

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 14 2014

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## OCCIDENTAL PERMIAN LTD.

Cedar Canyon

Eddy County, NM (Grid North)

Cedar Canyon 16 State #8H

DH - Job #320614-MPH-833

30-015-41596

Survey: MWD

## SDI Survey Report

This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notarized this date 11th of September, 2014.

Carrie Reed

Notary Signature  
County of Midland  
State of Texas

**SDI**  
SDI Survey Report

|                  |                              |                                     |                                |
|------------------|------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | OCCIDENTAL PERMIAN LTD.      | <b>Local Co-ordinate Reference:</b> | Well Cedar Canyon 16 State #8H |
| <b>Project:</b>  | Cedar Canyon                 | <b>TVD Reference:</b>               | Mean Sea Level (System)        |
| <b>Site:</b>     | Eddy County, NM (Grid North) | <b>MD Reference:</b>                | Mean Sea Level (System)        |
| <b>Well:</b>     | Cedar Canyon 16 State #8H    | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | DH - Job #320614-MPH-833     | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DH - Job #320614-MPH-833     | <b>Database:</b>                    | EDM-Regulatory                 |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project:</b>    | Cedar Canyon                         |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                       |          |                              |                 |            |                   |        |
|-----------------------|----------|------------------------------|-----------------|------------|-------------------|--------|
| Site:                 |          | Eddy County, NM (Grid North) |                 |            |                   |        |
| Site Position:        |          | Northing:                    | 441,785.82 usft | Latitude:  | 32° 12' 50.714 N  |        |
| From:                 | Lat/Long | Easting:                     | 609,864.21 usft | Longitude: | 103° 58' 41.159 W |        |
| Position Uncertainty: |          | 0.0 usft                     | Slot Radius:    | 13-3/16"   | Grid Convergence: | 0.19 ° |

|                      |                                       |          |                     |                 |               |                   |
|----------------------|---------------------------------------|----------|---------------------|-----------------|---------------|-------------------|
| Well                 | Cedar Canyon 16 State #8H, Horizontal |          |                     |                 |               |                   |
| Well Position        | +N/-S                                 | 0.0 usft | Northing:           | 444,625.55 usft | Latitude:     | 32° 13' 18.851 N  |
|                      | +E/-W                                 | 0.0 usft | Easting:            | 608,805.17 usft | Longitude:    | 103° 58' 53.378 W |
| Position Uncertainty |                                       | 0.0 usft | Wellhead Elevation: | 0.0 usft        | Ground Level: | 0.0 usft          |

|           |            |                          |                    |                  |                        |
|-----------|------------|--------------------------|--------------------|------------------|------------------------|
| Wellbore  |            | DH - Job #320614-MPH-833 |                    |                  |                        |
| Magnetics | Model Name | Sample Date              | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010   | 6/30/2014                | 7.40               | 60.04            | 48,292                 |

|                   |                  |                          |        |                   |
|-------------------|------------------|--------------------------|--------|-------------------|
| Design:           |                  | DH - Job #320614-MPH-833 |        |                   |
| Audit Notes:      |                  |                          |        |                   |
| Version:          | 1.0              | Phase:                   | ACTUAL | Tie On Depth: 0.0 |
| Vertical Section: | Depth From (TVD) | +N/-S                    | +E/-W  | Direction         |
|                   | (usft)           | (usft)                   | (usft) | (°)               |
|                   | 0.0              | 0.0                      | 0.0    | 274.35            |

|                |              |                                |           |             |
|----------------|--------------|--------------------------------|-----------|-------------|
| Survey Program |              | Date 9/10/2014                 |           |             |
| From<br>(usft) | To<br>(usft) | Survey (Wellbore)              | Tool Name | Description |
| 379.0          | 13,560.0     | MWD (DH - Job #320614-MPH-833) | MWD       | MWD         |

