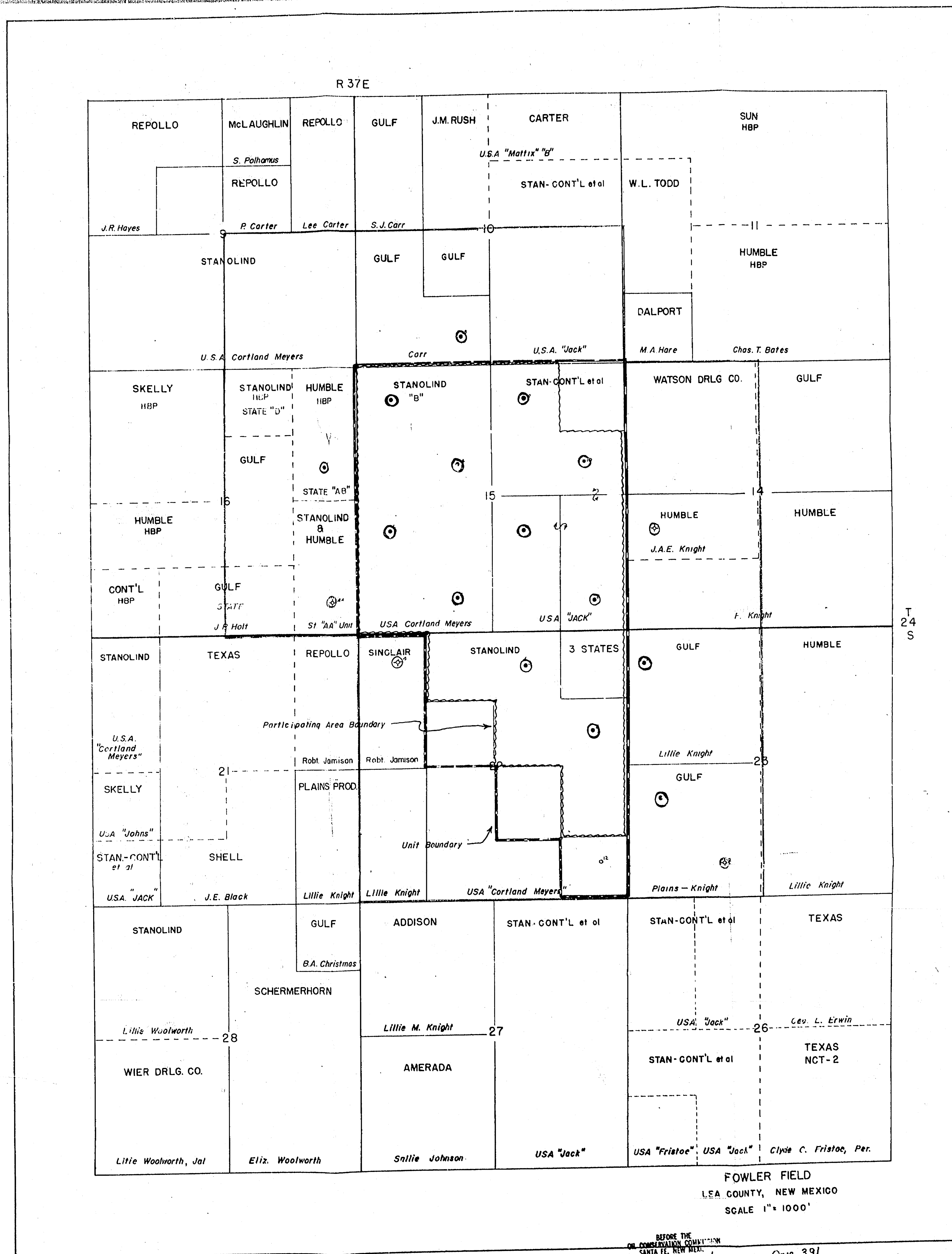


Case No.

