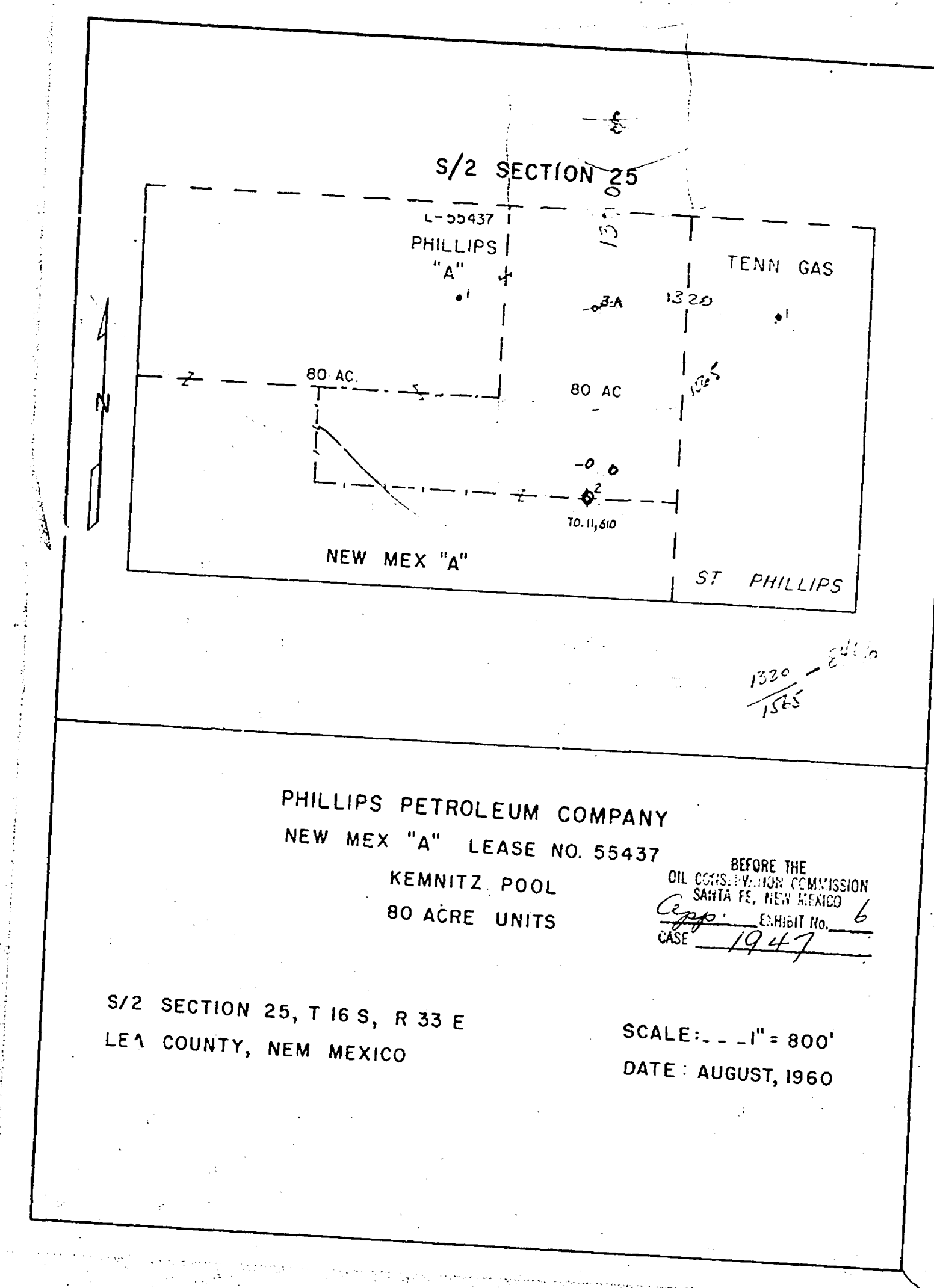
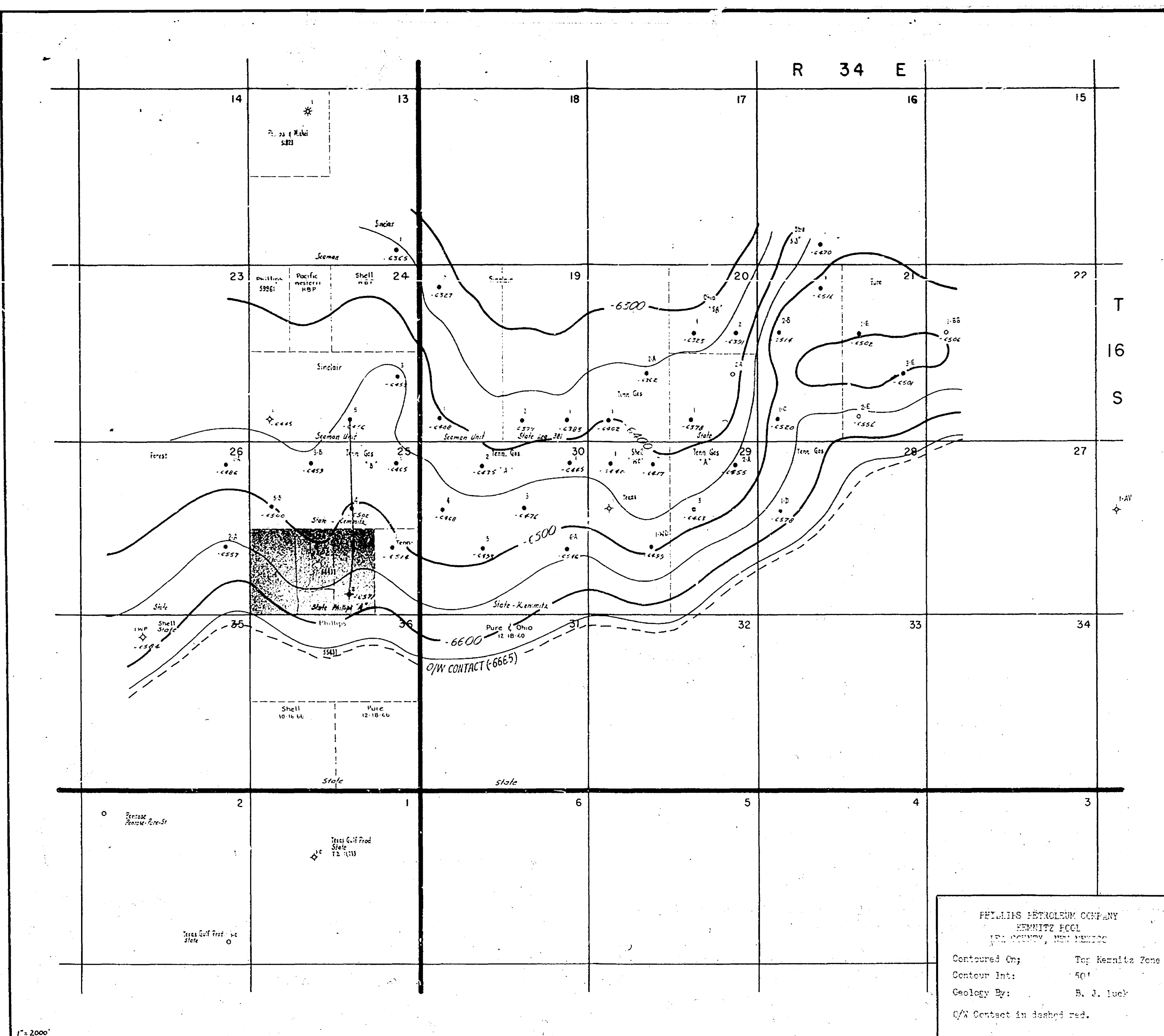


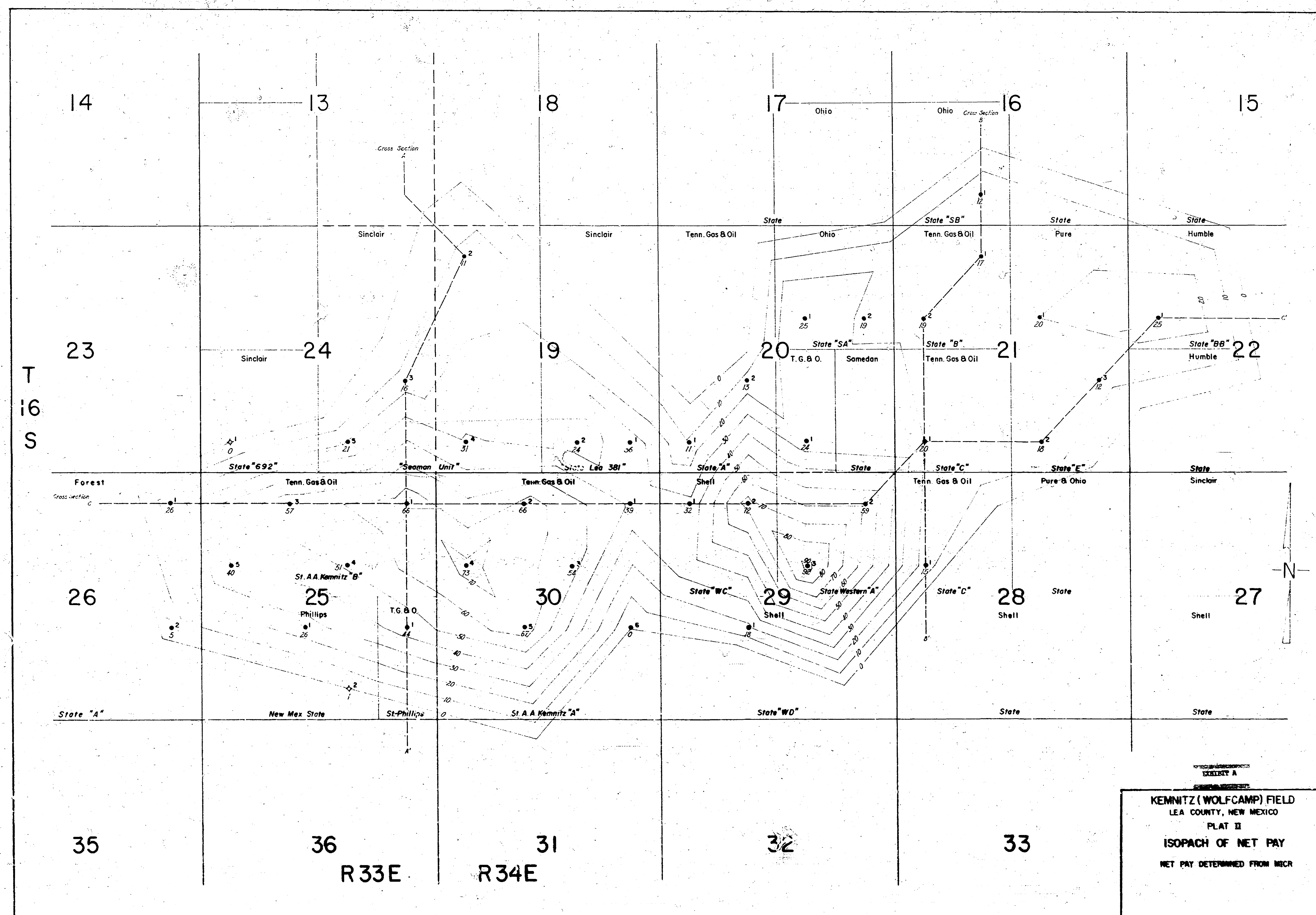
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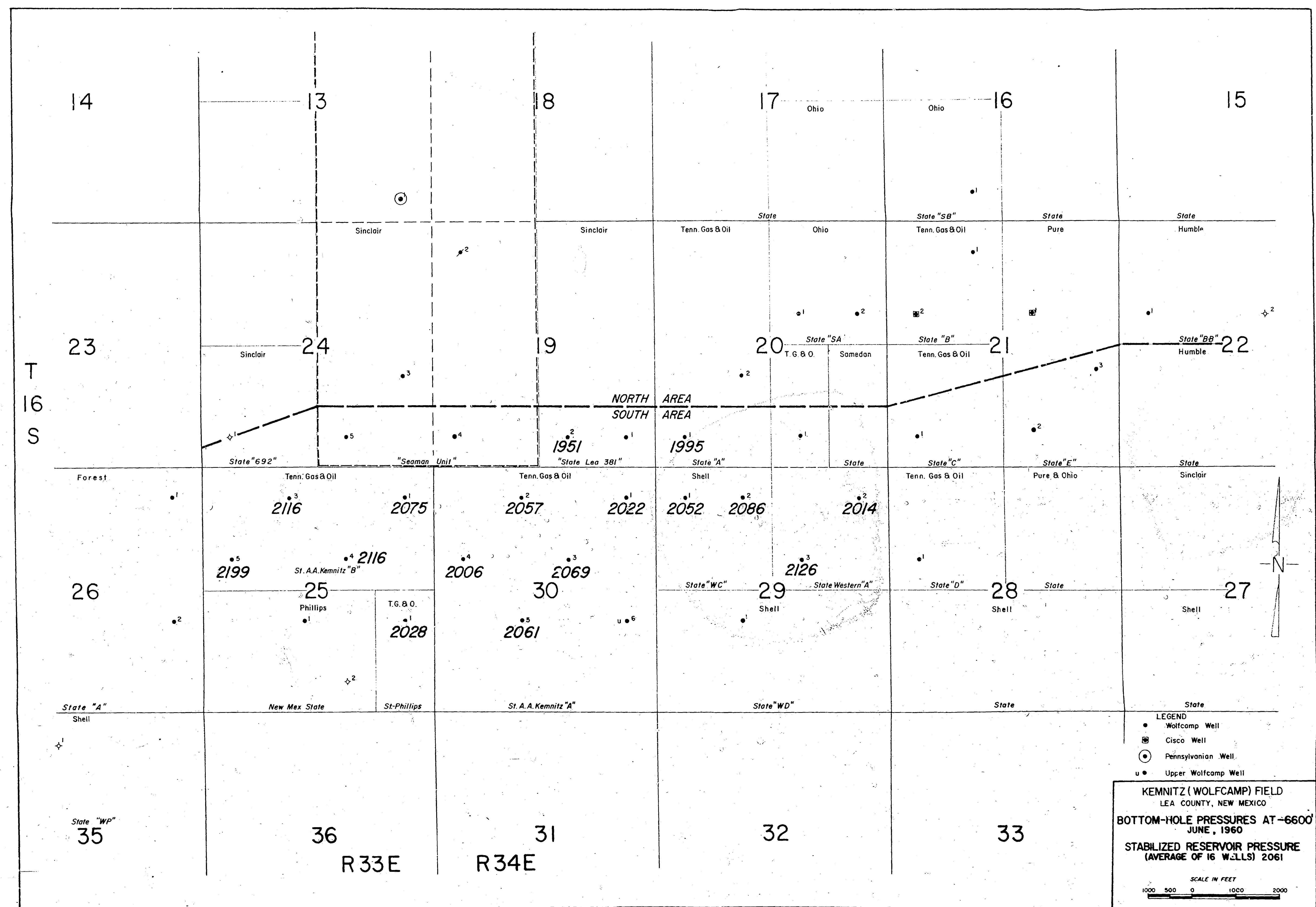
Box 9 of 12
Oil Conservation Div.
1947

