



30 015 40921

August 8, 2014

**Survey Certification Report**

**STATE OF            TEXAS**

**COUNTY OF        Montgomery**

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of June 29, 2014 thru July 09, 2014, conduct or supervise the taking of a SEDS MWD Survey from a depth of 7,392 feet to 12,487 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Black Lake 5 OB State Com #001H well, API # **30-015-40921** in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

  
Todd Estes

**STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.**

**STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.**

**P.O. Box 1250**

**Montgomery, TX 77356**

**Office (936) 582-7296 \* Fax (936)-588-4163**



# Stryker Energy Directional Services, LLC

## SURVEY CALCULATION REPORT

### Minimum Curvature Calculations

Operator: Mewbourne Oil Co.  
 Lease Name: Black Lake 5 OB State Com #1H  
 API /Job Number: 30-015-40921 M141140  
 Comments: Tie-in to Vaughn Gyro Survey  
 Survey Company: Stryker MWD

Target KBTVD: 8029.86 Feet  
 Target Angle: 89.90 Degrees  
 Section Plane: 0.16 Degrees  
 Declination Corrected to Grid: 7.34 Degrees  
 Bit to Survey Offset: 50 Feet

| Survey Number | Measured Depth | Drift     | Azimuth   | Course | TVD     | Vertical | +N/-S   | +E/-W  | BUR  | DLS  | KBTVD  | +Above        |
|---------------|----------------|-----------|-----------|--------|---------|----------|---------|--------|------|------|--------|---------------|
|               |                | (Degrees) | (Degrees) | Length | (Feet)  | Section  | (Feet)  | (Feet) |      |      |        | -Below Target |
| T/I           | 7,385          | 2.5       | 197.9     | N/A    | 7,380.4 | -90.3    | -90.5   | 40.6   | N/A  | N/A  | 7380.5 | 649.3         |
| 1             | 7,392          | 2.3       | 190.1     | 7      | 7,387.4 | -90.6    | -90.7   | 40.6   | -2.9 | 5.4  | 7387.5 | 642.3         |
| 2             | 7,424          | 1.5       | 193.6     | 32     | 7,419.4 | -91.7    | -91.8   | 40.3   | -2.5 | 2.5  | 7419.5 | 610.3         |
| 3             | 7,456          | 1.3       | 32.7      | 32     | 7,451.4 | -91.8    | -91.9   | 40.4   | -0.6 | 8.6  | 7451.5 | 578.3         |
| 4             | 7,487          | 5.2       | 18.0      | 31     | 7,482.3 | -90.1    | -90.2   | 41.1   | 12.6 | 12.8 | 7482.5 | 547.4         |
| 5             | 7,519          | 9.4       | 15.9      | 32     | 7,514.0 | -86.2    | -86.3   | 42.2   | 13.1 | 13.1 | 7514.2 | 515.7         |
| 6             | 7,551          | 13.0      | 15.2      | 32     | 7,545.4 | -80.2    | -80.4   | 43.9   | 11.3 | 11.3 | 7545.6 | 484.3         |
| 7             | 7,583          | 16.3      | 16.1      | 32     | 7,576.4 | -72.4    | -72.6   | 46.1   | 10.3 | 10.3 | 7576.5 | 453.4         |
| 8             | 7,615          | 19.6      | 16.0      | 32     | 7,606.8 | -63.0    | -63.1   | 48.8   | 10.3 | 10.3 | 7606.9 | 422.9         |
| 9             | 7,646          | 21.2      | 19.4      | 31     | 7,635.9 | -52.7    | -52.8   | 52.1   | 5.2  | 6.4  | 7636.0 | 393.9         |
| 10            | 7,678          | 24.7      | 16.2      | 32     | 7,665.3 | -40.8    | -40.9   | 55.9   | 10.9 | 11.6 | 7665.4 | 364.5         |
| 11            | 7,710          | 28.7      | 14.8      | 32     | 7,693.9 | -26.9    | -27.1   | 59.7   | 12.5 | 12.7 | 7694.0 | 335.9         |
| 12            | 7,742          | 33.2      | 15.1      | 32     | 7,721.4 | -11.0    | -11.2   | 64.0   | 14.1 | 14.1 | 7721.4 | 308.5         |
| 13            | 7,773          | 37.0      | 13.4      | 31     | 7,746.7 | 6.3      | 6.1     | 68.3   | 12.3 | 12.7 | 7746.7 | 283.2         |
| 14            | 7,805          | 40.9      | 8.8       | 32     | 7,771.6 | 26.0     | 25.8    | 72.2   | 12.2 | 15.2 | 7771.6 | 258.3         |
| 15            | 7,837          | 43.9      | 5.5       | 32     | 7,795.2 | 47.4     | 47.2    | 74.8   | 9.4  | 11.7 | 7795.1 | 234.7         |
| 16            | 7,869          | 47.1      | 2.5       | 32     | 7,817.7 | 70.2     | 70.0    | 76.4   | 10.0 | 12.0 | 7817.5 | 212.3         |
| 17            | 7,900          | 51.0      | 0.1       | 31     | 7,838.0 | 93.6     | 93.4    | 76.9   | 12.6 | 13.9 | 7837.8 | 192.0         |
| 18            | 7,932          | 54.1      | 0.7       | 32     | 7,857.4 | 119.0    | 118.8   | 77.1   | 9.7  | 9.8  | 7857.2 | 172.6         |
| 19            | 7,963          | 55.2      | 359.4     | 31     | 7,875.4 | 144.3    | 144.1   | 77.1   | 3.5  | 4.9  | 7875.1 | 154.7         |
| 20            | 7,995          | 57.5      | 359.3     | 32     | 7,893.1 | 170.9    | 170.7   | 76.8   | 7.2  | 7.2  | 7892.8 | 137.1         |
| 21            | 8,027          | 60.5      | 358.4     | 32     | 7,909.6 | 198.3    | 198.1   | 76.3   | 9.4  | 9.7  | 7909.2 | 120.6         |
| 22            | 8,059          | 63.7      | 357.0     | 32     | 7,924.5 | 226.6    | 226.4   | 75.1   | 10.0 | 10.7 | 7924.2 | 105.7         |
| 23            | 8,090          | 65.8      | 357.8     | 31     | 7,937.8 | 254.6    | 254.4   | 73.9   | 6.8  | 7.2  | 7937.3 | 92.5          |
| 24            | 8,122          | 68.0      | 359.5     | 32     | 7,950.3 | 284.0    | 283.8   | 73.2   | 6.9  | 8.4  | 7949.8 | 80.0          |
| 25            | 8,154          | 70.4      | 0.6       | 32     | 7,961.7 | 313.9    | 313.7   | 73.2   | 7.5  | 8.2  | 7961.1 | 68.7          |
| 26            | 8,185          | 72.7      | 0.7       | 31     | 7,971.5 | 343.3    | 343.1   | 73.5   | 7.4  | 7.4  | 7970.9 | 59.0          |
| 27            | 8,217          | 75.1      | 0.5       | 32     | 7,980.4 | 374.1    | 373.9   | 73.9   | 7.5  | 7.5  | 7979.7 | 50.1          |
| 28            | 8,249          | 76.6      | 0.2       | 32     | 7,988.2 | 405.1    | 404.9   | 74.1   | 4.7  | 4.8  | 7987.5 | 42.4          |
| 29            | 8,281          | 77.2      | 1.0       | 32     | 7,995.4 | 436.3    | 436.1   | 74.4   | 1.9  | 3.1  | 7994.7 | 35.2          |
| 30            | 8,312          | 78.9      | 359.8     | 31     | 8,001.9 | 466.6    | 466.4   | 74.6   | 5.5  | 6.7  | 8001.1 | 28.8          |
| 31            | 8,344          | 81.4      | 359.7     | 32     | 8,007.3 | 498.1    | 497.9   | 74.5   | 7.8  | 7.8  | 8006.5 | 23.4          |
| 32            | 8,376          | 83.4      | 359.2     | 32     | 8,011.6 | 529.8    | 529.6   | 74.2   | 6.3  | 6.4  | 8010.6 | 19.2          |
| 33            | 8,402          | 85.5      | 359.3     | 26     | 8,014.1 | 555.7    | 555.5   | 73.8   | 8.1  | 8.1  | 8013.1 | 16.7          |
| 34            | 8,484          | 88.9      | 358.6     | 82     | 8,018.1 | 637.6    | 637.4   | 72.3   | 4.1  | 4.2  | 8017.0 | 12.9          |
| 35            | 8,546          | 88.5      | 358.1     | 62     | 8,019.5 | 699.5    | 699.3   | 70.5   | -0.6 | 1.0  | 8018.3 | 11.6          |
| 36            | 8,641          | 88.5      | 357.8     | 95     | 8,022.0 | 794.4    | 794.2   | 67.1   | 0.0  | 0.3  | 8020.6 | 9.3           |
| 37            | 8,736          | 88.4      | 357.6     | 95     | 8,024.6 | 889.3    | 889.1   | 63.3   | -0.1 | 0.2  | 8023.0 | 6.9           |
| 38            | 8,831          | 87.8      | 357.0     | 95     | 8,027.7 | 984.1    | 984.0   | 58.8   | -0.6 | 0.9  | 8026.0 | 3.9           |
| 39            | 8,924          | 88.4      | 358.2     | 93     | 8,030.8 | 1,077.0  | 1,076.8 | 55.0   | 0.6  | 1.4  | 8028.9 | 0.9           |
| 40            | 9,018          | 89.4      | 358.0     | 94     | 8,032.6 | 1,170.9  | 1,170.8 | 51.8   | 1.1  | 1.1  | 8030.5 | -0.7          |
| 41            | 9,113          | 89.2      | 357.5     | 95     | 8,033.8 | 1,265.8  | 1,265.7 | 48.1   | -0.2 | 0.6  | 8031.5 | -1.7          |
| 42            | 9,208          | 90.0      | 358.5     | 95     | 8,034.4 | 1,360.7  | 1,360.6 | 44.8   | 0.8  | 1.3  | 8032.0 | -2.2          |
| 43            | 9,302          | 89.7      | 358.0     | 94     | 8,034.7 | 1,454.7  | 1,454.6 | 41.9   | -0.3 | 0.6  | 8032.1 | -2.3          |
| 44            | 9,397          | 90.1      | 359.2     | 95     | 8,034.8 | 1,549.7  | 1,549.6 | 39.6   | 0.4  | 1.3  | 8032.1 | -2.3          |



