

| F#  | TIME | DEPTH<br>m | ROP<br>m/hr | TORQUE |      | RPM<br>AVG | WOB<br>AVG | PUMP<br>PRES | RTRNS<br>DEPTH | MW lb/gal |      | FLOW/MIN |     | TEMP (C) |      | PVT | THIS BIT |      |     | COST |     |      | EST<br>TW | DXC  | NX   | NXB  | ECD  | EST<br>FM PR |
|-----|------|------------|-------------|--------|------|------------|------------|--------------|----------------|-----------|------|----------|-----|----------|------|-----|----------|------|-----|------|-----|------|-----------|------|------|------|------|--------------|
|     |      |            |             | AVG    | MAX  |            |            |              |                | IN        | OUT  | IN       | OUT | IN       | OUT  |     | REVS     | m    | hrs | INST | RUN |      |           |      |      |      |      |              |
| 799 | 0405 | 1768.8     | 32.7        | 1.59   | 1.96 | 92         | 15.2       | 2050         | 1756.0         | 9.02      | 9.18 | 609      | 609 | 14.0     | 36.8 | 334 | 33005    | 86.6 | 6.2 | 209  | 469 | 1.63 | .89       | .85  | 2.01 | 9.13 | 8.70 |              |
| 800 | 0406 | 1769.1     | 15.6        | 1.97   | 6.29 | 86         | 17.5       | 2020         | 1756.2         | 9.00      | 9.22 | 617      | 617 | 14.3     | 37.0 | 332 | 33098    | 86.8 | 6.2 | 452  | 468 | 1.63 | 1.08      | 1.04 | 2.01 | 9.13 | 8.70 |              |
| 801 | 0407 | 1769.4     | 20.4        | 1.82   | 2.61 | 94         | 17.6       | 2060         | 1756.3         | 9.00      | 9.22 | 617      | 617 | 14.3     | 37.0 | 331 | 33180    | 87.1 | 6.2 | 251  | 467 | 1.63 | 1.04      | .99  | 2.01 | 9.14 | 8.70 |              |
| 802 | 0407 | 1769.7     | 30.7        | 1.64   | 2.17 | 98         | 17.4       | 2060         | 1756.3         | 9.00      | 9.22 | 619      | 619 | 14.3     | 37.0 | 328 | 33238    | 87.4 | 6.2 | 188  | 466 | 1.63 | .95       | .90  | 2.01 | 9.14 | 8.70 |              |
| 803 | 0408 | 1770.0     | 19.9        | 1.71   | 2.37 | 97         | 17.3       | 2070         | 1756.5         | 9.01      | 9.19 | 620      | 620 | 14.2     | 37.2 | 327 | 33317    | 87.8 | 6.2 | 238  | 466 | 1.64 | 1.05      | 1.00 | 2.01 | 9.14 | 8.70 |              |
| 804 | 0409 | 1770.3     | 25.0        | 1.56   | 1.83 | 99         | 17.5       | 2060         | 1756.7         | 9.01      | 9.19 | 620      | 620 | 14.2     | 37.2 | 327 | 33388    | 88.1 | 6.2 | 192  | 464 | 1.64 | 1.00      | .95  | 2.01 | 9.14 | 8.70 |              |
| 805 | 0410 | 1770.6     | 28.9        | 1.50   | 1.58 | 100        | 19.2       | 2070         | 1756.9         | 9.03      | 9.32 | 620      | 620 | 14.1     | 37.2 | 326 | 33450    | 88.4 | 6.2 | 227  | 464 | 1.64 | .99       | .94  | 2.01 | 9.14 | 8.70 |              |
| 806 | 0410 | 1770.9     | 24.0        | 1.54   | 1.85 | 100        | 17.8       | 2060         | 1756.9         | 9.03      | 9.32 | 620      | 620 | 14.1     | 37.2 | 325 | 33520    | 88.7 | 6.3 | 200  | 463 | 1.64 | 1.02      | .97  | 2.01 | 9.14 | 8.70 |              |
| 807 | 0411 | 1771.2     | 21.3        | 1.96   | 3.37 | 97         | 17.9       | 2050         | 1757.0         | 9.03      | 9.32 | 619      | 619 | 14.1     | 37.2 | 324 | 33600    | 89.0 | 6.3 | 247  | 462 | 1.64 | 1.04      | .99  | 2.01 | 9.15 | 8.70 |              |
