

# Devon Energy

## Anticollision Risk Report

|                           |                   |                                     |                         |
|---------------------------|-------------------|-------------------------------------|-------------------------|
| <b>Company:</b>           | WESTERN DIVISION  | <b>Local Co-ordinate Reference:</b> | Well Thistle Unit 157H  |
| <b>Project:</b>           | PBNM              | <b>TVD Reference:</b>               | 1 @ 3684.20ft           |
| <b>Reference Site:</b>    | Dzurisin          | <b>MD Reference:</b>                | 1 @ 3684.20ft           |
| <b>Site Error:</b>        | 0.00              | <b>North Reference:</b>             | Grid                    |
| <b>Reference Well:</b>    | Thistle Unit 157H | <b>Survey Calculation Method:</b>   | Minimum Curvature       |
| <b>Well Error:</b>        | 0.00              | <b>Output errors are at</b>         | 2.00 sigma              |
| <b>Reference Wellbore</b> | Wellbore #1       | <b>Database:</b>                    | EDM r5000 US Production |
| <b>Reference Design:</b>  | Plan 1            | <b>Offset TVD Reference:</b>        | Offset Datum            |

|                                     |                                                                     |                       |                     |
|-------------------------------------|---------------------------------------------------------------------|-----------------------|---------------------|
| <b>Reference</b>                    | Plan 1                                                              |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | Stations Interval 100.00ft                                          | <b>Error Model:</b>   | ISCWSA              |
| <b>Depth Range:</b>                 | Unlimited                                                           | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum center-center distance of 10,000.00ft                       | <b>Error Surface:</b> | Elliptical Conic    |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma                                                          | <b>Casing Method:</b> | Not applied         |

**Risk Settings**

**Vertical Depth for Analysis:** ft (Below TVD Reference Datum)

**Level of Acceptable Risk (1 in):**

**Minimum Separation:** 0 ft

|                            |                |                          |                    |
|----------------------------|----------------|--------------------------|--------------------|
| <b>Survey Tool Program</b> | Date           | 8/1/2016                 |                    |
| <b>From (ft)</b>           | <b>To (ft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>   |
| 0.00                       | 20,016.05      | Plan 1 (Wellbore #1)     | MWD                |
|                            |                |                          | <b>Description</b> |
|                            |                |                          | MWD - Standard     |

| Site Name                                | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor  | Warning |
|------------------------------------------|-------------------------------|----------------------------|-------------------------------|--------------------------------|--------------------|---------|
| <b>Offset Well - Wellbore - Design</b>   |                               |                            |                               |                                |                    |         |
| Dzurisin                                 |                               |                            |                               |                                |                    |         |
| Thistle Unit 152H - Wellbore #1 - Plan 1 | 1,966.40                      | 1,967.20                   | 49.97                         | 41.41                          | 5.835 CC           |         |
| Thistle Unit 152H - Wellbore #1 - Plan 1 | 2,000.00                      | 2,000.79                   | 49.97                         | 41.26                          | 5.734 ES           |         |
| Thistle Unit 152H - Wellbore #1 - Plan 1 | 20,016.05                     | 19,763.27                  | 890.99                        | 286.41                         | 1.474 Level 3 , SF |         |
| Thistle Unit 153H - Wellbore #1 - Plan 1 | 3,500.00                      | 3,500.00                   | 29.97                         | 14.51                          | 1.939 CC, ES, SF   |         |

