

OPERATOR  
WELL/LEASE  
COUNTY

MEWBOURNE OIL COMPANY  
BISON WALLOW 34 FED 2H  
EDDY

041-0110

STATE OF NEW MEXICO  
DEVIATION REPORT

30-015-41237

|       |      |
|-------|------|
| 348   | 0.39 |
| 680   | 1.30 |
| 931   | 1.00 |
| 1,246 | 1.60 |
| 1,467 | 1.70 |
| 1,624 | 2.20 |
| 1,719 | 2.50 |
| 1,845 | 2.60 |
| 1,940 | 1.80 |
| 2,096 | 1.90 |
| 2,287 | 1.80 |
| 2,570 | 2.50 |
| 2,962 | 3.50 |
| 3,450 | 4.40 |
| 3,577 | 2.40 |
| 3,920 | 1.70 |
| 4,398 | 1.10 |
| 4,682 | 0.70 |
| 4,808 | 0.08 |
| 5,313 | 1.50 |
| 5,807 | 1.80 |
| 6,281 | 1.30 |
| 6,722 | 1.00 |
| 7,006 | 2.40 |
| 7,069 | 2.70 |
| 7,164 | 2.80 |
| 7,259 | 2.60 |
| 7,354 | 2.10 |
| 7,449 | 2.20 |
| 7,704 | 1.50 |
| 7,923 | 1.30 |



BY:

Steve Moore

STATE OF TEXAS

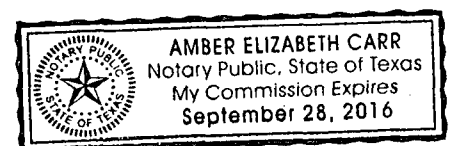
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on  
Steve Moore on behalf of Patterson-UTI Drilling Company LLC.

5/31/13

by

Amber Elizabeth Carr  
Notary Public for Midland County, Texas  
My Commission Expires:





# **SURVEY CALCULATION PROGRAM**

v1.00.02

|                                                  |                             |                  |                  |
|--------------------------------------------------|-----------------------------|------------------|------------------|
| OPERATOR:                                        | MEWBOURNE OIL COMPANY       |                  | Supervisors:     |
| WELL:                                            | BISON WALLOW 34 FEDERAL #2H |                  | CODY BERRYMAN    |
| LOCATION:                                        | EDDY COUNTY, NM             |                  | ANDY DEUSTERBERG |
| JOB NUMBER:                                      | 5-14-13                     | API #:           | 30-015-41237     |
| COMMENTS:                                        |                             |                  |                  |
| <b>DISPLACEMENT OF 175.15 FT AT 6.42 DEGREES</b> |                             | MAG DEC.(-/+)    | 7.33             |
|                                                  |                             | GRID CORR.(-/+)  |                  |
|                                                  |                             | TOTAL CORR.(-/+) |                  |
| DATE: 5-14-13                                    |                             | TIME: 0200       |                  |

| MINIMUM CURVATURE CALCULATIONS(SPE-3362) |      |      |        |         |        |        |        |      |     | PROPOSED DIRECTION |          | TARGET TRACKING |         | CLOSURE  | CLOSURE  | BUILD  | WALK   |
|------------------------------------------|------|------|--------|---------|--------|--------|--------|------|-----|--------------------|----------|-----------------|---------|----------|----------|--------|--------|
|                                          |      |      |        |         |        |        |        |      |     |                    |          | TO CENTER       |         | DIR      | DISTANCE | RATE/  | RATE/  |
| SVY                                      | MD   | INC  | TRUE   | TVD     | SECT   | N-S    | E-W    | DLS/ | 100 | ABOVE(+)           | RIGHT(+) | BELOW(-)        | LEFT(-) | (DEG AZ) | (FEET)   | '/100' | '/100' |
| TIE                                      |      |      |        |         |        |        |        |      |     |                    |          |                 |         |          |          |        |        |
| 1                                        | 100  | 0.13 | 84.52  | 100.00  | 0.01   | 0.01   | 0.11   | 0.1  |     | -100.0             | 0.1      |                 |         | 84.5     | 0.1      | 0.1    | 0.1    |
| 2                                        | 200  | 0.31 | 58.59  | 200.00  | 0.16   | 0.16   | 0.46   | 0.2  |     | -200.0             | 0.5      |                 |         | 70.4     | 0.5      | 0.2    | -0.1   |
| 3                                        | 300  | 0.69 | 329.31 | 300.00  | 0.82   | 0.82   | 0.38   | 0.8  |     | -300.0             | 0.4      |                 |         | 24.8     | 0.9      | 0.4    | 0.7    |
| 4                                        | 400  | 0.84 | 28.53  | 399.99  | 1.98   | 1.98   | 0.42   | 0.8  |     | -400.0             | 0.4      |                 |         | 12.0     | 2.0      | 0.1    | -0.8   |
| 5                                        | 500  | 0.28 | 57.38  | 499.98  | 2.76   | 2.76   | 0.98   | 0.6  |     | -500.0             | 1.0      |                 |         | 19.5     | 2.9      | -0.6   | 0.3    |
| 6                                        | 600  | 0.58 | 285.13 | 599.98  | 3.02   | 3.02   | 0.70   | 0.8  |     | -600.0             | 0.7      |                 |         | 13.0     | 3.1      | 0.3    | 0.0    |
| 7                                        | 700  | 0.34 | 310.81 | 699.98  | 3.35   | 3.35   | -0.02  | 0.3  |     | -700.0             | 0.0      |                 |         | 359.7    | 3.3      | -0.2   | 0.0    |
| 8                                        | 800  | 0.09 | 345.46 | 799.98  | 3.62   | 3.62   | -0.26  | 0.3  |     | -800.0             | -0.3     |                 |         | 355.9    | 3.6      | -0.3   | 0.0    |
| 9                                        | 900  | 0.52 | 319.18 | 899.98  | 4.04   | 4.04   | -0.58  | 0.4  |     | -900.0             | -0.6     |                 |         | 351.9    | 4.1      | 0.4    | 0.0    |
| 10                                       | 1000 | 0.72 | 43.16  | 999.97  | 4.84   | 4.84   | -0.44  | 0.8  |     | -1000.0            | -0.4     |                 |         | 354.8    | 4.9      | 0.2    | 0.0    |
| 11                                       | 1100 | 1.25 | 359.54 | 1099.96 | 6.39   | 6.39   | -0.02  | 0.9  |     | -1100.0            | 0.0      |                 |         | 359.8    | 6.4      | 0.5    | 0.0    |
| 12                                       | 1200 | 1.20 | 15.47  | 1199.94 | 8.49   | 8.49   | 0.25   | 0.3  |     | -1199.9            | 0.2      |                 |         | 1.7      | 8.5      | -0.1   | 0.0    |
| 13                                       | 1300 | 1.71 | 14.01  | 1299.90 | 10.95  | 10.95  | 0.89   | 0.5  |     | -1299.9            | 0.9      |                 |         | 4.6      | 11.0     | 0.5    | 0.0    |
| 14                                       | 1400 | 1.83 | 359.22 | 1399.86 | 13.99  | 13.99  | 1.23   | 0.5  |     | -1399.9            | 1.2      |                 |         | 5.0      | 14.0     | 0.1    | 0.0    |
| 15                                       | 1500 | 1.66 | 18.07  | 1499.81 | 16.96  | 16.96  | 1.65   | 0.6  |     | -1499.8            | 1.7      |                 |         | 5.6      | 17.0     | -0.2   | 0.0    |
| 16                                       | 1600 | 1.79 | 18.92  | 1599.77 | 19.82  | 19.82  | 2.61   | 0.1  |     | -1599.8            | 2.6      |                 |         | 7.5      | 20.0     | 0.1    | 0.0    |
| 17                                       | 1700 | 2.05 | 18.50  | 1699.71 | 22.99  | 22.99  | 3.68   | 0.3  |     | -1699.7            | 3.7      |                 |         | 9.1      | 23.3     | 0.3    | 0.0    |
| 18                                       | 1800 | 2.16 | 35.67  | 1799.64 | 26.22  | 26.22  | 5.35   | 0.6  |     | -1799.6            | 5.4      |                 |         | 11.5     | 26.8     | 0.1    | 0.0    |
| 19                                       | 1900 | 2.06 | 33.35  | 1899.57 | 29.25  | 29.25  | 7.44   | 0.1  |     | -1899.6            | 7.4      |                 |         | 14.3     | 30.2     | -0.1   | 0.0    |
| 20                                       | 2000 | 1.93 | 36.76  | 1999.51 | 32.10  | 32.10  | 9.43   | 0.2  |     | -1999.5            | 9.4      |                 |         | 16.4     | 33.5     | -0.1   | 0.0    |
| 21                                       | 2100 | 1.92 | 30.43  | 2099.46 | 34.89  | 34.89  | 11.29  | 0.2  |     | -2099.5            | 11.3     |                 |         | 17.9     | 36.7     | 0.0    | 0.0    |
| 22                                       | 2200 | 1.87 | 19.71  | 2199.40 | 37.88  | 37.88  | 12.69  | 0.4  |     | -2199.4            | 12.7     |                 |         | 18.5     | 39.9     | -0.1   | 0.0    |
| 23                                       | 2300 | 1.67 | 30.87  | 2299.36 | 40.66  | 40.66  | 13.99  | 0.4  |     | -2299.4            | 14.0     |                 |         | 19.0     | 43.0     | -0.2   | 0.0    |
| 24                                       | 2400 | 1.59 | 20.10  | 2399.32 | 43.22  | 43.22  | 15.21  | 0.3  |     | -2399.3            | 15.2     |                 |         | 19.4     | 45.8     | -0.1   | 0.0    |
| 25                                       | 2500 | 1.50 | 354.02 | 2499.28 | 45.82  | 45.82  | 15.55  | 0.7  |     | -2499.3            | 15.6     |                 |         | 18.7     | 48.4     | -0.1   | 0.0    |
| 26                                       | 2600 | 2.08 | 328.53 | 2599.23 | 48.67  | 48.67  | 14.47  | 1.0  |     | -2599.2            | 14.5     |                 |         | 16.6     | 50.8     | 0.6    | 0.0    |
| 27                                       | 2700 | 2.25 | 326.95 | 2699.16 | 51.86  | 51.86  | 12.45  | 0.2  |     | -2699.2            | 12.4     |                 |         | 13.5     | 53.3     | 0.2    | 0.0    |
| 28                                       | 2800 | 3.43 | 310.33 | 2799.04 | 55.44  | 55.44  | 9.10   | 1.4  |     | -2799.0            | 9.1      |                 |         | 9.3      | 56.2     | 1.2    | 0.0    |
| 29                                       | 2900 | 3.41 | 309.98 | 2898.86 | 59.29  | 59.29  | 4.54   | 0.0  |     | -2898.9            | 4.5      |                 |         | 4.4      | 59.5     | 0.0    | 0.0    |
| 30                                       | 3000 | 2.82 | 314.47 | 2998.71 | 62.93  | 62.93  | 0.50   | 0.6  |     | -2998.7            | 0.5      |                 |         | 0.5      | 62.9     | -0.6   | 0.0    |
| 31                                       | 3100 | 2.96 | 317.50 | 3098.59 | 66.55  | 66.55  | -3.00  | 0.2  |     | -3098.6            | -3.0     |                 |         | 357.4    | 66.6     | 0.1    | 0.0    |
| 32                                       | 3200 | 2.76 | 320.18 | 3198.46 | 70.31  | 70.31  | -6.28  | 0.2  |     | -3198.5            | -6.3     |                 |         | 354.9    | 70.6     | -0.2   | 0.0    |
| 33                                       | 3300 | 2.51 | 323.16 | 3298.35 | 73.91  | 73.91  | -9.14  | 0.3  |     | -3298.4            | -9.1     |                 |         | 353.0    | 74.5     | -0.2   | 0.0    |
| 34                                       | 3400 | 2.42 | 332.58 | 3398.26 | 77.53  | 77.53  | -11.42 | 0.4  |     | -3398.3            | -11.4    |                 |         | 351.6    | 78.4     | -0.1   | 0.0    |
| 35                                       | 3500 | 2.50 | 341.48 | 3498.17 | 81.48  | 81.48  | -13.09 | 0.4  |     | -3498.2            | -13.1    |                 |         | 350.9    | 82.5     | 0.1    | 0.0    |
| 36                                       | 3600 | 1.97 | 335.70 | 3598.09 | 85.11  | 85.11  | -14.49 | 0.6  |     | -3598.1            | -14.5    |                 |         | 350.3    | 86.3     | -0.5   | 0.0    |
| 37                                       | 3700 | 1.84 | 334.40 | 3698.04 | 88.12  | 88.12  | -15.89 | 0.1  |     | -3698.0            | -15.9    |                 |         | 349.8    | 89.5     | -0.1   | 0.0    |
| 38                                       | 3800 | 1.82 | 328.55 | 3797.99 | 90.93  | 90.93  | -17.41 | 0.2  |     | -3798.0            | -17.4    |                 |         | 349.2    | 92.6     | 0.0    | 0.0    |
| 39                                       | 3900 | 1.60 | 328.64 | 3897.94 | 93.47  | 93.47  | -18.96 | 0.2  |     | -3897.9            | -19.0    |                 |         | 348.5    | 95.4     | -0.2   | 0.0    |
| 40                                       | 4000 | 2.23 | 336.98 | 3997.89 | 96.46  | 96.46  | -20.45 | 0.7  |     | -3997.9            | -20.5    |                 |         | 348.0    | 98.6     | 0.6    | 0.0    |
| 41                                       | 4100 | 1.45 | 345.82 | 4097.84 | 99.47  | 99.47  | -21.52 | 0.8  |     | -4097.8            | -21.5    |                 |         | 347.8    | 101.8    | -0.8   | 0.0    |
| 42                                       | 4200 | 1.54 | 328.29 | 4197.80 | 101.84 | 101.84 | -22.54 | 0.5  |     | -4197.8            | -22.5    |                 |         | 347.5    | 104.3    | 0.1    | 0.0    |
| 43                                       | 4300 | 1.56 | 335.01 | 4297.77 | 104.22 | 104.22 | -23.82 | 0.2  |     | -4297.8            | -23.8    |                 |         | 347.1    | 106.9    | 0.0    | 0.0    |
| 44                                       | 4400 | 1.41 | 347.14 | 4397.73 | 106.65 | 106.65 | -24.67 | 0.3  |     | -4397.7            | -24.7    |                 |         | 347.0    | 109.5    | -0.2   | 0.0    |
| 45                                       | 4500 | 1.13 | 354.19 | 4497.71 | 108.83 | 108.83 | -25.04 | 0.3  |     | -4497.7            | -25.0    |                 |         | 347.0    | 111.7    | -0.3   | 0.0    |
| 46                                       | 4600 | 1.25 | 325.14 | 4597.69 | 110.71 | 110.71 | -25.77 | 0.6  |     | -4597.7            | -25.8    |                 |         | 346.9    | 113.7    | 0.1    | 0.0    |
| 47                                       | 4700 | 1.38 | 333.31 | 4697.66 | 112.68 | 112.68 | -26.93 | 0.2  |     | -4697.7            | -26.9    |                 |         | 346.6    | 115.9    | 0.1    | 0.0    |



