

# DRILLING TIME RECORD

Harry Gore.  
Frank Law No. 1.  
2-108-23W  
Graham County, Kansas

Location: NW-SW  
Elevation: 2437 Rig Floor.

| Depth     | Time in minutes              | Remarks                                         |
|-----------|------------------------------|-------------------------------------------------|
| 2901-2910 | 8-9-9-9-9-5-5-10-9-8         |                                                 |
| 2910-2920 | 7-6-9-8-7-8-7-3-3-3          |                                                 |
| 2920-2930 | 6-9-9-6-7-3-3-3-4-3          |                                                 |
| 2930-2940 | 2-2-1-1-1-1-1-2-3-2          |                                                 |
| 2940-2950 | 3-4-3-2-2-4-7-6-3-3          |                                                 |
| 2950-2960 | 2-1-4-4-6-4-7-7-4-4          |                                                 |
| 2960-2970 | 5-7-4-7-6-3-3-2-2-1          |                                                 |
| 2970-2980 | 1-3-3-2-3-5-2-4-2-2          |                                                 |
| 2980-2990 | 2-1-1-2-10-8-9-9-10-10       |                                                 |
| 2990-3000 | 8-9-10-10-13-12-7-10-9-9     |                                                 |
| 3000-3010 | 6-7-8-8-8-10-10-8-9-10       | Slope test at 3002.                             |
| 3010-3020 | 10-8-8-6-5-1-2-2-2-2-2       |                                                 |
| 3020-3030 | 1-2-2-2-2-2-2-2-2-11         |                                                 |
| 3030-3040 | 6-5-5-5-5-7-12-10-11-13      |                                                 |
| 3040-3050 | 11-16-18-17-15-16-13-13-20-4 | Trip at 3049 (OSC) Strapped pipe in derrick ok. |
| 3050-3060 | 3-4-2-2-1-2-2-3-4-4          |                                                 |
| 3060-3070 | 3-2-3-3-3-4-6-5-3-3          |                                                 |
| 3070-3080 | 5-3-3-2-4-2-3-3-2-2          |                                                 |
| 3080-3090 | 2-2-2-3-3-2-3-3-3-3          |                                                 |
| 3090-3100 | 5-4-5-5-5-6-3-5-7-9          |                                                 |
| 3100-3110 | 9-8-5-9-10-10-6-5-2-5        |                                                 |
| 3110-3120 | 3-4-4-4-4-4-4-4-4-2          |                                                 |
| 3120-3130 | 4-4-5-10-10-8-6-6-6-8        |                                                 |
| 3130-3140 | 5-4-5-6-8-12-10-6-5-4        |                                                 |
| 3140-3150 | 3-2-2-1-3-5-3-4-3-3          |                                                 |
| 3150-3160 | 4-3-3-5-6-6-7-5-7-6          |                                                 |
| 3160-3170 | 8-7-7-4-6-8-8-4-5-11         |                                                 |
| 3170-3180 | 7-5-6-5-5-4-5-5-5-7          |                                                 |
| 3180-3190 | 9-7-3-3-6-9-10-14-9-9        |                                                 |
| 3190-3200 | 10-11-11-8-7-10-10-8-10-6    |                                                 |
| 3200-3210 | 11-10-6-8-10-10-10-10-9-8    |                                                 |
| 3210-3220 | 8-8-10-8-12-12-11-14-13-12   |                                                 |
| 3220-3230 | 13-10-9-8-9-10-12-18-17-26   |                                                 |
| 3230-3240 | 13-8-9-17-12-12-13-11-11-9   |                                                 |
| 3240-3250 | 9-10-9-10-13-17-25-20-17-12  |                                                 |
| 3250-3260 | 7-11-10-9-11-12-5-6-7-8      |                                                 |
| 3260-3270 | 9-12-8-10-10-13-13-15-15-12  |                                                 |
| 3270-3280 | 10-8-9-9-9-8-9-9-10-9        |                                                 |
| 3280-3290 | 10-7-7-8-10-7-9-10-10-15     |                                                 |
| 3290-3300 | 17-13-10-9-10-6-10-15-9-10   |                                                 |
| 3300-3310 | 13-14-14-4-3-2-2-3-3-2       | Trip at 3303 (OWS)                              |
| 3310-3320 | 3-4-5-3-5-5-5-7-8-5          |                                                 |
| 3320-3330 | 5-3-6-4-5-6-6-7-8-8          |                                                 |
| 3330-3340 | 5-5-5-5-5-5-6-5-5-5          |                                                 |
| 3340-3350 | 6-4-4-5-4-4-6-8-4-3          |                                                 |
| 3350-3360 | 5-4-4-3-2-2-2-1-2-3          |                                                 |
| 3360-3370 | 3-3-2-1-1-2-3-3-3-4          |                                                 |
| 3370-3380 | 4-3-4-4-3-4-4-4-4-4          |                                                 |
| 3380-3390 | 3-3-2-2-2-2-3-7-5-6          |                                                 |

