

Jackman Oilfield Services
 1 West Mulberry St.
 Colony, KS 66015
 620-852-3350

WELL LOG
 Lakeshore Operating, LLC
 Sturdivan 3 LO-41

June 1, 2016

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
10.00	Soil/clay	10.00	
13.00	Lime	23.00	
4.00	Sand stone	27.00	
50.00	Shale	77.00	
199.00	Lime	276.00	
14.00	Sand stone	290.00	
120.00	Lime	410.00	
3.00	Shale	413.00	
207.00	Lime	620.00	
4.00	Shale	624.00	
45.00	Lime	669.00	
183.00	Shale	852.00	
10.00	Lime	862.00	
54.00	Shale	916.00	
6.00	Lime	922.00	
10.00	Shale	932.00	
1.00	Coal	933.00	
25.00	Lime	958.00	
9.00	Shale	967.00	
11.00	Lime	978.00	
6.00	Shale	984.00	
9.00	Lime	993.00	
15.00	Shale	1,008.00	
3.00	Broken sand/shale	1,011.00	No bleed
8.00	Shale	1,019.00	
6.00	Grey sand	1,025.00	No bleed
26.00	Shale	1,051.00	
1.00	Lime	1,052.00	
0.50	Oil sand	1,052.50	
1.00	Shale	1,053.50	
1.00	Lime	1,054.50	
0.50	Oil sand	1,055.00	Good bleed

6.00	Oil sand/Sandy shale	1,061.00	Good bleed
5.00	Oil sand	1,066.00	No/light bleed
6.00	Sandy Shale	1,072.00	
21.00	Shale	1,093.00	TD

Drilled a 9 7/8" hole to 39'7"
Drilled a 5 7/8" hole to 1093'

Set 40' of 7" surface casing cemented with 10 sacks of portland cement
Ran 1086' of 2 7/8"
2 cores
No seating nipple
Cemented 6/8/16

Sturdivan 3 LO-41

F103 Replacement Chart M3181-X Mining Services Chart

LLF18103 CHANGE CHARTS AT 8:00 A.M. AND 8:00 P.M.

10-41 OPERATOR La. Kashol
 NO. LEASE Stardman S

LOC _____ SEC _____ T _____ H _____
 COUNTY Woodson STATE KS
 DATE ON 6-1-16 T. D. OFF _____
 TIME ON B. A. M. P. M. T. D. ON _____

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T.D. 1093
1086 at 2 1/8

2 col. of
cemented

6-8-10

CHART NO.