# **SURVEY CALCULATION PROGRAM**

v1.00.02

|                                                  |                             |                   |                         |      |
|--------------------------------------------------|-----------------------------|-------------------|-------------------------|------|
| <b>OPERATOR:</b>                                 | MEWBOURNE OIL COMPANY       |                   | <b>Supervisors:</b>     |      |
| <b>WELL:</b>                                     | BISON WALLOW 34 FEDERAL #2H |                   | CODY BERRYMAN           |      |
| <b>LOCATION:</b>                                 | EDDY COUNTY, NM             |                   | ANDY DEUSTERBERG        |      |
| <b>JOB NUMBER:</b>                               | 5-14-13                     | <b>API #:</b>     | 30-015-41237            |      |
| <b>COMMENTS:</b>                                 |                             |                   |                         |      |
| <b>DISPLACEMENT OF 175.15 FT AT 6.42 DEGREES</b> |                             |                   | <b>MAG DEC.(-/+)</b>    | 7.33 |
|                                                  |                             |                   | <b>GRID CORR.(-/+)</b>  |      |
|                                                  |                             |                   | <b>TOTAL CORR.(-/+)</b> |      |
| <b>DATE: 5-14-13</b>                             |                             | <b>TIME: 0200</b> |                         |      |

| MINIMUM CURVATURE CALCULATIONS(SPE-3362) |      |      |        |         |        |        |        |      |     | PROPOSED DIRECTION |          | TARGET TRACKING |         | CLOSURE  |          | BUILD  | WALK   |
|------------------------------------------|------|------|--------|---------|--------|--------|--------|------|-----|--------------------|----------|-----------------|---------|----------|----------|--------|--------|
|                                          |      |      |        |         |        |        |        |      |     |                    |          | TO CENTER       |         | DIR      | DISTANCE | RATE/  | RATE/  |
| SVY                                      | MD   | INC  | TRUE   | TVD     | SECT   | N-S    | E-W    | DLS/ | 100 | ABOVE(+)           | RIGHT(+) | BELOW(-)        | LEFT(-) | (DEG AZ) | (FEET)   | %/100' | %/100' |
| 48                                       | 4800 | 1.42 | 342.67 | 4797.63 | 114.94 | 114.94 | -27.84 | 0.2  |     | -4797.6            | -27.8    |                 |         | 346.4    | 118.3    | 0.0    | 0.0    |
| 49                                       | 4900 | 1.56 | 352.87 | 4897.60 | 117.47 | 117.47 | -28.38 | 0.3  |     | -4897.6            | -28.4    |                 |         | 346.4    | 120.9    | 0.1    | 0.0    |
| 50                                       | 5000 | 1.82 | 5.25   | 4997.55 | 120.41 | 120.41 | -28.40 | 0.4  |     | -4997.6            | -28.4    |                 |         | 346.7    | 123.7    | 0.3    | 0.0    |
| 51                                       | 5100 | 1.91 | 8.84   | 5097.50 | 123.63 | 123.63 | -28.00 | 0.1  |     | -5097.5            | -28.0    |                 |         | 347.2    | 126.8    | 0.1    | 0.0    |
| 52                                       | 5200 | 1.97 | 8.53   | 5197.44 | 126.98 | 126.98 | -27.49 | 0.1  |     | -5197.4            | -27.5    |                 |         | 347.8    | 129.9    | 0.1    | 0.0    |
| 53                                       | 5300 | 2.00 | 6.82   | 5297.38 | 130.41 | 130.41 | -27.03 | 0.1  |     | -5297.4            | -27.0    |                 |         | 348.3    | 133.2    | 0.0    | 0.0    |
| 54                                       | 5400 | 2.04 | 357.06 | 5397.32 | 133.92 | 133.92 | -26.91 | 0.3  |     | -5397.3            | -26.9    |                 |         | 348.6    | 136.6    | 0.0    | 0.0    |
| 55                                       | 5500 | 1.81 | 351.64 | 5497.27 | 137.26 | 137.26 | -27.23 | 0.3  |     | -5497.3            | -27.2    |                 |         | 348.8    | 139.9    | -0.2   | 0.0    |
| 56                                       | 5600 | 1.67 | 11.11  | 5597.22 | 140.25 | 140.25 | -27.18 | 0.6  |     | -5597.2            | -27.2    |                 |         | 349.0    | 142.9    | -0.1   | 0.0    |
| 57                                       | 5700 | 1.51 | 5.51   | 5697.18 | 143.00 | 143.00 | -26.77 | 0.2  |     | -5697.2            | -26.8    |                 |         | 349.4    | 145.5    | -0.2   | 0.0    |
| 58                                       | 5800 | 1.41 | 12.34  | 5797.15 | 145.51 | 145.51 | -26.38 | 0.2  |     | -5797.1            | -26.4    |                 |         | 349.7    | 147.9    | -0.1   | 0.0    |
| 59                                       | 5900 | 1.19 | 9.39   | 5897.12 | 147.74 | 147.74 | -25.95 | 0.2  |     | -5897.1            | -26.0    |                 |         | 350.0    | 150.0    | -0.2   | 0.0    |
| 60                                       | 6000 | 1.22 | 8.62   | 5997.10 | 149.81 | 149.81 | -25.62 | 0.0  |     | -5997.1            | -25.6    |                 |         | 350.3    | 152.0    | 0.0    | 0.0    |
| 61                                       | 6100 | 1.12 | 15.90  | 6097.08 | 151.81 | 151.81 | -25.20 | 0.2  |     | -6097.1            | -25.2    |                 |         | 350.6    | 153.9    | -0.1   | 0.0    |
| 62                                       | 6200 | 0.95 | 7.61   | 6197.06 | 153.57 | 153.57 | -24.82 | 0.2  |     | -6197.1            | -24.8    |                 |         | 350.8    | 155.6    | -0.2   | 0.0    |
| 63                                       | 6300 | 1.03 | 21.24  | 6297.05 | 155.23 | 155.23 | -24.38 | 0.2  |     | -6297.0            | -24.4    |                 |         | 351.1    | 157.1    | 0.1    | 0.0    |
| 64                                       | 6400 | 0.84 | 12.86  | 6397.0  | 156.8  | 156.8  | -23.9  | 0.2  |     | -6397.0            | -23.9    |                 |         | 351.3    | 158.6    | -0.2   | 0.0    |
| 65                                       | 6500 | 0.63 | 31.22  | 6497.0  | 158.0  | 158.0  | -23.4  | 0.3  |     | -6497.0            | -23.4    |                 |         | 351.6    | 159.7    | -0.2   | 0.0    |
| 66                                       | 6600 | 0.92 | 29.57  | 6597.0  | 159.1  | 159.1  | -22.8  | 0.3  |     | -6597.0            | -22.8    |                 |         | 351.9    | 160.8    | 0.3    | 0.0    |
| 67                                       | 6700 | 0.90 | 339.69 | 6697.0  | 160.6  | 160.6  | -22.6  | 0.8  |     | -6697.0            | -22.6    |                 |         | 352.0    | 162.2    | 0.0    | 0.0    |
| 68                                       | 6800 | 1.05 | 38.75  | 6797.0  | 162.0  | 162.0  | -22.3  | 1.0  |     | -6797.0            | -22.3    |                 |         | 352.1    | 163.6    | 0.1    | 0.0    |
| 69                                       | 6900 | 1.00 | 62.82  | 6897.0  | 163.1  | 163.1  | -21.0  | 0.4  |     | -6897.0            | -21.0    |                 |         | 352.7    | 164.5    | -0.1   | 0.0    |
| 70                                       | 7000 | 2.06 | 95.00  | 6996.9  | 163.4  | 163.4  | -18.4  | 1.3  |     | -6996.9            | -18.4    |                 |         | 353.6    | 164.4    | 1.1    | 0.0    |
| 71                                       | 7100 | 3.07 | 100.77 | 7096.8  | 162.7  | 162.7  | -14.0  | 1.0  |     | -7096.8            | -14.0    |                 |         | 355.1    | 163.3    | 1.0    | 0.0    |
| 72                                       | 7200 | 2.83 | 84.70  | 7196.7  | 162.4  | 162.4  | -8.9   | 0.9  |     | -7196.7            | -8.9     |                 |         | 356.9    | 162.7    | -0.2   | 0.0    |
| 73                                       | 7300 | 2.79 | 76.26  | 7296.6  | 163.2  | 163.2  | -4.1   | 0.4  |     | -7296.6            | -4.1     |                 |         | 358.6    | 163.3    | 0.0    | 0.0    |
| 74                                       | 7400 | 2.89 | 73.31  | 7396.5  | 164.6  | 164.6  | 0.7    | 0.2  |     | -7396.5            | 0.7      |                 |         | 0.2      | 164.6    | 0.1    | 0.0    |
| 75                                       | 7500 | 1.16 | 68.10  | 7496.4  | 165.7  | 165.7  | 4.0    | 1.7  |     | -7496.4            | 4.0      |                 |         | 1.4      | 165.7    | -1.7   | 0.0    |
| 76                                       | 7600 | 1.72 | 60.29  | 7596.4  | 166.8  | 166.8  | 6.3    | 0.6  |     | -7596.4            | 6.3      |                 |         | 2.2      | 166.9    | 0.6    | 0.0    |
| 77                                       | 7700 | 1.58 | 63.54  | 7696.3  | 168.1  | 168.1  | 8.8    | 0.2  |     | -7696.3            | 8.8      |                 |         | 3.0      | 168.4    | -0.1   | 0.0    |
| 78                                       | 7800 | 1.30 | 62.12  | 7796.3  | 169.3  | 169.3  | 11.1   | 0.3  |     | -7796.3            | 11.1     |                 |         | 3.7      | 169.6    | -0.3   | 0.0    |
| 79                                       | 7900 | 1.14 | 55.55  | 7896.3  | 170.4  | 170.4  | 12.9   | 0.2  |     | -7896.3            | 12.9     |                 |         | 4.3      | 170.9    | -0.2   | 0.0    |
| 80                                       | 8000 | 1.43 | 69.00  | 7996.3  | 171.4  | 171.4  | 14.9   | 0.4  |     | -7996.3            | 14.9     |                 |         | 5.0      | 172.0    | 0.3    | 0.0    |
| 81                                       | 8100 | 1.33 | 58.77  | 8096.2  | 172.4  | 172.4  | 17.0   | 0.3  |     | -8096.2            | 17.0     |                 |         | 5.6      | 173.3    | -0.1   | 0.0    |
| 82                                       | 8200 | 2.14 | 56.72  | 8196.2  | 174.1  | 174.1  | 19.6   | 0.8  |     | -8196.2            | 19.6     |                 |         | 6.4      | 175.2    | 0.8    | 0.0    |

