

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

> Phone: 913-557-9083 Fax: 913-557-9084

Paola, KS 66071

WELL LOG

Ace Energy LLC Mullen #12 API #15-037-22,341

June 13 - June 14, 2017

Thickness of Strata	Formation	<u>Total</u>
9	soil & clay	9
7	lime	16
9	shale	25
13	lime	38
93	shale	131
1	coal	132
15	shale	147
2	lime	149
. 3	shale	152
1	coal	153
9	shale	162
1	coal	163
10	shale	173
2	coal	175
26	shale	201
1 ,	coal	202
7	shale	209
21	oil sand	230 brown, 100% bleeding
30	shale	260
1	coal	261
19	shale	280 TD

Drilled a 12 1/4" hole to 21.5' Drilled a 6 3/4" hole to 280'

Set 21.5' of 8 5/8" surface casing cemented with 8 sacks of cement.

Set 265' of 4 1/2" with 2 centralizers, 1 float shoe, 1 clamp.