|               |           |            |                      |            |            |            |                        |                         |
|---------------|-----------|------------|----------------------|------------|------------|------------|------------------------|-------------------------|
| <b>Survey</b> | <b>MD</b> | <b>Inc</b> | <b>Azi (azimuth)</b> | <b>TVD</b> | <b>N/S</b> | <b>E/W</b> | <b>Closure Azimuth</b> | <b>Closure Distance</b> |
|               | (usft)    | (°)        | (°)                  | (usft)     | (usft)     | (usft)     | (°)                    | (usft)                  |
|               | 0.0       | 0.00       | 0.00                 | 0.0        | 0.0        | 0.0        | 0.00                   | 0.0                     |
|               | 379.0     | 0.56       | 224.48               | 379.0      | -1.3       | -1.3       | 224.48                 | 1.9                     |
|               | 416.0     | 0.62       | 224.48               | 416.0      | -1.6       | -1.6       | 224.48                 | 2.2                     |
|               | 509.0     | 0.79       | 246.19               | 509.0      | -2.2       | -2.5       | 228.55                 | 3.3                     |
|               | 585.0     | 0.57       | 235.80               | 585.0      | -2.6       | -3.3       | 231.36                 | 4.2                     |
|               | 601.0     | 0.53       | 232.56               | 601.0      | -2.7       | -3.4       | 231.46                 | 4.4                     |
|               | 694.0     | 0.53       | 257.00               | 694.0      | -3.1       | -4.2       | 233.59                 | 5.2                     |
|               | 787.0     | 0.44       | 218.06               | 787.0      | -3.5       | -4.8       | 234.32                 | 5.9                     |
|               | 879.0     | 0.53       | 220.35               | 879.0      | -4.1       | -5.3       | 232.59                 | 6.7                     |
|               | 972.0     | 0.44       | 193.10               | 972.0      | -4.7       | -5.7       | 230.13                 | 7.4                     |
|               | 1,066.0   | 0.53       | 215.69               | 1,066.0    | -5.4       | -6.0       | 227.82                 | 8.1                     |
|               | 1,161.0   | 0.35       | 198.37               | 1,161.0    | -6.1       | -6.4       | 226.29                 | 8.8                     |

# SDI

## SDI Survey Report

|                  |                              |                                     |                                |
|------------------|------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | OCCIDENTAL PERMIAN LTD.      | <b>Local Co-ordinate Reference:</b> | Well Cedar Canyon 16 State #8H |
| <b>Project:</b>  | Cedar Canyon                 | <b>TVD Reference:</b>               | Mean Sea Level (System)        |
| <b>Site:</b>     | Eddy County, NM (Grid North) | <b>MD Reference:</b>                | Mean Sea Level (System)        |
| <b>Well:</b>     | Cedar Canyon 16 State #8H    | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | DH - Job #320614-MPH-833     | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DH - Job #320614-MPH-833     | <b>Database:</b>                    | EDM-Regulatory                 |