Large Exhibit

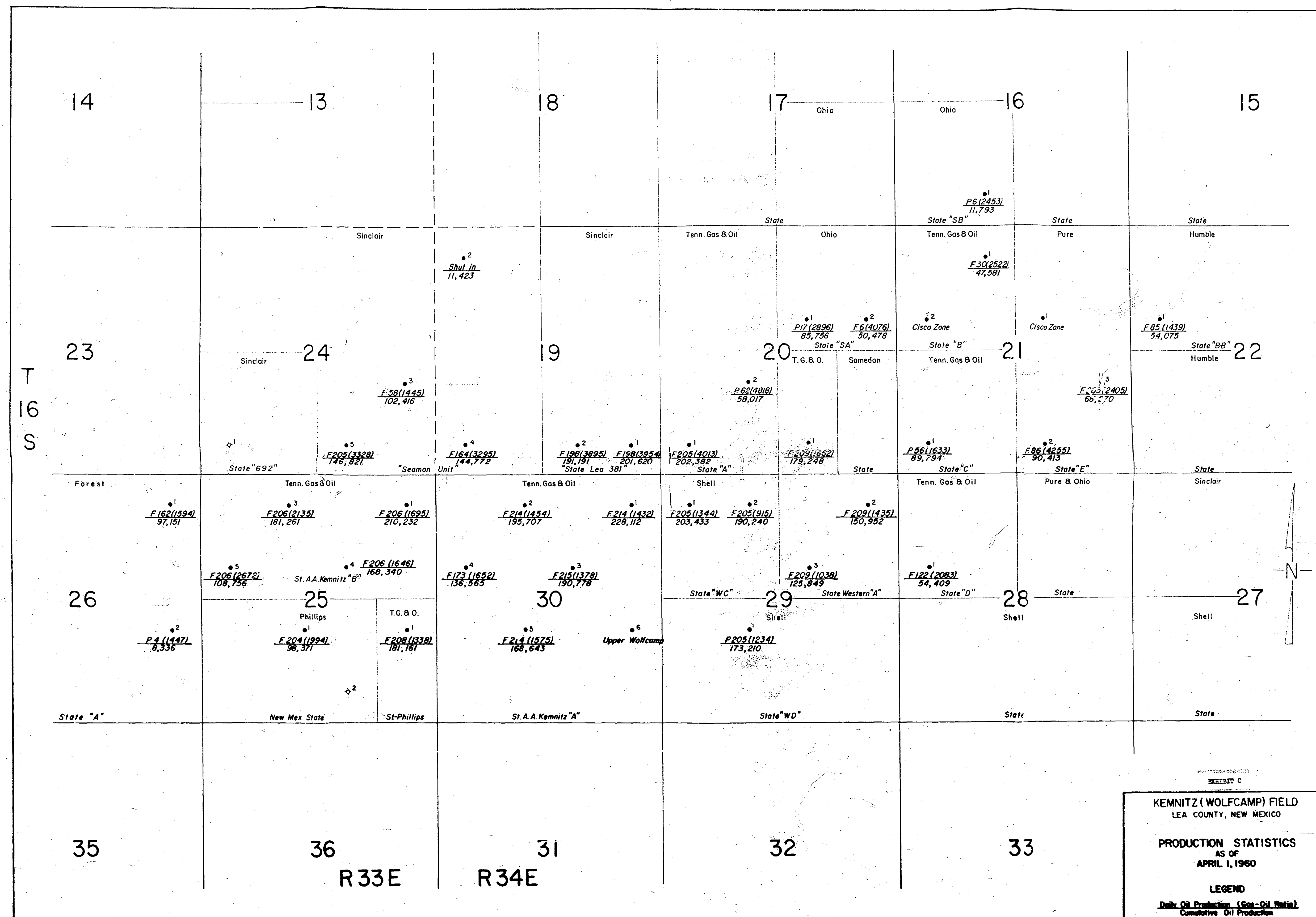


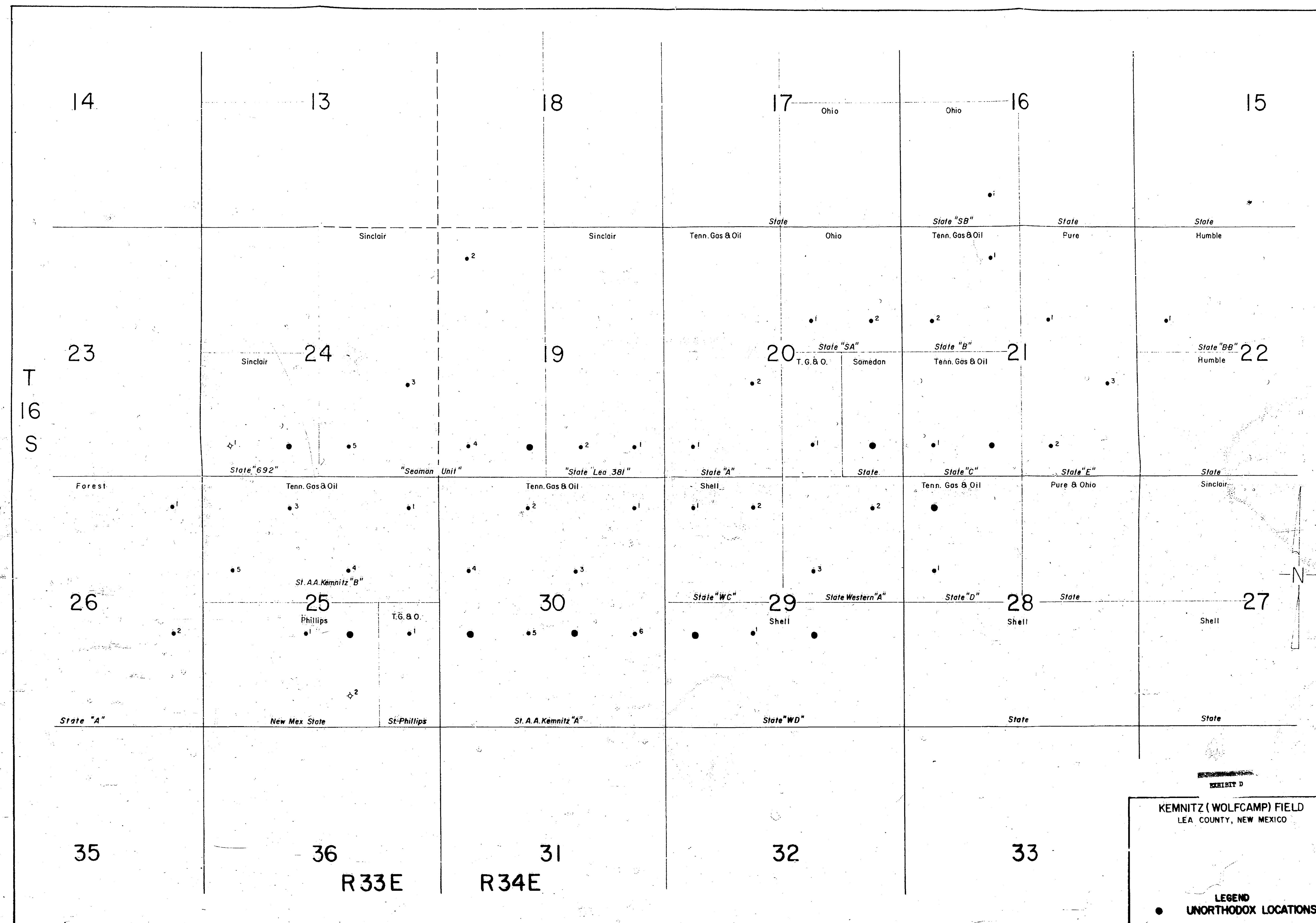
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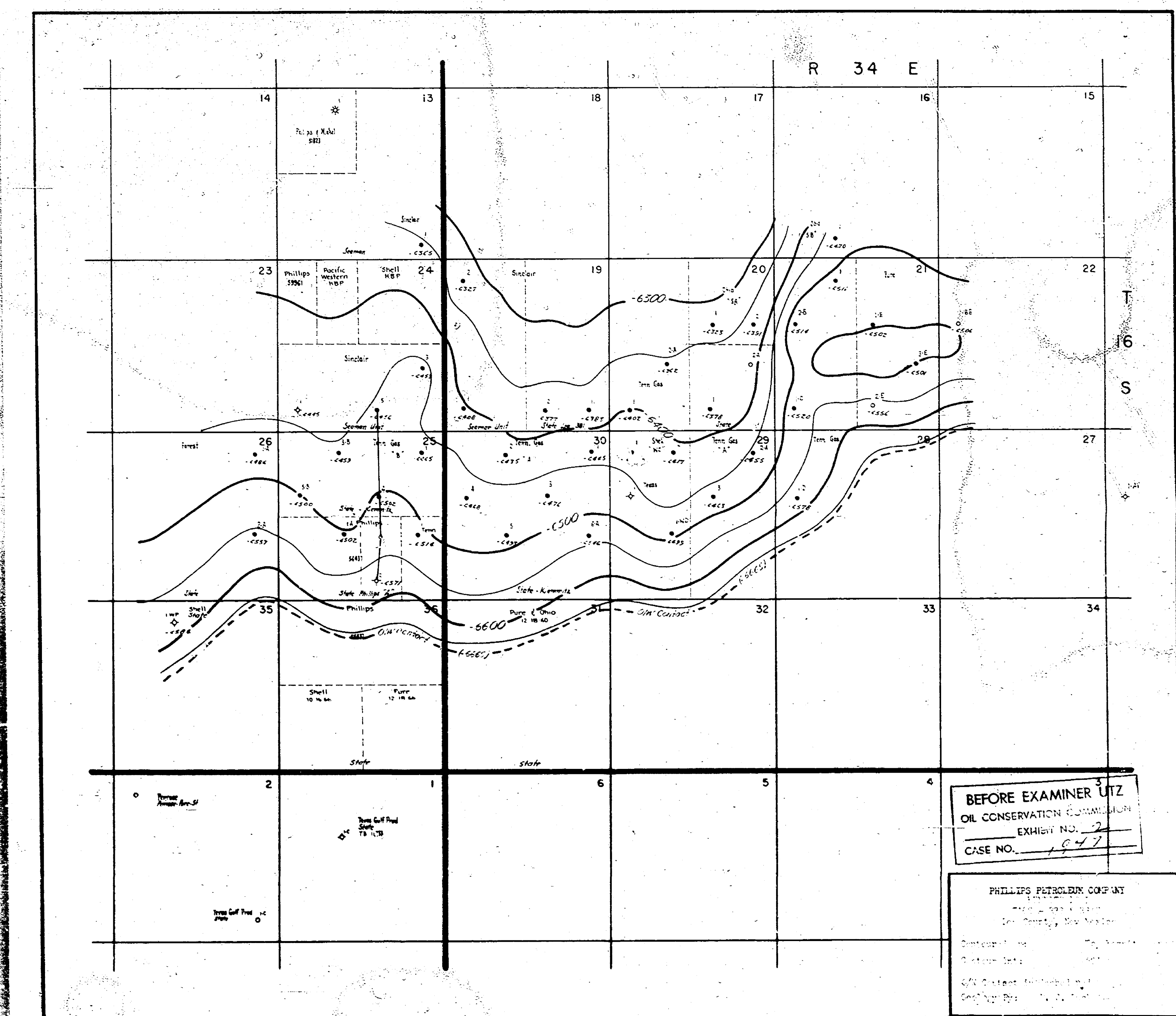
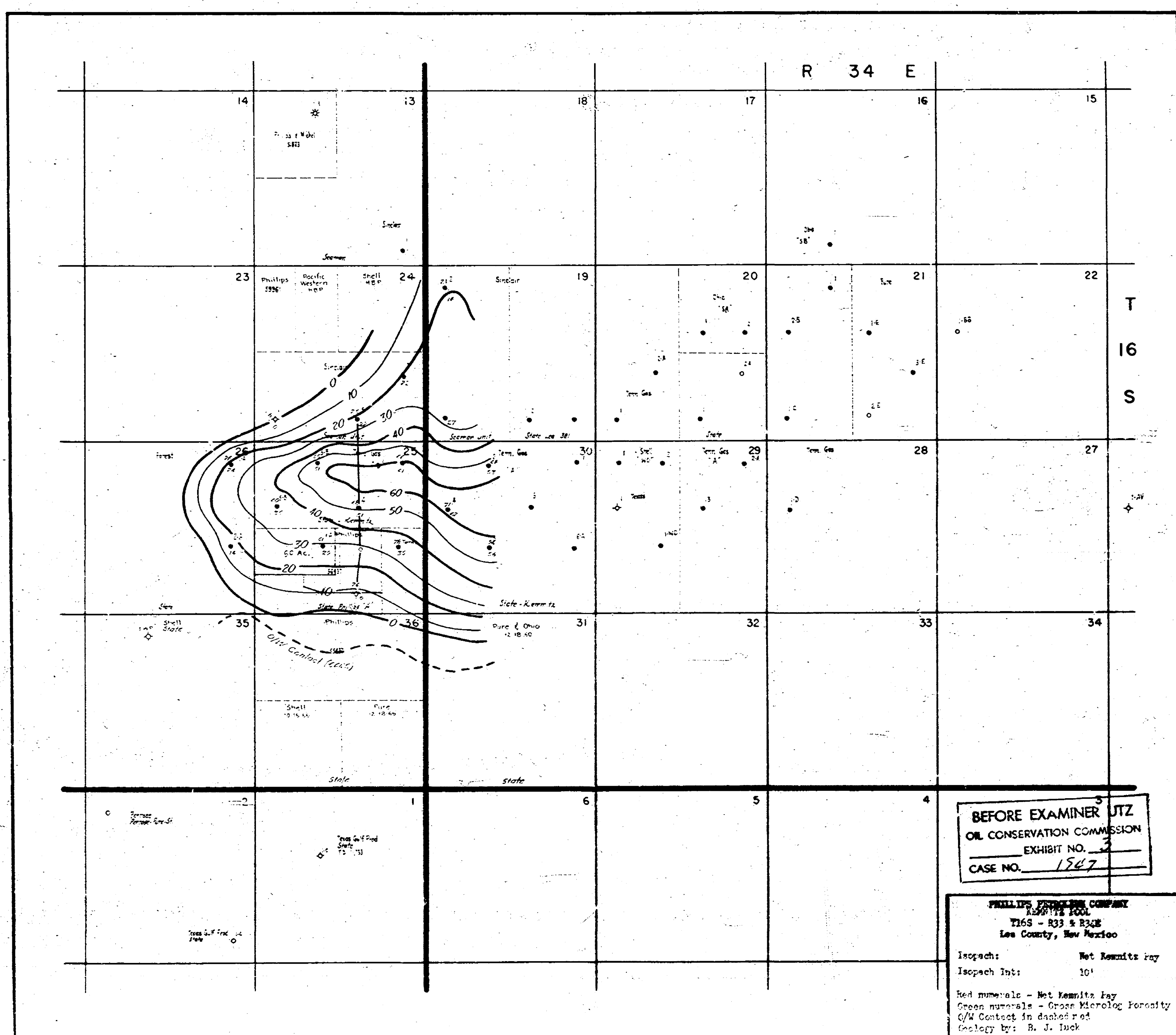
