



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

Petroleum Technologies, Inc.

Knabe C #14A

API #15-091-24,432

August 5 - August 9, 2016

| <u>Thickness of Strata</u> | <u>Formation</u> | <u>Total</u> |
|----------------------------|------------------|-----------------------------|
| 12 | soil & clay | 12 |
| 3 | shale | 15 |
| 3 | lime | 18 |
| 5 | shale | 23 |
| 16 | lime | 39 |
| 4 | shale | 43 |
| 9 | lime | 52 |
| 11 | shale | 63 |
| 20 | lime | 83 |
| 20 | shale | 103 |
| 24 | lime | 127 |
| 9 | shale | 136 |
| 24 | lime | 160 |
| 9 | shale | 169 |
| 24 | lime | 193 |
| 16 | shale | 209 |
| 6 | lime | 215 |
| 21 | shale | 236 |
| 9 | lime | 245 |
| 4 | shale | 249 |
| 8 | lime | 257 |
| 30 | shale | 287 |
| 36 | lime | 323 |
| 6 | shale | 329 |
| 26 | lime | 355 |
| 3 | shale | 358 |
| 15 | lime | 373 base of the Kansas City |
| 174 | shale | 547 |
| 4 | lime | 551 |
| 20 | shale | 571 |
| 5 | broken sand | 576 |
| 29 | shale | 605 |
| 3 | lime | 608 |
| 22 | shale | 630 |
| 5 | lime | 635 |
| 51 | shale | 686 |
| 4 | lime | 690 |
| 20 | shale | 710 |
| 6 | broken sand | 716 |
| 51 | shale | 767 |

| | | |
|------|-------------|--------|
| 2 | lime | 769 |
| 61 | shale | 830 |
| 9 | limey sand | 839 |
| 2.5 | limey sand | 841.5 |
| 4.5 | shale | 846 |
| 2.5 | broken sand | 848.5 |
| 55.5 | shale | 904 TD |

Drilled a 9 7/8" hole to 22.8'

Drilled a 5 5/8" hole to 904'

Set 22.8' of 7" casing cemented with 6 sacks cement.

Set 884' of 2 7/8" 8 round upset tubing including 3 centralizers, 1 float shoe, 1 clamp, and 1 baffel at 878'.