

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

WELL LOG
Kansas Resource Exploration & Development, LLC
Cartwright KR-22

August 13, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
6	soil/clay	6	
24	lime	30	
20	shale	50	
4	lime	54	
32	shale	86	
4	lime	90	
15	shale	105	
16	lime	121	
9	shale	130	
9	lime	139	
8	shale	147	
2	lime	149	
9	shale	158	
9	lime	167	
18	shale	185	
14	lime	199	
144	shale	343	
21	sandy shale	364	
9	lime	373	
8	grey sand	381	slight gas smell
15	sandy shale	396	
14	shale	410	
3	coal	413	
5	shale	418	
4	lime	422	
15	sandy shale	437	
3	lime	440	
4	coal	444	
10	shale	454	
9	lime	463	
13	shale	476	
2	lime	478	

2	shale	480	
2	coal	482	
6	lime	488	
4	shale	492	
1	oil sand	493	good bleed
1.50	shale	494.50	
1.00	oil sand	495.50	light bleed
0.50	broken sand	496	light bleed
5	oil sand	501	light bleed
2	broken sand	503	light bleed
1	sandy shale	504	
1	broken sand	505	medium bleed
1	sandy shale	506	
1.50	broken sand	507.50	medium bleed
1.00	broken sand	508.50	light bleed
71.50	shale	580	TD

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

Drilled a 5 7/8" hole to 580'

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

Set 574.46' of 2 7/8" round upset tubing. Baffle @ 542.80'

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