

# Devon Energy

Lea County, NM (NAD83 NME)

Flagler 8 Federal

4H

OH

HOBBS OCD  
MAY 16 2019  
RECEIVED

Survey: SDI Survey #1

## Regulatory Report (Grid North)

26 April, 2019

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

HOUSSEYKOU SANGHOTT

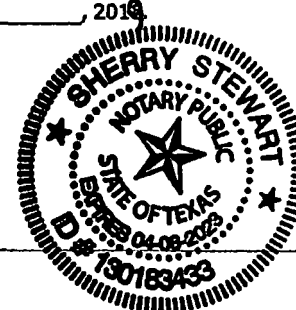
Notarized this date 30<sup>th</sup> of April, 2019

Sherry Stewart

Notary Signature

County of Midland

State of Texas



**Scientific Drilling, Intl**  
Regulatory Report (Grid North)

|                  |                            |                                     |                                     |
|------------------|----------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | Devon Energy               | <b>Local Co-ordinate Reference:</b> | Well 4H                             |
| <b>Project:</b>  | Lea County, NM (NAD83 NME) | <b>TVD Reference:</b>               | KB = 33' @ 3471.00usft (Nabors X15) |
| <b>Site:</b>     | Flagler 8 Federal          | <b>MD Reference:</b>                | KB = 33' @ 3471.00usft (Nabors X15) |
| <b>Well:</b>     | 4H                         | <b>North Reference:</b>             | Grid                                |
| <b>Wellbore:</b> | OH                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | OH                         | <b>Database:</b>                    | Midland District                    |

|                    |                            |                      |                             |
|--------------------|----------------------------|----------------------|-----------------------------|
| <b>Project</b>     | Lea County, NM (NAD83 NME) |                      |                             |
| <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    |                      | Using geodetic scale factor |

|                              |                   |                          |                   |
|------------------------------|-------------------|--------------------------|-------------------|
| <b>Site</b>                  | Flagler 8 Federal |                          |                   |
| <b>Site Position:</b>        |                   | <b>Northing:</b>         | 414,857.70 usft   |
| <b>From:</b>                 | Map               | <b>Easting:</b>          | 770,963.69 usft   |
| <b>Position Uncertainty:</b> | 0.00 usft         | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                   | <b>Latitude:</b>         | 32° 8' 18.055 N   |
|                              |                   | <b>Longitude:</b>        | 103° 35' 29.285 W |
|                              |                   | <b>Grid Convergence:</b> | 0.39 °            |

|                             |           |           |                                      |
|-----------------------------|-----------|-----------|--------------------------------------|
| <b>Well</b>                 | 4H        |           |                                      |
| <b>Well Position</b>        | +N-S      | 0.00 usft | <b>Northing:</b> 414,857.90 usft     |
|                             | +E-W      | 0.00 usft | <b>Easting:</b> 770,993.68 usft      |
| <b>Position Uncertainty</b> | 0.00 usft |           | <b>Wellhead Elevation:</b> 0.00 usft |
|                             |           |           | <b>Latitude:</b> 32° 8' 18.055 N     |
|                             |           |           | <b>Longitude:</b> 103° 35' 28.936 W  |
|                             |           |           | <b>Ground Level:</b> 3,438.00 usft   |

|                  |                   |                    |                                   |
|------------------|-------------------|--------------------|-----------------------------------|
| <b>Wellbore</b>  | OH                |                    |                                   |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b>            |
|                  | HDGM              | 10/10/2018         | 6.72                              |
|                  |                   |                    | <b>Dip Angle (°)</b> 59.78        |
|                  |                   |                    | <b>Field Strength (nT)</b> 47,879 |

|                          |                                |                      |                                   |
|--------------------------|--------------------------------|----------------------|-----------------------------------|
| <b>Design</b>            | OH                             |                      |                                   |
| <b>Audit Notes:</b>      |                                |                      |                                   |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>        | ACTUAL                            |
|                          |                                | <b>Tie On Depth:</b> | 0.00                              |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N-S (usft)</b>   | <b>+E-W (usft)</b>                |
|                          | 0.00                           | 0.00                 | 0.00                              |
|                          |                                |                      | <b>Direction (bearing)</b> 359.12 |

|                       |                  |                          |                  |                    |
|-----------------------|------------------|--------------------------|------------------|--------------------|
| <b>Survey Program</b> | <b>Date</b>      | 12/13/2018               |                  |                    |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| 359.00                | 17,238.00        | SDI Survey #1 (OH)       | MWD+HDGM         | OWSG MWD + HDGM    |

**Scientific Drilling, Intl**  
Regulatory Report (Grid North)

**Company:** Devon Energy  
**Project:** Lea County, NM (NAD83 NME)  
**Site:** Flagler 8 Federal  
**Well:** 4H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well 4H  
**TVD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**MD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Midland District