| Survey       |            |                      |               |               |               |                        |                            |  |
|--------------|------------|----------------------|---------------|---------------|---------------|------------------------|----------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Azimuth<br>(°) | Closure Distance<br>(usft) |  |
| 1,255.0      | 0.44       | 233.35               | 1,255.0       | -6.6          | -6.7          | 225.74                 | 9.4                        |  |
| 1,333.0      | 0.23       | 238.18               | 1,333.0       | -6.8          | -7.1          | 226.17                 | 9.9                        |  |
| 1,350.0      | 0.18       | 240.74               | 1,350.0       | -6.9          | -7.2          | 226.25                 | 9.9                        |  |
| 1,444.0      | 0.00       | 108.29               | 1,444.0       | -6.9          | -7.3          | 226.46                 | 10.1                       |  |
| 1,539.0      | 0.18       | 243.64               | 1,539.0       | -7.0          | -7.4          | 226.71                 | 10.2                       |  |
| 1,633.0      | 0.44       | 179.30               | 1,633.0       | -7.4          | -7.6          | 225.50                 | 10.6                       |  |
| 1,727.0      | 0.18       | 225.00               | 1,727.0       | -7.9          | -7.7          | 224.14                 | 11.0                       |  |
| 1,822.0      | 0.35       | 184.22               | 1,822.0       | -8.3          | -7.8          | 223.21                 | 11.4                       |  |
| 1,916.0      | 0.18       | 77.70                | 1,916.0       | -8.5          | -7.7          | 221.89                 | 11.5                       |  |
| 2,011.0      | 0.26       | 83.68                | 2,011.0       | -8.5          | -7.3          | 220.71                 | 11.2                       |  |
| 2,105.0      | 0.18       | 306.30               | 2,105.0       | -8.4          | -7.2          | 220.71                 | 11.0                       |  |
| 2,199.0      | 0.18       | 127.62               | 2,199.0       | -8.4          | -7.2          | 220.71                 | 11.0                       |  |
| 2,294.0      | 0.79       | 123.84               | 2,293.9       | -8.8          | -6.5          | 216.54                 | 11.0                       |  |
| 2,388.0      | 0.44       | 121.21               | 2,387.9       | -9.4          | -5.7          | 211.28                 | 11.0                       |  |
| 2,483.0      | 0.97       | 125.78               | 2,482.9       | -10.0         | -4.7          | 205.24                 | 11.1                       |  |
| 2,577.0      | 1.41       | 144.32               | 2,576.9       | -11.4         | -3.4          | 196.60                 | 11.9                       |  |
| 2,672.0      | 0.70       | 141.33               | 2,671.9       | -12.8         | -2.4          | 190.44                 | 13.1                       |  |
| 2,766.0      | 0.70       | 158.30               | 2,765.9       | -13.8         | -1.8          | 187.40                 | 13.9                       |  |
| 2,861.0      | 0.44       | 133.07               | 2,860.9       | -14.6         | -1.3          | 185.14                 | 14.7                       |  |
| 2,915.1      | 0.49       | 137.33               | 2,915.0       | -14.9         | -1.0          | 183.86                 | 15.0                       |  |
| 2,955.0      | 0.53       | 139.93               | 2,954.9       | -15.2         | -0.8          | 182.91                 | 15.2                       |  |
| 2,965.1      | 0.51       | 137.36               | 2,965.0       | -15.3         | -0.7          | 182.67                 | 15.3                       |  |
| 3,050.0      | 0.44       | 110.48               | 3,049.9       | -15.7         | -0.2          | 180.55                 | 15.7                       |  |
| 3,056.0      | 0.44       | 117.51               | 3,055.9       | -15.7         | -0.1          | 180.40                 | 15.7                       |  |
| 3,143.0      | 0.09       | 36.04                | 3,142.9       | -15.8         | 0.2           | 179.17                 | 15.8                       |  |
| 3,237.0      | 0.26       | 52.47                | 3,236.9       | -15.6         | 0.4           | 178.38                 | 15.6                       |  |
| 3,332.0      | 0.09       | 82.36                | 3,331.9       | -15.4         | 0.7           | 177.46                 | 15.5                       |  |
| 3,426.0      | 0.35       | 70.32                | 3,425.9       | -15.3         | 1.0           | 176.16                 | 15.4                       |  |
| 3,521.0      | 2.73       | 70.05                | 3,520.8       | -14.5         | 3.4           | 166.66                 | 14.9                       |  |
| 3,615.0      | 3.43       | 57.40                | 3,614.7       | -12.2         | 7.9           | 147.03                 | 14.5                       |  |
| 3,678.5      | 4.42       | 59.03                | 3,678.0       | -9.9          | 11.6          | 130.48                 | 15.3                       |  |
| 3,710.0      | 4.92       | 59.59                | 3,709.4       | -8.6          | 13.8          | 121.90                 | 16.3                       |  |
| 3,804.0      | 5.98       | 55.64                | 3,803.0       | -3.8          | 21.3          | 100.07                 | 21.7                       |  |
| 3,898.0      | 5.89       | 65.48                | 3,896.5       | 1.0           | 29.8          | 88.12                  | 29.8                       |  |
| 3,993.0      | 5.63       | 65.31                | 3,991.0       | 4.9           | 38.4          | 82.67                  | 38.7                       |  |
| 4,087.0      | 7.12       | 70.49                | 4,084.5       | 8.8           | 48.1          | 79.61                  | 48.9                       |  |
| 4,182.0      | 7.12       | 71.81                | 4,178.7       | 12.6          | 59.2          | 77.97                  | 60.6                       |  |
| 4,276.0      | 7.21       | 86.22                | 4,272.0       | 14.8          | 70.7          | 78.15                  | 72.2                       |  |
| 4,371.0      | 6.68       | 85.61                | 4,366.3       | 15.6          | 82.1          | 79.21                  | 83.6                       |  |
| 4,465.0      | 5.89       | 86.66                | 4,459.7       | 16.3          | 92.4          | 79.97                  | 93.8                       |  |
| 4,560.0      | 5.28       | 84.99                | 4,554.3       | 17.0          | 101.6         | 80.50                  | 103.0                      |  |
| 4,654.0      | 5.10       | 87.54                | 4,647.9       | 17.6          | 110.1         | 80.93                  | 111.5                      |  |
| 4,749.0      | 5.45       | 75.15                | 4,742.5       | 18.9          | 118.7         | 80.95                  | 120.2                      |  |
| 4,843.0      | 7.39       | 78.93                | 4,835.9       | 21.2          | 128.9         | 80.66                  | 130.7                      |  |

# SDI

## SDI Survey Report

|           |                              |                              |                                |
|-----------|------------------------------|------------------------------|--------------------------------|
| Company:  | OCCIDENTAL PERMIAN LTD.      | Local Co-ordinate Reference: | Well Cedar Canyon 16 State #8H |
| Project:  | Cedar Canyon                 | TVD Reference:               | Mean Sea Level (System)        |
| Site:     | Eddy County, NM (Grid North) | MD Reference:                | Mean Sea Level (System)        |
| Well:     | Cedar Canyon 16 State #8H    | North Reference:             | Grid                           |
| Wellbore: | DH - Job #320614-MPH-833     | Survey Calculation Method:   | Minimum Curvature              |
| Design:   | DH - Job #320614-MPH-833     | Database:                    | EDM-Regulatory                 |

