

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

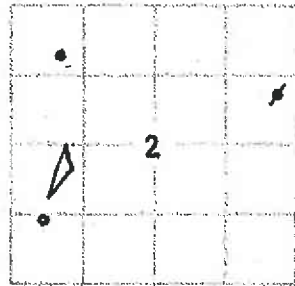
316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY <u>L. D. DRILLING, INC.</u>	ELEVATIONS
LEASE <u>51-2 MAUCH</u>	KB <u>2562</u>
FIELD <u>WILDCAT</u>	DF _____
LOCATION <u>1302' FSL & 565' FWL</u>	GL <u>2557</u>
SEC <u>2</u> TWP <u>18s</u> RGE <u>27w</u>	Measurements Are All From <u>2562 KB</u>
COUNTY <u>LANE</u> STATE <u>KANSAS</u>	CASING
CONTRACTOR <u>L. D. DRILLING, INC.</u>	SURFACE <u>8 5/8" @ 260'</u>
SPUD <u>3-26-15</u> COMP <u>4-6-15</u>	PRODUCTION <u>5 1/2" @</u>
RTD <u>4589</u> LTD <u>4589</u>	ELECTRICAL SURVEYS
MUD UP <u>3445</u> TYPE MUD <u>CHEMICAL</u>	DUAL IND, DENS-N, MICRO
SAMPLES SAVED FROM _____ <u>3600</u> TO <u>4589</u>	
DRILLING TIME KEPT FROM _____ <u>3300</u> TO <u>4589</u>	
SAMPLES EXAMINED FROM _____ <u>3600</u> TO <u>4589</u>	
GEOLOGICAL SUPERVISION FROM _____ <u>3800</u> TO <u>4589</u>	
GEOLOGIST ON WELL <u>KIM B. SHOEMAKER</u>	

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	1940-622	1943-619
B/ANH.	1968-594	1971-591
STOTLER	3400-838	3400-838
HEEBNER	3824-1262	3828-1266
LANSING	3864-1502	3868-1306
STARK	4130-1568	4132-1570
MARMATON	4228-1666	4228-1666
FORT SCOTT	4376-1814	4378-1816
CHELDREE	4399-1837	4400-1838
MISSISSIPPI	4489-1927	4492-1930
MISS. SPERGEN	4504-1942	4504-1942