| <b>Offset Design</b>          |                     |                            |                     |                                |             |                       |                               |                                |                         |                   |                        | Dzurisin - Thistle Unit 152H - Wellbore #1 - Plan 1 |         | <b>Offset Site Error:</b> 0.00 ft |  |
|-------------------------------|---------------------|----------------------------|---------------------|--------------------------------|-------------|-----------------------|-------------------------------|--------------------------------|-------------------------|-------------------|------------------------|-----------------------------------------------------|---------|-----------------------------------|--|
| <b>Survey Program:</b> 0-MWD  |                     |                            |                     |                                |             |                       |                               |                                |                         |                   |                        |                                                     |         | <b>Offset Well Error:</b> 0.00 ft |  |
| Reference Measured Depth (ft) | Vertical Depth (ft) | Offset Measured Depth (ft) | Vertical Depth (ft) | Semi Major Axis Reference (ft) | Offset (ft) | Highside Toolface (°) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Risk Separation Factor | Probability of Collision                            | Warning |                                   |  |
| 0.00                          | 0.00                | 0.80                       | 0.80                | 0.00                           | 0.00        | -90.26                | 49.97                         |                                |                         |                   |                        |                                                     | 0       |                                   |  |
| 100.00                        | 100.00              | 100.80                     | 100.80              | 0.09                           | 0.09        | -90.26                | 49.97                         | 49.80                          | 0.17                    | 287.610           | 0                      |                                                     | 0       |                                   |  |
| 200.00                        | 200.00              | 200.80                     | 200.80              | 0.31                           | 0.31        | -90.26                | 49.97                         | 49.35                          | 0.62                    | 80.174            | 0                      |                                                     | 0       |                                   |  |
| 300.00                        | 300.00              | 300.80                     | 300.80              | 0.54                           | 0.54        | -90.26                | 49.97                         | 48.90                          | 1.07                    | 46.579            | 0                      |                                                     | 0       |                                   |  |
| 400.00                        | 400.00              | 400.80                     | 400.80              | 0.76                           | 0.76        | -90.26                | 49.97                         | 48.45                          | 1.52                    | 32.825            | 0                      |                                                     | 0       |                                   |  |
| 500.00                        | 500.00              | 500.80                     | 500.80              | 0.99                           | 0.99        | -90.26                | 49.97                         | 48.00                          | 1.97                    | 25.342            | 0                      |                                                     | 0       |                                   |  |
| 600.00                        | 600.00              | 600.80                     | 600.80              | 1.21                           | 1.21        | -90.26                | 49.97                         | 47.55                          | 2.42                    | 20.637            | 0                      |                                                     | 0       |                                   |  |
| 700.00                        | 700.00              | 700.80                     | 700.80              | 1.43                           | 1.44        | -90.26                | 49.97                         | 47.10                          | 2.87                    | 17.406            | 0                      |                                                     | 0       |                                   |  |
| 800.00                        | 800.00              | 800.80                     | 800.80              | 1.66                           | 1.66        | -90.26                | 49.97                         | 46.65                          | 3.32                    | 15.049            | 0                      |                                                     | 0       |                                   |  |
| 900.00                        | 900.00              | 900.80                     | 900.80              | 1.88                           | 1.89        | -90.26                | 49.97                         | 46.20                          | 3.77                    | 13.255            | 0                      |                                                     | 0       |                                   |  |
| 1,000.00                      | 1,000.00            | 1,000.80                   | 1,000.80            | 2.11                           | 2.11        | -90.26                | 49.97                         | 45.75                          | 4.22                    | 11.843            | 0                      |                                                     | 0       |                                   |  |
| 1,100.00                      | 1,100.00            | 1,100.80                   | 1,100.80            | 2.33                           | 2.34        | -90.26                | 49.97                         | 45.30                          | 4.67                    | 10.702            | 0                      |                                                     | 0       |                                   |  |
| 1,200.00                      | 1,200.00            | 1,200.80                   | 1,200.80            | 2.56                           | 2.56        | -90.26                | 49.97                         | 44.85                          | 5.12                    | 9.763             | 0                      |                                                     | 0       |                                   |  |
| 1,300.00                      | 1,300.00            | 1,300.80                   | 1,300.80            | 2.78                           | 2.78        | -90.26                | 49.97                         | 44.40                          | 5.57                    | 8.974             | 0                      |                                                     | 0       |                                   |  |
| 1,400.00                      | 1,400.00            | 1,400.80                   | 1,400.80            | 3.01                           | 3.01        | -90.26                | 49.97                         | 43.95                          | 6.02                    | 8.304             | 0                      |                                                     | 0       |                                   |  |
| 1,500.00                      | 1,500.00            | 1,500.80                   | 1,500.80            | 3.23                           | 3.23        | -90.26                | 49.97                         | 43.50                          | 6.47                    | 7.727             | 0                      |                                                     | 0       |                                   |  |
| 1,600.00                      | 1,600.00            | 1,600.80                   | 1,600.80            | 3.46                           | 3.46        | -90.26                | 49.97                         | 43.05                          | 6.92                    | 7.225             | 0                      |                                                     | 0       |                                   |  |
| 1,700.00                      | 1,700.00            | 1,700.80                   | 1,700.80            | 3.68                           | 3.68        | -90.26                | 49.97                         | 42.60                          | 7.37                    | 6.784             | 0                      |                                                     | 0       |                                   |  |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design Dzurisin - Thistle Unit 152H - Wellbore #1 - Plan 1 |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |                          |                          | Offset Site Error: | 0.00 ft |
|-------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|----------------------|-----------------------|-------------------------|-------------------|--------------------------|--------------------------|--------------------|---------|
| Survey Program: 0-MWD                                             |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |                          |                          | Offset Well Error: | 0.00 ft |
| Reference                                                         |                     | Offset              |                     | Semi Major Axis |             | Distance              |                      |                       |                         |                   | Risked Separation Factor | Probability of Collision | Warning            |         |
| Measured Depth (ft)                                               | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor |                          |                          |                    |         |
| 1,800.00                                                          | 1,800.00            | 1,800.80            | 1,800.80            | 3.91            | 3.91        | -90.26                | 49.97                | 42.15                 | 7.82                    | 6.394             | 0                        | CC<br>ES                 |                    |         |
| 1,900.00                                                          | 1,900.00            | 1,900.80            | 1,900.80            | 4.13            | 4.13        | -90.26                | 49.97                | 41.71                 | 8.27                    | 6.046             | 0                        |                          |                    |         |
| 1,966.40                                                          | 1,966.40            | 1,967.20            | 1,967.20            | 4.28            | 4.28        | -90.26                | 49.97                | 41.41                 | 8.56                    | 5.835             | 0                        |                          |                    |         |
| 2,000.00                                                          | 2,000.00            | 2,000.79            | 2,000.79            | 4.36            | 4.36        | -90.26                | 49.97                | 41.26                 | 8.71                    | 5.734             | 0                        |                          |                    |         |
| 2,100.00                                                          | 2,100.00            | 2,100.00            | 2,099.99            | 4.58            | 4.57        | -90.26                | 50.85                | 41.70                 | 9.15                    | 5.558             | 0                        |                          |                    |         |
| 2,200.00                                                          | 2,200.00            | 2,198.98            | 2,198.94            | 4.81            | 4.77        | -90.25                | 53.46                | 43.89                 | 9.57                    | 5.586             | 0                        |                          |                    |         |
| 2,300.00                                                          | 2,300.00            | 2,297.93            | 2,297.80            | 5.03            | 4.98        | -90.23                | 57.79                | 47.80                 | 9.99                    | 5.784             | 0                        |                          |                    |         |
| 2,400.00                                                          | 2,400.00            | 2,396.70            | 2,396.38            | 5.26            | 5.20        | -90.21                | 63.85                | 53.43                 | 10.42                   | 6.129             | 0                        |                          |                    |         |
| 2,500.00                                                          | 2,500.00            | 2,495.23            | 2,494.62            | 5.48            | 5.43        | -90.18                | 71.63                | 60.78                 | 10.84                   | 6.605             | 0                        |                          |                    |         |
| 2,600.00                                                          | 2,600.00            | 2,593.47            | 2,592.41            | 5.71            | 5.68        | -90.16                | 81.11                | 69.84                 | 11.27                   | 7.195             | 0                        |                          |                    |         |
| 2,700.00                                                          | 2,700.00            | 2,691.37            | 2,689.69            | 5.93            | 5.95        | -90.14                | 92.30                | 80.60                 | 11.70                   | 7.887             | 0                        |                          |                    |         |
| 2,800.00                                                          | 2,800.00            | 2,790.48            | 2,788.07            | 6.15            | 6.25        | -90.13                | 104.48               | 92.35                 | 12.14                   | 8.609             | 0                        |                          |                    |         |
| 2,900.00                                                          | 2,900.00            | 2,889.74            | 2,886.58            | 6.38            | 6.57        | -90.11                | 116.67               | 104.10                | 12.57                   | 9.280             | 0                        |                          |                    |         |
| 3,000.00                                                          | 3,000.00            | 2,988.99            | 2,985.10            | 6.60            | 6.90        | -90.10                | 128.86               | 115.85                | 13.01                   | 9.905             | 0                        |                          |                    |         |
| 3,100.00                                                          | 3,100.00            | 3,088.25            | 3,083.61            | 6.83            | 7.24        | -90.09                | 141.04               | 127.60                | 13.45                   | 10.488            | 0                        |                          |                    |         |
| 3,200.00                                                          | 3,200.00            | 3,187.50            | 3,182.13            | 7.05            | 7.58        | -90.09                | 153.23               | 139.34                | 13.89                   | 11.033            | 0                        |                          |                    |         |
| 3,300.00                                                          | 3,300.00            | 3,286.75            | 3,280.64            | 7.28            | 7.94        | -90.08                | 165.42               | 151.09                | 14.33                   | 11.544            | 0                        |                          |                    |         |
| 3,400.00                                                          | 3,400.00            | 3,386.01            | 3,379.16            | 7.50            | 8.30        | -90.07                | 177.60               | 162.83                | 14.77                   | 12.022            | 0                        |                          |                    |         |
| 3,500.00                                                          | 3,500.00            | 3,485.26            | 3,477.67            | 7.73            | 8.67        | -90.07                | 189.79               | 174.57                | 15.22                   | 12.472            | 0                        |                          |                    |         |
| 3,600.00                                                          | 3,600.00            | 3,584.51            | 3,576.18            | 7.92            | 9.05        | 90.06                 | 201.98               | 186.35                | 15.63                   | 12.921            | 0                        |                          |                    |         |
| 3,700.00                                                          | 3,699.96            | 3,683.73            | 3,674.66            | 8.09            | 9.43        | 90.63                 | 214.19               | 198.17                | 16.02                   | 13.370            | 0                        |                          |                    |         |
| 3,800.00                                                          | 3,799.86            | 3,782.89            | 3,773.08            | 8.26            | 9.81        | 91.57                 | 226.46               | 210.05                | 16.41                   | 13.798            | 0                        |                          |                    |         |
| 3,900.00                                                          | 3,899.68            | 3,881.96            | 3,871.41            | 8.44            | 10.20       | 92.82                 | 238.89               | 222.08                | 16.82                   | 14.207            | 0                        |                          |                    |         |
| 4,000.00                                                          | 3,999.37            | 3,980.91            | 3,969.62            | 8.61            | 10.59       | 94.33                 | 251.58               | 234.34                | 17.23                   | 14.600            | 0                        |                          |                    |         |
| 4,100.00                                                          | 4,098.99            | 4,079.78            | 4,067.76            | 8.80            | 10.99       | 95.99                 | 264.53               | 246.86                | 17.66                   | 14.975            | 0                        |                          |                    |         |
| 4,200.00                                                          | 4,198.60            | 4,178.66            | 4,165.90            | 9.00            | 11.38       | 97.50                 | 277.68               | 259.57                | 18.11                   | 15.330            | 0                        |                          |                    |         |
| 4,300.00                                                          | 4,298.22            | 4,277.54            | 4,264.04            | 9.21            | 11.78       | 98.87                 | 291.01               | 272.43                | 18.58                   | 15.665            | 0                        |                          |                    |         |
| 4,400.00                                                          | 4,397.84            | 4,376.41            | 4,362.18            | 9.43            | 12.18       | 100.13                | 304.49               | 285.43                | 19.05                   | 15.981            | 0                        |                          |                    |         |
| 4,500.00                                                          | 4,497.46            | 4,475.29            | 4,460.32            | 9.66            | 12.58       | 101.27                | 318.10               | 298.55                | 19.54                   | 16.279            | 0                        |                          |                    |         |
| 4,600.00                                                          | 4,597.08            | 4,574.17            | 4,558.46            | 9.89            | 12.99       | 102.32                | 331.82               | 311.78                | 20.04                   | 16.559            | 0                        |                          |                    |         |
| 4,700.00                                                          | 4,696.70            | 4,673.05            | 4,656.60            | 10.14           | 13.39       | 103.29                | 345.64               | 325.10                | 20.55                   | 16.822            | 0                        |                          |                    |         |
| 4,800.00                                                          | 4,796.32            | 4,771.92            | 4,754.74            | 10.39           | 13.80       | 104.19                | 359.56               | 338.49                | 21.06                   | 17.070            | 0                        |                          |                    |         |
| 4,900.00                                                          | 4,895.94            | 4,870.80            | 4,852.88            | 10.64           | 14.21       | 105.01                | 373.55               | 351.96                | 21.59                   | 17.303            | 0                        |                          |                    |         |
| 5,000.00                                                          | 4,995.56            | 4,969.68            | 4,951.02            | 10.90           | 14.62       | 105.78                | 387.62               | 365.49                | 22.12                   | 17.522            | 0                        |                          |                    |         |
| 5,100.00                                                          | 5,095.18            | 5,068.55            | 5,049.16            | 11.17           | 15.03       | 106.49                | 401.75               | 379.08                | 22.66                   | 17.728            | 0                        |                          |                    |         |
| 5,200.00                                                          | 5,194.80            | 5,167.43            | 5,147.30            | 11.44           | 15.44       | 107.16                | 415.93               | 392.72                | 23.21                   | 17.923            | 0                        |                          |                    |         |
| 5,300.00                                                          | 5,294.42            | 5,266.31            | 5,245.44            | 11.71           | 15.86       | 107.78                | 430.17               | 406.41                | 23.76                   | 18.106            | 0                        |                          |                    |         |
| 5,400.00                                                          | 5,394.04            | 5,365.18            | 5,343.58            | 11.99           | 16.27       | 108.36                | 444.45               | 420.14                | 24.31                   | 18.279            | 0                        |                          |                    |         |
| 5,500.00                                                          | 5,493.66            | 5,464.06            | 5,441.72            | 12.28           | 16.69       | 108.91                | 458.78               | 433.90                | 24.88                   | 18.443            | 0                        |                          |                    |         |
| 5,600.00                                                          | 5,593.28            | 5,562.94            | 5,539.86            | 12.56           | 17.10       | 109.42                | 473.14               | 447.70                | 25.44                   | 18.597            | 0                        |                          |                    |         |
| 5,700.00                                                          | 5,692.90            | 5,661.81            | 5,638.00            | 12.86           | 17.52       | 109.90                | 487.54               | 461.53                | 26.01                   | 18.743            | 0                        |                          |                    |         |
| 5,800.00                                                          | 5,792.52            | 5,760.69            | 5,736.14            | 13.15           | 17.94       | 110.36                | 501.97               | 475.39                | 26.59                   | 18.881            | 0                        |                          |                    |         |
| 5,900.00                                                          | 5,892.14            | 5,859.57            | 5,834.28            | 13.45           | 18.36       | 110.79                | 516.43               | 489.27                | 27.16                   | 19.012            | 0                        |                          |                    |         |
| 6,000.00                                                          | 5,991.76            | 5,958.45            | 5,932.42            | 13.75           | 18.77       | 111.19                | 530.92               | 503.17                | 27.74                   | 19.137            | 0                        |                          |                    |         |
| 6,100.00                                                          | 6,091.37            | 6,057.32            | 6,030.56            | 14.05           | 19.19       | 111.58                | 545.43               | 517.10                | 28.33                   | 19.255            | 0                        |                          |                    |         |
| 6,200.00                                                          | 6,190.99            | 6,156.20            | 6,128.70            | 14.35           | 19.61       | 111.94                | 559.96               | 531.05                | 28.91                   | 19.367            | 0                        |                          |                    |         |
| 6,300.00                                                          | 6,290.65            | 6,255.11            | 6,226.87            | 14.62           | 20.03       | 112.31                | 574.36               | 544.88                | 29.48                   | 19.485            | 0                        |                          |                    |         |
| 6,400.00                                                          | 6,390.38            | 6,354.09            | 6,325.12            | 14.85           | 20.45       | 112.59                | 588.43               | 558.43                | 30.00                   | 19.613            | 0                        |                          |                    |         |
| 6,500.00                                                          | 6,490.16            | 6,453.14            | 6,423.42            | 15.08           | 20.87       | 112.78                | 602.18               | 571.66                | 30.52                   | 19.729            | 0                        |                          |                    |         |
| 6,600.00                                                          | 6,590.00            | 6,552.23            | 6,521.78            | 15.30           | 21.30       | 112.88                | 615.60               | 584.56                | 31.03                   | 19.837            | 0                        |                          |                    |         |
| 6,700.00                                                          | 6,689.88            | 6,651.37            | 6,620.18            | 15.53           | 21.72       | 112.91                | 628.68               | 597.14                | 31.53                   | 19.936            | 0                        |                          |                    |         |
| 6,800.00                                                          | 6,789.81            | 6,750.55            | 6,718.62            | 15.74           | 22.14       | 112.87                | 641.42               | 609.39                | 32.03                   | 20.028            | 0                        |                          |                    |         |
| 6,900.00                                                          | 6,889.76            | 6,849.76            | 6,817.08            | 15.95           | 22.57       | 112.75                | 653.83               | 621.32                | 32.51                   | 20.113            | 0                        |                          |                    |         |