# Stryker Energy Directional Services, LLC

## SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil Co.  
Lease Name: Black Lake 5 OB State Com #1H  
API /Job Number: 30-015-40921 M141140  
Comments: Tie-in to Vaughn Gyro Survey  
Survey Company: Stryker MWD

Target KBTVD: 8029.86 Feet  
Target Angle: 89.90 Degrees  
Section Plane: 0.16 Degrees  
Declination Corrected to Grid: 7.34 Degrees  
Bit to Survey Offset: 50 Feet

| Survey Number | Measured Depth | Drift     | Azimuth   | Course | TVD     | Vertical | +N/-S   | +E/-W  | BUR  | DLS | KBTVD  | +Above<br>-Below<br>Target |
|---------------|----------------|-----------|-----------|--------|---------|----------|---------|--------|------|-----|--------|----------------------------|
|               |                | (Degrees) | (Degrees) | Length | (Feet)  | Section  | (Feet)  | (Feet) |      |     |        |                            |
| 45            | 9,491          | 89.6      | 358.5     | 94     | 8,035.1 | 1,643.6  | 1,643.5 | 37.7   | -0.5 | 0.9 | 8032.2 | -2.3                       |
| 46            | 9,587          | 90.0      | 358.8     | 96     | 8,035.4 | 1,739.6  | 1,739.5 | 35.5   | 0.4  | 0.5 | 8032.4 | -2.5                       |
| 47            | 9,681          | 89.9      | 358.1     | 94     | 8,035.5 | 1,833.6  | 1,833.5 | 32.9   | -0.1 | 0.8 | 8032.3 | -2.4                       |
| 48            | 9,776          | 90.3      | 359.6     | 95     | 8,035.3 | 1,928.5  | 1,928.4 | 31.0   | 0.4  | 1.6 | 8032.0 | -2.1                       |
| 49            | 9,878          | 90.2      | 359.3     | 102    | 8,034.9 | 2,030.5  | 2,030.4 | 30.0   | -0.1 | 0.3 | 8031.3 | -1.5                       |
| 50            | 9,974          | 90.1      | 358.8     | 96     | 8,034.6 | 2,126.5  | 2,126.4 | 28.4   | -0.1 | 0.5 | 8030.9 | -1.1                       |
| 51            | 10,069         | 90.1      | 358.3     | 95     | 8,034.5 | 2,221.5  | 2,221.4 | 26.0   | 0.0  | 0.5 | 8030.6 | -0.7                       |
| 52            | 10,164         | 89.6      | 359.1     | 95     | 8,034.7 | 2,316.4  | 2,316.4 | 23.9   | -0.5 | 1.0 | 8030.7 | -0.8                       |
| 53            | 10,259         | 89.7      | 0.4       | 95     | 8,035.3 | 2,411.4  | 2,411.4 | 23.5   | 0.1  | 1.4 | 8031.1 | -1.2                       |
| 54            | 10,354         | 89.5      | 359.9     | 95     | 8,036.0 | 2,506.4  | 2,506.4 | 23.7   | -0.2 | 0.6 | 8031.6 | -1.7                       |
| 55            | 10,449         | 90.2      | 0.3       | 95     | 8,036.2 | 2,601.4  | 2,601.4 | 23.9   | 0.7  | 0.8 | 8031.7 | -1.8                       |
| 56            | 10,542         | 89.9      | 359.7     | 93     | 8,036.1 | 2,694.4  | 2,694.4 | 23.9   | -0.3 | 0.7 | 8031.4 | -1.6                       |
| 57            | 10,638         | 91.2      | 360.0     | 96     | 8,035.2 | 2,790.4  | 2,790.3 | 23.6   | 1.4  | 1.4 | 8030.3 | -0.5                       |
| 58            | 10,733         | 90.5      | 358.5     | 95     | 8,033.8 | 2,885.4  | 2,885.3 | 22.4   | -0.7 | 1.7 | 8028.8 | 1.1                        |
| 59            | 10,828         | 90.5      | 358.2     | 95     | 8,033.0 | 2,980.3  | 2,980.3 | 19.6   | 0.0  | 0.3 | 8027.8 | 2.1                        |
| 60            | 10,922         | 90.2      | 359.5     | 94     | 8,032.4 | 3,074.3  | 3,074.2 | 17.8   | -0.3 | 1.4 | 8027.0 | 2.8                        |
| 61            | 11,018         | 90.2      | 359.0     | 96     | 8,032.1 | 3,170.3  | 3,170.2 | 16.5   | 0.0  | 0.5 | 8026.5 | 3.3                        |
| 62            | 11,113         | 89.6      | 358.3     | 95     | 8,032.2 | 3,265.2  | 3,265.2 | 14.3   | -0.6 | 1.0 | 8026.5 | 3.3                        |
| 63            | 11,208         | 89.2      | 359.3     | 95     | 8,033.2 | 3,360.2  | 3,360.2 | 12.3   | -0.4 | 1.1 | 8027.3 | 2.5                        |
| 64            | 11,303         | 89.6      | 0.7       | 95     | 8,034.2 | 3,455.2  | 3,455.2 | 12.3   | 0.4  | 1.5 | 8028.2 | 1.7                        |
| 65            | 11,398         | 89.2      | 0.0       | 95     | 8,035.2 | 3,550.2  | 3,550.2 | 12.9   | -0.4 | 0.8 | 8029.0 | 0.8                        |
| 66            | 11,494         | 90.5      | 0.3       | 96     | 8,035.5 | 3,646.2  | 3,646.2 | 13.1   | 1.4  | 1.4 | 8029.1 | 0.8                        |
| 67            | 11,589         | 90.3      | 359.7     | 95     | 8,034.8 | 3,741.2  | 3,741.2 | 13.1   | -0.2 | 0.7 | 8028.3 | 1.6                        |
| 68            | 11,683         | 90.1      | 359.4     | 94     | 8,034.5 | 3,835.2  | 3,835.1 | 12.4   | -0.2 | 0.4 | 8027.8 | 2.1                        |
| 69            | 11,778         | 90.0      | 359.3     | 95     | 8,034.4 | 3,930.2  | 3,930.1 | 11.3   | -0.1 | 0.1 | 8027.5 | 2.3                        |
| 70            | 11,873         | 90.0      | 359.3     | 95     | 8,034.4 | 4,025.1  | 4,025.1 | 10.1   | 0.0  | 0.0 | 8027.4 | 2.5                        |
| 71            | 11,967         | 89.8      | 359.1     | 94     | 8,034.5 | 4,119.1  | 4,119.1 | 8.8    | -0.2 | 0.3 | 8027.4 | 2.5                        |
| 72            | 12,062         | 89.9      | 359.1     | 95     | 8,034.8 | 4,214.1  | 4,214.1 | 7.3    | 0.1  | 0.1 | 8027.4 | 2.4                        |
| 73            | 12,157         | 89.7      | 358.9     | 95     | 8,035.1 | 4,309.1  | 4,309.1 | 5.7    | -0.2 | 0.3 | 8027.6 | 2.3                        |
| 74            | 12,252         | 89.8      | 359.1     | 95     | 8,035.5 | 4,404.1  | 4,404.1 | 4.0    | 0.1  | 0.2 | 8027.9 | 2.0                        |
| 75            | 12,346         | 89.7      | 358.6     | 94     | 8,035.9 | 4,498.1  | 4,498.1 | 2.1    | -0.1 | 0.5 | 8028.1 | 1.8                        |
| 76            | 12,411         | 90.2      | 359.3     | 65     | 8,036.0 | 4,563.0  | 4,563.1 | 0.9    | 0.8  | 1.3 | 8028.0 | 1.8                        |
| 77            | 12,487         | 90.0      | 359.2     | 76     | 8,035.9 | 4,639.0  | 4,639.0 | -0.1   | -0.3 | 0.3 | 8027.8 | 2.1                        |
| BIT           | 12,530         | 90.2      | 359.2     | 43     | 8,035.8 | 4,682.0  | 4,682.0 | -0.7   | 0.5  | 0.5 | 8027.6 | 2.2                        |

Closure Distance @ T.D. : 4682.0  
Closure Direction @ T.D. : 360.0  
Distance from Section Line @ T.D. : 13.7 Feet Left of Section Line