**Survey**

| MD<br>(usft) | Inc<br>(°) | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |
|--------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|
| 0.00         | 0.00       | 0.00                     | 0.00          | 0.00             | 0.00          | 0.00          | 0.00                | 0.00                         | 0.00                       |
| 359.00       | 0.57       | 87.74                    | 358.99        | 0.04             | 0.07          | 1.78          | 0.16                | 87.74                        | 1.79                       |
| 452.00       | 0.57       | 169.64                   | 451.99        | -0.40            | -0.37         | 2.33          | 0.80                | 98.94                        | 2.36                       |
| 546.00       | 0.27       | 165.02                   | 545.99        | -1.08            | -1.04         | 2.47          | 0.32                | 112.83                       | 2.68                       |
| 638.00       | 0.24       | 160.50                   | 637.99        | -1.47            | -1.43         | 2.59          | 0.04                | 118.91                       | 2.96                       |
| 729.00       | 0.39       | 179.77                   | 728.99        | -1.96            | -1.92         | 2.66          | 0.20                | 125.87                       | 3.28                       |
| 821.00       | 0.32       | 133.04                   | 820.98        | -2.45            | -2.41         | 2.85          | 0.31                | 130.25                       | 3.73                       |
| 914.00       | 0.51       | 204.97                   | 913.98        | -3.01            | -2.96         | 2.86          | 0.55                | 136.00                       | 4.12                       |
| 1,005.00     | 0.09       | 307.10                   | 1,004.98      | -3.33            | -3.29         | 2.63          | 0.59                | 141.30                       | 4.21                       |
| 1,097.00     | 0.20       | 162.07                   | 1,096.98      | -3.43            | -3.39         | 2.62          | 0.30                | 142.30                       | 4.29                       |
| 1,244.00     | 0.37       | 201.20                   | 1,243.98      | -4.12            | -4.08         | 2.53          | 0.17                | 148.19                       | 4.80                       |
| 1,336.00     | 0.27       | 231.13                   | 1,335.98      | -4.53            | -4.49         | 2.26          | 0.21                | 153.35                       | 5.03                       |
| 1,428.00     | 0.33       | 219.40                   | 1,427.98      | -4.86            | -4.84         | 1.92          | 0.09                | 158.36                       | 5.20                       |
| 1,522.00     | 1.58       | 189.25                   | 1,521.96      | -6.35            | -6.32         | 1.54          | 1.39                | 166.33                       | 6.51                       |
| 1,616.00     | 4.75       | 175.44                   | 1,615.81      | -11.51           | -11.48        | 1.64          | 3.44                | 171.88                       | 11.60                      |
| 1,710.00     | 5.31       | 179.02                   | 1,709.45      | -19.74           | -19.71        | 2.02          | 0.68                | 174.14                       | 19.82                      |
| 1,803.00     | 4.96       | 178.92                   | 1,802.07      | -28.06           | -28.03        | 2.17          | 0.38                | 175.57                       | 28.12                      |
| 1,897.00     | 4.97       | 182.59                   | 1,895.72      | -36.19           | -36.17        | 2.07          | 0.34                | 176.73                       | 36.22                      |
| 1,991.00     | 4.63       | 180.25                   | 1,989.39      | -44.05           | -44.03        | 1.86          | 0.42                | 177.57                       | 44.07                      |
| 2,085.00     | 4.44       | 180.65                   | 2,083.10      | -51.48           | -51.46        | 1.81          | 0.20                | 177.99                       | 51.49                      |
| 2,179.00     | 3.90       | 160.08                   | 2,176.85      | -58.14           | -58.10        | 2.85          | 1.68                | 177.19                       | 58.17                      |
| 2,273.00     | 4.10       | 127.73                   | 2,270.63      | -63.26           | -63.17        | 6.60          | 2.38                | 174.03                       | 63.51                      |
| 2,366.00     | 4.53       | 117.87                   | 2,363.37      | -67.10           | -66.92        | 12.48         | 0.92                | 169.44                       | 68.07                      |
| 2,460.00     | 4.02       | 102.16                   | 2,457.11      | -69.63           | -69.35        | 18.98         | 1.35                | 164.69                       | 71.90                      |
| 2,554.00     | 3.83       | 97.55                    | 2,550.89      | -70.83           | -70.45        | 25.31         | 0.39                | 160.24                       | 74.86                      |
| 2,648.00     | 3.66       | 94.19                    | 2,644.69      | -71.56           | -71.08        | 31.42         | 0.30                | 156.15                       | 77.72                      |
| 2,742.00     | 3.59       | 93.26                    | 2,738.50      | -72.04           | -71.47        | 37.35         | 0.10                | 152.41                       | 80.64                      |

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**Wellbore:** OH  
**Design:** OH