| Survey       |            |                      |               |               |               |                        |                            |  |
|--------------|------------|----------------------|---------------|---------------|---------------|------------------------|----------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Azimuth<br>(°) | Closure Distance<br>(usft) |  |
| 4,938.0      | 7.03       | 79.02                | 4,930.2       | 23.5          | 140.6         | 80.52                  | 142.6                      |  |
| 5,032.0      | 6.60       | 82.01                | 5,023.5       | 25.3          | 151.6         | 80.51                  | 153.7                      |  |
| 5,068.8      | 6.46       | 81.25                | 5,060.0       | 25.9          | 155.8         | 80.54                  | 157.9                      |  |
| 5,127.0      | 6.24       | 79.98                | 5,117.9       | 27.0          | 162.1         | 80.55                  | 164.3                      |  |
| 5,221.0      | 5.80       | 82.97                | 5,211.4       | 28.5          | 171.9         | 80.60                  | 174.2                      |  |
| 5,316.0      | 5.28       | 83.68                | 5,305.9       | 29.5          | 181.0         | 80.73                  | 183.4                      |  |
| 5,410.0      | 6.77       | 76.64                | 5,399.4       | 31.3          | 190.7         | 80.68                  | 193.2                      |  |
| 5,505.0      | 5.63       | 76.38                | 5,493.9       | 33.7          | 200.6         | 80.47                  | 203.4                      |  |
| 5,599.0      | 5.19       | 77.88                | 5,587.4       | 35.7          | 209.3         | 80.33                  | 212.3                      |  |
| 5,694.0      | 6.86       | 78.49                | 5,681.9       | 37.7          | 219.0         | 80.24                  | 222.3                      |  |
| 5,788.0      | 5.98       | 79.81                | 5,775.3       | 39.7          | 229.4         | 80.18                  | 232.8                      |  |
| 5,882.0      | 5.54       | 80.34                | 5,868.8       | 41.3          | 238.6         | 80.18                  | 242.2                      |  |
| 5,977.0      | 5.28       | 82.53                | 5,963.4       | 42.6          | 247.5         | 80.22                  | 251.2                      |  |
| 6,071.0      | 6.24       | 74.89                | 6,056.9       | 44.5          | 256.7         | 80.16                  | 260.6                      |  |
| 6,166.0      | 5.72       | 76.56                | 6,151.4       | 47.0          | 266.3         | 79.99                  | 270.4                      |  |
| 6,260.0      | 5.45       | 77.08                | 6,245.0       | 49.1          | 275.2         | 79.89                  | 279.6                      |  |
| 6,355.0      | 6.60       | 72.07                | 6,339.5       | 51.8          | 284.8         | 79.70                  | 289.5                      |  |
| 6,449.0      | 5.89       | 70.67                | 6,432.9       | 55.0          | 294.5         | 79.42                  | 299.6                      |  |
| 6,544.0      | 5.45       | 73.04                | 6,527.4       | 58.0          | 303.4         | 79.19                  | 308.9                      |  |
| 6,638.0      | 4.84       | 77.70                | 6,621.1       | 60.1          | 311.6         | 79.08                  | 317.3                      |  |
| 6,653.0      | 4.78       | 76.42                | 6,636.0       | 60.4          | 312.8         | 79.07                  | 318.6                      |  |
| 6,732.0      | 4.48       | 69.09                | 6,714.7       | 62.3          | 318.9         | 78.95                  | 324.9                      |  |
| 6,827.0      | 4.57       | 55.20                | 6,809.4       | 65.7          | 325.4         | 78.58                  | 332.0                      |  |
| 6,921.0      | 3.17       | 52.47                | 6,903.2       | 69.5          | 330.6         | 78.13                  | 337.8                      |  |
| 7,016.0      | 1.85       | 56.69                | 6,998.1       | 71.9          | 333.9         | 77.85                  | 341.6                      |  |
| 7,110.0      | 0.93       | 2.18                 | 7,092.1       | 73.5          | 335.2         | 77.63                  | 343.2                      |  |
| 7,205.0      | 0.35       | 339.26               | 7,187.1       | 74.5          | 335.2         | 77.46                  | 343.4                      |  |
| 7,299.0      | 1.76       | 192.40               | 7,281.1       | 73.4          | 334.8         | 77.63                  | 342.7                      |  |
| 7,394.0      | 2.37       | 188.00               | 7,376.0       | 70.0          | 334.2         | 78.16                  | 341.4                      |  |
| 7,488.0      | 2.29       | 199.52               | 7,470.0       | 66.3          | 333.3         | 78.74                  | 339.8                      |  |
| 7,582.0      | 1.85       | 222.10               | 7,563.9       | 63.4          | 331.6         | 79.17                  | 337.6                      |  |
| 7,677.0      | 2.20       | 223.86               | 7,658.8       | 61.0          | 329.3         | 79.51                  | 334.9                      |  |
| 7,689.2      | 2.19       | 224.76               | 7,671.0       | 60.6          | 329.0         | 79.56                  | 334.6                      |  |
| 7,771.0      | 2.11       | 231.07               | 7,752.8       | 58.6          | 326.7         | 79.83                  | 332.0                      |  |
| 7,866.0      | 1.58       | 235.11               | 7,847.7       | 56.7          | 324.3         | 80.08                  | 329.2                      |  |
| 7,942.3      | 1.79       | 238.65               | 7,924.0       | 55.5          | 322.4         | 80.23                  | 327.2                      |  |
| 7,964.0      | 1.85       | 239.51               | 7,945.7       | 55.2          | 321.8         | 80.27                  | 326.5                      |  |
| 8,058.0      | 2.20       | 244.34               | 8,039.6       | 53.6          | 318.9         | 80.46                  | 323.4                      |  |
| 8,153.0      | 4.13       | 255.06               | 8,134.5       | 51.9          | 313.9         | 80.60                  | 318.2                      |  |
| 8,184.0      | 9.23       | 270.71               | 8,165.2       | 51.7          | 310.4         | 80.54                  | 314.7                      |  |
| 8,216.0      | 12.66      | 274.49               | 8,196.7       | 52.0          | 304.3         | 80.30                  | 308.7                      |  |
| 8,247.0      | 14.86      | 277.74               | 8,226.8       | 52.8          | 297.0         | 79.92                  | 301.6                      |  |
| 8,279.0      | 16.41      | 277.14               | 8,257.6       | 53.9          | 288.4         | 79.41                  | 293.4                      |  |
| 8,310.0      | 18.55      | 274.05               | 8,287.2       | 54.8          | 279.2         | 78.89                  | 284.5                      |  |

