

466380

* BIT # 10 + UR SMITH DSG BIT DIAMETER : 17.50 inch NOZZ 10/10/19 MUD RHEOLOGICAL PARAMETERS : PV = 22 YP = 45 GEL = 15 *

| | | DEPTHS | | | DRILLING PARAMETERS | | | | | MUD PARAMETERS | | OVERPRESSURE SURVEY | | | | ACCUMULATED ON BIT | | | | | | | | | |
|----------|----------|--------|--------|-------|---------------------|-----|------|-------|------|----------------|---------|---------------------|-------------|------|-----|--------------------|-----|------|------|------|------|------|-------|------|-----|
| TIME | MEASURED | VERTCL | LAGGED | ROP | WOB | RPM | TORG | PRESS | FLOW | PIT | DENSITY | TEMPERATURE | RESISTIVITY | GAC | DCS | NORM | PF | ECD | FRAC | FEET | TIME | COST | | | |
| Hr:mn | feet | feet | feet | ft/h | klbs | rpm | ftlb | psi | gpm | in | in | degF | ohm | unit | ppg | ppg | ppg | ppg | feet | D/hr | \$ | | | | |
| D * 1:10 | 2234.8 | 2230.7 | 2195.0 | 643.8 | -1.3 | 70 | 700 | 2019 | 795 | 492 | 8.7 | 8.7 | 84.2 | 91.3 | .94 | .93 | 4 | .17 | .91 | 8.6 | 8.7 | 12.4 | 166.8 | 5.15 | 240 |
| D * 1:11 | 2238.1 | 2235.1 | 2195.0 | 560.8 | .0 | 77 | 700 | 2019 | 795 | 492 | 8.7 | 8.7 | 84.2 | 91.0 | .94 | .93 | 4 | .00 | .91 | 8.6 | 8.7 | 12.4 | 171.2 | 5.15 | 234 |
| D * 1:24 | 2239.3 | 2236.8 | 2199.0 | 171.7 | .0 | 82 | 700 | 1987 | 780 | 522 | 8.7 | 8.7 | 84.7 | 89.8 | .94 | .94 | 8 | -.00 | .91 | 8.6 | 8.7 | 12.4 | 172.0 | 5.16 | 232 |
| D * 1:25 | 2242.1 | 2239.0 | 2199.0 | 500.2 | -1.7 | 82 | 700 | 1991 | 791 | 516 | 8.7 | 8.7 | 84.7 | 89.2 | .94 | .94 | 7 | .00 | .91 | 8.6 | 8.7 | 12.4 | 175.0 | 5.17 | 229 |
| D * 1:25 | 2246.3 | 2243.1 | 2199.0 | 526.6 | -1.7 | 82 | 700 | 1996 | 790 | 514 | 8.7 | 8.7 | 84.7 | 89.8 | .94 | .93 | 7 | .00 | .91 | 8.6 | 8.7 | 12.4 | 179.1 | 5.17 | 224 |
| D * 1:26 | 2250.8 | 2245.8 | 2199.0 | 1103. | -2.1 | 83 | 700 | 1996 | 791 | 512 | 8.7 | 8.7 | 84.7 | 89.5 | .94 | .94 | 7 | .00 | .91 | 8.6 | 8.7 | 12.4 | 184.3 | 5.18 | 217 |
| D * 1:26 | 2251.3 | 2240.8 | 2199.0 | 276.9 | -1.3 | 83 | 700 | 1996 | 791 | 506 | 8.7 | 8.7 | 84.7 | 89.8 | .94 | .94 | 7 | -.00 | .91 | 8.6 | 8.7 | 12.4 | 184.9 | 5.18 | 217 |
| D * 1:26 | 2254.4 | 2251.9 | 2199.0 | 1546. | .0 | 84 | 700 | 2000 | 791 | 504 | 8.7 | 8.7 | 84.6 | 90.2 | .94 | .93 | 7 | -.00 | .91 | 8.6 | 8.7 | 12.4 | 187.9 | 5.18 | 213 |
| D * 1:26 | 2258.4 | 2254.7 | 2200.0 | 647.1 | -1.7 | 81 | 700 | 2000 | 785 | 496 | 8.7 | 8.7 | 84.7 | 90.3 | .94 | .92 | 5 | .00 | .91 | 8.6 | 8.7 | 12.4 | 190.7 | 5.19 | 210 |