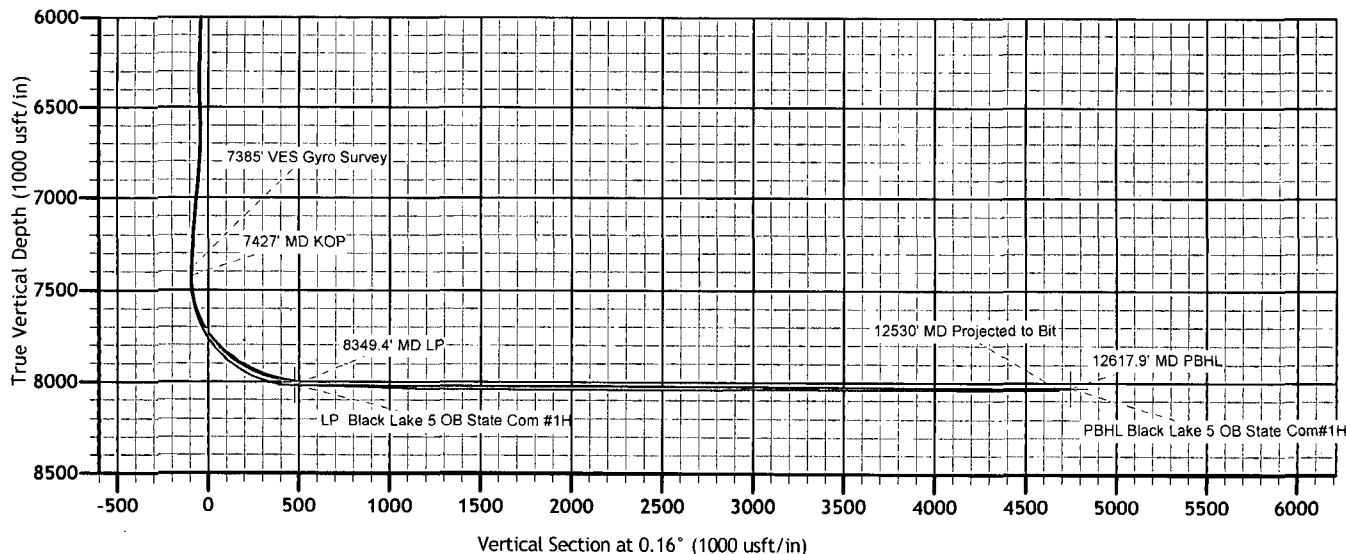
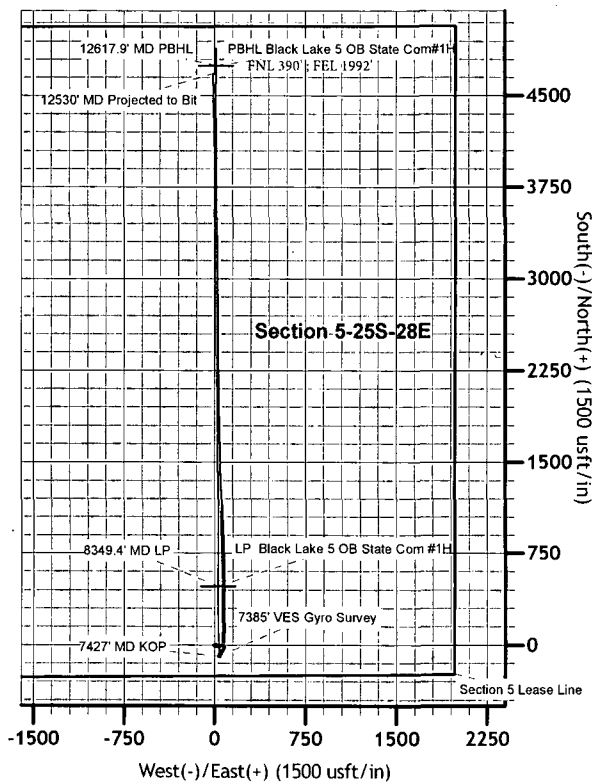
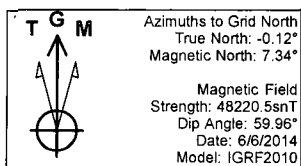
COMPANY: Mewbourne Oil Company  
 WELL: Black Lake 5 OB State Com #1H  
 COUNTY: Eddy County, N.M. Nad (83)  
 DATUM: North American Datum 1983  
 RIG: Patterson #160



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.34°

|                                         |      |           |           |                |                  |  |      |
|-----------------------------------------|------|-----------|-----------|----------------|------------------|--|------|
| GEODETIC ZONE: New Mexico Eastern Zone  |      |           |           |                |                  |  | Slot |
| 3004 + 30 @ 3034.0usft (Patterson #160) |      |           |           |                |                  |  |      |
| GROUND ELEVATION: 3004.0                |      |           |           |                |                  |  |      |
| +N-S                                    | +E-W | Northing  | Easting   | Latitude       | Longitude        |  |      |
| 0.0                                     | 0.0  | 419311.80 | 611227.40 | 32° 9' 9.234 N | 104° 6' 26.996 W |  |      |

| PLAN SECTIONS |         |       |        |        |        |       |       |        |        |                                   |  |
|---------------|---------|-------|--------|--------|--------|-------|-------|--------|--------|-----------------------------------|--|
| Sec           | MD      | Inc   | Azi    | TVD    | +N/-S  | +E/-W | Dleg  | TFace  | Vsect  | Target                            |  |
| 1             | 7385.0  | 2.50  | 197.85 | 7380.4 | -90.4  | 40.6  | 0.00  | 0.00   | -90.3  |                                   |  |
| 2             | 7427.0  | 2.50  | 197.85 | 7422.4 | -92.2  | 40.0  | 0.00  | 0.00   | -92.0  |                                   |  |
| 3             | 8349.4  | 89.87 | 359.78 | 8019.0 | 478.9  | 29.8  | 10.00 | 161.92 | 479.0  |                                   |  |
| 4             | 12617.9 | 89.87 | 359.78 | 8029.0 | 4747.4 | 13.5  | 0.00  | 0.00   | 4747.4 | PBHL Black Lake 5 OB State Com#1H |  |



**NM OIL CONSERVATION**  
ARTESIA DISTRICT

AUG 12 2014

RECEIVED

# **Mewbourne Oil Company .**

Eddy County, N.M. Nad (83)

Section 5-25S-28E Black Lake 5 OB State Com #1H

Black Lake 5 OB State Com #1H

Original Hole

Design: Original Hole

## **Standard Survey Report**

09 July, 2014

# Stryker Directional Survey Report

|                  |                                                 |                                     |                                         |
|------------------|-------------------------------------------------|-------------------------------------|-----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                           | <b>Local Co-ordinate Reference:</b> | Well Black Lake 5 OB State Com #1H      |
| <b>Project:</b>  | Eddy County, N.M. Nad (83)                      | <b>TVD Reference:</b>               | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Site:</b>     | Section 5-25S-28E Black Lake 5 OB State Com #1H | <b>MD Reference:</b>                | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Well:</b>     | Black Lake 5 OB State Com #1H                   | <b>North Reference:</b>             | Grid                                    |
| <b>Wellbore:</b> | Original Hole                                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Design:</b>   | Original Hole                                   | <b>Database:</b>                    | Stryker_EDM                             |

|                    |                            |                      |                |
|--------------------|----------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, N.M. 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> | Section 5-25S-28E Black Lake 5 OB State Com #1H |  |  |
|-------------|-------------------------------------------------|--|--|

|                              |          |                     |                 |                          |                  |
|------------------------------|----------|---------------------|-----------------|--------------------------|------------------|
| <b>Site Position:</b>        |          | <b>Northing:</b>    | 419,311.80 usft | <b>Latitude:</b>         | 32° 9' 9.234 N   |
| <b>From:</b>                 | Map      | <b>Easting:</b>     | 611,227.40 usft | <b>Longitude:</b>        | 104° 6' 26.996 W |
| <b>Position Uncertainty:</b> | 0.0 usft | <b>Slot Radius:</b> | 13-3/16 "       | <b>Grid Convergence:</b> | 0.12 °           |

|                             |                               |          |                            |                 |                                    |
|-----------------------------|-------------------------------|----------|----------------------------|-----------------|------------------------------------|
| <b>Well</b>                 | Black Lake 5 OB State Com #1H |          |                            |                 |                                    |
| <b>Well Position</b>        | +N/-S                         | 0.0 usft | <b>Northing:</b>           | 419,311.80 usft | <b>Latitude:</b> 32° 9' 9.234 N    |
|                             | +E/-W                         | 0.0 usft | <b>Easting:</b>            | 611,227.40 usft | <b>Longitude:</b> 104° 6' 26.996 W |
| <b>Position Uncertainty</b> | 0.0 usft                      |          | <b>Wellhead Elevation:</b> | 0.0 usft        | <b>Ground Level:</b> 3,004.0 usft  |

|                 |               |  |  |  |  |
|-----------------|---------------|--|--|--|--|
| <b>Wellbore</b> | Original Hole |  |  |  |  |
|-----------------|---------------|--|--|--|--|

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
|           | IGRF2010   | 6/6/2014    | 7.46            | 59.96         | 48,221              |

|               |               |  |  |  |  |
|---------------|---------------|--|--|--|--|
| <b>Design</b> | Original Hole |  |  |  |  |
|---------------|---------------|--|--|--|--|

|                     |     |               |        |                      |     |
|---------------------|-----|---------------|--------|----------------------|-----|
| <b>Audit Notes:</b> |     |               |        |                      |     |
| <b>Version:</b>     | 1.0 | <b>Phase:</b> | ACTUAL | <b>Tie On Depth:</b> | 0.0 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|-------------------|-------------------------|--------------|--------------|---------------|
|                   | 0.0                     | 0.0          | 0.0          | 0.16          |

| Survey Program |           | Date 7/9/2014                      |             |                                |  |
|----------------|-----------|------------------------------------|-------------|--------------------------------|--|
| From (usft)    | To (usft) | Survey (Wellbore)                  | Tool Name   | Description                    |  |
| 100.0          | 7,385.0   | VES Gyro Survey (Original Hole)    | SRG-GYRO-MS | surface readout gyro multishot |  |
| 7,392.0        | 12,530.0  | Stryker MWD Survey (Original Hole) | MWD         | MWD v3:standard declination    |  |

| 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) |  |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |  |
| 100.0                 | 0.24            | 51.42       | 100.0                 | 0.1          | 0.2          | 0.1                     | 0.24                    | 0.24                   | 0.00                  |  |
| 200.0                 | 0.44            | 43.71       | 200.0                 | 0.5          | 0.6          | 0.5                     | 0.20                    | 0.20                   | -7.71                 |  |
| 300.0                 | 0.55            | 45.62       | 300.0                 | 1.2          | 1.2          | 1.2                     | 0.11                    | 0.11                   | 1.91                  |  |
| 400.0                 | 0.84            | 42.16       | 400.0                 | 2.0          | 2.0          | 2.0                     | 0.29                    | 0.29                   | -3.46                 |  |
| 500.0                 | 0.39            | 78.51       | 500.0                 | 2.6          | 2.9          | 2.7                     | 0.57                    | -0.45                  | 36.35                 |  |
| 600.0                 | 0.33            | 90.15       | 600.0                 | 2.7          | 3.5          | 2.7                     | 0.09                    | -0.06                  | 11.64                 |  |
| 700.0                 | 0.28            | 159.88      | 700.0                 | 2.5          | 3.9          | 2.5                     | 0.35                    | -0.05                  | 69.73                 |  |
| 800.0                 | 0.38            | 246.87      | 800.0                 | 2.1          | 3.6          | 2.1                     | 0.46                    | 0.10                   | 86.99                 |  |

