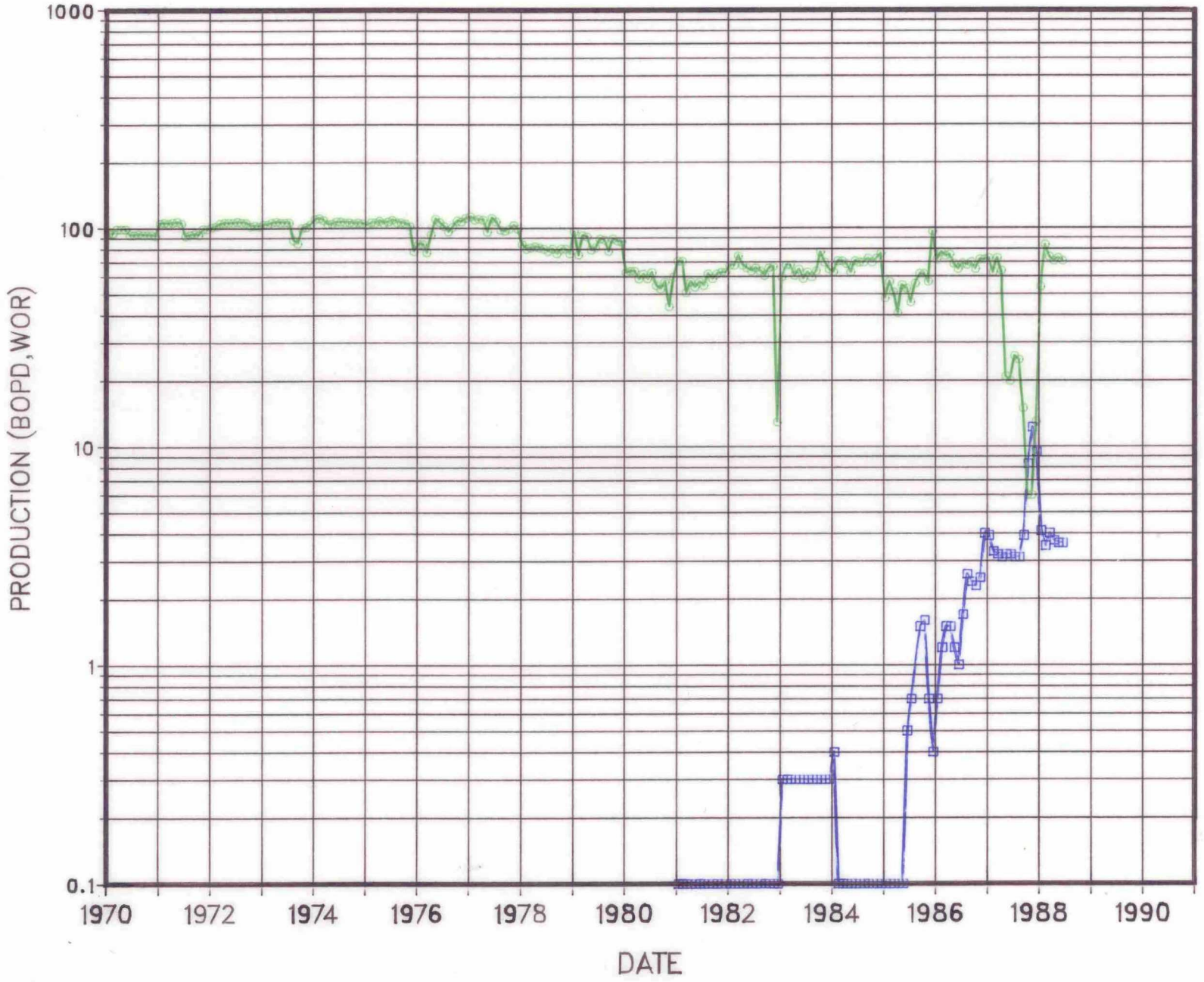
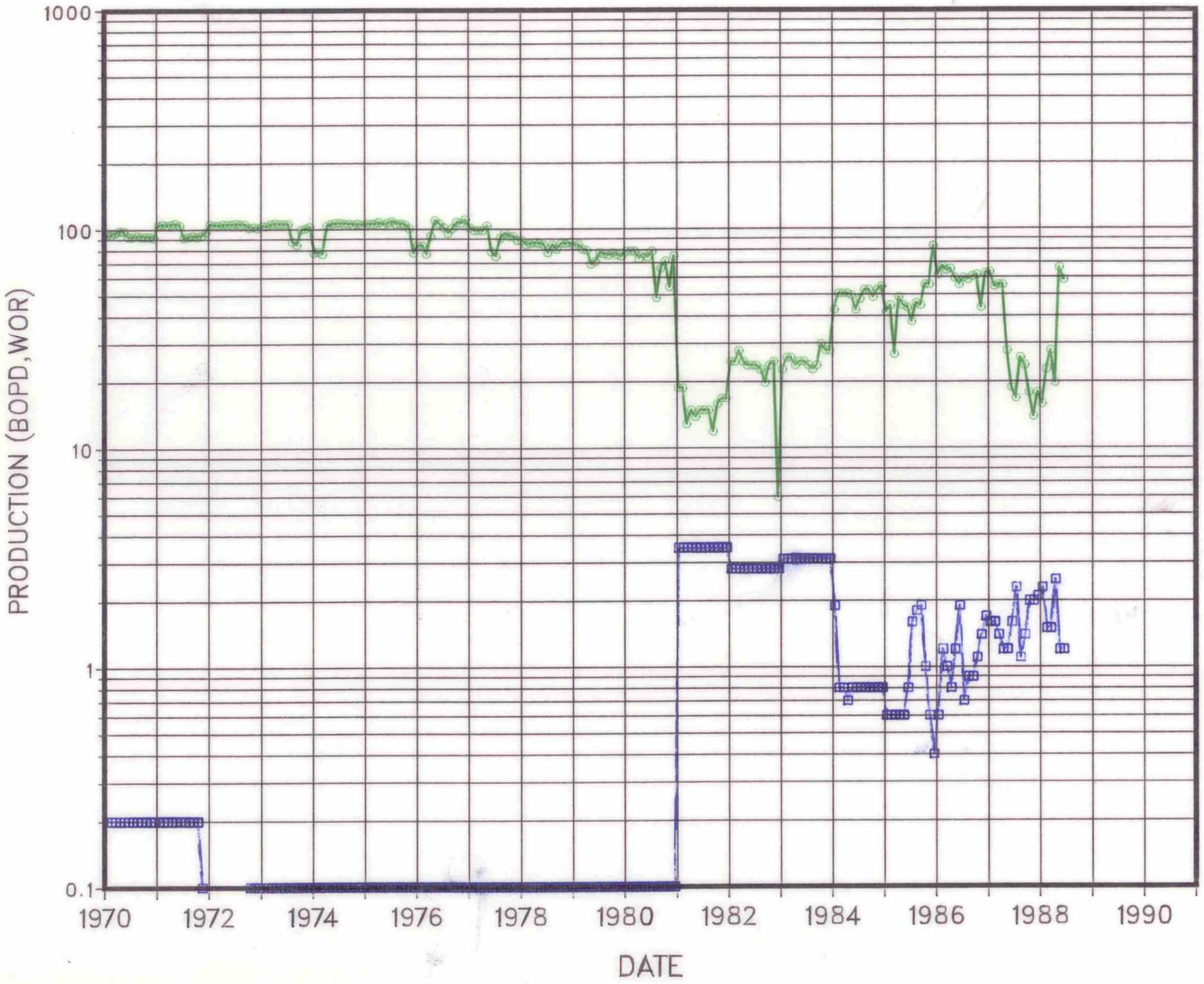
NEW MEXICO K STATE #21
OIL AND WATER PRODUCTION



