

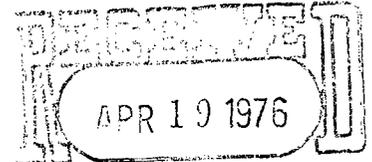
DHC - 193  
Due - 5/10/76



**PHILLIPS PETROLEUM COMPANY**

ODESSA, TEXAS 79761  
PHILLIPS BUILDING

NATURAL RESOURCES GROUP  
Exploration and Production



OIL CONSERVATION COMM.  
Santa Fe

April 14, 1976

Application for Exception to Statewide  
Rule No. 303-C to Down-Hole Commingle  
Production from the Ranger Lake Bough  
✓ and Ranger Lake Penn Pools - Ranger Well  
No. 10, Lea County, New Mexico

File: W4-Ta-198-76

New Mexico Oil Conservation Commission - 2 ✓  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey,  
Secretary-Director

Gentlemen:

We respectfully request administrative approval, subject to the twenty day waiting period, to down-hole commingle production from the Ranger Lake Bough and Ranger Lake Penn Pools in our Ranger Well No. 10, located in Unit D, 660' FN line and 660' FW line of Section 26, T-12-S, R-34-E, Lea County, New Mexico, as provided by Statewide Rule No. 303-C. Pertinent well and production data follows:

1. Both zones to be commingled in the well bore are classified as oil zones and both zones require artificial lift.
2. The total daily production from the two zones before commingling does not exceed 80 BOPD as allowed for the deepest perforations in the lower zone. Further, neither zone produces more water than the combined oil limit as determined above.
3. The Penn zone of this well bore was completed in October of 1959 through perforations 10,203' to 10,310'. Our last official well test on the Penn zone was in June of 1974, producing 11 BOPD, 44 BWP, GOR TSTM, Gravity - 40.0 Degrees. The Penn zone was temporarily abandoned and the well bore recompleted in the Bough zone in July, 1974. Bough zone completion is through selected perforations between 9926' and 9956'. On test dated April 4, 1976, the Bough produced 3 BOPD, 36 BWP, with a GOR of 1000/1 and oil gravity of 40.9 degrees. The oil and/or water production is compatible one zone with the other and there should be no undue formation of precipitates from combined produced waters or hydrocarbons. We attach formation water analysis on each zone.

Phillips Petroleum Company

File: W4-Ta-198-76

April 14, 1976

Page 2

4. Crude gravities are; Bough-40.9 degrees, Penn-40.0 degrees. These crudes are classified as intermediate sweet with a posted price of \$12.68 for 40 degrees gravity (and above) crude. Consequently, there would be no difference in the price of combined crude over that of the crudes produced and sold separately. Royalty and working interest are common throughout and there is no overriding royalty. The State royalty beneficiary is Common School Land.
5. Bottom hole pressures are estimated at 2000 psi for the Bough and 2500 psi for the Penn.
6. Our forecast of production is; first year, Bough-5 BOPD, 35 BWPD; Penn-10 BOPD, 40 BWPD. Second year, Bough-5 BOPD, 40 BWPD; Penn-10 BOPD, 40 BWPD. We attach prior production statistics on each zone.
7. Completion history; spudded on 8-8-59; TD of 10,352' on 9-25-59 Elevation-4165' RKB. 8-5/8" casing set in 12 1/4" hole at 2000' and cemented with 505 sacks regular cement with 10% DD and 2% CaCl<sub>2</sub> followed by 150 sacks regular cement with 1% CaCl<sub>2</sub> and cement circulated at the surface; 5-1/2" casing set in 7-7/8" hole at 10,351', cemented with 1187 sacks regular cement with 40% DD and 150 sacks TrIF. Temperature survey TOC at 308'. Penn-October, 1959 - 1000 gals 15% HCL acid at maximum pressure of 1000#; November, 1959 - 12,000 gals retarded acid at maximum pressure of 4000#; January, 1960 - 2000 gals 15% HCL Acid at maximum pressure of 1000#. Bough-August, 1974 - 1000 gals 15% HCL acid at maximum pressure of 4800#.

