

OPERATOR MEWBOURNE OIL COMPANY  
WELL/LEASE SKEEN 21 STATE COM 2H  
COUNTY EDDY

STATE OF NEW MEXICO  
DEVIATION REPORT

30-015-39773

|       |      |
|-------|------|
| 269   | 0.50 |
| 656   | 0.88 |
| 1,117 | 1.00 |
| 1,562 | 0.19 |
| 1,817 | 1.61 |
| 1,977 | 1.11 |
| 2,130 | 1.55 |
| 2,450 | 0.57 |
| 2,780 | 0.97 |
| 3,195 | 0.35 |
| 3,577 | 0.94 |
| 3,959 | 0.45 |
| 4,372 | 1.70 |
| 4,626 | 0.87 |
| 4,681 | 1.37 |
| 5,136 | 1.21 |
| 5,454 | 2.11 |
| 5,708 | 1.50 |

Received

STATE OF TEXAS

APR 19 2012

COUNTY OF MIDLAND, Mewbourne Oil Company  
Hobbs

BY

*Steve Moore*

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

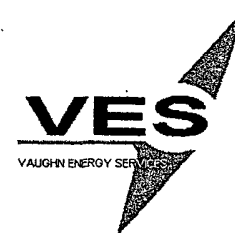
April 18<sup>th</sup>, 2012, by

*Gordon Daman Jr.*  
Notary Public for Midland County, Texas  
My Commission Expires: 7/31/15





Company: Mewbourne Oil Company  
Lease/Well: Skeen -21- State Com/#2H  
Location: S21 T26S R28E  
Rig Name: Patterson 75  
State/County: New Mexico/Eddy  
Latitude: 32.03  
GRID North is 0.13 Degrees East of True North  
VS-Azi: 0.00 Degrees