# **Mewbourne Oil Co**

**Eddy County, New Mexico (Nad 83)**

**Sec 34, T25S, R29E**

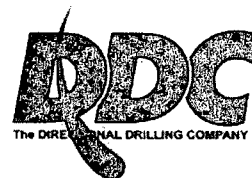
**Bison Wallow 34 Federal #2H**

**Wellbore #1**

**Design: Wellbore #1**

## **DDC Survey Report**

**24 May, 2013**



# DDC Survey Report



|                  |                                  |                                     |                                   |
|------------------|----------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well: Bison Wallow 34 Federal #2H |
| <b>Project:</b>  | Eddy County, New Mexico (Nad 83) | <b>TVD Reference:</b>               | WELL @ 3001.0usft (Patterson)     |
| <b>Site:</b>     | Sec 34, T25S, R29E               | <b>MD Reference:</b>                | WELL @ 3001.0usft (Patterson)     |
| <b>Well:</b>     | Bison Wallow 34 Federal #2H      | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM 5000.1 Single User Db         |

|                    |                                  |                      |                |
|--------------------|----------------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, New Mexico (Nad 83) |                      |                |
| <b>Map System:</b> | US State Plane 1983              | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983        |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone          |                      |                |

|                              |                    |                          |                   |
|------------------------------|--------------------|--------------------------|-------------------|
| <b>Site</b>                  | Sec 34, T25S, R29E |                          |                   |
| <b>Site Position:</b>        |                    | <b>Northing:</b>         | 392,761.80 usft   |
| <b>From:</b>                 | Map                | <b>Easting:</b>          | 655,397.03 usft   |
| <b>Position Uncertainty:</b> | 0.0 usft           | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                    | <b>Latitude:</b>         | 32° 4' 45.288 N   |
|                              |                    | <b>Longitude:</b>        | 103° 57' 54.249 W |
|                              |                    | <b>Grid Convergence:</b> | 0.20 °            |

|                             |                             |                            |                                  |
|-----------------------------|-----------------------------|----------------------------|----------------------------------|
| <b>Well</b>                 | Bison Wallow 34 Federal #2H |                            |                                  |
| <b>Well Position</b>        | +N/-S                       | 0.0 usft                   | <b>Northing:</b> 392,761.80 usft |
|                             | +E/-W                       | 0.0 usft                   | <b>Easting:</b> 655,397.03 usft  |
| <b>Position Uncertainty</b> | 0.0 usft                    | <b>Wellhead Elevation:</b> | usft                             |
|                             |                             | <b>Latitude:</b>           | 32° 4' 45.288 N                  |
|                             |                             | <b>Longitude:</b>          | 103° 57' 54.249 W                |
|                             |                             | <b>Ground Level:</b>       | 2,981.0 usft                     |

|                  |                   |                    |                     |
|------------------|-------------------|--------------------|---------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                     |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b>  |
|                  |                   |                    | (°)                 |
|                  | IGRF2010          | 5/8/2013           | 7.52                |
|                  |                   |                    | Dip Angle (°)       |
|                  |                   |                    | 59.94               |
|                  |                   |                    | Field Strength (nT) |
|                  |                   |                    | 48,299              |

|                          |                         |                      |               |
|--------------------------|-------------------------|----------------------|---------------|
| <b>Design</b>            | Wellbore #1             |                      |               |
| <b>Audit Notes:</b>      |                         |                      |               |
| <b>Version:</b>          | 1.0                     | <b>Phase:</b>        | ACTUAL        |
|                          |                         | <b>Tie On Depth:</b> | 0.0           |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b>         | <b>+E/-W</b>  |
|                          | (usft)                  | (usft)               | (usft)        |
|                          | 0.0                     | 0.0                  | 0.0           |
|                          |                         |                      | Direction (°) |
|                          |                         |                      | 359.35        |

|                       |                 |                          |                  |
|-----------------------|-----------------|--------------------------|------------------|
| <b>Survey Program</b> | Date: 5/24/2013 |                          |                  |
| <b>From</b>           | <b>To</b>       | <b>Survey (Wellbore)</b> | <b>Tool Name</b> |
| (usft)                | (usft)          |                          |                  |
| 100.0                 | 8,200.0         | Gyro (Wellbore #1)       | Good_gyro        |
| 8,304.0               | 13,315.0        | MWD (Wellbore #1)        | MWD default      |
|                       |                 |                          | Description      |
|                       |                 |                          | Good Gyro        |
|                       |                 |                          | MWD - Standard   |

|                 |                    |                |                 |              |              |                 |               |              |             |
|-----------------|--------------------|----------------|-----------------|--------------|--------------|-----------------|---------------|--------------|-------------|
| <b>Survey</b>   |                    |                |                 |              |              |                 |               |              |             |
| <b>Measured</b> | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical</b> | <b>+N/-S</b> | <b>+E/-W</b> | <b>Vertical</b> | <b>Dogleg</b> | <b>Build</b> | <b>Turn</b> |
| <b>Depth</b>    | (°)                | (°)            | <b>Depth</b>    | (usft)       | (usft)       | <b>Section</b>  | <b>Rate</b>   | <b>Rate</b>  | <b>Rate</b> |
| (usft)          |                    |                | (usft)          |              |              | (usft)          | (°/100usft)   | (°/100usft)  | (°/100usft) |
| 0.0             | 0.00               | 0.00           | 0.0             | 0.0          | 0.0          | 0.0             | 0.00          | 0.00         | 0.00        |
| 100.0           | 0.13               | 84.52          | 100.0           | 0.0          | 0.1          | 0.0             | 0.13          | 0.13         | 0.00        |
| 200.0           | 0.31               | 58.59          | 200.0           | 0.2          | 0.5          | 0.2             | 0.20          | 0.18         | -25.93      |
| 300.0           | 0.69               | 329.31         | 300.0           | 0.8          | 0.4          | 0.8             | 0.75          | 0.38         | -89.28      |
| 400.0           | 0.84               | 28.53          | 400.0           | 2.0          | 0.4          | 2.0             | 0.77          | 0.15         | 59.22       |
| 500.0           | 0.28               | 57.38          | 500.0           | 2.8          | 1.0          | 2.7             | 0.61          | -0.56        | 28.85       |
| 600.0           | 0.58               | 285.13         | 600.0           | 3.0          | 0.7          | 3.0             | 0.80          | 0.30         | -132.25     |
| 700.0           | 0.34               | 310.81         | 700.0           | 3.3          | 0.0          | 3.3             | 0.31          | -0.24        | 25.68       |
| 800.0           | 0.09               | 345.46         | 800.0           | 3.6          | -0.3         | 3.6             | 0.27          | -0.25        | 34.65       |
| 900.0           | 0.52               | 319.18         | 900.0           | 4.0          | -0.6         | 4.0             | 0.44          | 0.43         | -26.28      |