EXXON CORP.
EXHIBIT NO. 9A
CASE NO 9459 & 9460
AUGUST 17, 1988

NEW MEXICO K STATE #31
OIL AND WATER PRODUCTION



EXXON CORP.
EXHIBIT NO. 9B
CASE NO. 9459 & 9460
AUGUST 17,1988

Recoverable Oil on Proration Unit

which cannot be captured by

Existing Wells on Unit

$$N_r = \frac{7758\ Ah\phi\ (1 - S_{gc} - S_{wc} - S_{of})\ E_v}{B_{oc}}$$

where: S_{gc} = 0.124 = Current gas saturation.

S_{wc} = 0.18 = Current water saturation.

S_{of} = 0.364 - Oil saturation in swept reservoir after water drive, @ well abandonment.

E_v = 0.885 = Volumentric sweep efficiency of water drive.

B_{oc} = 1.172 = Current oil formation volume factor.

$Ah\phi$ = pore volume, acre pore feet, in top allowable area on proration unit.

Unit L	Unit O
(Well No. 34)	(Well No. 35)
$Ah\phi$ = 51.2	$Ah\phi$ = 100.2
N_r = 99,600 STBO	N_r = 194,900 STBO

EXXON CORP.

Exhibit No. 10

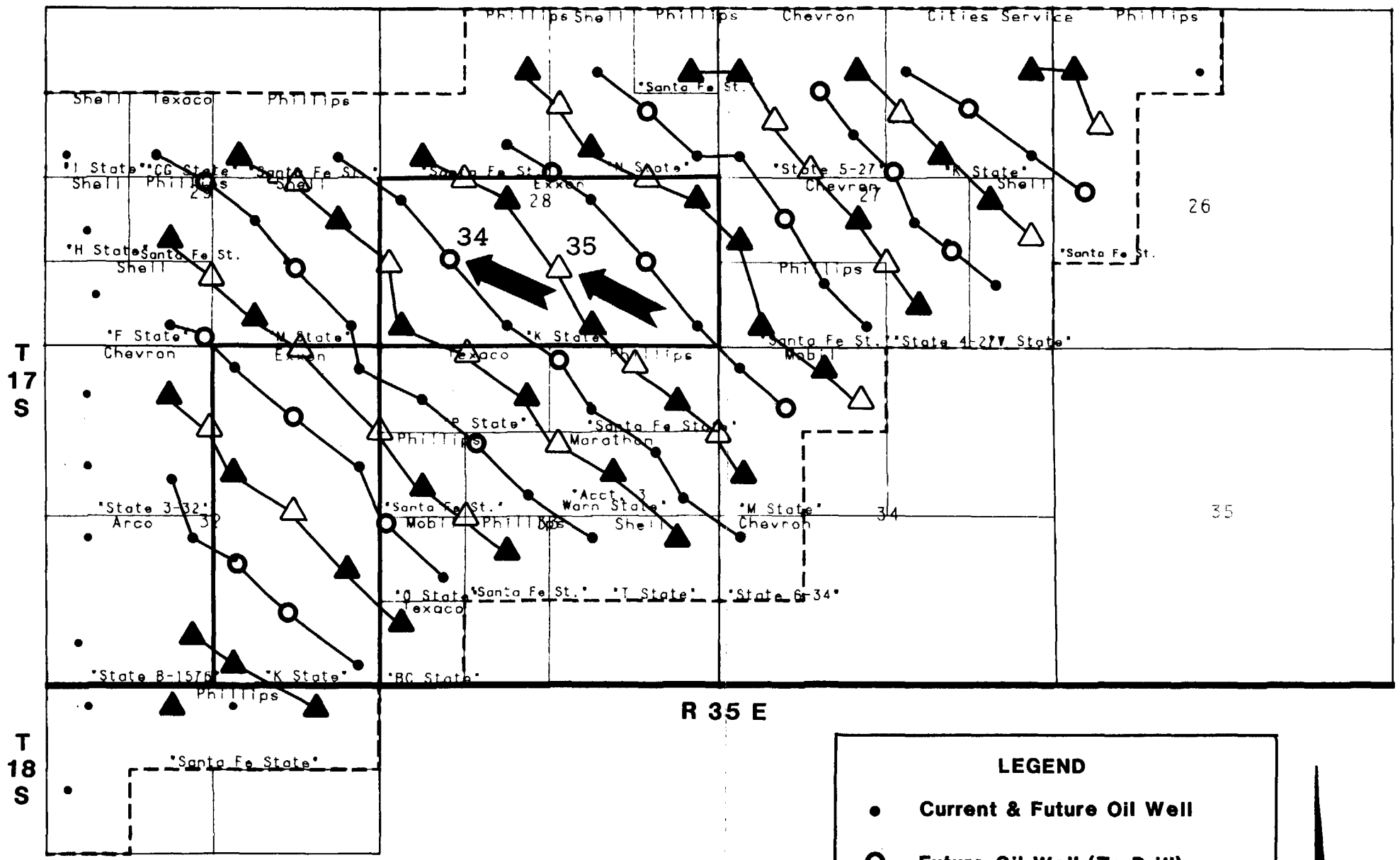
Case No. 9459 & 9460

August 17, 1988 Docket

POSSIBLE NW-SE LINE DRIVE INJECTION PATTERN

Vacuum Glorieta Field (East Half)

Lea County, New Mexico



LEGEND

- ● Current & Future Oil Well
- ○ Future Oil Well (To Drill)
- ▲ Future Conversion to Injection
- △ Future Injection Drill Well

N

EXXON CORP.