RKB : 23

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: skeen21statecom#2h\_ed.ut

Minimum Curvature Method

Report Date/Time: 2/6/2012 / 10:00

Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Surveyor: Ray Seago

Skeen -21- State Com #2H / API# 30-015-39773

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 0.00                    | 0.00                 | 0.00                      | 0.00      | 0.00        | 0.00        | 0.00                      | 0.00                      | 0.00                        | ****                          |
| 100.00                  | 0.39                 | 83.80                     | 100.00    | 0.04        | 0.34        | 0.04                      | 0.34                      | 83.80                       | 0.39                          |
| 200.00                  | 0.28                 | 103.32                    | 200.00    | 0.02        | 0.91        | 0.02                      | 0.91                      | 88.91                       | 0.16                          |
| 300.00                  | 0.47                 | 170.82                    | 300.00    | -0.45       | 1.21        | -0.45                     | 1.29                      | 110.18                      | 0.45                          |
| 400.00                  | 0.60                 | 133.24                    | 399.99    | -1.21       | 1.66        | -1.21                     | 2.06                      | 126.13                      | 0.37                          |
| 500.00                  | 0.38                 | 104.62                    | 499.99    | -1.66       | 2.36        | -1.66                     | 2.89                      | 125.01                      | 0.32                          |
| 600.00                  | 0.57                 | 105.31                    | 599.98    | -1.87       | 3.16        | -1.87                     | 3.67                      | 120.61                      | 0.19                          |
| 700.00                  | 0.59                 | 85.14                     | 699.98    | -1.96       | 4.15        | -1.96                     | 4.59                      | 115.25                      | 0.20                          |
| 800.00                  | 0.43                 | 53.09                     | 799.98    | -1.69       | 4.96        | -1.69                     | 5.24                      | 108.77                      | 0.32                          |
| 900.00                  | 0.09                 | 161.00                    | 899.97    | -1.53       | 5.29        | -1.53                     | 5.50                      | 106.15                      | 0.47                          |
| 1000.00                 | 0.53                 | 173.11                    | 999.97    | -2.06       | 5.37        | -2.06                     | 5.75                      | 111.03                      | 0.45                          |
| 1100.00                 | 0.81                 | 184.20                    | 1099.97   | -3.23       | 5.37        | -3.23                     | 6.27                      | 121.00                      | 0.30                          |
| 1200.00                 | 0.69                 | 198.00                    | 1199.96   | -4.50       | 5.13        | -4.50                     | 6.83                      | 131.25                      | 0.22                          |
| 1300.00                 | 0.58                 | 199.87                    | 1299.95   | -5.55       | 4.78        | -5.55                     | 7.32                      | 139.28                      | 0.11                          |
| 1400.00                 | 0.67                 | 229.92                    | 1399.95   | -6.40       | 4.16        | -6.40                     | 7.63                      | 146.98                      | 0.33                          |
| 1500.00                 | 0.34                 | 240.82                    | 1499.94   | -6.92       | 3.45        | -6.92                     | 7.73                      | 153.47                      | 0.34                          |
| 1600.00                 | 0.54                 | 331.22                    | 1599.94   | -6.65       | 2.97        | -6.65                     | 7.29                      | 155.94                      | 0.64                          |
| 1700.00                 | 0.79                 | 299.35                    | 1699.93   | -5.90       | 2.14        | -5.90                     | 6.28                      | 160.07                      | 0.44                          |
| 1800.00                 | 0.86                 | 306.62                    | 1799.92   | -5.12       | 0.94        | -5.12                     | 5.20                      | 169.62                      | 0.12                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1900.00                 | 1.07                 | 356.49                    | 1899.91   | -3.74       | 0.28        | -3.74                     | 3.75                      | 175.71                      | 0.84                          |
| 2000.00                 | 1.33                 | 327.48                    | 1999.89   | -1.83       | -0.40       | -1.83                     | 1.87                      | 192.40                      | 0.65                          |
| 2100.00                 | 0.44                 | 10.53                     | 2099.88   | -0.46       | -0.96       | -0.46                     | 1.06                      | 244.08                      | 1.05                          |
| 2200.00                 | 1.48                 | 75.34                     | 2199.86   | 0.24        | 0.36        | 0.24                      | 0.44                      | 56.16                       | 1.35                          |
| 2300.00                 | 1.38                 | 66.91                     | 2299.83   | 1.04        | 2.72        | 1.04                      | 2.91                      | 69.03                       | 0.23                          |
| 2400.00                 | 1.23                 | 35.27                     | 2399.81   | 2.39        | 4.45        | 2.39                      | 5.05                      | 61.71                       | 0.73                          |
| 2500.00                 | 0.95                 | 48.33                     | 2499.79   | 3.82        | 5.69        | 3.82                      | 6.85                      | 56.09                       | 0.38                          |
| 2600.00                 | 0.68                 | 40.12                     | 2599.78   | 4.82        | 6.69        | 4.82                      | 8.24                      | 54.18                       | 0.29                          |
| 2700.00                 | 1.10                 | 30.30                     | 2699.77   | 6.11        | 7.55        | 6.11                      | 9.71                      | 51.04                       | 0.45                          |
| 2800.00                 | 0.66                 | 39.13                     | 2799.76   | 7.39        | 8.40        | 7.39                      | 11.19                     | 48.68                       | 0.46                          |
| 2900.00                 | 0.71                 | 2.74                      | 2899.75   | 8.45        | 8.80        | 8.45                      | 12.20                     | 46.15                       | 0.43                          |
| 3000.00                 | 0.71                 | 3.78                      | 2999.74   | 9.68        | 8.87        | 9.68                      | 13.13                     | 42.49                       | 0.01                          |
