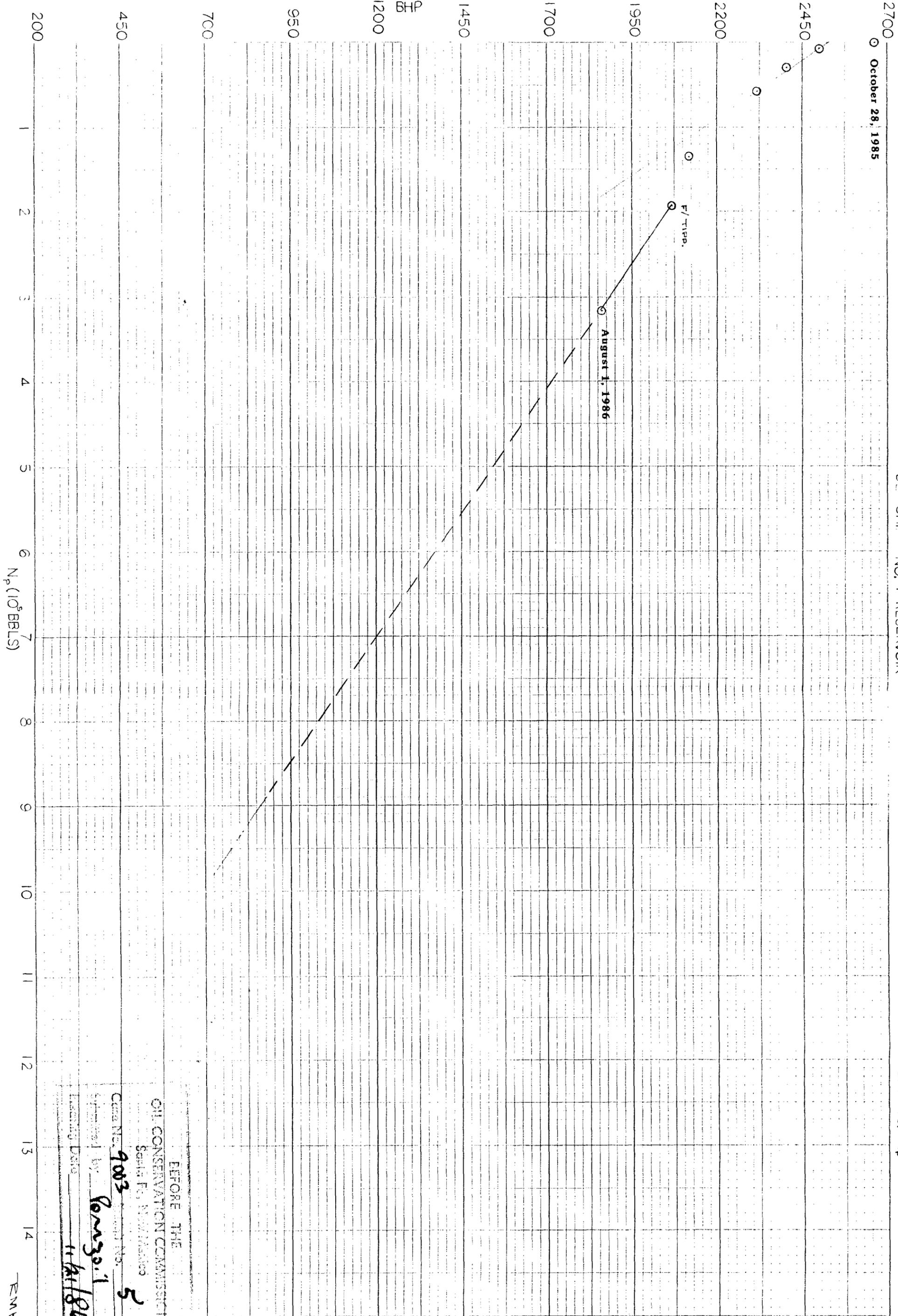


2700  
October 28, 1985

BE SHIP2 NO. 1 RESERVOIR

BHP VS. Np



BEFORE THE  
OIL CONSERVATION COMMISSION  
Serge F. Moulthrop  
Case No. 9003  
Submitted by Romygo.1  
Filing Date 11/1/86

2700

VIERSSEN NO. 2

November 19, 1985

2450

○

2200

1950

1700

1450

BHP

1200

950

700

450

200

April 1, 1986

○

○

71000

1

N (10<sup>5</sup> BARRELS)