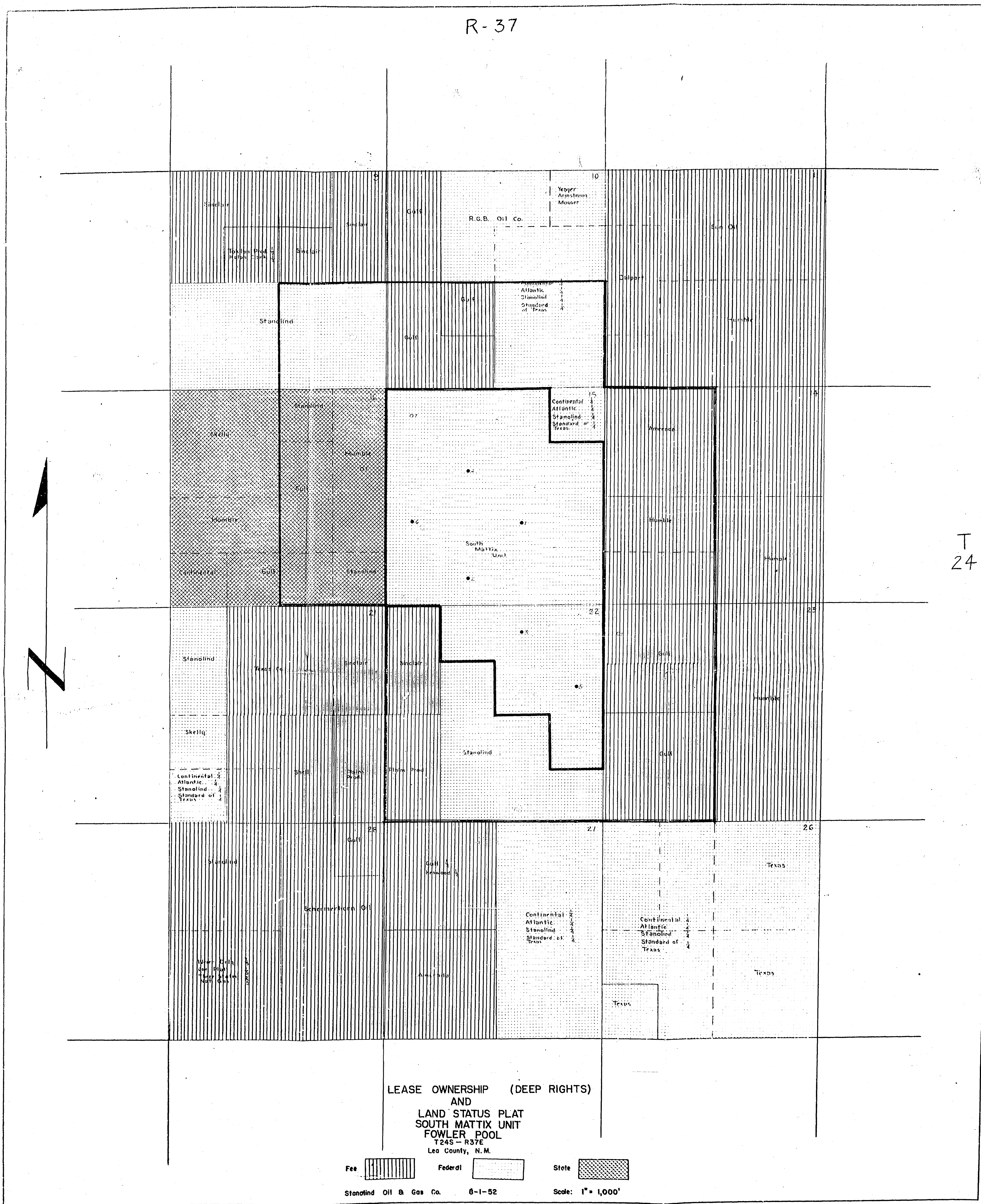
391

Large Exhibits



R-37

T
24

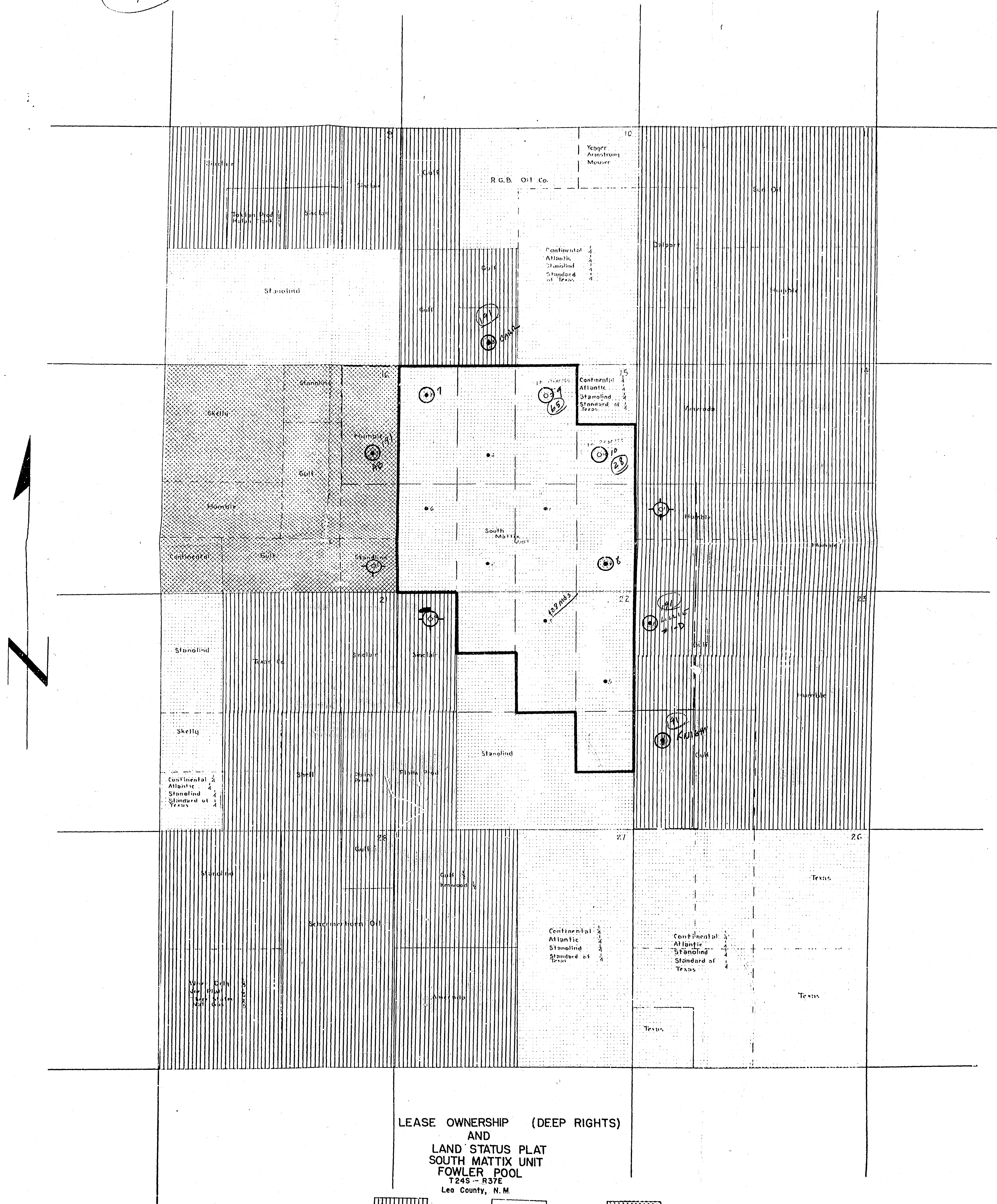


See 391 Standind 8-1-52

Page 1 of 1

1

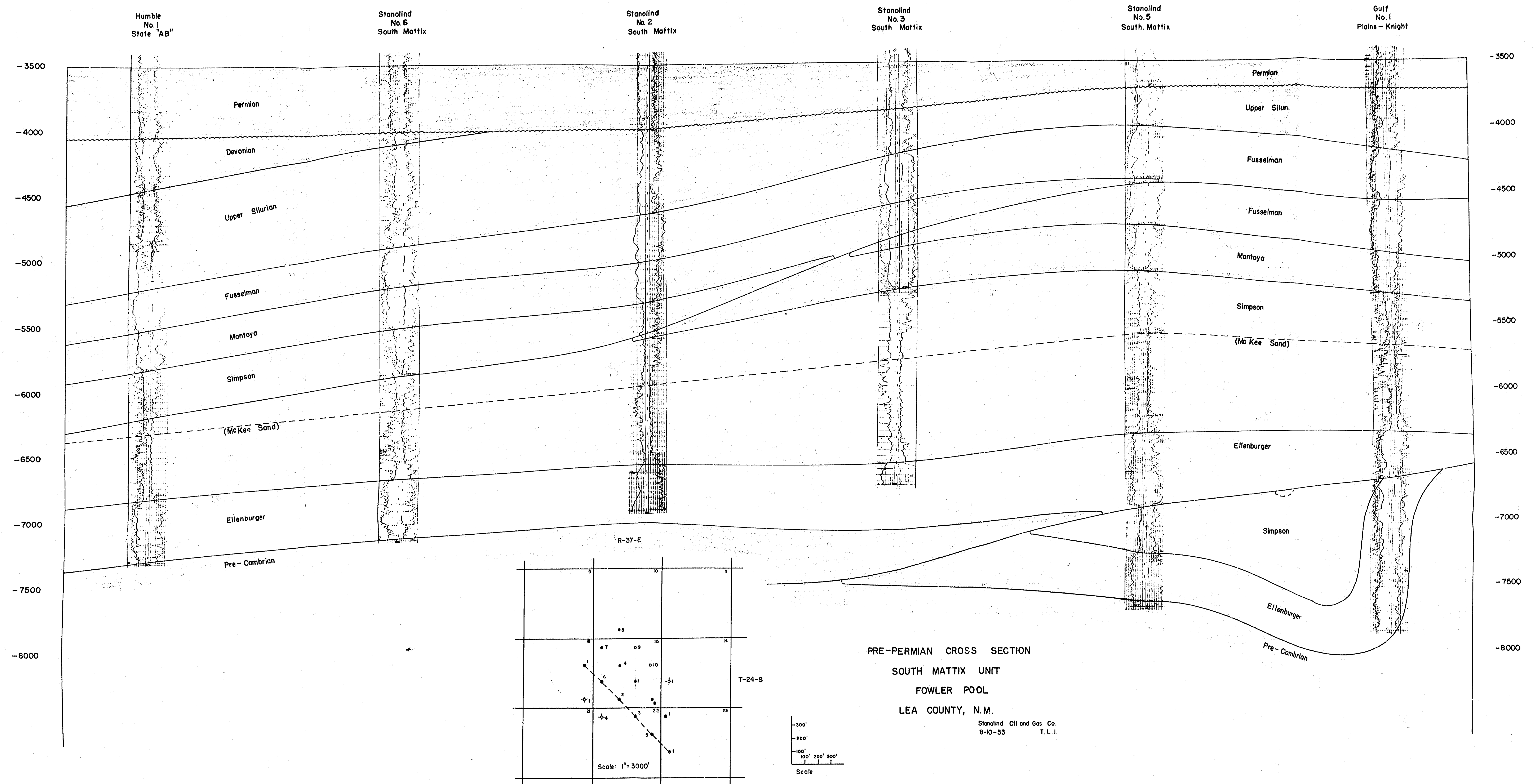
R-37

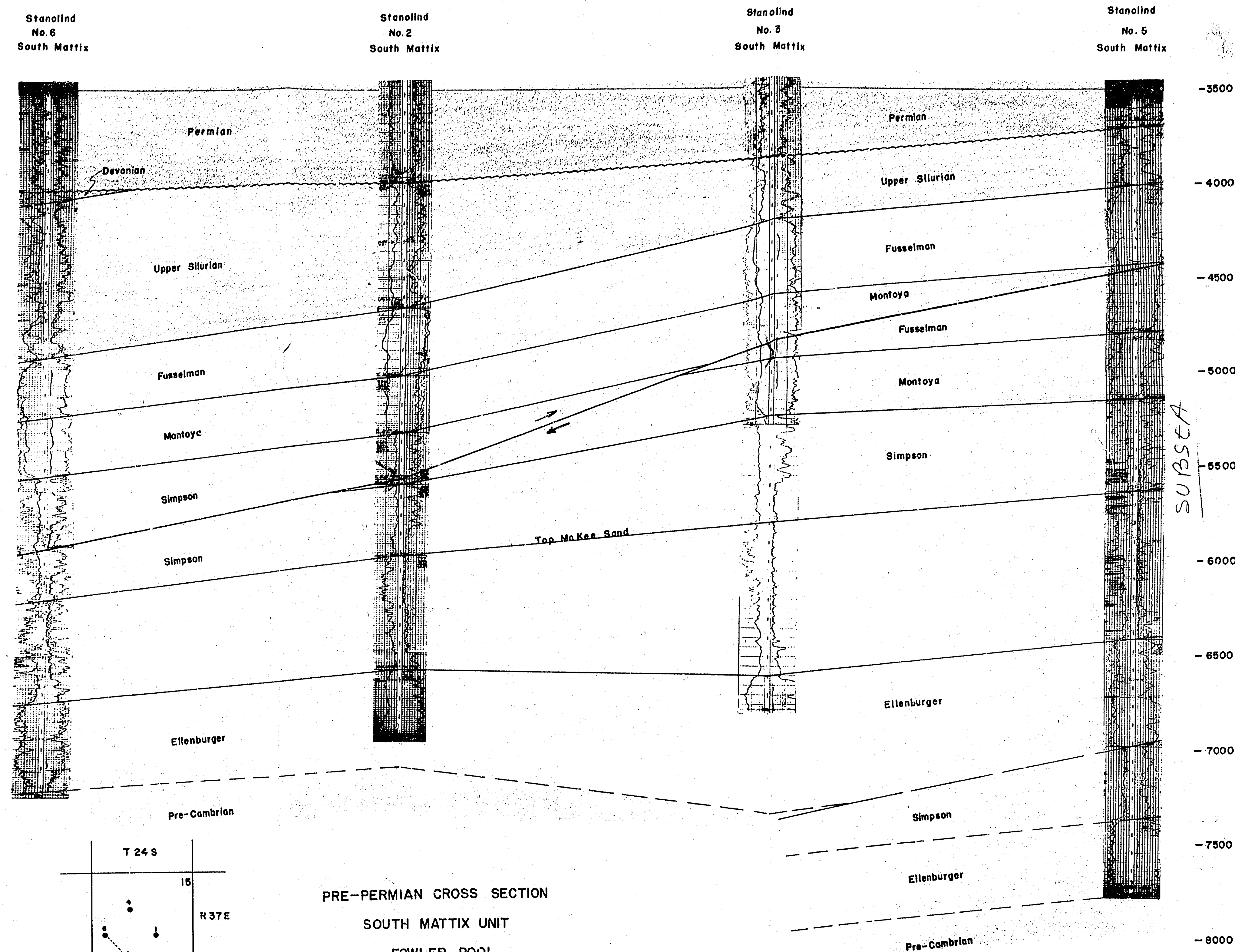


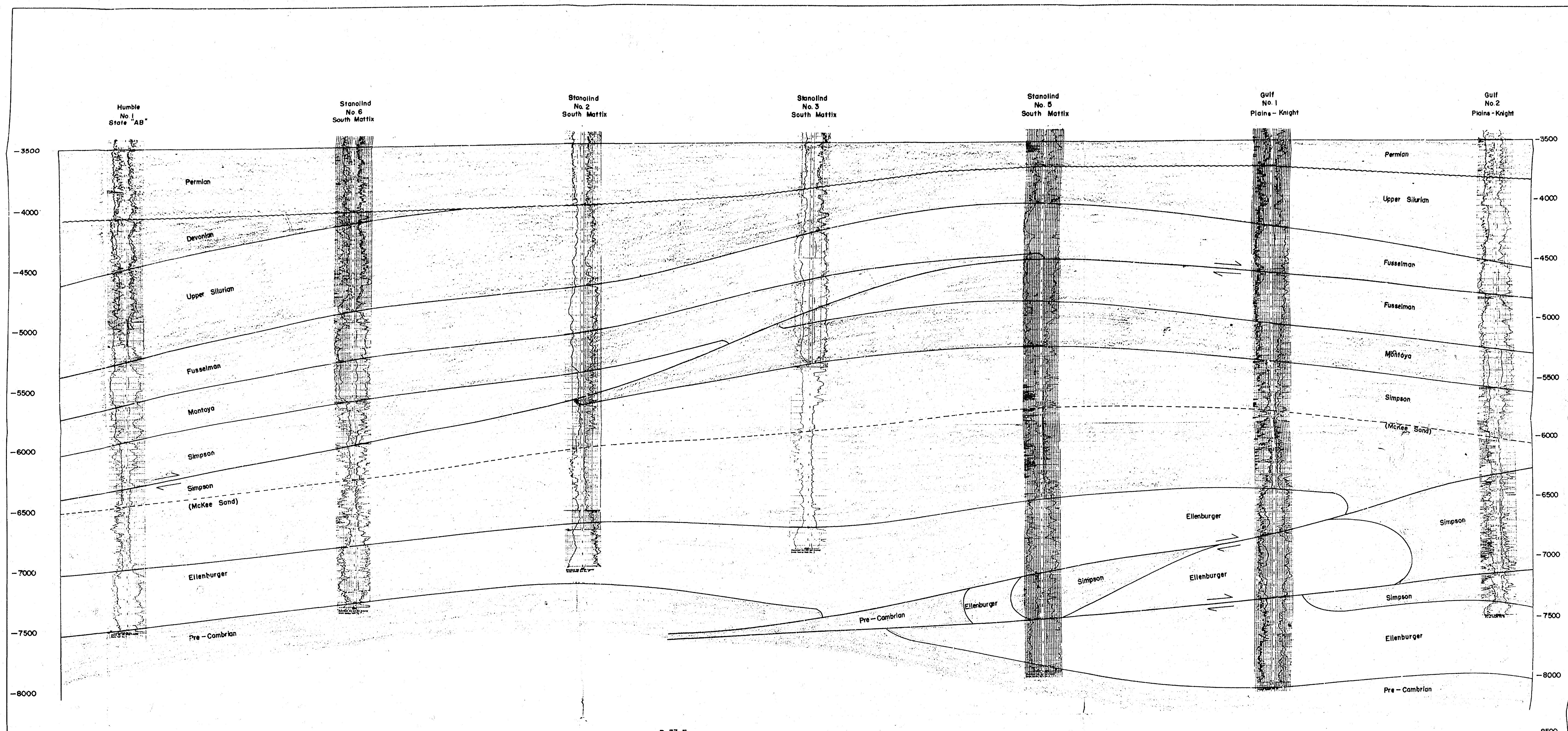
T
24

LEASE OWNERSHIP (DEEP RIGHTS)
AND
LAND STATUS PLAT
SOUTH MATTIX UNIT
FOWLER POOL
1245 - 1376
Lea County, N.M.

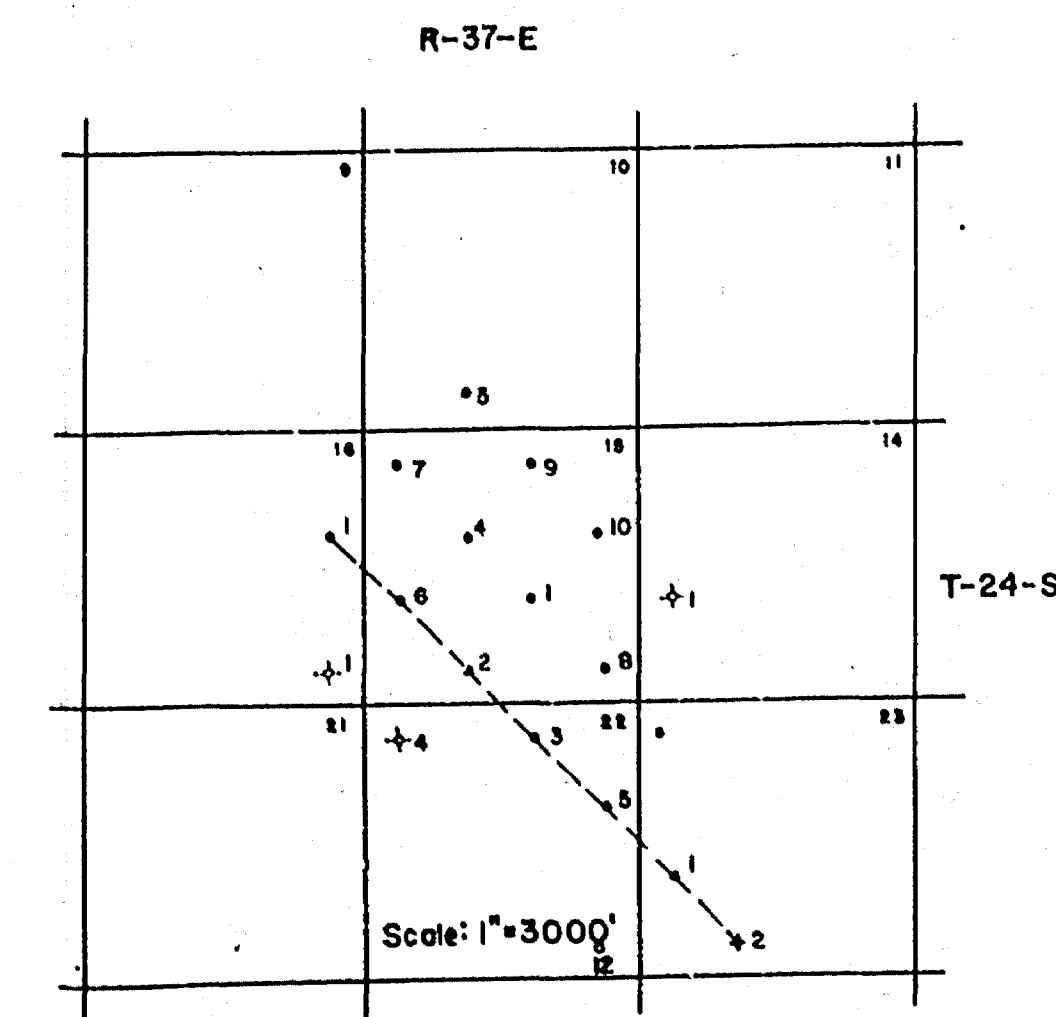
Fee Federal State
Standard Oil & Gas Co. 6-1-53 Scale: 1" = 1,000'







Memo
 To: *Completion Data*
 From: *WILLIAM B. MACEY*
 Chief Engineer
 1. - 5-6-49
 2. - 4-12-50
 3. - 12-13-50
 4. - 4-20-51
 5. - 12-14-51
 6. - 4-27-52