| D * 1:27 | 2260.4 | 2257.9 | 2200.0 | 520.7 | -.8 | 79 | 800 | 1991 | 795 | 494 | 8.7 | 8.7 | 84.7 | 90.2 | .94 | .93 | 5 | .00 | .91 | 8.6 | 8.7 | 12.4 | 193.9 | 5.20 | 207 |
| D * 1:27 | 2263.7 | 2261.2 | 2200.0 | 845.0 | .0 | 81 | 800 | 1996 | 794 | 492 | 8.7 | 8.7 | 84.6 | 90.3 | .94 | .92 | 4 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 197.2 | 5.20 | 204 |
| D * 1:27 | 2266.9 | 2262.9 | 2200.0 | 452.8 | -.6 | 81 | 800 | 2000 | 795 | 490 | 8.7 | 8.7 | 84.7 | 90.2 | .94 | .92 | 5 | .00 | .91 | 8.6 | 8.7 | 12.5 | 198.9 | 5.20 | 202 |
| D * 1:34 | 2270.0 | 2267.5 | 2206.0 | 466.6 | .2 | 84 | 700 | 1973 | 785 | 508 | 8.7 | 8.7 | 84.6 | 89.5 | .94 | .93 | 7 | .20 | .91 | 8.6 | 8.7 | 12.5 | 203.6 | 5.22 | 198 |
| D * 1:34 | 2272.2 | 2268.5 | 2209.0 | 520.2 | -1.0 | 81 | 700 | 1968 | 781 | 506 | 8.7 | 8.7 | 84.6 | 88.9 | .94 | .95 | 7 | .00 | .91 | 8.6 | 8.7 | 12.5 | 204.6 | 5.22 | 197 |
| D * 1:35 | 2275.7 | 2272.8 | 2209.0 | 567.2 | -1.0 | 81 | 700 | 1973 | 781 | 500 | 8.7 | 8.7 | 84.6 | 89.5 | .94 | .94 | 7 | .00 | .91 | 8.6 | 8.7 | 12.5 | 208.9 | 5.23 | 193 |
| D * 1:35 | 2280.4 | 2277.9 | 2209.0 | 726.0 | -.2 | 81 | 700 | 1973 | 785 | 498 | 8.7 | 8.7 | 84.6 | 90.0 | .94 | .93 | 7 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 213.9 | 5.24 | 188 |
| D * 1:36 | 2282.0 | 2279.2 | 2209.0 | 736.0 | -2.7 | 80 | 700 | 1977 | 785 | 496 | 8.7 | 8.7 | 84.5 | 90.2 | .94 | .93 | 5 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 215.2 | 5.24 | 187 |
| D * 1:36 | 2285.8 | 2282.6 | 2209.0 | 492.9 | -.6 | 79 | 700 | 1982 | 785 | 490 | 8.7 | 8.7 | 84.5 | 90.3 | .94 | .94 | 5 | .00 | .91 | 8.6 | 8.7 | 12.5 | 218.7 | 5.24 | 184 |
| D * 1:36 | 2287.3 | 2284.8 | 2209.0 | 209.3 | -.4 | 78 | 700 | 1977 | 781 | 488 | 8.7 | 8.7 | 84.5 | 90.4 | .94 | .93 | 5 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 220.8 | 5.25 | 183 |
| D * 1:37 | 2291.2 | 2288.1 | 2209.0 | 823.4 | -1.6 | 78 | 700 | 1977 | 781 | 486 | 8.7 | 8.7 | 84.6 | 90.4 | .94 | .93 | 5 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 224.2 | 5.25 | 180 |
| D * 1:37 | 2294.1 | 2291.6 | 2209.0 | 271.0 | -.8 | 83 | 700 | 1982 | 785 | 482 | 8.7 | 8.7 | 84.5 | 90.4 | .94 | .92 | 4 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 227.6 | 5.26 | 177 |
| D * 1:38 | 2297.1 | 2293.7 | 2209.0 | 251.6 | -.2 | 77 | 700 | 1982 | 784 | 480 | 8.7 | 8.7 | 84.5 | 90.6 | .94 | .92 | 4 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 229.7 | 5.27 | 176 |