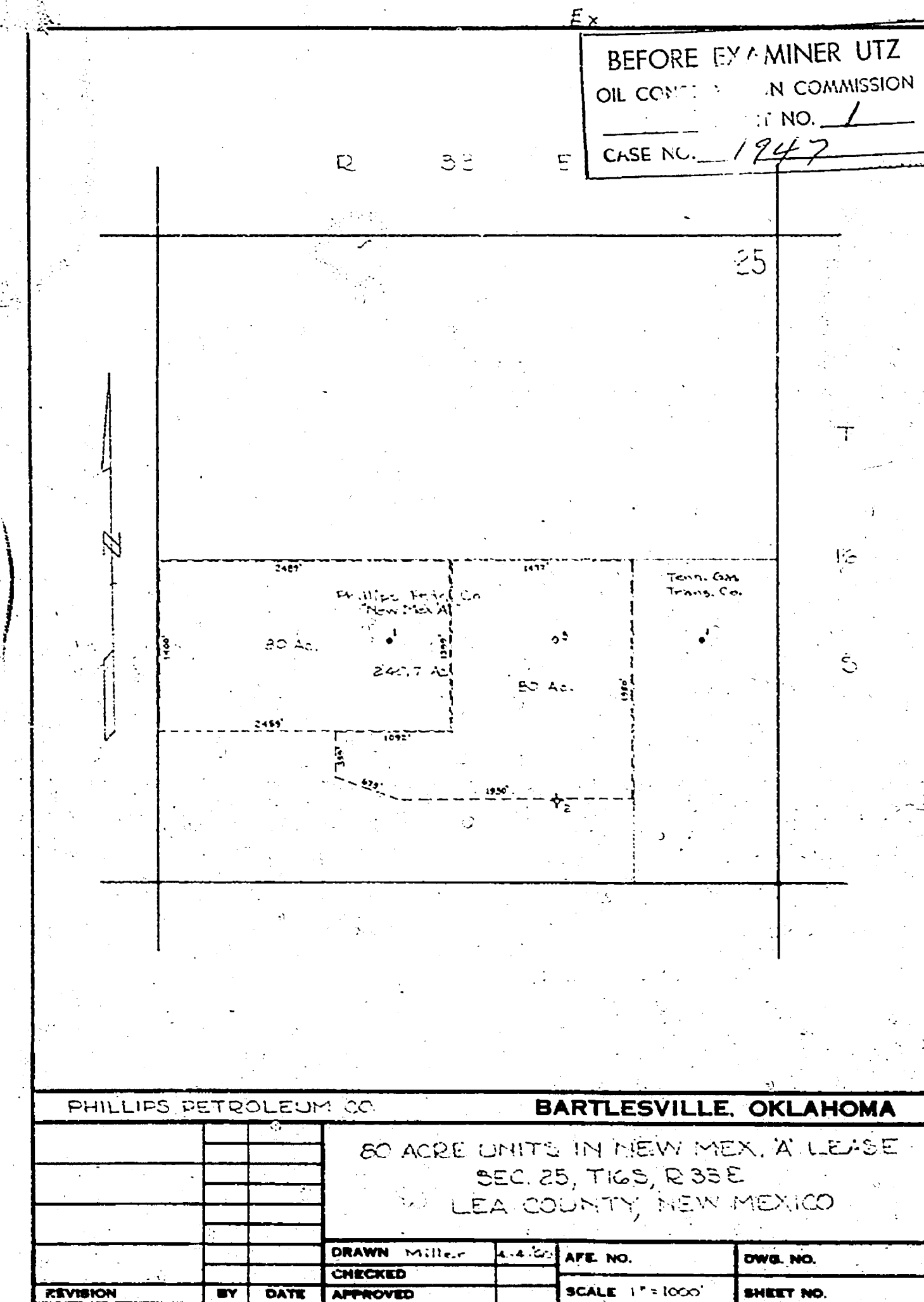
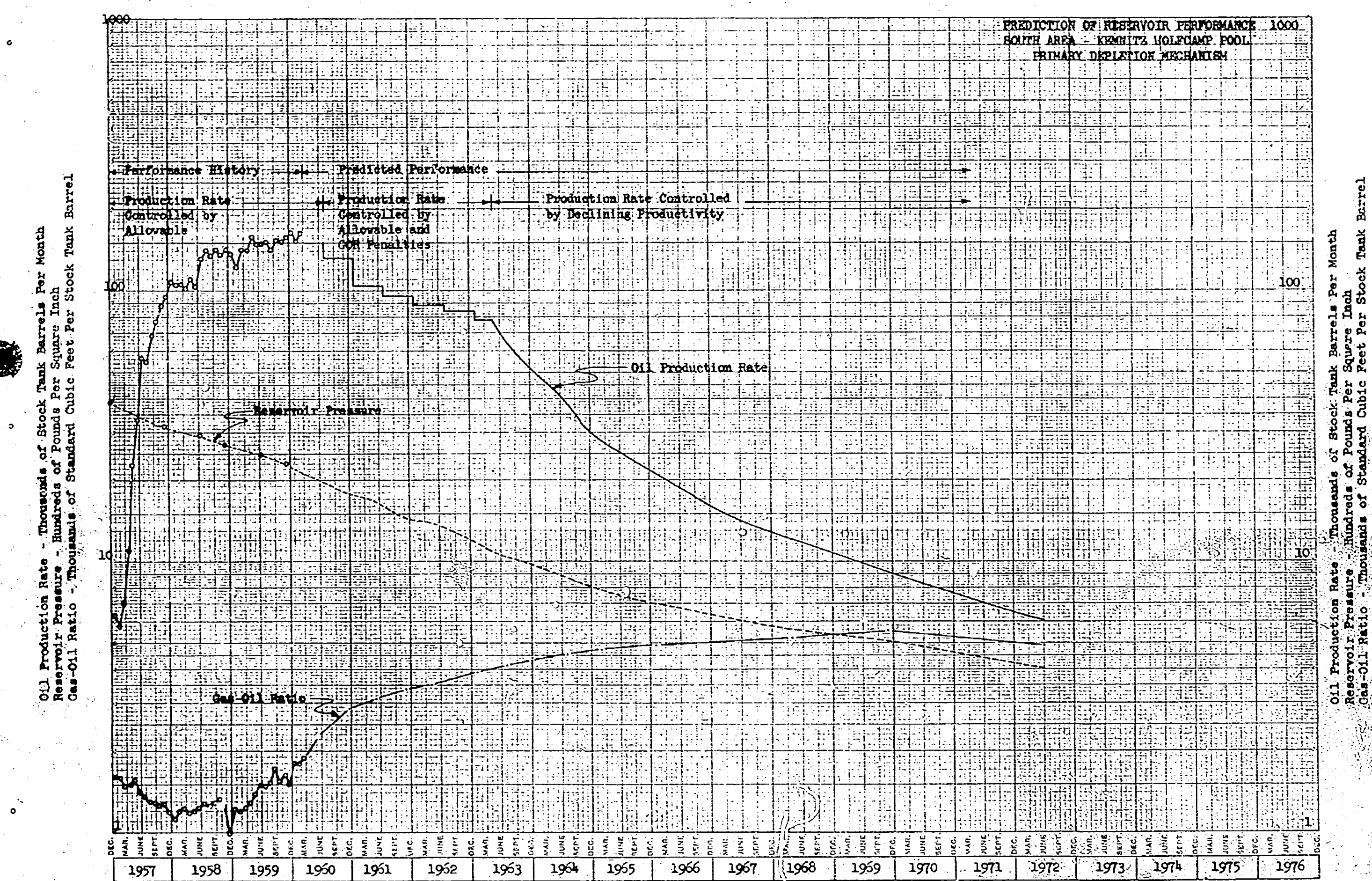
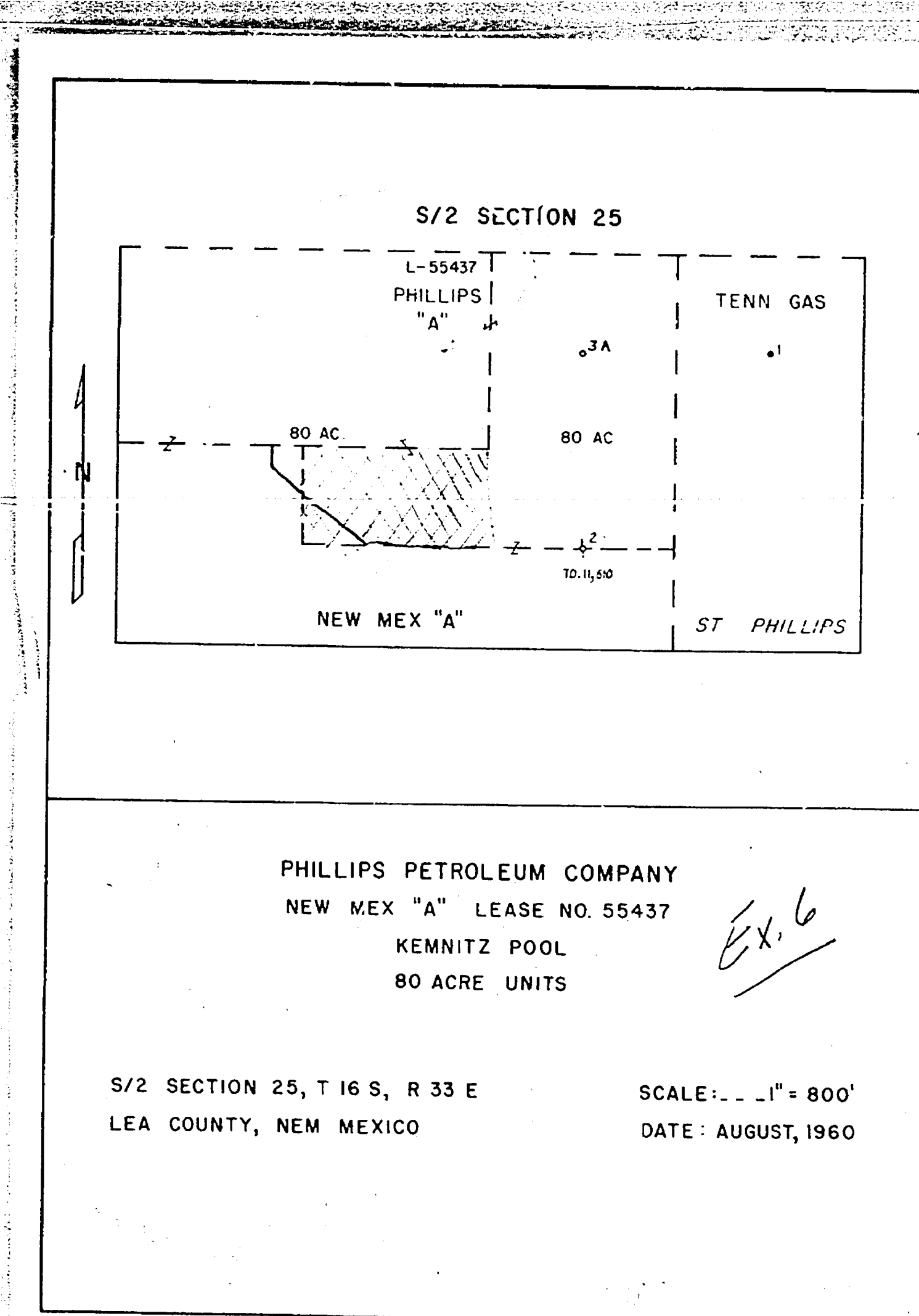
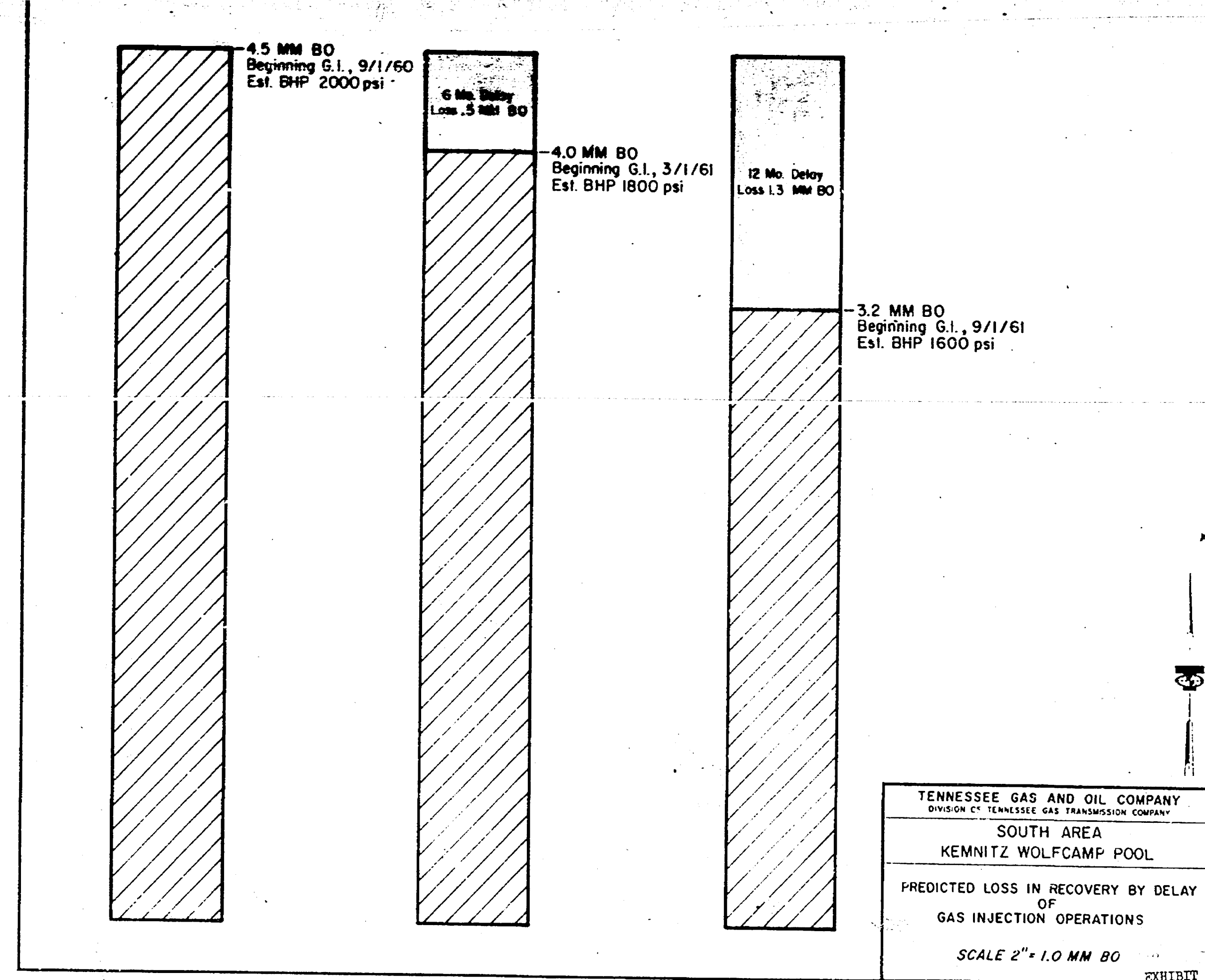
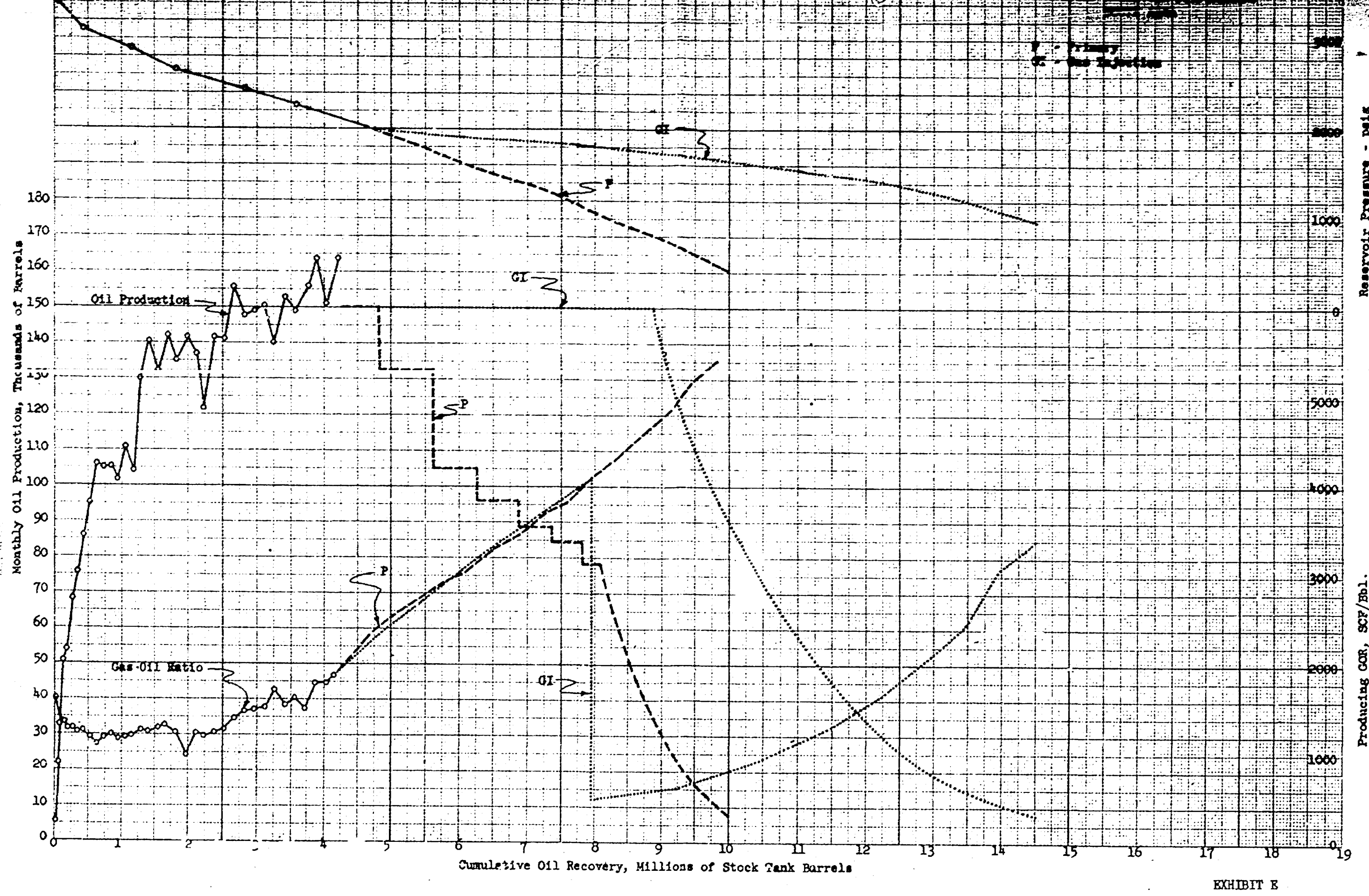