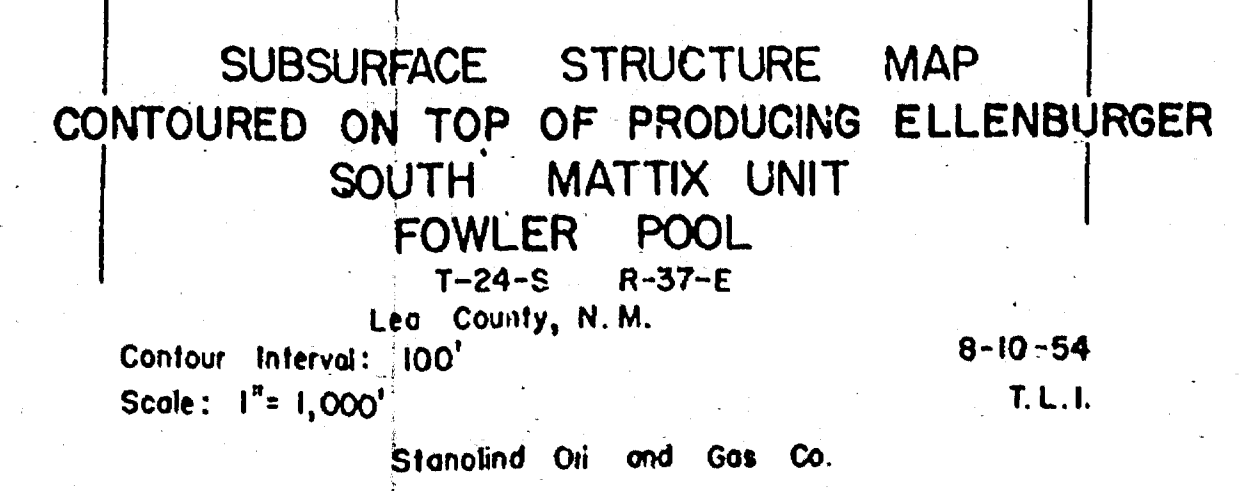


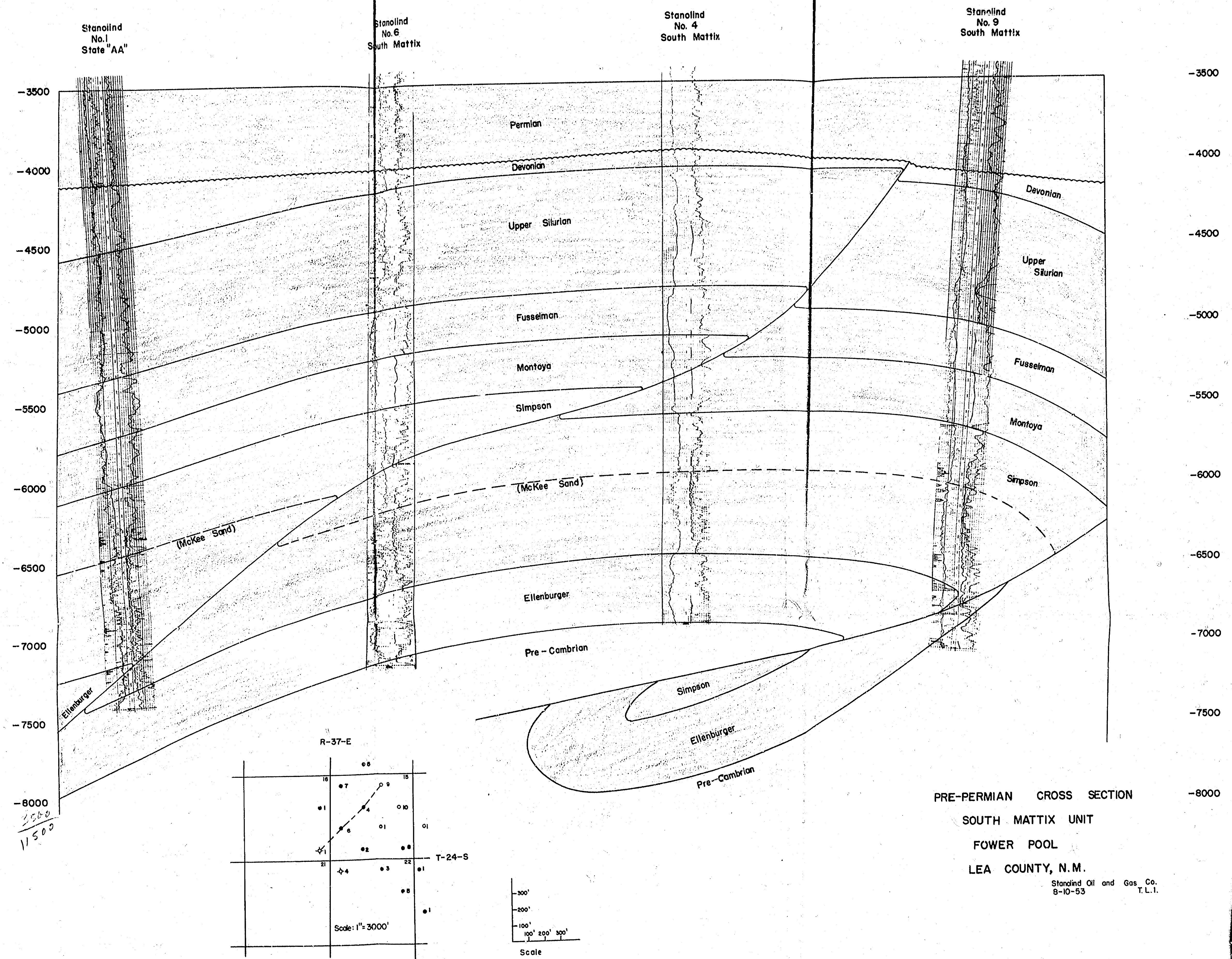
PRE-PERMIAN CROSS SECTION
 SOUTH MATTIX UNIT
 FOWLER POOL
 LEA COUNTY, N.M.
 Showing Oil and Gas Co.
 8-1-54 T.L.L.

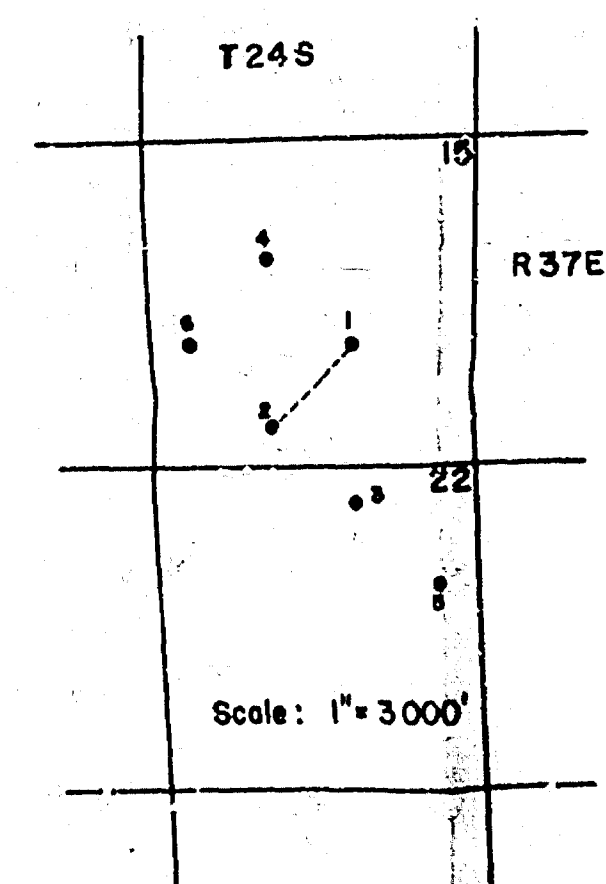
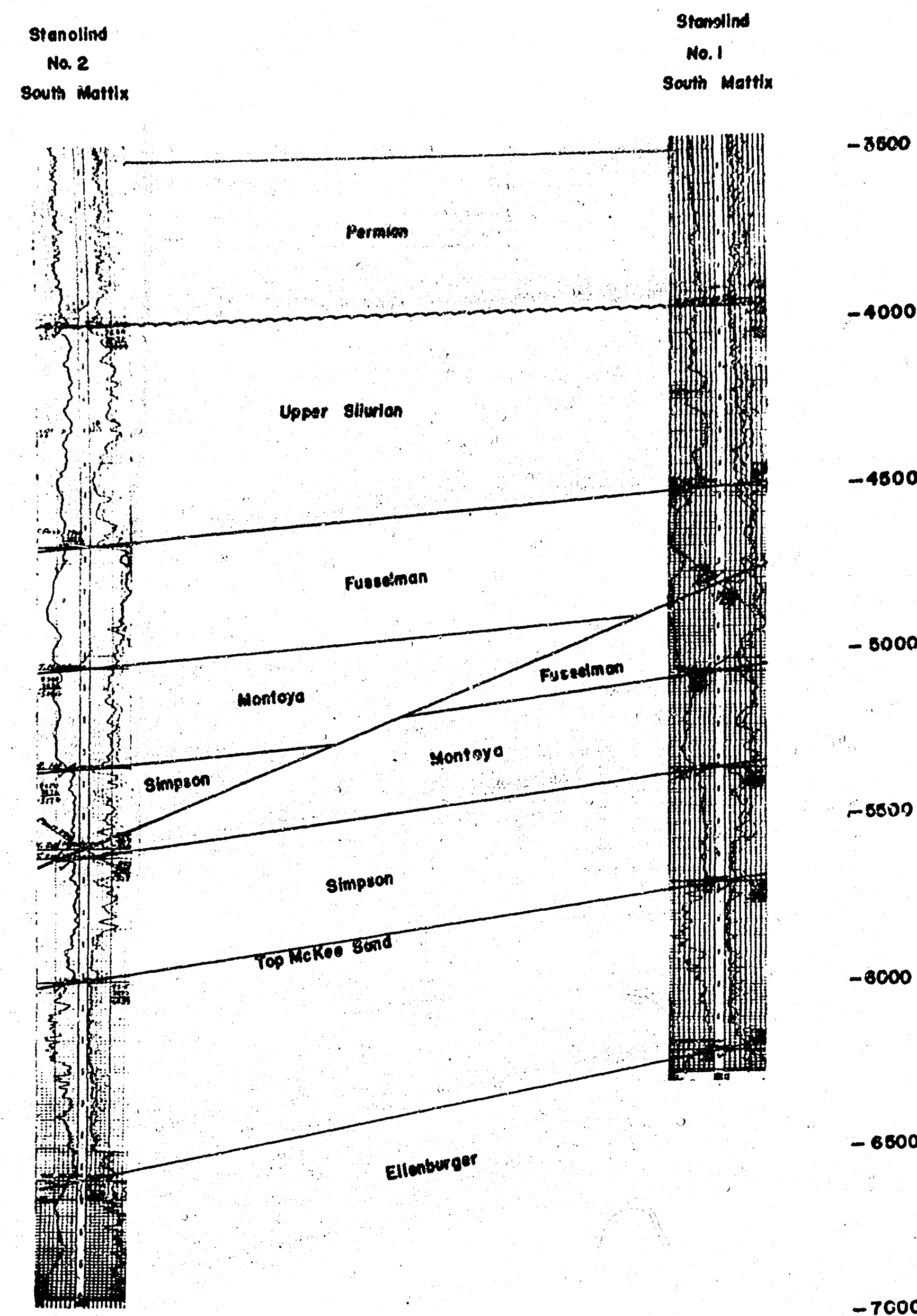
Case 391
Howard Exhibit No. 2
8-12-54