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**Survey**

| MD<br>(usft) | Inc<br>(°) | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |
|--------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|
| 2,836.00     | 3.55       | 87.20                    | 2,832.32      | -72.15           | -71.50        | 43.19         | 0.40                | 148.86                       | 83.53                      |
| 2,930.00     | 3.70       | 84.27                    | 2,926.13      | -71.80           | -71.05        | 49.12         | 0.25                | 145.34                       | 86.38                      |
| 3,024.00     | 3.76       | 83.22                    | 3,019.94      | -71.22           | -70.38        | 55.20         | 0.10                | 141.90                       | 89.45                      |
| 3,118.00     | 3.82       | 80.22                    | 3,113.73      | -70.42           | -69.49        | 61.34         | 0.22                | 138.56                       | 92.69                      |
| 3,211.00     | 4.00       | 79.15                    | 3,206.51      | -69.38           | -68.35        | 67.58         | 0.21                | 135.32                       | 96.12                      |
| 3,305.00     | 4.18       | 79.01                    | 3,300.27      | -68.21           | -67.08        | 74.17         | 0.19                | 132.13                       | 100.00                     |
| 3,398.00     | 4.24       | 76.65                    | 3,393.02      | -66.88           | -65.64        | 80.84         | 0.20                | 129.08                       | 104.13                     |
| 3,492.00     | 4.05       | 76.45                    | 3,486.78      | -65.40           | -64.06        | 87.45         | 0.20                | 126.23                       | 108.40                     |
| 3,586.00     | 3.89       | 75.42                    | 3,580.55      | -63.91           | -62.48        | 93.76         | 0.19                | 123.68                       | 112.67                     |
| 3,680.00     | 3.67       | 75.72                    | 3,674.35      | -62.46           | -60.94        | 99.76         | 0.23                | 121.42                       | 116.90                     |
| 3,774.00     | 3.35       | 75.80                    | 3,768.17      | -61.13           | -59.52        | 105.34        | 0.34                | 119.47                       | 120.99                     |
| 3,868.00     | 3.90       | 74.19                    | 3,861.98      | -59.68           | -57.98        | 111.08        | 0.59                | 117.56                       | 125.30                     |
| 3,963.00     | 3.34       | 69.14                    | 3,956.79      | -57.90           | -56.11        | 116.77        | 0.68                | 115.67                       | 129.55                     |
| 4,057.00     | 3.09       | 67.51                    | 4,050.64      | -56.03           | -54.17        | 121.67        | 0.28                | 114.00                       | 133.18                     |
| 4,151.00     | 2.85       | 63.17                    | 4,144.52      | -54.07           | -52.14        | 126.10        | 0.35                | 112.47                       | 136.45                     |
| 4,244.00     | 1.87       | 75.00                    | 4,237.44      | -52.69           | -50.71        | 129.63        | 1.17                | 111.36                       | 139.19                     |
| 4,337.00     | 1.62       | 120.72                   | 4,330.40      | -53.01           | -50.99        | 132.22        | 1.48                | 111.09                       | 141.71                     |
| 4,431.00     | 2.13       | 121.37                   | 4,424.35      | -54.64           | -52.57        | 134.86        | 0.54                | 111.30                       | 144.74                     |
| 4,525.00     | 2.19       | 120.19                   | 4,518.28      | -56.50           | -54.39        | 137.90        | 0.08                | 111.52                       | 148.24                     |
| 4,619.00     | 2.92       | 119.42                   | 4,612.19      | -58.63           | -56.46        | 141.54        | 0.78                | 111.75                       | 152.38                     |
| 4,712.00     | 3.53       | 121.93                   | 4,705.04      | -61.38           | -59.14        | 146.03        | 0.67                | 112.05                       | 157.55                     |
| 4,807.00     | 3.24       | 125.76                   | 4,799.87      | -64.57           | -62.26        | 150.69        | 0.39                | 112.45                       | 163.05                     |
| 4,901.00     | 1.67       | 167.61                   | 4,893.79      | -67.49           | -65.15        | 153.14        | 2.43                | 113.05                       | 166.42                     |
| 4,995.00     | 0.76       | 244.35                   | 4,987.77      | -69.10           | -66.76        | 152.87        | 1.78                | 113.59                       | 166.81                     |
| 5,089.00     | 0.88       | 271.82                   | 5,081.77      | -69.32           | -67.00        | 151.59        | 0.43                | 113.85                       | 165.74                     |
| 5,183.00     | 0.90       | 269.51                   | 5,175.75      | -69.28           | -66.99        | 150.13        | 0.04                | 114.05                       | 164.40                     |
| 5,277.00     | 0.90       | 270.38                   | 5,269.74      | -69.26           | -66.99        | 148.65        | 0.01                | 114.26                       | 163.05                     |

**Scientific Drilling, Intl**  
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**Company:** Devon Energy  
**Project:** Lea County, NM (NAD83 NME)  
**Site:** Flagler 8 Federal  
**Well:** 4H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well 4H  
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**Survey**

