

## Results of Directional Survey

|             |                     |           |                                        |
|-------------|---------------------|-----------|----------------------------------------|
| API number: | <b>30-025-40124</b> |           |                                        |
| OGRID:      |                     | Operator: | <b>MEWBOURNE OIL CO</b>                |
|             |                     | Property: | <b>SALADO DRAW 10 FEDERAL COM # 1H</b> |

|         |        |          |           |                |                 |
|---------|--------|----------|-----------|----------------|-----------------|
| surface | ULSTR: | <b>C</b> | <b>10</b> | <b>T 26S</b>   | <b>R 33E</b>    |
|         |        |          |           | <b>330 FNL</b> | <b>1690 FWL</b> |

|              |           |               |            |                 |                 |
|--------------|-----------|---------------|------------|-----------------|-----------------|
| BH Loc       | ULSTR:    | <b>N</b>      | <b>10</b>  | <b>T 26S</b>    | <b>R 33E</b>    |
| <b>13548</b> | <b>MD</b> | <b>9261.2</b> | <b>TVD</b> | <b>363 FSL</b>  | <b>1758 FWL</b> |
|              |           |               |            | <b>4917 FNL</b> |                 |

|             |           |               |            |                 |                 |
|-------------|-----------|---------------|------------|-----------------|-----------------|
| Top Perf/OH | ULSTR:    | <b>C</b>      | <b>10</b>  | <b>T 26S</b>    | <b>R 33E</b>    |
| <b>9641</b> | <b>MD</b> | <b>9251.3</b> | <b>TVD</b> | <b>1013 FNL</b> | <b>1800 FWL</b> |

|              |           |               |            |                 |                 |
|--------------|-----------|---------------|------------|-----------------|-----------------|
| Bot Perf/OH  | ULSTR:    | <b>N</b>      | <b>10</b>  | <b>T 26S</b>    | <b>R 33E</b>    |
| <b>13513</b> | <b>MD</b> | <b>9262.1</b> | <b>TVD</b> | <b>398 FSL</b>  | <b>1759 FWL</b> |
|              |           |               |            | <b>4882 FNL</b> |                 |

|              |              |          |        |         |
|--------------|--------------|----------|--------|---------|
|              | MD           | N/S      | E/W    | VD      |
|              | 9628         | -669.90  | 110.20 | 9251.5  |
| TOP PERFS/OH | <b>9641</b>  | -682.84  | 109.79 | 9251.29 |
|              | 9691         | -732.60  | 108.20 | 9250.50 |
|              | 13503        | -4541.60 | 68.80  | 9262.30 |
| BOT PERFS/OH | <b>13513</b> | -4551.60 | 68.51  | 9262.06 |
|              | 13548        | -4586.60 | 67.50  | 9261.20 |

|              |              |          |       |         |
|--------------|--------------|----------|-------|---------|
| NEXT TO LAST | 13503        | -4541.60 | 68.80 | 9262.30 |
| LAST READING | 13548        | -4586.60 | 67.50 | 9261.20 |
| TD           | <b>13548</b> | -4586.60 | 67.50 | 9261.20 |

|                  |      |    |      |    |
|------------------|------|----|------|----|
| Surface Location | 330  | FN | 1690 | FW |
| Projected BHL    | 4917 | FN | 1758 | FW |
| Location of      |      |    |      |    |
| Top Perfs/OH     | 1013 | FN | 1800 | FW |
| Bottom Perfs/OH  | 4882 | FN | 1759 | FW |

### SUMMARY of Subsurface Locations

|                  |              |      |    |      |    |             |
|------------------|--------------|------|----|------|----|-------------|
| Surface Location | C-10-26S-33E | 330  | FN | 1690 | FW | Vert. Depth |
| Top Perfs/OH     | C-10-26S-33E | 1013 | FN | 1800 | FW | 9251.29     |
| Bottom Perfs/OH  | N-10-26S-33E | 4882 | FN | 1759 | FW | 9262.06     |
| Projected TD     | N-10-26S-33E | 4917 | FN | 1758 | FW | 9261.20     |