BEFORE THE
 DEPARTMENT OF COMMERCE
 SOUTH TEXAS
 8-1-54 T.L.L.
 CASE 391

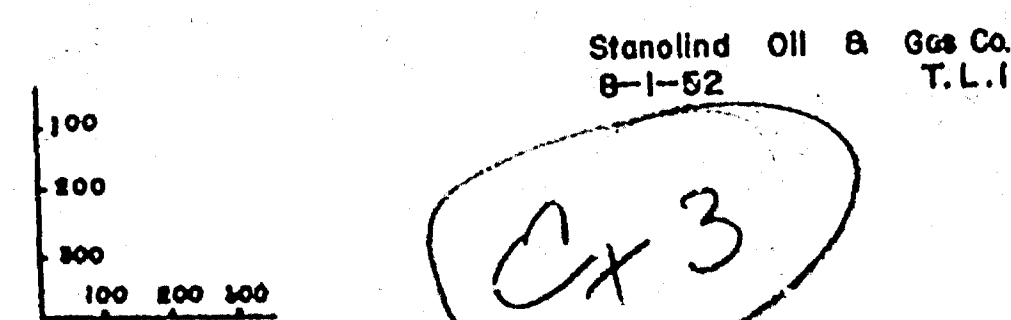
T
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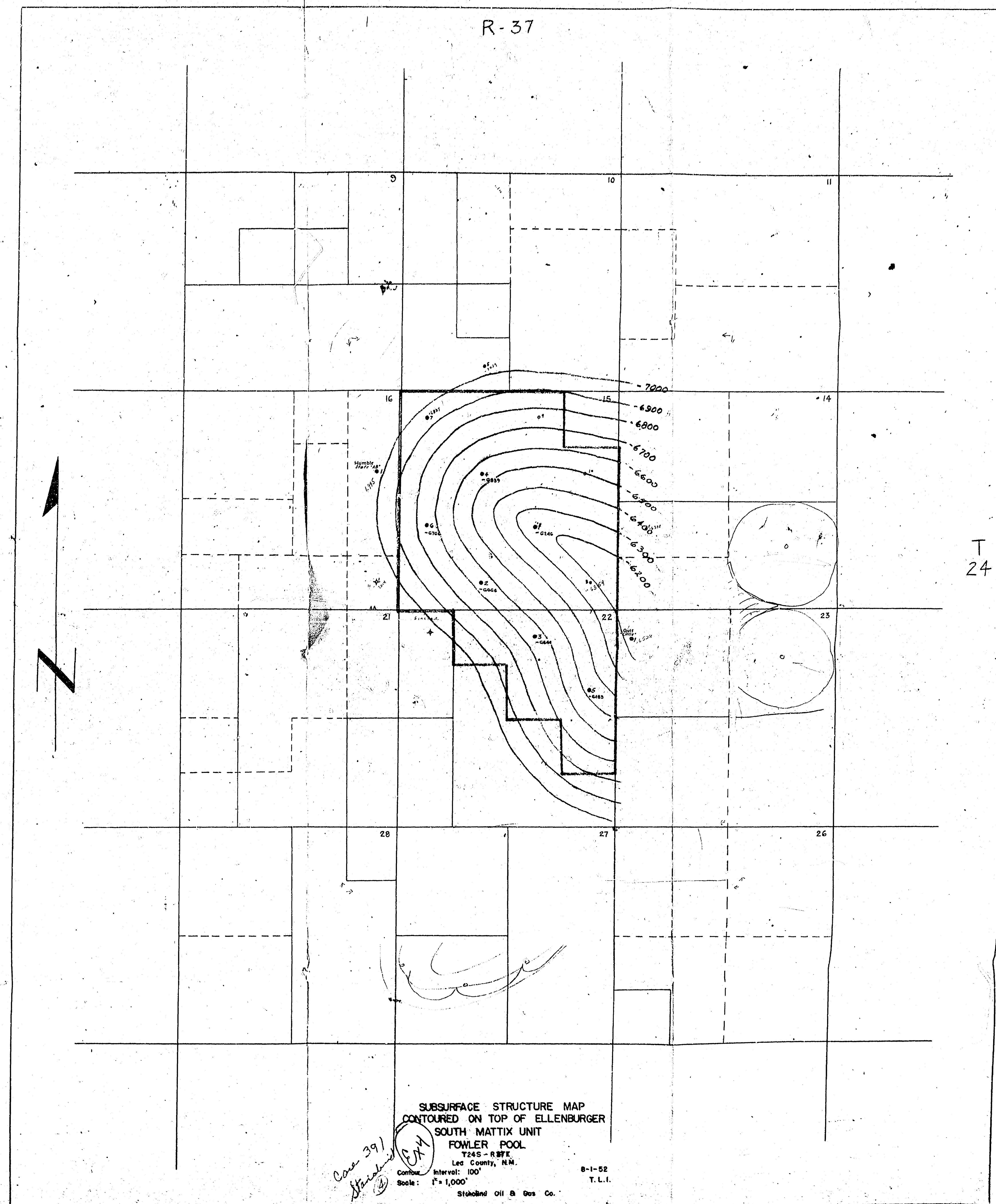


PRE-PERMIAN CROSS SECTION
SOUTH MATTIX UNIT
FOWLER POOL
LEA COUNTY, N.M.



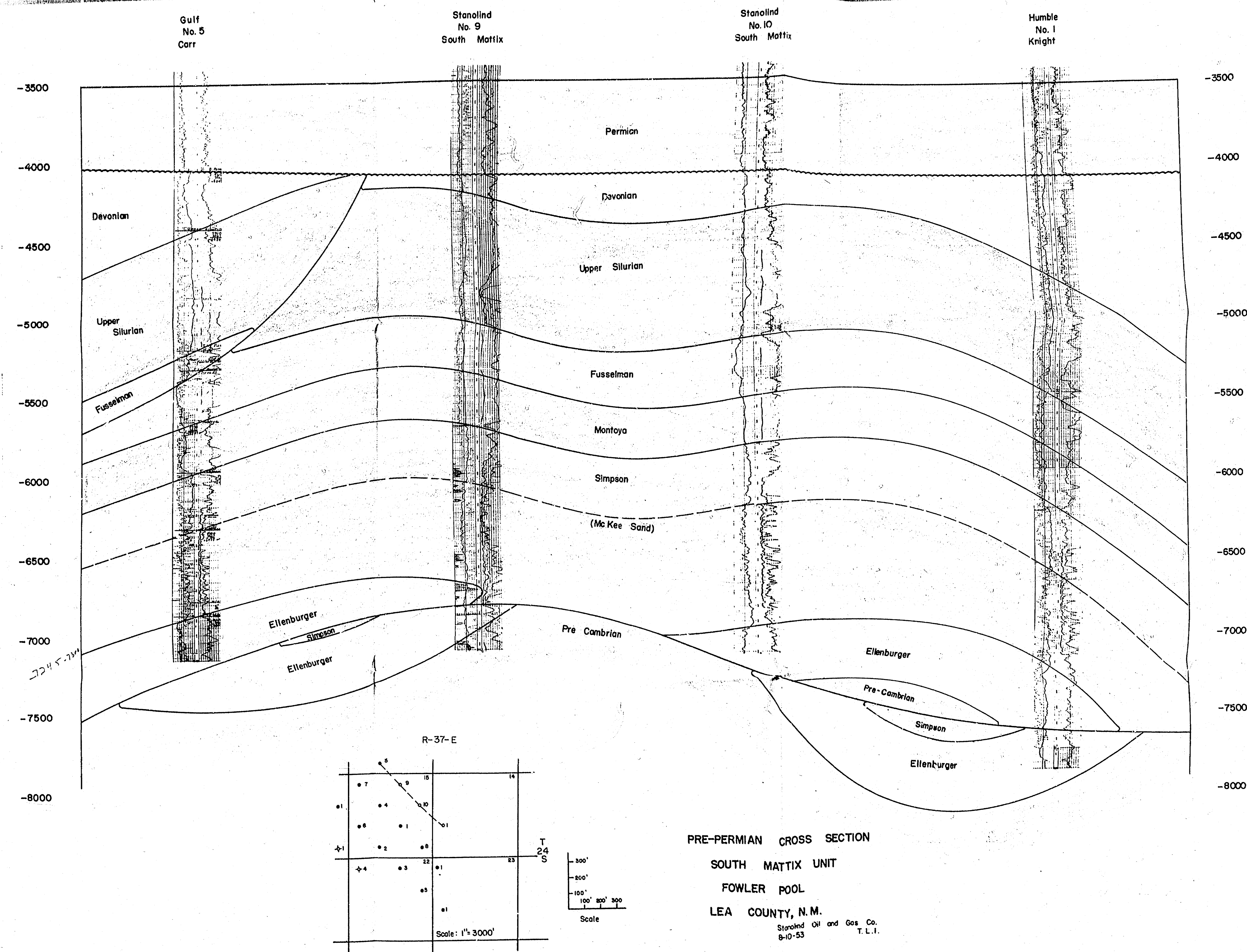
Scale: 1" = 3,000'

Stanolind Oil & Gas Co.
8-1-52
T.L.I.



SUBSURFACE STRUCTURE MAP
CONTOURED ON TOP OF ELLENBURGER
SOUTH MATTIX UNIT
FOWLER POOL
T24S - R37E
Lea County, N.M.
Contour Interval: 100'
Scale: 1" = 1,000'
Stanolind Oil & Gas Co.
8-1-52
T.L.I.

Case 391
Stanolind
Cx 3



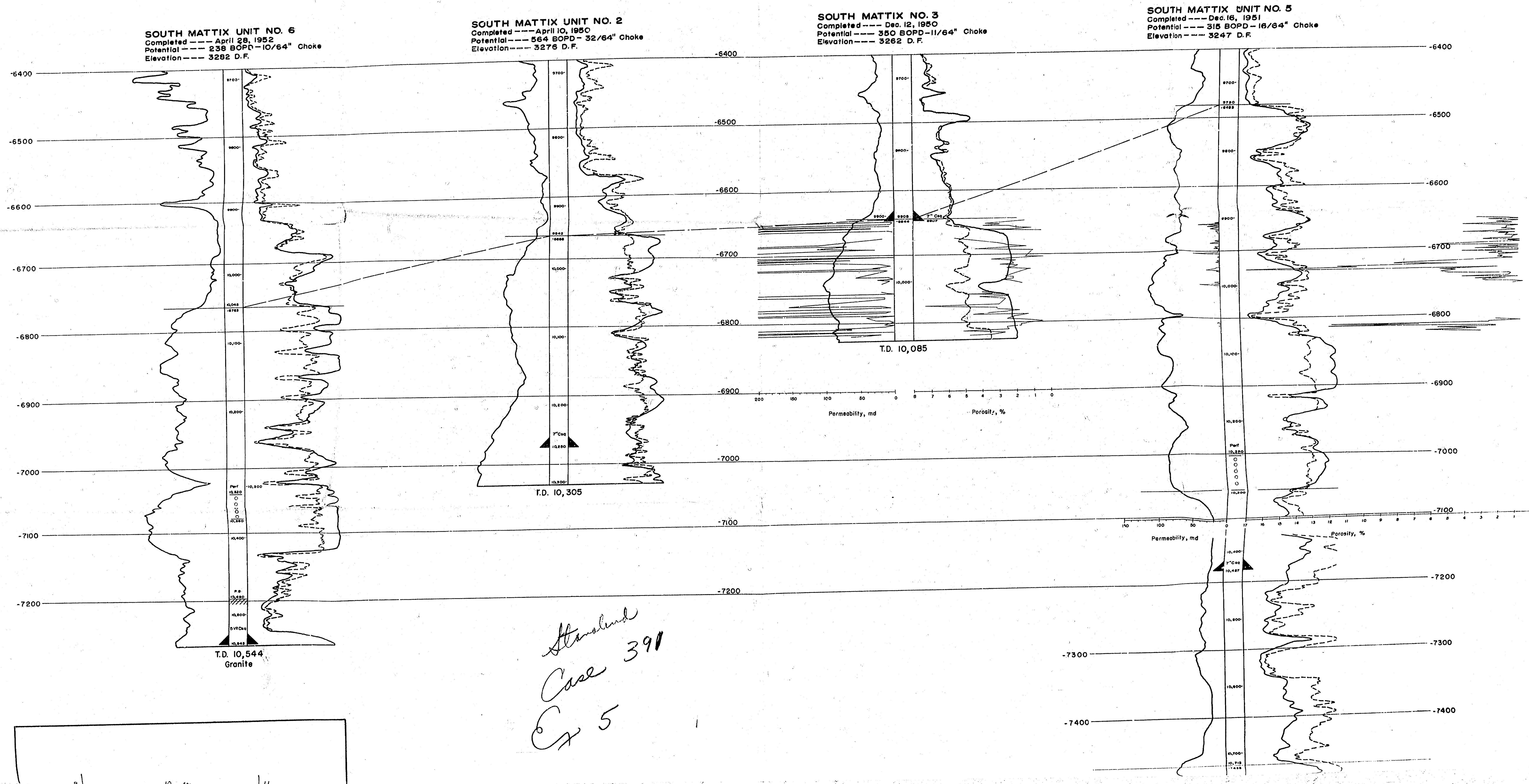
CROSS SECTION A-A'