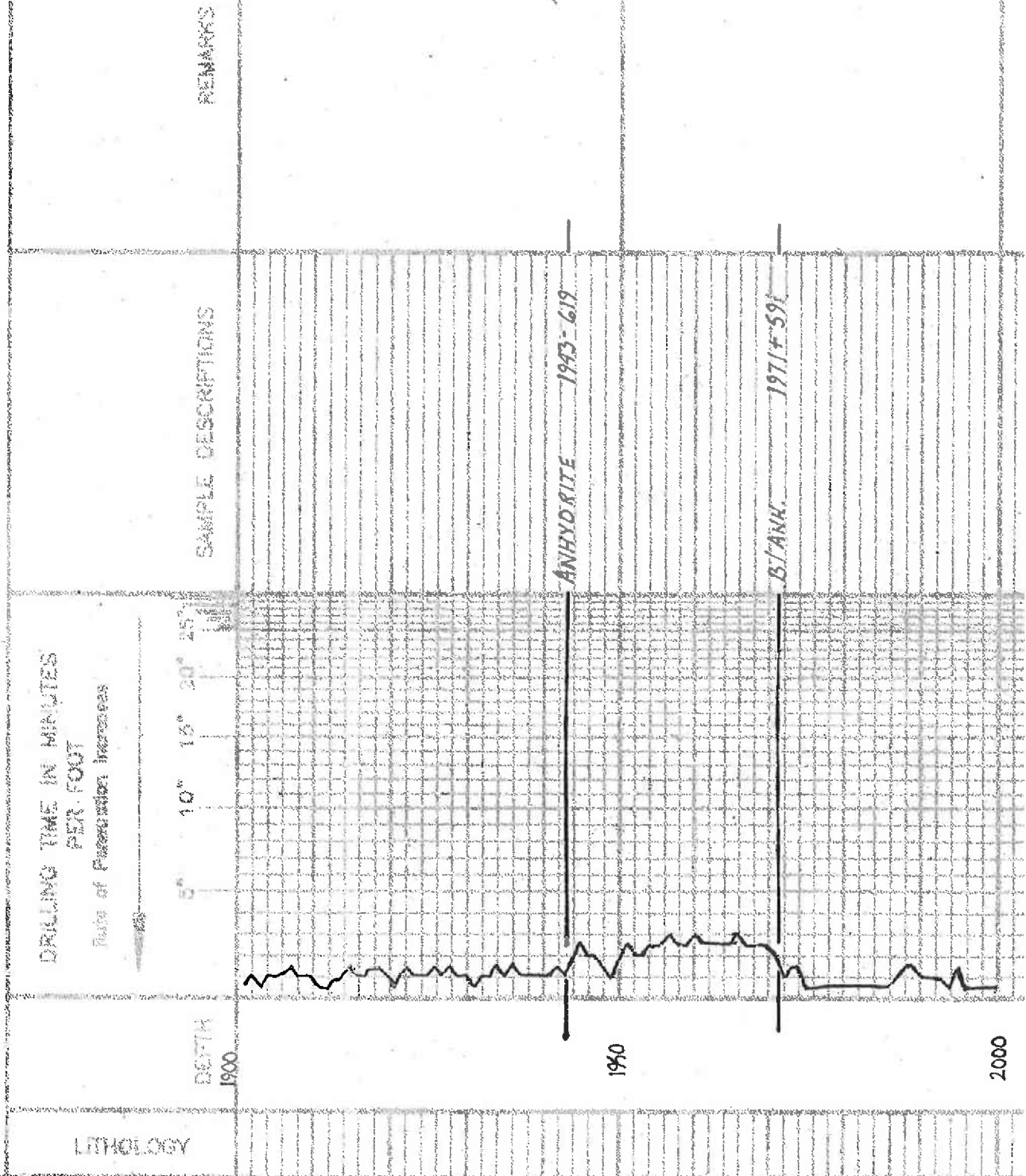
REMARKS

API: 15-101-22562

3-26-15 SPUD
 3-27 @ 263'
 3-28 @ 1252'
 3-29 @ 2335'
 3-30 @ 2960'
 3-31 @ 3480'
 4-1 @ 3950'
 4-2 @ 4130'
 4-3 @ 4190'
 4-4 @ 4250'
 4-5 @ 4462'
 4-6 @ 4589'

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carbonaceous Shale
- Limestone
- Dolomite
- Chert



2000

3300

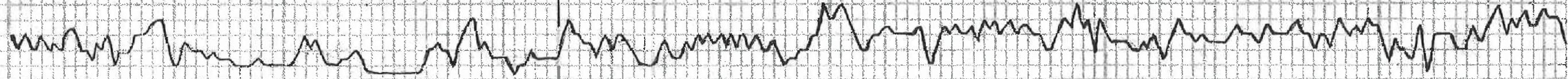
3400

3500

SIOTLER 3400-838

Samples are tagged

MS 51
WT 8.6



WT. 8.6
No. 7.4
CNS 600

3600

3700

3800

3900

ls. w. chly. 1881 Foss.

ls. w. Foss. Sil. Calcite

ls. w. chly.

ls. Tr. L. B. 1881 Foss. Sil. A

ls. w. chly. Foss. Calcite

Sh. G.

ls. Tr. Foss. Sil. Calcite

ls. B. 1881 Foss.

Sh. G. B.C.

ls. Tr. B. 1881 Foss.

Sh. G. Silly

ls. w. Sil. Chly.

ls. Fossil Foss.

ls. w. chly. Foss. and Chly.

A. G. Sil. Foss.

ls. Tr. G. Sil. Foss. Sil. Chly.

Sh. G.

ls. w. chly. and Sil. w.

ls. w. chly. 1881 Foss.

ls. Tr. G. Foss. Calcite

ls. Tr. B. Fossil Sil. Foss.

ls. Tr. B. Sil. Foss. Sil. A. Sil. Chly.

✓ Herb. Log

HEEBNER 3828-1266
Sh. G. B.C. 1881 Foss.

Sh. G. B.C.

ls. w. Sil. Foss. Sil. A

ls. w. Fossil Sil. A

Sh. G. B.C.

JANESING 3868-1306

ls. w. chly. 1881 Foss.

A. W.

ls. w. Tr. and Sil. A

ls. Tr. Sil. Foss. Sil. A. Sil. Calcite

Sh. G.

Sh. G. Silly

ls. Tr. Sil. Foss. Sil. A

TORONTO

✓ LANS. LOG

12/10/41

T. Colson, L. Carl, E. C. Bog

LS. S. Blue Clay - Dk

LS. S. Blue Clay - Dk

LS. w/ Stool sil. F. light F. DE. S. S. A. T. R. No. Flow. No. Dk.

LS. S. Blue Clay

LS. S. Blue Clay

LS. S. Blue Clay

LS. S. Blue Clay

LS. S. Blue Clay - Silky

Sh. DE. Blue Silky

Sh. Blue Clay

FORT SCOTT 4378-1816

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

CHEROKEE 4100-1838

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

Sh. DE. Blue Clay

Sh. DE. Blue Clay

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

MISSISSIPPI 4492-1930

LS. Blue Clay - Silky

MISS SPERGEN 4504-1942

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

LS. Blue Clay - Silky

DST. (4) 4384-4462

1st open: Blow built to 2"

2nd open: " " " 2 1/2"

30. 30. 30. 30. 30

Re. 70' GIP

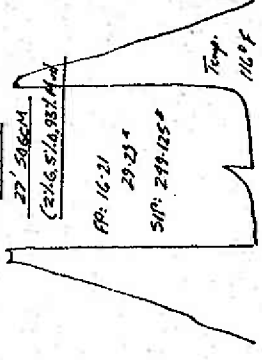
27' 29' 60"

(2) 16. 5' 10. 98' 1/2"

AP: 16-21

29-33"

SUP: 299-105"



JOHNSON

8/JOHNSON

WT: 93

WT: 88

WT: 3800

WT

4300

4100

4500

RTD 4589-2027