30-015-44512

Schlumberger

# Oxy Corral Fly 02-01 State 25H Gyro+DMAG+MWD to 18,935' Survey
## Geodetic Report
(Def Survey)

| | | | |
|---|---|---|---|
| **Report Date** | March 05 2018 01 10 PM | **Survey / DLS Computation** | Minimum Curvature / Lubinski |
| **Client** | OXY | **Vertical Section Azimuth** | 88 844 (Grid North) |
| **Field** | NM Eddy County (NAD 83) | **Vertical Section Origin** | 0 000 ft 0 000 ft |
| **Structure / Slot** | Oxy Corral Fly 02 01 State 25H / Oxy Corral Fly 02 01 State 25H | **TVD Reference Datum** | RKB=26 5 |
| **Well** | Oxy Corral Fly 02 01 State 25H | **TVD Reference Elevation** | 3054 100 ft above MSL |
| **Borehole** | Original Borehole | **Seabed / Ground Elevation** | 3027 600 ft above MSL |
| **UWI / API#** | Unknown / 30-015-44512 | **Magnetic Declination** | 7 027 |
| **Survey Name** | Oxy Corral Fly 02 01 State 25H Gyro+DMAG+MWD 0-18 935 | **Total Gravity Field Strength** | 998 4550mgn (9 80665 Based) |
| **Survey Date** | February 16 2018 | **Gravity Model** | GARM |
| **Tort / AHD / DDI / ERD Ratio** | 206 037 / 10715 614 ft / 6 664 / 1 183 | **Total Magnetic Field Strength** | 48020 075 nT |
| **Coordinate Reference System** | NAD83 New Mexico State Plane Eastern Zone US Feet | **Magnetic Dip Angle** | 59 923 |
| **Location Lat / Long** | N 32 9 19 34968 W 103 57 44 53344 | **Declination Date** | February 16 2018 |
| **Location Grid N/E Y/X** | N 420458 450 ftUS E 656137 590 ftUS | **Magnetic Declination Model** | HDGM 2017 |
| **CRS Grid Convergence Angle** | 0 1974 | **North Reference** | Grid North |
| **Grid Scale Factor** | 0 99992419 | **Grid Convergence Used** | 0 1974 |
| **Version / Patch** | 2 10 706 0 | **Total Corr Mag North->Grid North** | 6 8293 |
| | | **Local Coord Referenced To** | Well Head |

