

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

WELL LOG
Lakeshore Operating, LLC
Sturdivan 3 LO-49

July 18, 2016

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
2.00	Soil	2.00	
4.00	Clay	6.00	
3.00	Lime	9.00	
3.00	Sandstone	12.00	
25.00	Shale	37.00	
6.00	Lime	43.00	
135.00	Shale	178.00	
82.00	Lime	260.00	
28.00	Sandstone	288.00	
128.00	Lime	416.00	
48.00	Sandstone	464.00	
204.00	Lime	668.00	
158.00	Shale	826.00	
3.00	Lime	829.00	
21.00	Shale	850.00	
9.00	Lime	859.00	
68.00	Shale	927.00	
10.00	Lime	937.00	
38.00	Shale	975.00	
22.00	Lime	997.00	
6.00	Shale	1,003.00	
2.00	Lime	1,005.00	
6.00	Oil sand	1,011.00	
28.00	Shale	1,039.00	
1.00	Lime	1,040.00	
13.00	Oil second zone	1,053.00	
2.00	Shale	1,055.00	
5.00	Oil sand	1,060.00	
32.00	Shale	1,092.00	TD

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

Drilled a 5 7/8" hole to 1092'

Set 40' of 7" surface casing cemented with 10 sacks of portland cement

Ran 1085' of 2 7/8"

No cores

Seating nipple @ 1030'

Cemented on 7/22/16

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