



11 Lewis Drive

Paola, KS 66071

**Oil & Gas Well Drilling  
Water Wells  
Geo-Loop Installation**

Phone: 913-557-9083

Fax: 913-557-9084

**WELL LOG**

Tailwater, Inc.

North Kempnich #21-IWU

API #15-003-26,247

September 19 - September 22, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
14	soil & clay	14
4	clay & gravel	18
51	shale	69
26	lime	95
72	shale	167
10	lime	177
6	shale	183
34	lime	217
9	shale	226
21	lime	247
3	shale	250
25	lime	275 base of the Kansas City
174	shale	449
4	lime	453
5	shale	458
7	lime	465 oil show
8	shale	473
7	oil sand	480 green, light oil show
7	shale	487
1	coal	488
2	shale	490
19	oil sand	509 green, ok bleeding
4	shale	513
2	coal	515
7	shale	522
6	lime	528
6	shale	534
2	lime	536
7	shale	543
5	lime	548
17	shale	565
10	lime	575
46	shale	621
1	limy sand	622 green & white, no oil
1.5	broken sand	623.5 brown & green 50% bleeding
0.5	oil sand	624 brown 60% bleeding
3	broken sand	627 brown & green 50% bleeding
2	broken sand	629 brown & grey a few thin bleeding seams 90% shale
22	shale	651 TD

Drilled a 9 7/8" hole to 22.5'

Drilled a 5 5/8" hole to 651'

Set 22.5' of 7" surface casing with 5 sacks of cement.

Set 646.3' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe and 1 clamp.