| MD<br>(usft) | Inc<br>(°) | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |
|--------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|
| 5,371.00     | 0.58       | 285.90                   | 5,363.73      | -69.11           | -66.85        | 147.46        | 0.40                | 114.39                       | 161.90                     |
| 5,465.00     | 0.55       | 298.87                   | 5,457.73      | -68.75           | -66.51        | 146.60        | 0.14                | 114.40                       | 160.98                     |
| 5,559.00     | 0.60       | 298.32                   | 5,551.73      | -68.28           | -66.05        | 145.78        | 0.05                | 114.38                       | 160.04                     |
| 5,653.00     | 0.64       | 309.09                   | 5,645.72      | -67.71           | -65.49        | 144.94        | 0.13                | 114.32                       | 159.04                     |
| 5,747.00     | 0.47       | 347.37                   | 5,739.72      | -66.99           | -64.78        | 144.44        | 0.42                | 114.16                       | 158.31                     |
| 5,842.00     | 0.47       | 344.33                   | 5,834.71      | -66.23           | -64.03        | 144.25        | 0.03                | 113.93                       | 157.82                     |
| 5,936.00     | 0.45       | 357                      | 5,928.71      | -65.49           | -63.29        | 144.17        | 0.16                | 113.70                       | 157.45                     |
| 6,029.00     | 0.48       | 345.79                   | 6,021.71      | -64.75           | -62.54        | 144.10        | 0.16                | 113.46                       | 157.09                     |
| 6,123.00     | 0.44       | 330.84                   | 6,115.70      | -64.05           | -61.85        | 143.83        | 0.13                | 113.27                       | 156.56                     |
| 6,217.00     | 0.55       | 333.10                   | 6,209.70      | -63.33           | -61.13        | 143.45        | 0.12                | 113.08                       | 155.93                     |
| 6,311.00     | 0.57       | 307.26                   | 6,303.70      | -62.63           | -60.45        | 142.87        | 0.27                | 112.93                       | 155.13                     |
| 6,406.00     | 0.60       | 315.01                   | 6,398.69      | -61.98           | -59.81        | 142.14        | 0.09                | 112.82                       | 154.21                     |
| 6,498.00     | 0.55       | 300.65                   | 6,490.69      | -61.41           | -59.24        | 141.42        | 0.17                | 112.73                       | 153.33                     |
| 6,592.00     | 0.51       | 296.87                   | 6,584.68      | -60.98           | -58.82        | 140.66        | 0.06                | 112.69                       | 152.47                     |
| 6,686.00     | 0.67       | 297.22                   | 6,678.68      | -60.52           | -58.38        | 139.80        | 0.17                | 112.67                       | 151.50                     |
| 6,780.00     | 0.66       | 309.68                   | 6,772.67      | -59.91           | -57.78        | 138.89        | 0.15                | 112.59                       | 150.43                     |
| 6,874.00     | 0.50       | 321.49                   | 6,866.67      | -59.23           | -57.12        | 138.22        | 0.21                | 112.45                       | 149.56                     |
| 6,968.00     | 0.54       | 315.93                   | 6,960.66      | -58.59           | -56.48        | 137.66        | 0.07                | 112.31                       | 148.79                     |
| 7,062.00     | 0.42       | 307.54                   | 7,054.66      | -58.05           | -55.95        | 137.08        | 0.15                | 112.20                       | 148.06                     |
| 7,157.00     | 0.36       | 280.64                   | 7,149.66      | -57.77           | -55.68        | 136.51        | 0.20                | 112.19                       | 147.43                     |
| 7,251.00     | 0.44       | 286.89                   | 7,243.65      | -57.60           | -55.52        | 135.87        | 0.10                | 112.23                       | 146.78                     |
| 7,344.00     | 0.61       | 248.32                   | 7,336.65      | -57.67           | -55.60        | 135.07        | 0.41                | 112.38                       | 146.07                     |
| 7,437.00     | 0.72       | 232.08                   | 7,429.64      | -58.20           | -56.15        | 134.15        | 0.23                | 112.71                       | 145.42                     |
| 7,532.00     | 0.68       | 246.21                   | 7,524.64      | -58.78           | -56.74        | 133.16        | 0.19                | 113.08                       | 144.75                     |
| 7,626.00     | 0.60       | 237.98                   | 7,618.63      | -59.25           | -57.23        | 132.23        | 0.13                | 113.40                       | 144.09                     |
| 7,721.00     | 0.88       | 234.69                   | 7,713.62      | -59.92           | -57.91        | 131.22        | 0.30                | 113.81                       | 143.43                     |
| 7,814.00     | 0.88       | 239.97                   | 7,806.61      | -60.67           | -58.68        | 130.02        | 0.09                | 114.29                       | 142.65                     |

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**Site:** Flagler 8 Federal  
**Well:** 4H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well 4H  
**TVD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**MD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
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**Survey**