NM OIL CONSERVATION
ARTESIA DISTRICT
APR 16 2018
RECEIVED

| Comments | MD (ft) | Incl (°) | Azim Grid (°) | TVD (ft) | VSEC (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | Northing (ftUS) | Easting (ftUS) | Latitude (N/S ° ') | Longitude (E/W ) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHL | 0 00 | 0 00 | 0 00 | 0 00 | 0 00 | 0 00 | 0 00 | N/A | 420458 45 | 656137 59 | N 32 9 19 35 | W 103 57 44 53 |
| | 100 74 | 1 46 | 2 39 | 100 73 | 0 08 | 1 28 | 0 05 | 1 45 | 420459 73 | 656137 64 | N 32 9 19 36 | W 103 57 44 53 |
| | 189 42 | 1 12 | 352 79 | 189 39 | 0 06 | 3 27 | 0 01 | 0 45 | 420461 72 | 656137 58 | N 32 9 19 38 | W 103 57 44 53 |
| | 278 24 | 1 02 | 303 54 | 278 19 | 0 68 | 4 57 | -0 78 | 1 01 | 420463 02 | 656136 81 | N 32 9 19 39 | W 103 57 44 54 |
| | 372.23 | 1 84 | 284 14 | 372 15 | 2 74 | 5 65 | 2 85 | 0 90 | 420464 10 | 656134 74 | N 32 9 19 41 | W 103 57 44 57 |
| | 392 65 | 2 05 | 288 36 | 392 56 | 3 38 | 5 90 | 3 50 | 1 41 | 420464 35 | 656134 09 | N 32 9 19 41 | W 103 57 44 57 |
| | 591 00 | 1 74 | 291 45 | 590 80 | 9 50 | 8 12 | 9 67 | 0 16 | 420466 57 | 656127 92 | N 32 9 19 43 | W 103 57 44 65 |
| | 686 00 | 0 22 | 290 01 | 685 79 | 11 00 | 8 71 | 11 18 | 1 60 | 420467 16 | 656126 41 | N 32 9 19 44 | W 103 57 44 66 |
| | 781 00 | 0 02 | 190 08 | 780 79 | 11 18 | 8 75 | 11 35 | 0 24 | 420467 20 | 656126 24 | N 32 9 19 44 | W 103 57 44 67 |
| | 876 00 | 0 01 | 166 59 | 875 79 | 11 18 | 8 73 | 11 36 | 0 01 | 420467 18 | 656126 24 | N 32 9 19 44 | W 103 57 44 67 |
| | 971 00 | 0 02 | 141 70 | 970 79 | 11 16 | 8 71 | 11 34 | 0 01 | 420467 16 | 656126 25 | N 32 9 19 44 | W 103 57 44 67 |
| | 1066 00 | 0 01 | 172 68 | 1065 79 | 11 15 | 8 69 | 11 33 | 0 01 | 420467 13 | 656126 26 | N 32 9 19 44 | W 103 57 44 66 |
| | 1161 00 | 0 01 | 188 16 | 1160 79 | 11 15 | 8 67 | 11 33 | 0 00 | 420467 12 | 656126 26 | N 32 9 19 44 | W 103 57 44 66 |
| | 1255 00 | 0 01 | 191 41 | 1254 79 | 11 16 | 8 65 | 11 33 | 0 00 | 420467 10 | 656126 26 | N 32 9 19 44 | W 103 57 44 66 |
| | 1350 00 | 0 01 | 182 86 | 1349 79 | 11 16 | 8 64 | 11 34 | 0 00 | 420467 09 | 656126 25 | N 32 9 19 44 | W 103 57 44 66 |
| | 1445 00 | 0 01 | 109 14 | 1444 79 | 11 15 | 8 63 | 11 33 | 0 01 | 420467 07 | 656126 26 | N 32 9 19 44 | W 103 57 44 66 |
| | 1540 00 | 0 01 | 143 88 | 1539 79 | 11 14 | 8 62 | 11 32 | 0 01 | 420467 07 | 656126 27 | N 32 9 19 44 | W 103 57 44 66 |
| Last Gyro | 1635 00 | 0 01 | 205 87 | 1634 79 | 11 14 | 8 60 | 11 32 | 0 01 | 420467 05 | 656126 28 | N 32 9 19 44 | W 103 57 44 66 |
| | 1742 00 | 0 13 | 252 97 | 1741 79 | 11 26 | 8 56 | 11 44 | 0 12 | 420467 01 | 656126 16 | N 32 9 19 43 | W 103 57 44 67 |
| | 1837 00 | 0 18 | 261 76 | 1836 79 | 11 51 | 8 50 | 11 69 | 0 06 | 420466 95 | 656125 90 | N 32 9 19 43 | W 103 57 44 67 |
| | 2027 00 | 0 23 | 59 36 | 2026 78 | 11 48 | 8 66 | 11 65 | 0 21 | 420467 11 | 656125 94 | N 32 9 19 44 | W 103 57 44 67 |
| | 2122 00 | 0 36 | 37 10 | 2121 78 | 11 13 | 8 99 | 11 31 | 0 18 | 420467 44 | 656126 28 | N 32 9 19 44 | W 103 57 44 66 |
| | 2216 00 | 0 40 | 331 45 | 2215 78 | 11 09 | 9 52 | 11 29 | 0 44 | 420467 96 | 656126 30 | N 32 9 19 44 | W 103 57 44 66 |
| | 2311 00 | 0 34 | 331 74 | 2310 78 | 11 37 | 10 06 | 11 58 | 0 06 | 420468 50 | 656126 01 | N 32 9 19 45 | W 103 57 44 67 |
| | 2406 00 | 0 08 | 36 92 | 2405 78 | 11 46 | 10 36 | 11 67 | 0 33 | 420468 81 | 656125 92 | N 32 9 19 45 | W 103 57 44 67 |
| | 2501 00 | 0 06 | 160 29 | 2500 78 | 11 41 | 10 36 | 11 62 | 0 13 | 420468 81 | 656125 97 | N 32 9 19 45 | W 103 57 44 67 |
| | 2596 00 | 0 30 | 222 00 | 2595 78 | 11 56 | 10 13 | 11 77 | 0 29 | 420468 58 | 656125 82 | N 32 9 19 45 | W 103 57 44 67 |
| | 2690 00 | 0 46 | 205 51 | 2689 78 | 11 90 | 9 61 | 12 09 | 0 20 | 420468 06 | 656125 50 | N 32 9 19 45 | W 103 57 44 67 |
| | 2880 00 | 0 08 | 183 47 | 2879 77 | 12 25 | 8 79 | 12 43 | 0 20 | 420467 24 | 656125 16 | N 32 9 19 44 | W 103 57 44 68 |
| | 2975 00 | 0 13 | 242 18 | 2974 77 | 12 35 | 8 67 | 12 53 | 0 12 | 420467 12 | 656125 06 | N 32 9 19 44 | W 103 57 44 68 |
| | 3069 00 | 0 46 | 221 90 | 3068 77 | 12 70 | 8 34 | 12 88 | 0 36 | 420466 79 | 656124 72 | N 32 9 19 43 | W 103 57 44 68 |
| | 3259 00 | 0 08 | 109 85 | 3258 77 | 13 10 | 7 73 | 13 26 | 0 26 | 420466 18 | 656124 33 | N 32 9 19 43 | W 103 57 44 69 |
| | 3449 00 | 0 08 | 84 34 | 3448 77 | 12 85 | 7 69 | 13 00 | 0 02 | 420466 14 | 656124 59 | N 32 9 19 43 | W 103 57 44 68 |
| | 3544 00 | 0 00 | 116 74 | 3543 77 | 12 78 | 7 70 | 12 94 | 0 08 | 420466 15 | 656124 65 | N 32 9 19 43 | W 103 57 44 68 |
| | 3734 00 | 0 06 | 310 62 | 3733 77 | 12 85 | 7 77 | 13 01 | 0 03 | 420466 22 | 656124 58 | N 32 9 19 43 | W 103 57 44 68 |
| | 3829 00 | 0 08 | 348 67 | 3828 77 | 12 90 | 7 86 | 13 06 | 0 05 | 420466 31 | 656124 53 | N 32 9 19 43 | W 103 57 44 69 |
| | 3924 00 | 0 06 | 162 69 | 3923 77 | 12 90 | 7 88 | 13 06 | 0 15 | 420466 33 | 656124 53 | N 32 9 19 43 | W 103 57 44 69 |
| | 4019 00 | 0 11 | 260 15 | 4018 77 | 12 98 | 7 82 | 13 14 | 0 14 | 420466 27 | 656124 45 | N 32 9 19 43 | W 103 57 44 69 |
| | 4209 00 | 0 00 | 53 95 | 4208 77 | 13 16 | 7 79 | 13 32 | 0 06 | 420466 24 | 656124 27 | N 32 9 19 43 | W 103 57 44 69 |