# DDC Survey Report



|                  |                                  |                                     |                                   |
|------------------|----------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well: Bison Wallow 34 Federal #2H |
| <b>Project:</b>  | Eddy County, New Mexico (Nad:83) | <b>TVD Reference:</b>               | WELL @ 3001.0usft (Patterson)     |
| <b>Site:</b>     | Sec 34, T25S, R29E               | <b>MD Reference:</b>                | WELL @ 3001.0usft (Patterson)     |
| <b>Well:</b>     | Bison Wallow 34 Federal #2H      | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM:5000.1 Single User Db         |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 1,000.0               | 0.72            | 43.16       | 1,000.0               | 4.8          | -0.4         | 4.8                     | 0.84                    | 0.20                   | 83.98                 |
| 1,100.0               | 1.25            | 359.54      | 1,100.0               | 6.4          | 0.0          | 6.4                     | 0.88                    | 0.53                   | -43.62                |
| 1,200.0               | 1.20            | 15.47       | 1,199.9               | 8.5          | 0.2          | 8.5                     | 0.34                    | -0.05                  | 15.93                 |
| 1,300.0               | 1.71            | 14.01       | 1,299.9               | 10.9         | 0.9          | 10.9                    | 0.51                    | 0.51                   | -1.46                 |
| 1,400.0               | 1.83            | 359.22      | 1,399.9               | 14.0         | 1.2          | 14.0                    | 0.47                    | 0.12                   | -14.79                |
| 1,500.0               | 1.66            | 18.07       | 1,499.8               | 17.0         | 1.7          | 16.9                    | 0.60                    | -0.17                  | 18.85                 |
| 1,600.0               | 1.79            | 18.92       | 1,599.8               | 19.8         | 2.6          | 19.8                    | 0.13                    | 0.13                   | 0.85                  |
| 1,700.0               | 2.05            | 18.50       | 1,699.7               | 23.0         | 3.7          | 22.9                    | 0.26                    | 0.26                   | -0.42                 |
| 1,800.0               | 2.16            | 35.67       | 1,799.6               | 26.2         | 5.4          | 26.2                    | 0.64                    | 0.11                   | 17.17                 |
| 1,900.0               | 2.06            | 33.35       | 1,899.6               | 29.3         | 7.4          | 29.2                    | 0.13                    | -0.10                  | -2.32                 |
| 2,000.0               | 1.93            | 36.76       | 1,999.5               | 32.1         | 9.4          | 32.0                    | 0.18                    | -0.13                  | 3.41                  |
| 2,100.0               | 1.92            | 30.43       | 2,099.5               | 34.9         | 11.3         | 34.8                    | 0.21                    | -0.01                  | -6.33                 |
| 2,200.0               | 1.87            | 19.71       | 2,199.4               | 37.9         | 12.7         | 37.7                    | 0.36                    | -0.05                  | -10.72                |
| 2,300.0               | 1.67            | 30.87       | 2,299.4               | 40.7         | 14.0         | 40.5                    | 0.40                    | -0.20                  | 11.16                 |
| 2,400.0               | 1.59            | 20.10       | 2,399.3               | 43.2         | 15.2         | 43.0                    | 0.32                    | -0.08                  | -10.77                |
| 2,500.0               | 1.50            | 354.02      | 2,499.3               | 45.8         | 15.6         | 45.6                    | 0.70                    | -0.09                  | -26.08                |
| 2,600.0               | 2.08            | 328.53      | 2,599.2               | 48.7         | 14.5         | 48.5                    | 0.97                    | 0.58                   | -25.49                |
| 2,700.0               | 2.25            | 326.95      | 2,699.2               | 51.9         | 12.4         | 51.7                    | 0.18                    | 0.17                   | -1.58                 |
| 2,800.0               | 3.43            | 310.33      | 2,799.0               | 55.4         | 9.1          | 55.3                    | 1.43                    | 1.18                   | -16.62                |
| 2,900.0               | 3.41            | 309.98      | 2,898.9               | 59.3         | 4.5          | 59.2                    | 0.03                    | -0.02                  | -0.35                 |
| 3,000.0               | 2.82            | 314.47      | 2,998.7               | 62.9         | 0.5          | 62.9                    | 0.64                    | -0.59                  | 4.49                  |
| 3,100.0               | 2.96            | 317.50      | 3,098.6               | 66.6         | -3.0         | 66.6                    | 0.21                    | 0.14                   | 3.03                  |
| 3,200.0               | 2.76            | 320.18      | 3,198.5               | 70.3         | -6.3         | 70.4                    | 0.24                    | -0.20                  | 2.68                  |
| 3,300.0               | 2.51            | 323.16      | 3,298.4               | 73.9         | -9.1         | 74.0                    | 0.28                    | -0.25                  | 2.98                  |
| 3,400.0               | 2.42            | 332.58      | 3,398.3               | 77.5         | -11.4        | 77.7                    | 0.41                    | -0.09                  | 9.42                  |
| 3,500.0               | 2.50            | 341.48      | 3,498.2               | 81.5         | -13.1        | 81.6                    | 0.39                    | 0.08                   | 8.90                  |
| 3,600.0               | 1.97            | 335.70      | 3,598.1               | 85.1         | -14.5        | 85.3                    | 0.58                    | -0.53                  | -5.78                 |
| 3,700.0               | 1.84            | 334.40      | 3,698.0               | 88.1         | -15.9        | 88.3                    | 0.14                    | -0.13                  | -1.30                 |
| 3,800.0               | 1.82            | 328.55      | 3,798.0               | 90.9         | -17.4        | 91.1                    | 0.19                    | -0.02                  | -5.85                 |
| 3,900.0               | 1.60            | 328.64      | 3,897.9               | 93.5         | -19.0        | 93.7                    | 0.22                    | -0.22                  | 0.09                  |
| 4,000.0               | 2.23            | 336.98      | 3,997.9               | 96.5         | -20.5        | 96.7                    | 0.69                    | 0.63                   | 8.34                  |
| 4,100.0               | 1.45            | 345.82      | 4,097.8               | 99.5         | -21.5        | 99.7                    | 0.83                    | -0.78                  | 8.84                  |
| 4,200.0               | 1.54            | 328.29      | 4,197.8               | 101.8        | -22.5        | 102.1                   | 0.46                    | 0.09                   | -17.53                |
| 4,300.0               | 1.56            | 335.01      | 4,297.8               | 104.2        | -23.8        | 104.5                   | 0.18                    | 0.02                   | 6.72                  |
| 4,400.0               | 1.41            | 347.14      | 4,397.7               | 106.7        | -24.7        | 106.9                   | 0.35                    | -0.15                  | 12.13                 |
| 4,500.0               | 1.13            | 354.19      | 4,497.7               | 108.8        | -25.0        | 109.1                   | 0.32                    | -0.28                  | 7.05                  |
| 4,600.0               | 1.25            | 325.14      | 4,597.7               | 110.7        | -25.8        | 111.0                   | 0.61                    | 0.12                   | -29.05                |
| 4,700.0               | 1.38            | 333.31      | 4,697.7               | 112.7        | -26.9        | 113.0                   | 0.23                    | 0.13                   | 8.17                  |
| 4,800.0               | 1.42            | 342.67      | 4,797.6               | 114.9        | -27.8        | 115.2                   | 0.23                    | 0.04                   | 9.36                  |
| 4,900.0               | 1.56            | 352.87      | 4,897.6               | 117.5        | -28.4        | 117.8                   | 0.30                    | 0.14                   | 10.20                 |
| 5,000.0               | 1.82            | 5.25        | 4,997.6               | 120.4        | -28.4        | 120.7                   | 0.45                    | 0.26                   | 12.38                 |
| 5,100.0               | 1.91            | 8.84        | 5,097.5               | 123.6        | -28.0        | 123.9                   | 0.15                    | 0.09                   | 3.59                  |
| 5,200.0               | 1.97            | 8.53        | 5,197.4               | 127.0        | -27.5        | 127.3                   | 0.06                    | 0.06                   | -0.31                 |

# DDC Survey Report



|                  |                                  |                                     |                                   |
|------------------|----------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well: Bison Wallow 34 Federal #2H |
| <b>Project:</b>  | Eddy County, New Mexico (Nad 83) | <b>TVD Reference:</b>               | WELL @ 3001.0usft (Patterson)     |
| <b>Site:</b>     | Sec 34, T25S, R29E               | <b>MD Reference:</b>                | WELL @ 3001.0usft (Patterson)     |
| <b>Well:</b>     | Bison Wallow 34 Federal #2H      | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM 5000.1 Single User Db         |

## Survey

| Measured Depth (usft)                              | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|----------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 5,300.0                                            | 2.00            | 6.82        | 5,297.4               | 130.4        | -27.0        | 130.7                   | 0.07                    | 0.03                   | -1.71                 |
| 5,400.0                                            | 2.04            | 357.06      | 5,397.3               | 133.9        | -26.9        | 134.2                   | 0.35                    | 0.04                   | -9.76                 |
| 5,500.0                                            | 1.81            | 351.64      | 5,497.3               | 137.3        | -27.2        | 137.6                   | 0.29                    | -0.23                  | -5.42                 |
| 5,600.0                                            | 1.67            | 11.11       | 5,597.2               | 140.3        | -27.2        | 140.6                   | 0.60                    | -0.14                  | 19.47                 |
| 5,700.0                                            | 1.51            | 5.51        | 5,697.2               | 143.0        | -26.8        | 143.3                   | 0.22                    | -0.16                  | -5.60                 |
| 5,800.0                                            | 1.41            | 12.34       | 5,797.1               | 145.5        | -26.4        | 145.8                   | 0.20                    | -0.10                  | 6.83                  |
| 5,900.0                                            | 1.19            | 9.39        | 5,897.1               | 147.7        | -26.0        | 148.0                   | 0.23                    | -0.22                  | -2.95                 |
| 6,000.0                                            | 1.22            | 8.62        | 5,997.1               | 149.8        | -25.6        | 150.1                   | 0.03                    | 0.03                   | -0.77                 |
| 6,100.0                                            | 1.12            | 15.90       | 6,097.1               | 151.8        | -25.2        | 152.1                   | 0.18                    | -0.10                  | 7.28                  |
| 6,200.0                                            | 0.95            | 7.61        | 6,197.1               | 153.6        | -24.8        | 153.8                   | 0.23                    | -0.17                  | -8.29                 |
| 6,300.0                                            | 1.03            | 21.24       | 6,297.0               | 155.2        | -24.4        | 155.5                   | 0.25                    | 0.08                   | 13.63                 |
| 6,400.0                                            | 0.84            | 12.86       | 6,397.0               | 156.8        | -23.9        | 157.0                   | 0.23                    | -0.19                  | -8.38                 |
| 6,500.0                                            | 0.63            | 31.22       | 6,497.0               | 158.0        | -23.4        | 158.2                   | 0.31                    | -0.21                  | 18.36                 |
| 6,600.0                                            | 0.92            | 29.57       | 6,597.0               | 159.1        | -22.8        | 159.4                   | 0.29                    | 0.29                   | -1.65                 |
| 6,700.0                                            | 0.90            | 339.69      | 6,697.0               | 160.6        | -22.6        | 160.8                   | 0.77                    | -0.02                  | -49.88                |
| 6,800.0                                            | 1.05            | 38.75       | 6,797.0               | 162.0        | -22.3        | 162.3                   | 0.97                    | 0.15                   | 59.06                 |
| 6,900.0                                            | 1.00            | 62.82       | 6,897.0               | 163.1        | -21.0        | 163.4                   | 0.43                    | -0.05                  | 24.07                 |
| 7,000.0                                            | 2.06            | 95.00       | 6,996.9               | 163.4        | -18.4        | 163.6                   | 1.33                    | 1.06                   | 32.18                 |
| 7,100.0                                            | 3.07            | 100.77      | 7,096.8               | 162.7        | -14.0        | 162.9                   | 1.04                    | 1.01                   | 5.77                  |
| 7,200.0                                            | 2.83            | 84.70       | 7,196.7               | 162.4        | -8.9         | 162.5                   | 0.86                    | -0.24                  | -16.07                |
| 7,300.0                                            | 2.79            | 76.26       | 7,296.6               | 163.2        | -4.1         | 163.3                   | 0.42                    | -0.04                  | -8.44                 |
| 7,400.0                                            | 2.89            | 73.31       | 7,396.5               | 164.6        | 0.7          | 164.5                   | 0.18                    | 0.10                   | -2.95                 |
| 7,500.0                                            | 1.16            | 68.10       | 7,496.4               | 165.7        | 4.0          | 165.6                   | 1.74                    | -1.73                  | -5.21                 |
| 7,600.0                                            | 1.72            | 60.29       | 7,596.4               | 166.8        | 6.3          | 166.7                   | 0.59                    | 0.56                   | -7.81                 |
| 7,700.0                                            | 1.58            | 63.54       | 7,696.3               | 168.1        | 8.8          | 168.0                   | 0.17                    | -0.14                  | 3.25                  |
| 7,800.0                                            | 1.30            | 62.12       | 7,796.3               | 169.3        | 11.1         | 169.1                   | 0.28                    | -0.28                  | -1.42                 |
| 7,900.0                                            | 1.14            | 55.55       | 7,896.3               | 170.4        | 12.9         | 170.2                   | 0.21                    | -0.16                  | -6.57                 |
| 8,000.0                                            | 1.43            | 69.00       | 7,996.3               | 171.4        | 14.9         | 171.2                   | 0.42                    | 0.29                   | 13.45                 |
| 8,100.0                                            | 1.33            | 58.77       | 8,096.2               | 172.4        | 17.0         | 172.2                   | 0.27                    | -0.10                  | -10.23                |
| <b>TIE IN @ 8200' MD / 8196.2' TVD</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,200.0                                            | 2.14            | 56.72       | 8,196.2               | 174.1        | 19.6         | 173.8                   | 0.81                    | 0.81                   | -2.05                 |
| 8,304.0                                            | 4.50            | 346.80      | 8,300.0               | 179.1        | 20.3         | 178.9                   | 4.10                    | 2.27                   | -67.23                |
| 8,336.0                                            | 7.70            | 352.60      | 8,331.8               | 182.4        | 19.7         | 182.2                   | 10.17                   | 10.00                  | 18.13                 |
| 8,367.0                                            | 10.40           | 356.20      | 8,362.5               | 187.3        | 19.3         | 187.1                   | 8.89                    | 8.71                   | 11.61                 |
| 8,399.0                                            | 13.40           | 355.50      | 8,393.8               | 193.9        | 18.8         | 193.7                   | 9.39                    | 9.38                   | -2.19                 |
| 8,431.0                                            | 17.10           | 354.90      | 8,424.6               | 202.3        | 18.1         | 202.0                   | 11.57                   | 11.56                  | -1.88                 |
| 8,462.0                                            | 20.00           | 357.90      | 8,454.0               | 212.1        | 17.5         | 211.9                   | 9.85                    | 9.35                   | 9.68                  |
| 8,494.0                                            | 23.20           | 0.00        | 8,483.8               | 223.9        | 17.3         | 223.7                   | 10.29                   | 10.00                  | 6.56                  |
| <b>CROSSED HARDLINE @ 8509.2' MD / 8497.7' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,509.2                                            | 24.38           | 0.72        | 8,497.7               | 230.0        | 17.3         | 229.8                   | 7.96                    | 7.73                   | 4.73                  |
| 8,525.0                                            | 25.60           | 1.40        | 8,512.0               | 236.7        | 17.4         | 236.5                   | 7.96                    | 7.75                   | 4.31                  |
| 8,557.0                                            | 27.00           | 1.70        | 8,540.7               | 250.9        | 17.8         | 250.6                   | 4.39                    | 4.38                   | 0.94                  |
| 8,588.0                                            | 27.40           | 1.80        | 8,568.3               | 265.0        | 18.2         | 264.8                   | 1.30                    | 1.29                   | 0.32                  |
| 8,620.0                                            | 29.10           | 0.50        | 8,596.4               | 280.2        | 18.5         | 279.9                   | 5.65                    | 5.31                   | -4.06                 |