2

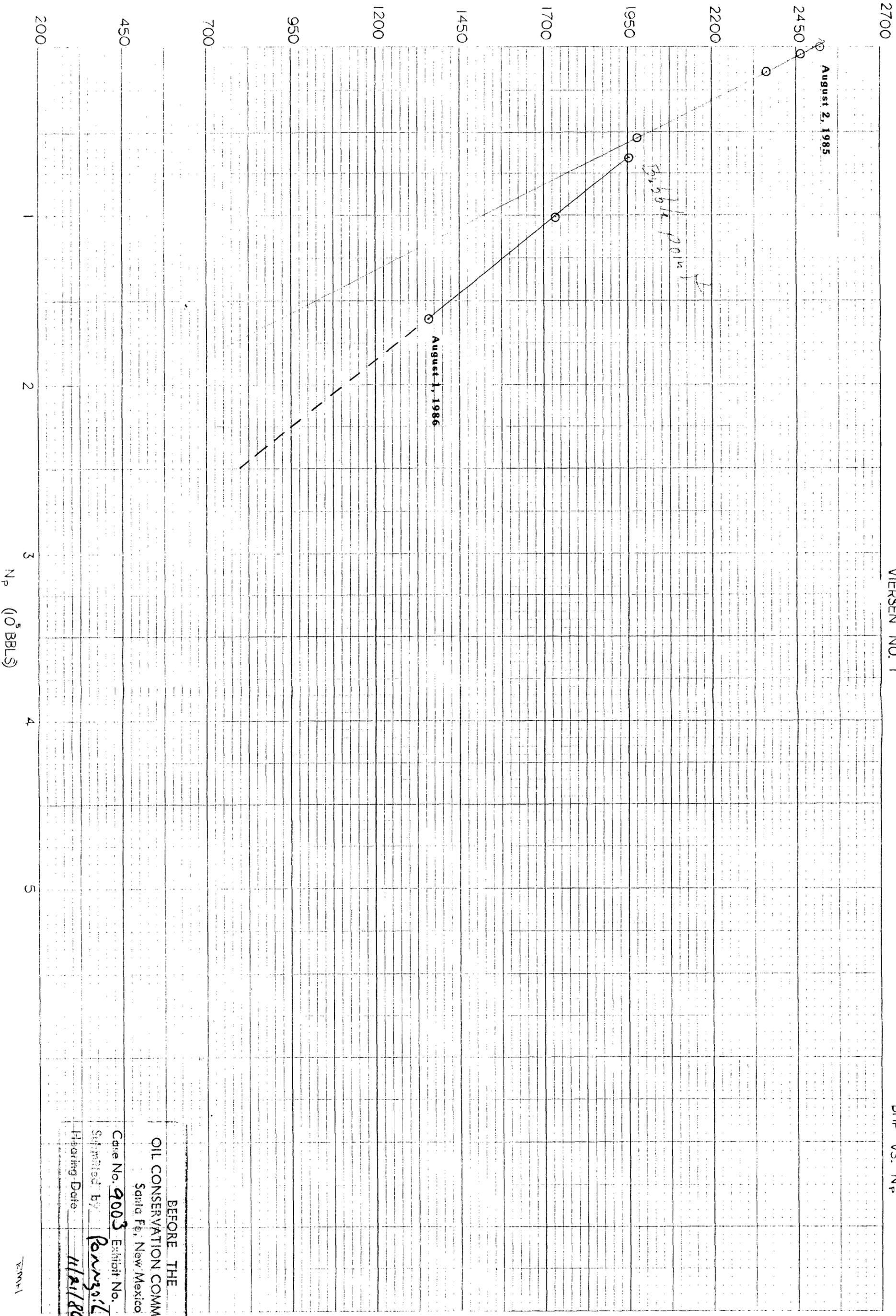
BEFORE THE  
OIL CONSERVATION COMMISSION

Sanja Fej, New Mexico

Case No. 9003

Sanja Fej, New Mexico

Heard Date 11/21/86



BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

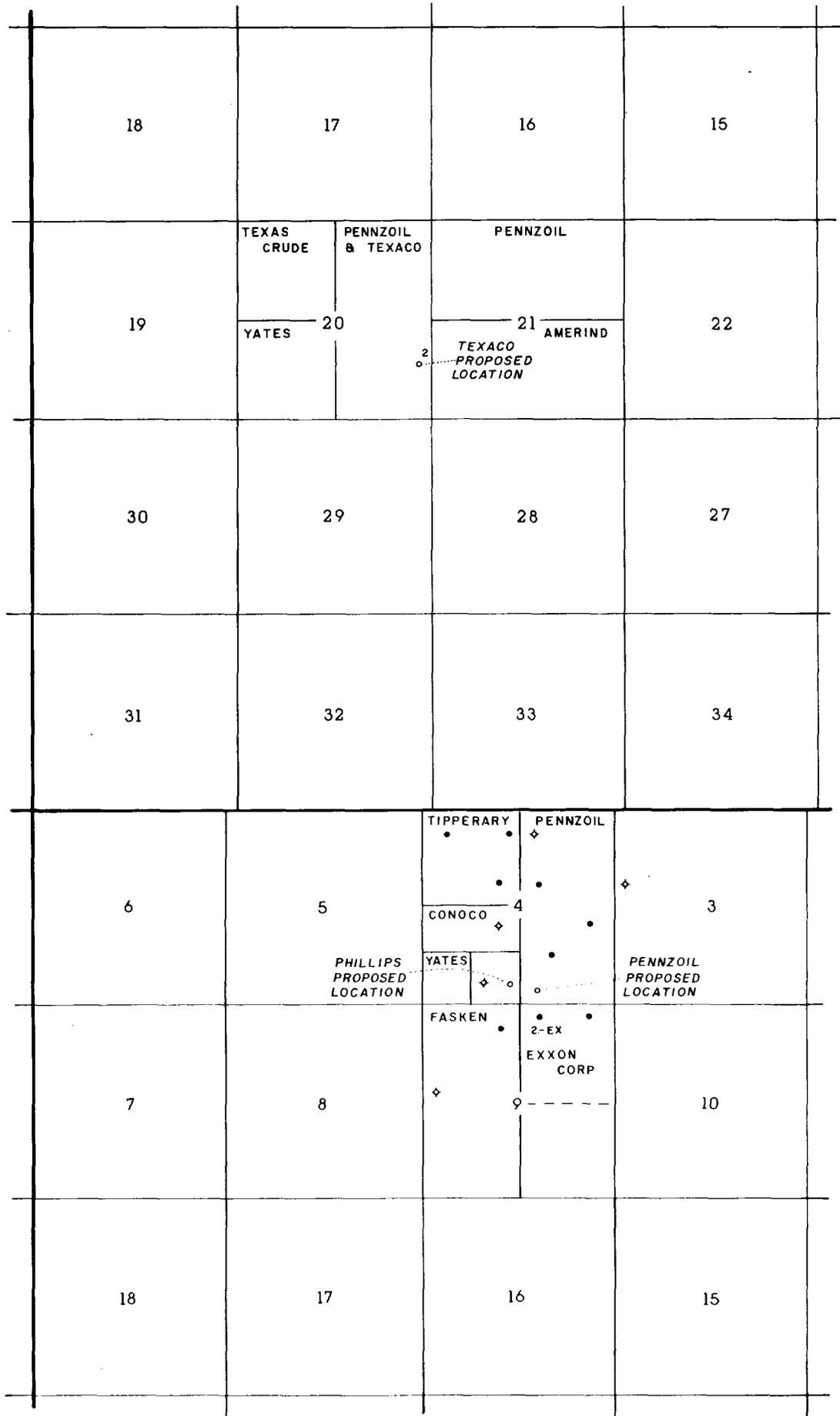
Case No. 9003 Exhibit No. 3

Submitted by Pennzoil

Filing Date 11/21/86

2011-1

R-37-E



T  
16  
S

T  
17  
S

CASE 9003  
11-20-86



EXHIBIT NO. 1

EXXON CORPORATION		
SHIPP FIELD		
FIELD		
Land Map		
T-16&17-S, R-37-E	Lea	New Mexico
LOCATION	COUNTY	STATE
1" = 4000'		

1 A Yes, that's correct.

2 Q All right. What is your understanding of  
3 the basis or justification for the minimum distance between  
4 wells, Mr. Hair, and whether or not you recommend that that  
5 basis be continued?

6 A At the hearing, when the -- for the  
7 establishment of field rules, an engineer from Pennzoil  
8 presented quite a bit of data having to do with the  
9 permeability of these reservoirs.

10 We presented data based on our Viersen  
11 No. 1, which has since been confirmed in our Viersen No. 2  
12 and our Shipp No. 1, of the excellent permeability of these  
13 reservoirs.