| Depth     | Time in minutes               | Remarks                               |
|-----------|-------------------------------|---------------------------------------|
| 3390-3400 | 6-5-5-3-3-3-3-3-4             |                                       |
| 3400-3410 | 4-4-4-4-4-5-6-7-5-5           |                                       |
| 3410-3420 | 5-6-7-6-5-6-6-7-4-5           |                                       |
| 3420-3430 | 4-1-1-1-1-1-1-2-8-2           |                                       |
| 3430-3440 | 3-7-7-9-8-8-9-8-7-6           |                                       |
| 3440-3450 | 7-2-2-2-4-4-5-6-6-5           |                                       |
| 3450-3460 | 4-3-3-7-4-3-3-4-4-4           |                                       |
| 3460-3470 | 5-6-5-5-10-10-7-8-5-8         |                                       |
| 3470-3480 | 8-10-8-11-8-8-6-6-6-7         |                                       |
| 3480-3490 | 8-18-20-20-13-8-15-11-10-16   |                                       |
| 3490-3500 | 16-12-16-16-17-10-9-7-7-8     |                                       |
| 3500-3510 | 8-10-10-7-6-6-5-8-7-6         |                                       |
| 3510-3520 | 5-3-5-3-3-4-5-3-6-8           |                                       |
| 3520-3530 | 13-15-15-15-15-12-8-7-9-10    |                                       |
| 3530-3540 | 7-6-6-6-7-5-4-6-6-15          |                                       |
| 3540-3550 | 12-11-9-7-8-7-5-5-7-7         |                                       |
| 3550-3560 | 6-5-7-14-13-9-10-5-5-3        | Trip at 3558 (OWS)                    |
| 3560-3570 | 3-2-2-3-5-4-3-3-4-3           |                                       |
| 3570-3580 | 3-3-5-5-9-7-7-6-4-8           |                                       |
| 3580-3590 | 8-8-5-4-3-3-4-3-3-3           |                                       |
| 3590-3600 | 3-4-3-4-3-3-4-6-6-7           |                                       |
| 3600-3610 | 5-3-2-3-9-5-4-4-4-4           |                                       |
| 3610-3620 | 2-4-4-4-6-6-7-8-8-6           |                                       |
| 3620-3630 | 8-7-6-6-6-6-6-6-7-5           |                                       |
| 3630-3640 | 7-8-5-6-7-9-9-9-6-10          |                                       |
| 3640-3650 | 7-2-3-2-4-4-4-2-2-4           |                                       |
| 3650-3660 | 3-5-16-18-16-15-8-9-8-8       |                                       |
| 3660-3670 | 11-9-6-6-4-10-11-8-8-10       |                                       |
| 3670-3680 | 7-9-9-9-7-5-4-3-4-5           |                                       |
| 3680-3690 | 4-7-6-6-4-6-7-8-8-10          |                                       |
| 3690-3700 | 13-8-9-9-10-10-13-15-15-20    |                                       |
| 3700-3710 | 20-16-7-11-12-13-13-13-14-15  |                                       |
| 3710-3720 | 14-10-10-11-12-12-4-7-10-11   | Trip at 3716 (W-7)                    |
| 3720-3730 | 12-11-10-11-9-6-6-5-7-11      |                                       |
| 3730-3740 | 12-14-10-13-13-11-10-5-7-13   |                                       |
| 3740-3750 | 14-12-11-12-16-13-14-16-12-17 |                                       |
| 3750-3760 | 16-21-17-21-14-18-17-17-17-16 |                                       |
| 3760-3770 | 14-19-15-4-8-8-12-12-15-17    |                                       |
| 3770-3780 | 17-14-18-15-13-8-10-12-14-12  |                                       |
| 3780-3790 | 14-13-15-13-13-14-14-15-13-12 |                                       |
| 3790-3800 | 12-13-15-15-16-15-16-15-15-22 |                                       |
| 3800-3810 | 23-22-22-18-11-15-18-15-12-11 |                                       |
| 3810-3820 | 10-7-13-17-18-6-5-9-17-9      | Circulated at 3815. D.S.T. 3789-3815. |
| 3820-3830 | 8-6-4-3-3-3-5-10-7            | Trip at 3815 (W-7)                    |
| 3830-3840 | 3-6-8-12-12-14-13-11-10-10    |                                       |
| 3840-3850 | 15-13-12-12-13-12-12-11-15-14 |                                       |
| 3850-3860 | 14-10-9-11-12-10-11-7-10-8    |                                       |
| 3860-3870 | 7-9-10-11-9-10-12-13-12-10    |                                       |
| 3870-3880 | 10-10-9-11-10-9-9-10-9-9      |                                       |
| 3880-3890 | 10-8-9-7-7-9-10-8-9-10        |                                       |
| 3890-3900 | 12-9-9-10-10-13-9-10-11-14    |                                       |
| 3900-3910 | 11-11-15-14-12-13-11-14-10-12 |                                       |