| MD<br>(usft) | Inc<br>(") | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>("/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |
|--------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|
| 7,908.00     | 1.00       | 242.39                   | 7,900.60      | -61.39           | -59.42        | 128.67        | 0.13                | 114.79                       | 141.72                     |
| 8,002.00     | 0.85       | 242.78                   | 7,994.59      | -62.07           | -60.12        | 127.32        | 0.16                | 115.28                       | 140.80                     |
| 8,094.00     | 0.70       | 236.97                   | 8,086.58      | -62.67           | -60.74        | 126.24        | 0.18                | 115.69                       | 140.09                     |
| 8,189.00     | 0.71       | 222.22                   | 8,181.57      | -63.41           | -61.49        | 125.36        | 0.19                | 116.13                       | 139.63                     |
| 8,282.00     | 0.80       | 214.03                   | 8,274.56      | -64.36           | -62.46        | 124.61        | 0.15                | 116.62                       | 139.38                     |
| 8,375.00     | 0.83       | 211.98                   | 8,367.55      | -65.46           | -63.57        | 123.89        | 0.04                | 117.16                       | 139.24                     |
| 8,469.00     | 0.83       | 211.92                   | 8,461.54      | -66.61           | -64.72        | 123.17        | 0.00                | 117.72                       | 139.14                     |
| 8,562.00     | 0.93       | 212.41                   | 8,554.53      | -67.80           | -65.93        | 122.41        | 0.11                | 118.31                       | 139.03                     |
| 8,656.00     | 0.93       | 217.51                   | 8,648.52      | -69.04           | -67.18        | 121.53        | 0.09                | 118.93                       | 138.86                     |
| 8,750.00     | 0.97       | 211.22                   | 8,742.51      | -70.31           | -68.47        | 120.66        | 0.12                | 119.57                       | 138.73                     |
| 8,844.00     | 0.87       | 210.59                   | 8,836.50      | -71.59           | -69.76        | 119.88        | 0.11                | 120.20                       | 138.70                     |
| 8,938.00     | 0.72       | 215.18                   | 8,930.49      | -72.68           | -70.86        | 119.18        | 0.17                | 120.73                       | 138.65                     |
| 9,032.00     | 0.77       | 223.71                   | 9,024.48      | -73.61           | -71.80        | 118.40        | 0.13                | 121.23                       | 138.47                     |
| 9,126.00     | 0.73       | 223.33                   | 9,118.47      | -74.49           | -72.69        | 117.55        | 0.04                | 121.73                       | 138.21                     |
| 9,219.00     | 0.85       | 232.71                   | 9,211.46      | -75.32           | -73.54        | 116.60        | 0.19                | 122.24                       | 137.85                     |
| 9,313.00     | 0.88       | 239.99                   | 9,305.45      | -76.08           | -74.32        | 115.42        | 0.12                | 122.78                       | 137.28                     |
| 9,407.00     | 0.88       | 247.60                   | 9,399.44      | -76.70           | -74.96        | 114.13        | 0.12                | 123.30                       | 136.54                     |
| 9,501.00     | 0.91       | 243.35                   | 9,493.43      | -77.29           | -75.57        | 112.79        | 0.08                | 123.82                       | 135.76                     |
| 9,595.00     | 0.73       | 237.93                   | 9,587.42      | -77.92           | -76.22        | 111.62        | 0.21                | 124.33                       | 135.16                     |
| 9,689.00     | 0.73       | 222.80                   | 9,681.41      | -78.67           | -76.98        | 110.70        | 0.20                | 124.81                       | 134.83                     |
| 9,783.00     | 0.54       | 262.95                   | 9,775.41      | -79.15           | -77.47        | 109.86        | 0.50                | 125.19                       | 134.42                     |
| 9,877.00     | 0.57       | 293.97                   | 9,869.40      | -79.00           | -77.34        | 108.99        | 0.32                | 125.36                       | 133.64                     |
| 9,971.00     | 0.57       | 255.52                   | 9,963.40      | -78.91           | -77.26        | 108.11        | 0.40                | 125.55                       | 132.88                     |
| 10,065.00    | 0.68       | 231.80                   | 10,057.39     | -79.36           | -77.72        | 107.22        | 0.30                | 125.94                       | 132.43                     |
| 10,159.00    | 0.69       | 222.77                   | 10,151.39     | -80.11           | -78.48        | 106.39        | 0.12                | 126.42                       | 132.21                     |
| 10,253.00    | 0.85       | 223.06                   | 10,245.38     | -81.02           | -79.41        | 105.53        | 0.17                | 126.96                       | 132.07                     |
| 10,346.00    | 0.88       | 232.18                   | 10,338.37     | -81.95           | -80.35        | 104.50        | 0.15                | 127.56                       | 131.82                     |

**Scientific Drilling, Intl**  
Regulatory Report (Grid North)

|                  |                            |                                     |                                     |
|------------------|----------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | Devon Energy               | <b>Local Co-ordinate Reference:</b> | Well 4H                             |
| <b>Project:</b>  | Lea County, NM (NAD83 NME) | <b>TVD Reference:</b>               | KB = 33' @ 3471.00usft (Nabors X15) |
| <b>Site:</b>     | Flagler 8 Federal          | <b>MD Reference:</b>                | KB = 33' @ 3471.00usft (Nabors X15) |
| <b>Well:</b>     | 4H                         | <b>North Reference:</b>             | Grid                                |
| <b>Wellbore:</b> | OH                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | OH                         | <b>Database:</b>                    | Midland District                    |