| 808 | 0411 | 1771.5     | 41.3        | 2.13   | 2.64 | 94         | 18.0       | 2060         | 1757.1         | 9.05      | 9.21 | 619      | 619 | 14.1     | 37.2 | 323 | 33641    | 89.3 | 6.3 | 185  | 461 | 1.64 | .88       | .83  | 2.01 | 9.15 | 8.70 |              |
| 809 | 0412 | 1771.8     | 24.8        | 1.52   | 1.78 | 97         | 17.7       | 2060         | 1757.2         | 9.05      | 9.21 | 619      | 619 | 14.1     | 37.2 | 324 | 33711    | 89.6 | 6.3 | 195  | 460 | 1.64 | 1.00      | .95  | 2.01 | 9.15 | 8.70 |              |
| 810 | 0413 | 1772.1     | 35.4        | 1.56   | 2.14 | 98         | 17.1       | 2060         | 1757.3         | 9.05      | 9.21 | 618      | 618 | 14.1     | 37.2 | 323 | 33762    | 89.9 | 6.3 | 146  | 459 | 1.65 | .91       | .86  | 2.01 | 9.15 | 8.70 |              |
| 811 | 0414 | 1772.4     | 15.1        | 1.73   | 2.08 | 96         | 19.5       | 2070         | 1757.4         | 9.04      | 9.27 | 620      | 620 | 14.1     | 37.1 | 323 | 33866    | 90.2 | 6.3 | 324  | 458 | 1.65 | 1.14      | 1.09 | 2.01 | 9.15 | 8.70 |              |
| 812 | 0415 | 1772.7     | 21.1        | 1.59   | 1.78 | 97         | 20.1       | 2060         | 1757.6         | 9.04      | 9.27 | 620      | 620 | 14.1     | 37.1 | 321 | 33956    | 90.5 | 6.3 | 279  | 458 | 1.65 | 1.07      | 1.02 | 2.01 | 9.15 | 8.70 |              |
| 813 | 0416 | 1773.1     | 15.2        | 1.54   | 1.65 | 98         | 20.4       | 2070         | 1757.9         | 9.02      | 9.21 | 619      | 619 | 13.8     | 37.1 | 321 | 34082    | 90.8 | 6.3 | 340  | 457 | 1.65 | 1.16      | 1.11 | 2.01 | 9.16 | 8.70 |              |
| 814 | 0417 | 1773.3     | 26.3        | 1.55   | 1.74 | 96         | 18.8       | 2060         | 1758.0         | 9.02      | 9.21 | 620      | 620 | 13.8     | 37.1 | 321 | 34143    | 91.1 | 6.4 | 244  | 456 | 1.65 | 1.00      | .95  | 2.01 | 9.16 | 8.70 |              |
| 815 | 0417 | 1773.7     | 26.7        | 1.61   | 1.88 | 97         | 19.0       | 2070         | 1758.2         | 9.02      | 9.21 | 620      | 620 | 13.8     | 37.1 | 318 | 34207    | 91.4 | 6.4 | 219  | 455 | 1.65 | 1.00      | .95  | 2.01 | 9.16 | 8.70 |              |
| 816 | 0418 | 1774.0     | 14.1        | 1.79   | 2.03 | 96         | 20.0       | 2050         | 1758.5         | 9.01      | 9.24 | 620      | 620 | 13.8     | 37.3 | 320 | 34319    | 91.7 | 6.4 | 453  | 455 | 1.66 | 1.17      | 1.12 | 2.01 | 9.16 | 8.70 |              |
| 817 | 0419 | 1774.3     | 40.6        | 1.70   | 2.13 | 95         | 19.8       | 2040         | 1758.6         | 9.01      | 9.24 | 620      | 620 | 13.8     | 37.3 | 319 | 34362    | 92.0 | 6.4 | 229  | 454 | 1.66 | .91       | .86  | 2.01 | 9.16 | 8.70 |              |
| 818 | 0426 | 1774.6     | 25.1        | 1.67   | 1.84 | 97         | 19.0       | 2060         | 1759.4         | 9.08      | 9.19 | 616      | 616 | 14.1     | 37.2 | 330 | 34409    | 92.3 | 6.4 | 146  | 453 | 1.66 | 1.02      | .97  | 2.01 | 9.15 | 8.70 |              |
| 819 | 0426 | 1774.9     | 988         | 2.32   | 2.32 | 101        | 12.1       | 2060         | 1759.5         | 9.08      | 9.19 | 617      | 617 | 14.1     | 37.2 | 330 | 34423    | 92.6 | 6.4 | 146  | 451 | 1.66 | .13       | .09  | 2.01 | 9.15 | 8.70 |              |
| 820 | 0427 | 1775.5     | 47.8        | 1.64   | 2.12 | 101        | 17.8       | 2050         | 1759.6         | 9.08      | 9.19 | 618      | 618 | 14.1     | 37.2 | 327 | 34480    | 93.3 | 6.4 | 120  | 449 | 1.66 | .86       | .81  | 2.01 | 9.15 | 8.70 |              |
