



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP

June 5, 1987

Application for Exception to
Statewide Rule No. 303-C to
Downhole Commingle Production

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

66-118 9/10/87

Attn: William J. LeMay
Director

Gentlemen:

We respectfully request approval to downhole commingle production on our New, Well No. 2 as provided in Statewide Rule 303-C3. Pertinent well information and data is included herein:

- (a) Name and address of operator:
Phillips Petroleum Company
4001 Penbrook Street
Odessa, Texas 79762
- (b) New Lease, Well No. 2
1980' FNL & 330' FEL, Section 26, T-20-S, R-36-E
Lea County, New Mexico
- (c) Pools to be commingled:
Eumont - Queen (Gas)
Eunice Monument - Grayburg/San Andres (Oil)
- (d) Current productivity tests on each zone: The Eumont Queen zone last produced measurable quantities of gas in January, 1987. The Eunice Monument Grayburg/San Andres zone showed 24-hour productivity test of 51 BOPD, 8 BWPD, and 125 MCFD.

REG/PR05/new

- (e) Allocation of commingled production based on production histories: Production decline curve for Eumont Queen zone is attached. Based on this production history, no oil production will be allocated to the Queen zone. Gas production will be allocated to the Grayburg/San Andres zone based on average GOR 2450 and current monthly oil production.

Well completion history - wellbore sketch attached: Well was drilled and completed in April, 1938 in the Grayburg/San Andres. After acidizing with 1000 gals. 15% HCl, the well had an initial flowing potential from O.H. 3701'-3810' of 112 BOPD and 0 BWPD.

The Grayburg/San Andres was abandoned below a CIBP at 3688' in December, 1946. After acidizing with 250 gals. 15% HCl acid, initial flowing potential from the Queen perforations 3540'-3670' was 0 BOPD, 3576 MCFD, and 0 BWPD.

Prediction of future production:

The proposed commingled completion will allow the oil and water production from the Grayburg/San Andres to be pumped up the tubing from below the Queen perforations. This will remove the fluid head in the wellbore above the Queen zone and allow gas production from the tubing-casing annulus.

Estimated initial oil production from the Grayburg/San Andres is 51 BOPD, 2450 GOR, with oil production declining exponentially at a 15% annual rate. Estimated initial production from the Queen is 10 MCFD and 0 BWPD declining exponentially at a 30-40% annual rate.

- (f) Bottom hole pressures for each zone:
The bottom hole pressure of the Queen zone was measured at 634 psi at 3670' in July, 1985. The bottom hole pressure of the Grayburg/San Andres has not been measured; it is anticipated that the fluid level in the well will be within 100' of the Grayburg/San Andres perforations when the well is pumping.
- (g) Computation of value of commingled production vs. individual streams:

Individual streams:

Grayburg/San Andres

(51 BOPD) X \$17.50/bbl = \$893/day
+(125 MCFD) X \$ 0.85/Mcf = \$106/day
Total Grayburg/San Andres = \$999/day

Queen (0 MCFD) X \$0.85/Mcf = \$ 0/day
Total Individual Streams = \$999/day

Commingled Streams:

(51 BOPD) X \$17.50/bbl = \$893/day
+(135 MCFD) X \$ 0.85/Mcf = \$115/day
Total Commingled Production = \$1008/day

(h) Formula for allocation of production:

Grayburg/San Andres: 100% of oil production, gas production based on 100% of oil production multiplied times 2450 GOR, 100% of water production.

MONTHLY OIL (GB/SA) = (TOTAL BOPM) X 1.0

MONTHLY GAS (GB/SA) = (MONTHLY OIL (GB/SA)) X 2.45 Mcf/bbl

MONTHLY WATER (GB/SA) = (TOTAL BWPM) X 1.0

Queen zone: 0% of oil production, 100% of gas production less Mcf gas allocated to Grayburg/San Andres as above 0% of water production.

MONTHLY OIL (QUEEN) = (TOTAL BOPM) X 0.0

MONTHLY GAS (QUEEN) = (TOTAL MCFPM) - (MONTHLY GAS (GB/SA))

MONTHLY WATER (QUEEN) = (TOTAL BWPM) X 0.0

*Where Total BOPM, Total MCFPM, and Total BWPM in the above formulas refer to the total monthly commingled well production of oil, gas and water respectively.