| 7,000.00                                                          | 6,989.74            | 6,948.99            | 6,915.58            | 16.16           | 22.99       | 112.58                | 665.91               | 632.94                | 32.98                   | 20.194            | 0                        |                          |                    |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design Dzurisin - Thistle Unit 152H - Wellbore #1 - Plan 1 |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |             |                          | Offset Site Error: 0.00 ft |
|-------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|----------------------|-----------------------|-------------------------|-------------------|-------------|--------------------------|----------------------------|
| Survey Program: 0-MWD                                             |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |             |                          | Offset Well Error: 0.00 ft |
| Reference                                                         |                     | Offset              |                     | Semi Major Axis |             |                       | Distance             |                       |                         |                   |             |                          | Warning                    |
| Measured Depth (ft)                                               | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Risk Factor | Probability of Collision |                            |
| 7,100.00                                                          | 7,089.73            | 7,048.23            | 7,014.08            | 16.36           | 23.42       | 112.34                | 677.68               | 644.25                | 33.43                   | 20.269            | 0           |                          |                            |
| 7,200.00                                                          | 7,189.73            | 7,147.49            | 7,112.60            | 16.55           | 23.84       | -67.96                | 689.14               | 655.22                | 33.92                   | 20.316            | 0           |                          |                            |
| 7,300.00                                                          | 7,289.73            | 7,246.74            | 7,211.11            | 16.74           | 24.27       | -68.34                | 700.46               | 666.11                | 34.35                   | 20.392            | 0           |                          |                            |
| 7,400.00                                                          | 7,389.73            | 7,346.00            | 7,309.62            | 16.93           | 24.69       | -68.70                | 711.81               | 677.03                | 34.78                   | 20.465            | 0           |                          |                            |
| 7,500.00                                                          | 7,489.73            | 7,445.25            | 7,408.14            | 17.13           | 25.12       | -69.05                | 723.19               | 687.98                | 35.21                   | 20.537            | 0           |                          |                            |
| 7,600.00                                                          | 7,589.73            | 7,544.50            | 7,506.65            | 17.32           | 25.54       | -69.39                | 734.60               | 698.95                | 35.65                   | 20.608            | 0           |                          |                            |
| 7,700.00                                                          | 7,689.73            | 7,643.76            | 7,605.17            | 17.51           | 25.97       | -69.72                | 746.03               | 709.95                | 36.08                   | 20.678            | 0           |                          |                            |
| 7,800.00                                                          | 7,789.73            | 7,743.01            | 7,703.68            | 17.71           | 26.39       | -70.04                | 757.48               | 720.97                | 36.51                   | 20.747            | 0           |                          |                            |
| 7,900.00                                                          | 7,889.73            | 7,842.27            | 7,802.20            | 17.91           | 26.82       | -70.35                | 768.96               | 732.01                | 36.94                   | 20.815            | 0           |                          |                            |
| 8,000.00                                                          | 7,989.73            | 7,941.52            | 7,900.71            | 18.10           | 27.25       | -70.65                | 780.45               | 743.08                | 37.38                   | 20.881            | 0           |                          |                            |
| 8,100.00                                                          | 8,089.73            | 8,040.78            | 7,999.23            | 18.30           | 27.67       | -70.94                | 791.97               | 754.16                | 37.81                   | 20.947            | 0           |                          |                            |
| 8,200.00                                                          | 8,189.73            | 8,140.03            | 8,097.74            | 18.50           | 28.10       | -71.22                | 803.51               | 765.27                | 38.24                   | 21.011            | 0           |                          |                            |
| 8,300.00                                                          | 8,289.73            | 8,239.29            | 8,196.26            | 18.70           | 28.53       | -71.50                | 815.06               | 776.39                | 38.68                   | 21.074            | 0           |                          |                            |
| 8,400.00                                                          | 8,389.73            | 8,338.54            | 8,294.77            | 18.89           | 28.95       | -71.77                | 826.64               | 787.53                | 39.11                   | 21.136            | 0           |                          |                            |
| 8,500.00                                                          | 8,489.73            | 8,437.80            | 8,393.29            | 19.09           | 29.38       | -72.03                | 838.23               | 798.69                | 39.55                   | 21.197            | 0           |                          |                            |
| 8,600.00                                                          | 8,589.73            | 8,541.12            | 8,495.85            | 19.29           | 29.78       | -72.29                | 849.75               | 809.78                | 39.97                   | 21.258            | 0           |                          |                            |
| 8,700.00                                                          | 8,689.73            | 8,651.51            | 8,605.57            | 19.50           | 30.08       | -72.54                | 860.26               | 819.89                | 40.37                   | 21.310            | 0           |                          |                            |
| 8,800.00                                                          | 8,789.73            | 8,762.21            | 8,715.75            | 19.70           | 30.31       | -72.75                | 869.50               | 828.75                | 40.75                   | 21.339            | 0           |                          |                            |
| 8,900.00                                                          | 8,889.73            | 8,873.18            | 8,826.34            | 19.90           | 30.52       | -72.93                | 877.46               | 836.33                | 41.13                   | 21.336            | 0           |                          |                            |
| 9,000.00                                                          | 8,989.73            | 8,984.39            | 8,937.27            | 20.10           | 30.73       | -73.07                | 884.13               | 842.62                | 41.51                   | 21.300            | 0           |                          |                            |
| 9,100.00                                                          | 9,089.73            | 9,095.78            | 9,048.49            | 20.30           | 30.92       | -73.19                | 889.50               | 847.61                | 41.89                   | 21.233            | 0           |                          |                            |
| 9,200.00                                                          | 9,189.73            | 9,207.33            | 9,159.93            | 20.51           | 31.09       | -73.28                | 893.58               | 851.30                | 42.28                   | 21.135            | 0           |                          |                            |
| 9,300.00                                                          | 9,289.73            | 9,318.98            | 9,271.54            | 20.71           | 31.25       | -73.34                | 896.35               | 853.68                | 42.67                   | 21.008            | 0           |                          |                            |
| 9,400.00                                                          | 9,389.73            | 9,430.70            | 9,383.24            | 20.91           | 31.40       | -73.37                | 897.81               | 854.76                | 43.06                   | 20.852            | 0           |                          |                            |
| 9,500.00                                                          | 9,489.73            | 9,537.98            | 9,490.53            | 21.12           | 31.54       | -73.38                | 898.07               | 854.62                | 43.45                   | 20.669            | 0           |                          |                            |
| 9,549.82                                                          | 9,539.54            | 9,587.80            | 9,540.34            | 21.22           | 31.60       | -73.38                | 898.07               | 854.42                | 43.64                   | 20.577            | 0           |                          |                            |
| 9,591.00                                                          | 9,580.73            | 9,620.39            | 9,572.92            | 21.31           | 31.65       | -73.36                | 898.18               | 854.39                | 43.79                   | 20.511            | 0           |                          |                            |
| 9,600.00                                                          | 9,589.72            | 9,625.00            | 9,577.54            | 21.32           | 31.66       | -72.88                | 898.26               | 854.49                | 43.77                   | 20.523            | 0           |                          |                            |
| 9,625.00                                                          | 9,614.70            | 9,642.18            | 9,594.68            | 21.37           | 31.68       | -72.85                | 898.38               | 854.53                | 43.85                   | 20.489            | 0           |                          |                            |
| 9,650.00                                                          | 9,639.58            | 9,658.20            | 9,610.63            | 21.40           | 31.70       | -72.86                | 898.37               | 854.47                | 43.90                   | 20.464            | 0           |                          |                            |
| 9,675.00                                                          | 9,664.29            | 9,675.00            | 9,627.29            | 21.43           | 31.73       | -72.90                | 898.22               | 854.29                | 43.93                   | 20.447            | 0           |                          |                            |
| 9,700.00                                                          | 9,688.78            | 9,690.25            | 9,642.34            | 21.46           | 31.75       | -72.97                | 897.93               | 854.00                | 43.93                   | 20.440            | 0           |                          |                            |
| 9,725.00                                                          | 9,712.97            | 9,706.29            | 9,658.08            | 21.47           | 31.77       | -73.07                | 897.52               | 853.60                | 43.91                   | 20.438            | 0           |                          |                            |
| 9,750.00                                                          | 9,736.80            | 9,725.00            | 9,676.28            | 21.48           | 31.80       | -73.23                | 896.97               | 853.09                | 43.88                   | 20.442            | 0           |                          |                            |
| 9,775.00                                                          | 9,760.20            | 9,738.43            | 9,689.24            | 21.49           | 31.82       | -73.38                | 896.29               | 852.47                | 43.83                   | 20.451            | 0           |                          |                            |
| 9,800.00                                                          | 9,783.11            | 9,754.54            | 9,704.65            | 21.49           | 31.84       | -73.59                | 895.49               | 851.73                | 43.76                   | 20.461            | 0           |                          |                            |
| 9,825.00                                                          | 9,805.47            | 9,775.00            | 9,723.97            | 21.50           | 31.87       | -73.87                | 894.59               | 850.89                | 43.70                   | 20.472            | 0           |                          |                            |
| 9,850.00                                                          | 9,827.21            | 9,786.84            | 9,735.02            | 21.50           | 31.89       | -74.10                | 893.54               | 849.91                | 43.63                   | 20.481            | 0           |                          |                            |
| 9,875.00                                                          | 9,848.27            | 9,800.00            | 9,747.17            | 21.50           | 31.91       | -74.37                | 892.41               | 848.85                | 43.56                   | 20.487            | 0           |                          |                            |
| 9,900.00                                                          | 9,868.60            | 9,819.31            | 9,764.73            | 21.51           | 31.94       | -74.74                | 891.16               | 847.66                | 43.50                   | 20.486            | 0           |                          |                            |
| 9,925.00                                                          | 9,888.14            | 9,835.63            | 9,779.30            | 21.53           | 31.96       | -75.10                | 889.83               | 846.38                | 43.45                   | 20.477            | 0           |                          |                            |
| 9,950.00                                                          | 9,906.84            | 9,850.00            | 9,791.93            | 21.55           | 31.99       | -75.46                | 888.42               | 845.00                | 43.42                   | 20.460            | 0           |                          |                            |
| 9,975.00                                                          | 9,924.65            | 9,868.43            | 9,807.81            | 21.59           | 32.02       | -75.92                | 886.92               | 843.50                | 43.42                   | 20.427            | 0           |                          |                            |
| 10,000.00                                                         | 9,941.51            | 9,884.93            | 9,821.71            | 21.63           | 32.04       | -76.37                | 885.37               | 841.93                | 43.44                   | 20.381            | 0           |                          |                            |
| 10,025.00                                                         | 9,957.38            | 9,900.00            | 9,834.13            | 21.69           | 32.07       | -76.82                | 883.76               | 840.27                | 43.49                   | 20.322            | 0           |                          |                            |
| 10,050.00                                                         | 9,972.22            | 9,918.18            | 9,848.74            | 21.77           | 32.10       | -77.35                | 882.10               | 838.52                | 43.58                   | 20.242            | 0           |                          |                            |
| 10,075.00                                                         | 9,985.99            | 9,934.93            | 9,861.84            | 21.86           | 32.13       | -77.87                | 880.41               | 836.71                | 43.70                   | 20.146            | 0           |                          |                            |
| 10,100.00                                                         | 9,998.65            | 9,950.00            | 9,873.30            | 21.97           | 32.16       | -78.39                | 878.71               | 834.85                | 43.86                   | 20.036            | 0           |                          |                            |
| 10,125.00                                                         | 10,010.16           | 9,968.76            | 9,887.12            | 22.10           | 32.20       | -79.00                | 876.99               | 832.92                | 44.07                   | 19.900            | 0           |                          |                            |
| 10,150.00                                                         | 10,020.49           | 9,985.86            | 9,899.28            | 22.25           | 32.23       | -79.60                | 875.28               | 830.96                | 44.32                   | 19.750            | 0           |                          |                            |
| 10,175.00                                                         | 10,029.62           | 10,000.00           | 9,909.00            | 22.43           | 32.27       | -80.14                | 873.60               | 829.01                | 44.58                   | 19.594            | 0           |                          |                            |
| 10,200.00                                                         | 10,037.52           | 10,020.44           | 9,922.51            | 22.62           | 32.31       | -80.84                | 871.93               | 826.99                | 44.93                   | 19.404            | 0           |                          |                            |
| 10,225.00                                                         | 10,044.17           | 10,037.96           | 9,933.56            | 22.84           | 32.36       | -81.50                | 870.32               | 825.01                | 45.30                   | 19.210            | 0           |                          |                            |
| 10,250.00                                                         | 10,049.55           | 10,055.65           | 9,944.20            | 23.08           | 32.40       | -82.16                | 868.76               | 823.05                | 45.71                   | 19.005            | 0           |                          |                            |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design         |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |   |                          | Offset Site Error: 0.00 ft |         |
|-----------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|----------------------|-----------------------|-------------------------|-------------------|---|--------------------------|----------------------------|---------|
| Survey Program: 0-MWD |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |   |                          | Offset Well Error: 0.00 ft |         |
| Reference             |                     | Offset              |                     | Semi Major Axis |             | Distance              |                      |                       |                         |                   |   | Risked Separation Factor | Probability of Collision   | Warning |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor |   |                          |                            |         |
| 10,275.00             | 10,053.64           | 10,075.00           | 9,955.23            | 23.34           | 32.46       | -82.88                | 867.29               | 821.12                | 46.17                   | 18.786            | 0 |                          |                            |         |
| 10,300.00             | 10,056.43           | 10,091.59           | 9,964.17            | 23.62           | 32.51       | -83.53                | 865.90               | 819.27                | 46.63                   | 18.569            | 0 |                          |                            |         |
| 10,325.00             | 10,057.92           | 10,109.88           | 9,973.46            | 23.92           | 32.57       | -84.24                | 864.61               | 817.48                | 47.14                   | 18.343            | 0 |                          |                            |         |
| 10,343.67             | 10,058.18           | 10,125.00           | 9,980.67            | 24.15           | 32.62       | -84.81                | 863.73               | 816.19                | 47.54                   | 18.167            | 0 |                          |                            |         |
| 10,359.90             | 10,058.09           | 10,135.92           | 9,985.62            | 24.25           | 32.66       | -85.14                | 863.04               | 815.28                | 47.76                   | 18.070            | 0 |                          |                            |         |
| 10,400.00             | 10,057.87           | 10,167.50           | 9,998.66            | 24.53           | 32.79       | -86.01                | 861.75               | 813.36                | 48.38                   | 17.811            | 0 |                          |                            |         |
| 10,500.00             | 10,057.32           | 10,253.93           | 10,024.35           | 26.09           | 33.22       | -87.75                | 860.31               | 809.28                | 51.03                   | 16.859            | 0 |                          |                            |         |
| 10,556.36             | 10,057.01           | 10,306.29           | 10,032.53           | 27.10           | 33.56       | -88.32                | 860.17               | 807.36                | 52.81                   | 16.289            | 0 |                          |                            |         |
| 10,600.00             | 10,056.77           | 10,347.77           | 10,034.95           | 27.89           | 33.88       | -88.49                | 860.23               | 805.98                | 54.25                   | 15.857            | 0 |                          |                            |         |
| 10,700.00             | 10,056.22           | 10,447.25           | 10,034.29           | 29.90           | 34.77       | -88.48                | 860.55               | 802.74                | 57.81                   | 14.887            | 0 |                          |                            |         |
| 10,800.00             | 10,055.67           | 10,547.24           | 10,033.49           | 32.06           | 35.95       | -88.47                | 860.87               | 798.97                | 61.90                   | 13.908            | 0 |                          |                            |         |
| 10,900.00             | 10,055.12           | 10,647.24           | 10,032.69           | 34.36           | 37.40       | -88.45                | 861.19               | 794.90                | 66.30                   | 12.990            | 0 |                          |                            |         |
| 11,000.00             | 10,054.57           | 10,747.24           | 10,031.90           | 36.77           | 39.08       | -88.44                | 861.52               | 790.57                | 70.95                   | 12.143            | 0 |                          |                            |         |
| 11,100.00             | 10,054.02           | 10,847.24           | 10,031.10           | 39.27           | 40.97       | -88.42                | 861.84               | 786.04                | 75.80                   | 11.370            | 0 |                          |                            |         |
| 11,200.00             | 10,053.47           | 10,947.24           | 10,030.30           | 41.84           | 43.02       | -88.41                | 862.17               | 781.35                | 80.82                   | 10.668            | 0 |                          |                            |         |
| 11,300.00             | 10,052.92           | 11,047.24           | 10,029.50           | 44.46           | 45.22       | -88.39                | 862.49               | 776.52                | 85.97                   | 10.032            | 0 |                          |                            |         |
| 11,400.00             | 10,052.37           | 11,147.24           | 10,028.71           | 47.14           | 47.53       | -88.37                | 862.82               | 771.57                | 91.24                   | 9.456             | 0 |                          |                            |         |
| 11,500.00             | 10,051.83           | 11,247.24           | 10,027.91           | 49.86           | 49.94       | -88.36                | 863.14               | 766.53                | 96.61                   | 8.935             | 0 |                          |                            |         |
| 11,600.00             | 10,051.28           | 11,347.24           | 10,027.11           | 52.61           | 52.42       | -88.34                | 863.46               | 761.41                | 102.05                  | 8.461             | 0 |                          |                            |         |
| 11,700.00             | 10,050.73           | 11,447.24           | 10,026.32           | 55.40           | 54.97       | -88.33                | 863.79               | 756.22                | 107.56                  | 8.030             | 0 |                          |                            |         |
| 11,800.00             | 10,050.18           | 11,547.24           | 10,025.52           | 58.21           | 57.57       | -88.31                | 864.11               | 750.98                | 113.13                  | 7.638             | 0 |                          |                            |         |
| 11,900.00             | 10,049.63           | 11,647.24           | 10,024.72           | 61.04           | 60.22       | -88.30                | 864.44               | 745.68                | 118.75                  | 7.279             | 0 |                          |                            |         |
| 12,000.00             | 10,049.08           | 11,747.23           | 10,023.93           | 63.89           | 62.91       | -88.28                | 864.76               | 740.34                | 124.42                  | 6.950             | 0 |                          |                            |         |
| 12,100.00             | 10,048.53           | 11,847.23           | 10,023.13           | 66.76           | 65.63       | -88.26                | 865.09               | 734.97                | 130.12                  | 6.648             | 0 |                          |                            |         |
| 12,200.00             | 10,047.98           | 11,947.23           | 10,022.33           | 69.64           | 68.38       | -88.25                | 865.41               | 729.56                | 135.85                  | 6.370             | 0 |                          |                            |         |
| 12,300.00             | 10,047.43           | 12,047.23           | 10,021.53           | 72.53           | 71.15       | -88.23                | 865.74               | 724.12                | 141.61                  | 6.113             | 0 |                          |                            |         |
| 12,400.00             | 10,046.88           | 12,147.23           | 10,020.74           | 75.44           | 73.95       | -88.22                | 866.06               | 718.66                | 147.40                  | 5.876             | 0 |                          |                            |         |