| Survey       |            |                          |               |                  |               |               |                     |                              |                            |  |
|--------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |  |
| 10,441.00    | 0.70       | 256.27                   | 10,433.36     | -82.51           | -80.94        | 103.36        | 0.39                | 128.06                       | 131.28                     |  |
| 10,534.00    | 0.95       | 282.30                   | 10,526.35     | -82.46           | -80.91        | 102.05        | 0.48                | 128.41                       | 130.23                     |  |
| 10,629.00    | 1.31       | 288.77                   | 10,621.33     | -81.92           | -80.39        | 100.26        | 0.40                | 128.72                       | 128.51                     |  |
| 10,723.00    | 1.59       | 285.76                   | 10,715.30     | -81.19           | -79.69        | 97.98         | 0.31                | 129.12                       | 126.30                     |  |
| 10,817.00    | 1.74       | 296.70                   | 10,809.26     | -80.15           | -78.69        | 95.45         | 0.37                | 129.50                       | 123.71                     |  |
| 10,911.00    | 2.18       | 298.63                   | 10,903.21     | -78.61           | -77.20        | 92.61         | 0.47                | 129.81                       | 120.56                     |  |
| 11,005.00    | 2.79       | 307.03                   | 10,997.12     | -76.32           | -74.96        | 89.21         | 0.75                | 130.04                       | 116.53                     |  |
| 11,099.00    | 2.55       | 312.86                   | 11,091.02     | -73.47           | -72.16        | 85.86         | 0.39                | 130.05                       | 112.15                     |  |
| 11,193.00    | 4.58       | 0.01                     | 11,184.85     | -68.27           | -66.98        | 84.32         | 3.62                | 128.46                       | 107.69                     |  |
| 11,287.00    | 5.12       | 6.15                     | 11,278.51     | -60.36           | -59.06        | 84.77         | 0.80                | 124.87                       | 103.32                     |  |
| 11,382.00    | 6.36       | 357.75                   | 11,373.03     | -50.89           | -49.59        | 85.02         | 1.57                | 120.25                       | 98.42                      |  |
| 11,476.00    | 7.38       | 356.64                   | 11,466.36     | -39.65           | -38.36        | 84.46         | 1.09                | 114.43                       | 92.76                      |  |
| 11,570.00    | 7.20       | 353.58                   | 11,559.60     | -27.76           | -26.48        | 83.45         | 0.46                | 107.60                       | 87.55                      |  |
| 11,664.00    | 6.79       | 349.75                   | 11,652.90     | -16.41           | -15.16        | 81.80         | 0.66                | 100.50                       | 83.19                      |  |
| 11,758.00    | 5.97       | 346.34                   | 11,746.32     | -6.16            | -4.94         | 79.66         | 0.96                | 93.55                        | 79.81                      |  |
| 11,820.00    | 5.69       | 344.38                   | 11,807.99     | -0.04            | 1.15          | 78.07         | 0.55                | 89.15                        | 78.08                      |  |
| 11,923.00    | 9.90       | 336.04                   | 11,910.02     | 13.05            | 14.17         | 73.10         | 4.22                | 79.03                        | 74.46                      |  |
| 12,017.00    | 23.81      | 334.69                   | 11,999.76     | 37.88            | 38.83         | 61.65         | 14.80               | 57.80                        | 72.86                      |  |
| 12,112.00    | 31.12      | 341.81                   | 12,084.02     | 78.84            | 79.55         | 45.76         | 8.42                | 29.91                        | 91.77                      |  |
| 12,207.00    | 40.20      | 348.35                   | 12,161.16     | 132.53           | 133.03        | 31.87         | 10.35               | 13.47                        | 136.80                     |  |
| 12,301.00    | 49.52      | 351.29                   | 12,227.72     | 197.90           | 198.23        | 20.30         | 10.16               | 5.85                         | 199.27                     |  |
| 12,395.00    | 56.99      | 353.03                   | 12,283.92     | 272.62           | 272.80        | 10.09         | 8.08                | 2.12                         | 272.99                     |  |
| 12,426.00    | 59.11      | 355.06                   | 12,300.32     | 298.81           | 298.96        | 7.37          | 8.81                | 1.41                         | 299.05                     |  |
| 12,458.00    | 61.14      | 357.03                   | 12,316.26     | 326.52           | 326.64        | 5.46          | 8.29                | 0.96                         | 326.69                     |  |
| 12,487.00    | 65.18      | 356.82                   | 12,329.36     | 352.37           | 352.47        | 4.07          | 13.95               | 0.66                         | 352.50                     |  |
| 12,505.00    | 67.33      | 357.16                   | 12,336.60     | 368.83           | 368.93        | 3.21          | 12.07               | 0.50                         | 368.94                     |  |
| 12,553.00    | 76.46      | 358.43                   | 12,351.50     | 414.40           | 414.47        | 1.47          | 19.19               | 0.20                         | 414.47                     |  |

**Scientific Drilling, Intl**  
Regulatory Report (Grid North)

**Company:** Devon Energy  
**Project:** Lea County, NM (NAD83 NME)  
**Site:** Flagler 8 Federal  
**Well:** 4H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well 4H  
**TVD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**MD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Midland District