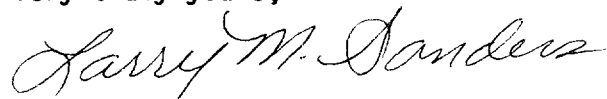
All offset operators indicated on the attached list were notified by copy of this application sent June 5, 1987.

The Eumont Queen gas zone produces no oil and is currently uneconomical to operate. Both zones require artificial lift to produce and commingling with the oil zone will permit the gas zone to be produced economically. The well will be produced such that bottom hole pressure in the wellbore will be at a minimum; therefore, there will be no opportunity for crossflow between commingled zones. The bottom hole pressure of the Queen is 634 psi which is greater than 50% of the bottom hole pressure of the Grayburg/San Andres zone when adjusted to the 3562' datum of the Queen.

The ownership (including working interest, royalty, and overriding royalty) of the Queen and the Grayburg/San Andres is common to both zones. Commingling will not jeopardize the efficiency of present or future secondary recovery operations in either zone, nor will value of the crude oil be reduced by commingling with the gas zone.

Your consideration and approval will be appreciated. Direct any questions to the attention of Richard Jo, telephone (915) 367-1235 or to me.

Very truly yours,



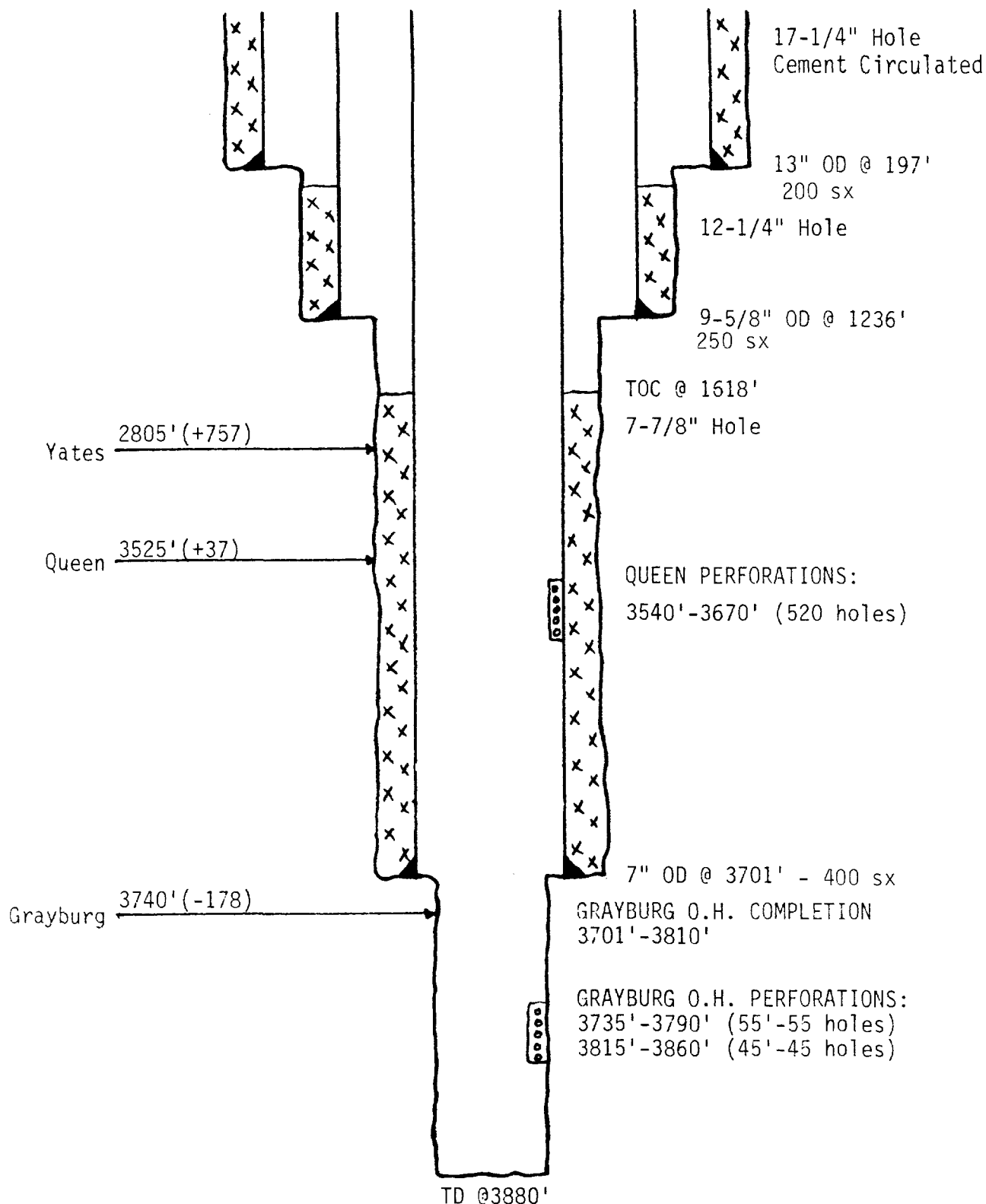
Larry M. Sanders, Supervisor
Regulation and Proration