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# Mewbourne Oil Co

Lea County, NM

Sec 10, T-26-S, R-33-E

Salado Draw "10" Federal COM #1H

Wellbore #1

Survey: MWD

## DDC Survey Report

22 May, 2012



# DDC Survey Report



**Company:** Mewbourne Oil Co  
**Project:** Lea County, NM  
**Site:** Sec 10, T-26-S, R-33-E  
**Well:** Salado Draw "10" Federal COM #1H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Salado Draw "10" Federal COM #1H  
**TVD Reference:** WELL @ 3340.0usft (Patterson #75)  
**MD Reference:** WELL @ 3340.0usft (Patterson #75)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

**Project:** Lea County, NM

**Map System:** US State Plane 1927 (Exact solution)  
**Geo Datum:** NAD 1927 (NADCON CONUS)  
**Map Zone:** New Mexico East 3001

**System Datum:** Mean Sea Level

**Site:** Sec 10, T-26-S, R-33-E

**Site Position:**  
**From:** Map  
**Position Uncertainty:** 0.0 usft  
**Northings:** 387,940.44 usft  
**Easting:** 738,700.05 usft  
**Slot Radius:** 13-3/16 "  
**Latitude:** 32° 3' 51.196 N  
**Longitude:** 103° 33' 46.053 W  
**Grid Convergence:** 0.41 °

**Well:** Salado Draw "10" Federal COM #1H

**Well Position** +N/-S 0.0 usft **Northings:** 387,940.44 usft **Latitude:** 32° 3' 51.196 N  
 +E/-W 0.0 usft **Easting:** 738,700.05 usft **Longitude:** 103° 33' 46.053 W  
**Position Uncertainty** 0.0 usft **Wellhead Elevation:** usft **Ground Level:** 3,319.0 usft

**Wellbore:** Wellbore #1

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
|           | IGRF2010   | 5/3/2012    | 7.46            | 60.02         | 48,433              |

**Design:** Wellbore #1

**Audit Notes:**

**Version:** 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.0

| Vertical Section | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|------------------|-------------------------|--------------|--------------|---------------|
|                  | 0.0                     | 0.0          | 0.0          | 179.57        |

**Survey Program** Date: 5/22/2012

| From (usft) | To (usft) | Survey (Wellbore)             | Tool Name   | Description    |
|-------------|-----------|-------------------------------|-------------|----------------|
| 100.0       | 8,550.0   | VES Gyro Survey (Wellbore #1) | Good_gyro   | Good Gyro      |
| 8,608.0     | 13,548.0  | MWD (Wellbore #1)             | MWD default | MWD - Standard |

**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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| <b>Tie In @ 8550</b>  |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,550.0               | 0.97            | 240.78      | 8,545.7               | -38.3        | 135.0        | 39.3                    | 0.00                    | 0.00                   | 0.00                  |
| 8,608.0               | 1.40            | 240.30      | 8,603.7               | -38.9        | 133.9        | 39.9                    | 0.74                    | 0.74                   | -0.83                 |
| 8,640.0               | 1.70            | 222.80      | 8,635.7               | -39.4        | 133.3        | 40.4                    | 1.74                    | 0.94                   | -54.69                |
| 8,672.0               | 3.20            | 198.20      | 8,667.7               | -40.6        | 132.7        | 41.6                    | 5.62                    | 4.69                   | -76.88                |
| 8,704.0               | 5.70            | 192.40      | 8,699.6               | -43.0        | 132.1        | 44.0                    | 7.93                    | 7.81                   | -18.13                |
| 8,735.0               | 8.40            | 187.90      | 8,730.3               | -46.8        | 131.4        | 47.8                    | 8.88                    | 8.71                   | -14.52                |
| 8,767.0               | 11.60           | 189.20      | 8,761.8               | -52.3        | 130.6        | 53.3                    | 10.02                   | 10.00                  | 4.06                  |
| 8,799.0               | 14.60           | 189.00      | 8,793.0               | -59.4        | 129.4        | 60.4                    | 9.38                    | 9.38                   | -0.63                 |
| 8,831.0               | 17.60           | 187.80      | 8,823.7               | -68.2        | 128.1        | 69.2                    | 9.43                    | 9.38                   | -3.75                 |