**Survey**

| MD<br>(usft)                                       | Inc<br>(°) | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |
|----------------------------------------------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|
| 12,573.00                                          | 80.66      | 359.09                   | 12,355.47     | 433.99           | 434.06        | 1.04          | 21.25               | 0.14                         | 434.06                     |
| 12,588.97                                          | 84.21      | 359.38                   | 12,357.57     | 449.83           | 449.89        | 0.83          | 22.31               | 0.11                         | 449.89                     |
| <b>LP[F814H]</b>                                   |            |                          |               |                  |               |               |                     |                              |                            |
| 12,623.00                                          | 91.78      | 0.00                     | 12,358.76     | 483.80           | 483.87        | 0.65          | 22.31               | 0.08                         | 483.87                     |
| 12,648.00                                          | 92.11      | 359.81                   | 12,357.91     | 508.79           | 508.86        | 0.61          | 1.52                | 0.07                         | 508.86                     |
| 12,724.61                                          | 92.57      | 0.93                     | 12,354.79     | 585.32           | 585.40        | 1.10          | 1.58                | 0.11                         | 585.40                     |
| <b>Interp @ 12349.64 (4H OH NCR Plan #3)</b>       |            |                          |               |                  |               |               |                     |                              |                            |
| 12,725.89                                          | 92.58      | 0.95                     | 12,354.73     | 586.59           | 586.68        | 1.13          | 1.58                | 0.11                         | 586.68                     |
| <b>Plan @ 12349.64 (4H OH Mike's Plan for fun)</b> |            |                          |               |                  |               |               |                     |                              |                            |
| 12,743.00                                          | 92.68      | 1.20                     | 12,353.94     | 603.67           | 603.77        | 1.45          | 1.58                | 0.14                         | 603.77                     |
| 12,837.00                                          | 90.70      | 2.11                     | 12,351.17     | 697.54           | 697.68        | 4.16          | 2.32                | 0.34                         | 697.69                     |
| 12,932.00                                          | 89.03      | 2.17                     | 12,351.39     | 792.40           | 792.61        | 7.71          | 1.76                | 0.56                         | 792.65                     |
| 13,026.00                                          | 89.30      | 2.43                     | 12,352.76     | 886.24           | 886.53        | 11.48         | 0.40                | 0.74                         | 886.60                     |
| 13,121.00                                          | 91.00      | 1.93                     | 12,352.52     | 981.11           | 981.45        | 15.09         | 1.87                | 0.88                         | 981.57                     |
| 13,215.00                                          | 93.48      | 2.70                     | 12,348.84     | 1,074.88         | 1,075.30      | 18.89         | 2.76                | 1.01                         | 1,075.46                   |
| 13,308.00                                          | 92.86      | 3.38                     | 12,343.70     | 1,167.52         | 1,168.02      | 23.81         | 0.99                | 1.17                         | 1,168.26                   |
| 13,403.00                                          | 89.70      | 4.04                     | 12,341.58     | 1,262.18         | 1,262.79      | 29.96         | 3.40                | 1.36                         | 1,263.14                   |
| 13,498.00                                          | 85.95      | 3.87                     | 12,345.18     | 1,356.75         | 1,357.48      | 36.50         | 3.95                | 1.54                         | 1,357.97                   |
| 13,592.00                                          | 86.71      | 359.64                   | 12,351.20     | 1,450.44         | 1,451.22      | 39.37         | 4.56                | 1.55                         | 1,451.75                   |
| 13,687.00                                          | 88.49      | 359.45                   | 12,355.18     | 1,545.35         | 1,546.13      | 38.62         | 1.88                | 1.43                         | 1,546.61                   |
| 13,781.00                                          | 92.82      | 358.75                   | 12,354.11     | 1,639.32         | 1,640.09      | 37.14         | 4.67                | 1.30                         | 1,640.51                   |
| 13,875.00                                          | 92.25      | 359.23                   | 12,349.95     | 1,733.23         | 1,733.98      | 35.49         | 0.79                | 1.17                         | 1,734.34                   |
| 13,970.00                                          | 92.58      | 0.09                     | 12,345.94     | 1,828.14         | 1,828.89      | 34.92         | 0.97                | 1.09                         | 1,829.22                   |
| 14,064.00                                          | 90.74      | 0.58                     | 12,343.22     | 1,922.07         | 1,922.85      | 35.47         | 2.03                | 1.06                         | 1,923.17                   |
| 14,158.00                                          | 92.18      | 1.03                     | 12,340.83     | 2,016.00         | 2,016.80      | 36.79         | 1.60                | 1.05                         | 2,017.14                   |
| 14,253.00                                          | 90.27      | 1.95                     | 12,338.80     | 2,110.89         | 2,111.74      | 39.26         | 2.23                | 1.07                         | 2,112.11                   |
| 14,347.00                                          | 90.91      | 1.02                     | 12,337.83     | 2,204.81         | 2,205.71      | 41.70         | 1.20                | 1.08                         | 2,206.10                   |
| 14,442.00                                          | 92.41      | 3.76                     | 12,335.08     | 2,299.60         | 2,300.57      | 45.66         | 3.29                | 1.14                         | 2,301.03                   |

**Scientific Drilling, Intl**  
Regulatory Report (Grid North)

**Company:** Devon Energy  
**Project:** Lea County, NM (NAD83 NME)  
**Site:** Flagler 8 Federal  
**Well:** 4H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well 4H  
**TVD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**MD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Midland District