| D * 1:46 | 2300.0 | 2297.5 | 2209.0 | 830.3 | .0 | 81 | 700 | 1987 | 785 | 512 | 8.7 | 8.7 | 84.5 | 89.8 | .94 | .92 | 7 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 233.5 | 5.29 | 173 |
| D * 1:46 | 2303.0 | 2300.3 | 2209.0 | 440.1 | -1.0 | 84 | 700 | 1987 | 785 | 506 | 8.7 | 8.7 | 84.5 | 89.5 | .94 | .91 | 7 | .00 | .91 | 8.6 | 8.7 | 12.5 | 236.4 | 5.30 | 171 |
| D * 1:47 | 2305.8 | 2303.3 | 2209.0 | 492.9 | .0 | 79 | 700 | 1982 | 785 | 500 | 8.7 | 8.7 | 84.5 | 90.2 | .94 | .91 | 7 | .22 | .91 | 8.6 | 8.7 | 12.5 | 239.3 | 5.30 | 169 |
| D * 1:47 | 2308.3 | 2305.8 | 2209.0 | 318.5 | -.4 | 79 | 700 | 1991 | 785 | 494 | 8.7 | 8.7 | 84.5 | 90.0 | .94 | .91 | 5 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 241.8 | 5.31 | 168 |
| D * 1:47 | 2311.7 | 2308.2 | 2209.0 | 681.7 | -1.4 | 81 | 700 | 1991 | 785 | 494 | 8.7 | 8.7 | 84.5 | 90.4 | .94 | .90 | 5 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 244.3 | 5.31 | 166 |
| D * 1:48 | 2315.7 | 2313.2 | 2209.0 | 477.0 | .6 | 83 | 700 | 1996 | 785 | 486 | 8.7 | 8.7 | 84.5 | 90.4 | .94 | .90 | 3 | .23 | .91 | 8.6 | 8.7 | 12.5 | 249.2 | 5.32 | 163 |
| D * 1:48 | 2317.5 | 2315.0 | 2209.0 | 766.3 | -.2 | 82 | 700 | 1996 | 790 | 484 | 8.7 | 8.7 | 84.4 | 90.6 | .94 | .90 | 3 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 251.1 | 5.32 | 162 |
| D * 1:49 | 2320.4 | 2317.5 | 2209.0 | 295.5 | .2 | 77 | 800 | 1991 | 781 | 478 | 8.7 | 8.7 | 84.5 | 90.3 | .94 | .90 | 3 | .24 | .91 | 8.6 | 8.7 | 12.5 | 253.6 | 5.33 | 160 |
| D * 1:50 | 2323.5 | 2320.7 | 2209.0 | 228.4 | -.8 | 79 | 700 | 1991 | 790 | 484 | 8.7 | 8.7 | 84.4 | 90.6 | .94 | .90 | 3 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 256.7 | 5.34 | 158 |
| D * 1:51 | 2326.9 | 2323.7 | 2209.0 | 551.2 | 1.9 | 74 | 900 | 1987 | 790 | 486 | 8.7 | 8.7 | 84.4 | 91.0 | .94 | .90 | 3 | .24 | .91 | 8.6 | 8.7 | 12.5 | 259.7 | 5.36 | 157 |
| D * 1:58 | 2330.6 | 2326.5 | 2209.0 | 175.1 | .4 | 83 | 900 | 2010 | 790 | 520 | 8.7 | 8.7 | 84.5 | 91.0 | .94 | .90 | 5 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 264.1 | 5.37 | 154 |
| D * 1:58 | 2332.5 | 2329.3 | 2209.0 | 324.1 | 1.6 | 83 | 900 | 2010 | 789 | 516 | 8.7 | 8.7 | 84.4 | 90.3 | .94 | .91 | 7 | .30 | .91 | 8.6 | 8.7 | 12.5 | 265.3 | 5.38 | 154 |
| D * 1:58 | 2335.5 | 2333.0 | 2209.0 | 1039. | -.6 | 80 | 800 | 2010 | 785 | 514 | 8.7 | 8.7 | 84.4 | 90.6 | .94 | .91 | 7 | .00 | .91 | 8.6 | 8.7 | 12.5 | 269.0 | 5.38 | 152 |