LMS/AP/sdb
REG/PRO5/new2

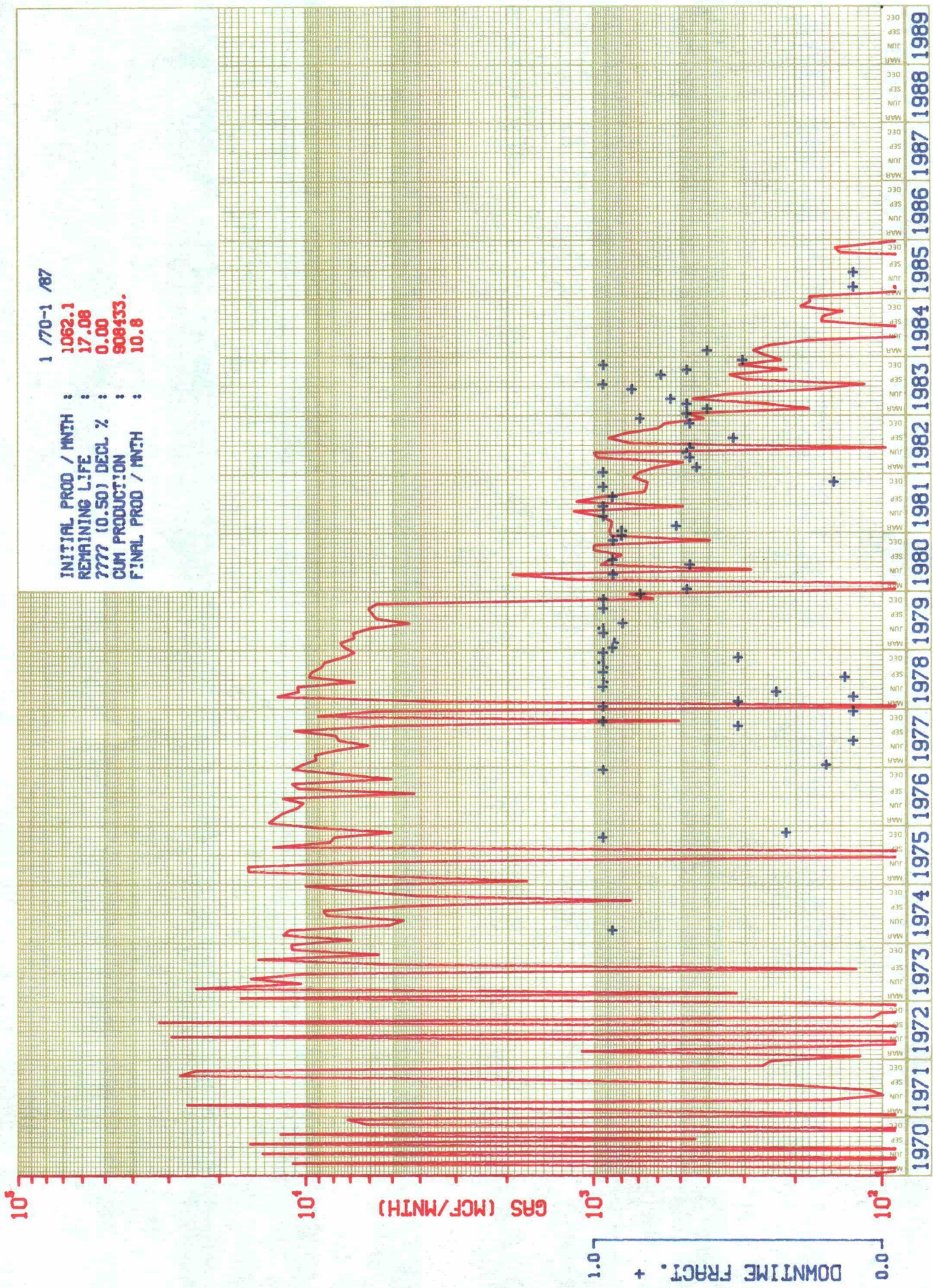
Attachment

RKB @ 3562'
GL @ 3552'