| 12,500.00             | 10,046.33           | 12,247.23           | 10,019.94           | 78.35           | 76.77       | -88.20                | 866.39               | 713.18                | 153.21                  | 5.655             | 0 |                          |                            |         |
| 12,600.00             | 10,045.78           | 12,347.23           | 10,019.14           | 81.28           | 79.60       | -88.19                | 866.71               | 707.67                | 159.04                  | 5.450             | 0 |                          |                            |         |
| 12,700.00             | 10,045.23           | 12,447.23           | 10,018.35           | 84.21           | 82.45       | -88.17                | 867.04               | 702.15                | 164.89                  | 5.258             | 0 |                          |                            |         |
| 12,800.00             | 10,044.68           | 12,547.23           | 10,017.55           | 87.15           | 85.31       | -88.15                | 867.36               | 696.61                | 170.75                  | 5.080             | 0 |                          |                            |         |
| 12,900.00             | 10,044.13           | 12,647.23           | 10,016.75           | 90.10           | 88.19       | -88.14                | 867.69               | 691.06                | 176.63                  | 4.913             | 0 |                          |                            |         |
| 13,000.00             | 10,043.58           | 12,747.23           | 10,015.95           | 93.05           | 91.08       | -88.12                | 868.01               | 685.50                | 182.52                  | 4.756             | 0 |                          |                            |         |
| 13,100.00             | 10,043.03           | 12,847.23           | 10,015.16           | 96.01           | 93.97       | -88.11                | 868.34               | 679.92                | 188.42                  | 4.609             | 0 |                          |                            |         |
| 13,200.00             | 10,042.48           | 12,947.22           | 10,014.36           | 98.98           | 96.88       | -88.09                | 868.66               | 674.33                | 194.33                  | 4.470             | 0 |                          |                            |         |
| 13,300.00             | 10,041.93           | 13,047.22           | 10,013.56           | 101.94          | 99.79       | -88.08                | 868.99               | 668.74                | 200.25                  | 4.339             | 0 |                          |                            |         |
| 13,400.00             | 10,041.38           | 13,147.22           | 10,012.77           | 104.92          | 102.71      | -88.06                | 869.31               | 663.13                | 206.18                  | 4.216             | 0 |                          |                            |         |
| 13,500.00             | 10,040.83           | 13,247.22           | 10,011.97           | 107.89          | 105.64      | -88.04                | 869.64               | 657.52                | 212.12                  | 4.100             | 0 |                          |                            |         |
| 13,600.00             | 10,040.28           | 13,347.22           | 10,011.17           | 110.87          | 108.58      | -88.03                | 869.97               | 651.90                | 218.07                  | 3.989             | 0 |                          |                            |         |
| 13,700.00             | 10,039.73           | 13,447.22           | 10,010.38           | 113.85          | 111.52      | -88.01                | 870.29               | 646.27                | 224.02                  | 3.885             | 0 |                          |                            |         |
| 13,800.00             | 10,039.18           | 13,547.22           | 10,009.58           | 116.84          | 114.46      | -88.00                | 870.62               | 640.64                | 229.98                  | 3.786             | 0 |                          |                            |         |
| 13,900.00             | 10,038.63           | 13,647.22           | 10,008.78           | 119.83          | 117.41      | -87.98                | 870.94               | 635.00                | 235.95                  | 3.691             | 0 |                          |                            |         |
| 14,000.00             | 10,038.08           | 13,747.22           | 10,007.98           | 122.82          | 120.37      | -87.97                | 871.27               | 629.35                | 241.92                  | 3.602             | 0 |                          |                            |         |
| 14,100.00             | 10,037.53           | 13,847.22           | 10,007.19           | 125.81          | 123.33      | -87.95                | 871.59               | 623.70                | 247.89                  | 3.516             | 0 |                          |                            |         |
| 14,200.00             | 10,036.98           | 13,947.22           | 10,006.39           | 128.81          | 126.29      | -87.94                | 871.92               | 618.05                | 253.87                  | 3.435             | 0 |                          |                            |         |
| 14,300.00             | 10,036.43           | 14,047.22           | 10,005.59           | 131.80          | 129.26      | -87.92                | 872.25               | 612.39                | 259.86                  | 3.357             | 0 |                          |                            |         |
| 14,400.00             | 10,035.88           | 14,147.22           | 10,004.80           | 134.80          | 132.23      | -87.90                | 872.57               | 606.73                | 265.84                  | 3.282             | 0 |                          |                            |         |
| 14,500.00             | 10,035.33           | 14,247.21           | 10,004.00           | 137.81          | 135.20      | -87.89                | 872.90               | 601.06                | 271.83                  | 3.211             | 0 |                          |                            |         |
| 14,600.00             | 10,034.78           | 14,347.21           | 10,003.20           | 140.81          | 138.18      | -87.87                | 873.23               | 595.40                | 277.83                  | 3.143             | 0 |                          |                            |         |
| 14,700.00             | 10,034.23           | 14,447.21           | 10,002.41           | 143.81          | 141.16      | -87.86                | 873.55               | 589.72                | 283.83                  | 3.078             | 0 |                          |                            |         |
| 14,800.00             | 10,033.68           | 14,547.21           | 10,001.61           | 146.82          | 144.14      | -87.84                | 873.88               | 584.05                | 289.83                  | 3.015             | 0 |                          |                            |         |
| 14,900.00             | 10,033.13           | 14,647.21           | 10,000.81           | 149.82          | 147.12      | -87.83                | 874.21               | 578.37                | 295.83                  | 2.955             | 0 |                          |                            |         |
| 15,000.00             | 10,032.58           | 14,747.21           | 10,000.01           | 152.83          | 150.11      | -87.81                | 874.53               | 572.69                | 301.84                  | 2.897             | 0 |                          |                            |         |
| 15,100.00             | 10,032.03           | 14,847.21           | 9,999.22            | 155.84          | 153.10      | -87.80                | 874.86               | 567.01                | 307.85                  | 2.842             | 0 |                          |                            |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design Dzurisin - Thistle Unit 152H - Wellbore #1 - Plan 1 |                |                |                |                 |        |                   |                 |                  |                    |                   |                         |                          | Offset Site Error: 0.00 ft |  |
|-------------------------------------------------------------------|----------------|----------------|----------------|-----------------|--------|-------------------|-----------------|------------------|--------------------|-------------------|-------------------------|--------------------------|----------------------------|--|
| Survey Program: 0-MWD                                             |                |                |                |                 |        |                   |                 |                  |                    |                   |                         |                          | Offset Well Error: 0.00 ft |  |
| Reference                                                         |                | Offset         |                | Semi Major Axis |        | Distance          |                 |                  |                    |                   |                         |                          | Warning                    |  |
| Measured Depth                                                    | Vertical Depth | Measured Depth | Vertical Depth | Reference       | Offset | Highside Toolface | Between Centres | Between Ellipses | Minimum Separation | Separation Factor | Riskd Separation Factor | Probability of Collision |                            |  |
| (ft)                                                              | (ft)           | (ft)           | (ft)           | (ft)            | (ft)   | (°)               | (ft)            | (ft)             | (ft)               |                   |                         |                          |                            |  |
| 15,200.00                                                         | 10,031.48      | 14,947.21      | 9,998.42       | 158.85          | 156.09 | -87.78            | 875.19          | 561.32           | 313.86             | 2.788             | 0                       |                          |                            |  |
| 15,300.00                                                         | 10,030.93      | 15,047.21      | 9,997.62       | 161.87          | 159.08 | -87.77            | 875.51          | 555.64           | 319.87             | 2.737             | 0                       |                          |                            |  |
| 15,400.00                                                         | 10,030.38      | 15,147.21      | 9,996.83       | 164.88          | 162.07 | -87.75            | 875.84          | 549.95           | 325.89             | 2.688             | 0                       |                          |                            |  |
| 15,500.00                                                         | 10,029.83      | 15,247.21      | 9,996.03       | 167.89          | 165.07 | -87.74            | 876.17          | 544.26           | 331.91             | 2.640             | 0                       |                          |                            |  |
| 15,600.00                                                         | 10,029.28      | 15,347.21      | 9,995.23       | 170.91          | 168.07 | -87.72            | 876.49          | 538.57           | 337.93             | 2.594             | 0                       |                          |                            |  |
| 15,700.00                                                         | 10,028.73      | 15,447.20      | 9,994.43       | 173.92          | 171.07 | -87.70            | 876.82          | 532.87           | 343.95             | 2.549             | 0                       |                          |                            |  |
| 15,800.00                                                         | 10,028.18      | 15,547.20      | 9,993.64       | 176.94          | 174.07 | -87.69            | 877.15          | 527.18           | 349.97             | 2.506             | 0                       |                          |                            |  |
| 15,900.00                                                         | 10,027.63      | 15,647.20      | 9,992.84       | 179.96          | 177.07 | -87.67            | 877.47          | 521.48           | 356.00             | 2.465             | 0                       |                          |                            |  |
| 16,000.00                                                         | 10,027.08      | 15,747.20      | 9,992.04       | 182.97          | 180.07 | -87.66            | 877.80          | 515.78           | 362.02             | 2.425             | 0                       |                          |                            |  |
| 16,100.00                                                         | 10,026.53      | 15,847.20      | 9,991.25       | 185.99          | 183.07 | -87.64            | 878.13          | 510.08           | 368.05             | 2.386             | 0                       |                          |                            |  |
| 16,200.00                                                         | 10,025.98      | 15,947.20      | 9,990.45       | 189.01          | 186.08 | -87.63            | 878.46          | 504.38           | 374.08             | 2.348             | 0                       |                          |                            |  |
| 16,300.00                                                         | 10,025.43      | 16,047.20      | 9,989.65       | 192.03          | 189.09 | -87.61            | 878.78          | 498.68           | 380.11             | 2.312             | 0                       |                          |                            |  |
| 16,400.00                                                         | 10,024.88      | 16,147.20      | 9,988.86       | 195.05          | 192.09 | -87.60            | 879.11          | 492.97           | 386.14             | 2.277             | 0                       |                          |                            |  |
| 16,500.00                                                         | 10,024.33      | 16,247.20      | 9,988.06       | 198.07          | 195.10 | -87.58            | 879.44          | 487.27           | 392.17             | 2.242             | 0                       |                          |                            |  |
| 16,600.00                                                         | 10,023.78      | 16,347.20      | 9,987.26       | 201.10          | 198.11 | -87.57            | 879.77          | 481.56           | 398.20             | 2.209             | 0                       |                          |                            |  |
| 16,700.00                                                         | 10,023.23      | 16,447.20      | 9,986.46       | 204.12          | 201.12 | -87.55            | 880.09          | 475.86           | 404.24             | 2.177             | 0                       |                          |                            |  |
| 16,800.00                                                         | 10,022.68      | 16,547.20      | 9,985.67       | 207.14          | 204.13 | -87.54            | 880.42          | 470.15           | 410.27             | 2.146             | 0                       |                          |                            |  |
| 16,900.00                                                         | 10,022.13      | 16,647.20      | 9,984.87       | 210.16          | 207.15 | -87.52            | 880.75          | 464.44           | 416.31             | 2.116             | 0                       |                          |                            |  |
| 17,000.00                                                         | 10,021.58      | 16,747.19      | 9,984.07       | 213.19          | 210.16 | -87.51            | 881.08          | 458.73           | 422.34             | 2.086             | 0                       |                          |                            |  |
| 17,100.00                                                         | 10,021.03      | 16,847.19      | 9,983.28       | 216.21          | 213.17 | -87.49            | 881.40          | 453.02           | 428.38             | 2.058             | 0                       |                          |                            |  |
| 17,200.00                                                         | 10,020.48      | 16,947.19      | 9,982.48       | 219.24          | 216.19 | -87.48            | 881.73          | 447.31           | 434.42             | 2.030             | 0                       |                          |                            |  |
| 17,300.00                                                         | 10,019.93      | 17,047.19      | 9,981.68       | 222.26          | 219.20 | -87.46            | 882.06          | 441.60           | 440.46             | 2.003             | 0                       |                          |                            |  |
| 17,400.00                                                         | 10,019.38      | 17,147.19      | 9,980.89       | 225.29          | 222.22 | -87.45            | 882.39          | 435.89           | 446.50             | 1.976             | 0                       |                          |                            |  |
| 17,500.00                                                         | 10,018.84      | 17,247.19      | 9,980.09       | 228.31          | 225.23 | -87.43            | 882.72          | 430.18           | 452.54             | 1.951             | 0                       |                          |                            |  |
| 17,600.00                                                         | 10,018.29      | 17,347.19      | 9,979.29       | 231.34          | 228.25 | -87.42            | 883.04          | 424.47           | 458.58             | 1.926             | 0                       |                          |                            |  |
| 17,700.00                                                         | 10,017.74      | 17,447.19      | 9,978.49       | 234.36          | 231.27 | -87.40            | 883.37          | 418.76           | 464.62             | 1.901             | 0                       |                          |                            |  |
| 17,800.00                                                         | 10,017.19      | 17,547.19      | 9,977.70       | 237.39          | 234.29 | -87.39            | 883.70          | 413.04           | 470.66             | 1.878             | 0                       |                          |                            |  |
| 17,900.00                                                         | 10,016.64      | 17,647.19      | 9,976.90       | 240.42          | 237.30 | -87.37            | 884.03          | 407.33           | 476.70             | 1.854             | 0                       |                          |                            |  |
| 18,000.00                                                         | 10,016.09      | 17,747.19      | 9,976.10       | 243.45          | 240.32 | -87.36            | 884.36          | 401.61           | 482.74             | 1.832             | 0                       |                          |                            |  |
| 18,100.00                                                         | 10,015.54      | 17,847.19      | 9,975.31       | 246.47          | 243.34 | -87.34            | 884.69          | 395.90           | 488.79             | 1.810             | 0                       |                          |                            |  |
| 18,200.00                                                         | 10,014.99      | 17,947.18      | 9,974.51       | 249.50          | 246.36 | -87.33            | 885.02          | 390.18           | 494.83             | 1.789             | 0                       |                          |                            |  |
| 18,300.00                                                         | 10,014.44      | 18,047.18      | 9,973.71       | 252.53          | 249.38 | -87.31            | 885.34          | 384.47           | 500.88             | 1.768             | 0                       |                          |                            |  |
| 18,400.00                                                         | 10,013.89      | 18,147.18      | 9,972.92       | 255.56          | 252.41 | -87.30            | 885.67          | 378.75           | 506.92             | 1.747             | 0                       |                          |                            |  |
| 18,500.00                                                         | 10,013.34      | 18,247.18      | 9,972.12       | 258.59          | 255.43 | -87.28            | 886.00          | 373.04           | 512.97             | 1.727             | 0                       |                          |                            |  |
| 18,600.00                                                         | 10,012.79      | 18,347.18      | 9,971.32       | 261.62          | 258.45 | -87.27            | 886.33          | 367.32           | 519.01             | 1.708             | 0                       |                          |                            |  |
| 18,700.00                                                         | 10,012.24      | 18,447.18      | 9,970.52       | 264.65          | 261.47 | -87.25            | 886.66          | 361.60           | 525.06             | 1.689             | 0                       |                          |                            |  |
| 18,800.00                                                         | 10,011.69      | 18,547.18      | 9,969.73       | 267.68          | 264.49 | -87.24            | 886.99          | 355.89           | 531.10             | 1.670             | 0                       |                          |                            |  |
| 18,900.00                                                         | 10,011.14      | 18,647.18      | 9,968.93       | 270.71          | 267.52 | -87.22            | 887.32          | 350.17           | 537.15             | 1.652             | 0                       |                          |                            |  |
| 19,000.00                                                         | 10,010.59      | 18,747.18      | 9,968.13       | 273.74          | 270.54 | -87.21            | 887.65          | 344.45           | 543.19             | 1.634             | 0                       |                          |                            |  |
| 19,100.00                                                         | 10,010.04      | 18,847.18      | 9,967.34       | 276.77          | 273.57 | -87.19            | 887.98          | 338.73           | 549.24             | 1.617             | 0                       |                          |                            |  |
| 19,200.00                                                         | 10,009.49      | 18,947.18      | 9,966.54       | 279.80          | 276.59 | -87.18            | 888.30          | 333.02           | 555.29             | 1.600             | 0                       |                          |                            |  |
| 19,300.00                                                         | 10,008.94      | 19,047.18      | 9,965.74       | 282.83          | 279.61 | -87.16            | 888.63          | 327.30           | 561.34             | 1.583             | 0                       |                          |                            |  |
| 19,400.00                                                         | 10,008.39      | 19,147.17      | 9,964.94       | 285.86          | 282.64 | -87.15            | 888.96          | 321.58           | 567.38             | 1.567             | 0                       |                          |                            |  |
| 19,500.00                                                         | 10,007.84      | 19,247.17      | 9,964.15       | 288.89          | 285.66 | -87.13            | 889.29          | 315.86           | 573.43             | 1.551             | 0                       |                          |                            |  |
| 19,600.00                                                         | 10,007.29      | 19,347.17      | 9,963.35       | 291.92          | 288.69 | -87.12            | 889.62          | 310.14           | 579.48             | 1.535             | 0                       |                          |                            |  |
| 19,700.00                                                         | 10,006.74      | 19,447.17      | 9,962.55       | 294.95          | 291.72 | -87.10            | 889.95          | 304.42           | 585.53             | 1.520             | 0                       |                          |                            |  |
| 19,800.00                                                         | 10,006.19      | 19,547.17      | 9,961.76       | 297.98          | 294.74 | -87.09            | 890.28          | 298.71           | 591.57             | 1.505             | 0                       |                          |                            |  |
| 19,900.00                                                         | 10,005.64      | 19,647.17      | 9,960.96       | 301.02          | 297.77 | -87.07            | 890.61          | 292.99           | 597.62             | 1.490             | 0                       |                          | Level 3                    |  |
| 19,999.11                                                         | 10,005.09      | 19,746.31      | 9,960.17       | 304.02          | 300.73 | -87.06            | 890.94          | 287.35           | 603.58             | 1.476             | 0                       |                          | Level 3                    |  |
| 20,016.05                                                         | 10,005.00      | 19,763.27      | 9,960.03       | 304.53          | 301.23 | -87.05            | 890.99          | 286.41           | 604.58             | 1.474             | 0                       |                          | Level 3, SF                |  |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design Dzurisin - Thistle Unit 153H - Wellbore #1 - Plan 1 |                           |                           |                           |                   |                |                             |                            |                             |                               |                      |                               |                             | Offset Site Error: | 0.00 ft    |
|-------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|----------------------------|-----------------------------|-------------------------------|----------------------|-------------------------------|-----------------------------|--------------------|------------|
| Survey Program: 0-MWD                                             |                           |                           |                           |                   |                |                             |                            |                             |                               |                      |                               |                             | Offset Well Error: | 0.00 ft    |
| Reference                                                         |                           | Offset                    |                           | Semi Major Axis   |                | Distance                    |                            |                             |                               |                      |                               |                             | Warning            |            |
| Measured Depth<br>Depth<br>(ft)                                   | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) | Minimum<br>Separation<br>(ft) | Separation<br>Factor | Riskd<br>Separation<br>Factor | Probability<br>of Collision |                    |            |
| 0.00                                                              | 0.00                      | 0.00                      | 0.00                      | 0.00              | 0.00           | -0.44                       | 29.97                      |                             |                               |                      |                               |                             |                    |            |
| 100.00                                                            | 100.00                    | 100.00                    | 100.00                    | 0.09              | 0.09           | -0.44                       | 29.97                      | 29.80                       | 0.17                          | 174.304              | 0                             |                             |                    |            |
| 200.00                                                            | 200.00                    | 200.00                    | 200.00                    | 0.31              | 0.31           | -0.44                       | 29.97                      | 29.35                       | 0.62                          | 48.225               | 0                             |                             |                    |            |