# Stryker Directional Survey Report

|                  |                                                 |                                     |                                         |
|------------------|-------------------------------------------------|-------------------------------------|-----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                           | <b>Local Co-ordinate Reference:</b> | Well Black Lake 5 OB State Com #1H      |
| <b>Project:</b>  | Eddy County, N.M. Nad (83)                      | <b>TVD Reference:</b>               | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Site:</b>     | Section 5-25S-28E Black Lake 5 OB State Com #1H | <b>MD Reference:</b>                | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Well:</b>     | Black Lake 5 OB State Com #1H                   | <b>North Reference:</b>             | Grid                                    |
| <b>Wellbore:</b> | Original Hole                                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Design:</b>   | Original Hole                                   | <b>Database:</b>                    | Stryker_EDM                             |

| 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) |  |
| 900.0                 | 0.37            | 323.22      | 900.0                 | 2.2          | 3.1          | 2.3                     | 0.46                    | -0.01                  | 76.35                 |  |
| 1,000.0               | 0.45            | 309.64      | 1,000.0               | 2.8          | 2.6          | 2.8                     | 0.13                    | 0.08                   | -13.58                |  |
| 1,100.0               | 0.54            | 358.94      | 1,100.0               | 3.5          | 2.3          | 3.5                     | 0.42                    | 0.09                   | 49.30                 |  |
| 1,200.0               | 0.19            | 76.28       | 1,200.0               | 4.0          | 2.5          | 4.0                     | 0.53                    | -0.35                  | 77.34                 |  |
| 1,300.0               | 0.75            | 109.92      | 1,300.0               | 3.8          | 3.3          | 3.8                     | 0.60                    | 0.56                   | 33.64                 |  |
| 1,400.0               | 1.46            | 113.94      | 1,399.9               | 3.1          | 5.0          | 3.1                     | 0.71                    | 0.71                   | 4.02                  |  |
| 1,500.0               | 2.10            | 117.45      | 1,499.9               | 1.7          | 7.8          | 1.7                     | 0.65                    | 0.64                   | 3.51                  |  |
| 1,600.0               | 2.33            | 103.91      | 1,599.8               | 0.4          | 11.4         | 0.4                     | 0.57                    | 0.23                   | -13.54                |  |
| 1,700.0               | 2.97            | 95.24       | 1,699.7               | -0.4         | 16.0         | -0.3                    | 0.75                    | 0.64                   | -8.67                 |  |
| 1,800.0               | 3.43            | 98.89       | 1,799.6               | -1.1         | 21.5         | -1.0                    | 0.50                    | 0.46                   | 3.65                  |  |
| 1,900.0               | 3.68            | 109.69      | 1,899.4               | -2.6         | 27.5         | -2.5                    | 0.71                    | 0.25                   | 10.80                 |  |
| 2,000.0               | 3.64            | 103.11      | 1,999.2               | -4.4         | 33.6         | -4.3                    | 0.42                    | -0.04                  | -6.58                 |  |
| 2,100.0               | 4.10            | 106.71      | 2,098.9               | -6.1         | 40.1         | -6.0                    | 0.52                    | 0.46                   | 3.60                  |  |
| 2,200.0               | 4.31            | 100.50      | 2,198.7               | -7.9         | 47.2         | -7.7                    | 0.50                    | 0.21                   | -6.21                 |  |
| 2,300.0               | 3.23            | 101.49      | 2,298.4               | -9.1         | 53.7         | -9.0                    | 1.08                    | -1.08                  | 0.99                  |  |
| 2,400.0               | 2.22            | 100.38      | 2,398.3               | -10.0        | 58.4         | -9.9                    | 1.01                    | -1.01                  | -1.11                 |  |
| 2,500.0               | 1.74            | 103.57      | 2,498.3               | -10.7        | 61.7         | -10.5                   | 0.49                    | -0.48                  | 3.19                  |  |
| 2,600.0               | 1.61            | 101.24      | 2,598.2               | -11.4        | 64.6         | -11.2                   | 0.15                    | -0.13                  | -2.33                 |  |
| 2,700.0               | 1.21            | 105.58      | 2,698.2               | -11.9        | 67.0         | -11.7                   | 0.41                    | -0.40                  | 4.34                  |  |
| 2,800.0               | 0.62            | 100.68      | 2,798.2               | -12.3        | 68.5         | -12.1                   | 0.59                    | -0.59                  | -4.90                 |  |
| 2,900.0               | 0.58            | 130.85      | 2,898.2               | -12.7        | 69.5         | -12.5                   | 0.31                    | -0.04                  | 30.17                 |  |
| 3,000.0               | 0.95            | 123.32      | 2,998.2               | -13.5        | 70.5         | -13.3                   | 0.38                    | 0.37                   | -7.53                 |  |
| 3,100.0               | 0.71            | 122.64      | 3,098.2               | -14.3        | 71.7         | -14.1                   | 0.24                    | -0.24                  | -0.68                 |  |
| 3,200.0               | 0.69            | 112.71      | 3,198.2               | -14.9        | 72.8         | -14.7                   | 0.12                    | -0.02                  | -9.93                 |  |
| 3,300.0               | 0.43            | 117.89      | 3,298.2               | -15.3        | 73.7         | -15.1                   | 0.26                    | -0.26                  | 5.18                  |  |
| 3,400.0               | 0.37            | 135.88      | 3,398.1               | -15.7        | 74.3         | -15.5                   | 0.14                    | -0.06                  | 17.99                 |  |
| 3,500.0               | 0.60            | 141.06      | 3,498.1               | -16.3        | 74.8         | -16.1                   | 0.23                    | 0.23                   | 5.18                  |  |
| 3,600.0               | 0.47            | 142.50      | 3,598.1               | -17.1        | 75.4         | -16.8                   | 0.13                    | -0.13                  | 1.44                  |  |
| 3,700.0               | 0.32            | 142.45      | 3,698.1               | -17.6        | 75.8         | -17.4                   | 0.15                    | -0.15                  | -0.05                 |  |
| 3,800.0               | 0.34            | 171.14      | 3,798.1               | -18.1        | 76.0         | -17.9                   | 0.16                    | 0.02                   | 28.69                 |  |
| 3,900.0               | 0.47            | 214.72      | 3,898.1               | -18.7        | 75.8         | -18.5                   | 0.32                    | 0.13                   | 43.58                 |  |
| 4,000.0               | 0.22            | 232.32      | 3,998.1               | -19.2        | 75.5         | -19.0                   | 0.27                    | -0.25                  | 17.60                 |  |
| 4,100.0               | 0.12            | 264.42      | 4,098.1               | -19.3        | 75.2         | -19.1                   | 0.13                    | -0.10                  | 32.10                 |  |
| 4,200.0               | 0.45            | 209.77      | 4,198.1               | -19.7        | 74.9         | -19.5                   | 0.39                    | 0.33                   | -54.65                |  |
| 4,300.0               | 0.30            | 225.59      | 4,298.1               | -20.2        | 74.5         | -20.0                   | 0.18                    | -0.15                  | 15.82                 |  |
| 4,400.0               | 0.43            | 225.50      | 4,398.1               | -20.6        | 74.1         | -20.4                   | 0.13                    | 0.13                   | -0.09                 |  |
| 4,500.0               | 0.89            | 209.29      | 4,498.1               | -21.6        | 73.4         | -21.4                   | 0.49                    | 0.46                   | -16.21                |  |
| 4,600.0               | 0.83            | 195.99      | 4,598.1               | -23.0        | 72.8         | -22.8                   | 0.21                    | -0.06                  | -13.30                |  |
| 4,700.0               | 0.75            | 191.81      | 4,698.1               | -24.3        | 72.5         | -24.1                   | 0.10                    | -0.08                  | -4.18                 |  |
| 4,800.0               | 0.66            | 204.09      | 4,798.1               | -25.5        | 72.1         | -25.3                   | 0.18                    | -0.09                  | 12.28                 |  |
| 4,900.0               | 0.63            | 202.30      | 4,898.1               | -26.5        | 71.7         | -26.3                   | 0.04                    | -0.03                  | -1.79                 |  |
| 5,000.0               | 0.62            | 182.46      | 4,998.1               | -27.5        | 71.5         | -27.3                   | 0.22                    | -0.01                  | -19.84                |  |

# Stryker Directional Survey Report

|                  |                                                 |                                     |                                         |
|------------------|-------------------------------------------------|-------------------------------------|-----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                           | <b>Local Co-ordinate Reference:</b> | Well Black Lake 5 OB State Com #1H      |
| <b>Project:</b>  | Eddy County, N.M. Nad (83)                      | <b>TVD Reference:</b>               | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Site:</b>     | Section 5-25S-28E Black Lake 5 OB State Com #1H | <b>MD Reference:</b>                | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Well:</b>     | Black Lake 5 OB State Com #1H                   | <b>North Reference:</b>             | Grid                                    |
| <b>Wellbore:</b> | Original Hole                                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Design:</b>   | Original Hole                                   | <b>Database:</b>                    | Stryker_EDM                             |