# DDC Survey Report



|                  |                                  |                                     |                                  |
|------------------|----------------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well Bison Wallow 34 Federal #2H |
| <b>Project:</b>  | Eddy County, New Mexico (Nad 83) | <b>TVD Reference:</b>               | WELL @ 3001.0usft (Patterson)    |
| <b>Site:</b>     | Sec 34, T25S, R29E               | <b>MD Reference:</b>                | WELL @ 3001.0usft (Patterson)    |
| <b>Well:</b>     | Bison Wallow 34 Federal #2H      | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM 5000.1 Single User Db        |

## Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 8,651.0               | 33.10           | 0.40        | 8,623.0               | 296.2        | 18.7         | 295.9                   | 12.90                   | 12.90                  | -0.32                 |
| 8,682.0               | 36.20           | 1.90        | 8,648.5               | 313.8        | 19.0         | 313.5                   | 10.37                   | 10.00                  | 4.84                  |
| 8,714.0               | 39.40           | 3.10        | 8,673.8               | 333.4        | 19.9         | 333.1                   | 10.26                   | 10.00                  | 3.75                  |
| 8,745.0               | 43.10           | 3.00        | 8,697.1               | 353.8        | 21.0         | 353.5                   | 11.94                   | 11.94                  | -0.32                 |
| 8,777.0               | 46.50           | 1.90        | 8,719.8               | 376.3        | 21.9         | 376.0                   | 10.90                   | 10.63                  | -3.44                 |
| 8,808.0               | 50.20           | 1.90        | 8,740.4               | 399.5        | 22.7         | 399.2                   | 11.94                   | 11.94                  | 0.00                  |
| 8,840.0               | 53.80           | 2.30        | 8,760.1               | 424.6        | 23.6         | 424.4                   | 11.29                   | 11.25                  | 1.25                  |
| 8,871.0               | 57.80           | 2.50        | 8,777.5               | 450.3        | 24.7         | 450.0                   | 12.91                   | 12.90                  | 0.65                  |
| 8,903.0               | 62.00           | 2.40        | 8,793.5               | 477.9        | 25.9         | 477.6                   | 13.13                   | 13.13                  | -0.31                 |
| 8,934.0               | 65.90           | 1.70        | 8,807.1               | 505.7        | 26.9         | 505.4                   | 12.74                   | 12.58                  | -2.26                 |
| 8,966.0               | 70.00           | 1.00        | 8,819.2               | 535.4        | 27.6         | 535.0                   | 12.97                   | 12.81                  | -2.19                 |
| 8,997.0               | 74.00           | 0.90        | 8,828.7               | 564.9        | 28.1         | 564.5                   | 12.91                   | 12.90                  | -0.32                 |
| 9,029.0               | 78.20           | 1.60        | 8,836.4               | 595.9        | 28.7         | 595.5                   | 13.30                   | 13.13                  | 2.19                  |
| 9,061.0               | 82.50           | 2.70        | 8,841.8               | 627.4        | 29.9         | 627.0                   | 13.86                   | 13.44                  | 3.44                  |
| 9,087.0               | 86.10           | 2.90        | 8,844.4               | 653.3        | 31.2         | 652.9                   | 13.87                   | 13.85                  | 0.77                  |
| 9,170.0               | 91.80           | 0.20        | 8,845.9               | 736.2        | 33.4         | 735.7                   | 7.60                    | 6.87                   | -3.25                 |
| 9,201.0               | 91.50           | 359.70      | 8,845.0               | 767.2        | 33.4         | 766.7                   | 1.88                    | -0.97                  | -1.61                 |
| 9,233.0               | 91.20           | 359.10      | 8,844.2               | 799.2        | 33.1         | 798.7                   | 2.10                    | -0.94                  | -1.88                 |
| 9,265.0               | 91.70           | 358.50      | 8,843.4               | 831.1        | 32.4         | 830.7                   | 2.44                    | 1.56                   | -1.88                 |
| 9,296.0               | 92.90           | 358.30      | 8,842.2               | 862.1        | 31.5         | 861.7                   | 3.92                    | 3.87                   | -0.65                 |
| 9,328.0               | 92.90           | 358.10      | 8,840.6               | 894.0        | 30.5         | 893.6                   | 0.62                    | 0.00                   | -0.63                 |
| 9,360.0               | 92.30           | 359.30      | 8,839.1               | 926.0        | 29.8         | 925.6                   | 4.19                    | -1.88                  | 3.75                  |
| 9,391.0               | 92.80           | 359.60      | 8,837.7               | 957.0        | 29.5         | 956.6                   | 1.88                    | 1.61                   | 0.97                  |
| 9,423.0               | 93.40           | 358.80      | 8,836.0               | 988.9        | 29.1         | 988.5                   | 3.12                    | 1.88                   | -2.50                 |
| 9,455.0               | 92.80           | 359.30      | 8,834.3               | 1,020.9      | 28.5         | 1,020.5                 | 2.44                    | -1.88                  | 1.56                  |
| 9,486.0               | 91.10           | 359.70      | 8,833.2               | 1,051.8      | 28.3         | 1,051.5                 | 5.63                    | -5.48                  | 1.29                  |
| 9,517.0               | 89.00           | 359.20      | 8,833.2               | 1,082.8      | 28.0         | 1,082.5                 | 6.96                    | -6.77                  | -1.61                 |
| 9,549.0               | 88.80           | 359.00      | 8,833.8               | 1,114.8      | 27.5         | 1,114.4                 | 0.88                    | -0.63                  | -0.63                 |
| 9,580.0               | 89.10           | 359.00      | 8,834.4               | 1,145.8      | 26.9         | 1,145.4                 | 0.97                    | 0.97                   | 0.00                  |
| 9,612.0               | 90.20           | 358.50      | 8,834.6               | 1,177.8      | 26.2         | 1,177.4                 | 3.78                    | 3.44                   | -1.56                 |
| 9,643.0               | 89.50           | 358.20      | 8,834.6               | 1,208.8      | 25.3         | 1,208.4                 | 2.46                    | -2.26                  | -0.97                 |
| 9,675.0               | 88.60           | 358.10      | 8,835.2               | 1,240.8      | 24.3         | 1,240.4                 | 2.83                    | -2.81                  | -0.31                 |
| 9,707.0               | 88.40           | 357.80      | 8,836.0               | 1,272.7      | 23.2         | 1,272.4                 | 1.13                    | -0.63                  | -0.94                 |
| 9,738.0               | 88.40           | 357.40      | 8,836.9               | 1,303.7      | 21.9         | 1,303.4                 | 1.29                    | 0.00                   | -1.29                 |
| 9,770.0               | 88.90           | 357.00      | 8,837.6               | 1,335.7      | 20.3         | 1,335.3                 | 2.00                    | 1.56                   | -1.25                 |
| 9,833.0               | 90.20           | 357.50      | 8,838.1               | 1,398.6      | 17.3         | 1,398.3                 | 2.21                    | 2.06                   | 0.79                  |
| 9,865.0               | 90.70           | 356.30      | 8,837.9               | 1,430.5      | 15.5         | 1,430.3                 | 4.06                    | 1.56                   | -3.75                 |
| 9,928.0               | 92.10           | 357.70      | 8,836.3               | 1,493.4      | 12.2         | 1,493.2                 | 3.14                    | 2.22                   | 2.22                  |
| 9,992.0               | 91.60           | 357.50      | 8,834.3               | 1,557.3      | 9.6          | 1,557.1                 | 0.84                    | -0.78                  | -0.31                 |
| 10,055.0              | 91.30           | 359.00      | 8,832.7               | 1,620.3      | 7.6          | 1,620.1                 | 2.43                    | -0.48                  | 2.38                  |
| 10,119.0              | 91.10           | 0.50        | 8,831.3               | 1,684.3      | 7.4          | 1,684.1                 | 2.36                    | -0.31                  | 2.34                  |
| 10,182.0              | 91.50           | 0.00        | 8,829.9               | 1,747.3      | 7.6          | 1,747.1                 | 1.02                    | 0.63                   | -0.79                 |
| 10,245.0              | 90.40           | 0.00        | 8,828.9               | 1,810.2      | 7.6          | 1,810.0                 | 1.75                    | -1.75                  | 0.00                  |