| D * 1:59 | 2342.1 | 2337.0 | 2209.0 | 536.3 | -.8 | 82 | 700 | 2019 | 790 | 502 | 8.7 | 8.7 | 84.5 | 91.0 | .94 | .90 | 7 | .00 | .91 | 8.6 | 8.7 | 12.5 | 273.0 | 5.39 | 150 |
| D * 1:59 | 2345.1 | 2342.2 | 2209.0 | 727.0 | -.4 | 83 | 700 | 2019 | 791 | 500 | 8.7 | 8.7 | 84.5 | 91.1 | .94 | .90 | 5 | .16 | .91 | 8.6 | 8.7 | 12.5 | 278.3 | 5.40 | 147 |
| D * 2:0 | 2352.4 | 2345.8 | 2209.0 | 629.5 | .0 | 85 | 700 | 2019 | 790 | 498 | 8.7 | 8.7 | 84.5 | 91.0 | .94 | .91 | 5 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 281.8 | 5.40 | 145 |
| D * 2:0 | 2353.8 | 2345.8 | 2209.0 | 629.5 | .0 | 84 | 700 | 2024 | 790 | 496 | 8.7 | 8.7 | 84.5 | 91.1 | .94 | .91 | 4 | -.00 | .91 | 8.6 | 8.7 | 12.5 | 281.8 | 5.40 | 145 |
| D * 2:0 | 2356.1 | 2351.8 | 2209.0 | 1144. | -.8 | 85 | 700 | 2024 | 790 | 496 | 8.7 | 8.7 | 84.4 | 91.0 | .94 | .91 | 4 | .09 | .91 | 8.6 | 8.7 | 12.5 | 287.9 | 5.40 | 142 |
| D * 2:1 | 2366.1 | 2363.6 | 2209.0 | 1248. | .5 | 85 | 700 | 2019 | 795 | 490 | 8.7 | 8.7 | 84.4 | 90.5 | .94 | .91 | 4 | .09 | .92 | 8.6 | 8.7 | 12.5 | 299.6 | 5.41 | 137 |
| D * 2:1 | 2375.3 | 2372.8 | 2209.0 | 2720. | -.5 | 86 | 700 | 2024 | 785 | 490 | 8.7 | 8.7 | 84.5 | 90.6 | .94 | .91 | 4 | -.00 | .92 | 8.6 | 8.7 | 12.5 | 308.8 | 5.42 | 133 |
| D * 2:2 | 2379.2 | 2374.2 | 2209.0 | 718.3 | .0 | 85 | 700 | 2024 | 785 | 490 | 8.7 | 8.7 | 84.5 | 90.6 | .94 | .92 | 4 | -.00 | .92 | 8.6 | 8.7 | 12.5 | 310.3 | 5.42 | 132 |
| D * 2:2 | 2381.9 | 2379.4 | 2209.0 | 834.3 | .1 | 83 | 700 | 2019 | 795 | 490 | 8.7 | 8.7 | 84.5 | 90.3 | .94 | .92 | 4 | .13 | .92 | 8.6 | 8.7 | 12.5 | 315.4 | 5.43 | 130 |
| D * 2:10 | 2385.0 | 2381.2 | 2211.0 | 304.7 | -.2 | 79 | 700 | 2028 | 785 | 492 | 8.7 | 8.7 | 84.7 | 90.8 | .93 | .93 | 5 | .00 | .92 | 8.6 | 8.7 | 12.5 | 317.3 | 5.43 | 129 |
| D * 2:10 | 2386.1 | 2383.6 | 2211.0 | 630.6 | .5 | 83 | 700 | 2019 | 790 | 492 | 8.7 | 8.7 | 84.7 | 90.5 | .93 | .93 | 5 | -.00 | .92 | 8.6 | 8.7 | 12.5 | 319.6 | 5.44 | 128 |
| D * 2:11 | 2390.1 | 2386.6 | 2211.0 | 211.1 | -.3 | 81 | 700 | 2020 | 791 | 490 | 8.7 | 8.7 | 84.7 | 90.3 | .93 | .94 | 4 | -.00 | .92 | 8.6 | 8.7 | 12.5 | 322.7 | 5.45 | 127 |
| D * 2:11 | 2393.6 | 2389.9 | 2215.0 | 262.8 | -1.0 | 82 | 700 | 2033 | 790 | 488 | 8.7 | 8.7 | 84.7 | 90.2 | .93 | .95 | 4 | -.00 | .92 | 8.6 | 8.7 | 12.5 | 326.0 | 5.45 | 126 |
| D * 2:12 | 2395.7 | 2393.1 | 2215.0 | 377.8 | -.2 | 81 | 700 | 2028 | 795 | 484 | 8.7 | 8.7 | 84.7 | 89.6 | .93 | .97 | 4 | .00 | .92 | 8.6 | 8.7 | 12.5 | 329.2 | 5.46 | 125 |

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