WELLBORE DIAGRAM - CURRENT COMPLETION

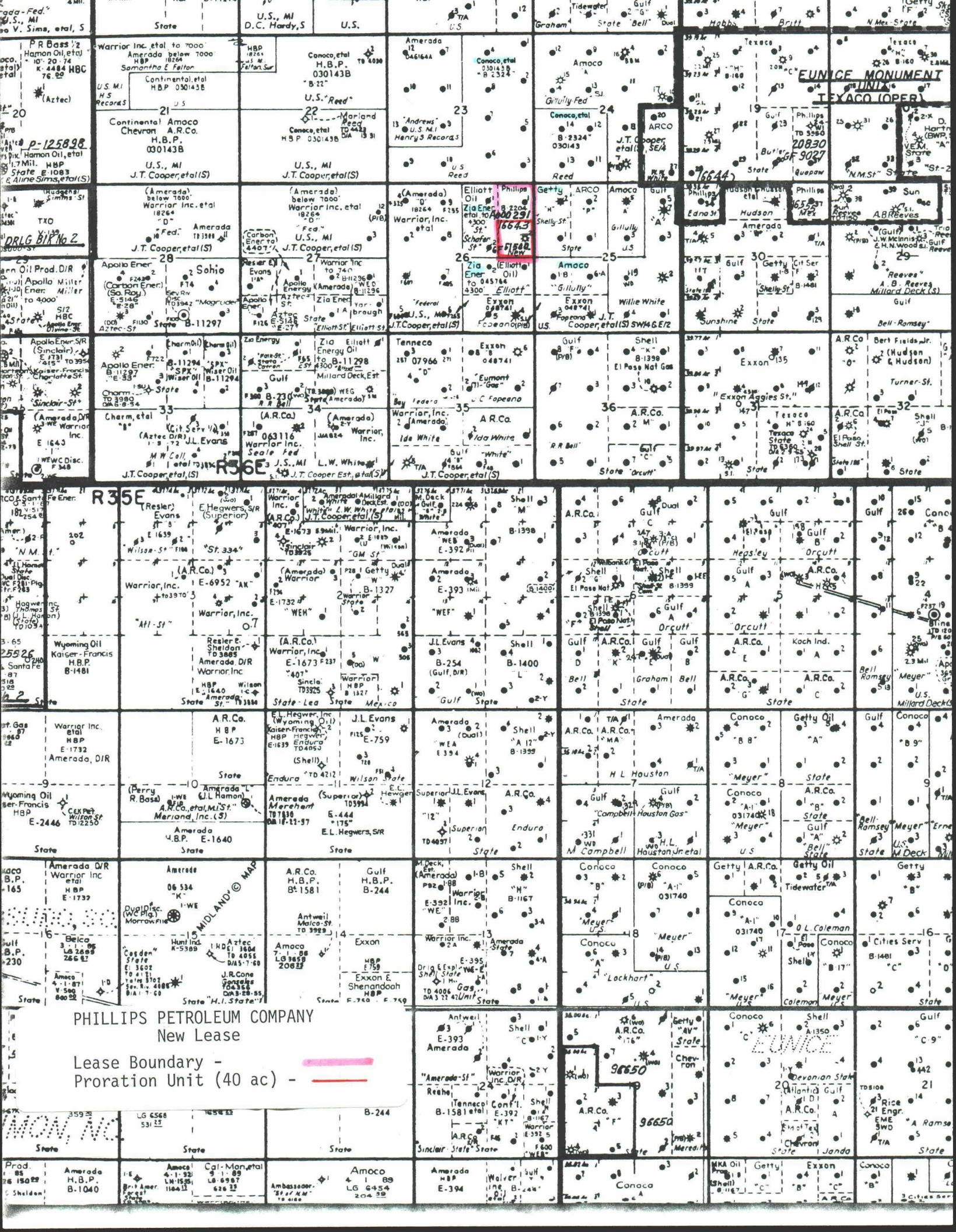


NO.	REVISION	BY	DATE	CHKD	APP'D
FOR BIDS		PHILLIPS PETROLEUM COMPANY		JA NO.	FILE CODE
FOR APPR		BARTLESVILLE, OKLAHOMA		AFE NO.	SCALE
FOR CONST		NEW WELL NO. 2		DWG NO.	
DRAWN EYJ 6/87		1980' FNL & 330' FEL, Section 26, T-20-S, R-36-E		SH NO.	
CHECKED		Lea County, New Mexico			
APP'D					



LEASE- 600012 : NEW
 RESVR- 190 : QUEEN
 WELL - 00002

PPROD
 SINGLE WELL 600012 190 00002
 NM 46, CL- NG, PM- NF , CT- S



OFFSET OPERATORS

Amoco Production Company
Box 3092
Houston, Texas 77210

Conoco
RR 12, Box 2805
Odessa, Texas 79763-9812

Texaco, Inc.
Box 3109
Midland, Texas 79702

Zia Energy, Inc.
Box 2219
Hobbs, New Mexico 88240

REG/PR05/new3

EXPLORATION AND PRODUCTION GROUP
PERMIAN BASIN REGION
4001 PENBROOK
ODESSA, TEXAS 79762

P 140 239 414

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Return Receipt Requested

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.	
1. ☒ Show to whom delivered, date, and addressee's address.	2. ☐ Restricted Delivery.
3. Article Addressed to: Conoco RR 12, Box 2805 Odessa, Texas 79763-9812	4. Article Number P 140 239 414 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

EXPLORATION AND PRODUCTION GROUP
PERMIAN BASIN REGION
4001 PENBROOK
ODESSA, TEXAS 79762

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address.		2. ☐ Restricted Delivery.	
