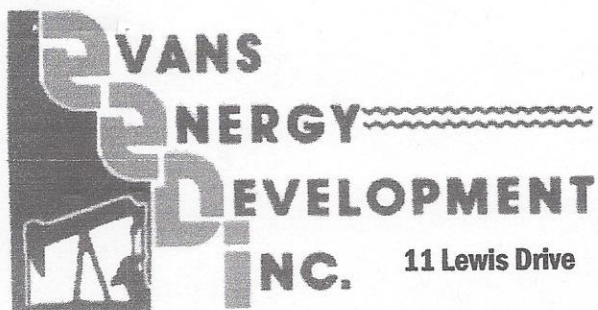




11 Lewis Drive

Paola, KS 66071

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

Phone: 913-557-9083

Fax: 913-557-9084

WELL LOG

Rader Oil Company

Hermes #39

API #15-059-26,814

October 31 - November 3, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
1	soil & clay	1
9	lime	10
30	shale	40
17	lime	57
92	shale	149
22	lime	171
28	shale	199
9	lime	208
21	shale	229 oil show at 215'
9	lime	238
2	shale	240
1	lime	241
19	shale	260
25	lime	285
7	shale	292
23	lime	315
4	shale	319
13	lime	332
151	shale	483
10	lime	493
13	shale	506
7	sand & limey sand	513
18	shale	531
2	coal	533
7	shale	540
8	lime	548
14	shale	562
3	lime	565
11	shale	576
5	lime	581
10	shale	591
1	lime	592
3	shale	595
2	brown lime	597 oil show
3	lime	600
3	shale	603 green
3	shale	606 light
13	oil sand	619 green
2	oil sand	621 dark brown, bleeding

2	broken sand	623 dark sand grey shale
29	shale	652
1	lime	653
7	shale	660
1	lime & shells	661
15.5	shale	676.5 dark
0.5	oil sand	677
1	oil sand	678
0.5	lime	678.5
3.2	oil sand	681.7 brown, bleeding
1.3	broken sand	683 green sand, grey shale
25	shale	708 TD

Drilled a 12 1/4" hole to 21.5'

Drilled a 6 3/4" hole to 750'

Set 21.5' of new 8 3/8" surface casing cemented with 8 sacks of cement

Set 702' of 4 1/2" OD casing with 3 centralizers, 1 float shoe and 1 clamp