# DDC Survey Report



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**Well:** Salado Draw "10" Federal COM #1H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Salado Draw "10" Federal COM #1H  
**TVD Reference:** WELL @ 3340.0usft (Patterson #75)  
**MD Reference:** WELL @ 3340.0usft (Patterson #75)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000 1 Single User Db

## Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 8,863.0               | 20.50           | 186.40      | 8,854.0               | -78.6        | 126.9        | 79.5                    | 9.17                    | 9.06                   | -4.38                 |
| 8,894.0               | 23.30           | 184.80      | 8,882.7               | -90.1        | 125.7        | 91.0                    | 9.23                    | 9.03                   | -5.16                 |
| 8,926.0               | 26.10           | 184.20      | 8,911.8               | -103.4       | 124.7        | 104.3                   | 8.78                    | 8.75                   | -1.88                 |
| 8,958.0               | 28.70           | 183.70      | 8,940.2               | -118.1       | 123.7        | 119.0                   | 8.16                    | 8.13                   | -1.56                 |
| 8,989.0               | 31.40           | 182.10      | 8,967.1               | -133.6       | 122.9        | 134.5                   | 9.08                    | 8.71                   | -5.16                 |
| 9,022.0               | 34.40           | 181.90      | 8,994.8               | -151.5       | 122.3        | 152.4                   | 9.10                    | 9.09                   | -0.61                 |
| 9,053.0               | 37.10           | 181.40      | 9,019.9               | -169.6       | 121.8        | 170.5                   | 8.76                    | 8.71                   | -1.61                 |
| 9,085.0               | 40.00           | 182.30      | 9,044.9               | -189.5       | 121.1        | 190.5                   | 9.23                    | 9.06                   | 2.81                  |
| 9,117.0               | 42.80           | 181.30      | 9,068.9               | -210.7       | 120.5        | 211.6                   | 8.99                    | 8.75                   | -3.13                 |
| 9,149.0               | 45.50           | 181.30      | 9,091.9               | -233.0       | 120.0        | 233.9                   | 8.44                    | 8.44                   | 0.00                  |
| 9,181.0               | 48.60           | 181.20      | 9,113.7               | -256.4       | 119.4        | 257.3                   | 9.69                    | 9.69                   | -0.31                 |
| 9,212.0               | 52.20           | 180.90      | 9,133.5               | -280.3       | 119.0        | 281.2                   | 11.64                   | 11.61                  | -0.97                 |
| 9,244.0               | 55.70           | 180.50      | 9,152.3               | -306.1       | 118.7        | 307.0                   | 10.98                   | 10.94                  | -1.25                 |
| 9,276.0               | 59.00           | 180.40      | 9,169.6               | -333.1       | 118.5        | 334.0                   | 10.32                   | 10.31                  | -0.31                 |
| 9,308.0               | 61.80           | 180.20      | 9,185.4               | -360.9       | 118.3        | 361.8                   | 8.77                    | 8.75                   | -0.63                 |
| 9,340.0               | 64.50           | 179.30      | 9,199.8               | -389.4       | 118.5        | 390.3                   | 8.80                    | 8.44                   | -2.81                 |
| 9,372.0               | 68.10           | 180.00      | 9,212.7               | -418.7       | 118.6        | 419.6                   | 11.43                   | 11.25                  | 2.19                  |
| 9,404.0               | 71.20           | 180.60      | 9,223.8               | -448.7       | 118.5        | 449.6                   | 9.85                    | 9.69                   | 1.88                  |
| 9,436.0               | 74.90           | 180.90      | 9,233.1               | -479.3       | 118.1        | 480.2                   | 11.60                   | 11.56                  | 0.94                  |
| 9,467.0               | 78.40           | 181.90      | 9,240.3               | -509.5       | 117.3        | 510.4                   | 11.72                   | 11.29                  | 3.23                  |
| 9,499.0               | 82.50           | 182.00      | 9,245.6               | -541.0       | 116.3        | 541.9                   | 12.82                   | 12.81                  | 0.31                  |
