic feet per barrel. It has an API gravity corrected at 60 degrees of 34 degrees with a bottomhole pressure of 450 pounds.

The Drinkard zone has an intermediate sweet-type crude with a gas-oil ratio in Well No. 4 of 2533. It has a gravity of 38 degrees and a bottomhole pressure of 779 pounds.

Exhibit 3-B is for Well No. 3 and it is identical to Exhibit 3-A with the exception that for the Drinkard zone the gas-oil ratio is 1780 cubic feet per barrel for Well No. 3. Since the Queen zone is a sour crude and is corrosive, in the past we have had a corrosion inhibitor program and we intend to start out initially treating the Queen pay with corrosion inhibitors. We will have a chemical pump and inject a corrosion inhibitor down the tubing casing annulus where it will be circulated and pumped to the surface.

The Drinkard zone has an intermediate sweet type crude. We have conducted coupon tests in the past and have had little, if any, corrosion, and we do not expect to have any corrosion in these wells in the future. However, we will continue with our coupon testing and should corrosion start occurring, we will then use an inhibitor squeeze-type program to alleviate any



corrosion problems.

Now will you refer to your radioactive logs marked Q 4-A and B, and explain them, please?

Exhibit No. 4-A is a radioactive log of Texaco's United Royalty "A" No. 4. It has the top of the Queen pay marked at 3696, and the bottom of the Queen marked at 3760, with the proposed selective perforations in red. It also shows the top of the Drinkard to be at 6626, and the bottom of the Drinkard at 6726, with the perforations that are presently open in the Drinkard pay.

The Exhibit 4-B is also a radioactive log of Well No. "A" 3. The top of the Queen pay is marked at 3707 feet, with the bottom of the Queen at 3773, with also our proposed selected perforations. The top of the Drinkard is also marked at 6619 and tottom of the Drinkard is at 6671. On these two proposed duals, it is anticipated that both wells, the Queen formation will be produced by pumping. We do not expect either zone in either well to flow.

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

> Yes, sir, they were. Α

MR. WHITE: We offer Exhibits 1-A through 4-A, and 1=B through 4-B inclusive, at this time.

MR. NUTTER: Exhibits 1-A through 4-A, and 1-B through 4-B will be entered in evidence.

MR. WHITE: That's all the testimony we have of Mr.



ALCUQUERQUE, NEW MEXICO

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Robinson on direct.
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MR. NUTTER: Does anyone have any questions of Mr.

### Robinson?

MR. FLINT: Are there any paraffin problems in either of these zones?

No, sir, not to my knowledge.

MR. NUTTER: The witness may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. White?

MR. WHITE: No, sir, not at this time.

MR. NUTTER: Does anyone have anything for Case 1830

We'll take the cases under advisement.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, NEW MEKICO

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 stemotype, 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 26th day of December, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My Commission Expires:

June 19, 1963.

I do horsely certify that the foregoing is a country that the foregoing in a country that the foregoing in a country that the foregoing is a country that the foregoing is a country that the foregoing is a country to the foregoing in a country to



### DOCKET: EXAMINER HEARING DECEMBER 11, 1959

OIL CONSERVATION COMMISSION - 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico.

The following cases will be heard before Daniel S. Nutter, Examiner, or A. L. Porter, Jr., Secretary:

CASE 1804

(Continued)

Application of Cabot Carbon Company for an oil-oil dual completion and for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Howard Fleet Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 35, Township 13 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Pennsylvanian oil pool and the production of oil from the King-Devonian Pool through parallel strings of la-inch tubing. Applicant further seeks permission to commingle the Devonian and Pennsylvanian production from said Howard Fleet Well No. 1.

### NEW CASES

CASE 1824:

Application of The Atlantic Refining Company for an exception to Rule 104 (c) of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an exception to Rule 104 (c) so that it may recomplete in the Denton Wolfcamp Pool its Federal Jones Well No. 2, located 330 feet from the South and East lines of Section 34, Township 14 South, Range 37 East, Lea County, New Mexico, said well being located closer than 660 feet to a well producing from the same common source of supply.

CASE 1825:

Application of Continental Oil Company for an amendment of Order R-1440. Applicant, in the above-styled cause, seeks an order amending Order R-1440 to permit the commingling of Tubb and Blinebry production on its Lockhart A-17 lease in Section 17, Township 21 South, Range 37 East, Lea County, New Mexico, without separate measurement.

CASE 1826:

Application of Continental Oil Company for an amendment of Order R-1445. Applicant, in the above-styled cause, seeks an amendment of Order R-1445 to permit the installation of automatic custody transfer equipment to handle the Delaware production from its Wilder, Payne and Bradley leases in Sections 25, 26 and 35, Township 26 South, Range 32 East, and in Sections 30 and 31, Township 26 South, Range 33 East, Lea County, New Mexico, and for permission to produce more than 16 wells in a common tank battery.

CASE 1827:

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 1650 feet from the South line and 1980 feet from the East line of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Paddock pool and the production of oil from the Justis-Blinebry Pool through parallel strings of tubing.