We propose to allocate production to each zone based on the individual well test established herein and reflected on the attached Form C-116.

Since the Penn zone has been temporarily abandoned, no application for the multiple completion of these zones has been filed. We have filed Form C-103 with the Hobbs District office covering the proposal to down-hole commingle these zones in the well bore. Your approval of this down-hole commingle without the formality of an approved multiple completion is requested. Subject to your approval, the operation of down-hole commingling these zones will be performed.

Offset operators are hereby notified, with the request that their original waivers of objections be mailed direct to your attention, and a copy sent to this office. Mr. R. J. Stringer, telephone Odessa (915) 337-8611, will answer any questions on this application.

Phillips Petroleum Company  
File: W4-Ta-198-76  
April 14, 1976  
Page 3

Your consideration and advice will be appreciated.

Yours very truly,



T. Harold McLemore  
PHILLIPS PETROLEUM COMPANY

THM:db  
Attachments

cc: New Mexico Oil Conservation Commission  
Box 1980  
Hobbs, New Mexico 88240

Offset Operators:

American Trading and Production Company  
Drawer 992  
Midland, Texas 79701

Amoco Production Company  
Box 68  
Hobbs, New Mexico 88240

Gordon M. Cone  
Box 1148  
Lovington, New Mexico 88260

Exxon Corporation  
Box 1600  
Midland, Texas 79701

Getty Oil Company  
Box 1231  
Midland, Texas 79701

Corine Grace  
Box 763  
Hobbs, New Mexico 88240

Texaco, Inc.  
Box 3109  
Midland, Texas 79701

*20000 pf 10310*  
*max prod: 80 BOPD*  
*Bought - 5 BOPD = 33%*  
*pen - 10 BOPD = 67%*  
*15*

Phillips Petroleum Company  
 Production Statistics - Oil  
 Ranger No. 10.

Ranger Lake (Penn)

1-1-71 through 4-30-73 Shut down.

<u>Month/Year</u>	<u>BO</u>
5-73	213
6-73	522
7-73	474
8-73	521
9-73	1405
10-73	754
11-73	942
12-73	1106
1-74	635
2-74	774
3-74	1007
4-74	1038
5-74	1084
6-74	1050

Shut down-temporarily abandoned

Ranger Lake (Bough)

<u>Month/Year</u>	<u>BO</u>
7-74	1189
8-74	2777
9-74	2162
10-74	1930
11-74	1441
12-74	1117
1-75	922
2-75	765
3-75	523
4-75	1084
5-75	682
6-75	—
7-75	764
8-75	590
9-75	356
10-75	529
11-75	483
12-75	434
1-76	647
2-76	309

HALLIBURTON DIVISION, LABORATORY  
HALLIBURTON COMPANY  
LOVINGTON, NEW MEXICO

*DOB STATION*  
*HARRIS FILE*

LABORATORY WATER ANALYSIS

No. W74-677

To Phillips Petroleum Co.

Date 9-11-74

Box 1178

Lovington, N. Mex.

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by \_\_\_\_\_ Date Rec. 9-10-74

Well No. As Indicated Depth \_\_\_\_\_ Formation Bough

County \_\_\_\_\_ Field RANGER LAKE Source \_\_\_\_\_

	Ranger #10	Ranger #15	
Resistivity .....	0.082 @ 70°F	0.090 @ 70°F	
Specific Gravity .....	1.068	1.062	
pH .....	7.1	7.3	
Calcium (Ca) .....	4635	3330	*MPL
Magnesium (Mg) .....	941	684	
Chlorides (Cl) .....	62500	55000	
Sulfates (SO <sub>4</sub> ) .....	1130	1540	
Bicarbonates (HCO <sub>3</sub> ) .....	159	256	
Soluble Iron (Fe) .....	Light to Moderate	Nil	
.....			
.....			
.....			