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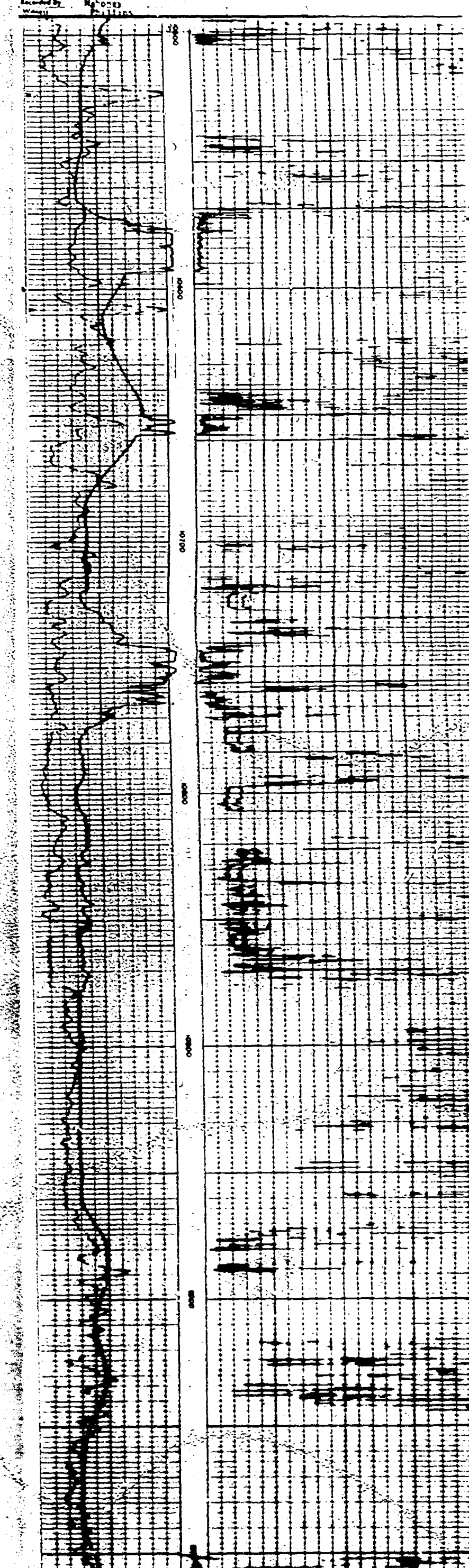