| 300.00                                                            | 300.00                    | 300.00                    | 300.00                    | 0.54              | 0.54           | -0.44                       | 29.97                      | 28.90                       | 1.07                          | 27.984               | 0                             |                             |                    |            |
| 400.00                                                            | 400.00                    | 400.00                    | 400.00                    | 0.76              | 0.76           | -0.44                       | 29.97                      | 28.45                       | 1.52                          | 19.711               | 0                             |                             |                    |            |
| 500.00                                                            | 500.00                    | 500.00                    | 500.00                    | 0.99              | 0.99           | -0.44                       | 29.97                      | 28.00                       | 1.97                          | 15.213               | 0                             |                             |                    |            |
| 600.00                                                            | 600.00                    | 600.00                    | 600.00                    | 1.21              | 1.21           | -0.44                       | 29.97                      | 27.55                       | 2.42                          | 12.387               | 0                             |                             |                    |            |
| 700.00                                                            | 700.00                    | 700.00                    | 700.00                    | 1.43              | 1.43           | -0.44                       | 29.97                      | 27.10                       | 2.87                          | 10.446               | 0                             |                             |                    |            |
| 800.00                                                            | 800.00                    | 800.00                    | 800.00                    | 1.66              | 1.66           | -0.44                       | 29.97                      | 26.65                       | 3.32                          | 9.031                | 0                             |                             |                    |            |
| 900.00                                                            | 900.00                    | 900.00                    | 900.00                    | 1.88              | 1.88           | -0.44                       | 29.97                      | 26.20                       | 3.77                          | 7.954                | 0                             |                             |                    |            |
| 1,000.00                                                          | 1,000.00                  | 1,000.00                  | 1,000.00                  | 2.11              | 2.11           | -0.44                       | 29.97                      | 25.75                       | 4.22                          | 7.106                | 0                             |                             |                    |            |
| 1,100.00                                                          | 1,100.00                  | 1,100.00                  | 1,100.00                  | 2.33              | 2.33           | -0.44                       | 29.97                      | 25.30                       | 4.67                          | 6.422                | 0                             |                             |                    |            |
| 1,200.00                                                          | 1,200.00                  | 1,200.00                  | 1,200.00                  | 2.56              | 2.56           | -0.44                       | 29.97                      | 24.85                       | 5.12                          | 5.857                | 0                             |                             |                    |            |
| 1,300.00                                                          | 1,300.00                  | 1,300.00                  | 1,300.00                  | 2.78              | 2.78           | -0.44                       | 29.97                      | 24.40                       | 5.57                          | 5.384                | 0                             |                             |                    |            |
| 1,400.00                                                          | 1,400.00                  | 1,400.00                  | 1,400.00                  | 3.01              | 3.01           | -0.44                       | 29.97                      | 23.96                       | 6.02                          | 4.982                | 0                             |                             |                    |            |
| 1,500.00                                                          | 1,500.00                  | 1,500.00                  | 1,500.00                  | 3.23              | 3.23           | -0.44                       | 29.97                      | 23.51                       | 6.47                          | 4.636                | 0                             |                             |                    |            |
| 1,600.00                                                          | 1,600.00                  | 1,600.00                  | 1,600.00                  | 3.46              | 3.46           | -0.44                       | 29.97                      | 23.06                       | 6.91                          | 4.334                | 0                             |                             |                    |            |
| 1,700.00                                                          | 1,700.00                  | 1,700.00                  | 1,700.00                  | 3.68              | 3.68           | -0.44                       | 29.97                      | 22.61                       | 7.36                          | 4.070                | 0                             |                             |                    |            |
| 1,800.00                                                          | 1,800.00                  | 1,800.00                  | 1,800.00                  | 3.91              | 3.91           | -0.44                       | 29.97                      | 22.16                       | 7.81                          | 3.836                | 0                             |                             |                    |            |
| 1,900.00                                                          | 1,900.00                  | 1,900.00                  | 1,900.00                  | 4.13              | 4.13           | -0.44                       | 29.97                      | 21.71                       | 8.26                          | 3.627                | 0                             |                             |                    |            |
| 2,000.00                                                          | 2,000.00                  | 2,000.00                  | 2,000.00                  | 4.36              | 4.36           | -0.44                       | 29.97                      | 21.26                       | 8.71                          | 3.440                | 0                             |                             |                    |            |
| 2,100.00                                                          | 2,100.00                  | 2,100.00                  | 2,100.00                  | 4.58              | 4.58           | -0.44                       | 29.97                      | 20.81                       | 9.16                          | 3.271                | 0                             |                             |                    |            |
| 2,200.00                                                          | 2,200.00                  | 2,200.00                  | 2,200.00                  | 4.81              | 4.81           | -0.44                       | 29.97                      | 20.36                       | 9.61                          | 3.118                | 0                             |                             |                    |            |
| 2,300.00                                                          | 2,300.00                  | 2,300.00                  | 2,300.00                  | 5.03              | 5.03           | -0.44                       | 29.97                      | 19.91                       | 10.06                         | 2.979                | 0                             |                             |                    |            |
| 2,400.00                                                          | 2,400.00                  | 2,400.00                  | 2,400.00                  | 5.26              | 5.26           | -0.44                       | 29.97                      | 19.46                       | 10.51                         | 2.851                | 0                             |                             |                    |            |
| 2,500.00                                                          | 2,500.00                  | 2,500.00                  | 2,500.00                  | 5.48              | 5.48           | -0.44                       | 29.97                      | 19.01                       | 10.96                         | 2.734                | 0                             |                             |                    |            |
| 2,600.00                                                          | 2,600.00                  | 2,600.00                  | 2,600.00                  | 5.71              | 5.71           | -0.44                       | 29.97                      | 18.56                       | 11.41                         | 2.627                | 0                             |                             |                    |            |
| 2,700.00                                                          | 2,700.00                  | 2,700.00                  | 2,700.00                  | 5.93              | 5.93           | -0.44                       | 29.97                      | 18.11                       | 11.86                         | 2.527                | 0                             |                             |                    |            |
| 2,800.00                                                          | 2,800.00                  | 2,800.00                  | 2,800.00                  | 6.15              | 6.15           | -0.44                       | 29.97                      | 17.66                       | 12.31                         | 2.435                | 0                             |                             |                    |            |
| 2,900.00                                                          | 2,900.00                  | 2,900.00                  | 2,900.00                  | 6.38              | 6.38           | -0.44                       | 29.97                      | 17.21                       | 12.76                         | 2.349                | 0                             |                             |                    |            |
| 3,000.00                                                          | 3,000.00                  | 3,000.00                  | 3,000.00                  | 6.60              | 6.60           | -0.44                       | 29.97                      | 16.76                       | 13.21                         | 2.269                | 0                             |                             |                    |            |
| 3,100.00                                                          | 3,100.00                  | 3,100.00                  | 3,100.00                  | 6.83              | 6.83           | -0.44                       | 29.97                      | 16.31                       | 13.66                         | 2.194                | 0                             |                             |                    |            |
| 3,200.00                                                          | 3,200.00                  | 3,200.00                  | 3,200.00                  | 7.05              | 7.05           | -0.44                       | 29.97                      | 15.86                       | 14.11                         | 2.124                | 0                             |                             |                    |            |
| 3,300.00                                                          | 3,300.00                  | 3,300.00                  | 3,300.00                  | 7.28              | 7.28           | -0.44                       | 29.97                      | 15.41                       | 14.56                         | 2.059                | 0                             |                             |                    |            |
| 3,400.00                                                          | 3,400.00                  | 3,400.00                  | 3,400.00                  | 7.50              | 7.50           | -0.44                       | 29.97                      | 14.96                       | 15.01                         | 1.997                | 0                             |                             |                    |            |
| 3,500.00                                                          | 3,500.00                  | 3,500.00                  | 3,500.00                  | 7.73              | 7.73           | -0.44                       | 29.97                      | 14.51                       | 15.46                         | 1.939                | 0                             |                             |                    | CC, ES, SF |
| 3,600.00                                                          | 3,600.00                  | 3,600.00                  | 3,600.00                  | 7.92              | 7.95           | 179.57                      | 30.84                      | 14.97                       | 15.87                         | 1.943                | 0                             |                             |                    |            |
| 3,700.00                                                          | 3,699.96                  | 3,699.96                  | 3,699.96                  | 8.09              | 8.18           | 179.61                      | 33.46                      | 17.20                       | 16.26                         | 2.058                | 0                             |                             |                    |            |
| 3,800.00                                                          | 3,799.86                  | 3,799.86                  | 3,799.86                  | 8.26              | 8.40           | 179.65                      | 37.82                      | 21.18                       | 16.65                         | 2.272                | 0                             |                             |                    |            |
| 3,900.00                                                          | 3,899.68                  | 3,899.68                  | 3,899.68                  | 8.44              | 8.63           | 179.70                      | 43.93                      | 26.90                       | 17.03                         | 2.580                | 0                             |                             |                    |            |
| 4,000.00                                                          | 3,999.37                  | 3,999.37                  | 3,999.37                  | 8.61              | 8.85           | 179.74                      | 51.77                      | 34.36                       | 17.41                         | 2.974                | 0                             |                             |                    |            |
| 4,100.00                                                          | 4,098.99                  | 4,098.99                  | 4,098.99                  | 8.80              | 9.07           | 179.78                      | 60.49                      | 42.68                       | 17.81                         | 3.396                | 0                             |                             |                    |            |
| 4,200.00                                                          | 4,198.60                  | 4,198.60                  | 4,198.60                  | 9.00              | 9.30           | 179.81                      | 69.20                      | 50.99                       | 18.22                         | 3.799                | 0                             |                             |                    |            |
| 4,300.00                                                          | 4,298.22                  | 4,298.22                  | 4,298.22                  | 9.21              | 9.52           | 179.83                      | 77.92                      | 59.30                       | 18.62                         | 4.184                | 0                             |                             |                    |            |
| 4,400.00                                                          | 4,397.84                  | 4,397.84                  | 4,397.84                  | 9.43              | 9.75           | 179.85                      | 86.64                      | 67.60                       | 19.03                         | 4.552                | 0                             |                             |                    |            |
| 4,500.00                                                          | 4,497.46                  | 4,497.46                  | 4,497.46                  | 9.66              | 9.97           | 179.86                      | 95.35                      | 75.91                       | 19.44                         | 4.904                | 0                             |                             |                    |            |
| 4,600.00                                                          | 4,597.08                  | 4,597.08                  | 4,597.08                  | 9.89              | 10.19          | 179.87                      | 104.07                     | 84.21                       | 19.86                         | 5.241                | 0                             |                             |                    |            |
| 4,700.00                                                          | 4,696.70                  | 4,696.70                  | 4,696.70                  | 10.14             | 10.42          | 179.88                      | 112.78                     | 92.51                       | 20.27                         | 5.564                | 0                             |                             |                    |            |
| 4,800.00                                                          | 4,796.32                  | 4,796.32                  | 4,796.32                  | 10.39             | 10.64          | 179.89                      | 121.50                     | 100.81                      | 20.69                         | 5.873                | 0                             |                             |                    |            |
| 4,900.00                                                          | 4,895.94                  | 4,895.94                  | 4,895.94                  | 10.64             | 10.87          | 179.90                      | 130.21                     | 109.11                      | 21.11                         | 6.169                | 0                             |                             |                    |            |
| 5,000.00                                                          | 4,995.56                  | 4,995.56                  | 4,995.56                  | 10.90             | 11.09          | 179.90                      | 138.93                     | 117.40                      | 21.53                         | 6.454                | 0                             |                             |                    |            |
| 5,100.00                                                          | 5,095.18                  | 5,095.18                  | 5,095.18                  | 11.17             | 11.31          | 179.91                      | 147.64                     | 125.70                      | 21.95                         | 6.727                | 0                             |                             |                    |            |
| 5,200.00                                                          | 5,194.80                  | 5,194.80                  | 5,194.80                  | 11.44             | 11.54          | 179.92                      | 156.36                     | 133.99                      | 22.37                         | 6.989                | 0                             |                             |                    |            |
| 5,300.00                                                          | 5,294.42                  | 5,294.42                  | 5,294.42                  | 11.71             | 11.76          | 179.92                      | 165.08                     | 142.28                      | 22.79                         | 7.242                | 0                             |                             |                    |            |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design                                       |            |            |            |                 |        |              |              |               |                 |            |                   |              | Offset Site Error: |  | 0.00 ft |  |  |
|-----------------------------------------------------|------------|------------|------------|-----------------|--------|--------------|--------------|---------------|-----------------|------------|-------------------|--------------|--------------------|--|---------|--|--|
| Dzurisin - Thistle Unit 153H - Wellbore #1 - Plan 1 |            |            |            |                 |        |              |              |               |                 |            |                   |              | Offset Well Error: |  | 0.00 ft |  |  |
| Survey Program: 0-MWD                               |            |            |            |                 |        |              |              |               |                 |            |                   |              |                    |  |         |  |  |
| Reference                                           |            | Offset     |            | Semi Major Axis |        | Distance     |              |               |                 |            |                   |              |                    |  |         |  |  |
| Measured Depth                                      | Vertical   | Measured   | Vertical   | Reference       | Offset | Highside     | Between      | Between       | Minimum         | Separation | Risked            | Probability  | Warning            |  |         |  |  |
| Depth (ft)                                          | Depth (ft) | Depth (ft) | Depth (ft) | (ft)            | (ft)   | Toolface (°) | Centres (ft) | Ellipses (ft) | Separation (ft) | Factor     | Separation Factor | of Collision |                    |  |         |  |  |
| 5,400.00                                            | 5,394.04   | 5,394.04   | 5,394.04   | 11.99           | 11.99  | 179.92       | 173.79       | 150.57        | 23.22           | 7.484      | 0                 |              |                    |  |         |  |  |
| 5,500.00                                            | 5,493.66   | 5,493.66   | 5,493.66   | 12.28           | 12.21  | 179.93       | 182.51       | 158.86        | 23.65           | 7.718      | 0                 |              |                    |  |         |  |  |
| 5,600.00                                            | 5,593.28   | 5,593.28   | 5,593.28   | 12.56           | 12.43  | 179.93       | 191.22       | 167.15        | 24.08           | 7.943      | 0                 |              |                    |  |         |  |  |
| 5,700.00                                            | 5,692.90   | 5,692.90   | 5,692.90   | 12.86           | 12.66  | 179.93       | 199.94       | 175.43        | 24.50           | 8.159      | 0                 |              |                    |  |         |  |  |
| 5,800.00                                            | 5,792.52   | 5,792.52   | 5,792.52   | 13.15           | 12.88  | 179.94       | 208.65       | 183.72        | 24.93           | 8.368      | 0                 |              |                    |  |         |  |  |
| 5,900.00                                            | 5,892.14   | 5,892.14   | 5,892.14   | 13.45           | 13.10  | 179.94       | 217.37       | 192.00        | 25.36           | 8.570      | 0                 |              |                    |  |         |  |  |
| 6,000.00                                            | 5,991.76   | 5,991.76   | 5,991.76   | 13.75           | 13.33  | 179.94       | 226.08       | 200.29        | 25.80           | 8.764      | 0                 |              |                    |  |         |  |  |
| 6,100.00                                            | 6,091.37   | 6,091.37   | 6,091.37   | 14.05           | 13.55  | 179.94       | 234.80       | 208.57        | 26.23           | 8.952      | 0                 |              |                    |  |         |  |  |
| 6,200.00                                            | 6,190.99   | 6,190.99   | 6,190.99   | 14.35           | 13.78  | 179.95       | 243.52       | 216.85        | 26.66           | 9.133      | 0                 |              |                    |  |         |  |  |
| 6,300.00                                            | 6,290.65   | 6,290.65   | 6,290.65   | 14.62           | 14.00  | 179.95       | 251.80       | 224.68        | 27.11           | 9.287      | 0                 |              |                    |  |         |  |  |
| 6,400.00                                            | 6,390.38   | 6,390.38   | 6,390.38   | 14.85           | 14.22  | 179.95       | 259.21       | 231.64        | 27.57           | 9.403      | 0                 |              |                    |  |         |  |  |
| 6,500.00                                            | 6,490.16   | 6,490.16   | 6,490.16   | 15.08           | 14.45  | 179.95       | 265.75       | 237.73        | 28.02           | 9.485      | 0                 |              |                    |  |         |  |  |
| 6,600.00                                            | 6,590.00   | 6,590.00   | 6,590.00   | 15.30           | 14.67  | 179.95       | 271.42       | 242.95        | 28.47           | 9.534      | 0                 |              |                    |  |         |  |  |
| 6,700.00                                            | 6,689.88   | 6,689.88   | 6,689.88   | 15.53           | 14.90  | 179.95       | 276.21       | 247.30        | 28.92           | 9.552      | 0                 |              |                    |  |         |  |  |
| 6,800.00                                            | 6,789.81   | 6,789.81   | 6,789.81   | 15.74           | 15.12  | 179.95       | 280.14       | 250.78        | 29.36           | 9.541      | 0                 |              |                    |  |         |  |  |
| 6,900.00                                            | 6,889.76   | 6,889.76   | 6,889.76   | 15.95           | 15.35  | 179.95       | 283.19       | 253.39        | 29.81           | 9.501      | 0                 |              |                    |  |         |  |  |
| 7,000.00                                            | 6,989.74   | 6,989.74   | 6,989.74   | 16.16           | 15.57  | 179.95       | 285.38       | 255.13        | 30.25           | 9.435      | 0                 |              |                    |  |         |  |  |
| 7,100.00                                            | 7,089.73   | 7,089.73   | 7,089.73   | 16.36           | 15.80  | 179.95       | 286.68       | 256.00        | 30.69           | 9.342      | 0                 |              |                    |  |         |  |  |
| 7,200.00                                            | 7,189.73   | 7,189.73   | 7,189.73   | 16.55           | 16.02  | -0.05        | 287.12       | 256.00        | 31.12           | 9.227      | 0                 |              |                    |  |         |  |  |
| 7,300.00                                            | 7,289.73   | 7,289.73   | 7,289.73   | 16.74           | 16.25  | -0.05        | 287.12       | 255.57        | 31.55           | 9.101      | 0                 |              |                    |  |         |  |  |
| 7,400.00                                            | 7,389.73   | 7,389.73   | 7,389.73   | 16.93           | 16.47  | -0.05        | 287.12       | 255.13        | 31.99           | 8.976      | 0                 |              |                    |  |         |  |  |
| 7,500.00                                            | 7,489.73   | 7,489.73   | 7,489.73   | 17.13           | 16.70  | -0.05        | 287.12       | 254.69        | 32.43           | 8.854      | 0                 |              |                    |  |         |  |  |