Exhibit No. //

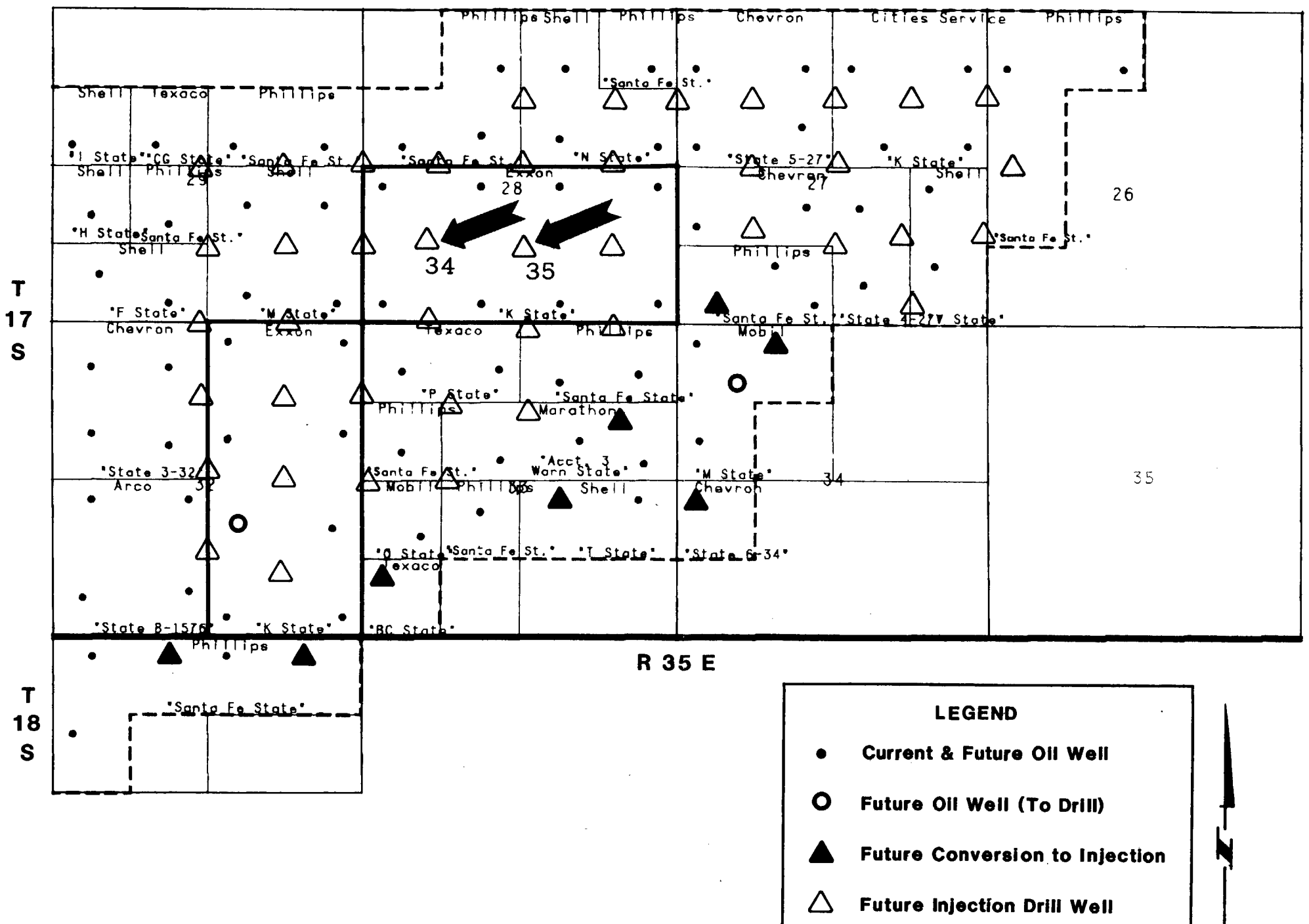
Case No. 9459 & 9460

August 17, 1988 Docket

POSSIBLE FIVE SPOT INJECTION PATTERN

Vacuum Glorieta Field (East Half)

Lea County, New Mexico



EXXON CORP.

Exhibit No. 12

Case No. 9459 & 9460

August 17, 1988 Docket

WELLBORE INCLINATIONS

MAXIMUM HORIZONTAL DEVIATION OF STRAIGHT HOLES

Exxon Well No.	Sec. & Unit No.		**Maximum Possible Horizontal Deviation in Feet @ 6300' DEPTH
New Mexico "K" #31*	28	L	139
New Mexico "K" #29*•	28	K	132
New Mexico "K" #25•	28	J	147
New Mexico "K" #23	28	I	105
New Mexico "K" #32*	28	M	95
New Mexico "K" #27*•	28	N	133
New Mexico "K" #21•	28	O	107
New Mexico "K" #19	28	P	64
New Mexico "K" #30	32	B	121
New Mexico "K" #28	32	A	86

* - Denotes the 4 wells surrounding "K" State #34.
• - Denotes the 4 wells surrounding "K" State #35.

** - Calculated using sine of angle.

EXXON CORP.
Exhibit No. 13
Case No. 9459 & 9460
August 17, 1988 Docket