| 3100.00                 | 0.28                 | 318.19                    | 3099.74   | 10.48       | 8.74        | 10.48                     | 13.65                     | 39.83                       | 0.55                          |
| 3200.00                 | 0.30                 | 276.91                    | 3199.74   | 10.70       | 8.32        | 10.70                     | 13.55                     | 37.88                       | 0.20                          |
| 3300.00                 | 0.16                 | 325.47                    | 3299.74   | 10.84       | 7.99        | 10.84                     | 13.46                     | 36.37                       | 0.23                          |
| 3400.00                 | 0.52                 | 261.08                    | 3399.73   | 10.88       | 7.46        | 10.88                     | 13.20                     | 34.43                       | 0.47                          |
| 3500.00                 | 0.16                 | 307.72                    | 3499.73   | 10.90       | 6.90        | 10.90                     | 12.90                     | 32.35                       | 0.42                          |
| 3600.00                 | 0.62                 | 267.53                    | 3599.73   | 10.96       | 6.26        | 10.96                     | 12.62                     | 29.71                       | 0.50                          |
| 3700.00                 | 0.29                 | 254.27                    | 3699.73   | 10.87       | 5.48        | 10.87                     | 12.17                     | 26.74                       | 0.34                          |
| 3800.00                 | 0.30                 | 274.61                    | 3799.73   | 10.82       | 4.97        | 10.82                     | 11.91                     | 24.68                       | 0.11                          |
| 3900.00                 | 0.73                 | 277.42                    | 3899.72   | 10.93       | 4.08        | 10.93                     | 11.67                     | 20.48                       | 0.42                          |
| 4000.00                 | 0.93                 | 247.79                    | 3999.71   | 10.70       | 2.70        | 10.70                     | 11.04                     | 14.15                       | 0.47                          |
| 4100.00                 | 0.80                 | 246.41                    | 4099.70   | 10.12       | 1.31        | 10.12                     | 10.20                     | 7.36                        | 0.14                          |
| 4200.00                 | 0.68                 | 236.64                    | 4199.69   | 9.51        | 0.18        | 9.51                      | 9.51                      | 1.07                        | 0.17                          |
| 4300.00                 | 0.99                 | 230.58                    | 4299.68   | 8.64        | -0.98       | 8.64                      | 8.70                      | 353.51                      | 0.33                          |
| 4400.00                 | 0.83                 | 230.56                    | 4399.67   | 7.63        | -2.21       | 7.63                      | 7.94                      | 343.84                      | 0.16                          |
| 4500.00                 | 1.10                 | 222.10                    | 4499.65   | 6.46        | -3.41       | 6.46                      | 7.31                      | 332.16                      | 0.30                          |
| 4600.00                 | 1.11                 | 229.93                    | 4599.64   | 5.13        | -4.79       | 5.13                      | 7.02                      | 316.95                      | 0.15                          |
| 4700.00                 | 1.52                 | 208.63                    | 4699.61   | 3.34        | -6.17       | 3.34                      | 7.01                      | 298.47                      | 0.63                          |
| 4800.00                 | 1.54                 | 210.54                    | 4799.57   | 1.02        | -7.48       | 1.02                      | 7.55                      | 277.78                      | 0.05                          |
| 4900.00                 | 1.38                 | 224.47                    | 4899.54   | -0.99       | -9.01       | -0.99                     | 9.07                      | 263.70                      | 0.39                          |
| 5000.00                 | 1.24                 | 205.83                    | 4999.52   | -2.83       | -10.33      | -2.83                     | 10.71                     | 254.67                      | 0.45                          |
| 5100.00                 | 1.51                 | 213.65                    | 5099.49   | -4.90       | -11.53      | -4.90                     | 12.53                     | 246.96                      | 0.33                          |
| 5200.00                 | 1.53                 | 211.97                    | 5199.45   | -7.14       | -12.97      | -7.14                     | 14.81                     | 241.18                      | 0.05                          |
| 5300.00                 | 1.80                 | 208.61                    | 5299.41   | -9.65       | -14.43      | -9.65                     | 17.37                     | 236.22                      | 0.28                          |
| 5400.00                 | 1.97                 | 216.83                    | 5399.36   | -12.41      | -16.22      | -12.41                    | 20.42                     | 232.57                      | 0.32                          |
| 5500.00                 | 1.71                 | 216.33                    | 5499.30   | -15.00      | -18.14      | -15.00                    | 23.53                     | 230.42                      | 0.26                          |
| 5600.00                 | 1.76                 | 221.66                    | 5599.26   | -17.35      | -20.04      | -17.35                    | 26.51                     | 229.12                      | 0.17                          |
| 5700.00                 | 1.57                 | 222.86                    | 5699.21   | -19.50      | -22.00      | -19.50                    | 29.40                     | 228.44                      | 0.19                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 5800.00                 | 1.30                 | 221.48                    | 5799.18   | -21.36      | -23.69      | -21.36                    | 31.90                     | 227.96                      | 0.27                          |
| 5900.00                 | 1.44                 | 207.96                    | 5899.15   | -23.32      | -25.03      | -23.32                    | 34.21                     | 227.02                      | 0.35                          |
| 6000.00                 | 1.60                 | 228.57                    | 5999.12   | -25.35      | -26.66      | -25.35                    | 36.79                     | 226.44                      | 0.57                          |
| 6100.00                 | 1.37                 | 216.08                    | 6099.09   | -27.24      | -28.41      | -27.24                    | 39.36                     | 226.21                      | 0.40                          |
| 6182.00                 | 1.83                 | 214.92                    | 6181.06   | -29.11      | -29.74      | -29.11                    | 41.61                     | 225.62                      | 0.56                          |