| | 4398 00 | 0 06 | 267 44 | 4397 77 | 13 26 | 7 78 | 13 42 | 0 03 | 420466 23 | 656124 18 | N 32 9 19 43 | W 103 57 44 69 |
| | 4588 00 | 0 08 | 216 32 | 4587 77 | 13 44 | 7 67 | 13 59 | 0 03 | 420466 12 | 656124 00 | N 32 9 19 43 | W 103 57 44 69 |
| | 4683 00 | 0 06 | 289 65 | 4682 77 | 13 52 | 7 63 | 13 68 | 0 09 | 420466 08 | 656123 91 | N 32 9 19 43 | W 103 57 44 69 |
| | 4872 00 | 0 08 | 225 16 | 4871 77 | 13 71 | 7 57 | 13 87 | 0 04 | 420466 02 | 656123 72 | N 32 9 19 43 | W 103 57 44 69 |
| | 4967 00 | 0 08 | 321 71 | 4966 77 | 13 80 | 7 58 | 13 95 | 0 13 | 420466 03 | 656123 64 | N 32 9 19 43 | W 103 57 44 70 |
| | 5157 00 | 2 66 | 294 87 | 5156 70 | 17 84 | 9 54 | 18 04 | 1 36 | 420467 99 | 656119 55 | N 32 9 19 44 | W 103 57 44 74 |
| | 5251 00 | 4 10 | 292 35 | 5250 53 | 22 88 | 11 73 | 23 12 | 1 54 | 420470 18 | 656114 47 | N 32 9 19 47 | W 103 57 44 80 |
| | 5451 00 | 6 47 | 289 29 | 5449 67 | -40 00 | 18 18 | -40 38 | 1 19 | 420476 62 | 656097 22 | N 32 9 19 53 | W 103 57 45 00 |
| | 5631 00 | 7 82 | 291 68 | 5628 27 | -60 79 | 26 05 | -61 33 | 0 77 | 420484 50 | 656076 27 | N 32 9 19 61 | W 103 57 45 25 |
| | 5821 00 | 7 66 | 288 12 | 5816 54 | -84 66 | 34 76 | -85 37 | 0 27 | 420493 21 | 656052 22 | N 32 9 19 70 | W 103 57 45 53 |
| | 5908 00 | 7 49 | 286 43 | 5902 78 | -95 53 | 38 17 | -96 32 | 0 32 | 420496 62 | 656041 27 | N 32 9 19 73 | W 103 57 45 65 |
| | 6098 00 | 7 90 | 284 73 | 6091 07 | -119 90 | 44 99 | -120 83 | 0 25 | 420503 44 | 656016 77 | N 32 9 19 80 | W 103 57 45 94 |
| | 6192 00 | 8 49 | 284 56 | 6184 11 | -132 79 | 48 38 | -133 79 | 0 63 | 420506 83 | 656003 81 | N 32 9 19 83 | W 103 57 46 09 |
| | 6287 00 | 8 76 | 283 97 | 6278 03 | -146 52 | 51 89 | -147 60 | 0 30 | 420510 34 | 655990 00 | N 32 9 19 87 | W 103 57 46 25 |
| | 6382 00 | 8 69 | 282 32 | 6371 93 | -160 49 | 55 17 | -161 63 | 0 27 | 420513 61 | 655975 97 | N 32 9 19 90 | W 103 57 46 41 |
| | 6572 00 | 8 75 | 278 47 | 6559 74 | -188 69 | 60 36 | -189 95 | 0 31 | 420518 80 | 655947 65 | N 32 9 19 95 | W 103 57 46 74 |
| | 6667 00 | 8 44 | 278 68 | 6653 67 | -202 69 | 62 48 | -203 99 | 0 33 | 420520 92 | 655933 62 | N 32 9 19 97 | W 103 57 46 90 |
| | 6762 00 | 8 35 | 283 47 | 6747 66 | -216 23 | 65 13 | -217 59 | 0 74 | 420523 58 | 655920 02 | N 32 9 20 00 | W 103 57 47 06 |
| | 6857 00 | 7 87 | 293 16 | 6841 71 | -228 83 | 69 30 | -230 28 | 1 52 | 420527 74 | 655907 33 | N 32 9 20 04 | W 103 57 47 21 |
| | 6952 00 | 7 97 | 295 54 | 6935 80 | -240 64 | 74 70 | -242 20 | 0 36 | 420533 14 | 655895 41 | N 32 9 20 10 | W 103 57 47 35 |
| | 7141 00 | 8 88 | 283 01 | 7122 78 | -266 50 | 83 63 | -268 24 | 1 08 | 420542 07 | 655869 37 | N 32 9 20 19 | W 103 57 47 65 |
| | 7328 00 | 8 43 | 275 11 | 7307 65 | -294 12 | 88 10 | -295 96 | 0 68 | 420546 54 | 655841 66 | N 32 9 20 23 | W 103 57 47 97 |
| | 7422 00 | 7 35 | 279 62 | 7400 76 | -306 87 | 89 72 | -308 75 | 1 32 | 420548 16 | 655828 87 | N 32 9 20 25 | W 103 57 48 12 |
| | 7517 00 | 6 13 | 290 08 | 7495 11 | -317 57 | 92 48 | -319 50 | 1 82 | 420550 92 | 655818 11 | N 32 9 20 28 | W 103 57 48 25 |
| | 7611 00 | 5 27 | 307 75 | 7588 65 | -325 61 | 96 84 | -327 63 | 2 07 | 420555 29 | 655809 98 | N 32 9 20 32 | W 103 57 48 34 |
| | 7706 00 | 4 64 | 326 81 | 7683 30 | -331 04 | 102 73 | -333 18 | 1 84 | 420561 17 | 655804 43 | N 32 9 20 38 | W 103 57 48 40 |
| | 7801 00 | 3 81 | 350 81 | 7778 05 | -333 52 | 109 06 | -335 79 | 2 04 | 420567 50 | 655801 82 | N 32 9 20 44 | W 103 57 48 43 |
| | 7896 00 | 4 22 | 10 63 | 7872 82 | -333 25 | 115 61 | -335 65 | 1 51 | 420574 06 | 655801 96 | N 32 9 20 51 | W 103 57 48 43 |
| | 7991 00 | 3 99 | 32 62 | 7967 58 | -330 70 | 121 83 | -333 23 | 1 66 | 420580 27 | 655804 39 | N 32 9 20 57 | W 103 57 48 40 |
| | 8086 00 | 4 94 | 50 98 | 8062 30 | -325 63 | 127 19 | -328 27 | 1 79 | 420585 63 | 655809 35 | N 32 9 20 62 | W 103 57 48 35 |
| | 8180 00 | 5 36 | 54 19 | 8155 92 | -318 83 | 132 31 | -321 56 | 0 54 | 420590 75 | 655816 05 | N 32 9 20 67 | W 103 57 48 27 |
| | 8246 00 | 6 20 | 63 07 | 8221 58 | -313 08 | 135 73 | -315 88 | 1 86 | 420594 17 | 655821 73 | N 32 9 20 70 | W 103 57 48 20 |
| | 8347 00 | 6 59 | 72 06 | 8321 96 | -302 62 | 139 98 | -305 51 | 1 06 | 420598 42 | 655832 11 | N 32 9 20 75 | W 103 57 48 08 |
| | 8442 00 | 12 98 | 83 84 | 8415 54 | -286 75 | 142 81 | -289 69 | 7 01 | 420601 25 | 655847 92 | N 32 9 20 77 | W 103 57 47 90 |
| | 8538 00 | 25 16 | 82 02 | 8506 10 | -255 63 | 146 82 | -258 65 | 12 70 | 420605 25 | 655878 96 | N 32 9 20 81 | W 103 57 47 54 |
| | 8632 00 | 34 53 | 88 88 | 8587 56 | -209 03 | 150 12 | -212 11 | 10 59 | 420608 56 | 655925 50 | N 32 9 20 84 | W 103 57 46 99 |
| | 8727 00 | 42 88 | 90 23 | 8661 64 | -149 69 | 150 52 | -152 76 | 8 83 | 420608 95 | 655984 84 | N 32 9 20 84 | W 103 57 46 30 |
| | 8822 00 | 54 93 | 87 93 | 8723 97 | -78 24 | 151 80 | -81 32 | 12 81 | 420610 23 | 656056 28 | N 32 9 20 85 | W 103 57 45 47 |
| | 8918 00 | 59 63 | 86 59 | 8775 85 | -2 47 | 155 68 | -0 67 | 5 03 | 420614 12 | 656136 92 | N 32 9 20 89 | W 103 57 44 53 |

