



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-43

API # 15-121-30,074

April 9 - April 11, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
15	soil & clay	15
69	shale	84
23	lime	107
10	shale	117
7	lime	124
35	shale	159
14	lime	173
12	shale	185
25	lime	210
7	shale	217
21	lime	238
3	shale	241
21	lime	262 base of the Kansas City
137	shale	399
1	silty shale	400
1	broken sand	401 brown sand & shale, ok bleeding
1.5	sand	402.5 brown sand, no show
1	shale	403.5
1.5	lime	405
1.5	lime/silty shale	406.5
6	broken sand	412.5 90% brown sand 10% shale, no show
1	lime	413.5
2.5	broken sand	416 90% brown sand 10% shale light bleeding
1	oil sand	417 brown sand, good bleeding gassy
2	limey sand	419 hard limey sand, fair bleeding
1	sand	420 brown light odor, minimal show
4	limey sand	424 hard good bleeding
3	oil sand	421 brown sand good bleeding
14	shale	441
5	lime	446
5	shale	451
4	lime	455 broken with porosity good bleeding
7	lime	462 white lime
26	shale	488
5	lime	493
15	shale	508
4	lime	512
14	shale	526

2	lime	528
21	shale	549
3	lime	552
24	shale	576
1	coal	577
6	shale	583
2	lime	585
18	shale	603 brown sand , light bleeding
15	broken sand	618 light brown sand & shale no oil
5	grey sand	623 no oil
7	sand	630 light brown light show
11	broken sand	641 light brown, sand & shale
1	coal	642
15	shale	657
3	broken sand	660 70% brown sand 30% shale good bleeding
5	silty shale	665
1	broken sand	666 15% brown sand 85% shale ok bleeding
1	silty shale	667
3	broken sand	670 15% brown sand 85% shale, ok bleeding
2	broken sand	672 10% brown sand, 90% shale light bleeding
3.5	shale	675.5
1.5	oil sand	677 brown sand good bleeding
1	broken sand	678 50% brown sand 50% shale good bleeding
4.5	oil sand	682.5 brown, good bleeding
2.5	lime	685
6	oil sand	691 brown, good bleeding
1	limey sand	692
4	shale	696
1	coal	697
83	shale	780 TD

Drilled a 9 7/8" hole to 20'

Drilled a 5 5/8" hole to 780'

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

Set 765.05' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe, 1 clamp and 1 baffle.

Baffle set 31.4' from bottom of tally.

Core Times

	<u>Minutes</u>	<u>Seconds</u>		<u>Minutes</u>	<u>Seconds</u>
401		41	670	1	0
402		29	671		42
403	1	32	672		42
404	2	27	673		45
405		41	674		43
406	1	9	675		44
407		49	676		36
408		30	677		43
409		30	678		44
410		35	679		38
411		45	680		36
412	2	56	681		41
413		26	682	1	59
414		35	683	2	4
415		31	684	2	9
416	1	59	685		36
417	1	20	686		35
418		41	687		33
419		43	688		35
420	1	42	689		23