| 9,516.0               | 84.70           | 182.80      | 9,247.5               | -557.9       | 115.6        | 558.7                   | 13.76                   | 12.94                  | 4.71                  |
| 9,596.0               | 89.40           | 182.90      | 9,251.6               | -637.7       | 111.6        | 638.5                   | 5.88                    | 5.88                   | 0.13                  |
| 9,628.0               | 90.90           | 182.10      | 9,251.5               | -669.6       | 110.2        | 670.4                   | 5.31                    | 4.69                   | -2.50                 |
| 9,691.0               | 91.00           | 181.50      | 9,250.5               | -732.6       | 108.2        | 733.4                   | 0.97                    | 0.16                   | -0.95                 |
| 9,755.0               | 89.60           | 182.00      | 9,250.1               | -796.6       | 106.3        | 797.3                   | 2.32                    | -2.19                  | 0.78                  |
| 9,818.0               | 88.60           | 182.30      | 9,251.1               | -859.5       | 103.9        | 860.3                   | 1.66                    | -1.59                  | 0.48                  |
| 9,881.0               | 87.80           | 181.10      | 9,253.1               | -922.5       | 102.0        | 923.2                   | 2.29                    | -1.27                  | -1.90                 |
| 9,945.0               | 89.10           | 180.20      | 9,254.8               | -986.4       | 101.3        | 987.2                   | 2.47                    | 2.03                   | -1.41                 |
| 10,008.0              | 89.40           | 180.30      | 9,255.7               | -1,049.4     | 101.0        | 1,050.1                 | 0.50                    | 0.48                   | 0.16                  |
| 10,072.0              | 88.70           | 179.90      | 9,256.7               | -1,113.4     | 100.9        | 1,114.1                 | 1.26                    | -1.09                  | -0.63                 |
| 10,136.0              | 90.90           | 179.80      | 9,256.9               | -1,177.4     | 101.1        | 1,178.1                 | 3.44                    | 3.44                   | -0.16                 |
| 10,198.0              | 90.90           | 180.00      | 9,256.0               | -1,239.4     | 101.2        | 1,240.1                 | 0.32                    | 0.00                   | 0.32                  |
| 10,262.0              | 89.40           | 178.70      | 9,255.8               | -1,303.4     | 101.9        | 1,304.1                 | 3.10                    | -2.34                  | -2.03                 |
| 10,325.0              | 90.10           | 178.90      | 9,256.1               | -1,366.4     | 103.2        | 1,367.1                 | 1.16                    | 1.11                   | 0.32                  |
| 10,389.0              | 89.70           | 178.20      | 9,256.2               | -1,430.3     | 104.9        | 1,431.1                 | 1.26                    | -0.63                  | -1.09                 |
| 10,452.0              | 90.40           | 178.70      | 9,256.1               | -1,493.3     | 106.6        | 1,494.1                 | 1.37                    | 1.11                   | 0.79                  |
| 10,516.0              | 89.70           | 178.40      | 9,256.1               | -1,557.3     | 108.2        | 1,558.1                 | 1.19                    | -1.09                  | -0.47                 |
| 10,579.0              | 89.20           | 177.40      | 9,256.7               | -1,620.3     | 110.5        | 1,621.0                 | 1.77                    | -0.79                  | -1.59                 |
| 10,642.0              | 90.60           | 179.50      | 9,256.8               | -1,683.2     | 112.2        | 1,684.0                 | 4.01                    | 2.22                   | 3.33                  |
| 10,706.0              | 89.90           | 178.30      | 9,256.5               | -1,747.2     | 113.4        | 1,748.0                 | 2.17                    | -1.09                  | -1.88                 |
| 10,770.0              | 90.50           | 179.00      | 9,256.3               | -1,811.2     | 114.9        | 1,812.0                 | 1.44                    | 0.94                   | 1.09                  |
| 10,833.0              | 90.90           | 179.50      | 9,255.5               | -1,874.2     | 115.8        | 1,875.0                 | 1.02                    | 0.63                   | 0.79                  |

# DDC Survey Report



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Site: Sec 10, T-26-S, R-33-E  
Well: Salado Draw "10" Federal COM #1H  
Wellbore: Wellbore #1  
Design: Wellbore #1

