



11 Lewis Drive

Paola, KS 66071

Oil & Gas Well Drilling  
Water Wells  
Geo-Loop Installation

Phone: 913-557-9083

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**WELL LOG**

Tailwater, Inc.

North Kempnich #25-IWU

API #15-003-26,251

July 30 - July 31, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
12	soil & clay	12
97	shale	109
25	lime	134
46	shale	180
3	lime	183
20	shale	203
11	lime	214
6	shale	220
33	lime	253
7	shale	260
21	lime	281
3	shale	284
21	lime	305 base of the Kansas City
180	shale	485
3	lime	488
4	shale	492
9	lime	501 oil show
8	shale	509
10	oil sand	519 green, ok bleeding
6	shale	525
1	coal	526
3	silty shale	529
16	broken sand	545 brown & grey ok bleeding
5	shale	550
1	coal	551
3	shale	554
8	lime	562
14	shale	576
3	lime	579
21	shale	600
11	lime	611
18	shale	629
2	lime	631
26	shale	657
0.5	oil sand	657.5 brown 100% bleeding
1.5	limy sand	659 white no oil show
1.5	oil sand	660.5 brown, 100% bleeding
0.5	broken sand	661 brown & green 20% bleeding

2.5  
21.5

broken sand  
shale

663.5 brown & green no bleeding  
685 TD

Drilled a 9 7/8" hole to 22.4'

Drilled a 5 5/8" hole to 685'

Set 22.4' of 7" surface casing threaded and coupled cemented with 5 sacks of cement.

Set 680' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe and 1 clamp.

**Core Times**

	<u>Minutes</u>	<u>Seconds</u>
658	1	51
659	1	26
660		41
661		30
662		35
663		48
664		38
665		35
666		37
667		37
668		38
669		42
670		48
671		43
672		41
673		40
674		48
675		57