# DDC Survey Report



|                  |                                  |                                     |                                   |
|------------------|----------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well: Bison Wallow 34 Federal #2H |
| <b>Project:</b>  | Eddy County, New Mexico (Nad:83) | <b>TVD Reference:</b>               | WELL @ 3001.0usft (Patterson)     |
| <b>Site:</b>     | Sec 34 T25S R29E                 | <b>MD Reference:</b>                | WELL @ 3001.0usft (Patterson)     |
| <b>Well:</b>     | Bison Wallow 34 Federal #2H      | <b>North Reference:</b>             | Grid:                             |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM:5000.1 Single User.Db         |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 10,309.0              | 90.90           | 359.40      | 8,828.1               | 1,874.2      | 7.3          | 1,874.0                 | 1.22                    | 0.78                   | -0.94                 |
| 10,372.0              | 91.00           | 1.20        | 8,827.1               | 1,937.2      | 7.6          | 1,937.0                 | 2.86                    | 0.16                   | 2.86                  |
| 10,435.0              | 87.90           | 3.50        | 8,827.7               | 2,000.2      | 10.2         | 1,999.9                 | 6.13                    | -4.92                  | 3.65                  |
| 10,499.0              | 89.10           | 3.30        | 8,829.4               | 2,064.0      | 14.0         | 2,063.7                 | 1.90                    | 1.88                   | -0.31                 |
| 10,561.0              | 88.50           | 3.60        | 8,830.7               | 2,125.9      | 17.7         | 2,125.6                 | 1.08                    | -0.97                  | 0.48                  |
| 10,625.0              | 88.60           | 3.00        | 8,832.3               | 2,189.8      | 21.4         | 2,189.4                 | 0.95                    | 0.16                   | -0.94                 |
| 10,688.0              | 90.90           | 3.20        | 8,832.6               | 2,252.7      | 24.8         | 2,252.2                 | 3.66                    | 3.65                   | 0.32                  |
| 10,720.0              | 90.80           | 2.10        | 8,832.1               | 2,284.6      | 26.3         | 2,284.2                 | 3.45                    | -0.31                  | -3.44                 |
| 10,783.0              | 89.90           | 0.80        | 8,831.7               | 2,347.6      | 27.9         | 2,347.1                 | 2.51                    | -1.43                  | -2.06                 |
| 10,846.0              | 90.20           | 0.40        | 8,831.7               | 2,410.6      | 28.6         | 2,410.1                 | 0.79                    | 0.48                   | -0.63                 |
| 10,909.0              | 90.80           | 359.50      | 8,831.1               | 2,473.6      | 28.5         | 2,473.1                 | 1.72                    | 0.95                   | -1.43                 |
| 10,973.0              | 91.20           | 359.50      | 8,830.0               | 2,537.6      | 28.0         | 2,537.1                 | 0.63                    | 0.63                   | 0.00                  |
| 11,004.0              | 88.80           | 355.90      | 8,830.0               | 2,568.6      | 26.7         | 2,568.1                 | 13.96                   | -7.74                  | -11.61                |
| 11,036.0              | 88.30           | 354.70      | 8,830.8               | 2,600.4      | 24.1         | 2,600.0                 | 4.06                    | -1.56                  | -3.75                 |
| 11,068.0              | 88.00           | 354.20      | 8,831.8               | 2,632.3      | 21.0         | 2,631.9                 | 1.82                    | -0.94                  | -1.56                 |
| 11,099.0              | 89.20           | 354.90      | 8,832.6               | 2,663.1      | 18.1         | 2,662.7                 | 4.48                    | 3.87                   | 2.26                  |
| 11,131.0              | 90.70           | 355.50      | 8,832.6               | 2,695.0      | 15.4         | 2,694.7                 | 5.05                    | 4.69                   | 1.88                  |
| 11,163.0              | 91.30           | 354.90      | 8,832.1               | 2,726.9      | 12.7         | 2,726.6                 | 2.65                    | 1.88                   | -1.88                 |
| 11,194.0              | 89.10           | 354.40      | 8,831.9               | 2,757.8      | 9.8          | 2,757.5                 | 7.28                    | -7.10                  | -1.61                 |
| 11,226.0              | 88.00           | 353.80      | 8,832.8               | 2,789.6      | 6.5          | 2,789.3                 | 3.92                    | -3.44                  | -1.88                 |
| 11,257.0              | 87.90           | 354.50      | 8,833.9               | 2,820.4      | 3.4          | 2,820.2                 | 2.28                    | -0.32                  | 2.26                  |
| 11,289.0              | 87.50           | 355.50      | 8,835.1               | 2,852.2      | 0.6          | 2,852.1                 | 3.36                    | -1.25                  | 3.13                  |
| 11,321.0              | 87.90           | 356.00      | 8,836.4               | 2,884.1      | -1.8         | 2,884.0                 | 2.00                    | 1.25                   | 1.56                  |
| 11,352.0              | 89.10           | 355.90      | 8,837.2               | 2,915.0      | -4.0         | 2,914.9                 | 3.88                    | 3.87                   | -0.32                 |
| 11,383.0              | 90.60           | 356.00      | 8,837.3               | 2,946.0      | -6.2         | 2,945.8                 | 4.85                    | 4.84                   | 0.32                  |
| 11,415.0              | 89.90           | 355.80      | 8,837.2               | 2,977.9      | -8.5         | 2,977.8                 | 2.28                    | -2.19                  | -0.63                 |
| 11,446.0              | 90.20           | 356.60      | 8,837.2               | 3,008.8      | -10.5        | 3,008.7                 | 2.76                    | 0.97                   | 2.58                  |
| 11,478.0              | 92.00           | 357.20      | 8,836.5               | 3,040.8      | -12.2        | 3,040.7                 | 5.93                    | 5.63                   | 1.88                  |
| 11,509.0              | 93.10           | 356.40      | 8,835.2               | 3,071.7      | -14.0        | 3,071.6                 | 4.39                    | 3.55                   | -2.58                 |
| 11,541.0              | 93.40           | 355.70      | 8,833.4               | 3,103.6      | -16.2        | 3,103.5                 | 2.38                    | 0.94                   | -2.19                 |
| 11,573.0              | 93.50           | 357.00      | 8,831.4               | 3,135.4      | -18.2        | 3,135.4                 | 4.07                    | 0.31                   | 4.06                  |
| 11,604.0              | 93.20           | 357.00      | 8,829.6               | 3,166.3      | -19.8        | 3,166.4                 | 0.97                    | -0.97                  | 0.00                  |
| 11,635.0              | 92.00           | 356.70      | 8,828.2               | 3,197.3      | -21.5        | 3,197.3                 | 3.99                    | -3.87                  | -0.97                 |
| 11,667.0              | 90.20           | 357.10      | 8,827.6               | 3,229.2      | -23.3        | 3,229.3                 | 5.76                    | -5.63                  | 1.25                  |
| 11,698.0              | 90.10           | 357.20      | 8,827.5               | 3,260.2      | -24.8        | 3,260.2                 | 0.46                    | -0.32                  | 0.32                  |
| 11,730.0              | 90.30           | 355.70      | 8,827.4               | 3,292.1      | -26.8        | 3,292.2                 | 4.73                    | 0.63                   | -4.69                 |
| 11,762.0              | 88.80           | 352.00      | 8,827.7               | 3,323.9      | -30.2        | 3,324.0                 | 12.48                   | -4.69                  | -11.56                |
| 11,793.0              | 88.40           | 351.50      | 8,828.4               | 3,354.6      | -34.7        | 3,354.8                 | 2.07                    | -1.29                  | -1.61                 |
| 11,825.0              | 89.60           | 352.90      | 8,829.0               | 3,386.3      | -39.0        | 3,386.5                 | 5.76                    | 3.75                   | 4.38                  |
| 11,856.0              | 89.70           | 354.10      | 8,829.2               | 3,417.1      | -42.5        | 3,417.3                 | 3.88                    | 0.32                   | 3.87                  |
| 11,888.0              | 89.50           | 355.50      | 8,829.4               | 3,448.9      | -45.4        | 3,449.2                 | 4.42                    | -0.63                  | 4.38                  |
| 11,919.0              | 89.80           | 355.90      | 8,829.6               | 3,479.9      | -47.7        | 3,480.2                 | 1.61                    | 0.97                   | 1.29                  |
| 11,951.0              | 90.50           | 356.10      | 8,829.5               | 3,511.8      | -50.0        | 3,512.1                 | 2.28                    | 2.19                   | 0.63                  |

# DDC Survey Report



|                  |                                  |                                     |                                  |
|------------------|----------------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well Bison Wallow 34 Federal #2H |
| <b>Project:</b>  | Eddy County, New Mexico (Nad 83) | <b>TVD Reference:</b>               | WELL @ 3001.0usft (Patterson)    |
| <b>Site:</b>     | Sec 34, T25S, R29E               | <b>MD Reference:</b>                | WELL @ 3001.0usft (Patterson)    |
| <b>Well:</b>     | Bison Wallow 34 Federal #2H      | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM 5000.1 Single User.Db        |

## Survey

| Measured Depth (usft)      | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|----------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 11,982.0                   | 90.50           | 356.80      | 8,829.2               | 3,542.7      | -51.9        | 3,543.1                 | 2.26                    | 0.00                   | 2.26                  |
| 12,014.0                   | 89.90           | 358.00      | 8,829.1               | 3,574.7      | -53.3        | 3,575.1                 | 4.19                    | -1.88                  | 3.75                  |
| 12,045.0                   | 89.30           | 358.80      | 8,829.3               | 3,605.7      | -54.2        | 3,606.0                 | 3.23                    | -1.94                  | 2.58                  |
| 12,077.0                   | 89.50           | 0.80        | 8,829.7               | 3,637.7      | -54.3        | 3,638.0                 | 6.28                    | 0.63                   | 6.25                  |
| 12,108.0                   | 90.50           | 2.10        | 8,829.7               | 3,668.7      | -53.5        | 3,669.0                 | 5.29                    | 3.23                   | 4.19                  |
| 12,140.0                   | 89.10           | 1.00        | 8,829.8               | 3,700.6      | -52.7        | 3,701.0                 | 5.56                    | -4.38                  | -3.44                 |
| 12,171.0                   | 90.00           | 0.60        | 8,830.0               | 3,731.6      | -52.2        | 3,732.0                 | 3.18                    | 2.90                   | -1.29                 |
| 12,203.0                   | 89.50           | 0.50        | 8,830.2               | 3,763.6      | -51.9        | 3,764.0                 | 1.59                    | -1.56                  | -0.31                 |
| 12,235.0                   | 89.50           | 359.90      | 8,830.4               | 3,795.6      | -51.8        | 3,796.0                 | 1.87                    | 0.00                   | -1.88                 |
| 12,266.0                   | 90.10           | 1.40        | 8,830.5               | 3,826.6      | -51.5        | 3,827.0                 | 5.21                    | 1.94                   | 4.84                  |
| 12,298.0                   | 90.70           | 2.50        | 8,830.3               | 3,858.6      | -50.4        | 3,858.9                 | 3.92                    | 1.88                   | 3.44                  |
| 12,330.0                   | 89.60           | 2.10        | 8,830.2               | 3,890.6      | -49.1        | 3,890.9                 | 3.66                    | -3.44                  | -1.25                 |
| 12,361.0                   | 89.90           | 3.80        | 8,830.4               | 3,921.5      | -47.5        | 3,921.8                 | 5.57                    | 0.97                   | 5.48                  |
| 12,424.0                   | 89.20           | 3.50        | 8,830.9               | 3,984.4      | -43.5        | 3,984.6                 | 1.21                    | -1.11                  | -0.48                 |
| 12,456.0                   | 87.50           | 1.80        | 8,831.8               | 4,016.4      | -42.0        | 4,016.6                 | 7.51                    | -5.31                  | -5.31                 |
| 12,488.0                   | 88.80           | 0.80        | 8,832.8               | 4,048.3      | -41.3        | 4,048.5                 | 5.12                    | 4.06                   | -3.13                 |
| 12,519.0                   | 91.20           | 2.10        | 8,832.8               | 4,079.3      | -40.5        | 4,079.5                 | 8.80                    | 7.74                   | 4.19                  |
| 12,583.0                   | 90.00           | 359.30      | 8,832.1               | 4,143.3      | -39.7        | 4,143.5                 | 4.76                    | -1.88                  | -4.38                 |
| 12,614.0                   | 90.10           | 358.70      | 8,832.1               | 4,174.3      | -40.3        | 4,174.5                 | 1.96                    | 0.32                   | -1.94                 |
| 12,646.0                   | 91.60           | 359.20      | 8,831.6               | 4,206.3      | -40.8        | 4,206.5                 | 4.94                    | 4.69                   | 1.56                  |
| 12,677.0                   | 92.40           | 0.60        | 8,830.6               | 4,237.3      | -40.9        | 4,237.5                 | 5.20                    | 2.58                   | 4.52                  |
| 12,709.0                   | 92.10           | 0.60        | 8,829.3               | 4,269.2      | -40.6        | 4,269.4                 | 0.94                    | -0.94                  | 0.00                  |
| 12,741.0                   | 91.40           | 1.80        | 8,828.3               | 4,301.2      | -39.9        | 4,301.4                 | 4.34                    | -2.19                  | 3.75                  |
| 12,772.0                   | 91.60           | 1.50        | 8,827.5               | 4,332.2      | -39.0        | 4,332.4                 | 1.16                    | 0.65                   | -0.97                 |
| 12,804.0                   | 91.10           | 1.00        | 8,826.8               | 4,364.2      | -38.3        | 4,364.3                 | 2.21                    | -1.56                  | -1.56                 |
| 12,835.0                   | 90.50           | 0.50        | 8,826.3               | 4,395.2      | -37.9        | 4,395.3                 | 2.52                    | -1.94                  | -1.61                 |
| 12,867.0                   | 89.80           | 359.30      | 8,826.2               | 4,427.2      | -37.9        | 4,427.3                 | 4.34                    | -2.19                  | -3.75                 |
| 12,898.0                   | 90.30           | 358.20      | 8,826.2               | 4,458.2      | -38.6        | 4,458.3                 | 3.90                    | 1.61                   | -3.55                 |
| 12,930.0                   | 90.50           | 357.00      | 8,826.0               | 4,490.1      | -40.0        | 4,490.3                 | 3.80                    | 0.63                   | -3.75                 |
| 12,993.0                   | 90.60           | 357.10      | 8,825.4               | 4,553.0      | -43.2        | 4,553.2                 | 0.22                    | 0.16                   | 0.16                  |
| 13,025.0                   | 90.70           | 357.70      | 8,825.0               | 4,585.0      | -44.7        | 4,585.2                 | 1.90                    | 0.31                   | 1.88                  |
| 13,056.0                   | 89.60           | 358.00      | 8,824.9               | 4,616.0      | -45.8        | 4,616.2                 | 3.68                    | -3.55                  | 0.97                  |
| 13,120.0                   | 87.90           | 357.80      | 8,826.3               | 4,679.9      | -48.2        | 4,680.2                 | 2.67                    | -2.66                  | -0.31                 |
| 13,183.0                   | 88.40           | 358.20      | 8,828.4               | 4,742.9      | -50.4        | 4,743.1                 | 1.02                    | 0.79                   | 0.63                  |
| 13,246.0                   | 89.10           | 358.00      | 8,829.8               | 4,805.8      | -52.5        | 4,806.1                 | 1.16                    | 1.11                   | -0.32                 |
| 13,265.0                   | 89.40           | 357.40      | 8,830.0               | 4,824.8      | -53.2        | 4,825.1                 | 3.53                    | 1.58                   | -3.16                 |
| TD @ 13315 MD / 8830.5 TVD |                 |             |                       |              |              |                         |                         |                        |                       |
| 13,315.0                   | 89.40           | 357.40      | 8,830.5               | 4,874.7      | -55.5        | 4,875.1                 | 0.00                    | 0.00                   | 0.00                  |