| 821 | 0428 | 1775.8     | 24.3        | 2.12   | 2.54 | 99         | 19.0       | 2060         | 1759.7         | 9.10      | 9.24 | 618      | 618 | 14.0     | 37.3 | 325 | 34555    | 93.5 | 6.4 | 235  | 449 | 1.66 | 1.03      | .98  | 2.01 | 9.16 | 8.70 |              |
| 822 | 0428 | 1776.1     | 28.8        | 1.68   | 2.34 | 101        | 19.6       | 2060         | 1759.8         | 9.10      | 9.24 | 618      | 618 | 14.0     | 37.3 | 321 | 34624    | 93.8 | 6.4 | 182  | 447 | 1.66 | 1.00      | .95  | 2.01 | 9.16 | 8.70 |              |
| 823 | 0430 | 1776.5     | 17.2        | 1.54   | 1.93 | 102        | 19.1       | 2060         | 1760.1         | 9.09      | 9.19 | 618      | 618 | 13.6     | 37.4 | 319 | 34752    | 94.2 | 6.5 | 383  | 447 | 1.66 | 1.12      | 1.07 | 2.01 | 9.16 | 8.70 |              |
| 824 | 0431 | 1776.7     | 15.4        | 1.64   | 1.87 | 101        | 18.8       | 2060         | 1760.4         | 9.09      | 9.19 | 618      | 618 | 13.6     | 37.4 | 317 | 34846    | 94.5 | 6.5 | 278  | 446 | 1.67 | 1.14      | 1.09 | 2.01 | 9.16 | 8.70 |              |
| 825 | 0431 | 1777.0     | 20.5        | 1.80   | 2.20 | 100        | 17.4       | 2060         | 1760.6         | 9.09      | 9.19 | 618      | 618 | 13.6     | 37.4 | 316 | 34920    | 94.8 | 6.5 | 302  | 446 | 1.67 | 1.05      | 1.00 | 2.02 | 9.16 | 8.70 |              |
| 826 | 0433 | 1777.3     | 17.9        | 1.74   | 2.11 | 100        | 18.6       | 2050         | 1760.9         | 9.09      | 9.19 | 618      | 618 | 13.6     | 37.4 | 315 | 35036    | 95.1 | 6.5 | 309  | 445 | 1.67 | 1.10      | 1.05 | 2.02 | 9.16 | 8.70 |              |
| 827 | 0434 | 1777.6     | 16.1        | 1.74   | 2.25 | 99         | 17.6       | 2050         | 1761.2         | 9.08      | 9.17 | 618      | 618 | 13.6     | 37.2 | 314 | 35136    | 95.4 | 6.5 | 287  | 445 | 1.67 | 1.10      | 1.05 | 2.02 | 9.16 | 8.70 |              |
| 828 | 0435 | 1777.9     | 17.3        | 1.56   | 2.07 | 101        | 18.3       | 2050         | 1761.4         | 9.08      | 9.17 | 618      | 618 | 13.6     | 37.2 | 313 | 35236    | 95.7 | 6.5 | 291  | 444 | 1.67 | 1.10      | 1.05 | 2.02 | 9.16 | 8.70 |              |
| 829 | 0436 | 1778.2     | 16.0        | 1.46   | 1.61 | 103        | 18.3       | 2060         | 1761.6         | 9.05      | 9.16 | 618      | 618 | 13.5     | 37.1 | 313 | 35358    | 96.0 | 6.6 | 339  | 444 | 1.68 | 1.13      | 1.07 | 2.02 | 9.17 | 8.70 |              |
| 830 | 0437 | 1778.5     | 15.2        | 1.48   | 1.58 | 101        | 19.1       | 2060         | 1761.8         | 9.05      | 9.16 | 619      | 619 | 13.5     | 37.1 | 312 | 35462    | 96.3 | 6.6 | 301  | 443 | 1.68 | 1.15      | 1.09 | 2.02 | 9.17 | 8.70 |              |
| 831 | 0438 | 1778.9     | 13.2        | 1.45   | 1.74 | 99         | 19.0       | 2050         | 1762.1         | 9.03      | 9.22 | 618      | 618 | 13.7     | 37.2 | 311 | 35618    | 96.6 | 6.6 | 450  | 443 | 1.68 | 1.17      | 1.12 | 2.02 | 9.17 | 8.70 |              |
| 832 | 0440 | 1779.1     | 8.25        | 1.38   | 1.53 | 99         | 19.0       | 2050         | 1762.5         | 9.02      | 9.21 | 618      | 618 | 13.3     | 37.3 | 309 | 35815    | 96.9 | 6.6 | 1872 | 444 | 1.69 | 1.28      | 1.23 | 2.02 | 9.17 | 8.70 |              |