CASE 1828:

Application of Francis L. Harvey for an exception to Rule 104 of the Commission Rules and Regulations and for certain exceptions to well completion requirements. Applicant, in the above-styled cause, seeks an order establishing 22-acre spacing for Mesaverde oil wells in Sections 10, 11, 21, 22, 23 and 33 of Township 18 North, Range 3 West, Sandoval County, New Mexico, in exception to Rule 104. Applicant further proposes certain exceptions to well completion requirements.

CASE 1829:

Application of John M. Kelly for an exception to the overproduction shutin provisions of Order R-520, as amended by Order R-967, for one well in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing its Shahan Well No. 3 in the 6W/4 NE/4 of Section 33, Township 25 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to compensate for its overproduced status without being completely shut-in in order to prevent possible waste.

CASE 1830:

Application of Texaco Inc. for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its United Royalty "A" Well No. 3 located in Unit F, Section 19, Township 24 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Dollarhide-Queen Pool and the production of oil from the Dollarhide-Drinkard Pool through parallel strings of tubing.

CASE 1831:

Application of Texaco Inc. for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its United Royalty "A" Well No. 4, located in Unit K, Section 19, Township 24 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Dollarhide-Queen Pool and the production of oil from the Dollarhide-Drinkard Pool through parallel strings of tubing.

CASE 1832:

Application of Jal Oil Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for one well in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing the following-described well in the Jalmat Gas Pool to compensate for its overproduced status without being completely shut-in in order to prevent possible waste:

Watkins Well No. 2, SE/4 RE/4 of Section 25, Township 24 South, Range 36 East, Lea County, New Mexico.

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

December 17, 1959

Hr. Charlie White Box 787 Santa Fe, New Mexico

Dear Mr. White:

On behalf of your client, Texaco Inc., we enclose herewith two copies of Order No. R-1551 in Case 1830 and Order No. R-1552 in Case No. 1831 issued by the Oil Conservation Commission on December 16, 1959.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

CASE No. 1831 Order No. R-1552

APPLICATION OF TEXACO INC. FOR AN OIL-OIL DUAL COMPLETION IN THE DOLLARHIDE-QUEEN POOL AND THE DOLLARHIDE-DRINKARD POOL IN LEA COUNTY, NEW MEXICO

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 e'cleck a.m. on December 11, 1959, at Santa Fe, New Mexico, before Daniel S. Nutter, 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 the day of December, 1959, the Commission, a querum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Doniel S. Nutter, 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., is the owner and operator of the United Royalty "A" Well No. 4, located in Unit K of Section 19, Township 24 South, Range 38 East, MAPA, Lea County, New Mexico.
- (3) That the applicant proposes to dually complete the above-described United Royalty "A" Well No. 4 in such a manner as to permit the production of oil from the Dollarhide-Queen Pool and the production of oil from the Dollarhide-Drinkard Pool through parallel strings of 2-1/16 inch OD tubing.
- (4) That the mechanics of the proposed dual 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.

-2-Case No. 1831 Order No. R-1552

### IT IS THEREFORE ORDERED:

That the applicant be and the same is hereby authorized to dually complete its United Royalty "A" Well No. 4, located in Unit K of Section 19, Township 24 South, Range 38 East, NaiPhi, Lea County, New Mexico, in such a manner as to permit the production of oil from the Dellarhide-Queen Peol and the production of oil from the Dellarhide-Drinkard Pool through parallel strings of 2-1/16 inch OD 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 Gas-Oil Ratio Test Period for the Dellarhide-Drinkard 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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN BURRGUGHS, Chairman

MURRAY E. MORGAN, Nombor

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

Humble Contil. Etal. S. Helbing "Fed-Knox C.N. Cooper Sinclair 19 TEXALD Amer. Trad. υb, •, 11 W.L. Slephens, elal TEXACO ממ Roy Holding Benj. Gulhman TEXACO aa Byers J. H. Mª Clure J. J. Redfern C.N. Cooper Sinclair 30 15 00 J.P. Gibbins J.N. M. Clure R-38-E R-37-E

PIAT OF TEXACO INC. UNITED ROYALTY "A" LEASE & OFFSET LEASES
LEA COUNTY, MEN MEXICO
SCALE: 1" = 2000'
DATE: 11/2/59
LMF - DDD