DDC  
Survey Report



|                  |                                  |                                     |                                  |
|------------------|----------------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well Bison Wallow 34 Federal #2H |
| <b>Project:</b>  | Eddy County, New Mexico (Nad 83) | <b>TVD Reference:</b>               | WELL @ 3001.0usft (Patterson)    |
| <b>Site:</b>     | Sec 34, T25S, R29E               | <b>MD Reference:</b>                | WELL @ 3001.0usft (Patterson)    |
| <b>Well:</b>     | Bison Wallow 34 Federal #2H      | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM 5000.1 Single User Db        |

Design Annotations

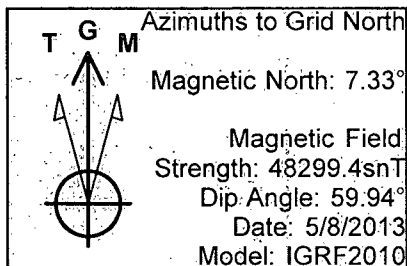
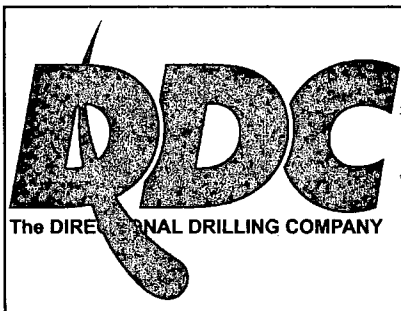
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                     |
|-----------------------------|-----------------------------|-------------------|-----------------|---------------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                             |
| 8,200.0                     | 8,196.2                     | 174.1             | 19.6            | TIE IN @ 8200' MD / 8196.2' TVD             |
| 8,509.2                     | 8,497.7                     | 230.0             | 17.3            | CROSSED HARDLINE @ 8509.2' MD / 8497.7' TVD |
| 13,315.0                    | 8,830.5                     | 4,874.7           | -55.5           | TD @ 13315' MD / 8830.5' TVD                |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

Company Name: Mewbourne Oil Co  
Bison Wallow 34 Federal #2H  
Eddy County, New Mexico (Nad 83)  
Rig: Patterson  
Created By: TIFFANI MIZELL  
Date: 5/29/2013

Bison Wallow 34 Federal #2H  
Eddy County, New Mexico (Nad 83)  
Q130358 & WT-13376  
Design #2 Tie-In

# Mewbourne Oil Company



PROJECT DETAILS: Eddy County, New Mexico (Nad 83)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level

WELL DETAILS: Bison Wallow 34 Federal #2H

Ground Level: 2981.0  
Northing: 392761.80  
Easting: 655397.03  
Latitude: 32° 4' 45.288 N  
Longitude: 103° 57' 54.249 W

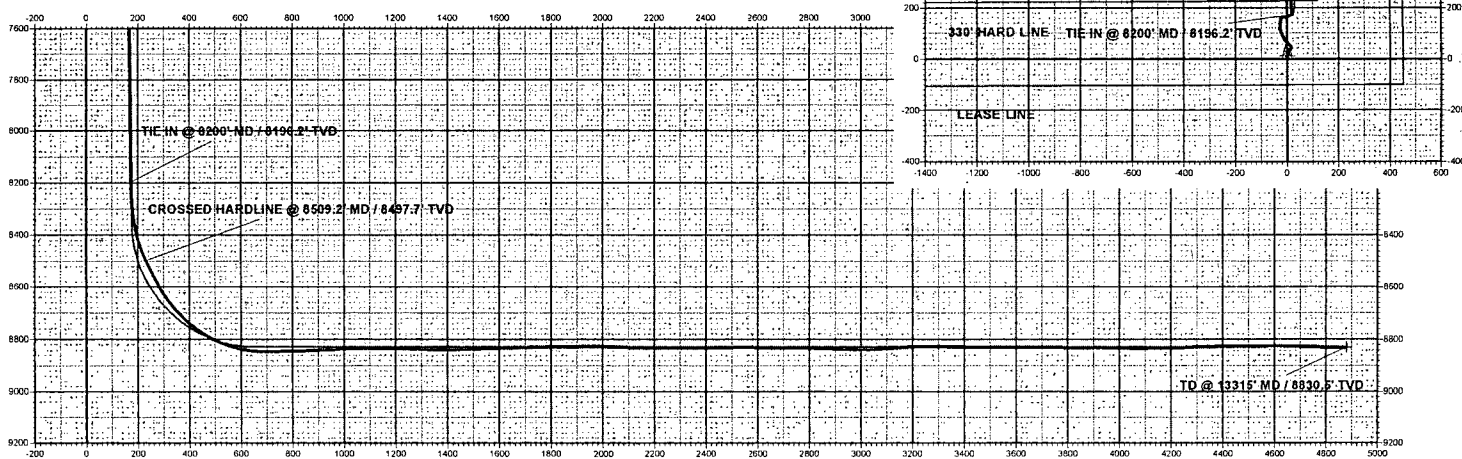
## DESIGN TARGET DETAILS

| Name                                       | TVD    | +N/-S  | +E/-W | North     | East      | Latitude        | Longitude         |
|--------------------------------------------|--------|--------|-------|-----------|-----------|-----------------|-------------------|
| PBHL Bison Wallow 34 Federal #2H Design #1 | 8229.0 | 4879.8 | -14.2 | 397641.56 | 655382.82 | 32° 5' 33.579 N | 103° 57' 54.221 W |

- plan hits target center

## ANNOTATIONS

| MD      | Inc   | Azi    | TVD    | +N/-S  | +E/-W | VSec   | Departure | Annotation                                  |
|---------|-------|--------|--------|--------|-------|--------|-----------|---------------------------------------------|
| 8200.0  | 2.14  | 56.72  | 8196.2 | 174.1  | 19.6  | 173.8  | 229.2     | TIE IN @ 8200' MD / 8196.2' TVD             |
| 8509.2  | 24.38 | 0.72   | 8497.7 | 230.0  | 17.3  | 229.8  | 286.4     | CROSSED HARDLINE @ 8509.2' MD / 8497.7' TVD |
| 13315.0 | 89.40 | 357.40 | 8830.5 | 4874.7 | -55.5 | 4875.1 | 4936.6    | TD @ 13315' MD / 8830.5' TVD                |



Vertical Section at 359.35° (200 usft/in)

Operating Company Mewbourne  
 Well Name & Number Bison Walow 34Fed 2H  
 Sales Ticket Number 5529781  
 Date 5/27/2013

Company Rep Brent /Travis  
 Field Charles Mosley  
 BOT Service Rep Charles Mosley  
 District Location Odessa, Texas, USA



|            | Size  | Weight | Grade  | ID    | Drift | Thread | Capacity | Length   | Burst | Collapse |
|------------|-------|--------|--------|-------|-------|--------|----------|----------|-------|----------|
| Casing     | 7.000 | 26.00  | P-110  | 6.276 | 6.151 | LT&C   | 0.03826  | 9,140.00 | 9,960 | 6,230    |
| Top Liner  | 4.500 | 13.50  | 338000 | 3.920 | 3.795 | LT&C   | 0.01492  | 4,356.00 | 4,525 | 10,680   |
| Bott Liner |       |        |        |       |       |        |          |          |       |          |

|     |          |     |          |           |       |                   |       |
|-----|----------|-----|----------|-----------|-------|-------------------|-------|
| TVD | 8,830.00 | KOP | 8,257.00 | Open Hole | 6.125 | Casing Vol. (bbl) | 341.3 |
|-----|----------|-----|----------|-----------|-------|-------------------|-------|

|                          |     |                      |  |                    |   |
|--------------------------|-----|----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.6 | Propan Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|----------------------|--|--------------------|---|

|           | Comm. Number | Description                  | Depth   | Length | OD | ID | Ball Seat ID | Shear Press. | Max Rate (BPM) | Displ (BBL) |
|-----------|--------------|------------------------------|---------|--------|----|----|--------------|--------------|----------------|-------------|
| Liner Top | 1            | JR Setting Sleeve RH Profile | 8919.00 |        |    |    |              |              |                |             |

|             |    |                                   |          |        |       |       |       |      |     |     |
|-------------|----|-----------------------------------|----------|--------|-------|-------|-------|------|-----|-----|
| Zone Length |    | JR Sleeve S3 Hyd Set Packer       | 8919.00  | 4.70   | 5.813 | 3.875 |       |      |     |     |
|             |    | 4-1/2-13.5 LTC Nipple             | 8923.70  | 8.18   | 5.000 | 3.920 |       |      |     |     |
|             |    | 7 Joints of 4-1/2-13.5 LTC Casing | 8931.88  | 262.40 | 5.000 | 3.920 |       |      |     |     |
|             | 20 | 3.625 EX Frac Sleeve              | 9194.28  | 3.90   | 5.750 |       | 3.525 | 2286 | 306 | 341 |
|             |    | 3 Joint of 4-1/2-13.5 LTC Casing  | 9198.18  | 113.04 | 5.000 | 3.920 |       |      |     |     |
|             |    | Baker Open Hole Packer            | 9211.22  | 3.89   | 5.820 | 3.875 |       | 2154 |     |     |
|             |    | 2 Joints of 4-1/2-13.5 LTC Casing | 9315.11  | 75.02  | 5.000 | 3.920 |       |      |     |     |
|             | 19 | 3.500 EX Frac Sleeve              | 9390.13  | 3.90   | 5.750 |       | 3.400 | 2286 | 285 | 341 |
|             |    | 3 Joint of 4-1/2-13.5 LTC Casing  | 9394.03  | 113.39 | 5.000 | 3.920 |       |      |     |     |
|             |    | Baker Open Hole Packer            | 9507.42  | 3.89   | 5.820 | 3.875 |       | 2154 |     |     |
|             |    | 3 Joints of 4-1/2-13.5 LTC Casing | 9511.31  | 112.36 | 5.000 | 3.920 |       |      |     |     |
|             | 18 | 3.375 EX Frac Sleeve              | 9623.67  | 3.90   | 5.750 |       | 3.275 | 2286 | 265 | 341 |
|             |    | 3 Joint of 4-1/2-13.5 LTC Casing  | 9627.57  | 113.31 | 5.000 | 3.920 |       |      |     |     |
|             |    | Baker Open Hole Packer            | 9740.88  | 3.89   | 5.820 | 3.875 |       | 2154 |     |     |
|             |    | 2 Joints of 4-1/2-13.5 LTC Casing | 9744.77  | 75.55  | 5.000 | 3.920 |       |      |     |     |
|             | 17 | 3.250 EX Frac Sleeve              | 9820.32  | 3.90   | 5.750 |       | 3.150 | 2286 | 245 | 341 |
|             |    | 3 Joint of 4-1/2-13.5 LTC Casing  | 9824.22  | 111.45 | 5.000 | 3.920 |       |      |     |     |
|             |    | Baker Open Hole Packer            | 9935.67  | 3.89   | 5.820 | 3.875 |       | 2154 |     |     |
|             |    | 2 Joints of 4-1/2-13.5 LTC Casing | 9939.56  | 111.84 | 5.000 | 3.920 |       |      |     |     |
|             | 16 | 3.125 EX Frac Sleeve              | 10051.40 | 3.90   | 5.750 |       | 3.025 | 2286 | 226 | 341 |
|             |    | 3 Joints of 4-1/2-13.5 LTC Casing | 10055.30 | 113.30 | 5.000 | 3.920 |       |      |     |     |
|             |    | Baker Open Hole Packer            | 10169.60 | 3.89   | 5.820 | 3.875 |       | 2154 |     |     |