# **Mewbourne Oil Co**

**Eddy County, New Mexico**

**Sec 21-26S-28E**

**Skeen 21 State Com #2H**

**Wellbore #1**

**Survey: MWD**

## **DDC Survey Report**

**02 February, 2012**



# DDC Survey Report



|                  |                         |                                     |                                   |
|------------------|-------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co        | <b>Local Co-ordinate Reference:</b> | Well Skeen 21 State Com #2H       |
| <b>Project:</b>  | Eddy County, New Mexico | <b>TVD Reference:</b>               | WELL @ 3040.0usft (Patterson #75) |
| <b>Site:</b>     | Sec 21-26S-28E          | <b>MD Reference:</b>                | WELL @ 3040.0usft (Patterson #75) |
| <b>Well:</b>     | Skeen 21 State Com #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              | <b>System Datum:</b> | Mean Sea Level |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) |                      |                |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                              |                |                          |                  |
|------------------------------|----------------|--------------------------|------------------|
| <b>Site:</b>                 | Sec 21-26S-28E |                          |                  |
| <b>Site Position:</b>        |                | <b>Northing:</b>         | 376,242.70 usft  |
| <b>From:</b>                 | Map            | <b>Easting:</b>          | 575,636.40 usft  |
| <b>Position Uncertainty:</b> | 0.0 usft       | <b>Slot Radius:</b>      | 13-3/16 "        |
|                              |                | <b>Latitude:</b>         | 32° 2' 3.015 N   |
|                              |                | <b>Longitude:</b>        | 104° 5' 21.302 W |
|                              |                | <b>Grid Convergence:</b> | 0.13 °           |