| 7,600.00                                            | 7,589.73   | 7,589.73   | 7,589.73   | 17.32           | 16.92  | -0.05        | 287.12       | 254.25        | 32.87           | 8.736      | 0                 |              |                    |  |         |  |  |
| 7,700.00                                            | 7,689.73   | 7,689.73   | 7,689.73   | 17.51           | 17.15  | -0.05        | 287.12       | 253.82        | 33.31           | 8.621      | 0                 |              |                    |  |         |  |  |
| 7,800.00                                            | 7,789.73   | 7,789.73   | 7,789.73   | 17.71           | 17.37  | -0.05        | 287.12       | 253.37        | 33.75           | 8.508      | 0                 |              |                    |  |         |  |  |
| 7,900.00                                            | 7,889.73   | 7,889.73   | 7,889.73   | 17.91           | 17.59  | -0.05        | 287.12       | 252.93        | 34.19           | 8.399      | 0                 |              |                    |  |         |  |  |
| 8,000.00                                            | 7,989.73   | 7,989.73   | 7,989.73   | 18.10           | 17.82  | -0.05        | 287.12       | 252.49        | 34.63           | 8.292      | 0                 |              |                    |  |         |  |  |
| 8,100.00                                            | 8,089.73   | 8,089.73   | 8,089.73   | 18.30           | 18.04  | -0.05        | 287.12       | 252.05        | 35.07           | 8.188      | 0                 |              |                    |  |         |  |  |
| 8,200.00                                            | 8,189.73   | 8,189.73   | 8,189.73   | 18.50           | 18.27  | -0.05        | 287.12       | 251.61        | 35.51           | 8.086      | 0                 |              |                    |  |         |  |  |
| 8,300.00                                            | 8,289.73   | 8,289.73   | 8,289.73   | 18.70           | 18.49  | -0.05        | 287.12       | 251.17        | 35.95           | 7.987      | 0                 |              |                    |  |         |  |  |
| 8,400.00                                            | 8,389.73   | 8,389.73   | 8,389.73   | 18.89           | 18.72  | -0.05        | 287.12       | 250.73        | 36.39           | 7.890      | 0                 |              |                    |  |         |  |  |
| 8,500.00                                            | 8,489.73   | 8,489.73   | 8,489.73   | 19.09           | 18.94  | -0.05        | 287.12       | 250.29        | 36.83           | 7.795      | 0                 |              |                    |  |         |  |  |
| 8,600.00                                            | 8,589.73   | 8,589.73   | 8,589.73   | 19.29           | 19.17  | -0.05        | 287.12       | 249.85        | 37.28           | 7.703      | 0                 |              |                    |  |         |  |  |
| 8,700.00                                            | 8,689.73   | 8,689.73   | 8,689.73   | 19.50           | 19.39  | -0.05        | 287.12       | 249.40        | 37.72           | 7.612      | 0                 |              |                    |  |         |  |  |
| 8,800.00                                            | 8,789.73   | 8,789.73   | 8,789.73   | 19.70           | 19.62  | -0.05        | 287.12       | 248.96        | 38.16           | 7.524      | 0                 |              |                    |  |         |  |  |
| 8,900.00                                            | 8,889.73   | 8,889.73   | 8,889.73   | 19.90           | 19.84  | -0.05        | 287.12       | 248.52        | 38.60           | 7.438      | 0                 |              |                    |  |         |  |  |
| 9,000.00                                            | 8,989.73   | 8,989.73   | 8,989.73   | 20.10           | 20.07  | -0.05        | 287.12       | 248.08        | 39.04           | 7.354      | 0                 |              |                    |  |         |  |  |
| 9,100.00                                            | 9,089.73   | 9,089.73   | 9,089.73   | 20.30           | 20.29  | -0.05        | 287.12       | 247.63        | 39.49           | 7.271      | 0                 |              |                    |  |         |  |  |
| 9,166.08                                            | 9,155.81   | 9,155.81   | 9,155.81   | 20.44           | 20.44  | -0.05        | 287.12       | 247.34        | 39.78           | 7.218      | 0                 |              |                    |  |         |  |  |
| 9,200.00                                            | 9,189.73   | 9,188.00   | 9,188.00   | 20.51           | 20.51  | -0.05        | 287.13       | 247.20        | 39.93           | 7.191      | 0                 |              |                    |  |         |  |  |
| 9,300.00                                            | 9,289.73   | 9,250.00   | 9,249.83   | 20.71           | 20.65  | -0.05        | 293.86       | 253.58        | 40.29           | 7.295      | 0                 |              |                    |  |         |  |  |
| 9,400.00                                            | 9,389.73   | 9,311.17   | 9,309.81   | 20.91           | 20.79  | -0.07        | 313.28       | 272.64        | 40.64           | 7.708      | 0                 |              |                    |  |         |  |  |
| 9,500.00                                            | 9,489.73   | 9,367.46   | 9,363.27   | 21.12           | 20.92  | -0.09        | 344.50       | 303.52        | 40.98           | 8.406      | 0                 |              |                    |  |         |  |  |
| 9,591.00                                            | 9,580.73   | 9,414.56   | 9,406.15   | 21.31           | 21.01  | -0.11        | 382.08       | 340.80        | 41.28           | 9.255      | 0                 |              |                    |  |         |  |  |
| 9,600.00                                            | 9,589.72   | 9,419.01   | 9,410.10   | 21.32           | 21.02  | 0.34         | 386.16       | 344.86        | 41.30           | 9.350      | 0                 |              |                    |  |         |  |  |
| 9,625.00                                            | 9,614.70   | 9,431.36   | 9,420.96   | 21.37           | 21.05  | 0.33         | 397.07       | 355.77        | 41.30           | 9.613      | 0                 |              |                    |  |         |  |  |
| 9,650.00                                            | 9,639.58   | 9,443.72   | 9,431.67   | 21.40           | 21.07  | 0.32         | 407.38       | 366.14        | 41.24           | 9.879      | 0                 |              |                    |  |         |  |  |
| 9,675.00                                            | 9,664.29   | 9,456.09   | 9,442.22   | 21.43           | 21.10  | 0.31         | 417.09       | 375.99        | 41.10           | 10.147     | 0                 |              |                    |  |         |  |  |
| 9,700.00                                            | 9,688.78   | 9,468.45   | 9,452.60   | 21.46           | 21.12  | 0.30         | 426.18       | 385.28        | 40.90           | 10.420     | 0                 |              |                    |  |         |  |  |
| 9,725.00                                            | 9,712.97   | 9,475.00   | 9,458.03   | 21.47           | 21.13  | 0.29         | 434.73       | 394.11        | 40.62           | 10.701     | 0                 |              |                    |  |         |  |  |
| 9,750.00                                            | 9,736.80   | 9,493.19   | 9,472.83   | 21.48           | 21.19  | 0.28         | 442.51       | 402.20        | 40.30           | 10.979     | 0                 |              |                    |  |         |  |  |
| 9,775.00                                            | 9,760.20   | 9,500.00   | 9,478.27   | 21.49           | 21.21  | 0.27         | 449.79       | 409.89        | 39.90           | 11.272     | 0                 |              |                    |  |         |  |  |
| 9,800.00                                            | 9,783.11   | 9,517.94   | 9,492.30   | 21.49           | 21.28  | 0.27         | 456.31       | 416.85        | 39.46           | 11.563     | 0                 |              |                    |  |         |  |  |
| 9,825.00                                            | 9,805.47   | 9,525.00   | 9,497.71   | 21.50           | 21.30  | 0.26         | 462.32       | 423.36        | 38.95           | 11.869     | 0                 |              |                    |  |         |  |  |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design Dzurisin - Thistle Unit 153H - Wellbore #1 - Plan 1 |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |                          |                          | Offset Site Error: 0.00 ft |
|-------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|----------------------|-----------------------|-------------------------|-------------------|--------------------------|--------------------------|----------------------------|
| Survey Program: 0-MWD                                             |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |                          |                          | Offset Well Error: 0.00 ft |
| Reference                                                         |                     | Offset              |                     | Semi Major Axis |             | Distance              |                      |                       |                         |                   |                          |                          | Warning                    |
| Measured Depth (ft)                                               | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Risked Separation Factor | Probability of Collision |                            |
| 9,850.00                                                          | 9,827.21            | 9,542.69            | 9,510.96            | 21.50           | 21.37       | 0.26                  | 467.56               | 429.15                | 38.41                   | 12.173            | 0                        |                          |                            |
| 9,875.00                                                          | 9,848.27            | 9,550.00            | 9,516.30            | 21.50           | 21.40       | 0.25                  | 472.26               | 434.46                | 37.80                   | 12.493            | 0                        |                          |                            |
| 9,900.00                                                          | 9,868.60            | 9,567.45            | 9,528.75            | 21.51           | 21.48       | 0.25                  | 476.21               | 439.04                | 37.17                   | 12.811            | 0                        |                          |                            |
| 9,925.00                                                          | 9,888.14            | 9,575.00            | 9,534.00            | 21.53           | 21.52       | 0.25                  | 479.61               | 443.11                | 36.49                   | 13.143            | 0                        |                          |                            |
| 9,950.00                                                          | 9,906.84            | 9,592.21            | 9,545.63            | 21.55           | 21.61       | 0.24                  | 482.25               | 446.45                | 35.80                   | 13.471            | 0                        |                          |                            |
| 9,975.00                                                          | 9,924.65            | 9,600.00            | 9,550.74            | 21.59           | 21.65       | 0.24                  | 484.33               | 449.26                | 35.07                   | 13.810            | 0                        |                          |                            |
| 10,000.00                                                         | 9,941.51            | 9,616.98            | 9,561.55            | 21.63           | 21.75       | 0.24                  | 485.66               | 451.32                | 34.35                   | 14.141            | 0                        |                          |                            |
| 10,025.00                                                         | 9,957.38            | 9,625.00            | 9,566.49            | 21.69           | 21.80       | 0.24                  | 486.42               | 452.82                | 33.60                   | 14.477            | 0                        |                          |                            |
| 10,050.00                                                         | 9,972.22            | 9,641.74            | 9,576.47            | 21.77           | 21.91       | 0.24                  | 486.43               | 453.56                | 32.87                   | 14.799            | 0                        |                          |                            |
| 10,075.00                                                         | 9,985.99            | 9,650.00            | 9,581.21            | 21.86           | 21.96       | 0.24                  | 485.86               | 453.72                | 32.14                   | 15.116            | 0                        |                          |                            |
| 10,100.00                                                         | 9,998.65            | 9,666.51            | 9,590.34            | 21.97           | 22.09       | 0.24                  | 484.56               | 453.11                | 31.45                   | 15.408            | 0                        |                          |                            |
| 10,125.00                                                         | 10,010.16           | 9,675.00            | 9,594.84            | 22.10           | 22.15       | 0.24                  | 482.67               | 451.89                | 30.78                   | 15.682            | 0                        |                          |                            |
| 10,150.00                                                         | 10,020.49           | 9,691.27            | 9,603.12            | 22.25           | 22.28       | 0.24                  | 480.05               | 449.89                | 30.16                   | 15.915            | 0                        |                          |                            |
| 10,175.00                                                         | 10,029.62           | 9,700.00            | 9,607.37            | 22.43           | 22.35       | 0.25                  | 476.84               | 447.25                | 29.59                   | 16.113            | 0                        |                          |                            |
| 10,200.00                                                         | 10,037.52           | 9,716.04            | 9,614.79            | 22.62           | 22.50       | 0.25                  | 472.92               | 443.82                | 29.10                   | 16.252            | 0                        |                          |                            |
| 10,225.00                                                         | 10,044.17           | 9,725.00            | 9,618.74            | 22.84           | 22.58       | 0.25                  | 468.40               | 439.73                | 28.67                   | 16.337            | 0                        |                          |                            |
| 10,250.00                                                         | 10,049.55           | 9,740.79            | 9,625.31            | 23.08           | 22.74       | 0.26                  | 463.18               | 434.85                | 28.34                   | 16.346            | 0                        |                          |                            |
| 10,275.00                                                         | 10,053.64           | 9,750.00            | 9,628.93            | 23.34           | 22.83       | 0.26                  | 457.37               | 429.28                | 28.09                   | 16.285            | 0                        |                          |                            |
| 10,300.00                                                         | 10,056.43           | 9,765.54            | 9,634.66            | 23.62           | 23.00       | 0.27                  | 450.87               | 422.93                | 27.94                   | 16.137            | 0                        |                          |                            |
| 10,325.00                                                         | 10,057.92           | 9,775.00            | 9,637.91            | 23.92           | 23.10       | 0.27                  | 443.78               | 415.88                | 27.89                   | 15.911            | 0                        |                          |                            |
| 10,343.67                                                         | 10,058.18           | 9,787.15            | 9,641.83            | 24.15           | 23.24       | 0.28                  | 438.03               | 410.10                | 27.93                   | 15.684            | 0                        |                          |                            |
| 10,359.90                                                         | 10,058.09           | 9,800.00            | 9,645.66            | 24.25           | 23.39       | 0.28                  | 433.08               | 405.12                | 27.97                   | 15.485            | 0                        |                          |                            |
| 10,400.00                                                         | 10,057.87           | 9,815.55            | 9,649.85            | 24.53           | 23.58       | 0.28                  | 421.83               | 393.78                | 28.05                   | 15.038            | 0                        |                          |                            |
| 10,500.00                                                         | 10,057.32           | 9,868.14            | 9,660.36            | 26.09           | 24.28       | 0.29                  | 401.25               | 372.95                | 28.30                   | 14.179            | 0                        |                          |                            |
| 10,600.00                                                         | 10,056.77           | 9,925.00            | 9,665.29            | 27.89           | 25.13       | 0.29                  | 391.78               | 363.19                | 28.60                   | 13.701            | 0                        |                          |                            |
| 10,636.96                                                         | 10,056.57           | 9,943.29            | 9,665.44            | 28.63           | 25.42       | 0.29                  | 391.15               | 362.44                | 28.72                   | 13.622            | 0                        |                          |                            |
| 10,700.00                                                         | 10,056.22           | 10,006.32           | 9,664.86            | 29.90           | 26.49       | 0.29                  | 391.38               | 362.41                | 28.98                   | 13.507            | 0                        |                          |                            |
| 10,800.00                                                         | 10,055.67           | 10,106.32           | 9,663.95            | 32.06           | 28.37       | 0.28                  | 391.74               | 362.29                | 29.45                   | 13.303            | 0                        |                          |                            |
| 10,900.00                                                         | 10,055.12           | 10,206.32           | 9,663.04            | 34.36           | 30.43       | 0.28                  | 392.10               | 362.12                | 29.98                   | 13.077            | 0                        |                          |                            |
| 11,000.00                                                         | 10,054.57           | 10,306.32           | 9,662.13            | 36.77           | 32.65       | 0.28                  | 392.46               | 361.88                | 30.58                   | 12.833            | 0                        |                          |                            |
| 11,100.00                                                         | 10,054.02           | 10,406.32           | 9,661.22            | 39.27           | 34.99       | 0.27                  | 392.82               | 361.59                | 31.24                   | 12.575            | 0                        |                          |                            |
| 11,200.00                                                         | 10,053.47           | 10,506.32           | 9,660.31            | 41.84           | 37.43       | 0.27                  | 393.18               | 361.24                | 31.95                   | 12.307            | 0                        |                          |                            |
| 11,300.00                                                         | 10,052.92           | 10,606.32           | 9,659.40            | 44.46           | 39.95       | 0.27                  | 393.54               | 360.84                | 32.71                   | 12.032            | 0                        |                          |                            |
| 11,400.00                                                         | 10,052.37           | 10,706.32           | 9,658.49            | 47.14           | 42.54       | 0.26                  | 393.91               | 360.39                | 33.52                   | 11.753            | 0                        |                          |                            |
| 11,500.00                                                         | 10,051.83           | 10,806.32           | 9,657.58            | 49.86           | 45.19       | 0.26                  | 394.27               | 359.90                | 34.37                   | 11.472            | 0                        |                          |                            |
| 11,600.00                                                         | 10,051.28           | 10,906.31           | 9,656.67            | 52.61           | 47.88       | 0.26                  | 394.63               | 359.37                | 35.26                   | 11.192            | 0                        |                          |                            |
| 11,700.00                                                         | 10,050.73           | 11,006.31           | 9,655.76            | 55.40           | 50.62       | 0.25                  | 394.99               | 358.80                | 36.19                   | 10.914            | 0                        |                          |                            |
| 11,800.00                                                         | 10,050.18           | 11,106.31           | 9,654.85            | 58.21           | 53.38       | 0.25                  | 395.35               | 358.19                | 37.15                   | 10.641            | 0                        |                          |                            |
| 11,900.00                                                         | 10,049.63           | 11,206.31           | 9,653.94            | 61.04           | 56.18       | 0.25                  | 395.71               | 357.56                | 38.15                   | 10.372            | 0                        |                          |                            |
| 12,000.00                                                         | 10,049.08           | 11,306.31           | 9,653.03            | 63.89           | 59.00       | 0.24                  | 396.07               | 356.89                | 39.18                   | 10.109            | 0                        |                          |                            |
| 12,100.00                                                         | 10,048.53           | 11,406.31           | 9,652.12            | 66.76           | 61.84       | 0.24                  | 396.43               | 356.20                | 40.23                   | 9.853             | 0                        |                          |                            |
| 12,200.00                                                         | 10,047.98           | 11,506.31           | 9,651.21            | 69.64           | 64.69       | 0.24                  | 396.79               | 355.48                | 41.31                   | 9.605             | 0                        |                          |                            |
| 12,300.00                                                         | 10,047.43           | 11,606.31           | 9,650.29            | 72.53           | 67.57       | 0.24                  | 397.15               | 354.74                | 42.42                   | 9.363             | 0                        |                          |                            |
| 12,400.00                                                         | 10,046.88           | 11,706.31           | 9,649.38            | 75.44           | 70.46       | 0.23                  | 397.51               | 353.97                | 43.54                   | 9.130             | 0                        |                          |                            |
| 12,500.00                                                         | 10,046.33           | 11,806.31           | 9,648.47            | 78.35           | 73.36       | 0.23                  | 397.87               | 353.19                | 44.68                   | 8.904             | 0                        |                          |                            |
| 12,600.00                                                         | 10,045.78           | 11,906.31           | 9,647.56            | 81.28           | 76.27       | 0.23                  | 398.23               | 352.39                | 45.85                   | 8.686             | 0                        |                          |                            |
| 12,700.00                                                         | 10,045.23           | 12,006.31           | 9,646.65            | 84.21           | 79.19       | 0.22                  | 398.59               | 351.57                | 47.03                   | 8.476             | 0                        |                          |                            |
| 12,800.00                                                         | 10,044.68           | 12,106.31           | 9,645.74            | 87.15           | 82.12       | 0.22                  | 398.95               | 350.73                | 48.22                   | 8.273             | 0                        |                          |                            |
| 12,900.00                                                         | 10,044.13           | 12,206.31           | 9,644.83            | 90.10           | 85.05       | 0.22                  | 399.32               | 349.88                | 49.43                   | 8.078             | 0                        |                          |                            |
| 13,000.00                                                         | 10,043.58           | 12,306.31           | 9,643.92            | 93.05           | 88.00       | 0.21                  | 399.68               | 349.02                | 50.66                   | 7.890             | 0                        |                          |                            |
| 13,100.00                                                         | 10,043.03           | 12,406.31           | 9,643.01            | 96.01           | 90.95       | 0.21                  | 400.04               | 348.14                | 51.89                   | 7.709             | 0                        |                          |                            |
| 13,200.00                                                         | 10,042.48           | 12,506.30           | 9,642.10            | 98.98           | 93.90       | 0.21                  | 400.40               | 347.25                | 53.14                   | 7.534             | 0                        |                          |                            |
| 13,300.00                                                         | 10,041.93           | 12,606.30           | 9,641.19            | 101.94          | 96.86       | 0.20                  | 400.76               | 346.36                | 54.40                   | 7.367             | 0                        |                          |                            |
| 13,400.00                                                         | 10,041.38           | 12,706.30           | 9,640.28            | 104.92          | 99.83       | 0.20                  | 401.12               | 345.45                | 55.67                   | 7.205             | 0                        |                          |                            |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