14 ~~We feel that wells spaced too closely~~  
15 ~~would not effectively drain the reservoirs. They will~~  
16 ~~interfere with one another because the permeability areas of~~  
17 ~~drainage will overlap significantly. We are trying to~~  
18 ~~provide for orderly drainage by spacing those wells 990 feet~~  
19 ~~apart to keep the area from overlapping so extensively!~~

20 Q What was the range of permeability in  
21 millidarcies, Mr. Hair?

22 A I believe in that testimony the average  
23 permeability was 42 millidarcies in this zone, which is  
24 excellent.

25 Q Okay.

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
Case No. 9003 Exhibit No. 1-A  
Submitted by Exxon  
Hearing Date 11/21/86

VOLUMETRIC RESERVE ANALYSIS OF VIERSON #2 POD

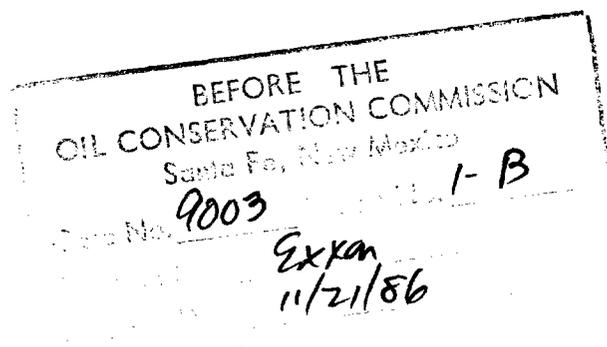
Based upon Pennzoil's testimony:

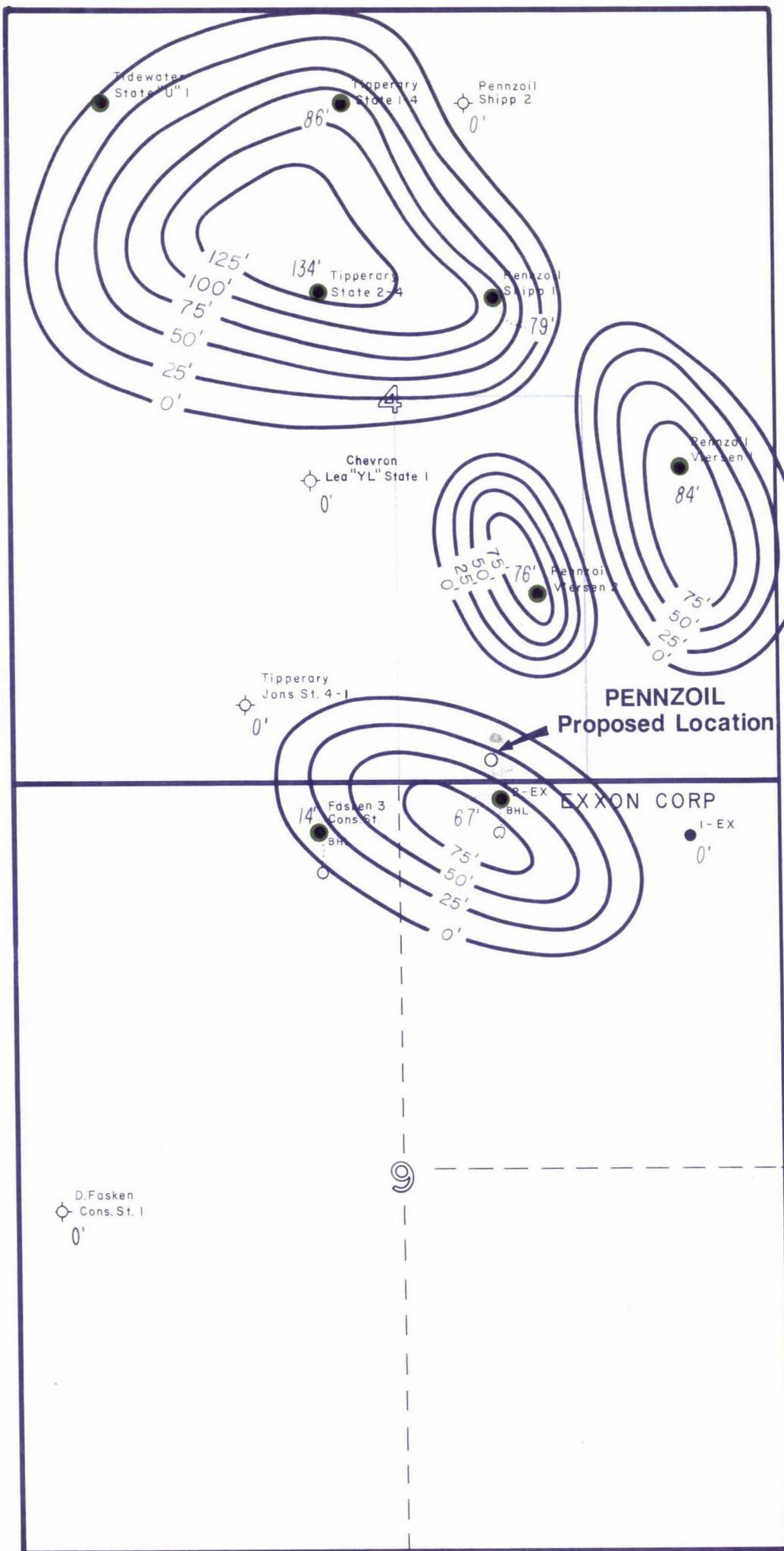
A= 10 acres  
Ø= 8%  
h<sub>avg</sub>= unknown  
S<sub>w</sub>= 15%  
RF= 25%  
B<sub>o</sub>= 1.5 RB/STB  
N= 71,000 STB