|                             |                        |                            |                                  |
|-----------------------------|------------------------|----------------------------|----------------------------------|
| <b>Well:</b>                | Skeen 21 State Com #2H |                            |                                  |
| <b>Well Position</b>        | <b>+N-S</b>            | 0.0 usft                   | <b>Northing:</b> 376,242.70 usft |
|                             | <b>+E-W</b>            | 0.0 usft                   | <b>Easting:</b> 575,636.40 usft  |
| <b>Position Uncertainty</b> | 0.0 usft               | <b>Wellhead Elevation:</b> | usft                             |
|                             |                        | <b>Latitude:</b>           | 32° 2' 3.015 N                   |
|                             |                        | <b>Longitude:</b>          | 104° 5' 21.302 W                 |
|                             |                        | <b>Ground Level:</b>       | 3,017.0 usft                     |

|           |             |             |                    |                  |                        |
|-----------|-------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | Wellbore #1 |             |                    |                  |                        |
| Magnetics | Model Name  | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010    | 1/10/2012   | 7.74               | 59.91            | 48,389                 |

|                     |             |                      |        |
|---------------------|-------------|----------------------|--------|
| <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> | <b>Direction</b> |
|                          | (usft)                  | (usft)      | (usft)      | (°)              |
|                          | 0.0                     | 0.0         | 0.0         | 225.61           |

|                       |             |                          |                  |                    |
|-----------------------|-------------|--------------------------|------------------|--------------------|
| <b>Survey Program</b> | <b>Date</b> | 2/2/2012                 |                  |                    |
| <b>From</b>           | <b>To</b>   | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| (usft)                | (usft)      |                          |                  |                    |
| 100.0                 | 6,182.0     | GYRO (Wellbore #1)       | Good_gyro        | Good Gyro          |
| 6,260.0               | 11,235.0    | MWD (Wellbore #1)        | MWD default      | 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) |
| Tie In @ 6182' MD / 6182' TVD |                    |                |                 |             |             |                 |               |              |             |
| 6,182.0                       | 1.83               | 214.92         | 6,181.1         | -29.1       | -29.7       | 41.6            | 0.00          | 0.00         | 0.00        |
| 6,260.0                       | 1.90               | 209.20         | 6,259.0         | -31.3       | -31.1       | 44.1            | 0.25          | 0.09         | -7.33       |
| 6,292.0                       | 1.90               | 208.20         | 6,291.0         | -32.2       | -31.6       | 45.1            | 0.10          | 0.00         | -3.13       |
| 6,324.0                       | 3.70               | 192.90         | 6,323.0         | -33.7       | -32.1       | 46.5            | 6.04          | 5.63         | -47.81      |
| 6,356.0                       | 6.70               | 184.90         | 6,354.8         | -36.5       | -32.5       | 48.7            | 9.62          | 9.38         | -25.00      |
| 6,387.0                       | 9.50               | 181.30         | 6,385.5         | -40.9       | -32.7       | 52.0            | 9.17          | 9.03         | -11.61      |
| 6,419.0                       | 12.50              | 179.90         | 6,416.9         | -47.0       | -32.7       | 56.3            | 9.41          | 9.38         | -4.38       |
| 6,451.0                       | 15.80              | 177.80         | 6,447.9         | -54.8       | -32.6       | 61.6            | 10.43         | 10.31        | -6.56       |
| 6,483.0                       | 18.90              | 174.90         | 6,478.5         | -64.3       | -31.9       | 67.8            | 10.05         | 9.69         | -9.06       |