Operating Company Mewbourne  
 Well Name & Number Bison Walow 34Fed 2H  
 Sales Ticket Number 5529781  
 Date 5/27/2013

Company Rep Brent /Travis  
 Field   
 BOT Service Rep Charles Mosley  
 District Location Odessa, Texas, USA



|                          | Size  | Weight   | Grade  | ID    | Drift                 | Thread   | Capacity | Length    | Burst              | Collapse          |       |
|--------------------------|-------|----------|--------|-------|-----------------------|----------|----------|-----------|--------------------|-------------------|-------|
| Casing                   | 7.000 | 26.00    | P-110  | 6.276 | 6.151                 | LT&C     | 0.03826  | 9,140.00  | 9,960              | 6,230             |       |
| Top Liner                | 4.500 | 13.50    | 338000 | 3.920 | 3.795                 | LT&C     | 0.01492  | 4,356.00  | 4,525              | 10,680            |       |
| Bott Liner               |       |          |        |       |                       |          |          |           |                    |                   |       |
| TVD                      |       | 8,830.00 |        | KOP   |                       | 8,257.00 |          | Open Hole | 6.125              | Casing Vol. (bbl) | 341.3 |
| Carry Fluid Weight (ppg) |       |          | 8.6    |       | Propant Content (ppa) |          |          |           | Max Drill Out Size |                   | 0     |

|  | Comm. Number | Description                       | Depth    | Length | OD    | ID    | Ball Seat ID | Shear Press | Max Rate (BPM) | Displ (BBL) |
|--|--------------|-----------------------------------|----------|--------|-------|-------|--------------|-------------|----------------|-------------|
|  |              | 2 Joints of 4-1/2-13.5 LTC Casing | 10172.49 | 75.65  | 5.000 | 3.920 |              |             |                |             |
|  | 15           | 3.000 EX Frac sleeve              | 10248.14 | 3.90   | 5.750 |       | 2.900        | 2286        | 207            | 341         |
|  |              | 3 Joint of 4-1/2-13.5 LTC Casing  | 10252.04 | 110.33 | 5.000 | 3.920 |              |             |                |             |
|  |              | Baker Open Hole Packer            | 10352.37 | 3.89   | 5.820 | 3.875 |              | 2154        |                |             |
|  |              | 3 Joints of 4-1/2-13.5 LTC Casing | 10366.26 | 112.90 | 5.000 | 3.920 |              |             |                |             |
|  | 14           | 2.875 EX Frac Sleeve              | 10479.16 | 3.90   | 5.750 |       | 2.775        | 2286        | 190            | 341         |
|  |              | 3 Joints of 4-1/2-13.5 LTC Casing | 10483.06 | 114.16 | 5.000 | 3.920 |              |             |                |             |
|  |              | Baker Open Hole Packer            | 10597.22 | 3.89   | 5.820 | 3.875 |              | 2154        |                |             |
|  |              | 3 Joints of 4-1/2-13.5 LTC Casing | 10601.11 | 113.89 | 5.000 | 3.920 |              |             |                |             |
|  | 13           | 2.750 EX Frac Sleeve              | 10715.00 | 3.90   | 5.750 |       | 2.650        | 2286        | 173            | 341         |
|  |              | 3 Joint of 4-1/2-13.5 LTC Casing  | 10718.90 | 111.84 | 5.000 | 3.920 |              |             |                |             |
|  |              | Baker Open Hole Packer            | 10830.74 | 3.89   | 5.820 | 3.875 |              | 2154        |                |             |
|  |              | 2 Joints of 4-1/2-13.5 LTC Casing | 10834.63 | 74.62  | 5.000 | 3.920 |              |             |                |             |
|  | 12           | 2.625 EX Frac Sleeve              | 10909.25 | 3.90   | 5.750 |       | 2.525        | 2286        | 157            | 341         |
|  |              | 3 Joints of 4-1/2-13.5 LTC Casing | 10913.15 | 111.87 | 5.000 | 3.920 |              |             |                |             |
|  |              | Baker Open Hole Packer            | 11025.02 | 3.89   | 5.820 | 3.875 |              | 2154        |                |             |
|  |              | 3 Joints of 4-1/2-13.5 LTC Casing | 11028.91 | 112.45 | 5.000 | 3.920 |              |             |                |             |
|  | 11           | 2.500 EX Frac Sleeve              | 11141.36 | 3.90   | 5.750 |       | 2.400        | 2286        | 142            | 341         |
|  |              | 3 Joint of 4-1/2-13.5 LTC Casing  | 11145.26 | 109.56 | 5.000 | 3.920 |              |             |                |             |
|  |              | Baker Open Hole Packer            | 11254.82 | 3.89   | 5.820 | 3.875 |              | 2154        |                |             |
|  |              | 2 Joints of 4-1/2-13.5 LTC Casing | 11258.71 | 74.23  | 5.000 | 3.920 |              |             |                |             |
|  | 10           | 2.375 EX Frac Sleeve              | 11332.94 | 3.90   | 5.750 |       | 2.275        | 2286        | 128            | 341         |
|  |              | 3 Joints of 4-1/2-13.5 LTC Casing | 11336.84 | 112.90 | 5.000 | 3.920 |              |             |                |             |
|  |              | Baker Open Hole Packer            | 11449.74 | 3.89   | 5.820 | 3.875 |              | 2154        |                |             |
|  |              | 3 Joint of 4-1/2-13.5 LTC Casing  | 11453.63 | 111.33 | 5.000 | 3.920 |              |             |                |             |
|  | 9            | 2.250 EX Frac Sleeve              | 11564.96 | 3.90   | 5.750 |       | 2.150        | 2286        | 114            | 341         |

Operating Company Mewbourne  
 Well Name & Number Bison Walow 34Fed 2H  
 Sales Ticket Number 5529781  
 Date 5/27/2013

Company Rep Brent /Travis  
 Field   
 BOT Service Rep charles Mosley  
 District Location Odessa, Texas, USA



|            | Size  | Weight | Grade  | ID    | Drift | Thread | Capacity | Length   | Burst | Collapse |
|------------|-------|--------|--------|-------|-------|--------|----------|----------|-------|----------|
| Casing     | 7.000 | 26.00  | P-110  | 6.276 | 6.151 | LT&C   | 0.03826  | 9,140.00 | 9,960 | 6,230    |
| Top Liner  | 4.500 | 13.50  | 338000 | 3.920 | 3.795 | LT&C   | 0.01492  | 4,356.00 | 4,525 | 10,680   |
| Bott Liner |       |        |        |       |       |        |          |          |       |          |

|     |          |     |          |           |       |                   |       |
|-----|----------|-----|----------|-----------|-------|-------------------|-------|
| TVD | 8,830.00 | KOP | 8,257.00 | Open Hole | 6.125 | Casing Vol. (bbl) | 341.3 |
|-----|----------|-----|----------|-----------|-------|-------------------|-------|

|                          |     |                       |  |                    |   |
|--------------------------|-----|-----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.6 | Propant Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|-----------------------|--|--------------------|---|

| Comm. Number | Description                       | Depth    | Length | OD    | ID    | Ball Seat ID | Shear Press. | Max Rate (BPM) | Displ. (BBL) |
|--------------|-----------------------------------|----------|--------|-------|-------|--------------|--------------|----------------|--------------|
|              | 3 Joints of 4-1/2-13.5 LTC Casing | 11568.86 | 110.37 | 5.000 | 3.920 |              |              |                |              |
|              | Baker Open Hole Packer            | 11679.23 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|              | 2 Joint of 4-1/2-13.5 LTC Casing  | 11683.12 | 76.84  | 5.000 | 3.920 |              |              |                |              |
| 8            | 2.125 EX Frac Sleeve              | 11759.96 | 3.90   | 5.750 |       | 2.025        | 2286         | 101            | 341          |
|              | 3 Joints of 4-1/2-13.5 LTC Casing | 11763.86 | 114.67 | 5.000 | 3.920 |              |              |                |              |
|              | Baker Open Hole Packer            | 11878.53 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|              | 2 Joint of 4-1/2-13.5 LTC Casing  | 11882.42 | 114.14 | 5.000 | 3.920 |              |              |                |              |
| 7            | 2.000 EX Frac Sleeve              | 11996.56 | 3.90   | 5.750 |       | 1.900        | 2286         | 89             | 341          |
|              | 3 Joints of 4-1/2-13.5 LTC Casing | 12000.46 | 113.43 | 5.000 | 3.920 |              |              |                |              |
|              | Baker Open Hole Packer            | 12113.89 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|              | 2 Joint of 4-1/2-13.5 LTC Casing  | 12117.78 | 76.58  | 5.000 | 3.920 |              |              |                |              |
| 6            | 1.875 EX Frac Sleeve              | 12194.36 | 3.90   | 5.750 |       | 1.775        | 2286         | 78             | 341          |
|              | 3 Joints of 4-1/2-13.5 LTC Casing | 12198.26 | 114.72 | 5.000 | 3.920 |              |              |                |              |
|              | Baker Open Hole Packer            | 12312.98 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|              | 2 Joints of 4-1/2-13.5 LTC Casing | 12316.87 | 76.60  | 5.000 | 3.920 |              |              |                |              |
| 5            | 1.750 EX Frac Sleeve              | 12393.47 | 3.90   | 5.750 |       | 1.650        | 2286         | 67             | 341          |
|              | 3 Joint of 4-1/2-13.5 LTC Casing  | 12397.37 | 114.11 | 5.000 | 3.920 |              |              |                |              |
|              | Baker Open Hole Packer            | 12511.48 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|              | 2 Joints of 4-1/2-13.5 LTC Casing | 12515.37 | 114.50 | 5.000 | 3.920 |              |              |                |              |
| 4            | 1.625 EX Frac Sleeve              | 12629.87 | 3.90   | 5.750 |       | 1.525        | 2286         | 57             | 341          |
|              | 3 Joints of 4-1/2-13.5 LTC Casing | 12633.77 | 114.61 | 5.000 | 3.920 |              |              |                |              |
|              | Baker Open Hole Packer            | 12748.38 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|              | 2 Joints of 4-1/2-13.5 LTC Casing | 12752.27 | 78.09  | 5.000 | 3.920 |              |              |                |              |
| 3            | 1.500 DBL Ball Frac Sleeve        | 12830.36 | 3.90   | 5.750 |       | 1.400        | 2286         | 48             | 341          |
|              | 3 Joint of 4-1/2-13.5 LTC Casing  | 12834.26 | 115.09 | 5.000 | 3.920 |              |              |                |              |
|              | Baker Open Hole Packer            | 12949.35 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |

|                 |                |
|-----------------|----------------|
| Company Rep     | Brent /Travis  |
| Field           |                |
| BOT Service Rep | charles Mosley |

|                          |                    |
|--------------------------|--------------------|
| <b>District Location</b> | Odessa, Texas, USA |
|--------------------------|--------------------|

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