Local Co-ordinate Reference: Well Salado Draw "10" Federal COM #1H  
TVD Reference: WELL @ 3340.0usft (Patterson #75)  
MD Reference: WELL @ 3340.0usft (Patterson #75)  
North Reference: Grd  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

## Survey

| Measured Depth (usft)      | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|----------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 10,897.0                   | 89.80           | 179.00      | 9,255.1               | -1,938.2     | 116.6        | 1,939.0                 | 1.89                    | -1.72                  | -0.78                 |
| 10,960.0                   | 89.80           | 180.20      | 9,255.3               | -2,001.2     | 117.0        | 2,002.0                 | 1.90                    | 0.00                   | 1.90                  |
| 11,024.0                   | 88.80           | 179.80      | 9,256.1               | -2,065.2     | 117.0        | 2,066.0                 | 1.68                    | -1.56                  | -0.63                 |
| 11,088.0                   | 92.00           | 181.40      | 9,255.7               | -2,129.2     | 116.4        | 2,130.0                 | 5.59                    | 5.00                   | 2.50                  |
| 11,151.0                   | 90.80           | 180.60      | 9,254.1               | -2,192.1     | 115.3        | 2,192.9                 | 2.29                    | -1.90                  | -1.27                 |
| 11,215.0                   | 89.30           | 179.10      | 9,254.1               | -2,256.1     | 115.4        | 2,256.9                 | 3.31                    | -2.34                  | -2.34                 |
| 11,279.0                   | 88.70           | 179.00      | 9,255.2               | -2,320.1     | 116.5        | 2,320.9                 | 0.95                    | -0.94                  | -0.16                 |
| 11,342.0                   | 90.10           | 179.50      | 9,255.9               | -2,383.1     | 117.3        | 2,383.9                 | 2.36                    | 2.22                   | 0.79                  |
| 11,406.0                   | 89.20           | 180.50      | 9,256.3               | -2,447.1     | 117.3        | 2,447.9                 | 2.10                    | -1.41                  | 1.56                  |
| 11,469.0                   | 89.30           | 180.10      | 9,257.1               | -2,510.1     | 117.0        | 2,510.9                 | 0.65                    | 0.16                   | -0.63                 |
| 11,533.0                   | 90.10           | 181.60      | 9,257.4               | -2,574.1     | 116.0        | 2,574.9                 | 2.66                    | 1.25                   | 2.34                  |
| 11,596.0                   | 89.80           | 181.10      | 9,257.5               | -2,637.1     | 114.6        | 2,637.8                 | 0.93                    | -0.48                  | -0.79                 |
| 11,660.0                   | 88.50           | 178.40      | 9,258.4               | -2,701.0     | 114.8        | 2,701.8                 | 4.68                    | -2.03                  | -4.22                 |
| 11,723.0                   | 89.00           | 178.90      | 9,259.8               | -2,764.0     | 116.3        | 2,764.8                 | 1.12                    | 0.79                   | 0.79                  |
| 11,787.0                   | 89.50           | 178.40      | 9,260.6               | -2,828.0     | 117.8        | 2,828.8                 | 1.10                    | 0.78                   | -0.78                 |
| 11,850.0                   | 91.30           | 180.60      | 9,260.2               | -2,891.0     | 118.4        | 2,891.8                 | 4.51                    | 2.86                   | 3.49                  |
| 11,914.0                   | 90.60           | 180.00      | 9,259.1               | -2,955.0     | 118.0        | 2,955.8                 | 1.44                    | -1.09                  | -0.94                 |
| 11,978.0                   | 89.20           | 179.10      | 9,259.2               | -3,019.0     | 118.5        | 3,019.8                 | 2.60                    | -2.19                  | -1.41                 |
| 12,041.0                   | 88.40           | 178.40      | 9,260.6               | -3,081.9     | 119.9        | 3,082.7                 | 1.69                    | -1.27                  | -1.11                 |
| 12,105.0                   | 92.10           | 179.90      | 9,260.3               | -3,145.9     | 120.9        | 3,146.7                 | 6.24                    | 5.78                   | 2.34                  |
| 12,168.0                   | 92.80           | 180.90      | 9,257.6               | -3,208.8     | 120.4        | 3,209.7                 | 1.94                    | 1.11                   | 1.59                  |