# DDC Survey Report



|                  |                         |                                     |                                   |
|------------------|-------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co        | <b>Local Co-ordinate Reference:</b> | Well Sken 21 State Com #2H        |
| <b>Project:</b>  | Eddy County, New Mexico | <b>TVD Reference:</b>               | WELL @ 3040.0usft (Patterson #75) |
| <b>Site:</b>     | Sec 21-26S-28E          | <b>MD Reference:</b>                | WELL @ 3040.0usft (Patterson #75) |
| <b>Well:</b>     | Sken 21 State Com #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         |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 6,515.0               | 21.60           | 173.10      | 6,508.5               | -75.3        | -30.8        | 74.7                    | 8.66                    | 8.44                   | -5.63                 |
| 6,546.0               | 24.70           | 172.10      | 6,537.0               | -87.4        | -29.2        | 82.0                    | 10.08                   | 10.00                  | -3.23                 |
| 6,578.0               | 27.40           | 172.50      | 6,565.8               | -101.3       | -27.3        | 90.4                    | 8.46                    | 8.44                   | 1.25                  |
| 6,610.0               | 30.30           | 171.20      | 6,593.8               | -116.6       | -25.1        | 99.5                    | 9.27                    | 9.06                   | -4.06                 |
| 6,642.0               | 33.50           | 171.40      | 6,620.9               | -133.3       | -22.6        | 109.4                   | 10.01                   | 10.00                  | 0.63                  |
| 6,674.0               | 36.70           | 172.60      | 6,647.1               | -151.6       | -20.0        | 120.3                   | 10.23                   | 10.00                  | 3.75                  |
| 6,706.0               | 39.80           | 174.60      | 6,672.2               | -171.2       | -17.8        | 132.5                   | 10.43                   | 9.69                   | 5.25                  |
| 6,738.0               | 43.10           | 175.70      | 6,696.2               | -192.3       | -16.0        | 146.0                   | 10.56                   | 10.31                  | 3.44                  |
| 6,770.0               | 46.30           | 176.20      | 6,719.0               | -214.8       | -14.4        | 160.6                   | 10.06                   | 10.00                  | 1.56                  |
| 6,802.0               | 49.50           | 176.60      | 6,740.4               | -238.5       | -12.9        | 176.1                   | 10.04                   | 10.00                  | 1.25                  |
| 6,836.0               | 52.50           | 177.20      | 6,761.8               | -264.9       | -11.5        | 193.5                   | 8.93                    | 8.82                   | 1.76                  |
| 6,867.0               | 55.70           | 177.70      | 6,780.0               | -290.0       | -10.4        | 210.3                   | 10.40                   | 10.32                  | 1.61                  |
| 6,899.0               | 60.30           | 178.60      | 6,796.9               | -317.1       | -9.5         | 228.6                   | 14.57                   | 14.38                  | 2.81                  |
| 6,931.0               | 65.20           | 179.10      | 6,811.6               | -345.5       | -9.0         | 248.1                   | 15.38                   | 15.31                  | 1.56                  |
| 6,963.0               | 70.70           | 179.80      | 6,823.6               | -375.2       | -8.7         | 268.6                   | 17.31                   | 17.19                  | 2.19                  |
| 6,995.0               | 76.00           | 179.60      | 6,832.8               | -405.8       | -8.5         | 290.0                   | 16.57                   | 16.56                  | -3.63                 |
| 7,027.0               | 81.10           | 179.60      | 6,839.1               | -437.1       | -8.3         | 311.7                   | 15.94                   | 15.94                  | 3.00                  |
| 7,092.0               | 89.90           | 178.40      | 6,844.2               | -501.9       | -7.2         | 356.2                   | 13.66                   | 13.54                  | -1.85                 |
| 7,124.0               | 91.40           | 177.90      | 6,843.8               | -533.9       | -6.1         | 377.8                   | 4.94                    | 4.69                   | -1.56                 |
| 7,156.0               | 91.30           | 177.50      | 6,843.1               | -565.8       | -4.9         | 399.3                   | 1.29                    | -0.31                  | -1.25                 |
| 7,187.0               | 91.20           | 177.90      | 6,842.4               | -596.8       | -3.6         | 420.1                   | 1.33                    | -0.32                  | 1.29                  |
| 7,219.0               | 90.80           | 177.90      | 6,841.9               | -628.8       | -2.4         | 441.6                   | 1.25                    | -1.25                  | 3.00                  |
| 7,250.0               | 90.60           | 176.30      | 6,841.5               | -659.7       | -0.9         | 462.1                   | 5.20                    | -0.65                  | -5.16                 |
| 7,282.0               | 90.50           | 176.10      | 6,841.2               | -691.6       | 1.3          | 482.9                   | 0.70                    | -0.31                  | -3.63                 |
| 7,314.0               | 90.20           | 175.90      | 6,841.0               | -723.6       | 3.5          | 503.7                   | 1.13                    | -0.94                  | -3.63                 |
| 7,377.0               | 89.70           | 175.60      | 6,841.0               | -786.4       | 8.2          | 544.3                   | 0.93                    | -0.79                  | -3.48                 |
| 7,440.0               | 91.00           | 175.70      | 6,840.6               | -849.2       | 12.9         | 584.8                   | 2.07                    | 2.06                   | 0.16                  |
| 7,504.0               | 91.20           | 175.90      | 6,839.4               | -913.0       | 17.6         | 626.1                   | 0.44                    | 0.31                   | 0.31                  |
| 7,567.0               | 91.40           | 175.70      | 6,838.0               | -975.8       | 22.2         | 666.8                   | 0.45                    | 0.32                   | -0.32                 |
| 7,631.0               | 91.40           | 174.80      | 6,836.4               | -1,039.6     | 27.5         | 707.6                   | 1.41                    | 0.00                   | -1.41                 |
| 7,694.0               | 91.30           | 173.50      | 6,834.9               | -1,102.3     | 33.9         | 746.8                   | 2.07                    | -0.16                  | -2.06                 |
| 7,758.0               | 90.20           | 175.70      | 6,834.1               | -1,166.0     | 40.0         | 787.1                   | 3.84                    | -1.72                  | 3.44                  |
| 7,822.0               | 89.70           | 176.40      | 6,834.2               | -1,229.8     | 44.4         | 828.6                   | 1.34                    | -0.78                  | 1.09                  |
| 7,885.0               | 88.20           | 174.90      | 6,835.3               | -1,292.6     | 49.2         | 869.1                   | 3.37                    | -2.38                  | -2.38                 |
| 7,949.0               | 88.40           | 176.30      | 6,837.2               | -1,356.4     | 54.1         | 910.2                   | 2.21                    | 0.31                   | 2.19                  |
| 8,012.0               | 89.70           | 176.60      | 6,838.3               | -1,419.3     | 58.0         | 951.4                   | 2.12                    | 2.06                   | 0.48                  |
| 8,076.0               | 89.60           | 175.90      | 6,838.7               | -1,483.1     | 62.1         | 993.1                   | 1.10                    | -0.16                  | -1.09                 |
| 8,139.0               | 91.20           | 175.70      | 6,838.2               | -1,546.0     | 66.8         | 1,033.7                 | 2.56                    | 2.54                   | -0.32                 |
| 8,203.0               | 91.30           | 175.80      | 6,836.8               | -1,609.8     | 71.5         | 1,075.0                 | 0.22                    | 0.16                   | 0.16                  |
| 8,266.0               | 90.50           | 176.30      | 6,835.8               | -1,672.6     | 75.8         | 1,115.9                 | 1.50                    | -1.27                  | 0.79                  |
| 8,330.0               | 89.80           | 175.60      | 6,835.7               | -1,736.4     | 80.4         | 1,157.3                 | 1.55                    | -1.09                  | -1.09                 |
| 8,393.0               | 88.80           | 175.70      | 6,836.4               | -1,799.3     | 85.1         | 1,197.8                 | 1.60                    | -1.59                  | 0.16                  |
| 8,457.0               | 90.90           | 174.90      | 6,836.6               | -1,863.0     | 90.4         | 1,238.7                 | 3.51                    | 3.28                   | -1.25                 |

