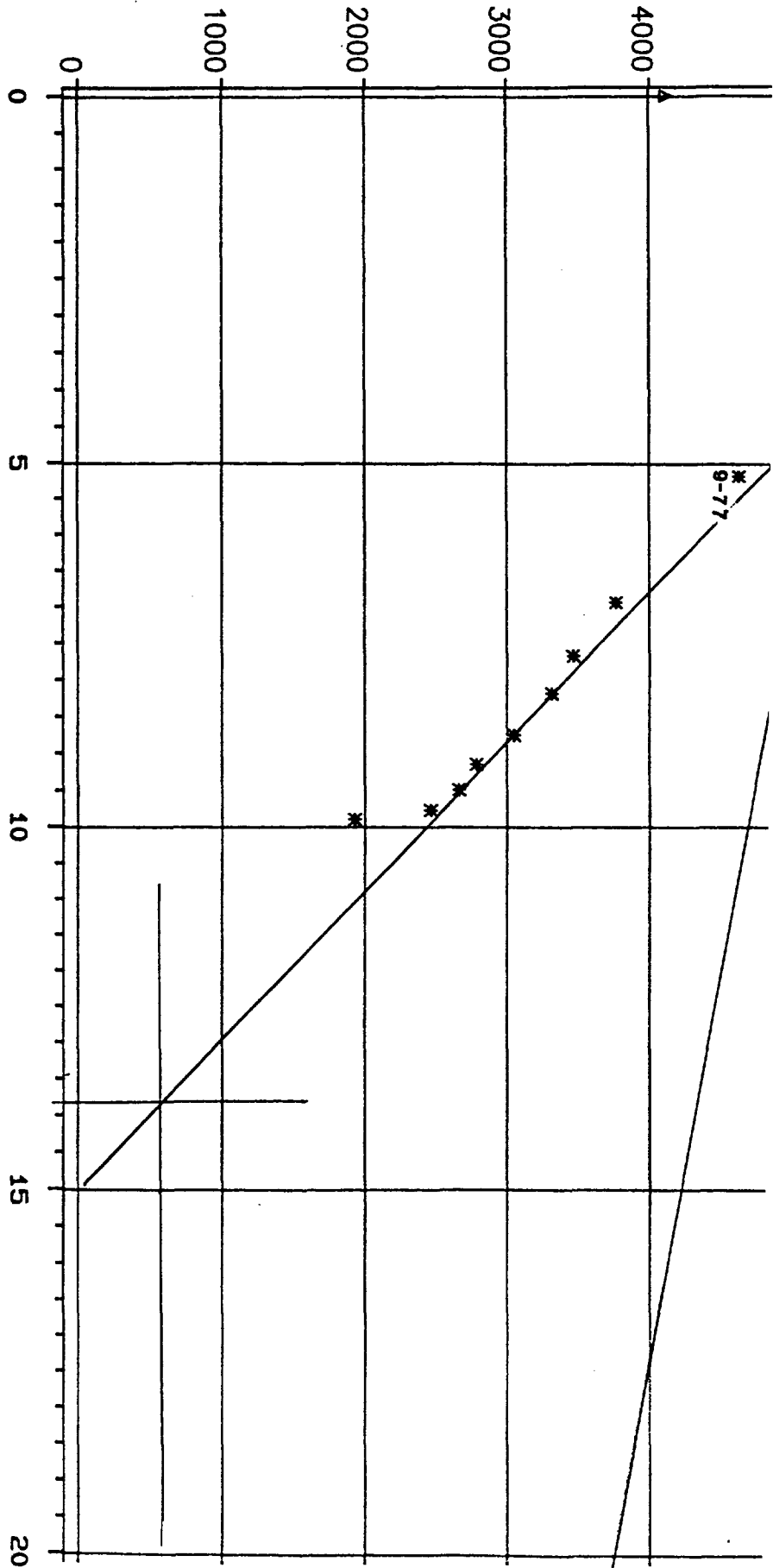


PRESSURE HISTORY
SHOE BAR ATOKA FIELD

<u>Date</u>	<u>Well</u>	<u>Cum Gas (MMCF)</u>		<u>Static BHP (psia)</u>	<u>SITP (psia)</u>
		<u>Well</u>	<u>Reservoir</u>		
11-84	Shoe Bar 14 State Comm #1	0	0	5806	
01-86	New Mexico AC State #1	0	132	5469	
12-08-87	Shoe Bar State Comm #1	0	3600	2879	2097
02-27-88	Shoe Bar State Comm #1	0	4140		1923
04-04-88	Shoe Bar State Comm #1	0	4320	2564	

BEFORE THE OIL CONSERVATION COMMISSION	
Santa Fe, New Mexico	
9331, 9429,	
Case No. <u>9430</u>	Exhibit No. <u>1</u>
Submitted by <u>SUN</u>	
Hearing Date <u>JULY 14, 1988</u>	

P S I A / Z
O R M C F P D



**** BHP/Z
AAA CAP. MCFPD
XXXX WHP

.Estimates prior

P/Z vs. C

Drainage \

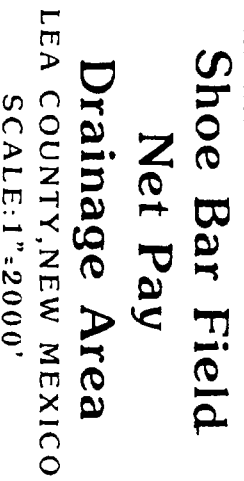
Drainage /

Current Estimati

P/Z vs. C

Drainage \

Drainage /



DRAINAGE VOLUME CALCULATIONS

SHOE BAR ATOKA FIELD

$$P_i = 5806 \text{ psia} \quad Z_i = 1.065$$

$$B_{gi} = \frac{35.4 (5806)}{1.065 (662)} = 292 \text{ SCF/ft}^3$$

$$P_{ab} = 525 \text{ psia} \quad Z_{ab} = .96$$

$$B_{gab} = \frac{35.4 (525)}{.96 (662)} = 29 \text{ SCF/ft}^3$$

$$\text{Recovery Factor} = \frac{292-29}{292} = .90$$

$$\text{Porosity} = .11$$

$$S_w = .15$$

$$\text{Recoverable GIP/A}^\circ\text{F} = 43,560 (.11)(1-.15)(292)(.9) = 1,070 \text{ MCF/A}^\circ\text{F}$$

New Mexico AC State No. 1

$$P/Z \text{ vs. Cum gas plot: Ult. Rec.} = 7.4 \text{ BCF}$$

$$\text{Drainage Volume} = 7.4 \text{ BCF}/1,070 \text{ MCF/A}^\circ\text{F} = 6,916 \text{ A}^\circ\text{F}$$

