

Route 4
Paola, Kansas 66071

TOWN OIL COMPANY

"Drilling and Production"

913-294-2125

Well No. 13
Farm Owner: Kern
Miami County, Kansas

Sec 18 Twp 16 Rge 24

Well Owner: Town Oil Company

WELL LOG

| Thickness of Strata | Formation | Total Depth |
|------------------------|----------------------|----------------|
| 7 | Soil & Clay | 7 |
| 15 | Lime | 22 |
| 68 | Shale | 90 |
| 21 | Lime | 111 |
| 11 | Shale | 122 |
| 10 | Lime | 132 |
| 6 | Shale | 138 |
| 9 | Sand | 147 |
| 4 | Sandy Shale | 151 |
| 16 | Shale (Lime Streaks) | 167 |
| 5 | Lime | 172 |
| 2 | Lime Shells | 174 |
| 33 | Shale | 207 |
| 10 | Lime | 217 |
| 16 | Shale | 233 |
| 25 | Lime | 258 |
| 7 | Shale & Slate | 265 |
| 22 | Lime | 287 |
| 3 | Shale & Slate | 290 |
| 2 | Lime | 292 |
| 5 | Shale & Slate | 297 |
| 10 | Lime | 307 |
| 4 | Shale | 311 |
| 2 | Lime Shells | 313 |
| 4 | Shale | 317 |
| 9 | Sand | 326 |
| 13 | Shale | 339 |
| 25 | Sand | 365 |
| 63 | Sandy Shale | 428 |
| 2 | Lime Shells | 430 |
| 7 | Shale | 437 |
| 2 | Lime | 439 |
| 2 | Lime Shells | 441 |
| 35 | Shale (Sandy) | 476 |
| 2 | Slate | 478 |
| 18 | Shale Dk. | 496 |
| 1 | Slate | 497 |
| 5 | Shale | 502 |
| 4 | Lime | 506 |
| 2 | Shale | 508 |
| 2 | Lime | 510 |

Hertha

Well No. 13
Farm Owner: Kern
Miami County, Kansas
Well Owner: Town Oil Company

Sec. 18 Twp. 16 Rge. 24

WELL LOG (Cont'd)

| Thickness of Strata | Formation | Total Depth |
|------------------------|---------------|-------------------|
| 8 | Shale | 518 |
| 7 | Lime | 525 |
| 9 | Sand | 534 |
| 11 | Shale (Dk) | 545 |
| 3 | Lime | 548 |
| 10 | Shale & Slate | 558 |
| 5 | Lime | 563 |
| 6 | Shale | 569 |
| 1 | Lime | 570 |
| 2 | Shale | 572 |
| 6 | Lime | 578 |
| 9 | Shale | 587 |
| 1 | Slate | 588 |
| 6 | Shale | 594 |
| 2 | Lime | 596 |
| 45 | Shale | 641 |
| 1 | Lime | 642 |
| 5 | Shale | 647 |
| 2 | Sandy Shale | 649 |
| 6.5 | Sand Oil | 655.5 |
| 19.5 | Sandy Shale | 675 |
| 2 | Sand | 677 |
| 8 | Shale | <u>685</u> . T.D. |