Solving for h:

$$71,000 = \frac{7758(10)(0.08)(1-0.15)(.25)(h)}{1.5}$$

$$h = 80.7'$$



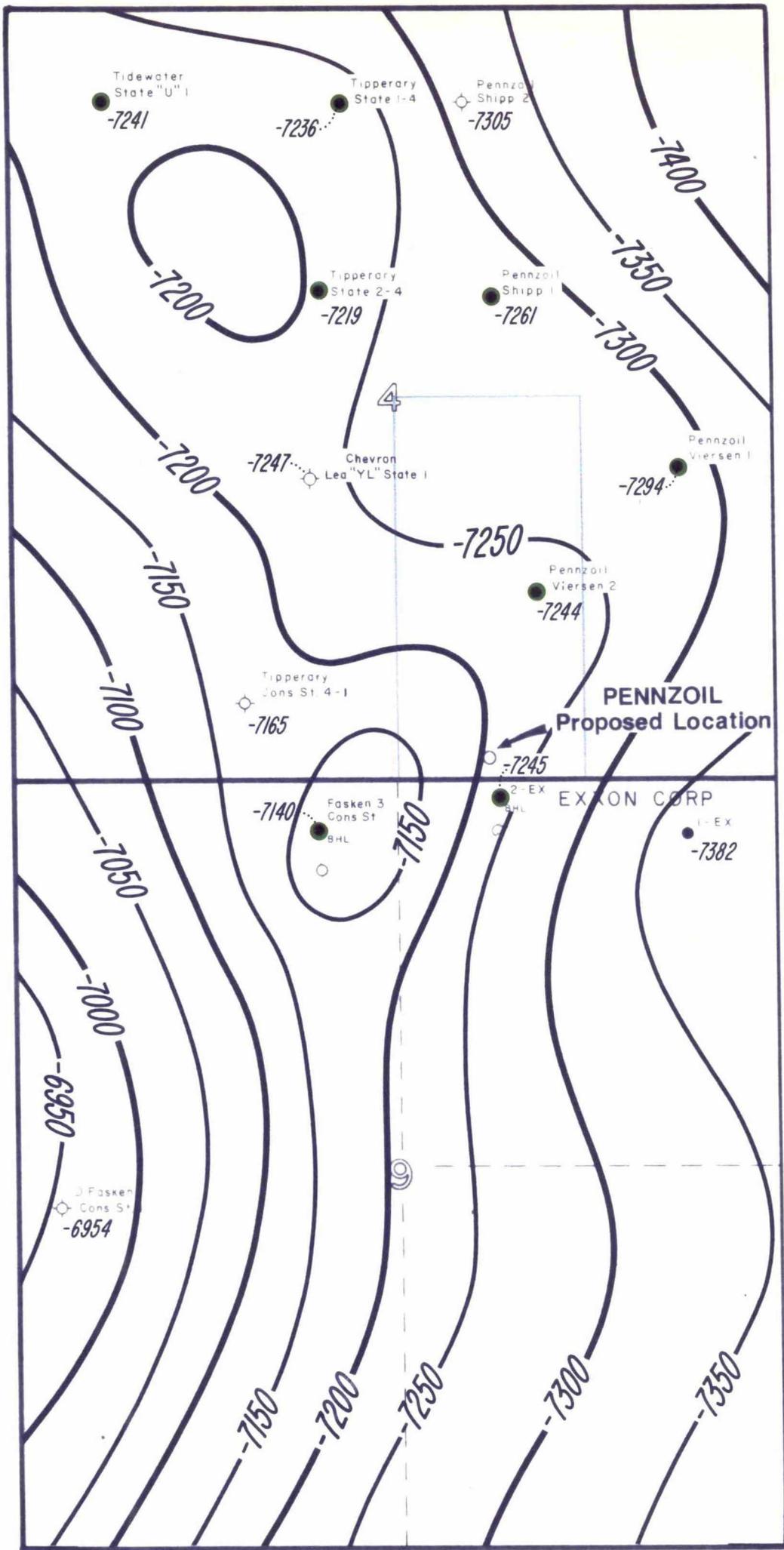


● Strawn Producer

**EXXON**

EXHIBIT NO. 2  
 DOCKET NO. 9003  
 HEARING DATE 11/20/86

EXXON CORPORATION, U.S.A.	
SHIPP FIELD	
Net Porosity Map - Strawn	
HORIZON	
T-17-S, R-37-E	Lea County, New Mexico
LOCATION	COUNTY STATE
4% Porosity Cutoff	
1" = 1000'	C.I. - 25'

