

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE #3 REIFSCHNEIDER

FIELD MERTEN NE

LOCATION 330' ENL + 2310' FEL NW NW NE

SEC 1 TWP 19S RGE 15W

COUNTY BARTON STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 6-25-14 COMP 7-1-14

RTD 3650 LTD 3650

MUD UP 2910 TYPE MUD CHEMICAL

ELEVATIONS

KB 1924

DF _____

GL 1919

Measurements Are All From 1924 KB

CASING SURFACE 8 5/8" @ 886'
PRODUCTION 5 1/2" @

ELECTRICAL SURVEYS
DUAL IND., DENS-N., MICRO

SAMPLES SAVED FROM 3000 TO 3650

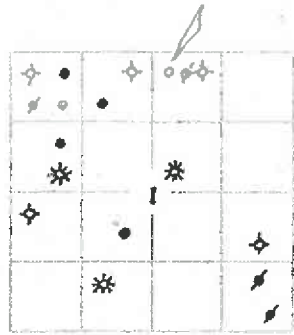
DRILLING TIME KEPT FROM 2850 TO 3650

SAMPLES EXAMINED FROM 3000 TO 3650

GEOLOGICAL SUPERVISION FROM 3300 TO 3650

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	898 + 1026	898 + 1026
TOPEKA	2918 - 924	2922 - 998
HEEBNER	3161 - 1237	3162 - 1238
BROWN LIME	3239 - 1315	3242 - 1318
LANSING	3247 - 1323	3252 - 1328
B/KC	3467 - 1543	3468 - 1544
ARBUCKLE	3543 - 1619	3544 - 1620



REMARKS

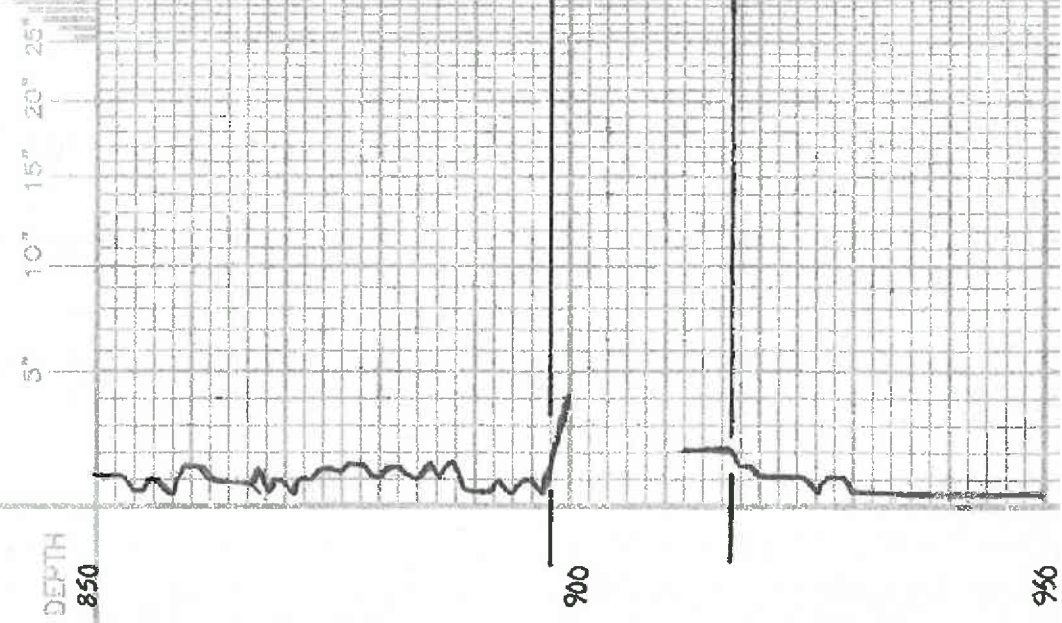
6-25-14 SPUD
6-26 @ 755'
6-27 @ 1170'
6-28 @ 2500'
6-29 @ 3280'
6-30 @ 3552'
7-1 @ 3650'

APL: 15-009-25896

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb. sh.
- Limestone
- Cgl. Lims.
- Chart
- Detomite

DRILLING TIME IN MINUTES
PER FOOT
Rate of Penetration increases



LITHOLOGY

SHOE01-06

960

2850

2900

3000

TOPEKA 2922-998

Samples are logged
ls. Tq. Xln. Xln. Suv. Sl. Foss

Sh. BEC Carb.