Remarks:

\*Milligrams per liter

Respectfully submitted,

Analyst: Griffin  
cc:

HALLIBURTON COMPANY

By *Leland Griffin*  
CHEMIST

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

# HALLIBURTON DIVISION LABORATORY

HALLIBURTON COMPANY

LOVINGTON, NEW MEXICO

No. WB-165-64

## LABORATORY REPORT

Date March 9, 1964

TO Phillips Petroleum Company  
Box 1178  
Lovington, New Mexico

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company

Date Received \_\_\_\_\_

Well & Lease 1 Depth \_\_\_\_\_ Formation Penn

Location \_\_\_\_\_ Field Ranger Lake Source Heater Treater

	Heater Treater	Fresh Water
Specific gravity 60/60 °F	<u>1.094</u>	<u>1.003</u>
Color, filtrate	<u>Colorless</u>	<u>Colorless</u>
pH	<u>5.9</u>	<u>7.8</u>
Resistivity °F	<u>ND</u>	<u>ND</u>
Chlorides, Cl ppm (mpl)	<u>80,000</u>	<u>140</u>
Sulfates, SO <sub>4</sub>	<u>2,800</u>	<u>1,500</u>
Alkalinity, HCO <sub>3</sub>	<u>ND</u>	<u>ND</u>
Calcium, Ca	<u>8,800</u>	<u>65</u>
Magnesium, Mg	<u>1,260</u>	<u>29</u>
Iron, Fe	<u>Negl.</u>	<u>Negl.</u>
Sodium, Na <sup>+</sup>	<u>40,800</u>	<u>690</u>
Sulfides, H <sub>2</sub> S	<u>Negl.</u>	<u>Negl.</u>

Remarks \_\_\_\_\_

ppm equals Parts per million uncorrected or milligrams per liter  
 \* includes Potassium as Na.

Respectfully submitted,

HALLIBURTON COMPANY

By Dave Sutton  
 Dave Sutton, Division Chemist

Laboratory Analyst  
Brewer

### NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS - OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator	County	TYPE OF TEST - (X)		Completion	Special								
		Scheduled	Completion										
Phillips Petroleum Company	Lea	Ranger Lake Bough											
Address	Room 806 Phillips Building, Odessa, Texas 79761												
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.	
		U	S	T					R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.
Ranger	10	D	26	12S	34E	4-4-76	P	24	36	40.9	3	3	1000

No well will be assigned an allowable greater than the amount of oil produced on the official test.  
 During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.  
 Gas volumes must be reported in MCF measured at a pressure base of 14,025 psia and a temperature of 60° F. Specific gravity base will be 0.60.  
 Report casing pressure in lieu of tubing pressure for any well producing through casing  
 Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

*W. J. Mueller*  
 (Signature)  
 W. J. Mueller  
 Engineering Advisor  
 (Title)

4-15-76  
 (Date)

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

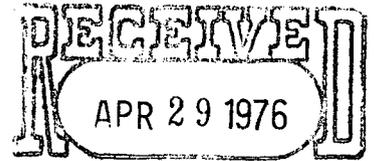
C-116  
Revised 1-1-65

Operator		County		TYPE OF TEST - (X)		Completion		Special											
Phillips Petroleum Company		Lea		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>											
Address		Pool		DATE OF TEST		CHOKESIZE		T.B.G. PRESS.		DAILY ALLOWABLE		LENGTH OF TEST HOURS		PROD. DURING TEST		GAS - OIL RATIO			
LEASE NAME		WELL NO.		LOCATION		DATE OF TEST		CHOKESIZE		DAILY ALLOWABLE		LENGTH OF TEST HOURS		PROD. DURING TEST		GAS - OIL RATIO			
				U	S	T	R							WATER BBLs	GRAV. OIL	OIL BBLs	GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL	
Ranger		10		'D	26	12S	34E	6/74		P		24		44	40	11		TS	TM
Test for down-hole commingling allocation																			

No well will be assigned an allowable greater than the amount of oil produced on the official test.  
 During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.  
 Gas volumes must be reported in MCF measured at a pressure base of 14.735 psia and a temperature of 60° F. Specific gravity base will be 0.60.  
 Report casing pressure in lieu of tubing pressure for any well producing through casing.  
 Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