# DDC Survey Report



|                  |                         |                                     |                                   |
|------------------|-------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co        | <b>Local Co-ordinate Reference:</b> | Well Skeen 21 State Com #2H       |
| <b>Project:</b>  | Eddy County, New Mexico | <b>TVD Reference:</b>               | WELL @ 3040.0usft (Patterson #75) |
| <b>Site:</b>     | Sec 21-26S-28E          | <b>MD Reference:</b>                | WELL @ 3040.0usft (Patterson #75) |
| <b>Well:</b>     | Skeen 21 State Com #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<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 8,520.0                     | 91.80              | 174.90         | 6,835.1                     | -1,925.8        | 96.0            | 1,278.6                       | 1.43                          | 1.43                         | 0.00                        |
| 8,584.0                     | 92.00              | 174.00         | 6,833.0                     | -1,989.4        | 102.2           | 1,318.7                       | 1.44                          | 0.31                         | -1.41                       |
| 8,648.0                     | 92.20              | 172.50         | 6,830.6                     | -2,052.9        | 109.7           | 1,357.7                       | 2.36                          | 0.31                         | -2.34                       |
| 8,711.0                     | 90.70              | 173.90         | 6,829.0                     | -2,115.5        | 117.1           | 1,396.1                       | 3.26                          | -2.38                        | 2.22                        |
| 8,775.0                     | 90.20              | 174.40         | 6,828.5                     | -2,179.1        | 123.7           | 1,436.0                       | 1.10                          | -0.78                        | 0.78                        |
| 8,838.0                     | 90.10              | 172.90         | 6,828.4                     | -2,241.8        | 130.6           | 1,474.8                       | 2.39                          | -0.16                        | -2.38                       |
| 8,902.0                     | 90.10              | 172.10         | 6,828.3                     | -2,305.2        | 139.0           | 1,513.3                       | 1.25                          | 0.00                         | -1.25                       |
| 8,966.0                     | 89.40              | 174.40         | 6,828.5                     | -2,368.8        | 146.5           | 1,552.3                       | 3.76                          | -1.09                        | 3.59                        |
| 9,029.0                     | 89.10              | 174.50         | 6,829.4                     | -2,431.5        | 152.6           | 1,591.8                       | 0.50                          | -0.48                        | 0.16                        |
| 9,092.0                     | 88.80              | 175.40         | 6,830.5                     | -2,494.2        | 158.1           | 1,631.8                       | 1.51                          | -0.48                        | 1.43                        |
| 9,156.0                     | 90.90              | 176.60         | 6,830.7                     | -2,558.0        | 162.6           | 1,673.2                       | 3.78                          | 3.28                         | 1.88                        |
| 9,219.0                     | 91.30              | 177.00         | 6,829.5                     | -2,620.9        | 166.1           | 1,714.7                       | 0.90                          | 0.63                         | 0.63                        |
| 9,282.0                     | 90.70              | 177.70         | 6,828.4                     | -2,683.9        | 169.0           | 1,756.7                       | 1.46                          | -0.95                        | 1.11                        |
| 9,346.0                     | 90.20              | 178.00         | 6,827.9                     | -2,747.8        | 171.4           | 1,799.7                       | 0.91                          | -0.78                        | 0.47                        |
| 9,409.0                     | 89.90              | 175.90         | 6,827.8                     | -2,810.7        | 174.8           | 1,841.3                       | 3.37                          | -0.48                        | -3.33                       |
| 9,473.0                     | 89.80              | 174.10         | 6,828.0                     | -2,874.5        | 180.4           | 1,881.9                       | 2.82                          | -0.16                        | -2.81                       |
| 9,536.0                     | 89.90              | 174.00         | 6,828.2                     | -2,937.1        | 186.9           | 1,921.1                       | 0.22                          | 0.16                         | -0.16                       |
| 9,599.0                     | 89.60              | 174.10         | 6,828.4                     | -2,999.8        | 193.4           | 1,960.2                       | 0.50                          | -0.48                        | 0.16                        |
| 9,663.0                     | 90.10              | 174.50         | 6,828.6                     | -3,063.5        | 199.8           | 2,000.2                       | 1.00                          | 0.78                         | 0.63                        |
| 9,727.0                     | 89.90              | 174.10         | 6,828.6                     | -3,127.2        | 206.1           | 2,040.3                       | 0.70                          | -0.31                        | -0.63                       |
| 9,790.0                     | 91.30              | 173.70         | 6,827.9                     | -3,189.8        | 212.8           | 2,079.3                       | 2.31                          | 2.22                         | -0.63                       |
| 9,854.0                     | 92.80              | 174.70         | 6,825.7                     | -3,253.4        | 219.3           | 2,119.2                       | 2.82                          | 2.34                         | 1.56                        |
| 9,918.0                     | 90.90              | 174.80         | 6,823.6                     | -3,317.1        | 225.2           | 2,159.6                       | 2.97                          | -2.97                        | 0.16                        |
| 9,981.0                     | 90.40              | 174.10         | 6,822.9                     | -3,379.8        | 231.2           | 2,199.1                       | 1.37                          | -0.79                        | -1.11                       |
| 10,044.0                    | 89.40              | 174.10         | 6,823.0                     | -3,442.5        | 237.7           | 2,238.3                       | 1.59                          | -1.59                        | 0.00                        |
| 10,108.0                    | 90.00              | 173.50         | 6,823.3                     | -3,506.1        | 244.6           | 2,277.8                       | 1.33                          | 0.94                         | -0.94                       |
| 10,171.0                    | 89.40              | 172.60         | 6,823.6                     | -3,568.6        | 252.3           | 2,316.1                       | 1.72                          | -0.95                        | -1.43                       |
| 10,234.0                    | 89.90              | 174.30         | 6,824.0                     | -3,631.2        | 259.4           | 2,354.8                       | 2.81                          | 0.79                         | 2.70                        |
| 10,298.0                    | 89.10              | 174.00         | 6,824.6                     | -3,694.9        | 266.0           | 2,394.7                       | 1.33                          | -1.25                        | -0.47                       |
| 10,362.0                    | 89.70              | 174.80         | 6,825.3                     | -3,758.6        | 272.2           | 2,434.7                       | 1.56                          | 0.94                         | 1.25                        |
| 10,426.0                    | 91.30              | 175.60         | 6,824.7                     | -3,822.3        | 277.6           | 2,475.5                       | 2.80                          | 2.50                         | 1.25                        |
| 10,490.0                    | 91.20              | 174.60         | 6,823.3                     | -3,886.1        | 283.0           | 2,516.2                       | 1.57                          | -0.16                        | -1.56                       |
| 10,553.0                    | 91.10              | 173.40         | 6,822.0                     | -3,948.7        | 289.6           | 2,555.3                       | 1.91                          | -0.16                        | -1.90                       |
| 10,616.0                    | 91.30              | 174.50         | 6,820.7                     | -4,011.4        | 296.3           | 2,594.4                       | 1.77                          | 0.32                         | 1.75                        |
| 10,680.0                    | 90.80              | 174.70         | 6,819.6                     | -4,075.1        | 302.3           | 2,634.7                       | 0.84                          | -0.78                        | 0.31                        |
| 10,743.0                    | 90.10              | 174.50         | 6,819.1                     | -4,137.8        | 308.2           | 2,674.3                       | 1.16                          | -1.11                        | -0.32                       |
| 10,807.0                    | 89.80              | 174.20         | 6,819.1                     | -4,201.5        | 314.5           | 2,714.4                       | 0.66                          | -0.47                        | -0.47                       |
| 10,871.0                    | 90.10              | 174.50         | 6,819.2                     | -4,265.2        | 320.8           | 2,754.4                       | 0.66                          | 0.47                         | 0.47                        |
| 10,934.0                    | 89.90              | 173.50         | 6,819.2                     | -4,327.8        | 327.4           | 2,793.5                       | 1.62                          | -0.32                        | -1.59                       |
| 10,998.0                    | 91.00              | 173.60         | 6,818.7                     | -4,391.4        | 334.6           | 2,832.9                       | 1.73                          | 1.72                         | 0.16                        |
| 11,061.0                    | 90.80              | 173.70         | 6,817.7                     | -4,454.0        | 341.5           | 2,871.7                       | 0.35                          | -0.32                        | 0.16                        |
| 11,125.0                    | 90.70              | 173.60         | 6,816.8                     | -4,517.6        | 348.6           | 2,911.1                       | 0.22                          | -0.16                        | -0.16                       |
| 11,185.0                    | 90.60              | 172.80         | 6,816.2                     | -4,577.2        | 355.7           | 2,947.7                       | 1.34                          | -0.17                        | -1.33                       |

