

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

WELL LOG
 Kansas Resource Exploration & Development, LLC
 Hays KR-8

April 18, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
2	soil/clay	2	
37	lime	39	
33	shale	72	
26	lime	98	
7	shale	105	
27	lime	132	
9	shale	141	
39	lime	180	
166	shale	346	
6	lime	352	
4	shale	356	
2	lime	358	
10	grey sand/light brown sand	368	slight gas smell
1	lime	369	
27	shale	396	
3	coal	399	
10	lime	409	
12	shale	421	
3	lime	424	
16	shale	440	
5	lime	445	
22	shale	467	
2	lime	469	
1	coal	470	
3	shale	473	
6	lime	479	
6	shale	485	
1	lime	486	
1	oil sand	487	light bleed
3	oil sand	490	heavy bleed
1	broken sand	491	heavy bleed
1	broken sand	492	light bleed

1	sandy shale	493	
2	broken sand	495	heavy bleed
2	broken sand	497	no bleed
30	shale	527	
28	shale	555	
5	lime	560	TD

Drilled a 9 7/8" hole to 19'7"

Drilled a 5 7/8" hole to 560'

Set 20' of 7" surface casing cemented with 5 sacks of portland cement

Set 552.60' of 2 7/8" round upset tubing. Baffle @ 521.30'

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