

Robert L. Milford

PETROLEUM GEOLOGIST

Wichita, Kansas

GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR: **Murfin Drilling Company, Inc.**
 LEASE: **MB 'A' #2-35**
 LOC. SPOT: **NE NE NW**
 LOC. FOOTAGE: **330' FNL 2,310' FWL**
 SEC: **35** TWP: **4S** RNG: **31W**
 COUNTY: **Rovilins** STATE: **Kansas**
 API: **15-153-21138-00-00**

CONTRACTOR: **Murfin Drilling Co., Inc.** RIG NO.: **7**
 DRILLING STARTED: **5-18-2015** COMPLETED: **5-25-2015**
 MUD DISPLACED: **3,200'** MUD TYPE: **Chemical**
 DRILLING TIME KEPT FROM: **3,570'** TO: **RTD**
 SAMPLES SAVED FROM: **3,570'** TO: **RTD**
 SAMPLES EXAMINED FROM: **3,570'** TO: **RTD**
 GEOLOGICAL SUPERVISION FROM: **3,570'** TO: **RTD**

MEASUREMENTS: **2,870'**
 ELEVATIONS: **2,865'**
 CASING RECORD
 Conductor
 Surface: **8.5/8" @ 221'**
 w/ 215 sacks cement
 Production: **5.1/2" @ 4446'**
 w/ 450 sacks cement

ELECTRICAL SURVEYS
 Pioneer Wireline
 Dual Induction Log
 Dual Compensated -
 Porosity Log
 Microresistivity Log
 Borehole Compensated-
 Sonic Log

FORMATION NAME	LOG DATUM	SAMPLE DATUM
Stone Corral	2,610'	2,609' +261
Topeka	3,680'	3,680' -810
Hebner	3,846'	-976
Lansing	3,896'	3,896' -1026
Stark	4,060'	4,060' -1190
B/KC	4,116'	-1246
Pawnee	4,226'	-1356
Cherokee	4,310'	-1440
Mississippi	not on log	4,310' -1440
Total Depth	4,450'	4,450' -1580

DATE	7:00 AM DEPTH	REMARKS
5-18-15	0'	Spud @ 4:45 pm. Plug down @ 9:00 pm. Drilled out plug @ 5:00 am on 5-19-15 w/ PDC bit
5-19-15	415'	Cut 415' in last 24 hrs.
5-20-15	3,450'	Cut 3,035' in last 24 hrs; 21.75 hrs drlg. Bit trip @ 3540' (ran button bit).
5-21-15	3,925'	Cut 475' in last 24 hrs; 17 hrs drlg. DST #1 @ 3930', DST #2 @ 3984'.
5-22-15	3,984'	Cut 59' in last 24 hrs; 2.5 hrs drlg. DST #3 @ 4065'
5-23-15	4,065'	Cut 81' in last 24 hrs; 3.75 hrs drlg. DST #4 @ 4120'
5-24-15	4,120'	Cut 55' in last 24 hrs; 3 hrs drlg. DST #5 @ 4342'
5-25-15	4,342'	Cut 222' in last 24 hrs; 8.25 hrs drlg. RTD 4450' @ 11:17 am
5-26-15	4,450'	Cut 108' in last 24 hrs; 2 hrs drlg. Ran production casing.

Remarks

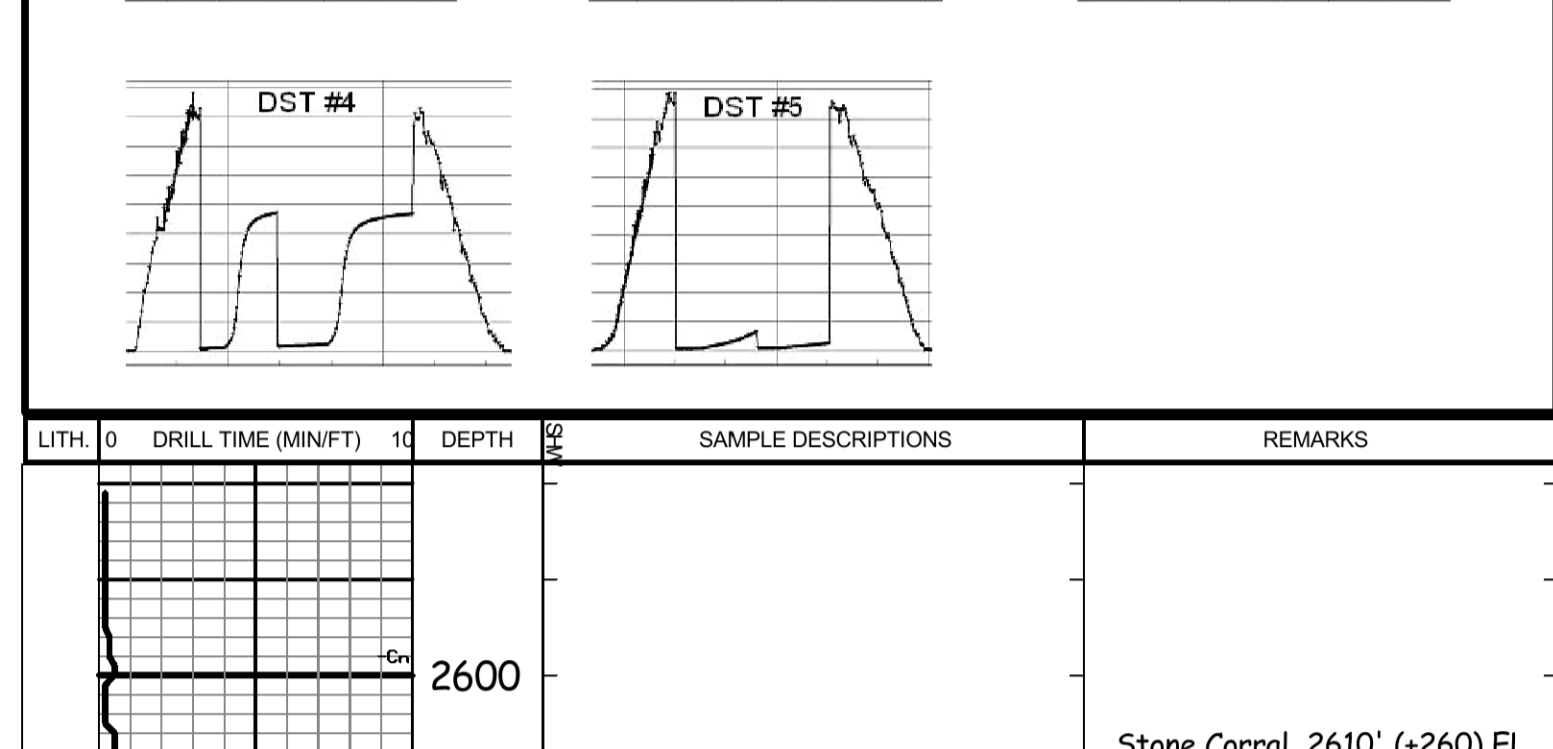
The electric log measurements correlate from even to 1' lower to the drilling measurements.

Formation tops and lithology on this report have been corrected to the electric log.

The drilling samples were deposited at the Kansas Geological Survey office in Wichita.

Respectfully submitted,

Robert L. Milford



LITH	DRILL TIME (MIN/FT)	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
		2600		Stone Corral 2610' (+260) EL
		2650		B/Stone Corral 2644' (+226) EL