**Survey**

| MD<br>(usft) | Inc<br>(°) | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |
|--------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|
| 14,536.00    | 88.02      | 3.41                     | 12,334.72     | 2,393.29         | 2,394.36      | 51.54         | 4.69                | 1.23                         | 2,394.92                   |
| 14,630.00    | 86.05      | 3.17                     | 12,339.58     | 2,486.91         | 2,488.08      | 56.92         | 2.11                | 1.31                         | 2,488.73                   |
| 14,724.00    | 89.63      | 2.72                     | 12,343.13     | 2,580.62         | 2,581.87      | 61.75         | 3.84                | 1.37                         | 2,582.61                   |
| 14,819.00    | 93.36      | 3.75                     | 12,340.65     | 2,675.32         | 2,676.67      | 67.10         | 4.07                | 1.44                         | 2,677.51                   |
| 14,914.00    | 94.96      | 4.44                     | 12,333.76     | 2,769.71         | 2,771.18      | 73.87         | 1.83                | 1.53                         | 2,772.16                   |
| 15,008.00    | 92.25      | 5.11                     | 12,327.85     | 2,863.06         | 2,864.65      | 81.68         | 2.97                | 1.63                         | 2,865.82                   |
| 15,102.00    | 90.33      | 2.92                     | 12,325.73     | 2,956.69         | 2,958.39      | 88.26         | 3.10                | 1.71                         | 2,959.71                   |
| 15,191.00    | 88.76      | 1.49                     | 12,326.44     | 3,045.55         | 3,047.32      | 91.68         | 2.39                | 1.72                         | 3,048.69                   |
| 15,291.00    | 88.22      | 359.59                   | 12,329.07     | 3,145.48         | 3,147.27      | 92.62         | 1.97                | 1.69                         | 3,148.63                   |
| 15,386.00    | 89.30      | 359.52                   | 12,331.13     | 3,240.45         | 3,242.25      | 91.89         | 1.14                | 1.62                         | 3,243.55                   |
| 15,481.00    | 90.50      | 359.89                   | 12,331.29     | 3,335.44         | 3,337.24      | 91.40         | 1.32                | 1.57                         | 3,338.49                   |
| 15,576.00    | 85.80      | 357.12                   | 12,334.36     | 3,430.35         | 3,432.12      | 88.92         | 5.74                | 1.48                         | 3,433.28                   |
| 15,670.00    | 88.86      | 357.67                   | 12,338.74     | 3,524.20         | 3,525.91      | 84.66         | 3.31                | 1.38                         | 3,526.93                   |
| 15,764.00    | 89.80      | 357.50                   | 12,339.84     | 3,618.16         | 3,619.82      | 80.70         | 1.02                | 1.28                         | 3,620.72                   |
| 15,859.00    | 89.56      | 357.66                   | 12,340.37     | 3,713.12         | 3,714.74      | 76.69         | 0.30                | 1.18                         | 3,715.53                   |
| 15,953.00    | 90.44      | 358.53                   | 12,340.37     | 3,807.10         | 3,808.68      | 73.56         | 1.32                | 1.11                         | 3,809.39                   |
| 16,047.00    | 90.91      | 358.02                   | 12,339.26     | 3,901.09         | 3,902.63      | 70.73         | 0.74                | 1.04                         | 3,903.27                   |
| 16,141.00    | 88.72      | 357.00                   | 12,339.57     | 3,995.04         | 3,996.54      | 66.65         | 2.57                | 0.96                         | 3,997.09                   |
| 16,235.00    | 88.62      | 356.36                   | 12,341.75     | 4,088.93         | 4,090.35      | 61.21         | 0.69                | 0.86                         | 4,090.81                   |
| 16,330.00    | 88.32      | 355.17                   | 12,344.28     | 4,183.73         | 4,185.06      | 54.19         | 1.29                | 0.74                         | 4,185.41                   |
| 16,424.00    | 89.53      | 357.64                   | 12,346.05     | 4,277.60         | 4,278.85      | 48.30         | 2.93                | 0.65                         | 4,279.12                   |
| 16,518.00    | 92.31      | 358.88                   | 12,344.54     | 4,371.57         | 4,372.78      | 45.45         | 3.24                | 0.60                         | 4,373.02                   |
| 16,612.00    | 89.87      | 357.19                   | 12,342.75     | 4,465.52         | 4,466.70      | 42.22         | 3.16                | 0.54                         | 4,466.90                   |
| 16,707.00    | 89.93      | 355.88                   | 12,342.92     | 4,560.42         | 4,561.52      | 36.48         | 1.38                | 0.46                         | 4,561.67                   |
| 16,801.00    | 91.61      | 358.69                   | 12,341.65     | 4,654.35         | 4,655.40      | 32.03         | 3.48                | 0.39                         | 4,655.51                   |
| 16,895.00    | 92.15      | 358.06                   | 12,338.57     | 4,748.30         | 4,749.31      | 29.37         | 0.88                | 0.35                         | 4,749.40                   |

**Scientific Drilling, Intl**  
Regulatory Report (Grid North)

**Company:** Devon Energy  
**Project:** Lea County, NM (NAD83 NME)  
**Site:** Flagler 8 Federal  
**Well:** 4H  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well 4H  
**TVD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**MD Reference:** KB = 33' @ 3471.00usft (Nabors X15)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Midland District

**Survey**

| MD<br>(usft)                               | Inc<br>(°) | Azi<br>(grid_north_azim) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Closure Azimuth<br>(bearing) | Closure Distance<br>(usft) |
|--------------------------------------------|------------|--------------------------|---------------|------------------|---------------|---------------|---------------------|------------------------------|----------------------------|
| 16,915.90                                  | 92.05      | 358.02                   | 12,337.80     | 4,769.18         | 4,770.18      | 28.65         | 0.54                | 0.34                         | 4,770.27                   |
| <b>BHL.PLAT[F814H]</b>                     |            |                          |               |                  |               |               |                     |                              |                            |
| 16,989.00                                  | 91.68      | 357.86                   | 12,335.43     | 4,842.22         | 4,843.19      | 26.02         | 0.54                | 0.31                         | 4,843.26                   |
| 17,084.00                                  | 91.98      | 357.04                   | 12,332.39     | 4,937.13         | 4,938.05      | 21.80         | 0.92                | 0.25                         | 4,938.10                   |
| 17,179.00                                  | 92.25      | 357.20                   | 12,328.89     | 5,032.01         | 5,032.87      | 17.03         | 0.33                | 0.19                         | 5,032.90                   |
| <b>FINAL MWD Survey ( 17179.00' MD )</b>   |            |                          |               |                  |               |               |                     |                              |                            |
| 17,225.30                                  | 92.25      | 357.20                   | 12,327.07     | 5,078.24         | 5,079.07      | 14.77         | 0.00                | 0.17                         | 5,079.09                   |
| <b>BHL.FINAL[F814H]</b>                    |            |                          |               |                  |               |               |                     |                              |                            |
| 17,238.00                                  | 92.25      | 357.20                   | 12,326.57     | 5,090.93         | 5,091.75      | 14.15         | 0.00                | 0.16                         | 5,091.77                   |
| <b>FINAL Proj. to Bit ( 17238.00' MD )</b> |            |                          |               |                  |               |               |                     |                              |                            |

**Survey Annotations**

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                             |
|-----------------------------|-----------------------------|-------------------|-----------------|-------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                     |
| 17,179.00                   | 12,328.89                   | 5,032.87          | 17.03           | FINAL MWD Survey ( 17179.00' MD )   |
| 17,238.00                   | 12,326.57                   | 5,091.75          | 14.15           | FINAL Proj. to Bit ( 17238.00' MD ) |

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