| 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) |
| 5,100.0               | 0.82            | 193.27      | 5,098.1               | -28.8        | 71.3         | -28.6                   | 0.24                    | 0.20                   | 10.81                 |
| 5,200.0               | 0.77            | 196.96      | 5,198.1               | -30.1        | 70.9         | -29.9                   | 0.07                    | -0.05                  | 3.69                  |
| 5,300.0               | 0.69            | 221.95      | 5,298.1               | -31.2        | 70.3         | -31.0                   | 0.33                    | -0.08                  | 24.99                 |
| 5,400.0               | 0.76            | 228.66      | 5,398.0               | -32.1        | 69.4         | -31.9                   | 0.11                    | 0.07                   | 6.71                  |
| 5,500.0               | 1.04            | 190.55      | 5,498.0               | -33.4        | 68.8         | -33.2                   | 0.64                    | 0.28                   | -38.11                |
| 5,600.0               | 1.24            | 231.32      | 5,598.0               | -35.0        | 67.7         | -34.8                   | 0.82                    | 0.20                   | 40.77                 |
| 5,700.0               | 1.17            | 228.98      | 5,698.0               | -36.3        | 66.1         | -36.2                   | 0.09                    | -0.07                  | -2.34                 |
| 5,800.0               | 0.93            | 224.00      | 5,798.0               | -37.6        | 64.8         | -37.4                   | 0.26                    | -0.24                  | -4.98                 |
| 5,900.0               | 1.16            | 201.55      | 5,898.0               | -39.1        | 63.9         | -38.9                   | 0.47                    | 0.23                   | -22.45                |
| 6,000.0               | 0.86            | 198.04      | 5,997.9               | -40.8        | 63.3         | -40.6                   | 0.31                    | -0.30                  | -3.51                 |
| 6,100.0               | 1.04            | 193.80      | 6,097.9               | -42.4        | 62.8         | -42.2                   | 0.19                    | 0.18                   | -4.24                 |
| 6,200.0               | 2.28            | 195.13      | 6,197.9               | -45.2        | 62.1         | -45.0                   | 1.24                    | 1.24                   | 1.33                  |
| 6,300.0               | 0.57            | 174.33      | 6,297.9               | -47.6        | 61.6         | -47.4                   | 1.76                    | -1.71                  | -20.80                |
| 6,400.0               | 1.84            | 329.86      | 6,397.8               | -46.7        | 60.8         | -46.5                   | 2.37                    | 1.27                   | 155.53                |
| 6,500.0               | 3.28            | 305.84      | 6,497.7               | -43.6        | 57.7         | -43.5                   | 1.77                    | 1.44                   | -24.02                |
| 6,600.0               | 3.38            | 309.86      | 6,597.6               | -40.1        | 53.1         | -39.9                   | 0.25                    | 0.10                   | 4.02                  |
| 6,700.0               | 1.87            | 186.35      | 6,697.5               | -39.8        | 50.7         | -39.7                   | 4.68                    | -1.51                  | -123.51               |
| 6,800.0               | 3.59            | 186.36      | 6,797.4               | -44.5        | 50.2         | -44.4                   | 1.72                    | 1.72                   | 0.01                  |
| 6,900.0               | 4.98            | 184.98      | 6,897.1               | -52.0        | 49.4         | -51.8                   | 1.39                    | 1.39                   | -1.38                 |
| 7,000.0               | 6.33            | 187.61      | 6,996.6               | -61.8        | 48.3         | -61.6                   | 1.37                    | 1.35                   | 2.63                  |
| 7,100.0               | 5.61            | 195.32      | 7,096.1               | -71.9        | 46.3         | -71.8                   | 1.08                    | -0.72                  | 7.71                  |
| 7,200.0               | 4.27            | 194.81      | 7,195.7               | -80.3        | 44.1         | -80.1                   | 1.34                    | -1.34                  | -0.51                 |
| 7,300.0               | 3.21            | 202.06      | 7,295.5               | -86.4        | 42.1         | -86.3                   | 1.16                    | -1.06                  | 7.25                  |
| 7,385.0               | 2.50            | 197.85      | 7,380.4               | -90.4        | 40.6         | -90.3                   | 0.87                    | -0.84                  | -4.95                 |
| 7385' VES Gyro Survey |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,392.0               | 2.30            | 190.10      | 7,387.4               | -90.7        | 40.5         | -90.6                   | 5.44                    | -2.86                  | -110.71               |
| 7,424.0               | 1.50            | 193.60      | 7,419.4               | -91.7        | 40.3         | -91.6                   | 2.53                    | -2.50                  | 10.94                 |
| 7,456.0               | 1.30            | 32.70       | 7,451.4               | -91.8        | 40.4         | -91.7                   | 8.63                    | -0.63                  | -502.81               |
| 7,487.0               | 5.20            | 18.00       | 7,482.3               | -90.2        | 41.0         | -90.1                   | 12.76                   | 12.58                  | -47.42                |
| 7,519.0               | 9.40            | 15.90       | 7,514.0               | -86.3        | 42.2         | -86.2                   | 13.15                   | 13.13                  | -6.56                 |
| 7,551.0               | 13.00           | 15.20       | 7,545.4               | -80.3        | 43.9         | -80.2                   | 11.26                   | 11.25                  | -2.19                 |
| 7,583.0               | 16.30           | 16.10       | 7,576.4               | -72.5        | 46.1         | -72.4                   | 10.34                   | 10.31                  | 2.81                  |
| 7,615.0               | 19.60           | 16.00       | 7,606.8               | -63.1        | 48.8         | -62.9                   | 10.31                   | 10.31                  | -0.31                 |
| 7,646.0               | 21.20           | 19.40       | 7,635.9               | -52.8        | 52.1         | -52.6                   | 6.42                    | 5.16                   | 10.97                 |
| 7,678.0               | 24.70           | 16.20       | 7,665.3               | -40.9        | 55.9         | -40.7                   | 11.61                   | 10.94                  | -10.00                |
| 7,710.0               | 28.70           | 14.80       | 7,693.9               | -27.0        | 59.7         | -26.9                   | 12.65                   | 12.50                  | -4.38                 |
| 7,742.0               | 33.20           | 15.10       | 7,721.4               | -11.1        | 63.9         | -11.0                   | 14.07                   | 14.06                  | 0.94                  |
| 7,773.0               | 37.00           | 13.40       | 7,746.7               | 6.1          | 68.3         | 6.3                     | 12.66                   | 12.26                  | -5.48                 |
| 7,805.0               | 40.90           | 8.80        | 7,771.6               | 25.9         | 72.2         | 26.1                    | 15.17                   | 12.19                  | -14.38                |
| 7,837.0               | 43.90           | 5.50        | 7,795.2               | 47.3         | 74.8         | 47.5                    | 11.67                   | 9.38                   | -10.31                |
| 7,869.0               | 47.10           | 2.50        | 7,817.7               | 70.0         | 76.4         | 70.2                    | 12.03                   | 10.00                  | -9.38                 |
| 7,900.0               | 51.00           | 0.10        | 7,838.0               | 93.4         | 76.9         | 93.6                    | 13.87                   | 12.58                  | -7.74                 |
| 7,932.0               | 54.10           | 0.70        | 7,857.4               | 118.8        | 77.1         | 119.0                   | 9.80                    | 9.69                   | 1.88                  |



# Stryker Directional Survey Report

|                  |                                                 |                                     |                                         |
|------------------|-------------------------------------------------|-------------------------------------|-----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                           | <b>Local Co-ordinate Reference:</b> | Well Black Lake 5 OB State Com #1H      |
| <b>Project:</b>  | Eddy County, N.M. Nad (83)                      | <b>TVD Reference:</b>               | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Site:</b>     | Section 5-25S-28E Black Lake 5 OB State Com #1H | <b>MD Reference:</b>                | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Well:</b>     | Black Lake 5 OB State Com #1H                   | <b>North Reference:</b>             | Grid                                    |
| <b>Wellbore:</b> | Original Hole                                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Design:</b>   | Original Hole                                   | <b>Database:</b>                    | Stryker_EDM                             |

| 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) |
| 7,963.0               | 55.20           | 359.40      | 7,875.4               | 144.1        | 77.1         | 144.3                   | 4.93                    | 3.55                   | -4.19                 |
| 7,995.0               | 57.50           | 359.30      | 7,893.1               | 170.7        | 76.8         | 171.0                   | 7.19                    | 7.19                   | -0.31                 |
| 8,027.0               | 60.50           | 358.40      | 7,909.6               | 198.2        | 76.3         | 198.4                   | 9.68                    | 9.38                   | -2.81                 |
| 8,059.0               | 63.70           | 357.00      | 7,924.6               | 226.4        | 75.1         | 226.6                   | 10.72                   | 10.00                  | -4.38                 |
| 8,090.0               | 65.80           | 357.80      | 7,937.8               | 254.4        | 73.8         | 254.6                   | 7.16                    | 6.77                   | 2.58                  |
| 8,122.0               | 68.00           | 359.50      | 7,950.3               | 283.9        | 73.2         | 284.1                   | 8.43                    | 6.88                   | 5.31                  |
| 8,154.0               | 70.40           | 0.60        | 7,961.7               | 313.8        | 73.2         | 314.0                   | 8.16                    | 7.50                   | 3.44                  |
| 8,185.0               | 72.70           | 0.70        | 7,971.5               | 343.2        | 73.5         | 343.4                   | 7.43                    | 7.42                   | 0.32                  |
| 8,217.0               | 75.10           | 0.50        | 7,980.4               | 373.9        | 73.8         | 374.1                   | 7.52                    | 7.50                   | -0.63                 |
| 8,249.0               | 76.60           | 0.20        | 7,988.2               | 404.9        | 74.0         | 405.1                   | 4.77                    | 4.69                   | -0.94                 |
| 8,281.0               | 77.20           | 1.00        | 7,995.5               | 436.1        | 74.4         | 436.3                   | 3.07                    | 1.88                   | 2.50                  |
| 8,312.0               | 78.90           | 359.80      | 8,001.9               | 466.4        | 74.6         | 466.6                   | 6.66                    | 5.48                   | -3.87                 |
| 8,344.0               | 81.40           | 359.70      | 8,007.3               | 498.0        | 74.4         | 498.2                   | 7.82                    | 7.81                   | -0.31                 |
| 8,376.0               | 83.40           | 359.20      | 8,011.6               | 529.7        | 74.1         | 529.9                   | 6.44                    | 6.25                   | -1.56                 |
| 8,402.0               | 85.50           | 359.30      | 8,014.1               | 555.5        | 73.8         | 555.7                   | 8.09                    | 8.08                   | 0.38                  |
| 8,484.0               | 88.90           | 358.60      | 8,018.1               | 637.4        | 72.3         | 637.6                   | 4.23                    | 4.15                   | -0.85                 |
| 8,546.0               | 88.50           | 358.10      | 8,019.5               | 699.4        | 70.5         | 699.6                   | 1.03                    | -0.65                  | -0.81                 |
| 8,641.0               | 88.50           | 357.80      | 8,022.0               | 794.3        | 67.1         | 794.5                   | 0.32                    | 0.00                   | -0.32                 |
| 8,736.0               | 88.40           | 357.60      | 8,024.6               | 889.2        | 63.3         | 889.3                   | 0.24                    | -0.11                  | -0.21                 |
| 8,831.0               | 87.80           | 357.00      | 8,027.7               | 984.0        | 58.8         | 984.2                   | 0.89                    | -0.63                  | -0.63                 |
| 8,924.0               | 88.40           | 358.20      | 8,030.8               | 1,076.9      | 54.9         | 1,077.0                 | 1.44                    | 0.65                   | 1.29                  |
| 9,018.0               | 89.40           | 358.00      | 8,032.6               | 1,170.8      | 51.8         | 1,170.9                 | 1.08                    | 1.06                   | -0.21                 |
| 9,113.0               | 89.20           | 357.50      | 8,033.8               | 1,265.7      | 48.1         | 1,265.9                 | 0.57                    | -0.21                  | -0.53                 |
| 9,208.0               | 90.00           | 358.50      | 8,034.4               | 1,360.7      | 44.8         | 1,360.8                 | 1.35                    | 0.84                   | 1.05                  |
| 9,302.0               | 89.70           | 358.00      | 8,034.7               | 1,454.6      | 41.9         | 1,454.7                 | 0.62                    | -0.32                  | -0.53                 |
| 9,397.0               | 90.10           | 359.20      | 8,034.8               | 1,549.6      | 39.6         | 1,549.7                 | 1.33                    | 0.42                   | 1.26                  |
| 9,491.0               | 89.60           | 358.50      | 8,035.1               | 1,643.6      | 37.7         | 1,643.7                 | 0.92                    | -0.53                  | -0.74                 |
| 9,587.0               | 90.00           | 358.80      | 8,035.4               | 1,739.5      | 35.4         | 1,739.6                 | 0.52                    | 0.42                   | 0.31                  |
| 9,681.0               | 89.90           | 358.10      | 8,035.5               | 1,833.5      | 32.9         | 1,833.6                 | 0.75                    | -0.11                  | -0.74                 |
| 9,776.0               | 90.30           | 359.60      | 8,035.3               | 1,928.5      | 31.0         | 1,928.6                 | 1.63                    | 0.42                   | 1.58                  |
| 9,878.0               | 90.20           | 359.30      | 8,034.9               | 2,030.5      | 30.0         | 2,030.6                 | 0.31                    | -0.10                  | -0.29                 |
| 9,974.0               | 90.10           | 358.80      | 8,034.6               | 2,126.5      | 28.4         | 2,126.5                 | 0.53                    | -0.10                  | -0.52                 |
| 10,069.0              | 90.10           | 358.30      | 8,034.5               | 2,221.4      | 26.0         | 2,221.5                 | 0.53                    | 0.00                   | -0.53                 |
| 10,164.0              | 89.60           | 359.10      | 8,034.7               | 2,316.4      | 23.8         | 2,316.5                 | 0.99                    | -0.53                  | 0.84                  |
| 10,259.0              | 89.70           | 0.40        | 8,035.3               | 2,411.4      | 23.4         | 2,411.5                 | 1.37                    | 0.11                   | 1.37                  |
| 10,354.0              | 89.50           | 359.90      | 8,036.0               | 2,506.4      | 23.7         | 2,506.5                 | 0.57                    | -0.21                  | -0.53                 |
| 10,449.0              | 90.20           | 0.30        | 8,036.2               | 2,601.4      | 23.8         | 2,601.5                 | 0.85                    | 0.74                   | 0.42                  |
| 10,542.0              | 89.90           | 359.70      | 8,036.1               | 2,694.4      | 23.8         | 2,694.5                 | 0.72                    | -0.32                  | -0.65                 |
| 10,638.0              | 91.20           | 0.00        | 8,035.2               | 2,790.4      | 23.6         | 2,790.4                 | 1.39                    | 1.35                   | 0.31                  |
| 10,733.0              | 90.50           | 358.50      | 8,033.8               | 2,885.4      | 22.4         | 2,885.4                 | 1.74                    | -0.74                  | -1.58                 |
| 10,828.0              | 90.50           | 358.20      | 8,033.0               | 2,980.3      | 19.6         | 2,980.4                 | 0.32                    | 0.00                   | -0.32                 |
| 10,922.0              | 90.20           | 359.50      | 8,032.4               | 3,074.3      | 17.7         | 3,074.3                 | 1.42                    | -0.32                  | 1.38                  |