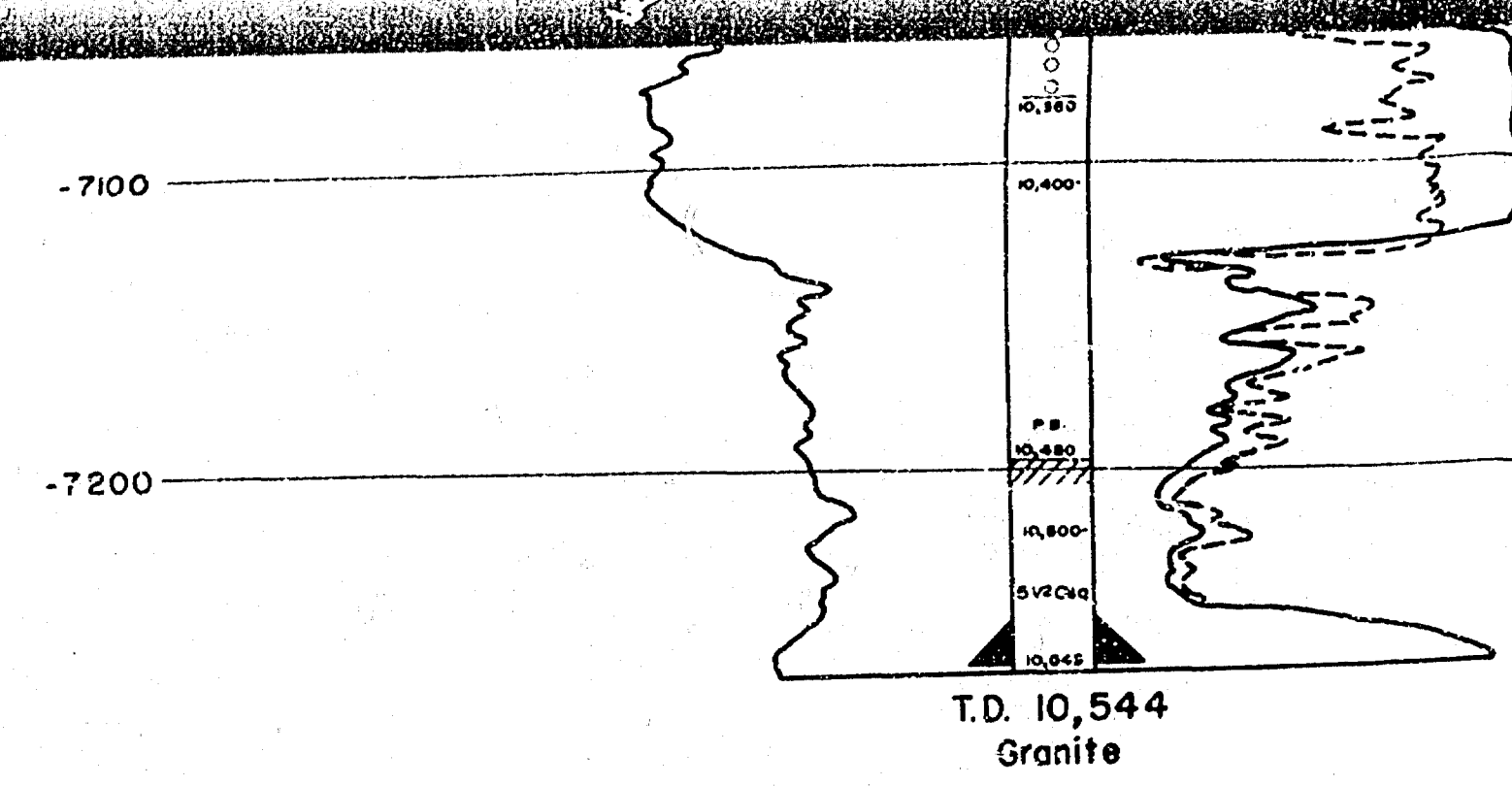
FOWLER FIELD, LEA COUNTY NEW MEXICO

T-24-S; R-37-E

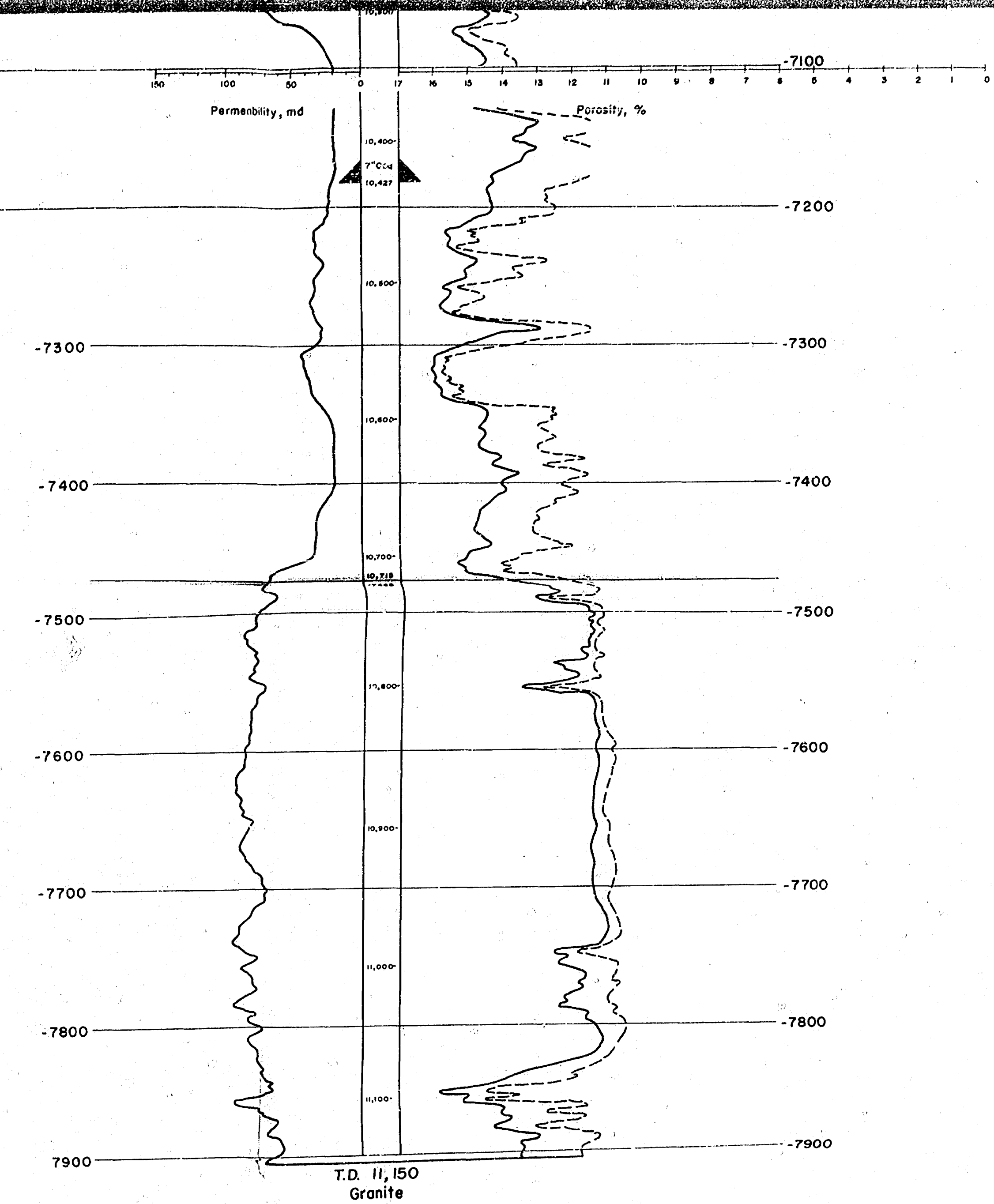
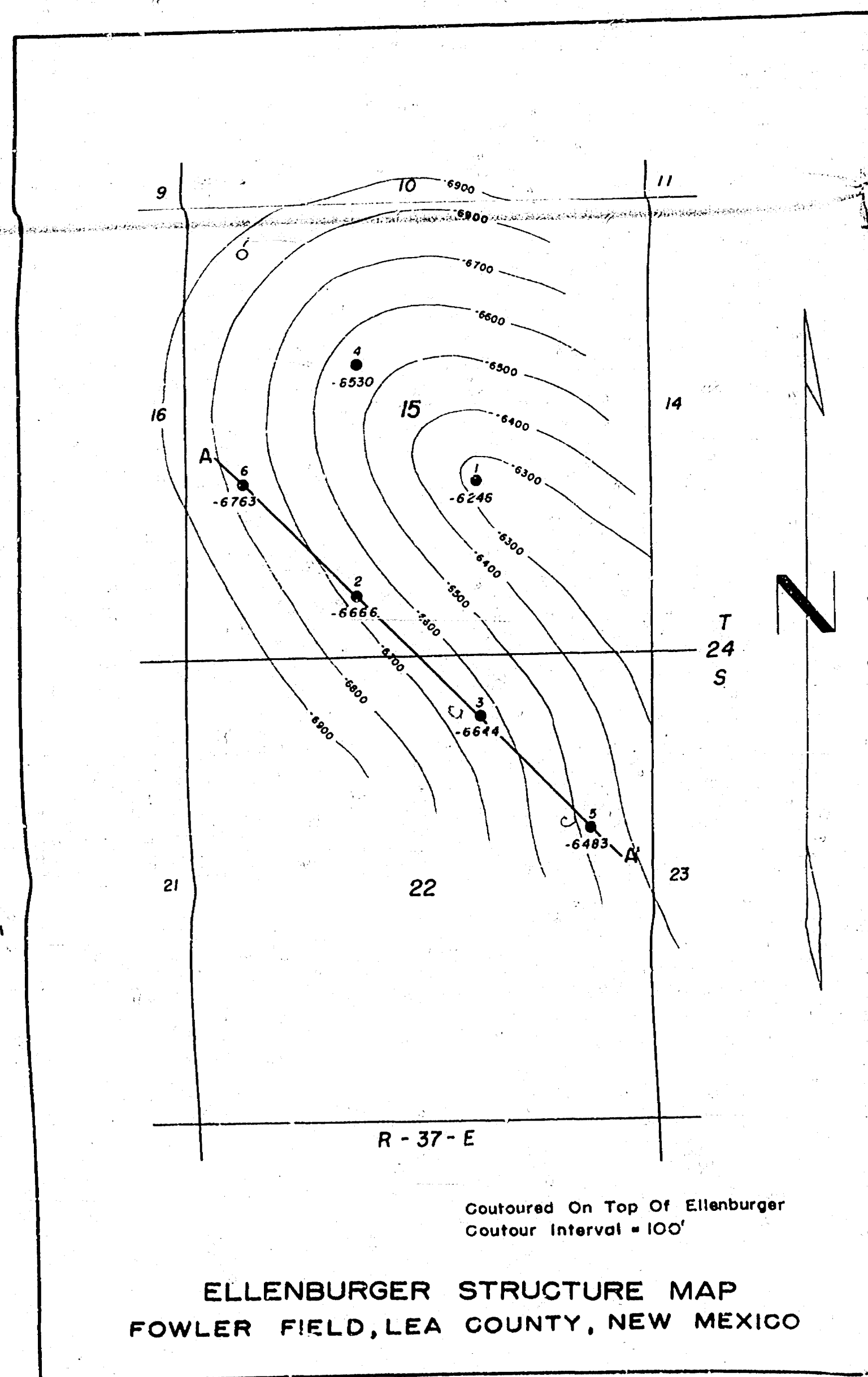
VERTICAL SCALE 2"=100'

HORIZONTAL SCALE 1"=100'





*Standard
Case 391
C 5*



5

R-37



20
600
1200
2400
1600

15
600

13
100
20

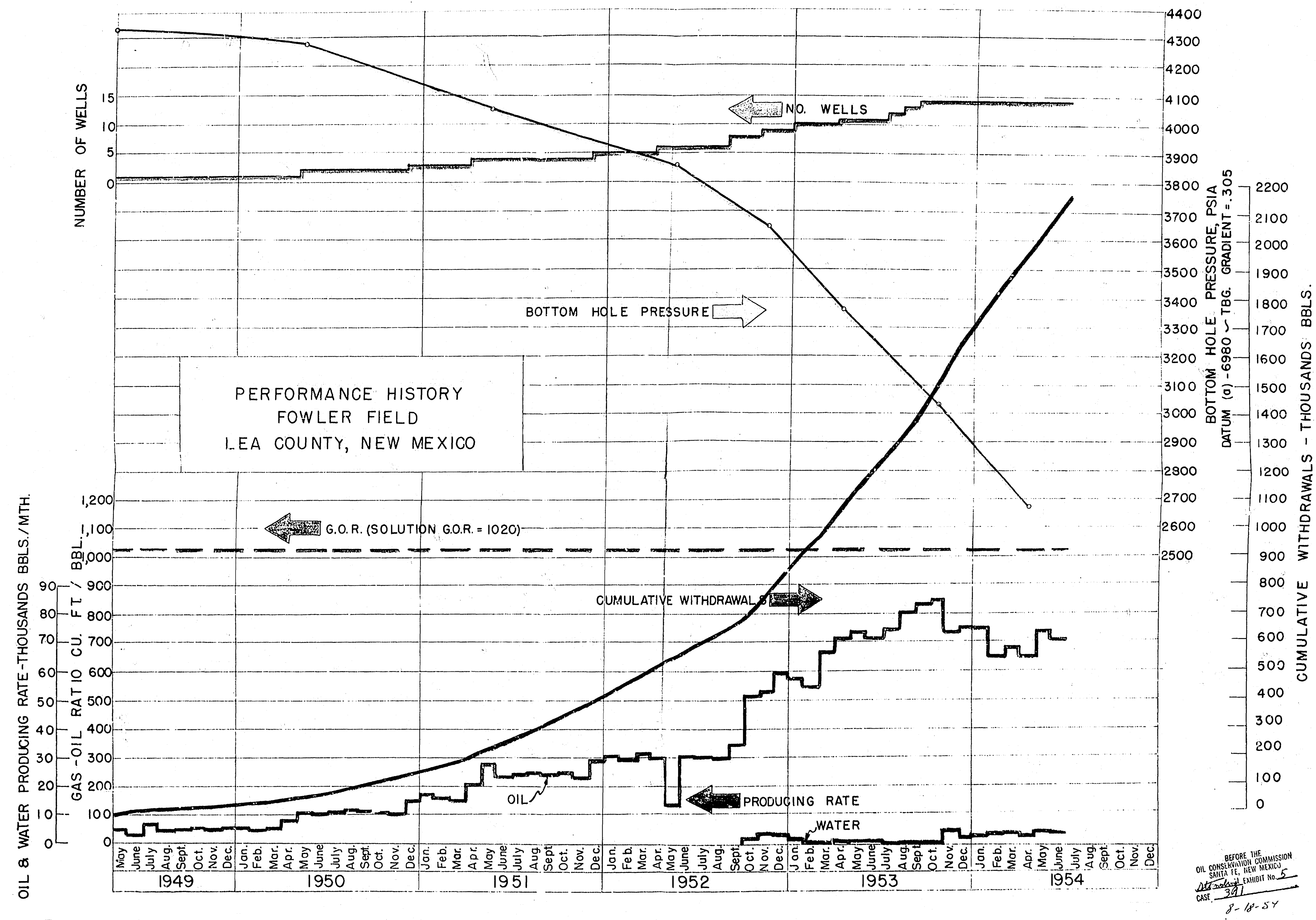
T
24

23
120

75
2400
2400

SUBSURFACE STRUCTURE MAP
CONTOURED ON TOP OF ELLENBURGER
SOUTH MATIX UNIT
FOWLER POOL
T-24-S R-37-E
Leo County, N. M.
Contour Interval: 100'
Scale: 1" = 1,000'
8-10-53
T.L.I.
Standard Oil and Gas Co.