### Offset Design Dzurisin - Thistle Unit 153H - Wellbore #1 - Plan 1

Survey Program: 0-MWD

Offset Site Error: 0.00 ft

Offset Well Error: 0.00 ft

| Reference           |                     | Offset              |                     | Semi Major Axis |             | Distance              |                      |                       |                         |                   |   | Risked Separation Factor | Probability of Collision | Warning |
|---------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|----------------------|-----------------------|-------------------------|-------------------|---|--------------------------|--------------------------|---------|
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor |   |                          |                          |         |
| 13,500.00           | 10,040.83           | 12,806.30           | 9,639.37            | 107.89          | 102.80      | 0.20                  | 401.48               | 344.53                | 56.95                   | 7.050             | 0 |                          |                          |         |
| 13,600.00           | 10,040.28           | 12,906.30           | 9,638.46            | 110.87          | 105.77      | 0.19                  | 401.84               | 343.60                | 58.24                   | 6.900             | 0 |                          |                          |         |
| 13,700.00           | 10,039.73           | 13,006.30           | 9,637.55            | 113.85          | 108.75      | 0.19                  | 402.20               | 342.67                | 59.53                   | 6.756             | 0 |                          |                          |         |
| 13,800.00           | 10,039.18           | 13,106.30           | 9,636.64            | 116.84          | 111.73      | 0.19                  | 402.56               | 341.72                | 60.84                   | 6.617             | 0 |                          |                          |         |
| 13,900.00           | 10,038.63           | 13,206.30           | 9,635.73            | 119.83          | 114.72      | 0.18                  | 402.92               | 340.77                | 62.15                   | 6.483             | 0 |                          |                          |         |
| 14,000.00           | 10,038.08           | 13,306.30           | 9,634.82            | 122.82          | 117.70      | 0.18                  | 403.28               | 339.81                | 63.47                   | 6.354             | 0 |                          |                          |         |
| 14,100.00           | 10,037.53           | 13,406.30           | 9,633.90            | 125.81          | 120.69      | 0.18                  | 403.64               | 338.85                | 64.79                   | 6.230             | 0 |                          |                          |         |
| 14,200.00           | 10,036.98           | 13,506.30           | 9,632.99            | 128.81          | 123.68      | 0.17                  | 404.00               | 337.88                | 66.12                   | 6.110             | 0 |                          |                          |         |
| 14,300.00           | 10,036.43           | 13,606.30           | 9,632.08            | 131.80          | 126.68      | 0.17                  | 404.36               | 336.91                | 67.46                   | 5.994             | 0 |                          |                          |         |
| 14,400.00           | 10,035.88           | 13,706.30           | 9,631.17            | 134.80          | 129.68      | 0.17                  | 404.73               | 335.93                | 68.80                   | 5.883             | 0 |                          |                          |         |
| 14,500.00           | 10,035.33           | 13,806.30           | 9,630.26            | 137.81          | 132.67      | 0.16                  | 405.09               | 334.94                | 70.15                   | 5.775             | 0 |                          |                          |         |
| 14,600.00           | 10,034.78           | 13,906.30           | 9,629.35            | 140.81          | 135.67      | 0.16                  | 405.45               | 333.95                | 71.50                   | 5.671             | 0 |                          |                          |         |
| 14,700.00           | 10,034.23           | 14,006.29           | 9,628.44            | 143.81          | 138.68      | 0.16                  | 405.81               | 332.95                | 72.85                   | 5.570             | 0 |                          |                          |         |
| 14,800.00           | 10,033.68           | 14,106.29           | 9,627.53            | 146.82          | 141.68      | 0.16                  | 406.17               | 331.95                | 74.21                   | 5.473             | 0 |                          |                          |         |
| 14,900.00           | 10,033.13           | 14,206.29           | 9,626.62            | 149.82          | 144.68      | 0.15                  | 406.53               | 330.95                | 75.58                   | 5.379             | 0 |                          |                          |         |
| 15,000.00           | 10,032.58           | 14,306.29           | 9,625.71            | 152.83          | 147.69      | 0.15                  | 406.89               | 329.94                | 76.95                   | 5.288             | 0 |                          |                          |         |
| 15,100.00           | 10,032.03           | 14,406.29           | 9,624.80            | 155.84          | 150.70      | 0.15                  | 407.25               | 328.93                | 78.32                   | 5.200             | 0 |                          |                          |         |
| 15,200.00           | 10,031.48           | 14,506.29           | 9,623.89            | 158.85          | 153.71      | 0.14                  | 407.61               | 327.92                | 79.69                   | 5.115             | 0 |                          |                          |         |
| 15,300.00           | 10,030.93           | 14,606.29           | 9,622.98            | 161.87          | 156.72      | 0.14                  | 407.97               | 326.90                | 81.07                   | 5.032             | 0 |                          |                          |         |
| 15,400.00           | 10,030.38           | 14,706.29           | 9,622.07            | 164.88          | 159.73      | 0.14                  | 408.33               | 325.88                | 82.45                   | 4.952             | 0 |                          |                          |         |
| 15,500.00           | 10,029.83           | 14,806.29           | 9,621.16            | 167.89          | 162.74      | 0.13                  | 408.69               | 324.86                | 83.83                   | 4.875             | 0 |                          |                          |         |
| 15,600.00           | 10,029.28           | 14,906.29           | 9,620.25            | 170.91          | 165.76      | 0.13                  | 409.05               | 323.83                | 85.22                   | 4.800             | 0 |                          |                          |         |
| 15,700.00           | 10,028.73           | 15,006.29           | 9,619.34            | 173.92          | 168.77      | 0.13                  | 409.41               | 322.80                | 86.61                   | 4.727             | 0 |                          |                          |         |
| 15,800.00           | 10,028.18           | 15,106.29           | 9,618.42            | 176.94          | 171.78      | 0.12                  | 409.78               | 321.77                | 88.00                   | 4.656             | 0 |                          |                          |         |
| 15,900.00           | 10,027.63           | 15,206.29           | 9,617.51            | 179.96          | 174.80      | 0.12                  | 410.14               | 320.74                | 89.40                   | 4.588             | 0 |                          |                          |         |
| 16,000.00           | 10,027.08           | 15,306.29           | 9,616.60            | 182.97          | 177.82      | 0.12                  | 410.50               | 319.70                | 90.79                   | 4.521             | 0 |                          |                          |         |
| 16,100.00           | 10,026.53           | 15,406.29           | 9,615.69            | 185.99          | 180.84      | 0.12                  | 410.86               | 318.67                | 92.19                   | 4.457             | 0 |                          |                          |         |
| 16,200.00           | 10,025.98           | 15,506.28           | 9,614.78            | 189.01          | 183.85      | 0.11                  | 411.22               | 317.63                | 93.59                   | 4.394             | 0 |                          |                          |         |
| 16,300.00           | 10,025.43           | 15,606.28           | 9,613.87            | 192.03          | 186.87      | 0.11                  | 411.58               | 316.58                | 94.99                   | 4.333             | 0 |                          |                          |         |
| 16,400.00           | 10,024.88           | 15,706.28           | 9,612.96            | 195.05          | 189.89      | 0.11                  | 411.94               | 315.54                | 96.40                   | 4.273             | 0 |                          |                          |         |
| 16,500.00           | 10,024.33           | 15,806.28           | 9,612.05            | 198.07          | 192.91      | 0.10                  | 412.30               | 314.49                | 97.81                   | 4.216             | 0 |                          |                          |         |
| 16,600.00           | 10,023.78           | 15,906.28           | 9,611.14            | 201.10          | 195.93      | 0.10                  | 412.66               | 313.45                | 99.21                   | 4.159             | 0 |                          |                          |         |
| 16,700.00           | 10,023.23           | 16,006.28           | 9,610.23            | 204.12          | 198.96      | 0.10                  | 413.02               | 312.40                | 100.62                  | 4.105             | 0 |                          |                          |         |
| 16,800.00           | 10,022.68           | 16,106.28           | 9,609.32            | 207.14          | 201.98      | 0.09                  | 413.38               | 311.35                | 102.03                  | 4.051             | 0 |                          |                          |         |
| 16,900.00           | 10,022.13           | 16,206.28           | 9,608.41            | 210.16          | 205.00      | 0.09                  | 413.74               | 310.30                | 103.45                  | 4.000             | 0 |                          |                          |         |
| 17,000.00           | 10,021.58           | 16,306.28           | 9,607.50            | 213.19          | 208.02      | 0.09                  | 414.10               | 309.24                | 104.86                  | 3.949             | 0 |                          |                          |         |
| 17,100.00           | 10,021.03           | 16,406.28           | 9,606.59            | 216.21          | 211.05      | 0.09                  | 414.46               | 308.19                | 106.28                  | 3.900             | 0 |                          |                          |         |
| 17,200.00           | 10,020.48           | 16,506.28           | 9,605.68            | 219.24          | 214.07      | 0.08                  | 414.83               | 307.13                | 107.70                  | 3.852             | 0 |                          |                          |         |
| 17,300.00           | 10,019.93           | 16,606.28           | 9,604.77            | 222.26          | 217.10      | 0.08                  | 415.19               | 306.07                | 109.11                  | 3.805             | 0 |                          |                          |         |
| 17,400.00           | 10,019.38           | 16,706.28           | 9,603.86            | 225.29          | 220.12      | 0.08                  | 415.55               | 305.01                | 110.53                  | 3.759             | 0 |                          |                          |         |
| 17,500.00           | 10,018.84           | 16,806.28           | 9,602.95            | 228.31          | 223.15      | 0.07                  | 415.91               | 303.95                | 111.95                  | 3.715             | 0 |                          |                          |         |
| 17,600.00           | 10,018.29           | 16,906.28           | 9,602.03            | 231.34          | 226.17      | 0.07                  | 416.27               | 302.89                | 113.38                  | 3.672             | 0 |                          |                          |         |
| 17,700.00           | 10,017.74           | 17,006.28           | 9,601.12            | 234.36          | 229.20      | 0.07                  | 416.63               | 301.83                | 114.80                  | 3.629             | 0 |                          |                          |         |
| 17,800.00           | 10,017.19           | 17,106.27           | 9,600.21            | 237.39          | 232.22      | 0.06                  | 416.99               | 300.76                | 116.22                  | 3.588             | 0 |                          |                          |         |
| 17,900.00           | 10,016.64           | 17,206.27           | 9,599.30            | 240.42          | 235.25      | 0.06                  | 417.35               | 299.70                | 117.65                  | 3.547             | 0 |                          |                          |         |
| 18,000.00           | 10,016.09           | 17,306.27           | 9,598.39            | 243.45          | 238.28      | 0.06                  | 417.71               | 298.63                | 119.08                  | 3.508             | 0 |                          |                          |         |
| 18,100.00           | 10,015.54           | 17,406.27           | 9,597.48            | 246.47          | 241.30      | 0.06                  | 418.07               | 297.57                | 120.50                  | 3.469             | 0 |                          |                          |         |
| 18,200.00           | 10,014.99           | 17,506.27           | 9,596.57            | 249.50          | 244.33      | 0.05                  | 418.43               | 296.50                | 121.93                  | 3.432             | 0 |                          |                          |         |
| 18,300.00           | 10,014.44           | 17,606.27           | 9,595.66            | 252.53          | 247.36      | 0.05                  | 418.79               | 295.43                | 123.36                  | 3.395             | 0 |                          |                          |         |
| 18,400.00           | 10,013.89           | 17,706.27           | 9,594.75            | 255.56          | 250.39      | 0.05                  | 419.15               | 294.36                | 124.79                  | 3.359             | 0 |                          |                          |         |
| 18,500.00           | 10,013.34           | 17,806.27           | 9,593.84            | 258.59          | 253.42      | 0.04                  | 419.51               | 293.29                | 126.22                  | 3.324             | 0 |                          |                          |         |
| 18,600.00           | 10,012.79           | 17,906.27           | 9,592.93            | 261.62          | 256.45      | 0.04                  | 419.88               | 292.22                | 127.65                  | 3.289             | 0 |                          |                          |         |
| 18,700.00           | 10,012.24           | 18,006.27           | 9,592.02            | 264.65          | 259.47      | 0.04                  | 420.24               | 291.15                | 129.09                  | 3.255             | 0 |                          |                          |         |
| 18,800.00           | 10,011.69           | 18,106.27           | 9,591.11            | 267.68          | 262.50      | 0.03                  | 420.60               | 290.08                | 130.52                  | 3.222             | 0 |                          |                          |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Devon Energy