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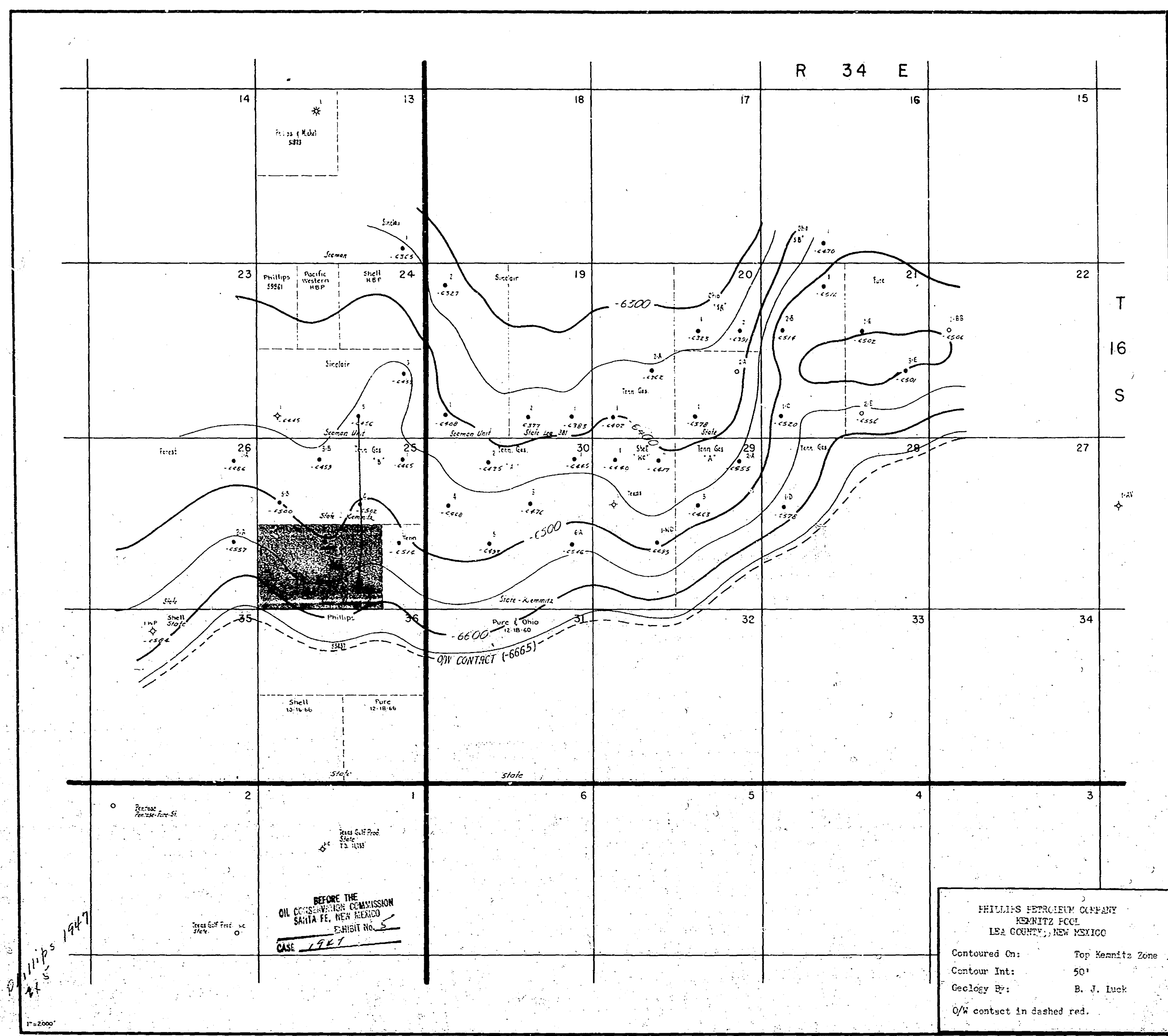
SCHLUMBERGER WELL SERVICES CORPORATION
MicroLogging