Sh. Chyd

ls. Tq. Sl. Foss

Sh. Chyd

ls. Wt. V. Sl. Foss Sl. Chyd

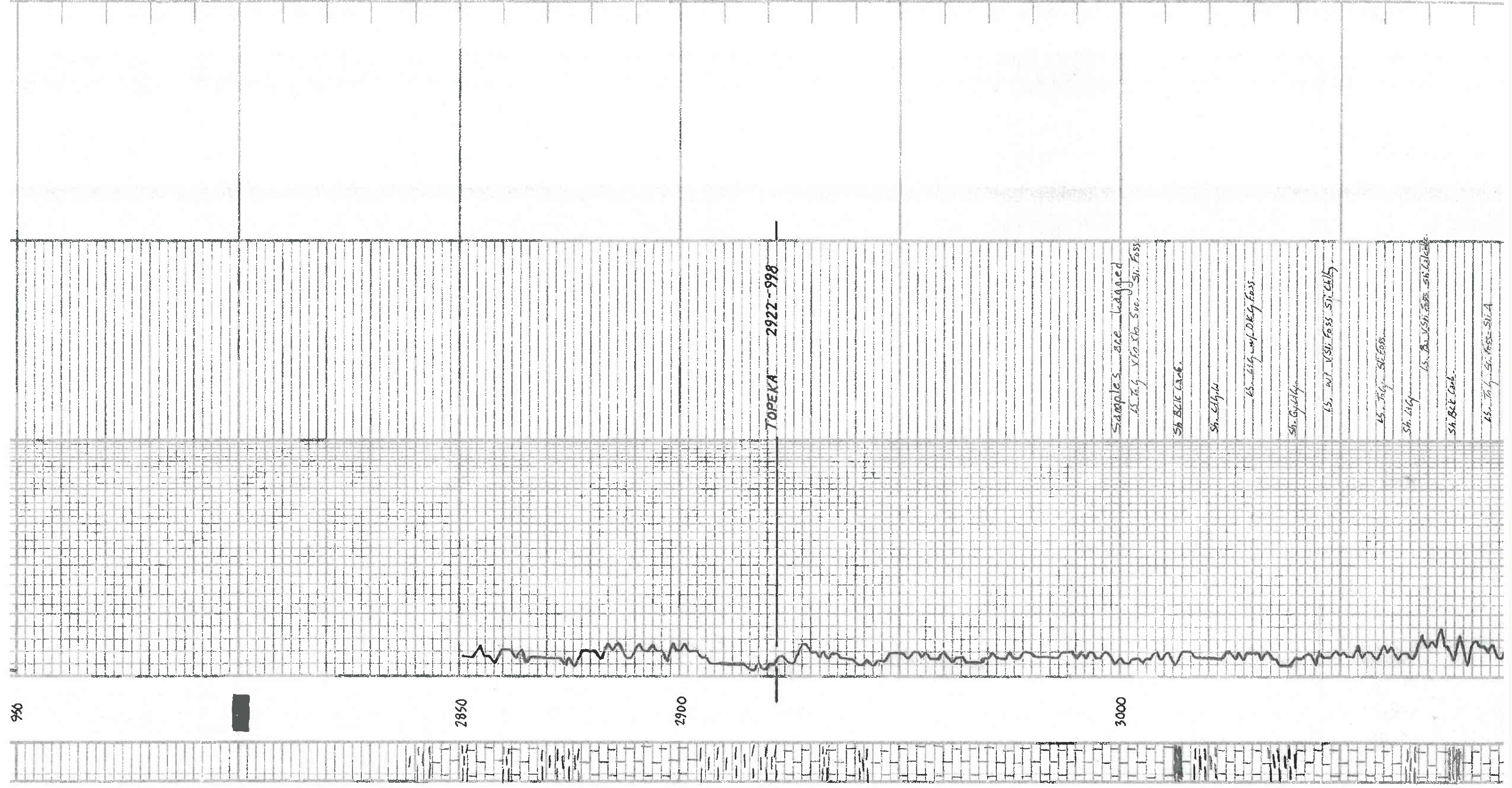
ls. Tq. Sl. Foss

Sh. Chyd

ls. Bu. V. Sl. Foss Sl. Chyd

Sh. BEC Carb.

ls. Tq. Sl. Foss Sl. A



3100

3200

3300

3400

Ls. Tally - Das - Caliente

Ls. 14g - ooc - gd ooc - p - DEB. Hy. SA, 2550, Hy. DE. SA, No. Floor, No odor.

Ls. 14g - VSI - Foss

Ls. 14g - VSI - Chilly

Ls. wt 14g - SI - Foss, SI - Chilly

HEEBNER 3162-1238

Ls. 14g - SI - Foss

Sh. 14G.