**SDI**  
SDI Survey Report

|                  |                              |                                     |                                |
|------------------|------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | OCCIDENTAL PERMIAN LTD.      | <b>Local Co-ordinate Reference:</b> | Well Cedar Canyon 16 State #8H |
| <b>Project:</b>  | Cedar Canyon                 | <b>TVD Reference:</b>               | Mean Sea Level (System)        |
| <b>Site:</b>     | Eddy County, NM (Grid North) | <b>MD Reference:</b>                | Mean Sea Level (System)        |
| <b>Well:</b>     | Cedar Canyon 16 State #8H    | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | DH - Job #320614-MPH-833     | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DH - Job #320614-MPH-833     | <b>Database:</b>                    | EDM-Regulatory                 |

| Survey       |            |                      |               |               |               |                        |                            |  |  |
|--------------|------------|----------------------|---------------|---------------|---------------|------------------------|----------------------------|--|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Azimuth<br>(°) | Closure Distance<br>(usft) |  |  |
| 8,342.0      | 21.98      | 271.94               | 8,317.2       | 55.4          | 268.1         | 78.33                  | 273.8                      |  |  |
| 8,373.0      | 25.24      | 270.36               | 8,345.6       | 55.6          | 255.7         | 77.73                  | 261.7                      |  |  |
| 8,405.0      | 28.67      | 272.73               | 8,374.1       | 56.0          | 241.2         | 76.93                  | 247.6                      |  |  |
| 8,436.0      | 31.22      | 274.22               | 8,401.0       | 57.0          | 225.8         | 75.84                  | 232.8                      |  |  |
| 8,468.0      | 33.77      | 275.28               | 8,427.9       | 58.4          | 208.6         | 74.36                  | 216.6                      |  |  |
| 8,499.0      | 35.44      | 275.01               | 8,453.5       | 60.0          | 191.1         | 72.58                  | 200.3                      |  |  |
| 8,512.0      | 36.55      | 275.86               | 8,464.0       | 60.7          | 183.5         | 71.70                  | 193.3                      |  |  |
| 8,530.0      | 38.08      | 276.95               | 8,478.3       | 61.9          | 172.6         | 70.27                  | 183.4                      |  |  |
| 8,562.0      | 41.94      | 276.42               | 8,502.8       | 64.3          | 152.2         | 67.10                  | 165.2                      |  |  |
| 8,593.0      | 46.52      | 278.79               | 8,525.0       | 67.2          | 130.8         | 62.81                  | 147.0                      |  |  |
| 8,625.0      | 50.91      | 278.00               | 8,546.1       | 70.7          | 107.0         | 56.55                  | 128.2                      |  |  |
| 8,656.0      | 54.08      | 277.21               | 8,565.0       | 73.9          | 82.6          | 48.18                  | 110.9                      |  |  |
| 8,688.0      | 56.37      | 276.07               | 8,583.2       | 77.0          | 56.5          | 36.30                  | 95.5                       |  |  |
| 8,719.0      | 59.27      | 275.72               | 8,599.7       | 79.7          | 30.4          | 20.91                  | 85.3                       |  |  |
| 8,751.0      | 62.43      | 275.37               | 8,615.3       | 82.4          | 2.6           | 1.83                   | 82.4                       |  |  |
| 8,782.0      | 65.51      | 274.22               | 8,628.9       | 84.7          | -25.1         | 343.47                 | 88.3                       |  |  |
| 8,788.0      | 66.19      | 274.10               | 8,631.4       | 85.1          | -30.6         | 340.22                 | 90.4                       |  |  |
| 8,814.0      | 69.12      | 273.61               | 8,641.3       | 86.7          | -54.6         | 327.81                 | 102.4                      |  |  |