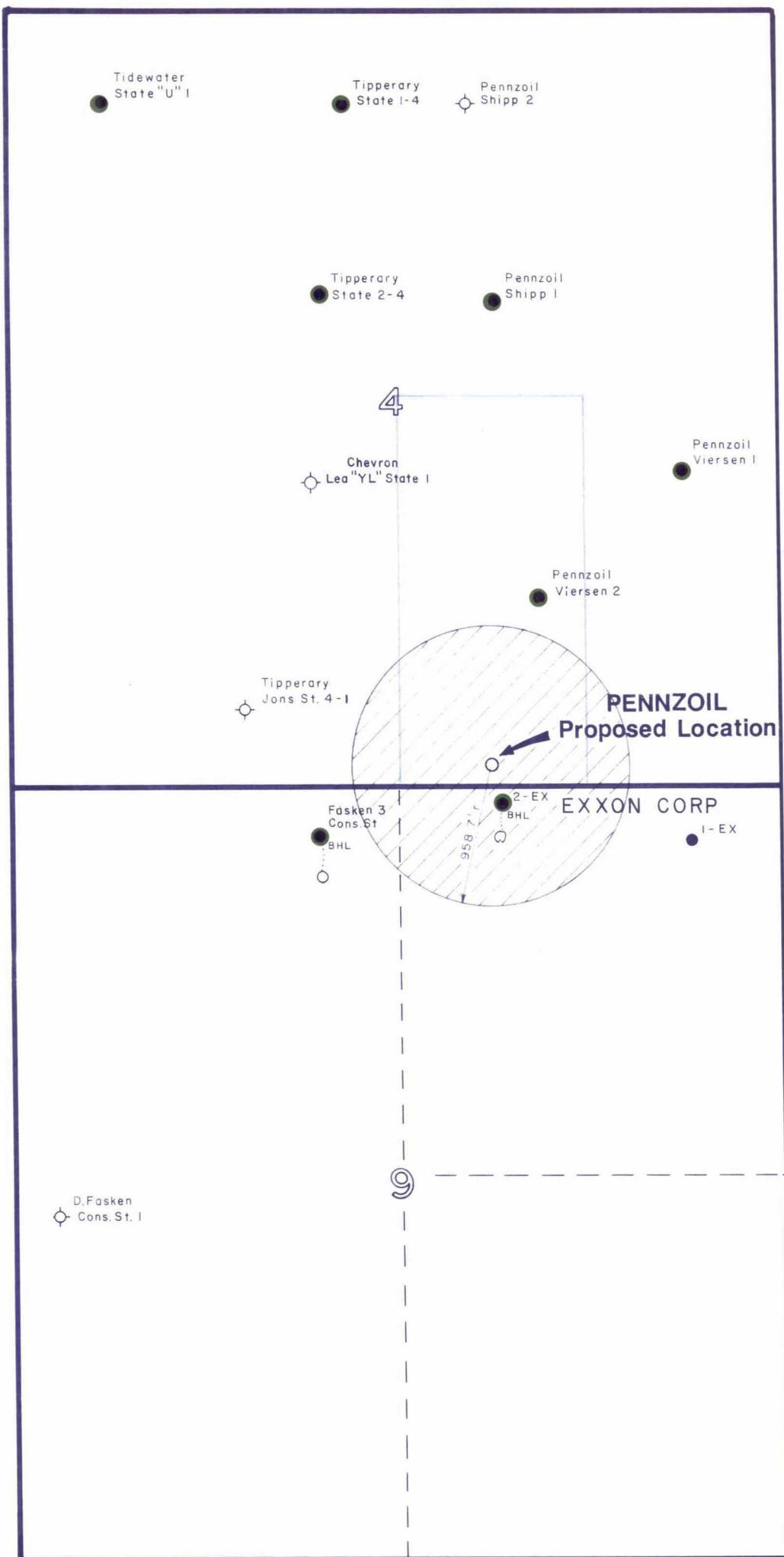


● Strawn Producer

**EXXON**

EXHIBIT NO. 2A  
 DOCKET NO. 9003  
 HEARING DATE 11-20-86

EXXON CORPORATION		
SHIPP FIELD		
Structure Map - Top of Strawn		
<small>HORIZON</small>		
<small>T-17-S, R-37-E</small>	<small>Lea County, New Mexico</small>	
<small>LOCATION</small>	<small>COUNTY</small>	<small>STATE</small>
<small>C.I. - 50'</small>		
<small>1" = 1000'</small>		



● Strawn Producer

**EXXON**

EXHIBIT NO. 3  
 DOCKET NO. 9003  
 HEARING DATE 11-20-86

<b>EXXON CORPORATION</b>	
<b>SHIPP FIELD</b>	
	Possible BHL's (at 11,000-foot drill depth) without exceeding 5° deviation from vertical.
<small>HORIZON</small>	
T-17-S, R-37-E	Lea County, New Mexico
<small>LOCATION</small>	<small>COUNTY STATE</small>
1" = 1000'	
r = 958.7'	

PENALTY CALCULATION<sup>1</sup>

Acreage Distribution of Strawn Reservoir Productive in Fasken-Consolidated State #3 and Exxon "Ex" State #2

<u>Company</u>	<u>Number of Productive Acres Leased</u>
Exxon	39
Pennzoil	13
Phillips	8
Faskin	13

Total area of this productive reservoir = 73 acres

$$\text{Production Limitation Factor}^2 = \frac{\text{Productive Acreage}}{\text{Proration Unit Size}}$$

$$= \frac{13 \text{ Acres}}{80 \text{ Acres}}$$

