



11 Lewis Drive

Paola, KS 66071

Oil & Gas Well Drilling
Water Wells
Geo-Loop Installation

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WELL LOG

Kansas Resource Exploration & Development, LLC

Guetterman #KR-19

API # 15-091-23,962

December 28, 2012 - January 2, 2013

Thickness of Strata

Thickness of Strata	Formation	Total
17	soil & clay	17
7	shale	24
5	lime	29
2	shale	31
16	lime	47
12	shale	59
5	lime	64
4	shale	68
1	lime	69
5	shale	74
13	lime	87
1	shale	88
2	lime	90
20	shale	110
20	lime	130
4	shale	134
49	lime	183
20	shale	203
12	lime	215
16	shale	231
7	lime	238
10	shale	248
10	lime	258
6	shale	264
3	lime	267
17	shale	284
2	lime	286
10	shale	296
24	lime	320
8	shale	328
22	lime	350
4	shale	354
4	lime	358
3	shale	361
7	lime	368 base of the Kansas City
170	shale	538
6	lime	544
2	shale	546
1	lime	547
3	shale	550
1	lime	551

1		
5	coal	
10	shale	552
12	lime	557
4	shale	567
4	lime	579
7	shale	583
3	lime	587
3	shale	594
22	lime	597
2	shale	600
8	lime	622 red
10	shale	624
59	lime	632
6	shale	642
1	broken sand	701
2	oil sand	707 light bleeding, gassy
17	broken sand	708 ok bleeding, gassy
1	shale	710 ok bleeding, gassy
18	coal	727
1	shale	728
28	lime	746
1	shale	747
20	coal	775
1	shale	776
23	coal	796
4.5	shale	797
0.5	oil sand	820
1	lime	824.5 brown, good bleeding
64	broken sand	825
	shale	826 brown & grey, ok bleeding
		890 TD

Drilled a 9 7/8" hole to 22.4'

Drilled a 5 5/8" hole to 890'

Set 22.4' of 7" surface casing cemented with 6 sacks of cement

Set 880' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe and 1 clamp.