| 8,845.0      | 72.63      | 272.20               | 8,651.4       | 88.2          | -83.8         | 316.45                 | 121.7                      |  |  |
| 8,877.0      | 74.74      | 272.64               | 8,660.4       | 89.5          | -114.5        | 308.00                 | 145.3                      |  |  |
| 8,902.0      | 75.89      | 270.53               | 8,666.7       | 90.1          | -138.7        | 303.02                 | 165.4                      |  |  |
| 8,934.0      | 78.88      | 270.36               | 8,673.7       | 90.4          | -169.9        | 298.01                 | 192.5                      |  |  |
| 8,965.0      | 81.87      | 270.09               | 8,678.9       | 90.5          | -200.5        | 294.30                 | 219.9                      |  |  |
| 8,997.0      | 85.03      | 270.80               | 8,682.6       | 90.8          | -232.3        | 291.34                 | 249.4                      |  |  |
| 9,023.7      | 87.84      | 271.17               | 8,684.2       | 91.2          | -258.9        | 289.41                 | 274.5                      |  |  |
| 9,028.0      | 88.29      | 271.23               | 8,684.4       | 91.3          | -263.2        | 289.13                 | 278.6                      |  |  |
| 9,060.0      | 90.57      | 271.50               | 8,684.7       | 92.1          | -295.2        | 287.32                 | 309.2                      |  |  |
| 9,091.0      | 91.10      | 271.15               | 8,684.2       | 92.8          | -326.2        | 285.88                 | 339.1                      |  |  |
| 9,185.0      | 92.42      | 270.27               | 8,681.4       | 93.9          | -420.1        | 282.61                 | 430.5                      |  |  |
| 9,280.0      | 90.31      | 270.27               | 8,679.1       | 94.4          | -515.1        | 280.38                 | 523.7                      |  |  |
| 9,374.0      | 89.34      | 270.97               | 8,679.4       | 95.4          | -609.1        | 278.90                 | 616.5                      |  |  |
| 9,469.0      | 89.52      | 270.62               | 8,680.3       | 96.7          | -704.1        | 277.82                 | 710.7                      |  |  |
| 9,563.0      | 90.92      | 270.36               | 8,680.0       | 97.5          | -798.0        | 276.97                 | 804.0                      |  |  |
| 9,658.0      | 89.43      | 270.53               | 8,679.7       | 98.3          | -893.0        | 276.28                 | 898.4                      |  |  |
| 9,752.0      | 91.89      | 277.12               | 8,678.6       | 104.5         | -986.8        | 276.05                 | 992.3                      |  |  |
| 9,847.0      | 89.78      | 278.44               | 8,677.2       | 117.4         | -1,080.9      | 276.20                 | 1,087.2                    |  |  |
| 9,941.0      | 89.78      | 277.47               | 8,677.6       | 130.4         | -1,174.0      | 276.34                 | 1,181.2                    |  |  |
| 10,036.0     | 90.84      | 276.86               | 8,677.1       | 142.2         | -1,268.2      | 276.40                 | 1,276.2                    |  |  |
| 10,130.0     | 90.31      | 274.93               | 8,676.1       | 151.9         | -1,361.7      | 276.37                 | 1,370.2                    |  |  |
| 10,225.0     | 91.10      | 274.66               | 8,674.9       | 159.8         | -1,456.4      | 276.26                 | 1,465.1                    |  |  |
| 10,319.0     | 91.36      | 273.17               | 8,672.9       | 166.3         | -1,550.1      | 276.12                 | 1,559.0                    |  |  |
| 10,413.0     | 90.84      | 274.75               | 8,671.1       | 172.8         | -1,643.9      | 276.00                 | 1,652.9                    |  |  |
| 10,508.0     | 91.80      | 274.13               | 8,668.9       | 180.1         | -1,738.6      | 275.91                 | 1,747.9                    |  |  |
| 10,602.0     | 89.60      | 275.72               | 8,667.8       | 188.2         | -1,832.2      | 275.86                 | 1,841.9                    |  |  |
| 10,697.0     | 90.66      | 275.19               | 8,667.6       | 197.2         | -1,926.8      | 275.84                 | 1,936.8                    |  |  |