20

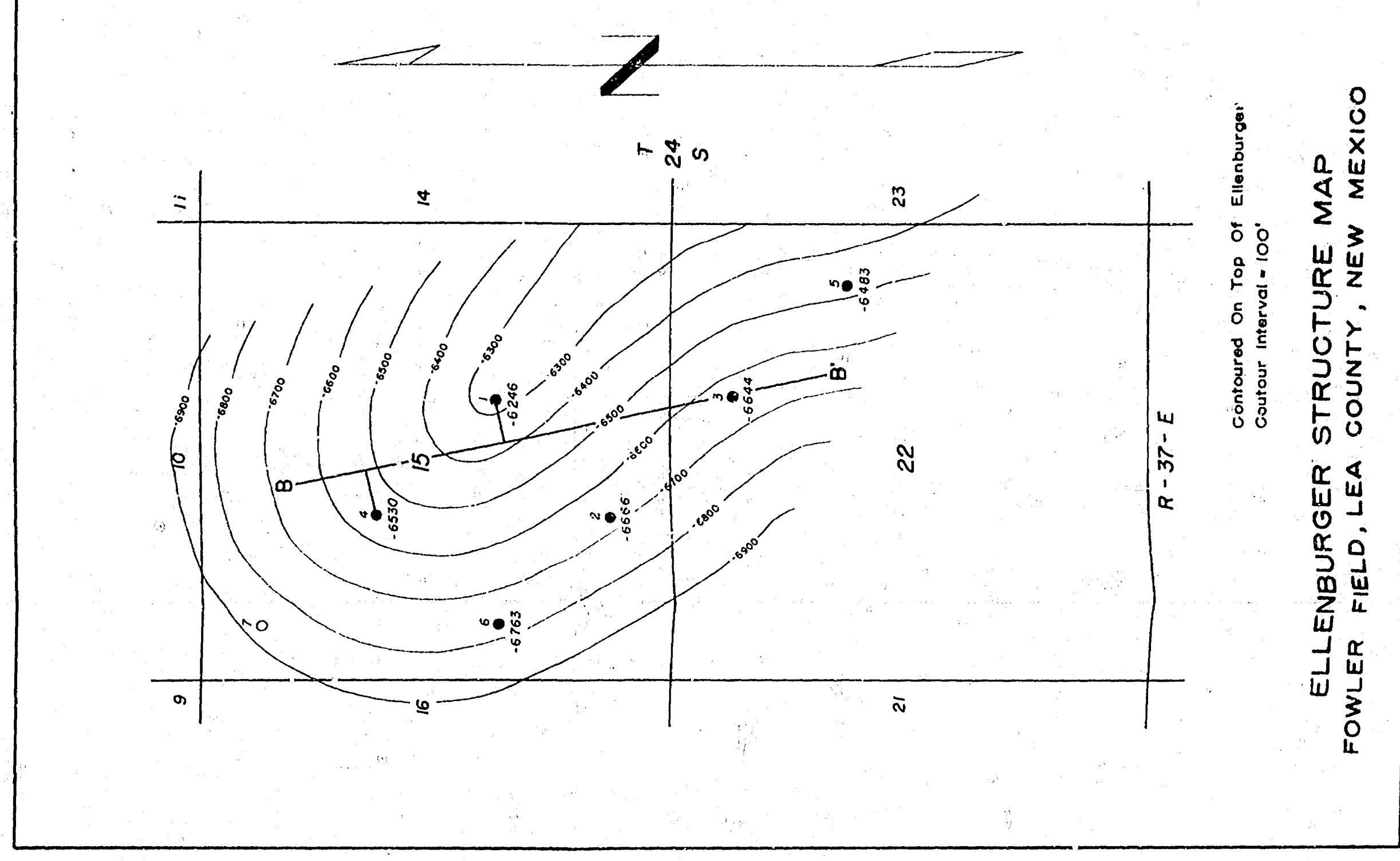
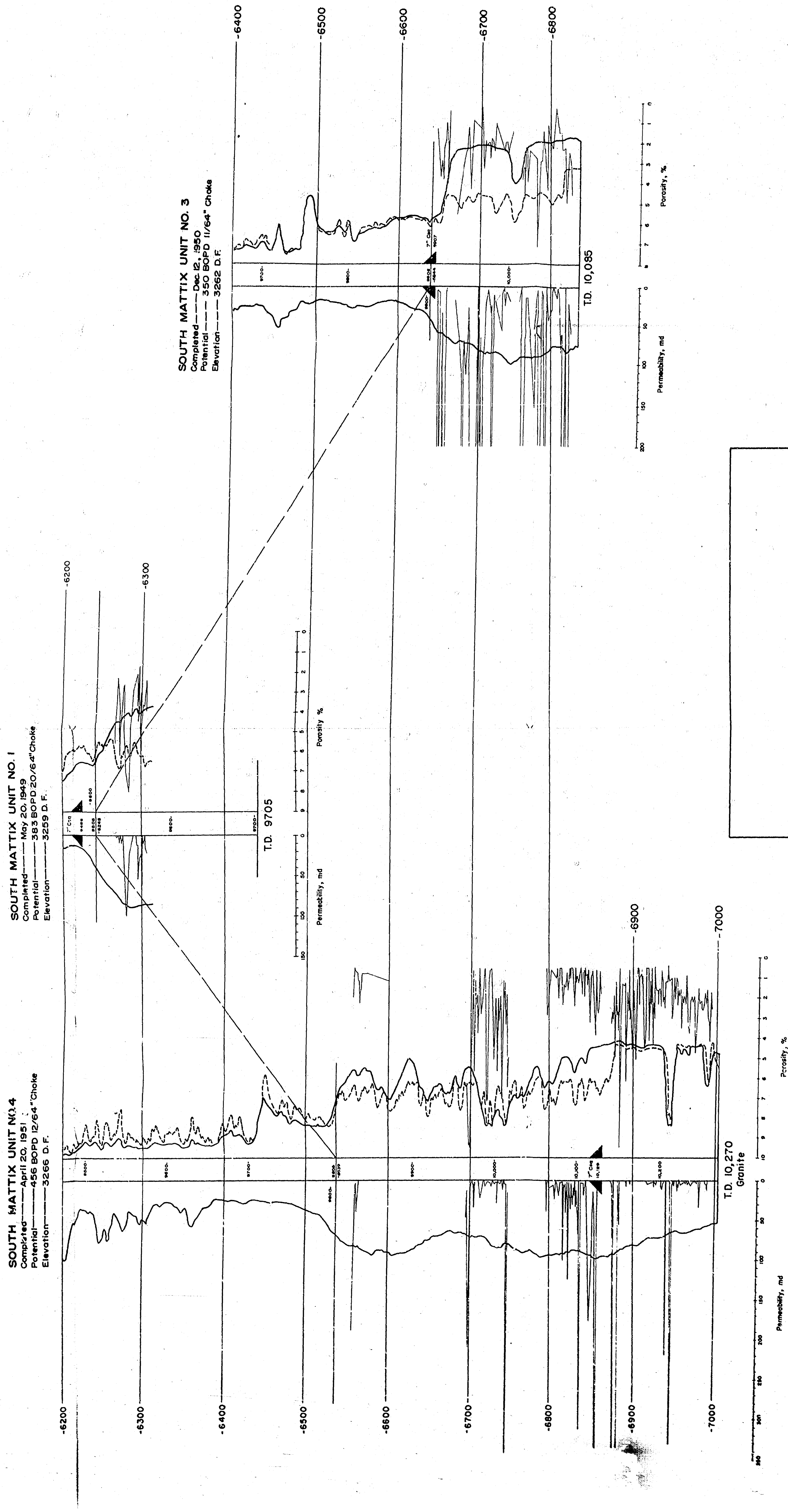


CROSS SECTION B-B'

FWLER FIELD, LEA COUNTY, NEW MEXICO

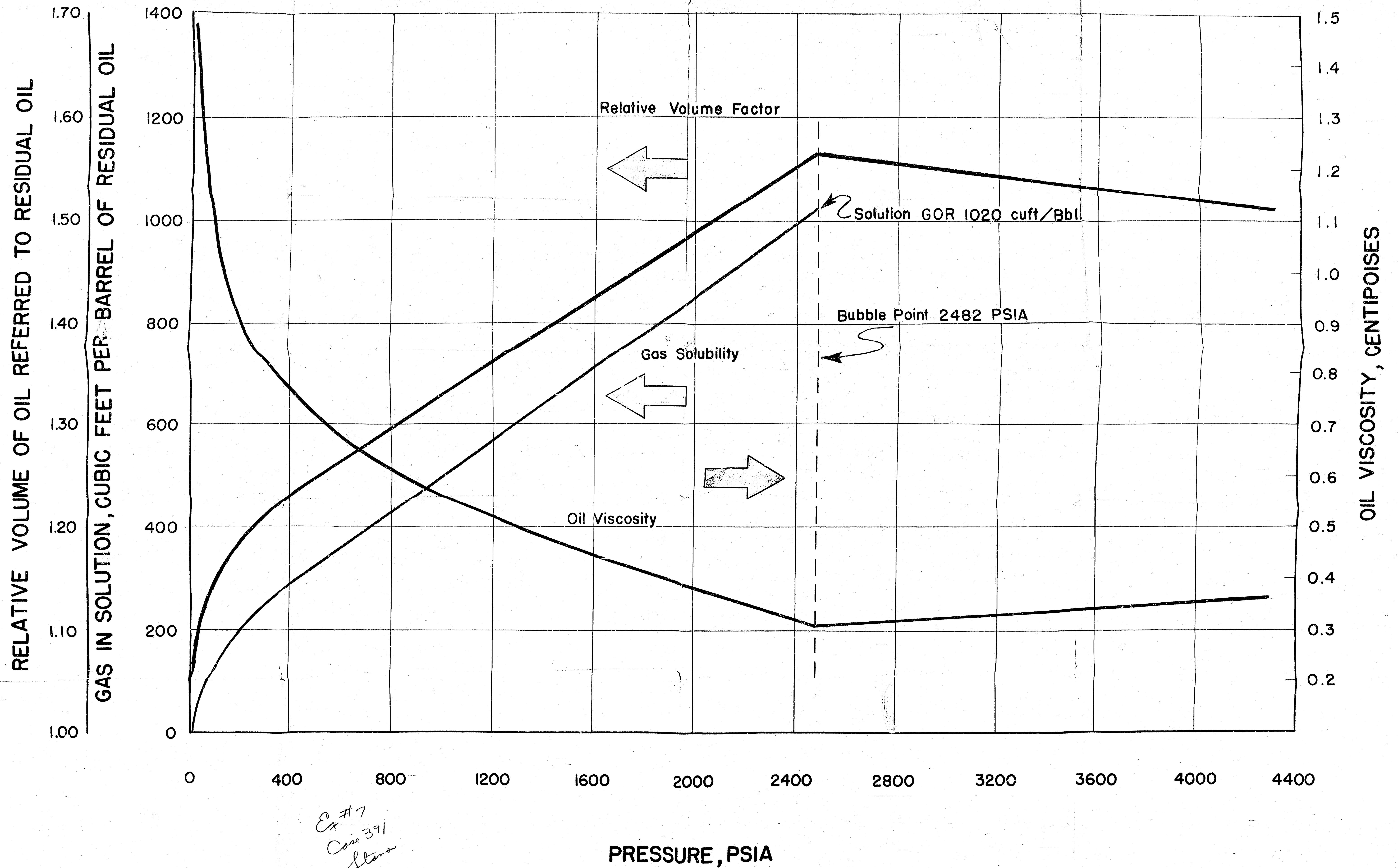
T-24-S; R-37-E

VERTICAL SCALE 2" = 100' HORIZONTAL SCALE 1" = 100'



