



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.

South Kempnich # 20-IWU

API #15-003-26,391

November 4 - November 5, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
14	soil & clay	14
4	clay & gravel	18
51	shale	69
28	lime	97
9	shale	106
69	lime	175
4	shale	179
38	lime	217
7	shale	224
23	lime	247
2	shale	249
15	lime	264 base of the Kansas City
187	shale	451
3	lime	454
6	shale	460
6	lime	466
9	shale	475
6	oil sand	481 green light bleeding
6	shale	487
1	coal	488 green ok oil show
3	shale	491
19	oil sand	510 green good bleeding
4	shale	514
2	coal	516 good bleeding
7	shale	523
4	lime	527
8	shale	535
3	lime	538
8	shale	546
2	lime	548
21	shale	569
8	lime	577
20	shale	597
4	lime	601
22	shale	623
3	limy sand	626 green & white, no oil
6	broken sand	632 brown & green good bleeding
26	shale	658 TD

Drilled a 9 7/8" hole to 22.6'

Drilled a 5 5/8" hole to 658'

Set 22.6' of 7" surface casing with 5 sacks of cement.

Set 653' of 2 7/8" 8 round upset tubing including 3 centralizers, 1 float shoe, and 1 clamp.