Shoe Bar 14 State Comm #1

$$\text{Cum} = 289 \text{ MMCF}$$

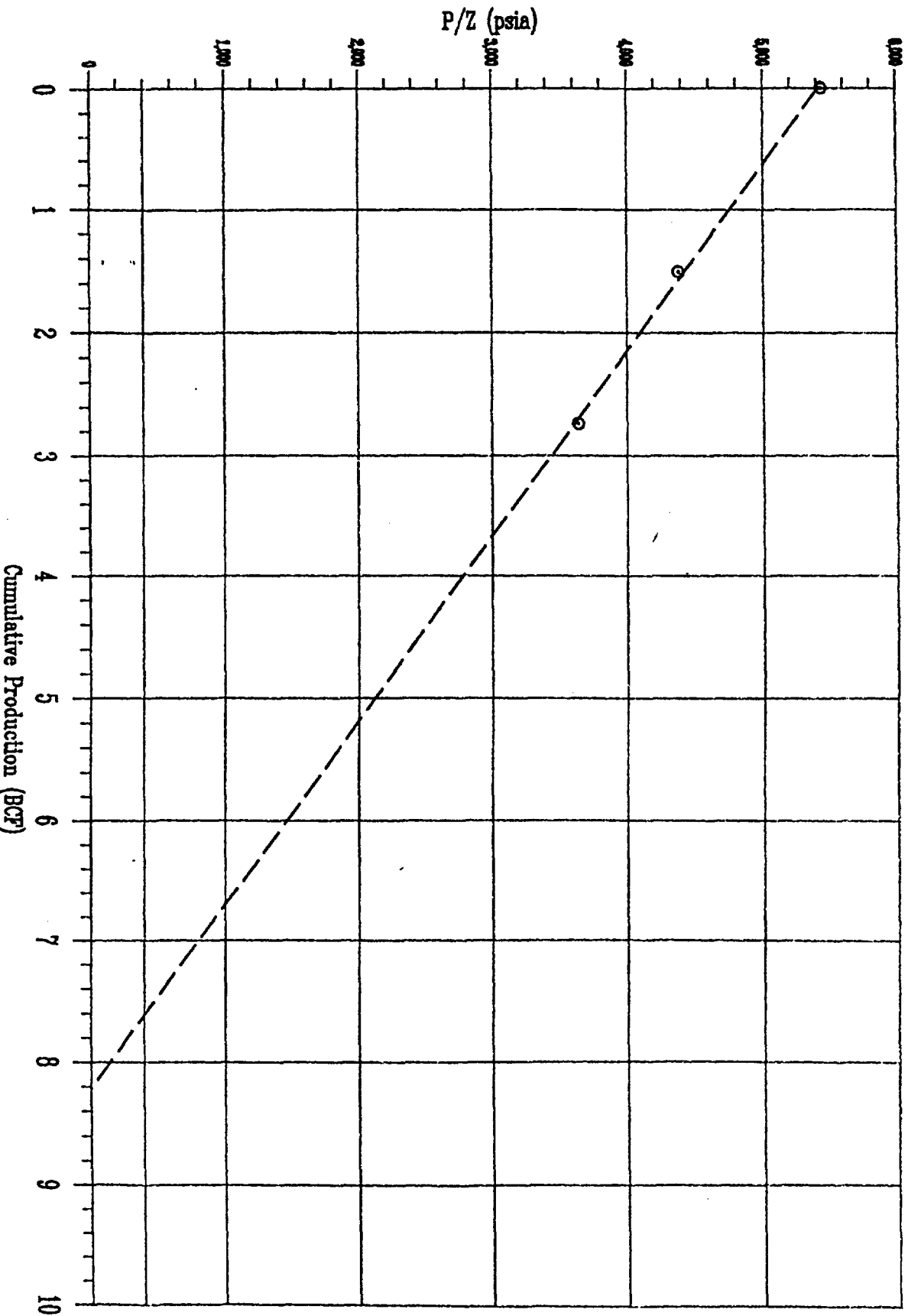
$$Q = 220 \text{ MCFD}, Q_f = 20 \text{ MCFD}, 9\% \text{ decline, Reserves} = 774 \text{ MMCF}$$