RESERVOIR FLUID CHARACTERISTICS
FOWLER FIELD
LEA COUNTY, NEW MEXICO
SOUTH MATTIX UNIT NO. 1

Ex. No. 7
Case 391
EW 8-9-57



KEY MAP

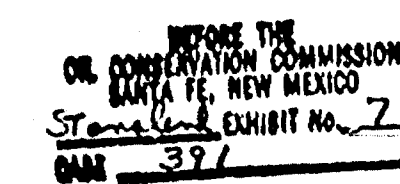
S. J. CARR

STATE AB

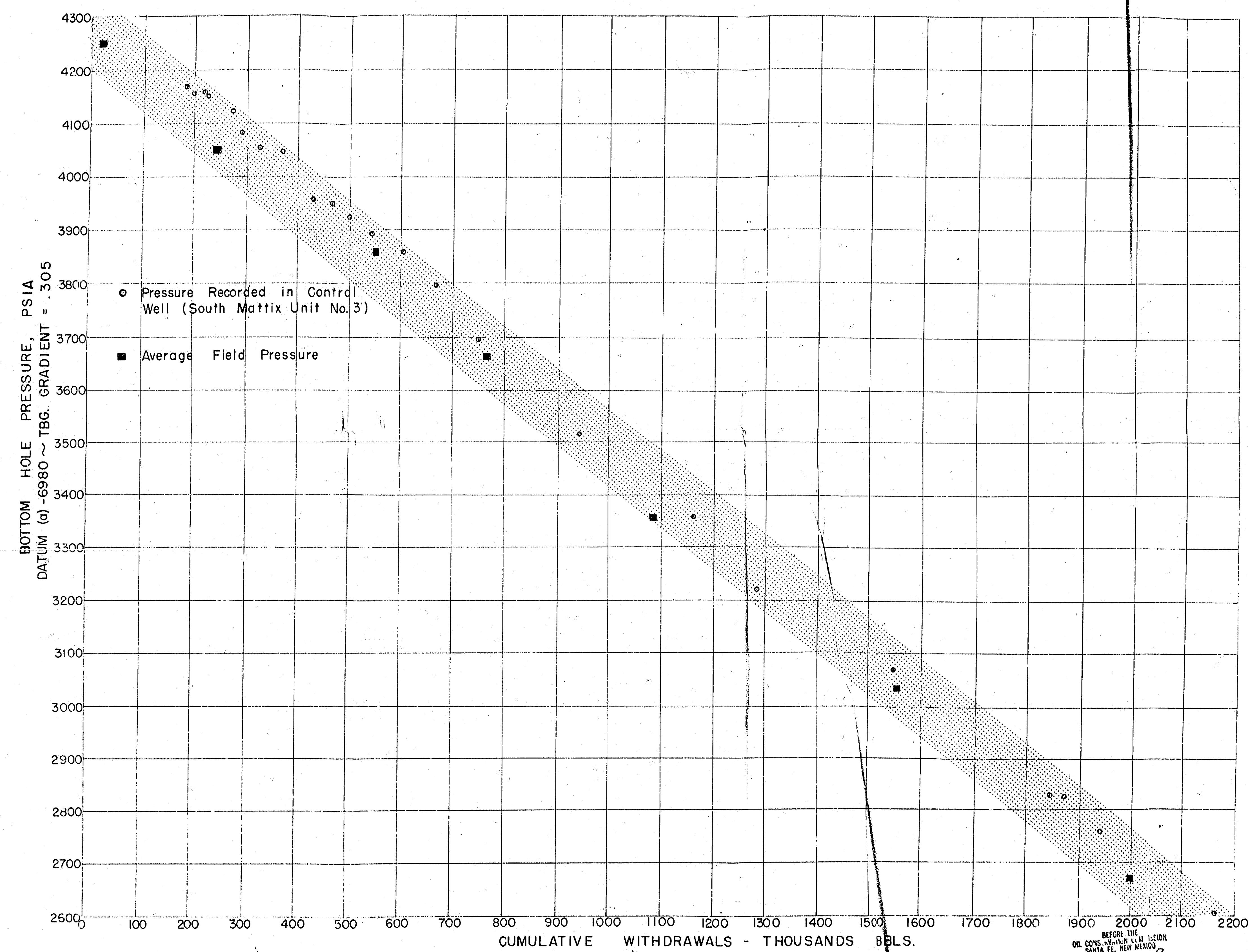
LILLIE SHUT IN WELL

GULF PLAINS KNIGHT

South Matrix Unit



BOTTOM HOLE PRESSURE VS. CUMULATIVE WITHDRAWALS - FOWLER FIELD, LEA COUNTY, NEW MEXICO



OIL CORP. OF AMERICA
 LEA COUNTY, NEW MEXICO
 STANDARD UNIT NO. 2
 377

OIL PRODUCING RATE-THOUSANDS BBL/MTH.

NUMBER OF WELLS

GAS-OIL RATIO CU. FT/BBL.

60
50
40
30
20
10
0

1200
1000
800
600
400
200
0

15
10
5
0

4200
4100
4000
3900
3800
3700
3600
3500
3400
3300
3200
3100
3000
2900
2800
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0

May 1949 June 1949 July 1949 Aug. 1949 Sept. 1949 Oct. 1949 Nov. 1949 Dec. 1949 Jan. 1950 Feb. 1950 Mar. 1950 Apr. 1950 May 1950 June 1950 July 1950 Aug. 1950 Sept. 1950 Oct. 1950 Nov. 1950 Dec. 1950 Jan. 1951 Feb. 1951 Mar. 1951 Apr. 1951 May 1951 June 1951 July 1951 Aug. 1951 Sept. 1951 Oct. 1951 Nov. 1951 Dec. 1951 Jan. 1952 Feb. 1952 Mar. 1952 Apr. 1952 May 1952 June 1952 July 1952 Aug. 1952 Sept. 1952 Oct. 1952 Nov. 1952 Dec. 1952 Jan. 1953 Feb. 1953 Mar. 1953 Apr. 1953 May 1953 June 1953 July 1953 Aug. 1953 Sept. 1953 Oct. 1953 Nov. 1953 Dec. 1953

PERFORMANCE HISTORY
FOWLER FIELD
LEA COUNTY, NEW MEXICO

G.O.R. (SOLUTION G.O.R. = 1020)

PRODUCING RATE

CUMULATIVE RECOVERY

BOTTOM HOLE PRESSURE

WELLS

CUMULATIVE OIL RECOVERY-THOUSANDS BBL.

BOTTOM HOLE PRESSURE, PSIA.

WELL NO.	OIL STRING CASING	PRODUCING INTERVAL	LENGTH OF PROD. INT.	EST. FORMATION THICKNESS.	% PAY EXPOSED TO WELL BORE	MEASURED P.I. BBLS/DAY/PSI
1	7" @9486	OPEN HOLE 9505 - 9705	200'	400'	50	1.1
2	7" @10,250	OPEN HOLE 10,250 - 10,305	55'	400'	14	0.5
3	7" @9907	OPEN HOLE 9,907 - 10,085	178'	400'	45	- -
4	7" @10,129	OPEN HOLE 10,129 - 10,270	141'	470'	30	10.0
5	7" @10,427	CSG. PERF. 10,250 - 10,300	50'	585'	9	0.4
6	5 1/2" @10,543	CSG. PERF. 10,320 - 10,360	40'	453'	9	2.7

* Qo/Q (PRODUCING CAPACITY OF COMPLETELY PENETRATING WELL) / (PRODUCING CAPACITY OF PARTIALLY PENETRATING WELL)

* * ONLY NINE FEET OF CONVENTIONAL CORE RECOVERED AND ANALYSED OUT OF 200 FEET OF SECTION DRILLED.

SAMPLE CALCULATION

$$K = \frac{(PI)(u)}{(0.00187)}$$

(Where) K = permeability

PI = productivity

RVF = reservoir volume

re = half the distance

rw = well bore radius

h = thickness of formation

$$K = \frac{(31.0)(0.3)}{(0.00187)}$$

K = 32.5 md.

Ex. 1
1952 371

TIVITY INDEX TESTS

OUNTY NEW MEXICO

CORRECTION FACTOR Q _o / Q *	CORRECTED P.I. (FULL SECTION EXPOSED) BBLs / DAY / PSI	AVERAGE PERMEABILITY, MD.	
		FROM P.I. TEST.	FROM CORE ANALYSIS
1.8	2.1	2.52	31.2 * *
5.3	2.6	3.28	- -
- -	- -	- -	408
3.1	31.0	<u>32.50</u>	<u>37.6</u>
10.0	4.0	<u>3.47</u>	<u>4.1</u>
10.0	27.0	29.3	- -

CULATION

RVF) (log re / rw)

0307) (h)

, md.

index, bbls / day / psi .

olume factor bbl / bbl

istance between wells, ft.

radius, ft.

producing section, ft.

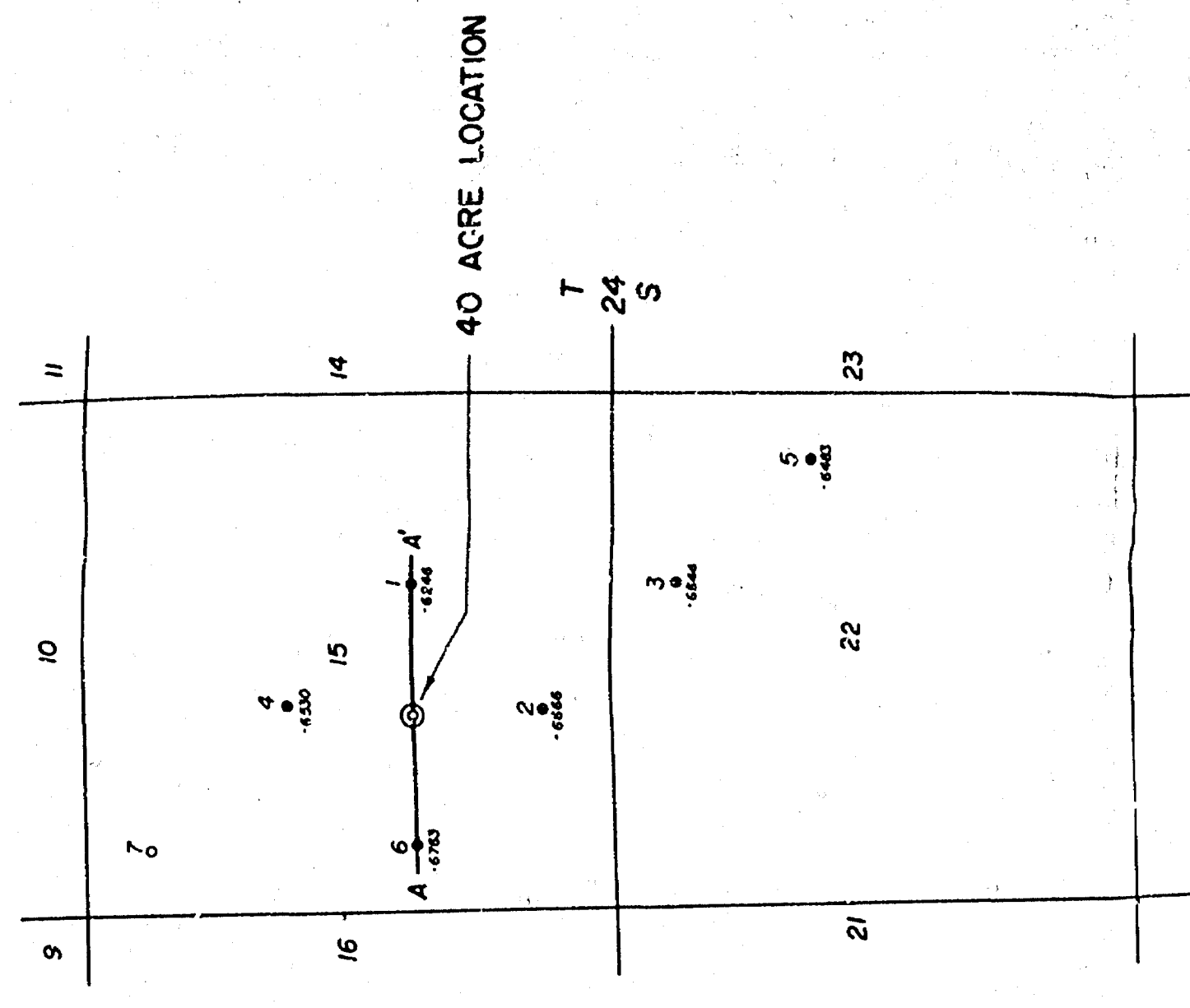
5) (1.5) (2.88)

0307) (470)