| 12,232.0                   | 92.10           | 181.40      | 9,254.9               | -3,272.8     | 119.1        | 3,273.6                 | 1.34                    | -1.09                  | 0.78                  |
| 12,295.0                   | 93.10           | 182.80      | 9,252.0               | -3,335.7     | 116.8        | 3,336.4                 | 2.73                    | 1.59                   | 2.22                  |
| 12,359.0                   | 89.20           | 185.00      | 9,250.7               | -3,399.5     | 112.5        | 3,400.2                 | 7.00                    | -6.09                  | 3.44                  |
| 12,422.0                   | 88.10           | 185.10      | 9,252.2               | -3,462.2     | 106.9        | 3,462.9                 | 1.75                    | -1.75                  | 0.16                  |
| 12,486.0                   | 85.80           | 184.90      | 9,255.6               | -3,525.9     | 101.4        | 3,526.5                 | 3.61                    | -3.59                  | -0.31                 |
| 12,550.0                   | 86.70           | 183.30      | 9,259.8               | -3,589.6     | 96.8         | 3,590.2                 | 2.86                    | 1.41                   | -2.50                 |
| 12,613.0                   | 85.30           | 182.90      | 9,264.2               | -3,652.3     | 93.4         | 3,652.9                 | 2.31                    | -2.22                  | -0.63                 |
| 12,677.0                   | 86.30           | 182.50      | 9,268.9               | -3,716.1     | 90.4         | 3,716.7                 | 1.68                    | 1.56                   | -0.63                 |
| 12,740.0                   | 89.40           | 181.30      | 9,271.2               | -3,779.0     | 88.3         | 3,779.6                 | 5.28                    | 4.92                   | -1.90                 |
| 12,804.0                   | 88.50           | 180.60      | 9,272.4               | -3,843.0     | 87.3         | 3,843.5                 | 1.78                    | -1.41                  | -1.09                 |
| 12,868.0                   | 90.30           | 181.10      | 9,273.1               | -3,907.0     | 86.3         | 3,907.5                 | 2.92                    | 2.81                   | 0.78                  |
| 12,931.0                   | 90.20           | 180.90      | 9,272.8               | -3,970.0     | 85.2         | 3,970.5                 | 0.35                    | -0.16                  | -0.32                 |
| 12,995.0                   | 90.10           | 180.60      | 9,272.6               | -4,034.0     | 84.4         | 4,034.5                 | 0.49                    | -0.16                  | -0.47                 |
| 13,057.0                   | 90.80           | 181.20      | 9,272.1               | -4,095.9     | 83.4         | 4,096.5                 | 1.49                    | 1.13                   | 0.97                  |
| 13,121.0                   | 91.50           | 181.50      | 9,270.9               | -4,159.9     | 81.9         | 4,160.4                 | 1.19                    | 1.09                   | 0.47                  |
| 13,185.0                   | 90.80           | 181.50      | 9,269.6               | -4,223.9     | 80.2         | 4,224.4                 | 1.09                    | -1.09                  | 0.00                  |
| 13,249.0                   | 91.30           | 181.90      | 9,268.4               | -4,287.8     | 78.3         | 4,288.3                 | 1.00                    | 0.78                   | 0.63                  |
| 13,312.0                   | 91.60           | 182.40      | 9,266.8               | -4,350.8     | 75.9         | 4,351.2                 | 0.93                    | 0.48                   | 0.79                  |
| 13,376.0                   | 90.90           | 182.30      | 9,265.4               | -4,414.7     | 73.3         | 4,415.1                 | 1.10                    | -1.09                  | -0.16                 |
| 13,439.0                   | 91.70           | 182.10      | 9,264.0               | -4,477.6     | 70.9         | 4,478.0                 | 1.31                    | 1.27                   | -0.32                 |
| 13,503.0                   | 91.40           | 181.70      | 9,262.3               | -4,541.6     | 68.8         | 4,542.0                 | 0.78                    | -0.47                  | -0.63                 |
| TD @ 13548' MD / 9261' TVD |                 |             |                       |              |              |                         |                         |                        |                       |
| 13,548.0                   | 91.20           | 181.70      | 9,261.2               | -4,586.6     | 67.5         | 4,586.9                 | 0.44                    | -0.44                  | 0.00                  |