### LECEND

DD-Dollarhide Drinkard Pool

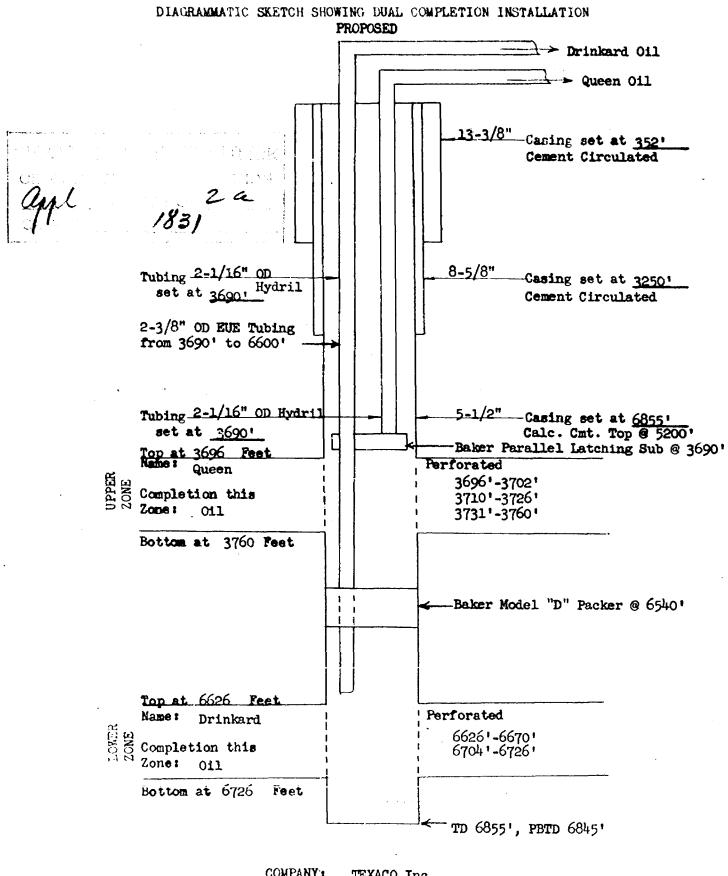
DQ-Dollarhide Queen Pool

EFCPE INALIAN PRITTER

### OFFSET OPERATORS

Ralph Lowe-Box 832-midland, Texas J.J. Redfern, Jr.-Box 1747- Midland, Texas American Trading & Prod. Corp.-Box 992-Midland, Texas Sinclair Oil & Cas Co.-Box 1470-midland, Texas J. P. Cibbins-Box 1032-midland, Texas

T 24 S



COMPANY: TEXACO Inc.

LEASE: United Royalty "A" Well No. 4

FIELD: Dollarhide Drinkard and Dollarhide Queen

DATE: November 2, 1959

BEFORE EXAMPLER NUTTER
OIL COMPERS FOR STANDARSSION
July CAXHIBIT NO. 18 14
CASE NO. 85/

### TEXACO Inc.

UNITED ROYALTY "A" WELL NO. 4 Unit K, Sec. 19, T-24-S, R-38-E Lea County, New Mexico

### PRODUCTION CHARACTERISTICS

Item	Queen Zone	Drinkard Zone		
Type Crude	Sour	Intermediate Sweet		
GOR (ft <sup>3</sup> /bbl.)	1624*	2533(Well No. 4)		
Gravity (CAPI)	34	38		
BHP (PSI)	450**	779**		

<sup>\*</sup> Weighted average of the two Queen wells on the lease.

<sup>\*\*</sup> Based on pressures taken in November, 1958.

### 7-3-58

### NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

### APPLICATION FOR DUAL COMPLETION

field Nam			ard and County		Date			
Dollarhide Queen			Lea		November 2, 1959			
Operator TEXACO Inc.			Lease Iini te	d Royalty "A"		Well No.		
cation	Unit	Section		Towaship		Range		
Well	K	1	a I	24 <b>-</b> S		38 <b>-1</b> 5	•	
Has th	e New Mexico Oil Conservati				tion of a well	in these same poo	alé or in the same	
	within one mile of the subjec					-		
	wer is yes, identify one such				Lease, and W	'ell No.:		
The fo	llowing facts are submitted:		Upper Zone			Lower Zone		
a. Na	me of reservoir	<del></del>	Queen			Drinkard	0.	
	p and Bottom of	36961	-37021)					
	Pay Section			oposed	6626'-6670'			
	Perforations)		-3760')		6704'-6726'			
<del></del>	pe of production (Oil or Gas)		0il			Oi1		
	thod of Production				1	VLL		
	Flowing or Artificial Lift)	Artif	icial Lift	(Expected)	1	Flowing		
	llowing are attached. (Pleas			7-7-0-0-4			<del></del>	
	thereon. (If such log is a ll offset operators to the least h Lowe, Box 832, Michael 1985)	e on which this	s well is locate				le 112-A.)	
	. Redfern, Jr., Box			S				
Amer	ican Trading Product	tion Corpo	ration, Bo	x 992, Midland,	Texas			
Sinc	lair Oil and Gas Cor	moony, Box	1470, Mia	land, Texas				
J.P	. Gibbins, Box 1032	Midland,	Texas					
	ll operators listed in Item 5 a	bove notified a	and furnished a	copy of this applicatio	on? YES	NO X . If answ	wer is yes, give d	
* Wi	h notification 11 be presented at 1 IFICATE: I, the undersigned	-	mine Divis	 ion Proration Er	lar. of the	TEXACO Inc	· .	
				ed by said company to r				
	supervision and direction and	that the facts	stated therein		mplete to the	best of my knowled	-	
S	hould waivers from all offset commission will hold the appli	operators not a	ccompany an a	pplication for administr	ative approva	l, the New Mexico		
a: OTE: I	fter said twenty-day period, n the proposed dual completion roducing zones, then separate	o protest not re 1 will result in	an unorthodox	ng is received by the S well location and/or a	anta Fe office non-standard	e, the application v proration unit in ei	will then be proces ither or both of the	