**SDI**  
SDI Survey Report

|                  |                              |                                     |                                |
|------------------|------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | OCCIDENTAL PERMIAN LTD.      | <b>Local Co-ordinate Reference:</b> | Well Cedar Canyon 16 State #8H |
| <b>Project:</b>  | Cedar Canyon                 | <b>TVD Reference:</b>               | Mean Sea Level (System)        |
| <b>Site:</b>     | Eddy County, NM (Grid North) | <b>MD Reference:</b>                | Mean Sea Level (System)        |
| <b>Well:</b>     | Cedar Canyon 16 State #8H    | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | DH - Job #320614-MPH-833     | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | DH - Job #320614-MPH-833     | <b>Database:</b>                    | EDM-Regulatory                 |

| Survey                              |            |                      |               |               |               |                        |                            |  |
|-------------------------------------|------------|----------------------|---------------|---------------|---------------|------------------------|----------------------------|--|
| MD<br>(usft)                        | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Azimuth<br>(°) | Closure Distance<br>(usft) |  |
| 10,791.0                            | 88.29      | 273.61               | 8,668.4       | 204.4         | -2,020.5      | 275.78                 | 2,030.8                    |  |
| 10,886.0                            | 89.34      | 272.99               | 8,670.4       | 209.9         | -2,115.3      | 275.67                 | 2,125.7                    |  |
| 10,980.0                            | 91.10      | 272.64               | 8,670.0       | 214.5         | -2,209.2      | 275.55                 | 2,219.6                    |  |
| 11,075.0                            | 91.19      | 272.38               | 8,668.1       | 218.7         | -2,304.1      | 275.42                 | 2,314.4                    |  |
| 11,169.0                            | 89.87      | 270.88               | 8,667.3       | 221.3         | -2,398.0      | 275.27                 | 2,408.2                    |  |
| 11,263.0                            | 89.43      | 269.13               | 8,667.8       | 221.3         | -2,492.0      | 275.08                 | 2,501.8                    |  |
| 11,358.0                            | 91.27      | 268.89               | 8,667.3       | 219.7         | -2,587.0      | 274.85                 | 2,596.3                    |  |
| 11,452.0                            | 91.80      | 268.16               | 8,664.7       | 217.3         | -2,680.9      | 274.63                 | 2,689.7                    |  |
| 11,547.0                            | 93.03      | 269.92               | 8,660.7       | 215.7         | -2,775.8      | 274.44                 | 2,784.2                    |  |
| 11,642.0                            | 91.89      | 272.11               | 8,656.7       | 217.4         | -2,870.7      | 274.33                 | 2,878.9                    |  |
| 11,736.0                            | 92.68      | 272.99               | 8,652.9       | 221.5         | -2,964.6      | 274.27                 | 2,972.8                    |  |
| 11,831.0                            | 91.54      | 273.43               | 8,649.4       | 226.9         | -3,059.3      | 274.24                 | 3,067.7                    |  |
| 11,925.0                            | 90.48      | 274.66               | 8,647.8       | 233.5         | -3,153.1      | 274.24                 | 3,161.7                    |  |
| 12,020.0                            | 91.71      | 275.10               | 8,645.9       | 241.6         | -3,247.7      | 274.25                 | 3,256.7                    |  |
| 12,114.0                            | 93.39      | 275.37               | 8,641.8       | 250.1         | -3,341.2      | 274.28                 | 3,350.6                    |  |
| 12,208.0                            | 92.42      | 275.63               | 8,637.0       | 259.1         | -3,434.7      | 274.31                 | 3,444.5                    |  |
| 12,303.0                            | 90.84      | 275.19               | 8,634.3       | 268.1         | -3,529.2      | 274.34                 | 3,539.4                    |  |
| 12,397.0                            | 90.22      | 276.86               | 8,633.4       | 278.0         | -3,622.7      | 274.39                 | 3,633.3                    |  |
| 12,492.0                            | 89.08      | 276.24               | 8,634.0       | 288.8         | -3,717.1      | 274.44                 | 3,728.3                    |  |
| 12,586.0                            | 87.76      | 273.96               | 8,636.6       | 297.1         | -3,810.7      | 274.46                 | 3,822.2                    |  |
| 12,680.0                            | 87.85      | 274.05               | 8,640.2       | 303.7         | -3,904.4      | 274.45                 | 3,916.2                    |  |
| 12,775.0                            | 88.96      | 275.56               | 8,642.8       | 311.7         | -3,999.0      | 274.46                 | 4,011.1                    |  |
| 12,869.0                            | 90.13      | 275.45               | 8,643.6       | 320.7         | -4,092.5      | 274.48                 | 4,105.1                    |  |
| 12,964.0                            | 90.57      | 275.98               | 8,643.0       | 330.1         | -4,187.1      | 274.51                 | 4,200.1                    |  |
| 13,058.0                            | 90.92      | 276.68               | 8,641.8       | 340.5         | -4,280.5      | 274.55                 | 4,294.0                    |  |
| 13,153.0                            | 92.15      | 277.74               | 8,639.2       | 352.4         | -4,374.7      | 274.61                 | 4,388.9                    |  |
| 13,247.0                            | 93.39      | 277.91               | 8,634.7       | 365.2         | -4,467.7      | 274.67                 | 4,482.6                    |  |
| 13,342.0                            | 94.26      | 277.74               | 8,628.4       | 378.1         | -4,561.6      | 274.74                 | 4,577.3                    |  |
| 13,410.2                            | 92.73      | 276.97               | 8,624.2       | 386.8         | -4,629.1      | 274.78                 | 4,645.3                    |  |
| 13,413.0                            | 92.67      | 276.94               | 8,624.1       | 387.2         | -4,631.9      | 274.78                 | 4,648.1                    |  |
| 13,436.0                            | 92.15      | 276.68               | 8,623.1       | 389.9         | -4,654.7      | 274.79                 | 4,671.0                    |  |
| 13,497.0                            | 92.33      | 275.98               | 8,620.7       | 396.6         | -4,715.3      | 274.81                 | 4,732.0                    |  |
| 13,560.0                            | 92.33      | 275.98               | 8,618.2       | 403.2         | -4,777.9      | 274.82                 | 4,794.9                    |  |
| Last MWD Survey - Projection to Bit |            |                      |               |               |               |                        |                            |  |