| Depth     | Time in minutes                          | Remarks                               |
|-----------|------------------------------------------|---------------------------------------|
| 3910-3920 | 11-11-11-11-10-11-11-11-8-9              |                                       |
| 3920-3930 | 9-10-13-12-15-10-16-19-10-12             | Circulated at 3928. D.S.T. 3902-3928. |
| 3930-3940 | 7-15-8-10-8-16-6-13-14-10                | Trip at 3928.                         |
| 3940-3950 | 10-6-5-8-9-12-8-10-7-7                   |                                       |
| 3950-3960 | 8-7-10-10-10-9-10-12-11-9                |                                       |
| 3960-3970 | 7-6-5-6-6-5-7-5-5-5                      |                                       |
| 3970-3980 | 5-4-5-7-8-7-9-15-14-9                    |                                       |
| 3980-3990 | 9-10-10-9-8-9-10-7-7-7                   |                                       |
| 3990-4000 | 10-8-8-8-10-10-7-10-8-8                  |                                       |
| 4000-4010 | 6-7-7-7-7-7-7-7-7-7                      |                                       |
| 4010-4020 | 11-11-9-10-10-16-18-12-10-13             |                                       |
| 4020-4030 | 13-16-10-13-15-14-8-8-12-16              |                                       |
| 4030-4040 | 10-14-10-10-10-6-6-8-10-15               |                                       |
| 4040-4050 | 11-10-14-15-14-12-14-14-11-12            |                                       |
| 4050-4060 | 8-8-8-8-8-11-12-12-12-12                 |                                       |
| 4060-4070 | 11-8-7-10-11-14-12-14-7-13               |                                       |
| 4070-4080 | 16-20-5-8-7-8-7-7-6-7                    | Trip at 4072.                         |
| 4080-4090 | 9-9-14-13-14-14-14-12-13-14              |                                       |
| 4090-4100 | 17-10-10-12-11-14-11-12-7-6              |                                       |
| 4100-4110 | 12-11-13-12-11-14-11-12-13-14            |                                       |
| 4110-4120 | 10-12-11-15-15-11-10-9-10-13             |                                       |
| 4120-4130 | 12-13-10-12-13-15-12-13-13-7             |                                       |
| 4130-4140 | 4-9-9-4-1-6-5-4-8-5                      |                                       |
| 4140-4150 | 12-5-7-11-12-11-13-11-11-12              | Circulated & Trip at 4141 (W-7)       |
| 4150-4160 | 12-8-17-16-15-12-9-9-4-2                 | D.S.T. 4127-4141.                     |
| 4160-4170 | 2-4-5-8-4-5-4-3-12-12                    | Circulated at 4168.                   |
| 4170-4180 | 5sr-3sr-5-4-3-3-9-27-23-30               |                                       |
| 4180-4190 | 24-22-15-12-5sr-7-6-11-9sr-11sr          | Kelly correction 4185-4186.           |
| 4190-4200 | 11sr-7sr-6sr-6sr-8sr-6sr-6sr-5sr-9sr-6sr | Circulated at 4188.                   |
| 4200-4210 | 10sr-9sr-4sr-7sr-6sr-6sr-6-6-5sr-6vr     | Trip at 4196 (W7R)                    |
| 4210-4220 | 14sr-10sr-10sr-15-7-7sr-6sr-19-10-10     |                                       |
| 4220-4230 | 14vr-15vr-18-13-12-10-7vr-15-30-20vr     |                                       |
| 4230-4240 | 10vr-2vr-3vr-4sr-2sr-4sr-9-5sr-7-18      | Trip at 4240 (W-7)                    |
| 4240-4250 | 6-6-6-5-8-18-18-15-13-14                 |                                       |
| 4250-4260 | 10-6-8-7-6-10-10-10-10-7                 |                                       |
| 4260-4270 | 9-13sr-14sr-12sr-14sr-15sr-15-10sr-10-10 | T.D. 4270.                            |