DDC  
Survey Report



|                  |                                  |                                     |                                       |
|------------------|----------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well Salado Draw "10" Federal COM #1H |
| <b>Project:</b>  | Lea County, NM                   | <b>TVD Reference:</b>               | WELL @ 3340.0usft (Patterson #75)     |
| <b>Site:</b>     | Sec 10, T-26-S, R-33-E           | <b>MD Reference:</b>                | WELL @ 3340.0usft (Patterson #75)     |
| <b>Well:</b>     | Salado Draw "10" Federal COM #1H | <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) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|

**Survey Annotations**

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                    |
|-----------------------------|-----------------------------|-------------------|-----------------|----------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                            |
| 8,550.0                     | 8,545.7                     | -38.3             | 135.0           | Tie In @ 8550              |
| 13,548.0                    | 9,261.2                     | -4,586.6          | 67.5            | TD @ 13548' MD / 9261' TVD |

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

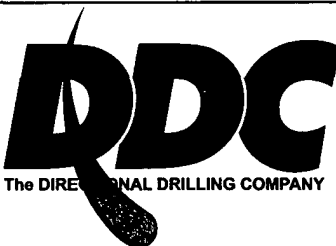
Company Name: Mewbourne Oil Co  
 Salado Draw "10" Federal COM #1H  
 Lea County, NM  
 Rig: Patterson #75  
 Created By: Dina Chance  
 Date: 05/22/2012

Salado Draw "10" Federal COM #1H  
 Lea County, NM  
 Q110036 & WT-12281

WELL DETAILS: Salado Draw "10" Federal COM #1H

|       |       | Ground Level |           | 3319.0          |                   |
|-------|-------|--------------|-----------|-----------------|-------------------|
| +N/-S | +E/-W | Northing     | Easting   | Latitude        | Longitude         |
| 0.0   | 0.0   | 387940.44    | 738700.05 | 32° 3' 51.196 N | 103° 33' 46.053 W |

Mewbourne Oil Co



DESIGN TARGET DETAILS

| Name                                   | TVD     | +N/-S | +E/-W     | Northing  | Easting        | Latitude          | Longitude |
|----------------------------------------|---------|-------|-----------|-----------|----------------|-------------------|-----------|
| PBHL Salado Draw 10 Fed Com #1H 9270.0 | -4617.0 | 35.0  | 383323.40 | 738735.00 | 32° 3' 5.504 N | 103° 33' 46.030 W |           |

- plan hits target center

ANNOTATIONS

| MD      | Inc   | Azi    | TVD    | +N/-S   | +E/-W | VSec   | Departure | Annotation                                        |
|---------|-------|--------|--------|---------|-------|--------|-----------|---------------------------------------------------|
| 8550.0  | 0.97  | 240.78 | 8545.7 | -38.3   | 135.0 | 35.3   | 0.0       | Tie-in to Gyro / Drill to KOP                     |
| 8686.4  | 0.97  | 240.78 | 8682.1 | -39.4   | 133.0 | 40.4   | 2.3       | KOP @ 8686' MD / Build @ 10°/100'                 |
| 9578.7  | 89.72 | 181.12 | 9250.1 | -609.3  | 113.5 | 610.1  | 672.7     | End of Curve @ 9578' MD / 89.72° Inc. / 9250' TVD |
| 13587.3 | 89.72 | 181.12 | 9270.0 | -4617.0 | 35.0  | 4617.2 | 4581.3    | PBHL @ 13587' MD / 9270' TVD                      |

PROJECT DETAILS: Lea County, NM

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



Azimuths to Grid North  
 Magnetic North: 7.05°  
 Magnetic Field  
 Strength: 48433.2snT  
 Dip Angle: 60.02°  
 Date: 5/3/2012  
 Model: IGRF2010