# Stryker Directional Survey Report

|                  |                                                 |                                     |                                         |
|------------------|-------------------------------------------------|-------------------------------------|-----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                           | <b>Local Co-ordinate Reference:</b> | Well Black Lake 5 OB State Com #1H      |
| <b>Project:</b>  | Eddy County, N.M. Nad (83)                      | <b>TVD Reference:</b>               | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Site:</b>     | Section 5-25S-28E Black Lake 5 OB State Com #1H | <b>MD Reference:</b>                | 3004 + 30 @ 3034.0usft (Patterson #160) |
| <b>Well:</b>     | Black Lake 5 OB State Com #1H                   | <b>North Reference:</b>             | Grid                                    |
| <b>Wellbore:</b> | Original Hole                                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Design:</b>   | Original Hole                                   | <b>Database:</b>                    | Stryker_EDM                             |

## 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 11,018.0              | 90.20           | 359.00      | 8,032.1               | 3,170.3      | 16.5         | 3,170.3                 | 0.52                    | 0.00                   | -0.52                 |
| 11,113.0              | 89.60           | 358.30      | 8,032.2               | 3,265.3      | 14.2         | 3,265.3                 | 0.97                    | -0.63                  | -0.74                 |
| 11,208.0              | 89.20           | 359.30      | 8,033.2               | 3,360.2      | 12.2         | 3,360.3                 | 1.13                    | -0.42                  | 1.05                  |
| 11,303.0              | 89.60           | 0.70        | 8,034.2               | 3,455.2      | 12.2         | 3,455.3                 | 1.53                    | 0.42                   | 1.47                  |
| 11,398.0              | 89.20           | 0.00        | 8,035.2               | 3,550.2      | 12.8         | 3,550.2                 | 0.85                    | -0.42                  | -0.74                 |
| 11,494.0              | 90.50           | 0.30        | 8,035.5               | 3,646.2      | 13.1         | 3,646.2                 | 1.39                    | 1.35                   | 0.31                  |
| 11,589.0              | 90.30           | 359.70      | 8,034.8               | 3,741.2      | 13.1         | 3,741.2                 | 0.67                    | -0.21                  | -0.63                 |
| 11,683.0              | 90.10           | 359.40      | 8,034.5               | 3,835.2      | 12.3         | 3,835.2                 | 0.38                    | -0.21                  | -0.32                 |
| 11,778.0              | 90.00           | 359.30      | 8,034.4               | 3,930.2      | 11.3         | 3,930.2                 | 0.15                    | -0.11                  | -0.11                 |
| 11,873.0              | 90.00           | 359.30      | 8,034.4               | 4,025.2      | 10.1         | 4,025.2                 | 0.00                    | 0.00                   | 0.00                  |
| 11,967.0              | 89.80           | 359.10      | 8,034.6               | 4,119.2      | 8.8          | 4,119.2                 | 0.30                    | -0.21                  | -0.21                 |
| 12,062.0              | 89.90           | 359.10      | 8,034.8               | 4,214.2      | 7.3          | 4,214.2                 | 0.11                    | 0.11                   | 0.00                  |
| 12,157.0              | 89.70           | 358.90      | 8,035.1               | 4,309.2      | 5.6          | 4,309.2                 | 0.30                    | -0.21                  | -0.21                 |
| 12,252.0              | 89.80           | 359.10      | 8,035.5               | 4,404.1      | 4.0          | 4,404.1                 | 0.24                    | 0.11                   | 0.21                  |
| 12,346.0              | 89.70           | 358.60      | 8,036.0               | 4,498.1      | 2.1          | 4,498.1                 | 0.54                    | -0.11                  | -0.53                 |
| 12,411.0              | 90.20           | 359.30      | 8,036.0               | 4,563.1      | 0.9          | 4,563.1                 | 1.32                    | 0.77                   | 1.08                  |
| 12,487.0              | 90.00           | 359.20      | 8,035.9               | 4,639.1      | -0.1         | 4,639.1                 | 0.29                    | -0.26                  | -0.13                 |
| 12,530.0              | 90.20           | 359.20      | 8,035.8               | 4,682.1      | -0.7         | 4,682.1                 | 0.47                    | 0.47                   | 0.00                  |

12530' MD Projected to Bit

## Design Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                    |
|-----------------------|-----------------------|-------------------|--------------|----------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                            |
| 7,385.0               | 7,380.4               | -90.4             | 40.6         | 7385' VES Gyro Survey      |
| 12,530.0              | 8,035.8               | 4,682.1           | -0.7         | 12530' MD Projected to Bit |



August 8, 2014

New Mexico Energy, Minerals and Natural Resources Department  
Attn: Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Attn: Jackie Lathan

Re: Mewbourne Oil Company  
Black Lake 5 OB State Com #001H  
WC-015 S252815D; Wolfcamp  
Eddy County, New Mexico  
API# 30-015-40921

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

| <u>Name &amp; Title</u> | <u>Drainhole No.</u> | <u>Survey Depths</u>    | <u>Dates Performed</u> | <u>Type Survey</u> |
|-------------------------|----------------------|-------------------------|------------------------|--------------------|
| John Plourde            | Original Hole        | 7,392 ft. to 12,487 ft. | 06-29-14 to 07-09-14   | MWD Survey         |

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

  
Todd Estes

Enclosures

CC:

Mewbourne Oil Company  
Attn: Frosty Lathan  
P.O. Box 5720  
Hobbs, NM 88241

Mewbourne Oil Company  
Attn: Robin Terrell  
P.O. Box 5720  
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Black Lake 5 OB State Com #1H\M141140

**STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.**

**P.O. Box 1250**

**Montgomery, TX 77356**

**Office (936) 582-7296 \* Fax (936)-588-4163**



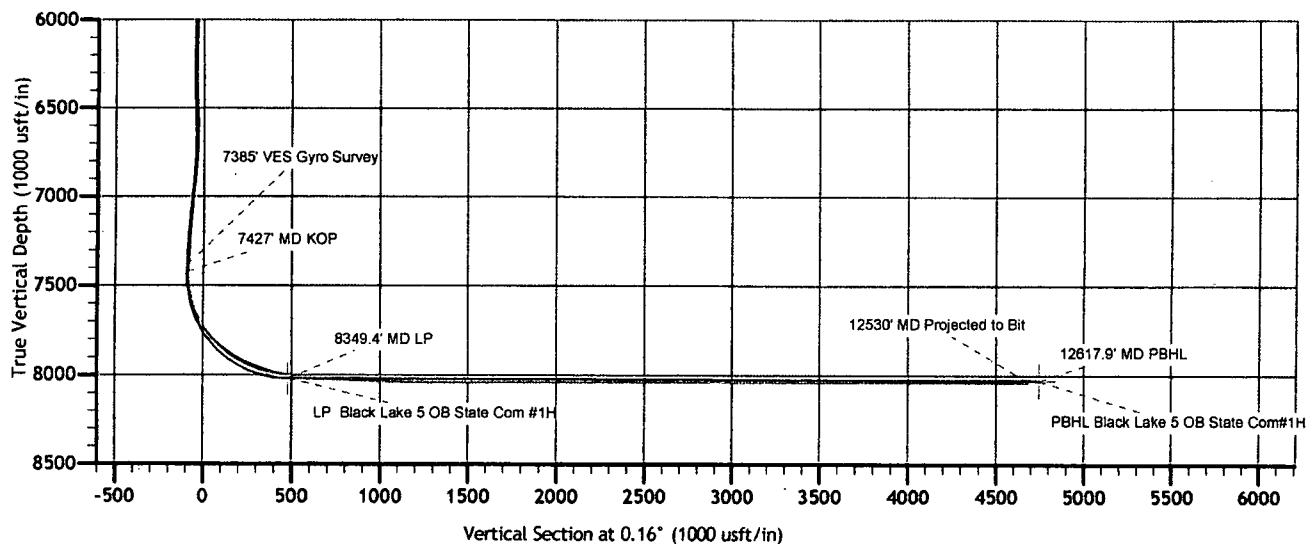
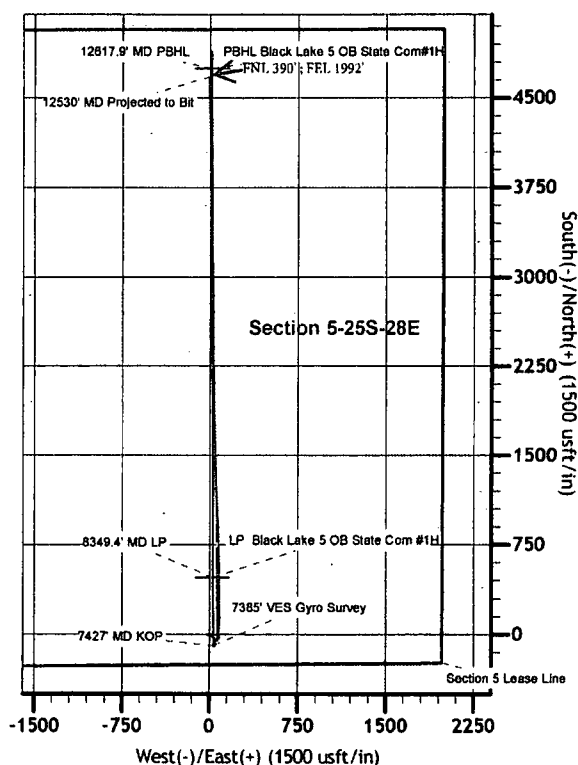
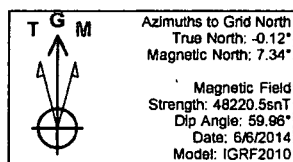
COMPANY: Mewbourne Oil Company  
 WELL: Black Lake 5 OB State Com #1H  
 COUNTY: Eddy County, N.M. Nad (83)  
 DATUM: North American Datum 1983  
 RIG: Patterson #160



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.34°

|                                         |       |           |           |                |                  |  |      |
|-----------------------------------------|-------|-----------|-----------|----------------|------------------|--|------|
| GEODETIC ZONE: New Mexico Eastern Zone  |       |           |           |                |                  |  | Slot |
| 3004 + 30 @ 3034.0usft (Patterson #160) |       |           |           |                |                  |  |      |
| GROUND ELEVATION: 3004.0                |       |           |           |                |                  |  |      |
| +N/-S                                   | +E/-W | Northing  | Easting   | Latitude       | Longitude        |  |      |
| 0.0                                     | 0.0   | 419311.80 | 611227.40 | 32° 9' 9.234 N | 104° 6' 28.996 W |  |      |

| PLAN SECTIONS |         |       |        |        |        |       |       |        |        |                                   |
|---------------|---------|-------|--------|--------|--------|-------|-------|--------|--------|-----------------------------------|
| Sec           | MD      | Inc   | Azi    | TVD    | +N/-S  | +E/-W | Dleg  | TFace  | VSecl  | Target                            |
| 1             | 7385.0  | 2.50  | 197.85 | 7380.4 | -90.4  | 40.6  | 0.00  | 0.00   | -90.3  |                                   |
| 2             | 7427.0  | 2.50  | 197.85 | 7422.4 | -92.2  | 40.0  | 0.00  | 0.00   | -92.0  |                                   |
| 3             | 8349.4  | 89.87 | 359.78 | 8019.0 | 478.9  | 29.8  | 10.00 | 161.92 | 479.0  |                                   |
| 4             | 12617.9 | 89.87 | 359.78 | 8029.0 | 4747.4 | 13.5  | 0.00  | 0.00   | 4747.4 | PBHL Black Lake 5 OB State Com#1H |



# BLACK LAKE 5 OB STATE Com #14

Operating Company Mewbourne Oil Co.  
Well Name & Number Black Lake 5 OB State Com #14  
Sales Ticket Number 0  
Date 7/9/2014

Company Rep Jerry Van Winkle  
Field 0  
BOT Service Rep Zach Blenkinsopp  
District Location Odessa, TX



|            | Size  | Weight | Grade  | ID    | Drift | Thread     | Capacity | Length   | Burst  | Collapse |
|------------|-------|--------|--------|-------|-------|------------|----------|----------|--------|----------|
| Casing     | 7.000 | 26.00  | 110000 | 6.276 | 6.151 | BTC / BUTT | 0.03826  | 8,452.00 | 9,960  | 6,230    |
| Top Liner  | 4.500 | 13.50  | 110000 | 3.920 | 3.795 | LTC / 8RD  | 0.01493  | 4,309.06 | 12,410 | 10,690   |
| Bott Liner | 0.000 | 0.00   | 0      | 0.000 | 0.000 | 0          | 0.00000  | -        | -      | -        |

|                          |         |                       |         |                    |       |                   |       |
|--------------------------|---------|-----------------------|---------|--------------------|-------|-------------------|-------|
| TVD                      | 8016.00 | KOP                   | 7475.00 | Open Hole          | 6.125 | Casing Vol. (bbl) | 311.7 |
| Carry Fluid Weight (ppg) | 8.4     | 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) |
|-----------|--------------|-------------|----------------------------------|---------|------|-------|--------------|--------------|----------------|--------------|
| Liner Top | 1            | 10292414    | JR Slv w 4.750" Alt Seal Bore ID | 8146.94 | 4.01 | 5.750 | 3.913        |              |                |              |

|                |                                 |                                 |         |        |       |       |       |      |  |  |
|----------------|---------------------------------|---------------------------------|---------|--------|-------|-------|-------|------|--|--|
| Zone<br>Length | H4090400008                     | S-3 Casing Hanger Packer        | 8150.95 | 4.62   | 5.875 | 3.875 |       |      |  |  |
|                | H299900281                      | Combo Collar (4-1/2 LT&C)       | 8155.57 | 0.59   | 5.000 | 4.500 |       |      |  |  |
|                | H299710014                      | 4-1/2" 13.5# LT&C Spacer Nipple | 8156.16 | 7.48   | 4.500 | 3.938 |       |      |  |  |
|                |                                 | 9 Jnts 4-1/2" 13.5# LT&C csg    | 8163.64 | 378.83 | 3.920 |       |       |      |  |  |
|                | H810090200                      | 3.500" EXPress Sleeve (Zone 20) | 8542.47 | 2.40   | 5.630 |       | 3.448 | 2286 |  |  |
|                |                                 | 3 Jnts 4-1/2" 13.5# LT&C csg    | 8544.87 | 126.42 | 4.500 | 3.920 |       |      |  |  |
|                | H409360008                      | 582 OH PACKER #19               | 8671.29 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|                |                                 | 2 Jnts 4-1/2" 13.5# LT&C csg    | 8675.18 | 85.13  | 4.500 | 3.920 |       |      |  |  |
|                | H810090199                      | 3.438" EXPress Sleeve (Zone 19) | 8760.31 | 2.40   | 5.630 |       | 3.385 | 2286 |  |  |
|                |                                 | 3 Jnts 4-1/2" 13.5# LT&C csg    | 8762.71 | 126.42 | 4.500 | 3.920 |       |      |  |  |
|                | H409360008                      | 582 OH PACKER #18               | 8889.13 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|                |                                 | 2 Jnts 4-1/2" 13.5# LT&C csg    | 8893.02 | 84.54  | 4.500 | 3.920 |       |      |  |  |
|                | H810090198                      | 3.375" EXPress Sleeve (Zone 18) | 8977.56 | 2.40   | 5.630 |       | 3.323 | 2286 |  |  |
|                |                                 | 2 Jnts 4-1/2" 13.5# LT&C csg    | 8979.96 | 81.71  | 4.500 | 3.920 |       |      |  |  |
|                | H409360008                      | 582 OH PACKER #17               | 9061.67 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|                |                                 | 2 Jnts 4-1/2" 13.5# LT&C csg    | 9065.56 | 83.98  | 4.500 | 3.920 |       |      |  |  |
|                | H810090197                      | 3.313" EXPress Sleeve (Zone 17) | 9149.54 | 2.40   | 5.630 |       | 3.260 | 2286 |  |  |
|                |                                 | 3 Jnts 4-1/2" 13.5# LT&C csg    | 9151.94 | 124.44 | 4.500 | 3.920 |       |      |  |  |
|                | H409360008                      | 582 OH PACKER #16               | 9276.38 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|                |                                 | 2 Jnts 4-1/2" 13.5# LT&C csg    | 9280.27 | 82.59  | 4.500 | 3.920 |       |      |  |  |
| H810090196     | 3.250" EXPress Sleeve (Zone 16) | 9362.86                         | 2.40    | 5.630  |       | 3.198 | 2286  |      |  |  |
|                | 3 Jnts 4-1/2" 13.5# LT&C csg    | 9365.26                         | 126.86  | 4.500  | 3.920 |       |       |      |  |  |

Operating Company Mewbourne Oil Co.  
 Well Name & Number lack Lake 5 OB State Com #1  
 Sales Ticket Number 0  
 Date 7/9/2014