$$\text{Production Limitation Factor}^2 = 0.16$$

$$\text{Penalty} = (1 - 0.16) = 0.84$$

$$\text{Production Limitation} = (0.16)(445 \text{ BOPD}) = 71 \text{ BOPD}$$

See R 8327  
8229

<sup>1</sup> From Order No. R-8239

<sup>2</sup> To be applied to the Depth Bracket Allowable for an 80-acre Oil Proration Unit.

Exxon Corporation  
Exhibit No. 4  
Case No. 9003  
November 20, 1986

PENALTY CALCULATION

Volume Distribution of Strawn Reservoir Productive in Fasken-Consolidated State #3 and Exxon "Ex" State #2

<u>Company</u>	<u>Volume of Reservoir under Leased Acreage</u> <u>(Acre/ft)</u>
Exxon	1662
Pennzoil	360
Phillips	254
Faskin	233

Total volume of this productive reservoir = 2509 acre-feet

$$\text{Production Limitation Factor}^1 = \frac{\text{Leased Volume}}{\text{Total Volume}}$$

$$= \frac{360 \text{ Acre-ft}}{2509 \text{ Acre-ft}}$$

$$\text{Production Limitation Factor}^1 = 0.14$$

$$\text{Penalty} = (1-0.14) = 0.86$$

$$\text{Production Limitation} = (0.14)(445 \text{ BOPD}) = 62 \text{ BOPD}$$

<sup>1</sup> To be applied to the Depth Bracket Allowable for an 80-acre Oil Proration Unit.

Exxon Corporation  
Exhibit No. 5  
Case No. 9003  
November 20, 1986