



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

Joeckel #KR-21

API # 15-121-30,065

April 1 - April 7, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
2	soil & clay	2
3	shale	5
15	lime	20
110	shale	130
21	lime	151
16	shale	167
5	lime	172
35	shale	207
14	lime	221
13	shale	234
12	lime	246
2	shale	248
10	lime	258
10	shale	268
18	lime	286 oil show
4	shale	290
14	lime	304
148	shale	452
4	lime/shale	456 no oil
1	limey sand	457 hard white, light bleeding
4	broken sand	461 50% limey sand 50% shale (soft) light bleeding
4	limey sand	465 hard brown limey sand good bleeding
2	lime	467 few thin minimal bleeding sand seams
1	limey sand	468 50% lime 50% limey sand, ok bleeding
27	shale	495
7	lime	502
13	shale	515
4	lime	519
10	shale	529
6	lime	535
17	shale	552
3	lime	555
52	shale	607
7	lime	614
7	shale	621
1	coal	622
19	silty shale	641
2	broken sand	643 10% light brown sand 90% shale no show

16	broken sand	659	50% shale 50% light brown sand no oil
32	sand	691	light brown sand light oil show makes water
1	coal	692	
16	shale	708	
1	coal	709	
1	shale	710	
13.5	silty shale	723.5	with few thin lime streaks minimal oil show
1	broken sand	724.5	20% brown sand 80% shale ok bleeding
4	silty shale	728.5	
1.5	broken sand	730	805 brown sand 20% silty shale
6	shale	736	TD

Drilled a 9 7/8" hole to 23.3'

Drilled a 5 5/8" hole to 716'

Set 23.3' of 7" surface casing cemented with 5 sacks of cement

Set 541' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe, 1 clamp and 1 baffle.

Baffle set 31.90' from bottom of tally.

This well was plugged back to 541'

Core Times

<u>Minutes</u>	<u>Seconds</u>
716	49
717	46
718	44
719	30
720	32
721	28
722	32
723	32
724	32
725	38
726	38
727	45
728	43
729	35
730	41
731	38
732	41
733	41
734	33