# DDC Survey Report



|                  |                         |                                     |                                   |
|------------------|-------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co        | <b>Local Co-ordinate Reference:</b> | Well Sken 21 State Com #2H        |
| <b>Project:</b>  | Eddy County, New Mexico | <b>TVD Reference:</b>               | WELL @ 3040.0usft (Patterson #75) |
| <b>Site:</b>     | Sec 21-26S-28E          | <b>MD Reference:</b>                | WELL @ 3040.0usft (Patterson #75) |
| <b>Well:</b>     | Sken 21 State Com #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<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| TD @ 11235' MD / 6816' TVD  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 11,235.0                    | 90.60              | 172.80         | 6,815.6                     | -4,626.8        | 362.0           | 2,977.9                       | 0.00                          | 0.00                         | 0.00                        |

## Survey Annotations

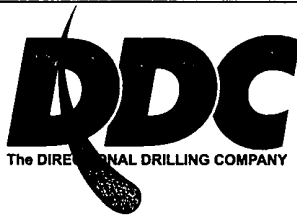
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                       |
|-----------------------------|-----------------------------|-------------------|-----------------|-------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                               |
| 6,182.0                     | 6,181.1                     | -29.1             | -29.7           | Tie In @ 6182' MD / 6182' TVD |
| 11,235.0                    | 6,815.6                     | -4,626.8          | 362.0           | TD @ 11235' MD / 6816' TVD    |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|

Company Name Mewbourne Oil Co  
Skeen 21 State Com #2H  
Eddy County, New Mexico  
Rig Patterson #75  
Created By: Dina Chance  
Date 2/2/2012

Skeen 21 State Com #2H  
Eddy County, New Mexico  
Q120012 & WT-12022

## Mewbourne Oil Company



Azimuths to Grid North  
Magnetic North. 7.61°  
Magnetic Field  
Strength: 48389.3nT  
Dip Angle: 59.91°  
Date: 1/10/2012  
Model: IGRF2010

### ANNOTATIONS

| MD      | Inc   | Asl    | TVD    | +N-S    | +E-W  | V-Sect | Departure | Annotation                    |
|---------|-------|--------|--------|---------|-------|--------|-----------|-------------------------------|
| 6182 0  | 1 83  | 214 92 | 6181 1 | -28 1   | -29 7 | 41 4   | 96 0      | Tie In @ 6182' MD / 6182' TVD |
| 11235 0 | 90 60 | 172 80 | 6816 6 | -4626 8 | 362 0 | 2977 9 | 4713 1    | TD @ 11235' MD / 6816' TVD    |

### DESIGN TARGET DETAILS

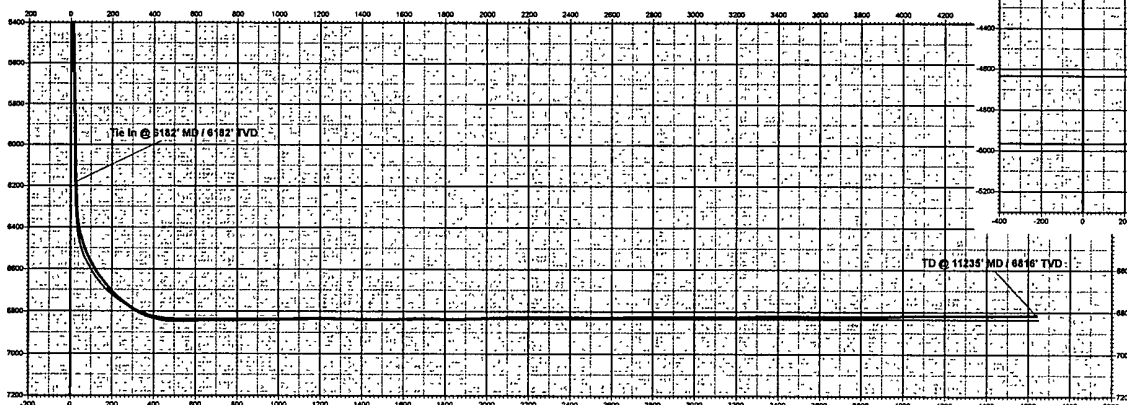
| Name                                                     | TVD    | +N-S    | +E-W  | Northings | Eastings  | Latitude        | Longitude        |
|----------------------------------------------------------|--------|---------|-------|-----------|-----------|-----------------|------------------|
| PBHL Skeen 21 State Com #2H<br>- plan hits target center | 6835 0 | -4636 1 | 343 2 | 371808 60 | 676578 60 | 32° 1' 17.128 N | 104° 5' 17.437 W |

### WELL DETAILS: Skeen 21 State Com #2H

|      | Ground Level | 3017 0    | Latitude  | Longitude                          |
|------|--------------|-----------|-----------|------------------------------------|
| +N-S | +E-W         | Northings | Eastings  |                                    |
| 0 0  | 0 0          | 376242.70 | 675636.40 | 32° 2' 3.016 N<br>104° 6' 21.502 W |

### PROJECT DETAILS: Eddy County, New Mexico

Geodetic System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: New Mexico East 3001  
System Datum: Mean Sea Level



Vertical Section at 175.77° (200 usf/in)