Ls. wt - Foss, SI - A. Fr. B. Hy. p. DE. Hy. SA, 2550 Hy. B. T. G. AS, No. Floor, No. odor

Ls. Tally - SI - Foss - Sild

Sh. 14g. Ca - Sully

Sh. 14g. W

Sh. 14g. W

BROWN LIME 3242-1318

Ls. 14g - SI - Foss

✓ LIMS 2.06

LANSING 3252-1328

Ls. Tally - SI - ooc - p - ooc - p - DE. Hy. Sild SA, No. Floor, No odor

Ls. 14g. VSI - Foss

Ls. Tally - SI - ooc - p - ooc - p - DE. Hy. SA, 2550, Hy. B. T. G. AS, No. Floor, No odor

Ls. 14g - SI - Foss - wt

Ls. 14g. Dm

Ls. Tally - Foss - Tally DE. Hy. SA, 2550, Hy. B. T. G. AS, No. Floor, No odor

Ls. wt - Chilly

Ls. Tally - ooc - gd - ooc - p - DE. Hy. SA, 2550, No. Floor, No odor

Ls. Tally - Ooc - gd - ooc - p

Ls. wt - Chilly

Ls. 14g. Dm

Sh. 14g

VSI: 38
WT: 8.9
VSI: 12.0
Call: 6.300

Ls. Tally - SI - wt - Sild

Ls. 14g. Dm

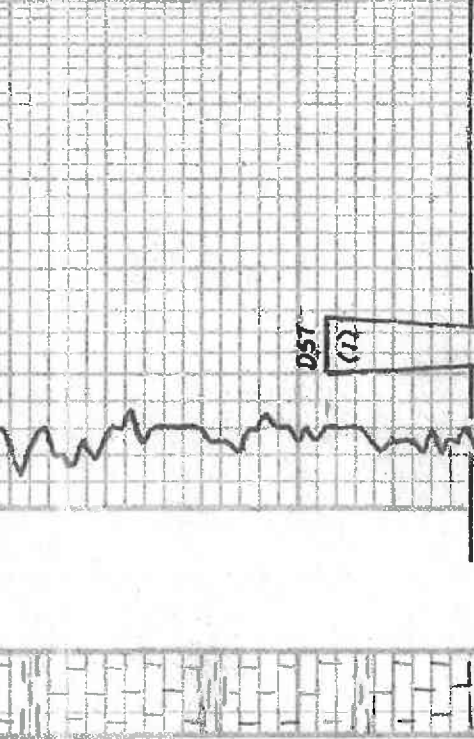
Ls. wt - ooc - SI - Chilly - B. Hy. B. T. G. AS, 2550, No. Floor, No odor

YF1000
 65. Wet Shred Sil. Gully
 65. To LA Br VSI Foss.
 38.624
 65. To Gp VSI Foss VSI Sil
 38.624
 65. To LA Sil VSI Sil
 38.624
 65. To Gp VSI Foss VSI Sil
 38.624

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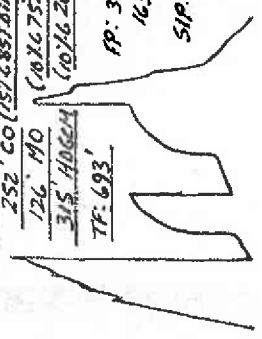
B/KC 3968-1599
 65. To LA Sil VSI Sil
 38.624
 65. To Gp VSI Foss VSI Sil
 38.624
 A. Orange.
 Sh. Bl. Sil.
 A. Orange white
 To Sil. Gully. Mt. Co. Sub. Bl. w/ Bl. Sil.
 A. w/ Pink. Spl.
 Sh. Bl. Sil. w/ Sil.

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 Sh. Bl. Sil. w/ Sil.



Pipe Strap. # 3577-33
 # 3576-58
 .65 Long

DST (12) 3453-3552
 1 Stop: Bottom bucket 4 min. 66: 6"
 2 Stop: " " 5 " 66: 10"
 30-95-45-60
 Rec. 2395' GIP
 252' CO (25/685101)
 126' MO (20/675/01/15/14)
 315' ADREN (20/620/01/20/24)
 TF-693'
 FP: 35/50
 163-267*
 SIP: 922-909*



Tool Sample: 20/0:1 30:1 Mid Temp. 14 F

ARBUCKLE 3544-1620
 1st. w/ Co. Xn. Sil. A. F. Xn. A.
 2nd. Bl. Sil. Sh. F. Sil. S. Sil. Gully Floor. Bl. Odor

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RTD 3650-1726