COMPANY: PHILLIPS
WELL: 14-16-34-16-23
LOG: 14-16-34-16-23
DATE: 10/1/77
LOGGERS: J. J. DICK
SUPERVISOR: S. J. DICK



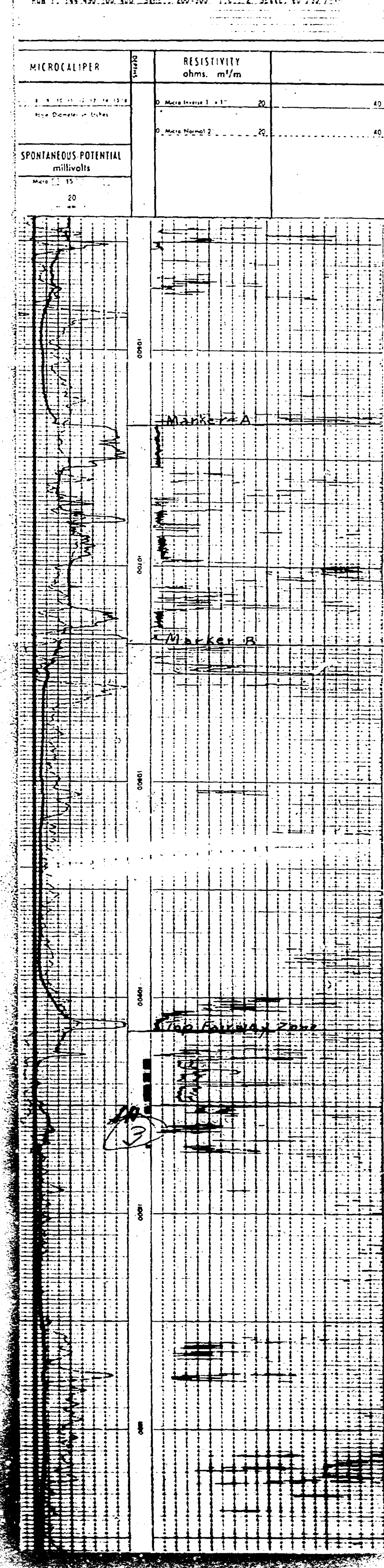
Marker A
Marker B
Top Fairway Zone

Sheet
EX-5



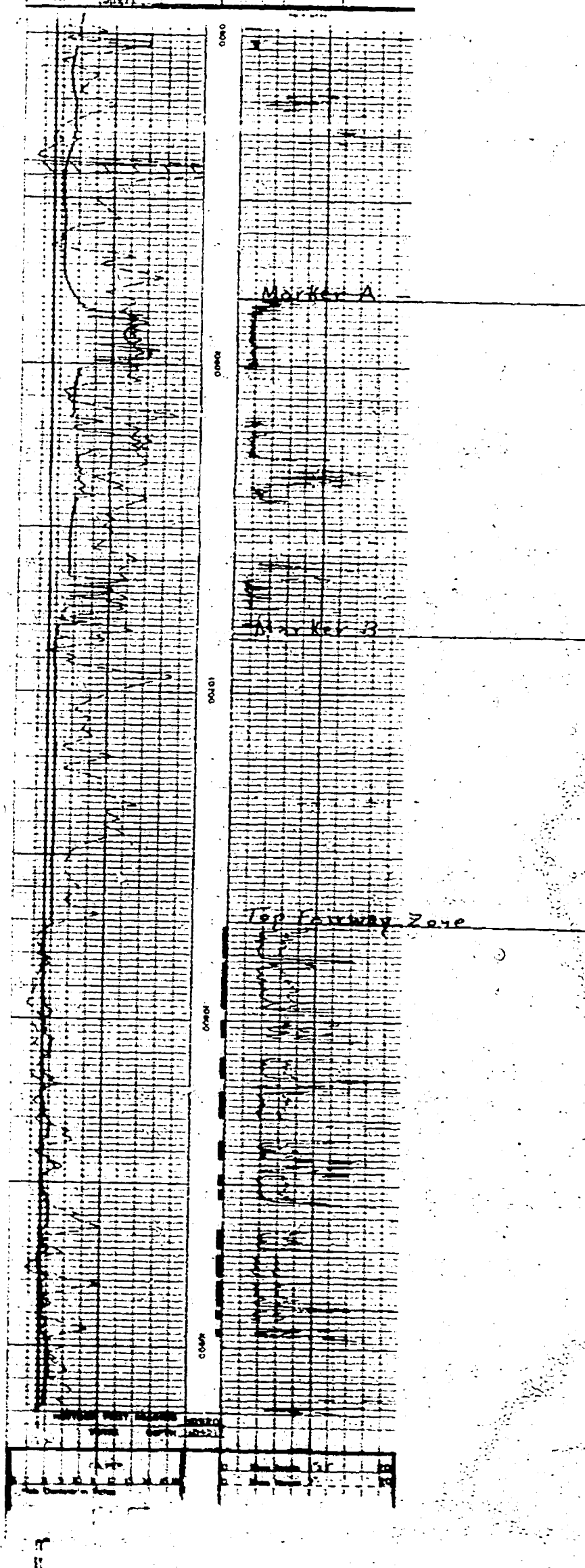
SCHLUMBERGER WELL SERVICES CORPORATION
MicroLogging

COMPANY: PHILLIPS
WELL: 14-16-34-16-23
LOG: 14-16-34-16-23
DATE: 10/1/77
LOGGERS: J. J. DICK
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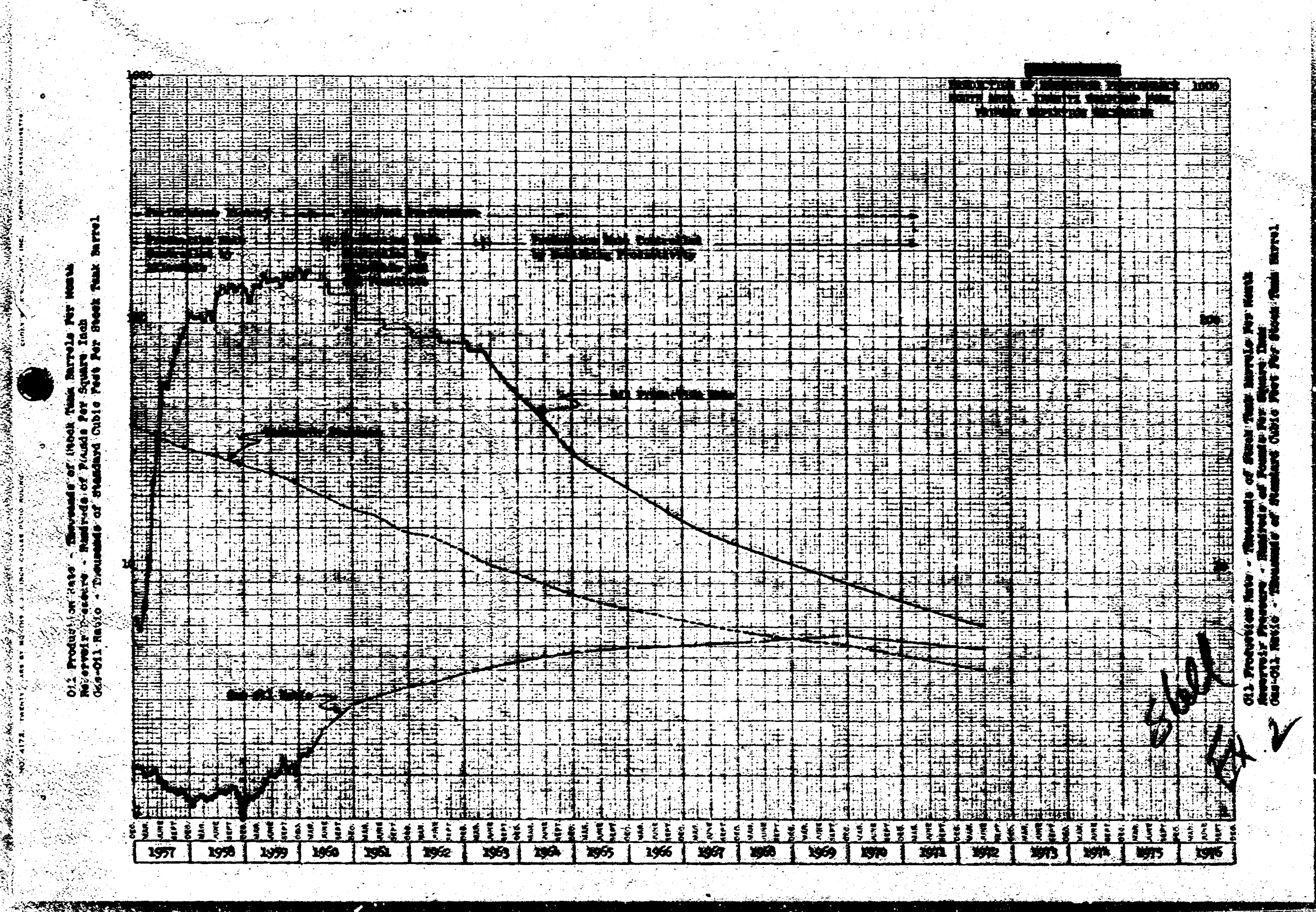


SCHLUMBERGER WELL SERVICES CORPORATION
MicroLogging

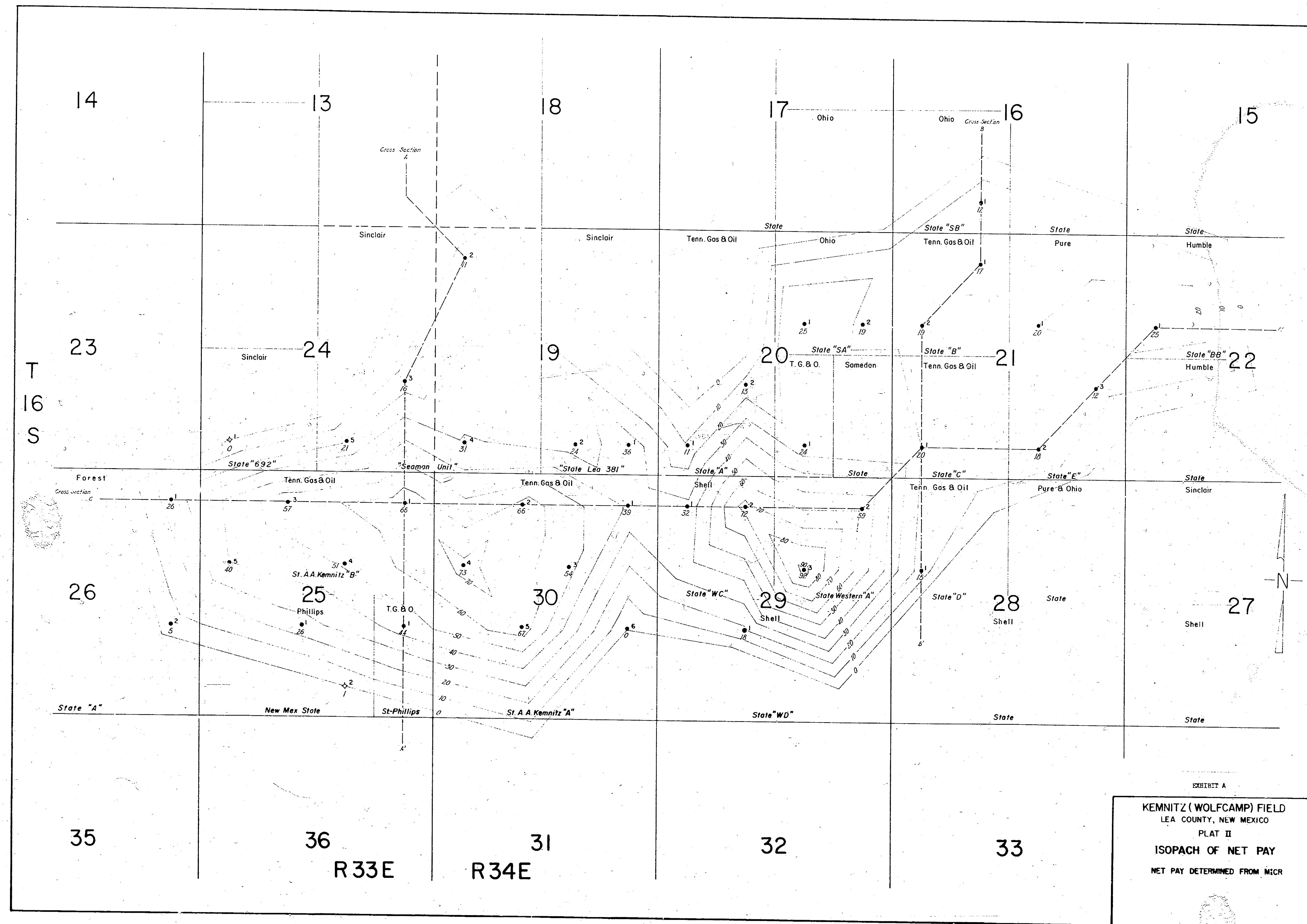
COMPANY: PHILLIPS
WELL: 14-16-34-16-23
LOG: 14-16-34-16-23
DATE: 10/1/77
LOGGERS: J. J. DICK
SUPERVISOR: S. J. DICK