| Comments | MD (ft) | Incl (°) | Azim Grid (°) | TVD (ft) | VSEC (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | Northing (ftUS) | Easting (ftUS) | Latitude (N/S ) | Longitude (E/W °) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 9013 00 | 67 54 | 87 59 | 8818 08 | 87 44 | 159 97 | 84 23 | 8 38 | 420618 41 | 656221 82 | N 32 9 20 93 | W 103 57 43 55 |
| | 9108 00 | 73 25 | 89 70 | 8849 94 | 176 89 | 162 06 | 173 66 | 6 36 | 420620 49 | 656311 24 | N 32 9 20 95 | W 103 57 42 51 |
| | 9202 00 | 80 13 | 91 01 | 8871 57 | 268 28 | 161 47 | 265 08 | 7 44 | 420619 91 | 656402 65 | N 32 9 20 94 | W 103 57 41 44 |
| | 9297 00 | 87 03 | 90 21 | 8882 19 | 362 58 | 160 48 | 359 42 | 7 31 | 420618 91 | 656496 98 | N 32 9 20 93 | W 103 57 40 35 |
| | 9334 00 | 86 83 | 89 99 | 8884 17 | 399 52 | 160 41 | 396 36 | 0 80 | 420618 85 | 656533 92 | N 32 9 20 92 | W 103 57 39 92 |
| | 9366 00 | 86 73 | 88 73 | 8885 97 | 431 47 | 160 77 | 428 31 | 3 94 | 420619 20 | 656565 87 | N 32 9 20 93 | W 103 57 39 54 |
| | 9459 00 | 87 66 | 87 82 | 8890 52 | 524 35 | 163 56 | 521 16 | 1 40 | 420622 00 | 656658 70 | N 32 9 20 95 | W 103 57 38 46 |
| | 9553 00 | 87 77 | 87 63 | 8894 27 | 618 26 | 167 29 | 615 01 | 0 23 | 420625 73 | 656752 55 | N 32 9 20 98 | W 103 57 37 37 |
| | 9646 00 | 88 83 | 86 56 | 8897 03 | 711 17 | 172 00 | 707 84 | 1 62 | 420630 44 | 656845 38 | N 32 9 21 03 | W 103 57 36 29 |
| | 9739 00 | 89 00 | 86 99 | 8898 79 | 804 09 | 177 23 | 800 68 | 0 50 | 420635 67 | 656938 21 | N 32 9 21 08 | W 103 57 35 21 |
| | 9833 00 | 88 83 | 90 14 | 8900 57 | 898 06 | 179 59 | 894 62 | 3 36 | 420638 02 | 657032 14 | N 32 9 21 10 | W 103 57 34 12 |
| | 9926 00 | 88 97 | 90 14 | 8902 35 | 991 02 | 179 36 | 987 60 | 0 15 | 420637 80 | 657125 12 | N 32 9 21 09 | W 103 57 33 04 |
| | 10019 00 | 88 97 | 90 60 | 8904 02 | 1083 97 | 178 76 | 1080 59 | 0 49 | 420637 20 | 657218 09 | N 32 9 21 08 | W 103 57 31 96 |
| | 10113 00 | 88 76 | 89 92 | 8905 89 | 1177 92 | 178 33 | 1174 57 | 0 76 | 420636 77 | 657312 06 | N 32 9 21 07 | W 103 57 30 86 |
| | 10206 00 | 88 90 | 90 15 | 8907 79 | 1270 89 | 178 28 | 1267 55 | 0 29 | 420636 71 | 657405 04 | N 32 9 21 07 | W 103 57 29 78 |
| | 10299 00 | 88 83 | 90 25 | 8909 63 | 1363 84 | 177 95 | 1360 53 | 0 13 | 420636 39 | 657498 01 | N 32 9 21 06 | W 103 57 28 70 |
| | 10392 00 | 88 83 | 89 90 | 8911 53 | 1456 80 | 177 83 | 1453 51 | 0 38 | 420636 27 | 657590 99 | N 32 9 21 06 | W 103 57 27 62 |
| | 10486 00 | 88 83 | 89 91 | 8913 45 | 1550 76 | 177 99 | 1547 49 | 0 01 | 420636 42 | 657684 96 | N 32 9 21 06 | W 103 57 26 53 |
| | 10579 00 | 89 04 | 87 25 | 8915 17 | 1643 74 | 180 29 | 1640 44 | 2 87 | 420638 73 | 657777 90 | N 32 9 21 08 | W 103 57 25 44 |
| | 10674 00 | 88 76 | 86 69 | 8917 00 | 1738 67 | 185 31 | 1735 28 | 0 66 | 420643 75 | 657872 74 | N 32 9 21 12 | W 103 57 24 34 |
| | 10769 00 | 88 90 | 86 70 | 8918 94 | 1833 58 | 190 79 | 1830 11 | 0 15 | 420649 22 | 657967 55 | N 32 9 21 17 | W 103 57 23 24 |
| | 10864 00 | 88 76 | 86 90 | 8920 88 | 1928 50 | 196 09 | 1924 94 | 0 26 | 420654 52 | 658062 38 | N 32 9 21 22 | W 103 57 22 13 |
| | 10959 00 | 89 04 | 90 47 | 8922 70 | 2023 47 | 198 27 | 2019 88 | 3 77 | 420656 70 | 658157 31 | N 32 9 21 24 | W 103 57 21 03 |
| | 11054 00 | 88 83 | 90 26 | 8924 47 | 2118 42 | 197 66 | 2114 86 | 0 31 | 420656 10 | 658252 29 | N 32 9 21 23 | W 103 57 19 93 |
| | 11149 00 | 88 66 | 89 88 | 8926 55 | 2213 38 | 197 55 | 2209 84 | 0 44 | 420655 98 | 658347 26 | N 32 9 21 23 | W 103 57 18 82 |
| | 11244 00 | 88 62 | 89 94 | 8928 80 | 2308 33 | 197 70 | 2304 81 | 0 08 | 420656 13 | 658442 22 | N 32 9 21 23 | W 103 57 17 72 |