*[Signature]*  
 W. J. Mueller  
 (Signature)  
 Engineering Advisor  
 (Title)  
 4-15-76  
 (Date)



Getty Oil Company

NEW MEXICO OIL CONSERVATION COMM.  
P.O. Box 1231, Midland, Texas 79701

Mid-Continent Exploration and Production Division Richard L. White, Midland District Production Manager

April 23, 1976

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey  
Secretary-Director

Re: Phillips Petroleum Company Application  
for Exception to Statewide Rule No. 303-C  
to Downhole Commingle Production From the  
Ranger Lake Bough & Ranger Lake Penn Pools  
Ranger Well No. 10, Lea County, New Mexico

Gentlemen:

As requested in Phillips Petroleum Company's letter of April 14, 1976 to the New Mexico Oil Conservation Commission, this is to advise that Getty Oil Company has no objection to the proposed captioned commingling of production in the Ranger Well No. 10, Lea County, New Mexico.

Sincerely,

Richard L. White

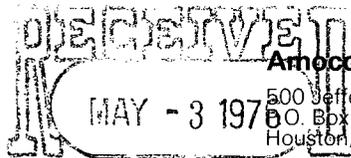
RLW:ep

cc: Phillips Petroleum Company  
Attention: Mr. T. H. McLemore  
Phillips Building  
Odessa, Texas 79761

Mr. C. L. Wade



T. Don Stacy  
Division Engineering  
Manager



Amoco Production Company

500 Jefferson Building  
P.O. Box 3092  
Houston, Texas 77001

OIL CONSERVATION COMM.  
Santa Fe

April 30, 1976

File: DRC-986.51NM-2128

Re: Exception to Statewide Rule No. 303-C  
Ranger Well No. 10  
Ranger Lake Bough and  
Ranger Lake Penn Pools  
Lea County, New Mexico

Mr. Joe D. Ramey, Secretary-Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, NM 87501

Dear Sir:

Phillips Petroleum Company has informed us of their request for authority to down hole commingle production from the subject fields in their Ranger Lake Well No. 10. We understand this well to be located in Unit D, 660' FW line and 660' FN line of Section 26, T-12-S, R-34-E, Lea County, New Mexico.

As an offset operator, Amoco Production Company has no objection to this request and hereby waives notice and hearing.

Yours very truly,

cc: Phillips Petroleum Company  
Phillips Building  
Odessa, TX 79761

EHW:as



PETROLEUM PRODUCTS

PRODUCING DEPARTMENT  
CENTRAL UNITED STATES  
MIDLAND DIVISION

May 3, 1976



OIL CONSERVATION COMM.  
Santa Fe  
TEXACO INC.  
P. O. BOX 3109  
MIDLAND, TEXAS 79701

EXCEPTION TO STATEWIDE RULE 303-C  
PHILLIPS PETR. CO. - RANGER WELL NO. 10  
RANGER LAKE BOUGH & PENN POOLS  
LEA COUNTY, NEW MEXICO

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Joe D. Ramey  
Secretary-Director

Gentlemen:

Phillips Petroleum Company has requested an exception to Statewide Rule No. 303-C to downhole commingle production from the subject fields in their Ranger Well No. 10.

Texaco has abandoned all well completions in the subject fields but maintains leased acreage within the field boundary. Texaco, as a leaseholder in this area, waives objection to the request.

Yours very truly,

Darrell Smith  
Division Manager

By *R. G. Brown*  
R. G. Brown  
Assistant to Division Manager

PHD/lc

cc: Phillips Petroleum Company  
Phillips Building  
Odessa, Texas 79761

OIL CONSERVATION COMMISSION  
Hobbs DISTRICT

APR 22 1976  
OIL CONSERVATION COMM.  
Santa Fe

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO

DATE April 22, 1976

RE: Proposed MC \_\_\_\_\_  
Proposed DHC X \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated \_\_\_\_\_  
for the Phillips Pet. Co. Ranger #10-D 26-12-34  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

O.K.---J.S.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