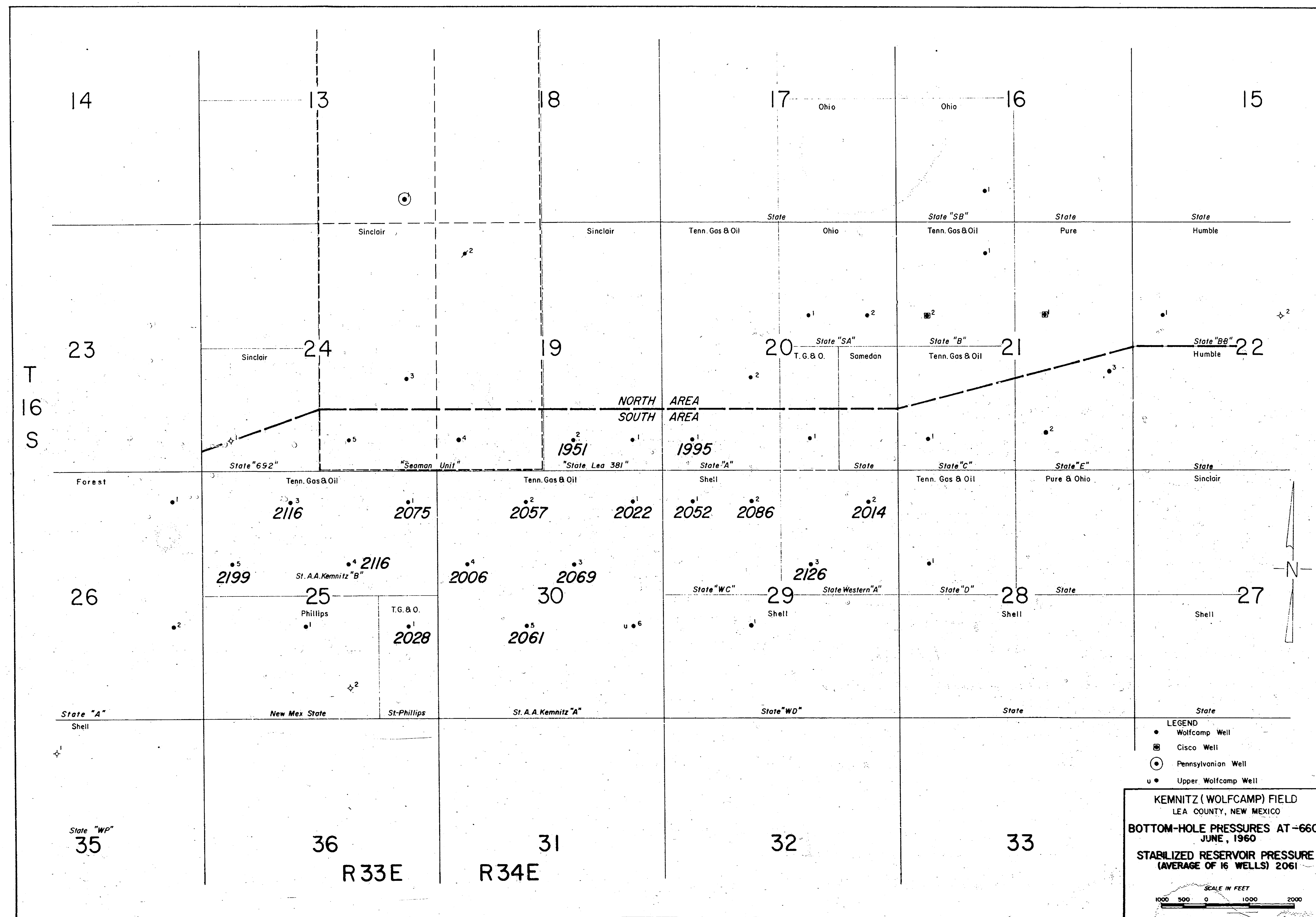


Sheet
EX-5

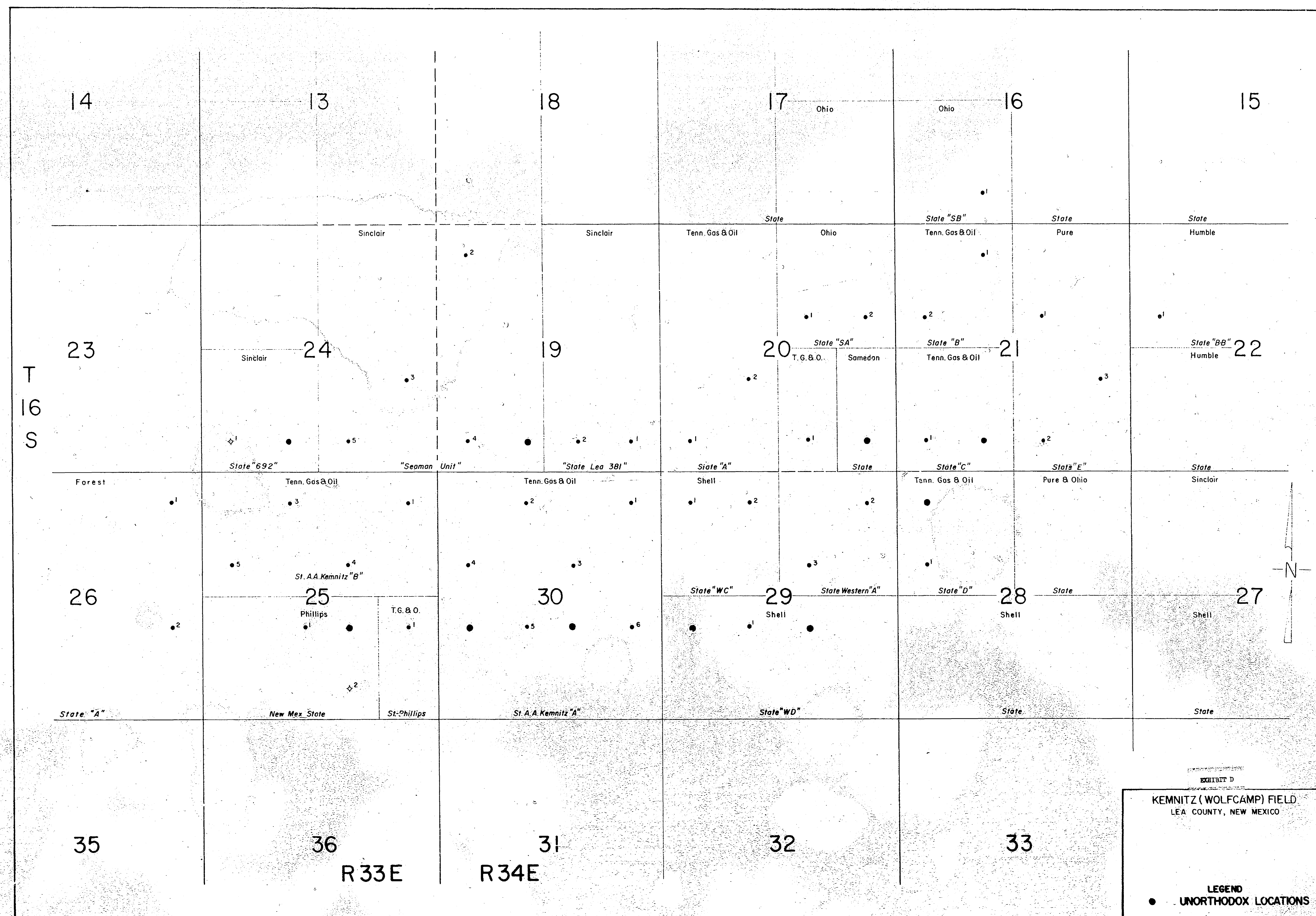


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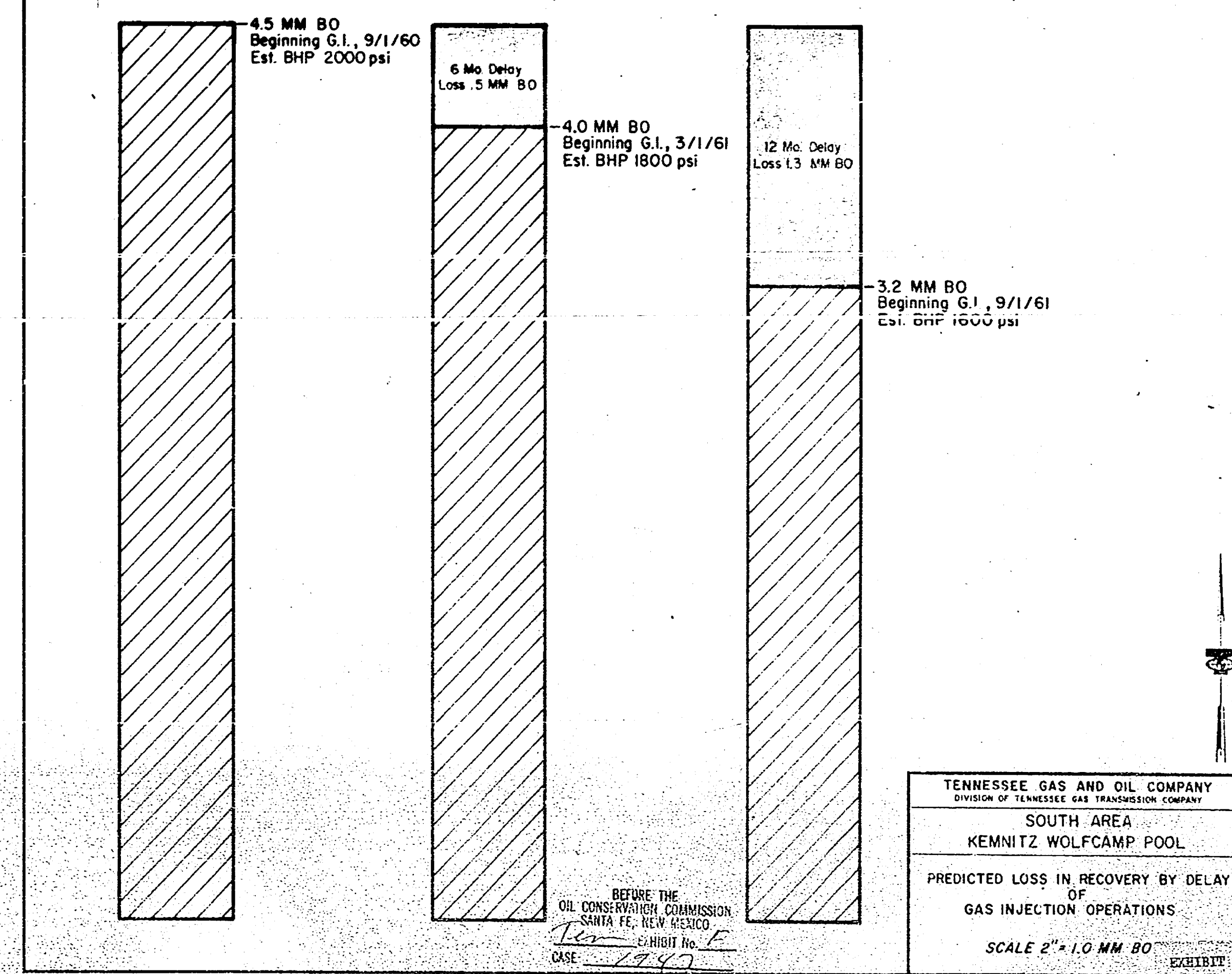
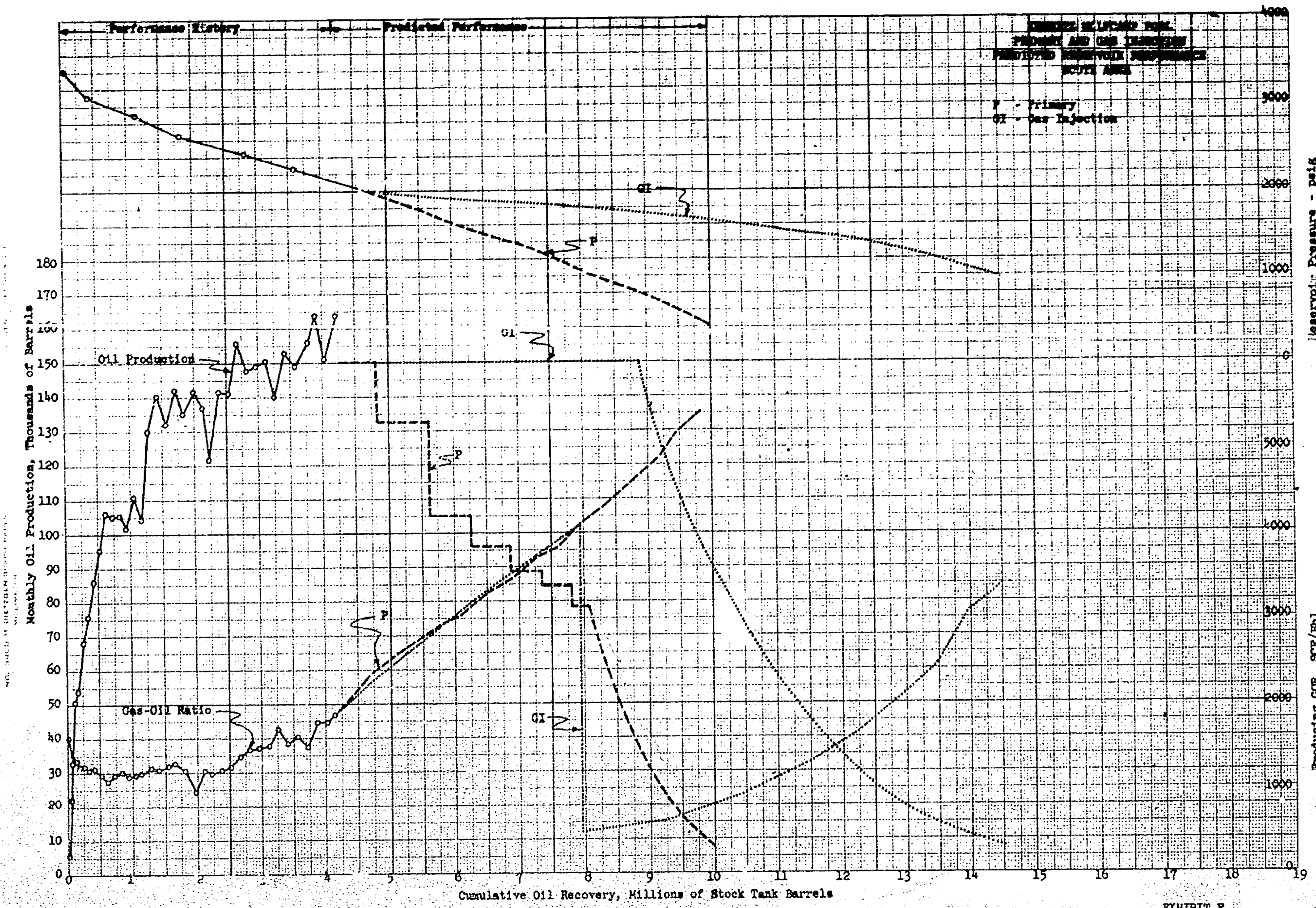