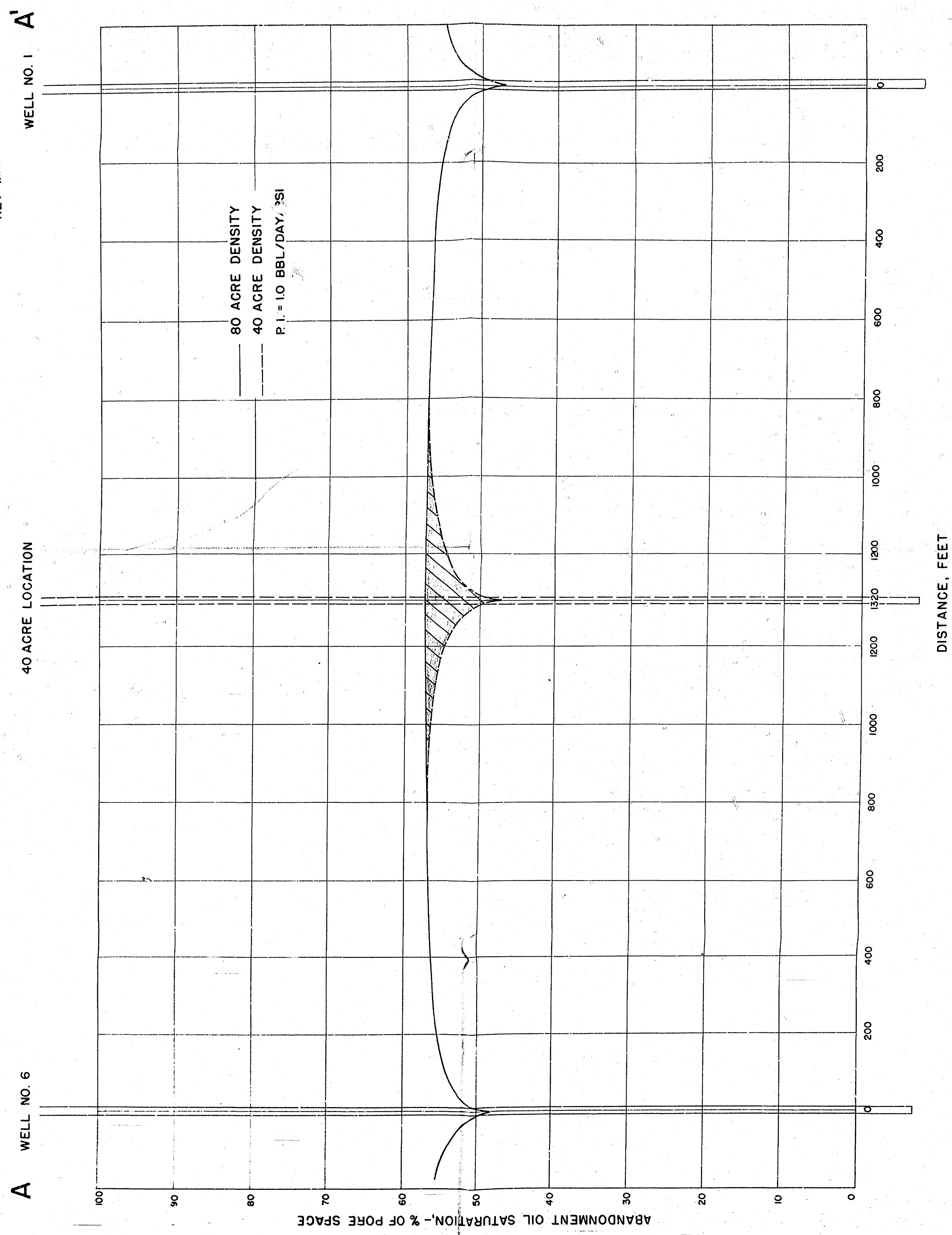
#10
Case 391
Hane

OIL SATURATION DISTRIBUTION AT ABANDONMENT CONDITIONS

FOWLER FIELD, LEA COUNTY, NEW MEXICO



KEY MAP

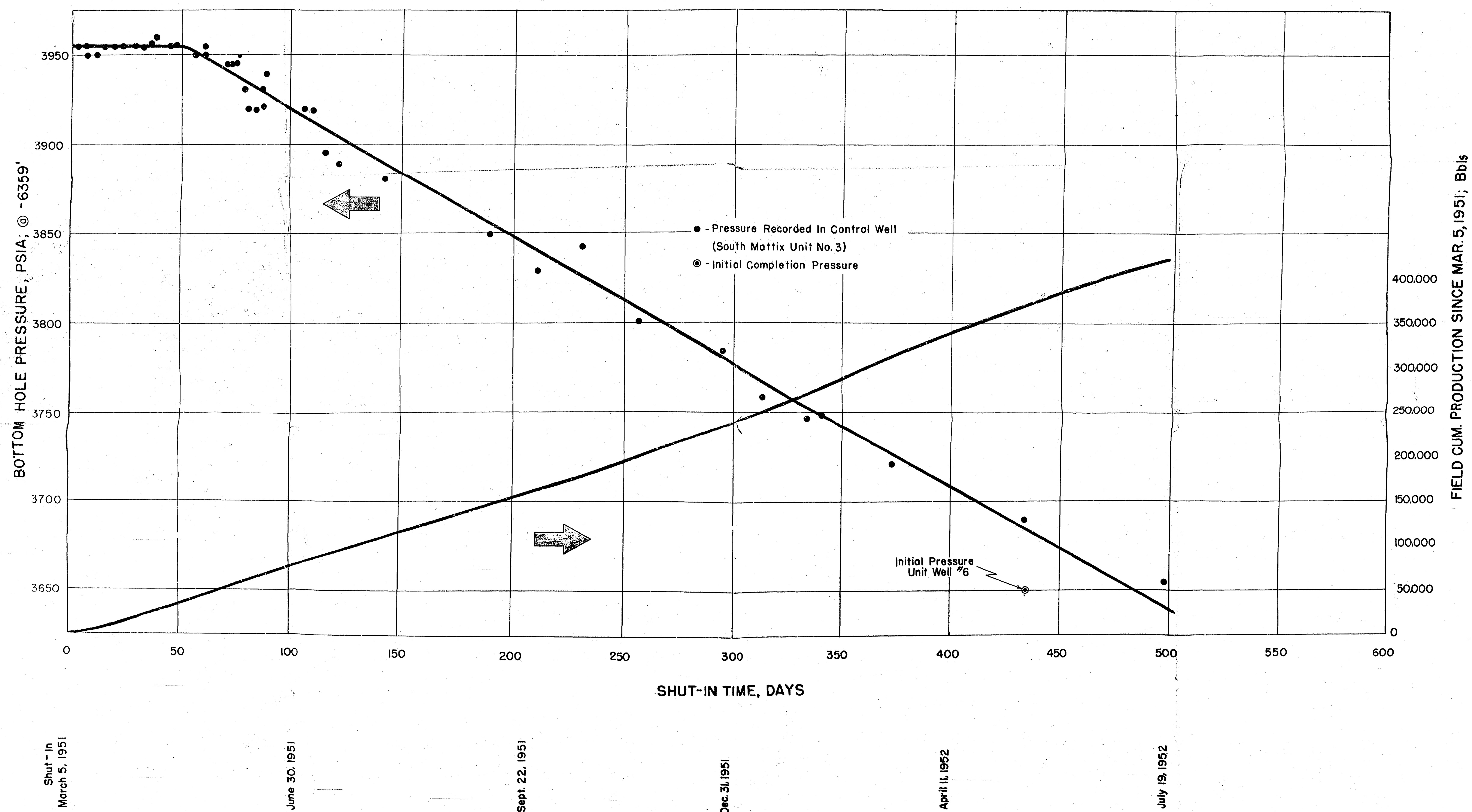
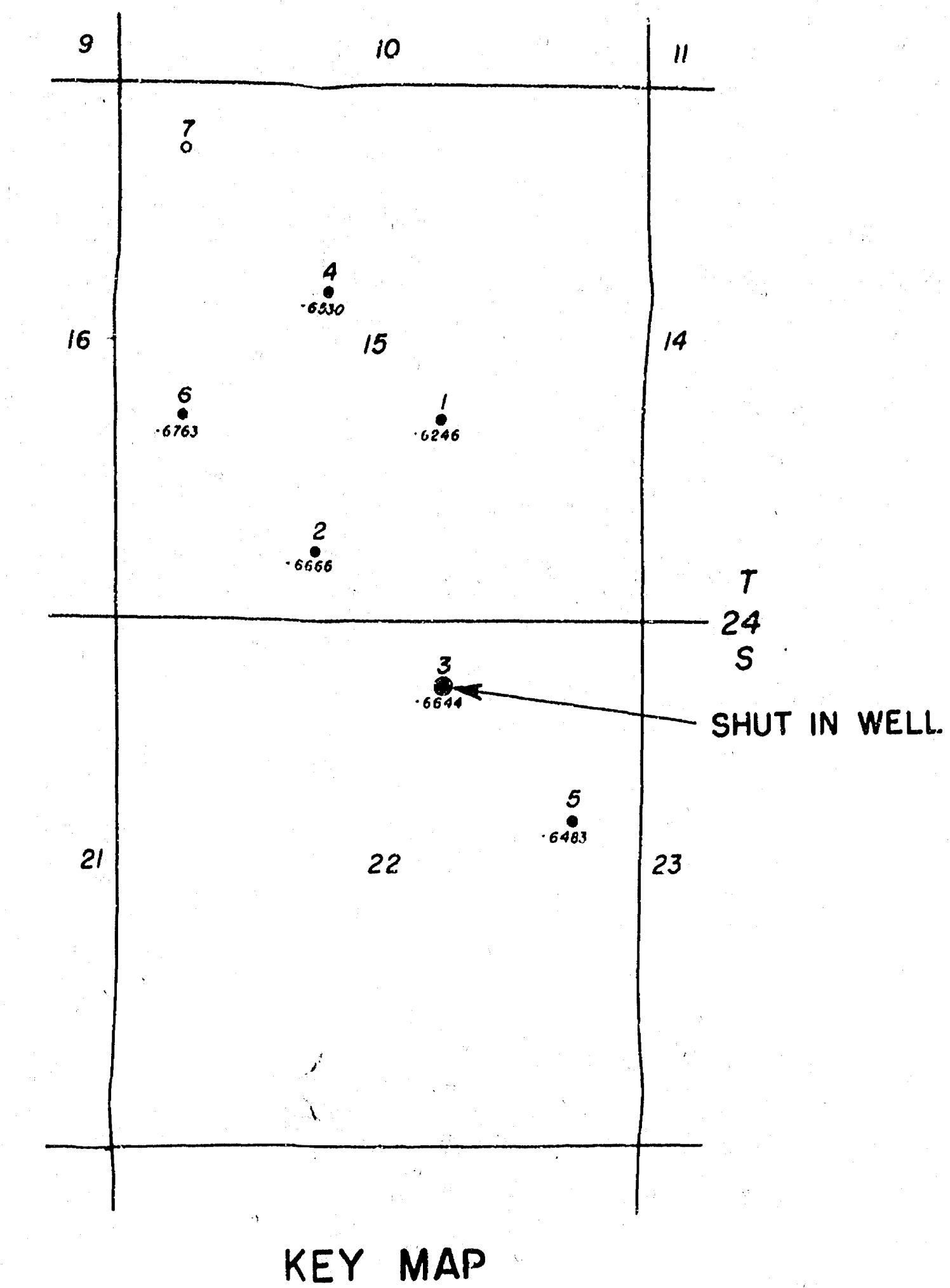


CALCULATED VARIATION IN RECOVERY EFFICIENCY WITH WELL DENSITY
AND P.I.

WELL DENSITY	RECOVERY, % OF ORIGINAL OIL IN PLACE	
	P.I. = 1.0	P.I. = 10.0
40 ACRES	31.82	35.42
80 ACRES	31.18	35.34

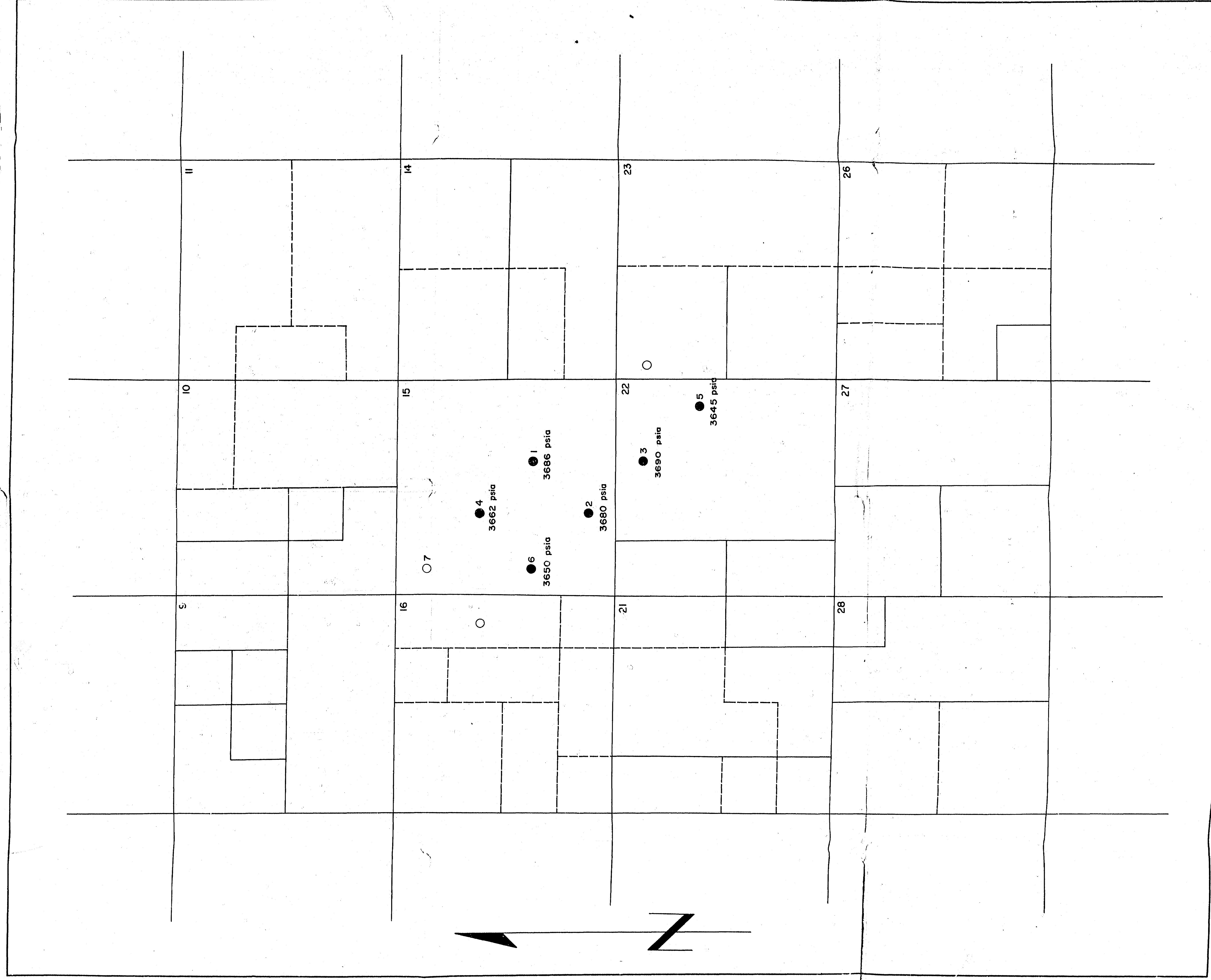
11
Case 391
Hana

INTERFERENCE TEST DATA FOWLER FIELD, LEA COUNTY, NEW MEXICO BOTTOM HOLE PRESSURE SOUTH MATTIX NO. 3 & CUMULATIVE PRODUCTION TOTAL FIELD VS. SHUT-IN TIME



Ch 12
Case 391
Hans

FOWLER FIELD
LEA COUNTY, NEW MEXICO
BOTTOM HOLE PRESSURE SURVEY
MAY 12-15, 1952
DATUM @ -6359 FT.



R-37

Case 391
4/13

