

UNION

7/69
12.6
1+1+1
5/70
18.8
2+3+9
2

UNION

8/70
38.3
1+1+8
1-1
7/70
177.0
3+1+127

8/70
0.3
P&A 10/74
1-CO
16

FLAG-REDFERN

Roden
Copelon-Fed
T.D. 9130
3-28-62

3/70
115.0
1+1+4
5/70
65.7
2+1+16
2-A

10/72
15.9
1+7+1

BAUMGARTNER

2/70
30.8
1+0+39
5/71
0.8
P&A 2/75

TENNECO

9/70
63.3
0+0+51
5/70
53.1
0+0+60

YATES

12/72
7.9
P&A 3/85

YATES

Del-Apache
Koch-Fed.
T.D. 4860
9-17-70

YATES

8/84
53 MMCF
1+1+119

R.G.
BARTON
TENNECO

HILORE

HILORE

R.K. CRAMER
CONSERVATION COMMISSION
Santa Fe, New Mexico

Case No. 8614 Exhibit No. 3

Submitted by Union of Cal.

Hearing Date

LEGEND:

Date of First Production

Cumulative Oil Production to 9/1/85, MBO

Current Production - 8/85, BOPD+BWPD+MCFGPD

R.K. CRAMER 21

TENNECO

UNION

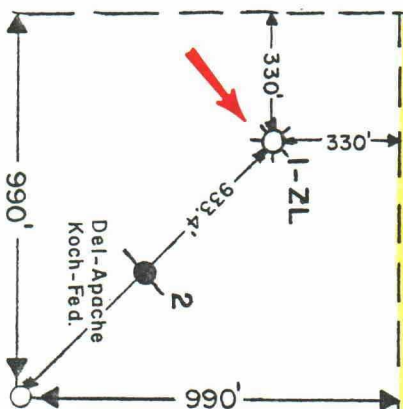
YATES



1-20



YATES



BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

Case No. 8614 Exhibit No. 4

Submitted by Union of CNA

Hearing Date _____

UNION

UNION

UNION

16
FLAG-REDFERN

118

1 2

Roden
Copeion-Fed
TD 9130
3-28-62

2

117

1-A

0

2-A

BAUMGARTNER

1 2

TENNECO

2

1

UNION

1-20

YATES

YATES

Del-Apache
Koch-Fed.
TD 4860
9-17-70

1-ZR

YATES

119

R.G.
BARTON

TENNECO

2106.42'
210
210

Del-Apache
YATES

R.K. CRAMER

21

BEFORE THE

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

Case No. 8614 Exhibit No. 6

Submitted by UNION OF CALIF.

Hearing Date

HILORE

R.K. CRAMER

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

Case No. 8614 Exhibit No. 5

Submitted by UNION OF CAL

Hearing Date _____

PRODUCTION LIMITATION FACTOR

CALCULATION SHEET

LOCATIONS:

Yates Bluestem "ZL" Fed. No. 1 - 330' FNL & 330' FWL of lease

Standard Gas Location - 990' FNL & 990' FWL of lease

CALCULATION OF THREE (3) LIMITING FACTORS:

- 1) NORTH-SOUTH FACTOR = $\frac{330}{990} \times 100 = 33.33\%$ or 66.67% Encroachment
- 2) EAST-WEST FACTOR = $\frac{330}{990} \times 100 = 33.33\%$ or 66.67% Encroachment
- 3) NET ACRE FACTOR (Drainage Encroachment)

Drainage Area = 320 Acres

Radius of Circle with area of 320 acres:

$$\sqrt{\frac{320(43560)}{\pi}} = 2106.4'$$

Distance of Yates ZL #1 from Standard Location:

$$(990) \sqrt{2} - (330) \sqrt{2} = 933.4'$$

Area of Crescent (Encroachment) Between Two Circles with Same Radius (r)
Centered (a) Distance Apart:

$$A = 2a \sqrt{r^2 - \left(\frac{a}{2}\right)^2}$$

Area (A) where $r = 2106.4'$ and $a = 933.4'$

$$A = 3,834,496' = 88.03 \text{ Acres}$$

Percent of Crescent to Drainage Area (Net Acre Penalty):

$$88.03/320 \times 100 = 27.51\%$$

$$\text{Net Acre Factor} = 100 - 27.51 = 72.49\%$$

4) TOTAL PRODUCTION LIMITATION FACTOR

$$\text{For 320 Acre Proration Unit: } (33.33 + 33.33 + 72.49) \div 3 = 46.38\%$$

$$\text{For 160 Acre Proration Unit: } 46.38 \div 320/160 = 23.19\%$$

5) Summary

Well is allowed to produce only 23.19% of its deliverability i.e. The well is penalized 76.81%.