$$\text{Ult. Rec.} = 1.1 \text{ BCF}$$

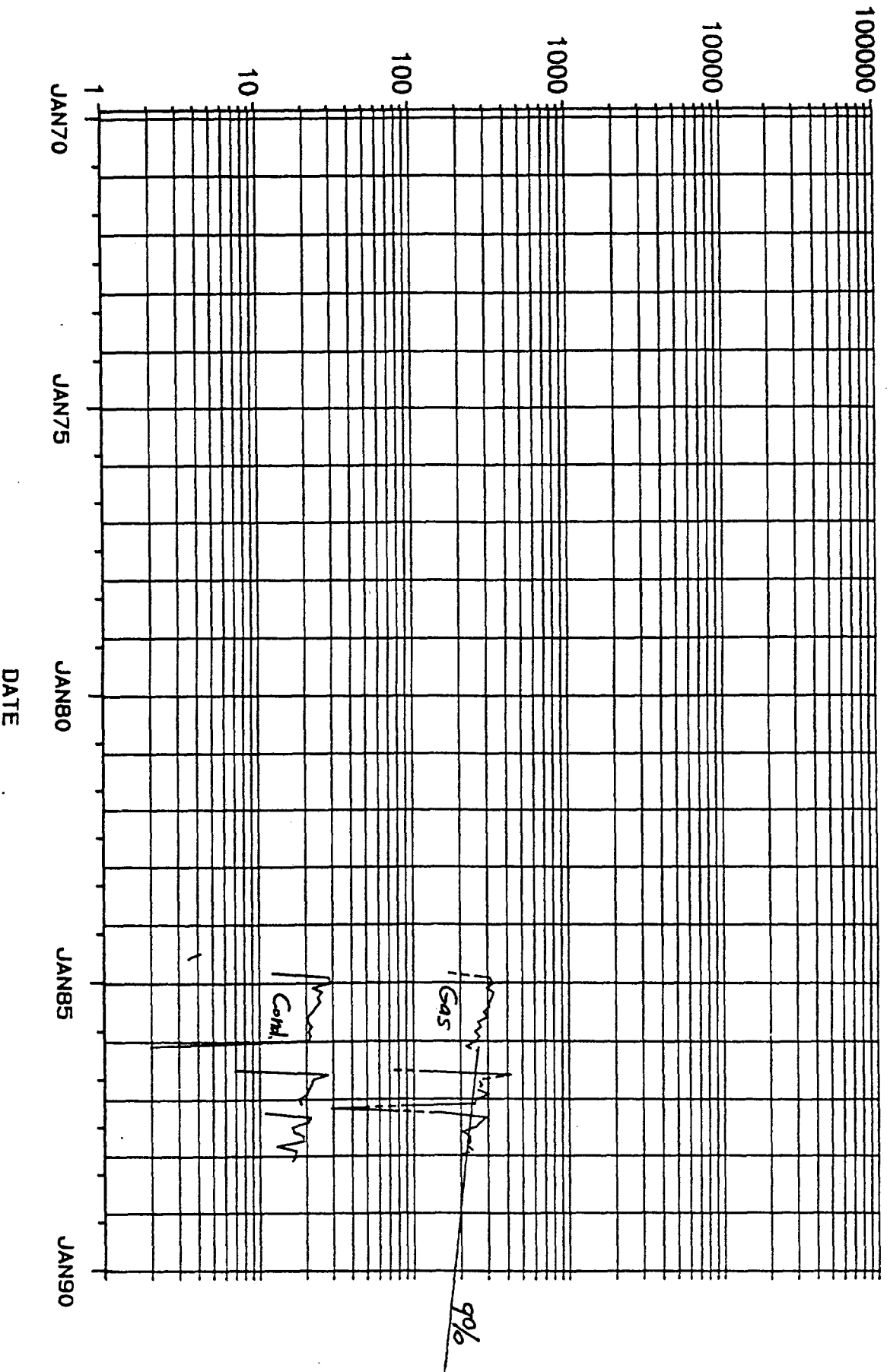
$$\text{Drainage Volume} = 1.1 \text{ BCF}/1,070 \text{ MCF/A}^\circ\text{F} = 1,028 \text{ A}^\circ\text{F}$$

T. H. McElvain New Mexico AC State No. 1
Lea County, New Mexico

BEFORE EXAMINER CATANACH	
OIL CONSERVATION DIVISION	
Philas	EXHIBIT NO. 9
CASE NO. 9331	



OPER-ENRON OIL & GAS CO FIELD-SHOE BAR ATOKA, SOUTH (GAS) LEASE-SHOE BAR 14 STATE COM WELL_ID=000001



B O P D O R M C F P D

OIL

WELLS

GAS

DATE