| | 11339 00 | 88 80 | 89 97 | 8930 94 | 2403 29 | 197 77 | 2399 79 | 0 19 | 420656 21 | 658537 19 | N 32 9 21 22 | W 103 57 16 61 |
| | 11434 00 | 89 42 | 89 93 | 8932 42 | 2498 26 | 197 85 | 2494 78 | 0 65 | 420656 29 | 658632 17 | N 32 9 21 22 | W 103 57 15 51 |
| | 11529 00 | 89 24 | 89 32 | 8933 53 | 2593 24 | 198 48 | 2589 77 | 0 67 | 420656 91 | 658727 16 | N 32 9 21 22 | W 103 57 14 40 |
| | 11624 00 | 89 35 | 89 70 | 8934 70 | 2688 23 | 199 29 | 2684 76 | 0 42 | 420657 72 | 658822 14 | N 32 9 21 23 | W 103 57 13 30 |
| | 11719 00 | 89 04 | 89 79 | 8936 03 | 2783 21 | 199 71 | 2779 75 | 0 34 | 420658 14 | 658917 12 | N 32 9 21 23 | W 103 57 12 19 |
| | 11814 00 | 89 21 | 89 87 | 8937 48 | 2878 18 | 199 99 | 2874 73 | 0 20 | 420658 43 | 659012 10 | N 32 9 21 23 | W 103 57 11 09 |
| | 11909 00 | 89 35 | 89 59 | 8938 68 | 2973 17 | 200 44 | 2969 73 | 0 33 | 420658 87 | 659107 08 | N 32 9 21 23 | W 103 57 9 98 |
| | 12004 00 | 89 00 | 89 39 | 8940 04 | 3068 15 | 201 29 | 3064 71 | 0 42 | 420659 72 | 659202 06 | N 32 9 21 24 | W 103 57 8 88 |
| | 12099 00 | 89 38 | 89 78 | 8941 39 | 3163 13 | 201 97 | 3159 70 | 0 57 | 420660 41 | 659297 04 | N 32 9 21 24 | W 103 57 7 77 |
| | 12194 00 | 89 24 | 92 76 | 8942 53 | 3258 03 | 199 87 | 3254 66 | 3 14 | 420658 30 | 659392 00 | N 32 9 21 21 | W 103 57 6 67 |
| | 12289 00 | 89 00 | 93 28 | 8943 99 | 3352 76 | 194 86 | 3349 52 | 0 60 | 420653 30 | 659486 84 | N 32 9 21 16 | W 103 57 5 56 |
| | 12384 00 | 89 42 | 93 04 | 8945 30 | 3447 49 | 189 63 | 3444 36 | 0 51 | 420648 06 | 659581 68 | N 32 9 21 11 | W 103 57 4 46 |
| | 12479 00 | 89 35 | 93 39 | 8946 32 | 3542 20 | 184 30 | 3539 21 | 0 38 | 420642 74 | 659676 52 | N 32 9 21 05 | W 103 57 3 36 |
| | 12574 00 | 88 90 | 89 59 | 8947 77 | 3637 07 | 181 83 | 3634 15 | 4 03 | 420640 27 | 659771 45 | N 32 9 21 02 | W 103 57 2 25 |
| | 12669 00 | 88 11 | 91 06 | 8950 25 | 3732 01 | 181 29 | 3729 11 | 1 76 | 420639 73 | 659866 41 | N 32 9 21 01 | W 103 57 1 15 |
| | 12764 00 | 89 28 | 89 71 | 8952 41 | 3826 94 | 180 65 | 3824 08 | 1 88 | 420639 09 | 659961 37 | N 32 9 21 00 | W 103 57 0 04 |
| | 12859 00 | 89 21 | 89 49 | 8953 67 | 3921 93 | 181 32 | 3919 07 | 0 24 | 420639 75 | 660056 35 | N 32 9 21 01 | W 103 56 58 94 |
| | 12954 00 | 89 28 | 89 48 | 8954 92 | 4016 91 | 182 17 | 4014 05 | 0 07 | 420640 61 | 660151 33 | N 32 9 21 01 | W 103 56 57 83 |
| | 13050 00 | 89 14 | 89 96 | 8956 24 | 4112 89 | 182 64 | 4110 04 | 0 52 | 420641 08 | 660247 31 | N 32 9 21 01 | W 103 56 56 72 |
| | 13145 00 | 89 28 | 89 82 | 8957 55 | 4207 87 | 182 82 | 4205 04 | 0 21 | 420641 26 | 660342 30 | N 32 9 21 01 | W 103 56 55 61 |
| | 13240 00 | 89 24 | 90 34 | 8958 78 | 4302 84 | 182 69 | 4300 03 | 0 55 | 420641 13 | 660437 28 | N 32 9 21 01 | W 103 56 54 51 |
| | 13334 00 | 89 35 | 89 81 | 8959 93 | 4396 81 | 182 57 | 4394 02 | 0 58 | 420641 00 | 660531 27 | N 32 9 21 00 | W 103 56 53 42 |
| | 13429 00 | 89 21 | 89 73 | 8961 13 | 4491 79 | 182 95 | 4489 01 | 0 17 | 420641 38 | 660626 25 | N 32 9 21 00 | W 103 56 52 31 |
| | 13524 00 | 89 79 | 89 39 | 8961 96 | 4586 78 | 183 68 | 4584 00 | 0 71 | 420642 11 | 660721 24 | N 32 9 21 01 | W 103 56 51 21 |
| | 13619 00 | 89 83 | 89 22 | 8962 27 | 4681 77 | 184 83 | 4679 00 | 0 18 | 420643 27 | 660816 22 | N 32 9 21 02 | W 103 56 50 10 |
| | 13714 00 | 89 55 | 89 03 | 8962 79 | 4776 77 | 186 28 | 4773 98 | 0 36 | 420644 72 | 660911 20 | N 32 9 21 03 | W 103 56 49 00 |
| | 13808 00 | 89 76 | 89 36 | 8963 35 | 4870 77 | 187 60 | 4867 97 | 0 42 | 420646 04 | 661005 18 | N 32 9 21 04 | W 103 56 47 90 |
