LESSEE Phillips Petroleum Company LESSOR Osage Indian Tribe (N.S.Sherman)

WELL NO. 17 SEC. 11 T. 27 R. 5 OSAGE COUNTY Oklahoma. 02659

# FORMATION RECORD

| From | To | Feet | Note each change in formation, i. e., sand, lime, shale, sandy shale, etc. Note character of each formation, i. e., color, hard, soft, caving, etc. Underreamed? Note contents of each formation, i. e., oil, gas, water, and kind of water—salty, etc. |
|---|---|---|---|
| Surface | 10 | 10 | Cellar |
| 10 | 25 | 15 | Red rock red soft 20" 18' 3" |
| 25 | 35 | 10 | Lime light hard |
| 35 | 110 | 75 | Red rock red soft |
| 110 | 150 | 40 | Lime light hard |
| 150 | 160 | 10 | Shale blue soft |
| 160 | 220 | 60 | Lime light hard |
| 220 | 225 | 5 | Shale blue soft |
| 225 | 275 | 50 | Lime light hard |
| 275 | 300 | 25 | Shale blue soft |
| 300 | 305 | 5 | Lime light hard |
| 305 | 400 | 95 | Shale blue soft |
| 400 | 420 | 20 | Sandy lime light hard |
| 420 | 450 | 30 | Shale blue soft |
| 450 | 460 | 10 | Lime light hard |
| 460 | 515 | 55 | Shale light soft |
| 515 | 565 | 50 | Shale blue soft |
| 565 | 590 | 25 | Shale white soft |
| 590 | 600 | 10 | Lime light hard |
| 600 | 605 | 5 | Shale blue soft |
| 605 | 610 | 5 | Lime light hard |
| 610 | 680 | 70 | Shale blue soft |
| 680 | 685 | 5 | Lime light hard |
| 685 | 700 | 15 | Shale blue soft |
| 700 | 705 | 5 | Lime light hard |
| 705 | 715 | 10 | Red rock red soft |
| 715 | 800 | 85 | Shale blue soft |
| 800 | 825 | 25 | Sand light soft 10 Bailers water @ 810 |
| 825 | 905 | 80 | Shale blue soft Ran 15½" @ 900' |
| 905 | 910 | 5 | Lime light hard |
| 910 | 945 | 35 | Shale blue soft |
| 945 | 975 | 30 | Lime light hard |
| 975 | 985 | 10 | Shale blue soft |
| 985 | 1005 | 20 | Lime light hard |
| 1005 | 1020 | 15 | Shale blue soft |
| 1020 | 1035 | 15 | Lime light hard |
| 1035 | 1045 | 10 | Shale blue soft |
| 1045 | 1085 | 40 | Red rock red soft |
| 1085 | 1095 | 10 | Sand light soft HFW @ 1090 |
| 1095 | 1120 | 25 | Shale blue soft |
| 1120 | 1140 | 20 | Sand light soft Caving @ 1160 |
| 1140 | 1160 | 20 | Shale blue soft |
| 1160 | 1225 | 65 | Sandy lime light hard Run 12½" @ 1235 CM |
| 1225 | 1350 | 125 | Shale blue soft |
| 1350 | 1370 | 20 | Red rock red soft |
| 1370 | 1400 | 30 | Shale light soft HFW Dry Cave 1360 |
| 1400 | 1440 | 40 | Sand light soft HFW @ 1410 |
| 1440 | 1455 | 15 | Shale blue soft Caving |