Company Rep Jerry Van Winkle  
 Field 0  
 BOT Service Rep Zach Blenkinsopp  
 District Location Odessa, TX



|                          | Size  | Weight  | Grade  | ID    | Drift                | Thread     | Capacity | Length    | Burst              | Collapse |                   |       |
|--------------------------|-------|---------|--------|-------|----------------------|------------|----------|-----------|--------------------|----------|-------------------|-------|
| Casing                   | 7.000 | 26.00   | 110000 | 6.276 | 6.151                | BTC / BUTT | 0.03826  | 8,452.00  | 9,960              | 6,230    |                   |       |
| Top Liner                | 4.500 | 13.50   | 110000 | 3.920 | 3.795                | LTC / 8RD  | 0.01493  | 4,309.06  | 12,410             | 10,690   |                   |       |
| Bott Liner               | 0.000 | 0.00    | 0      | 0.000 | 0.000                | 0          | 0.00000  | -         | -                  | -        |                   |       |
| TVD                      |       | 8016.00 |        | KOP   |                      | 7475.00    |          | Open Hole |                    | 6.125    | Casing Vol. (bbl) | 311.7 |
| Carry Fluid Weight (ppg) |       |         | 8.4    |       | 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) |
|--|--------------|---------------------------------|----------|--------|-------|-------|--------------|--------------|----------------|-------------|
|  | H409360008   | 582 OH PACKER #15               | 9492.12  | 3.89   | 5.820 | 3.875 |              | 2154         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 9496.01  | 83.89  | 4.500 | 3.920 |              |              |                |             |
|  | H810090195   | 3.188" EXPress Sleeve (Zone 15) | 9579.90  | 2.40   | 5.630 |       | 3.135        | 2286         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 9582.30  | 85.16  | 4.500 | 3.920 |              |              |                |             |
|  | H409360008   | 582 OH PACKER #14               | 9667.46  | 3.89   | 5.820 | 3.875 |              | 2154         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 9671.35  | 83.77  | 4.500 | 3.920 |              |              |                |             |
|  | H810090194   | 3.125" EXPress Sleeve (Zone 14) | 9755.12  | 2.40   | 5.630 |       | 3.073        | 2286         |                |             |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg    | 9757.52  | 127.09 | 4.500 | 3.920 |              |              |                |             |
|  | H409360008   | 582 OH PACKER #13               | 9884.61  | 3.89   | 5.820 | 3.875 |              | 2154         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 9888.50  | 83.69  | 4.500 | 3.920 |              |              |                |             |
|  | H810090193   | 3.063" EXPress Sleeve (Zone 13) | 9972.19  | 2.40   | 5.630 |       | 3.010        | 2286         |                |             |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg    | 9974.59  | 124.22 | 4.500 | 3.920 |              |              |                |             |
|  | H409360008   | 582 OH PACKER #12               | 10098.81 | 3.89   | 5.820 | 3.875 |              | 2154         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 10102.70 | 84.16  | 4.500 | 3.920 |              |              |                |             |
|  | H810090192   | 3.00" EXPress Sleeve (Zone 12)  | 10186.86 | 2.40   | 5.630 |       | 2.948        | 2286         |                |             |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg    | 10189.26 | 127.01 | 4.500 | 3.920 |              |              |                |             |
|  | H409360008   | 582 OH PACKER #11               | 10316.27 | 3.89   | 5.820 | 3.875 |              | 2154         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 10320.16 | 83.74  | 4.500 | 3.920 |              |              |                |             |
|  | H810090191   | 2.938" EXPress Sleeve (Zone 11) | 10403.90 | 2.40   | 5.630 |       | 2.885        | 2286         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 10406.30 | 85.15  | 4.500 | 3.920 |              |              |                |             |
|  | H409360008   | 582 OH PACKER #10               | 10491.45 | 3.89   | 5.820 | 3.875 |              | 2154         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 10495.34 | 84.53  | 4.500 | 3.920 |              |              |                |             |
|  | H810090190   | 2.875" EXPress Sleeve (Zone 10) | 10579.87 | 2.40   | 5.630 |       | 2.823        | 2286         |                |             |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg    | 10582.27 | 126.10 | 4.500 | 3.920 |              |              |                |             |
|  | H409360008   | 582 OH PACKER #9                | 10708.37 | 3.89   | 5.820 | 3.875 |              | 2154         |                |             |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg    | 10712.26 | 82.24  | 4.500 | 3.920 |              |              |                |             |

Operating Company Mewbourne Oil Co.  
 Well Name & Number Lack Lake 5 OB State Com #1  
 Sales Ticket Number 0  
 Date 7/9/2014

Company Rep Jerry Van Winkle  
 Field 0  
 BOT Service Rep Zach Blenkinsopp  
 District Location Odessa, TX



|                          | Size  | Weight  | Grade  | ID    | Drift                 | Thread     | Capacity | Length    | Burst              | Collapse |                   |       |
|--------------------------|-------|---------|--------|-------|-----------------------|------------|----------|-----------|--------------------|----------|-------------------|-------|
| Casing                   | 7.000 | 26.00   | 110000 | 6.276 | 6.151                 | BTC / BUTT | 0.03826  | 8,452.00  | 9,960              | 6,230    |                   |       |
| Top Liner                | 4.500 | 13.50   | 110000 | 3.920 | 3.795                 | LTC / 8RD  | 0.01493  | 4,309.06  | 12,410             | 10,690   |                   |       |
| Bott Liner               | 0.000 | 0.00    | 0      | 0.000 | 0.000                 | 0          | 0.00000  | -         | -                  | -        |                   |       |
| TVD                      |       | 8016.00 |        | KOP   |                       | 7475.00    |          | Open Hole |                    | 6.125    | Casing Vol. (bbl) | 311.7 |
| Carry Fluid Weight (ppg) |       |         | 8.4    |       | 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) |
|--|--------------|--------------------------------|----------|--------|-------|-------|--------------|--------------|----------------|--------------|
|  | H810090189   | 2.813" EXPress Sleeve (Zone 9) | 10794.50 | 2.40   | 5.630 |       | 2.760        | 2286         |                |              |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg   | 10796.90 | 127.55 | 4.500 | 3.920 |              |              |                |              |
|  | H409360008   | 582 OH PACKER #8               | 10924.45 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 10928.34 | 84.94  | 4.500 | 3.920 |              |              |                |              |
|  | H810090188   | 2.750" EXPress Sleeve (Zone 8) | 11013.28 | 2.40   | 5.630 |       | 2.698        | 2286         |                |              |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg   | 11015.68 | 121.19 | 4.500 | 3.920 |              |              |                |              |
|  | H409360008   | 582 OH PACKER #7               | 11136.87 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 11140.76 | 84.90  | 4.500 | 3.920 |              |              |                |              |
|  | H810090187   | 2.688" EXPress Sleeve (Zone 7) | 11225.66 | 2.40   | 5.630 |       | 2.635        | 2286         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 11228.06 | 85.15  | 4.500 | 3.920 |              |              |                |              |
|  | H409360008   | 582 OH PACKER #6               | 11313.21 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 11317.10 | 84.60  | 4.500 | 3.920 |              |              |                |              |
|  | H810090186   | 2.625" EXPress Sleeve (Zone 6) | 11401.70 | 2.40   | 5.630 |       | 2.573        | 2286         |                |              |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg   | 11404.10 | 125.59 | 4.500 | 3.920 |              |              |                |              |
|  | H409360008   | 582 OH PACKER #5               | 11529.69 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 11533.58 | 82.70  | 4.500 | 3.920 |              |              |                |              |
|  | H810090185   | 2.563" EXPress Sleeve (Zone 5) | 11616.28 | 2.40   | 5.630 |       | 2.510        | 2286         |                |              |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg   | 11618.68 | 123.44 | 4.500 | 3.920 |              |              |                |              |
|  | H409360008   | 582 OH PACKER #4               | 11742.12 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 11746.01 | 81.17  | 4.500 | 3.920 |              |              |                |              |
|  | H810090184   | 2.500" EXPress Sleeve (Zone 4) | 11827.18 | 2.40   | 5.630 |       | 2.448        | 2286         |                |              |
|  |              | 3 Jnts 4-1/2" 13.5# LT&C csg   | 11829.58 | 122.10 | 4.500 | 3.920 |              |              |                |              |
|  | H409360008   | 582 OH PACKER #3               | 11951.68 | 3.89   | 5.820 | 3.875 |              | 2154         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 11955.57 | 84.53  | 4.500 | 3.920 |              |              |                |              |
|  | H810090183   | 2.438" EXPress Sleeve (Zone 3) | 12040.10 | 2.40   | 5.630 |       | 2.385        | 2286         |                |              |
|  |              | 2 Jnts 4-1/2" 13.5# LT&C csg   | 12042.50 | 82.83  | 4.500 | 3.920 |              |              |                |              |

|                   |                  |
|-------------------|------------------|
| Company Rep       | Jerry Van Winkle |
| Field             | 0                |
| BOT Service Rep   | Zach Blenkinsopp |
| District Location | Odessa, TX       |



|                          |         |        |                       |         |       |            |          |                    |        |          |
|--------------------------|---------|--------|-----------------------|---------|-------|------------|----------|--------------------|--------|----------|
|                          | Size    | Weight | Grade                 | ID      | Drift | Thread     | Capacity | Length             | Burst  | Collapse |
| Casing                   | 7.000   | 26.00  | 110000                | 6.276   | 6.151 | BTC / BUTT | 0.03826  | 8,452.00           | 9,960  | 6,230    |
| Top Liner                | 4.500   | 13.50  | 110000                | 3.920   | 3.795 | LTC / 8RD  | 0.01493  | 4,309.06           | 12,410 | 10,690   |
| Bott Liner               | 0.000   | 0.00   | 0                     | 0.000   | 0.000 | 0          | 0.00000  | -                  | -      | -        |
| TVD                      | 8016.00 |        | KOP                   | 7475.00 |       | Open Hole  | 6.125    | Casing Vol. (bbl)  | 311.7  |          |
| Carry Fluid Weight (ppg) | 8.4     |        | Propant Content (ppa) |         |       |            |          | Max Drill Out Size | 0      |          |

[illegible]