| | 13903 00 | 89 97 | 89 24 | 8963 58 | 4965 76 | 188 76 | 4962 97 | 0 25 | 420647 20 | 661100 17 | N 32 9 21 04 | W 103 56 46 80 |
| | 13998 00 | 89 38 | 90 13 | 8964 12 | 5060 75 | 189 28 | 5057 96 | 1 12 | 420647 72 | 661195 16 | N 32 9 21 05 | W 103 56 45 69 |
| | 14093 00 | 89 14 | 89 72 | 8965 34 | 5155 73 | 189 41 | 5152 95 | 0 50 | 420647 84 | 661290 14 | N 32 9 21 04 | W 103 56 44 59 |
| | 14188 00 | 89 38 | 89 65 | 8966 57 | 5250 71 | 189 93 | 5247 94 | 0 26 | 420648 37 | 661385 12 | N 32 9 21 05 | W 103 56 43 48 |
| | 14283 00 | 88 69 | 91 19 | 8968 17 | 5345 65 | 189 23 | 5342 92 | 1 78 | 420647 67 | 661480 10 | N 32 9 21 04 | W 103 56 42 38 |
| | 14378 00 | 88 31 | 90 47 | 8970 66 | 5440 56 | 187 86 | 5437 88 | 0 86 | 420646 29 | 661575 05 | N 32 9 21 02 | W 103 56 41 27 |
| | 14473 00 | 88 42 | 90 65 | 8973 37 | 5535 48 | 186 93 | 5532 84 | 0 22 | 420645 37 | 661670 00 | N 32 9 21 01 | W 103 56 40 17 |
| | 14568 00 | 88 14 | 90 56 | 8976 22 | 5630 39 | 185 93 | 5627 79 | 0 31 | 420644 36 | 661764 94 | N 32 9 20 99 | W 103 56 39 06 |
| | 14663 00 | 88 56 | 89 93 | 8978 95 | 5725 33 | 185 52 | 5722 75 | 0 80 | 420643 96 | 661859 89 | N 32 9 20 99 | W 103 56 37 96 |
| | 14758 00 | 88 90 | 89 90 | 8981 06 | 5820 29 | 185 66 | 5817 72 | 0 36 | 420644 10 | 661954 86 | N 32 9 20 98 | W 103 56 36 85 |
| | 14852 00 | 89 55 | 91 87 | 8982 33 | 5914 21 | 184 21 | 5911 70 | 2 21 | 420642 65 | 662048 83 | N 32 9 20 97 | W 103 56 35 76 |
| | 14947 00 | 88 83 | 89 91 | 8983 67 | 6009 14 | 182 74 | 6006 67 | 2 20 | 420641 17 | 662143 80 | N 32 9 20 95 | W 103 56 34 66 |
| | 15041 00 | 88 80 | 90 08 | 8985 62 | 6103 10 | 182 74 | 6100 65 | 0 18 | 420641 18 | 662237 77 | N 32 9 20 94 | W 103 56 33 56 |
| | 15136 00 | 88 93 | 89 84 | 8987 50 | 6198 06 | 182 81 | 6195 63 | 0 29 | 420641 25 | 662332 74 | N 32 9 20 94 | W 103 56 32 46 |
| | 15231 00 | 88 52 | 90 23 | 8989 61 | 6293 02 | 182 75 | 6290 61 | 0 60 | 420641 19 | 662427 71 | N 32 9 20 94 | W 103 56 31 35 |
| | 15326 00 | 88 80 | 90 54 | 8991 83 | 6387 96 | 182 11 | 6385 58 | 0 44 | 420640 55 | 662522 68 | N 32 9 20 93 | W 103 56 30 25 |
| | 15420 00 | 88 80 | 90 10 | 8993 80 | 6481 90 | 181 59 | 6479 56 | 0 47 | 420640 03 | 662616 65 | N 32 9 20 92 | W 103 56 29 16 |
| | 15515 00 | 88 80 | 89 85 | 8995 79 | 6576 87 | 181 63 | 6574 54 | 0 26 | 420640 07 | 662711 62 | N 32 9 20 92 | W 103 56 28 05 |
| | 15610 00 | 88 00 | 88 35 | 8998 45 | 6671 82 | 183 12 | 6669 49 | 1 79 | 420641 56 | 662806 56 | N 32 9 20 93 | W 103 56 26 95 |
| | 15705 00 | 88 69 | 90 27 | 9001 19 | 6766 78 | 184 27 | 6764 44 | 2 15 | 420642 70 | 662901 50 | N 32 9 20 94 | W 103 56 25 84 |
| | 15799 00 | 88 52 | 89 65 | 9003 48 | 6860 73 | 184 33 | 6858 41 | 0 68 | 420642 77 | 662995 46 | N 32 9 20 93 | W 103 56 24 75 |
| | 15894 00 | 88 83 | 90 13 | 9005 67 | 6955 69 | 184 51 | 6953 38 | 0 60 | 420642 95 | 663090 43 | N 32 9 20 93 | W 103 56 23 64 |
| | 15989 00 | 88 87 | 90 22 | 9007 58 | 7050 64 | 184 22 | 7048 36 | 0 10 | 420642 66 | 663185 40 | N 32 9 20 92 | W 103 56 22 54 |
| | 16084 00 | 88 69 | 90 29 | 9009 60 | 7145 59 | 183 80 | 7143 34 | 0 20 | 420642 24 | 663280 37 | N 32 9 20 92 | W 103 56 21 44 |
| | 16179 00 | 88 59 | 90 21 | 9011 86 | 7240 54 | 183 39 | 7238 31 | 0 13 | 420641 82 | 663375 34 | N 32 9 20 91 | W 103 56 20 33 |
| | 16273 00 | 88 93 | 90 90 | 9013 89 | 7334 47 | 182 48 | 7332 28 | 0 82 | 420640 91 | 663469 30 | N 32 9 20 90 | W 103 56 19 24 |
| | 16368 00 | 88 56 | 89 96 | 9015 97 | 7429 41 | 181 76 | 7427 26 | 1 06 | 420640 20 | 663564 27 | N 32 9 20 89 | W 103 56 18 13 |