23



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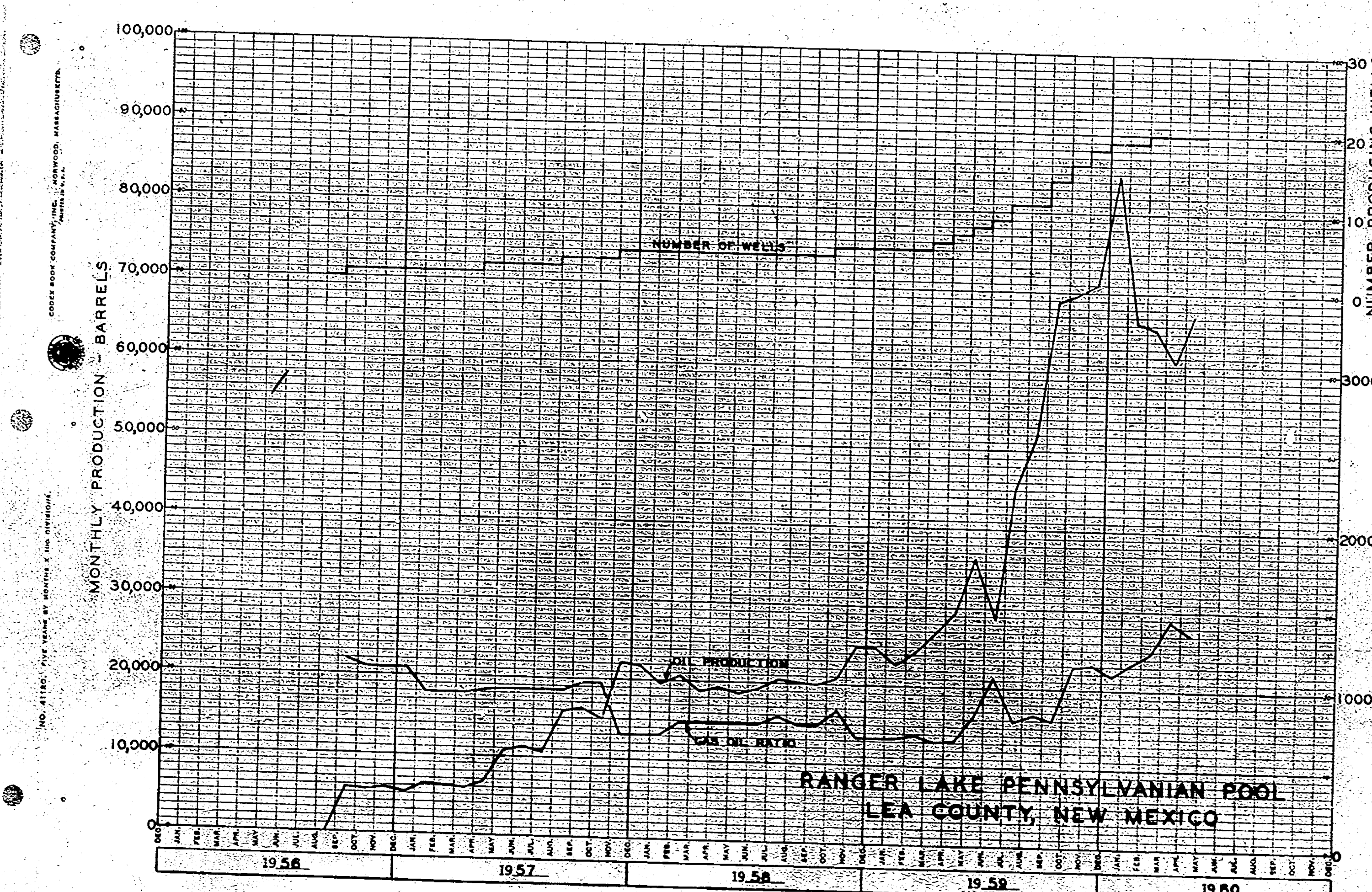
FIELD RULES HEARING
RANGER LAKE (PENNSYLVANIAN) FIELD
AUGUST 17, 1960

The information contained in this report has been assembled by Phillips Petroleum Company. The interpretation of these data and recommendations represents the views of Phillips Petroleum Company and are not necessarily concurred in by the other operators in the field.

- RAMBER LAKE (CONVENTINANAS) FIELD**
LEA COUNTY, NEW MEXICO
1. **PHYSICAL PROPERTIES OF THE RESERVOIR ROCK**
- a. Approximate Average Porosity 6.7%
 - b. Maximum Measured Permeability 28 md
 - c. Average Concrete Water 338
2. **STRUCTURAL FEATURES OF THE RESERVOIR**
- a. Structure Map See Geological Exhibits
 - b. Cross Sections
 - c. Original Gas-Oil Contact Not Applicable
 - d. Original Water-Oil Contact 4210 ft. subsea
3. **CHARACTERISTICS OF RESERVOIR FLUID**
- a. Average Gravity of 8.7. Oil 40.4° API
 - b. Estimated Saturation Pressure 6200 psia
 - c. Formation Volume Factor 1.609
 - d. Solubility A. Saturation Pressure 1.430
 - B. Solubility At Original Pressure 75% cf/b
 - C. Saturation Pressure 75% cf/b
4. **PRESSURE AND TEMPERATURE**
- a. Original Reservoir Pressure 3620 psi
 - b. Reservoir Temperature 160° F
 - c. Reservoir Pressure History See Attachment
 - d. Average Shut-In Pressure to Pressure Survey 48 hours
 - e. Productivity Indices Data Range - 30/Days/Psi Pressure Drop .793 to 1.553
5. **STATISTICAL DATA**
- a. Accumulated Production to 6-1-60
Oil 1,238,365 bbls.
Gas 1,175,405 Mcf
Water 13,490 bbls.
b. Monthly Oil Production 6,112
c. Monthly Production (Oil Ratio) 6.1%
d. Number of Producing Wells 20
e. Spacing Pattern
f. State of Depletion Staggered 80-Acre Unit Development
6. **GENERAL RESERVOIR REMARKS**
- Originally this was an understratified crude which produced by fluid expansion above the saturation pressure. Indications are the reservoir is not being drained under a solution gas drive mechanism. There is no

PRODUCTION DATA									
BARBERS LAKE (PENNSYLVANIA) FIELD									
BARBERS LAKE, NEW MEXICO									
NUMBER OF MONTHS		OIL PRODUCTION - BBLs.		GAS PRODUCTION - MCF		GAS OIL RATIO			
		MONTHLY AVERAGE		MONTHLY AVERAGE		MONTHLY AVERAGE			
1958	October	1	5,649	5,649	6,217	6,217	1,097		
	November	1	5,360	5,360	5,688	5,688	1,067		
	December	1	16,441	16,441	17,932	17,932	1,087		
1957	January	1	5,299	5,299	5,952	5,952	1,124		
	February	1	5,499	5,499	6,078	6,078	1,105		
	March	1	6,069	6,069	6,781	6,781	1,118		
	April	1	6,088	6,088	6,786	6,786	1,116		
	May	1	6,773	6,773	7,466	7,466	1,102		
	June	1	11,296	11,296	12,595	12,595	1,115		
	July	1	10,674	10,674	8,867	8,867	1,203		
	September	1	10,780	10,780	12,289	12,289	1,140		
	October	1	16,236	16,236	14,779	14,779	1,095		
	November	1	22,011	22,011	21,111	21,111	1,045		
	December	1	22,211	22,211	21,371	21,371	1,037		
	Yearly Total		137,546	137,546	107,612	107,612	125,744		
1956	January	1	23,648	23,648	21,354	21,354	1,106		
	February	1	20,465	20,465	19,700	19,700	1,039		
	March	1	20,669	20,669	19,700	19,700	1,039		
	April	1	20,465	20,465	19,700	19,700	1,039		
	May	1	18,869	18,869	17,338	17,338	1,087		
	June	1	18,869	18,869	17,338	17,338	1,087		
	August	1	20,412	20,412	19,700	19,700	1,039		
	September	1	19,700	19,700	18,869	18,869	1,047		
	October	1	20,412	20,412	19,700	19,700	1,039		
	November	1	20,412	20,412	19,700	19,700	1,039		
	December	1	20,412	20,412	19,700	19,700	1,039		
	Yearly Total		244,510	244,510	224,510	224,510	214,510		
1955	January	1	25,860	25,860	24,055	24,055	1,075		
	February	1	25,860	25,860	24,055	24,055	1,075		
	March	1	25,860	25,860	24,055	24,055	1,075		
	April	1	25,860	25,860	24,055	24,055	1,075		
	May	1	25,860	25,860	24,055	24,055	1,075		
	June	1	25,860	25,860	24,055	24,055	1,075		
	July	1	25,860	25,860	24,055	24,055	1,075		
	August	1	25,860	25,860	24,055	24,055	1,075		
	September	1	25,860	25,860	24,055	24,055	1,075		
	October	1	25,860	25,860	24,055	24,055	1,075		
	November	1	25,860	25,860	24,055	24,055	1,075		
	December	1	25,860	25,860	24,055	24,055	1,075		
	Yearly Total		310,320	310,320	288,660	288,660	277,660		

YEAR AND MONTH	NUMBER OF MOLES	OIL PRODUCTION - BBL.		GAS PRODUCTION - MCF		GAS OIL RATIO
		MONTHLY	ACCUMULATED	MONTHLY	ACCUMULATED	
1959 - Cont'd						
May	7	22,408	321,684	19,520	309,007	66
June	8	26,000	347,684	20,022	329,029	81
July	9	26,696	374,380	20,422	349,451	81
August	10	26,696	401,076	20,422	369,873	81
September	11	45,011	446,087	35,337	405,210	86
October	12	66,513	512,600	50,759	455,969	69
November	13	68,872	581,472	52,644	508,613	69
December	14	67,608	649,080	51,800	560,413	70
Yearly Total	138	479,539	693,056	424,045	644,527	1,136
				440,440	644,527	
1960						
January	15	86,670	777,726	92,369	836,940	1,099
February	16	1,004,112	1,781,838	1,004,112	1,781,838	1,000
March	20	651,506	2,433,344	651,506	2,433,344	1,000
April	20	651,506	3,084,850	651,506	3,084,850	1,000
May	20	67,289	3,152,139	91,764	3,176,614	1,124



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[illegible]