3. Article Addressed to: Texaco, Inc Box 3109 Midland, Texas 79702		4. Article Number P 140 239 415	
5. Signature - Addressee X		Type of Service: ☒ Registered ☒ Certified ☐ Insured ☐ COD ☐ Express Mail	
		Always obtain signature of addressee or agent and DATE DELIVERED.	
6. Signature - Agent X		8. Addressee's Address (ONLY if requested and fee paid)	
7. Date of Delivery			

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DOMESTIC RETURN RECEIPT

P 140 239 415

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PERMAN BASIN REGION
4001 PENBROOK
ODESSA, TEXAS 79762

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1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to: Amoco Production Company
P. O. Box 3092
Houston, Texas 77210

4. Article Number P 140 239 413

Type of Service: ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee X

6. Signature - Agent X

7. Date of Delivery

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

P 140 239 413

Return Receipt Requested

EXPLORATION AND PRODUCTION GROUP
PERMIAN BASIN REGION
4001 PENBROOK
ODESSA, TEXAS 79762

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P 140 239 416

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1. ☒ Show to whom delivered, date, and addressee's address.	2. ☐ Restricted Delivery.
3. Article Addressed to: Zia Energy, Inc. Box 2219 Hobbs, New Mexico 88240	4. Article Number P 140 239 416
Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT