

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE * 1-36 HORN

FIELD J. MUR NE

LOCATION 165' FSL ± 1320' FEL

SEC 36 TWP 19s RGE 29w

COUNTY LANE STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 9-14-19 COMP 9-26-19

RTD 4747 LTD 4748

MUD UP 3422 TYPE MUD CHEMICAL

ELEVATIONS

KB 2821

DF _____

GL 2816

Measurements Are All
From 2821 KB

CASING

SURFACE 8 5/8" @ 303'

PRODUCTION 5 1/2" @

ELECTRICAL SURVEYS

Dual IND., DENS-N., MICRO

SAMPLES SAVED FROM 3800 TO 4747

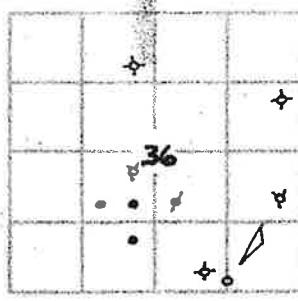
DRILLING TIME KEPT FROM 3500 TO 4747

SAMPLES EXAMINED FROM 3800 TO 4747

GEOLOGICAL SUPERVISION FROM 3900 TO 4747

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2128 + 693	2125 + 696
B/ANH.	2155 + 666	2155 + 666
STOTLER	3550 - 729	3550 - 729
HEEBNER	3966 - 1145	3968 - 1147
LANGING	4008 - 1187	4008 - 1187
STARK	4293 - 1472	4291 - 1470
MARMATON	4404 - 1583	4403 - 1582
FORT SCOT	4542 - 1721	4545 - 1724
CHEROKEE	4565 - 1744	4566 - 1745
MISSISSIPPI	4642 - 1823	4640 - 1821



API: 15-101-22631

REMARKS
 9-14-19 SPUD
 9-15 @ 303'
 9-16 @ 1751'
 9-17 @ 2700'
 9-18 @ 3247'
 9-19 @ 3695'
 9-20 @ 4176'
 9-21 @ 4307'
 9-22 @ 4342'
 9-23 @ 4365'
 9-24 @ 4464'
 9-25 @ 4630'
 9-26 @ 4747'

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Core etc.
- Unconsolidated
- Coal/Lime
- Chert
- Dolomite

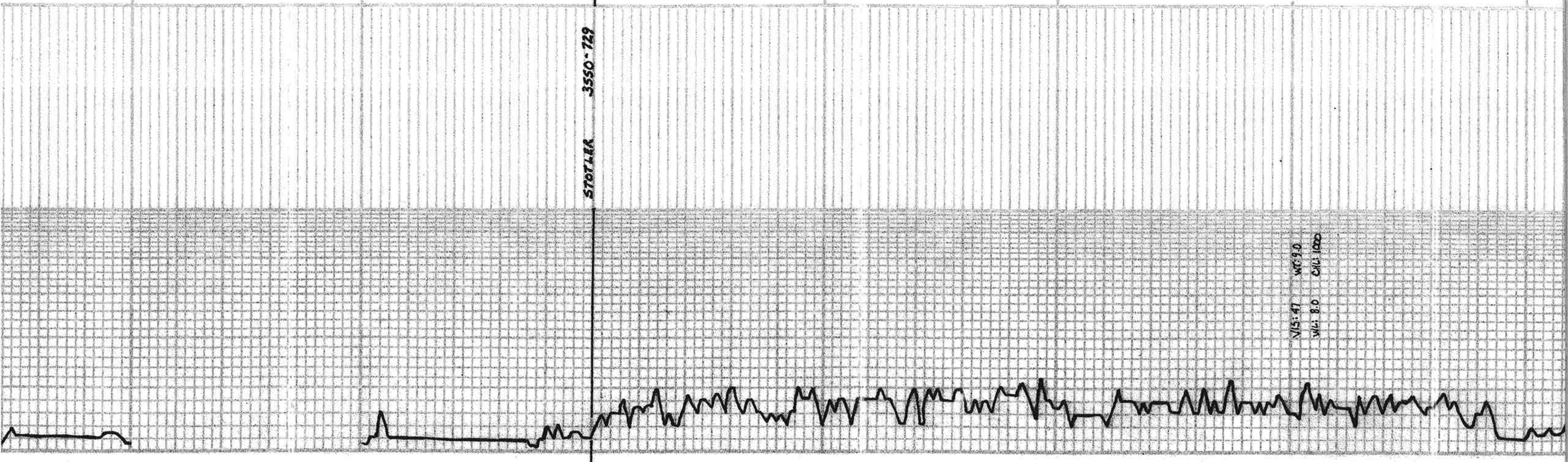


LITHOLOGY

REMARKS

SAMPLE DESCRIPTIONS

DEPTH
2100

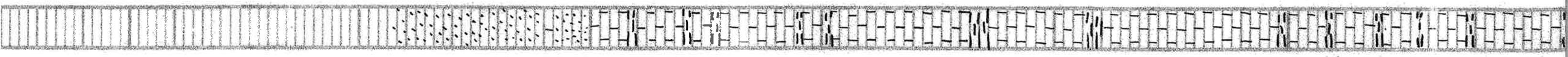


2200

3500

3600

3700



Samples are Lagged

LS. To. wt. & St. Foss.

LS. Gr. Foss. St. Chl.

Sh. DEq. Bk

Sh. Klg.

LS. Klg. Foss. St. Chl.

LS. wt. Klg. Foss. St. Chl.

LS. To. Foss. St. Delonit.

LS. To. St. A

Sh. DEq.

LS. wt. Foss.

LS. To. wt. Foss.

LS. To. Gr. St. Foss.

HEBNER 3968-1147

Sh. Bk. Carb.

Sh. Klg.

LS. wt. Foss. St. A

LS. wt. Vst. Foss. Vst. A

SH. Bk. LANSING 4008-1187

LS. wt. wt. Foss. St. A

Sh. Klg.

LS. To. Gr. Vst. A

Sh. DEq.

Sh. DEq.

LS. To. wt. St. A

LS. wt. chl.

Sh. Klg.

Sh. Klg.

LS. To. Gr. wt. St. A

3800

3900

4000

V. L. O. L.

59514 LA Bire

W. 10 040 3100

Mississippi 4010-1921

Del. 41g. Fresh Suc.

Del. 7. out. V. Fresh. 55. Fresh. Veggy. No Show No Offer

Del. 75. Fresh. Suc.

65. 41. 51. Fresh. 51. Ch. L.

51. 81. 61.

15. 41. 81. 51. Suc. Fresh.

Del. 81. 51. Fresh.

Del. 31. 51. Fresh. 51. 61.

Del. 41. 81. 51. Fresh. w/ 10. 51. Fresh.

Del. 41. 51. Fresh. Suc. V. Fresh.

Del. 51. 51. Fresh.