| | 16463 00 | 89 07 | 90 41 | 9017 94 | 7524 37 | 181 46 | 7522 24 | 0 72 | 420639 89 | 663659 24 | N 32 9 20 88 | W 103 56 17 03 |
| | 16558 00 | 88 83 | 90 03 | 9019 68 | 7619 32 | 181 09 | 7617 22 | 0 47 | 420639 53 | 663754 22 | N 32 9 20 87 | W 103 56 15 92 |
| | 16653 00 | 88 45 | 90 10 | 9021 93 | 7714 27 | 180 98 | 7712 19 | 0 41 | 420639 42 | 663849 18 | N 32 9 20 87 | W 103 56 14 82 |
| | 16748 00 | 88 25 | 88 87 | 9024 67 | 7809 23 | 181 84 | 7807 15 | 1 31 | 420640 27 | 663944 13 | N 32 9 20 87 | W 103 56 13 71 |
| | 16843 00 | 88 62 | 89 81 | 9027 26 | 7904 19 | 182 93 | 7902 10 | 1 06 | 420641 37 | 664039 08 | N 32 9 20 88 | W 103 56 12 61 |
| | 16938 00 | 89 14 | 89 49 | 9029 12 | 7999 16 | 183 51 | 7997 08 | 0 64 | 420641 95 | 664134 05 | N 32 9 20 88 | W 103 56 11 50 |
| | 17032 00 | 89 04 | 89 69 | 9030 61 | 8093 14 | 184 18 | 8091 07 | 0 24 | 420642 62 | 664228 03 | N 32 9 20 89 | W 103 56 10 41 |
| | 17127 00 | 88 97 | 89 22 | 9032 26 | 8188 12 | 185 09 | 8186 05 | 0 50 | 420643 52 | 664323 00 | N 32 9 20 89 | W 103 56 9 31 |
| | 17222 00 | 89 55 | 90 72 | 9033 49 | 8283 09 | 185 14 | 8281 04 | 1 69 | 420643 57 | 664417 98 | N 32 9 20 89 | W 103 56 8 20 |
| | 17317 00 | 89 21 | 89 51 | 9034 52 | 8378 06 | 184 95 | 8376 03 | 1 32 | 420643 38 | 664512 97 | N 32 9 20 88 | W 103 56 7 10 |
| | 17413 00 | 89 00 | 89 29 | 9036 02 | 8474 04 | 185 95 | 8472 01 | 0 32 | 420644 39 | 664608 95 | N 32 9 20 89 | W 103 56 5 98 |
| | 17508 00 | 89 45 | 90 69 | 9037 30 | 8569 01 | 185 97 | 8567 00 | 1 55 | 420644 40 | 664703 93 | N 32 9 20 89 | W 103 56 4 88 |
| | 17602 00 | 89 38 | 89 77 | 9038 26 | 8662 98 | 185 59 | 8661 00 | 0 98 | 420644 03 | 664797 91 | N 32 9 20 88 | W 103 56 3 78 |
| | 17697 00 | 88 76 | 89 45 | 9039 81 | 8757 96 | 186 24 | 8755 98 | 0 73 | 420644 67 | 664892 89 | N 32 9 20 88 | W 103 56 2 68 |
| | 17792 00 | 89 35 | 86 28 | 9041 37 | 8852 92 | 189 78 | 8850 89 | 3 39 | 420648 21 | 664987 79 | N 32 9 20 91 | W 103 56 1 57 |
| | 17887 00 | 88 62 | 85 19 | 9043 06 | 8947 76 | 196 84 | 8945 61 | 1 38 | 420655 27 | 665082 50 | N 32 9 20 98 | W 103 56 0 47 |
| | 17982 00 | 89 17 | 85 73 | 9044 89 | 9042 58 | 204 36 | 9040 29 | 0 81 | 420662 79 | 665177 18 | N 32 9 21 05 | W 103 55 59 37 |
| | 18077 00 | 88 90 | 85 92 | 9046 49 | 9137 43 | 211 27 | 9135 03 | 0 35 | 420669 71 | 665271 91 | N 32 9 21 12 | W 103 55 58 27 |
| | 18172 00 | 89 45 | 86 18 | 9047 86 | 9232 31 | 217 82 | 9229 79 | 0 64 | 420676 25 | 665366 66 | N 32 9 21 18 | W 103 55 57 16 |
| | 18267 00 | 88 76 | 88 88 | 9049 34 | 9327 26 | 221 91 | 9324 68 | 2 93 | 420680 34 | 665461 55 | N 32 9 21 21 | W 103 55 56 06 |
| | 18362 00 | 88 83 | 89 71 | 9051 34 | 9422 24 | 223 08 | 9419 65 | 0 88 | 420681 51 | 665556 51 | N 32 9 21 22 | W 103 55 54 96 |
| | 18457 00 | 89 11 | 89 46 | 9053 04 | 9517 21 | 223 77 | 9514 64 | 0 40 | 420682 20 | 665651 49 | N 32 9 21 23 | W 103 55 53 85 |
| | 18552 00 | 88 86 | 89 76 | 9054 73 | 9612 19 | 224 41 | 9609 62 | 0 41 | 420682 85 | 665746 46 | N 32 9 21 23 | W 103 55 52 75 |
| | 18646 00 | 89 14 | 89 39 | 9056 37 | 9706 17 | 225 11 | 9703 60 | 0 49 | 420683 54 | 665840 44 | N 32 9 21 23 | W 103 55 51 65 |
| | 18741 00 | 88 97 | 89 57 | 9057 93 | 9801 15 | 225 97 | 9798 58 | 0 26 | 420684 40 | 665935 41 | N 32 9 21 24 | W 103 55 50 55 |
| Final MWD Survey Proj to Bit | 18836 00 | 89 38 | 90 12 | 9059 30 | 9896 12 | 226 23 | 9893 57 | 0 72 | 420684 66 | 666030 39 | N 32 9 21 24 | W 103 55 49 44 |
| | 18935 00 | 89 38 | 90 12 | 9060 37 | 9995 09 | 226 02 | 9992 57 | 0 00 | 420684 45 | 666129 38 | N 32 9 21 23 | W 103 55 48 29 |