| Survey Annotations          |                             |                   |               |                   |
|-----------------------------|-----------------------------|-------------------|---------------|-------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |               | Comment           |
|                             |                             | N/S<br>(usft)     | E/W<br>(usft) |                   |
| 13,560.0                    | 8,618.2                     | 403.2             | -4,777.9      | Last MWD Survey   |
| 13,560.0                    | 8,618.2                     | 403.2             | -4,777.9      | Projection to Bit |



CC 16 State 8H  
Eddy County, New Mexico  
Northing: 444625.60  
Easting: 608805.20  
Actual



Scientific Drilling



To convert magnetic north to grid, add 7.22°  
To convert true north to grid, subtract 1.91°

Adapted to Gridsystem  
True North: 0.15°  
Use grid north: 7.22°  
Unadjusted  
Sounding: 41,222 ft  
Date: 11/14  
Draw: 02/28/14  
Sheet: 12/14/2014

#### WELL DETAILS: CC 16 State 8H

Ground Level: 2927.0

| +N/-S | +E/-W | Northing  | Easting   | Latitude         | Longitude         |
|-------|-------|-----------|-----------|------------------|-------------------|
| 0.0   | 0.0   | 444625.60 | 608805.20 | 32° 13' 18.851 N | 103° 58' 53.378 W |

#### PROJECT DETAILS:

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

#### SITE DETAILS: Cedar Canyon 16 State 8H

Site Centre Northing: 444625.60  
Easting: 608805.20

Positional Uncertainty: 0.0  
Convergence: 0.19  
Local North: Grid

#### SECTION DETAILS:

| MD      | inc   | Azi    | TVD    | +N/-S | +E/-W   | Dleg  | TFace  | VSECT  | Target     |
|---------|-------|--------|--------|-------|---------|-------|--------|--------|------------|
| 0.0     | 0.00  | 0.00   | 0.0    | 0.0   | 0.0     | 0.00  | 0.00   | 0.0    |            |
| 3400.0  | 0.00  | 0.00   | 3400.0 | 0.0   | 0.0     | 0.00  | 0.00   | 0.0    |            |
| 3700.0  | 6.00  | 80.00  | 3699.5 | 2.7   | 15.5    | 2.00  | 80.00  | -15.2  |            |
| 6600.0  | 6.00  | 80.00  | 6583.6 | 55.4  | 314.0   | 0.00  | 0.00   | -308.9 |            |
| 6900.0  | 0.00  | 0.00   | 6883.0 | 58.1  | 329.4   | 2.00  | 180.00 | -324.1 |            |
| 8142.1  | 0.00  | 0.00   | 8125.1 | 58.1  | 329.4   | 0.00  | 0.00   | -324.1 |            |
| 9050.0  | 90.81 | 273.40 | 8698.0 | 92.5  | -250.6  | 10.00 | 273.40 | 256.9  | 16S 8H LTP |
| 13441.9 | 90.81 | 273.40 | 8636.0 | 352.9 | -4634.2 | 0.00  | 0.00   | 4647.6 | 16S 8H BHL |
| 13592.0 | 90.81 | 273.40 | 8633.9 | 361.8 | -4783.9 | 0.00  | 0.00   | 4797.6 | 16S 8H BHL |

#### DESIGN TARGET DETAILS:

| Name       | TVD    | +N/-S | +E/-W   | Northing  | Easting   |
|------------|--------|-------|---------|-----------|-----------|
| 16S 8H BHL | 8633.9 | 361.9 | -4783.9 | 444987.45 | 604021.28 |
| 16S 8H LTP | 8636.0 | 352.9 | -4634.2 | 444978.50 | 604171.00 |
| 16S 8H PP  | 8706.0 | 70.0  | -0.4    | 444695.60 | 608804.80 |

