

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

WELL LOG  
 Lakeshore Operating, LLC  
 Sturdivan 3 LO-44

June 16, 2016

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
9.00	Soil/clay	9.00	
4.00	Lime	13.00	
3.00	Shale	16.00	
4.00	Lime	20.00	
17.00	Shale	37.00	
6.00	Lime	43.00	
135.00	Shale	178.00	
84.00	Lime	262.00	
14.00	Shale	276.00	
46.00	Lime	322.00	
3.00	Coal	325.00	
111.00	Lime	436.00	
106.00	Sand stone	542.00	
37.00	Lime	579.00	
10.00	Sand stone	589.00	
28.00	Lime	617.00	
8.00	Shale	625.00	
34.00	Lime	659.00	
274.00	Shale	933.00	
2.00	Lime	935.00	
15.00	Shale	950.00	
6.00	Lime	956.00	
6.00	Coal	962.00	
24.00	Lime	986.00	
21.00	Shale	1,007.00	
1.00	Lime	1,008.00	
2.00	Top oil sand	1,010.00	Good bleed
3.00	Broken sand	1,013.00	Light bleed
2.50	Gray sand	1,015.50	
7.50	Sandy shale	1,023.00	
20.00	Shale	1,043.00	
1.00	Lime	1,044.00	
3.00	Shale	1,047.00	

1.00	Lime	1,048.00	
5.00	Top oil sand	1,053.00	Good bleed
3.00	Broken oil sand	1,056.00	With shale/good bleed
4.00	Oil sand	1,060.00	Good bleed
3.00	Shale	1,063.00	
2.00	Oil sand	1,065.00	Good bleed
27.00	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"

2 cores

No seating nipple

Cemented on 6/23/16

Sturdivan 3 LO-44

F103

Replacement Chart MSTR-K  
LLF18103 **Mining Services Chart**

(12 HOUR)

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

OPERATOR L. K. G. S. H. E.

NO. 60-44 LEASE Stard...

LOC \_\_\_\_\_ SEC \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_

COUNTY Lincoln Co. STATE KS

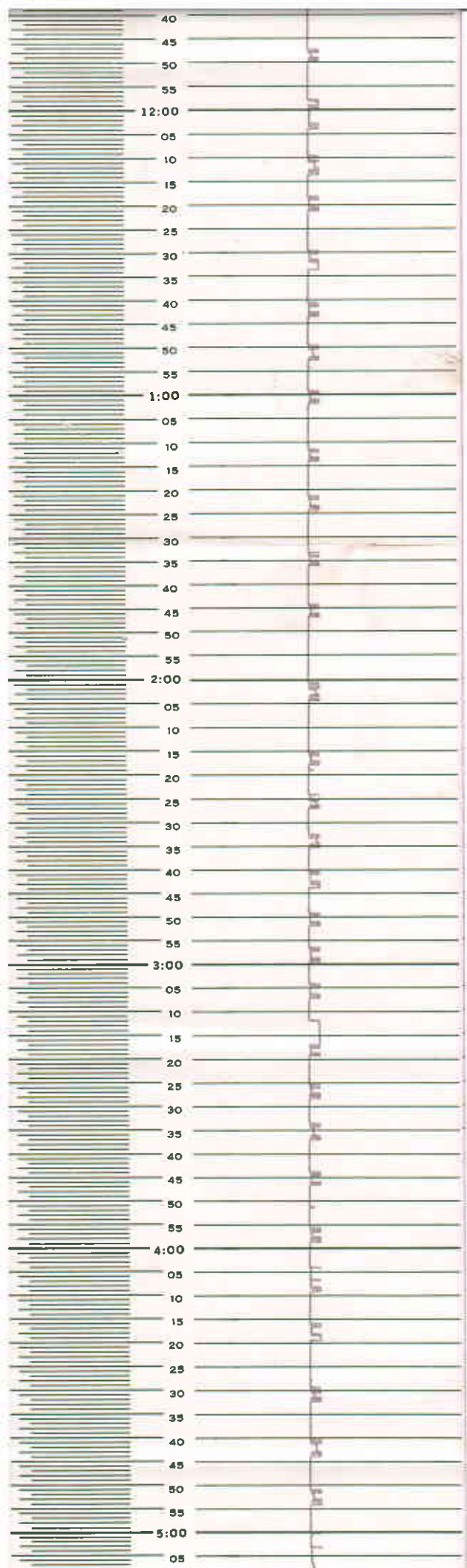
DATE ON \_\_\_\_\_ T. D. OFF \_\_\_\_\_

TIME ON:  8 A.M.  8 P.M. T. D. ON \_\_\_\_\_

DRL'G TIME \_\_\_\_\_ DR LG OPERATIONS \_\_\_\_\_

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T.D.  
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1005  
316



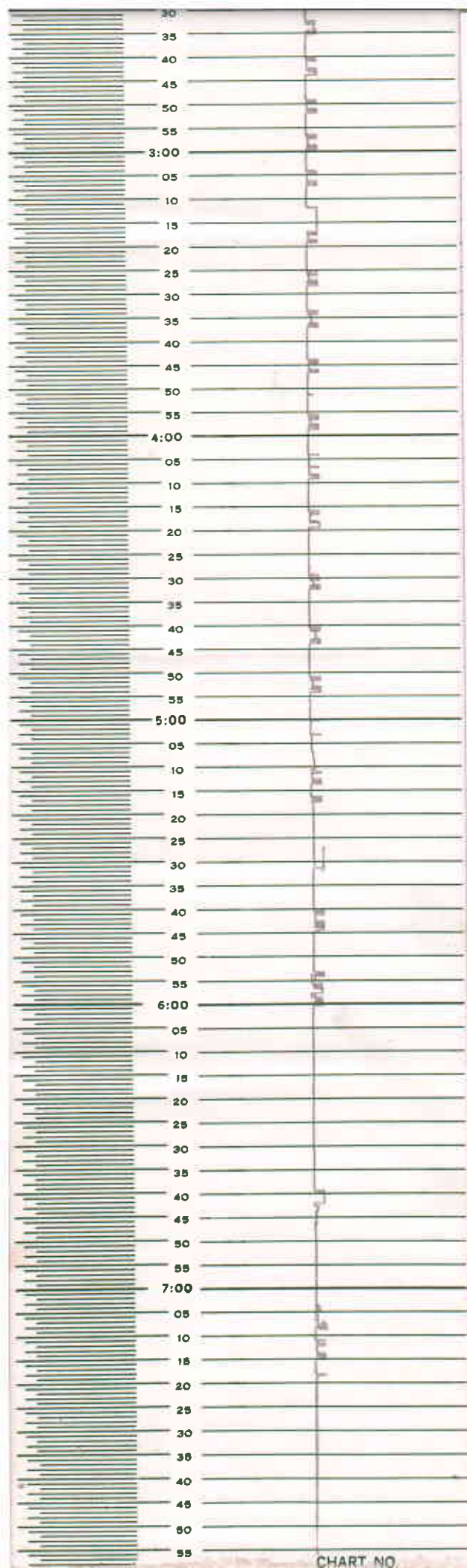


CHART NO.