| Comments | MD (ft) | Incl (°) | Azm Grid (°) | TVD (ft) | VSEC (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | Northing (ftUS) | Easting (ftUS) | Latitude (N/S °) | Longitude (E/W °) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Survey Type** Def Survey

**Survey Error Model** ISCWSA Rev 0 ** 3-D 95 000% Confidence 2 7955 sigma

**Survey Program**

| Description | Part | MD From (ft) | MD To (ft) | EOU Freq (ft) | Hole Size (in) | Casing Diameter (in) | Survey Tool Type | Borehole / Survey |
|---|---|---|---|---|---|---|---|---|
| | 1 | 0 000 | 26 500 | 1/98 425 | 30 000 | 30 000 | NAL_NSG+MSHOT Depth Only | Original Borehole / Oxy Corral Fly 02-01 State 25H Gyro+DMAG+MWD 0-18 935 |
| | 1 | 26 500 | 26 500 | Act Stns | 30 000 | 30 000 | NAL_NSG+MSHOT Depth Only | Original Borehole / Oxy Corral Fly 02-01 State 25H Gyro+DMAG+MWD 0-18 935 |
| | 1 | 26 500 | 1635 000 | Act Stns | 30 000 | 30 000 | NAL_NSG+MSHOT | Original Borehole / Oxy Corral Fly 02-01 State 25H |
| | 1 | 1635 000 | 8246 000 | Act Stns | 30 000 | 30 000 | NAL_MWD_PLUS_0 5_DEG | Original Borehole / Oxy Corral Fly 02-01 State 25H |
| | 1 | 8246 000 | 9334 000 | Act Stns | 30 000 | 30 000 | NAL_MWD_HDGM+MS | Original Borehole / Oxy Corral Fly 02-01 State 25H |
| | 1 | 9334 000 | 18935 000 | Act Stns | 30 000 | 30 000 | NAL_MWD_PLUS_0 5_DEG | Original Borehole / Oxy Corral Fly 02-01 State 25H |

**Schlumberger** OXY

| Borehole | Well | Field | Structure |
|---|---|---|---|
| Original Borehole | Oxy Corral Fly 02-01 State 25H | NM Eddy County (NAD 83) | Oxy Corral Fly 02-01 State 25H |

**Gravity & Magnetic Parameters**
Model HDGM 2017 Dip: 59.923° Date 19-Feb-2019
MagDec 7.027° FS 48020.076nT Gravity FS 998.456mgn (9.80665 Based)

**Surface Location** NAD83 New Mexico State Plane, Eastern Zone, US Feet
Lat: N 32 9 19.36 Northing 420458.46RUS Grid Conv: 0.1974
Lon W 103 57 44.53 Easting 656137.58RUS Scale Fact: 0.99993419

**Miscellaneous**
Slot: Oxy Corral Fly 02-01 State 25H TVD Ref: RKB=26.5' (3084.1ft above MSL)
Plan: Oxy Corral Fly 02-01 State 25H REV1 ALS 14Feb18