| 833 | 0442 | 1779.4     | 10.4        | 1.43   | 1.62 | 100        | 18.3       | 2060         | 1762.9         | 9.01      | 9.26 | 619      | 619 | 13.2     | 37.4 | 309 | 35981    | 97.2 | 6.7 | 556  | 444 | 1.69 | 1.22      | 1.17 | 2.02 | 9.18 | 8.70 |              |
| 834 | 0444 | 1779.7     | 9.35        | 1.43   | 1.56 | 100        | 19.0       | 2060         | 1763.4         | 9.01      | 9.27 | 619      | 619 | 13.1     | 37.5 | 309 | 36174    | 97.5 | 6.7 | 642  | 444 | 1.69 | 1.26      | 1.20 | 2.02 | 9.17 | 8.70 |              |
| 835 | 0446 | 1780.0     | 10.6        | 1.43   | 1.61 | 100        | 19.3       | 2060         | 1764.0         | 9.01      | 9.27 | 618      | 618 | 13.1     | 37.5 | 307 | 36351    | 97.8 | 6.7 | 500  | 444 | 1.70 | 1.23      | 1.18 | 2.02 | 9.18 | 8.70 |              |
| 836 | 0447 | 1780.3     | 9.84        | 1.42   | 1.52 | 101        | 19.4       | 2040         | 1764.5         | 9.02      | 9.20 | 619      | 619 | 13.0     | 37.6 | 306 | 36526    | 98.1 | 6.8 | 521  | 444 | 1.70 | 1.25      | 1.20 | 2.02 | 9.18 | 8.70 |              |
| 837 | 0449 | 1780.6     | 11.7        | 1.48   | 1.60 | 99         | 19.5       | 2050         | 1764.8         | 9.02      | 9.21 | 618      | 618 | 13.0     | 37.6 | 305 | 36681    | 98.5 | 6.8 | 430  | 444 | 1.70 | 1.21      | 1.16 | 2.02 | 9.18 | 8.70 |              |
| 838 | 0451 | 1781.0     | 11.2        | 1.77   | 2.36 | 97         | 20.4       | 2050         | 1765.1         | 9.03      | 9.19 | 618      | 618 | 12.7     | 37.7 | 305 | 36844    | 98.7 | 6.8 | 475  | 444 | 1.71 | 1.23      | 1.18 | 2.02 | 9.18 | 8.70 |              |
| 839 | 0452 | 1781.3     | 14.7        | 1.59   | 2.56 | 97         | 18.1       | 2050         | 1765.5         | 9.03      | 9.19 | 618      | 618 | 12.7     | 37.7 | 305 | 36953    | 99.0 | 6.8 | 315  | 444 | 1.71 | 1.13      | 1.08 | 2.02 | 9.18 | 8.70 |              |
| 840 | 0452 | 1781.6     | 25.7        | 1.42   | 1.56 | 99         | 18.6       | 2050         | 1765.6         | 9.08      | 9.20 | 619      | 619 | 13.1     | 37.7 | 304 | 37022    | 99.3 | 6.8 | 226  | 443 | 1.71 | 1.01      | .96  | 2.02 | 9.19 | 8.70 |              |
| 841 | 0454 | 1781.9     | 9.37        | 1.55   | 1.85 | 100        | 18.8       | 2050         | 1766.0         | 9.08      | 9.16 | 619      | 619 | 13.1     | 37.7 | 303 | 37211    | 99.7 | 6.9 | 425  | 443 | 1.71 | 1.25      | 1.20 | 2.02 | 9.19 | 8.70 |              |
| 842 | 0455 | 1782.2     | 25.7        | 1.50   | 1.74 | 101        | 19.2       | 2050         | 1766.2         | 9.08      | 9.16 | 619      | 619 | 13.1     | 37.7 | 302 | 37280    | 100  | 6.9 | -198 | 443 | 1.71 | 1.02      | .97  | 2.02 | 9.19 | 8.70 |              |
| 843 | 0457 | 1782.5     | 15.2        | 1.43   | 1.66 | 102        | 17.8       | 2050         | 1766.8         | 9.06      | 9.17 | 619      | 619 | 13.1     | 37.8 | 302 | 37428    | 100  | 6.9 | 275  | 442 | 1.72 | 1.12      | 1.07 | 2.02 | 9.18 | 8.70 |              |
| 844 | 0458 | 1782.8     | 11.2        | 1.42   | 1.52 | 101        | 19.1       | 2040         | 1767.1         | 9.06      | 9.17 | 619      | 619 | 13.1     | 37.8 | 300 | 37576    | 101  | 6.9 | 571  | 442 | 1.72 | 1.22      | 1.16 | 2.02 | 9.18 | 8.70 |              |
| 845 | 0459 | 1783.1     | 12.6        | 1.46   | 1.86 | 1          |            |              |                |           |      |          |     |          |      |     |          |      |     |      |     |      |           |      |      |      |      |              |