



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 #20-IWU

API #15-003-26,244

September 2 - September 4, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
1	soil & clay	1
4	clay & gravel	5
78	shale	83
30	lime	113
64	shale	177
11	lime	188
25	shale	213
36	lime	249
7	shale	256
22	lime	278
5	shale	283
4	lime	287 base of the Kansas City
173	shale	460
3	lime	463
4	shale	467
7	lime	474 oil show
23	shale	497
2	oil sand	499 green oil show
1	coal	500
3	shale	503
17	oil sand	520 green, good bleeding
6	shale	526
1	coal	527
6	shale	533
6	lime	539
15	shale	554
5	lime	559
18	shale	577
11	lime	588
19	shale	607
4	lime	611
24	shale	635
2	limey sand	637
1	broken sand	638
1	oil sand	639
3	broken sand	642
21	shale	663 TD

Drilled a 9 7/8" hole to 21.65'

Drilled a 5 5/8" hole to 663'

Set 21.65' of 7" surface casing threaded and coupled cemented with 5 sacks of cement.

Set 658.35' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe and 1 clamp.