## Anticollision Risk Report

**Company:** WESTERN DIVISION  
**Project:** PBNM  
**Reference Site:** Dzurisin  
**Site Error:** 0.00  
**Reference Well:** Thistle Unit 157H  
**Well Error:** 0.00  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan 1

**Local Co-ordinate Reference:** Well Thistle Unit 157H  
**TVD Reference:** 1 @ 3684.20ft  
**MD Reference:** 1 @ 3684.20ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** EDM r5000 US Production  
**Offset TVD Reference:** Offset Datum

| Offset Design                                       |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |             |                          | Offset Site Error: | 0.00 ft |
|-----------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|----------------------|-----------------------|-------------------------|-------------------|-------------|--------------------------|--------------------|---------|
| Dzurisin - Thistle Unit 153H - Wellbore #1 - Plan 1 |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |             |                          | Offset Well Error: | 0.00 ft |
| Survey Program: 0-MWD                               |                     |                     |                     |                 |             |                       |                      |                       |                         |                   |             |                          |                    |         |
| Reference                                           |                     | Offset              |                     | Semi Major Axis |             | Distance              |                      |                       |                         |                   |             |                          |                    |         |
| Measured Depth (ft)                                 | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Risk Factor | Probability of Collision | Warning            |         |
| 18,900.00                                           | 10,011.14           | 18,206.27           | 9,590.20            | 270.71          | 265.53      | 0.03                  | 420.96               | 289.00                | 131.95                  | 3.190             | 0           |                          |                    |         |
| 19,000.00                                           | 10,010.59           | 18,306.27           | 9,589.29            | 273.74          | 268.56      | 0.03                  | 421.32               | 287.93                | 133.39                  | 3.159             | 0           |                          |                    |         |
| 19,100.00                                           | 10,010.04           | 18,406.27           | 9,588.38            | 276.77          | 271.59      | 0.03                  | 421.68               | 286.85                | 134.82                  | 3.128             | 0           |                          |                    |         |
| 19,200.00                                           | 10,009.49           | 18,506.27           | 9,587.47            | 279.80          | 274.62      | 0.02                  | 422.04               | 285.78                | 136.26                  | 3.097             | 0           |                          |                    |         |
| 19,300.00                                           | 10,008.94           | 18,606.26           | 9,586.56            | 282.83          | 277.65      | 0.02                  | 422.40               | 284.70                | 137.70                  | 3.068             | 0           |                          |                    |         |
| 19,400.00                                           | 10,008.39           | 18,706.26           | 9,585.64            | 285.86          | 280.68      | 0.02                  | 422.76               | 283.63                | 139.13                  | 3.038             | 0           |                          |                    |         |
| 19,500.00                                           | 10,007.84           | 18,806.26           | 9,584.73            | 288.89          | 283.72      | 0.01                  | 423.12               | 282.55                | 140.57                  | 3.010             | 0           |                          |                    |         |
| 19,600.00                                           | 10,007.29           | 18,906.26           | 9,583.82            | 291.92          | 286.75      | 0.01                  | 423.48               | 281.47                | 142.01                  | 2.982             | 0           |                          |                    |         |
| 19,700.00                                           | 10,006.74           | 19,006.26           | 9,582.91            | 294.95          | 289.78      | 0.01                  | 423.84               | 280.39                | 143.45                  | 2.955             | 0           |                          |                    |         |
| 19,800.00                                           | 10,006.19           | 19,106.26           | 9,582.00            | 297.98          | 292.81      | 0.01                  | 424.20               | 279.31                | 144.89                  | 2.928             | 0           |                          |                    |         |
| 19,900.00                                           | 10,005.64           | 19,206.26           | 9,581.09            | 301.02          | 295.84      | 0.00                  | 424.56               | 278.23                | 146.33                  | 2.901             | 0           |                          |                    |         |
| 19,999.11                                           | 10,005.09           | 19,305.37           | 9,580.19            | 304.02          | 298.76      | 0.00                  | 424.92               | 277.16                | 147.76                  | 2.876             | 0           |                          |                    |         |
| 20,016.05                                           | 10,005.00           | 19,322.32           | 9,580.04            | 304.53          | 299.05      | 0.00                  | 424.98               | 276.98                | 148.00                  | 2.871             | 0           |                          |                    |         |



Devon Energy  
Anticollision Risk Report

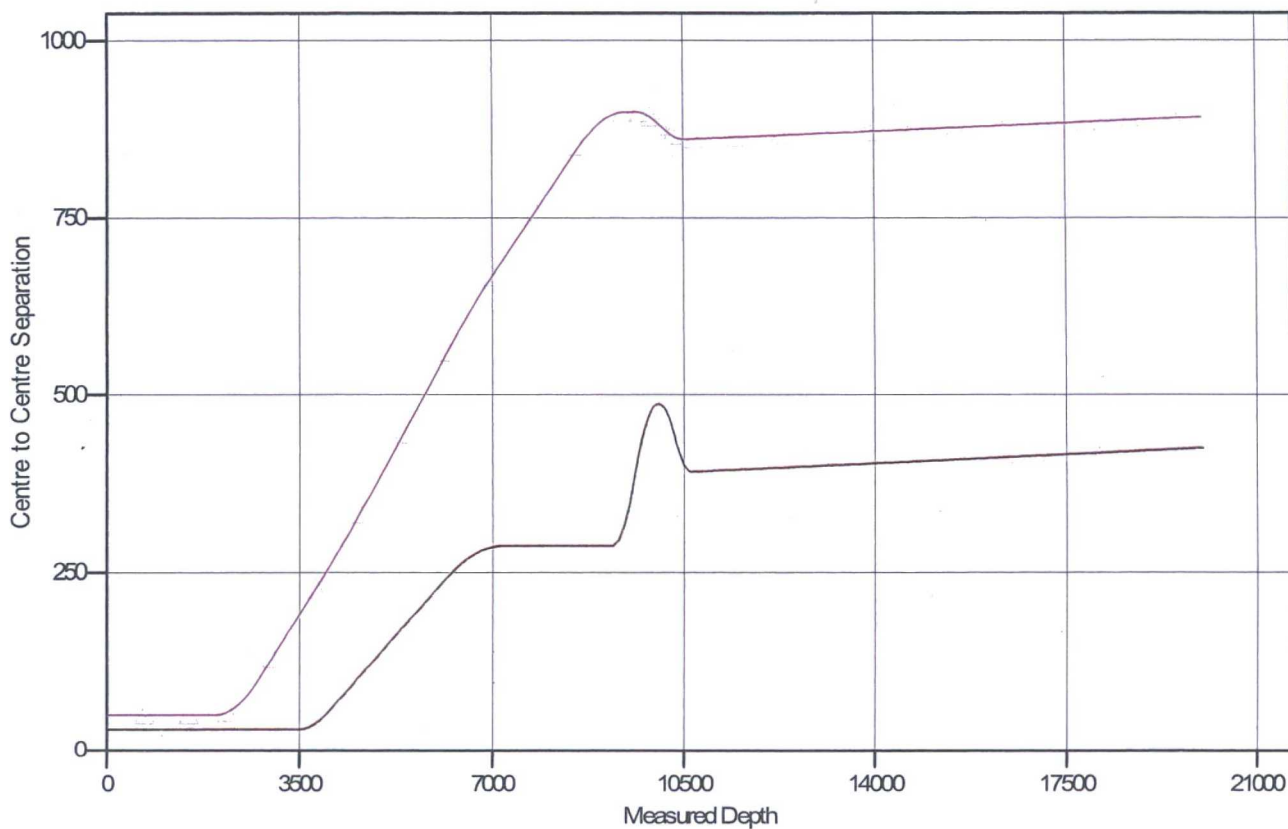
Company: WESTERN DIVISION  
Project: PBNM  
Reference Site: Dzurisin  
Site Error: 0.00  
Reference Well: Thistle Unit 157H  
Well Error: 0.00  
Reference Wellbore: Wellbore #1  
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 157H  
TVD Reference: 1 @ 3684.20ft  
MD Reference: 1 @ 3684.20ft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Output errors are at: 2.00 sigma  
Database: EDM r5000 US Production  
Offset TVD Reference: Offset Datum

Reference Depths are relative to 1 @ 3684.20ft  
Offset Depths are relative to Offset Datum  
Central Meridian is

Coordinates are relative to: Thistle Unit 157H  
Coordinate System is Flat Earth, No Conversions  
Grid Convergence at Surface is: 0.00°

### Ladder Plot



### LEGEND

▲ Thistle Unit 152H, Wellbore #1, Plan 1 V0 ✖ Thistle Unit 153H, Wellbore #1, Plan 1 V0

Devon Energy  
Anticollision Risk Report

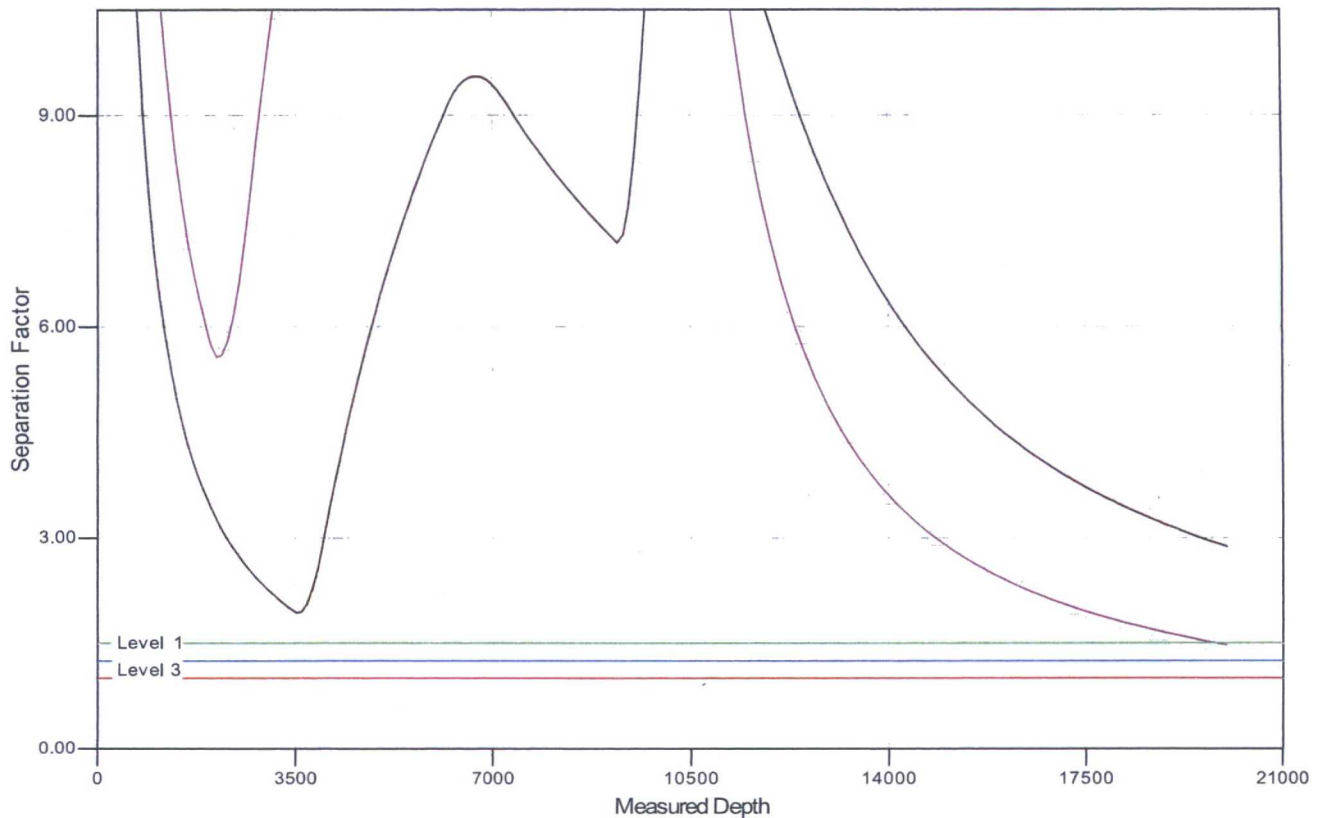
Company: WESTERN DIVISION  
Project: PBNM  
Reference Site: Dzurisin  
Site Error: 0.00  
Reference Well: Thistle Unit 157H  
Well Error: 0.00  
Reference Wellbore: Wellbore #1  
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 157H  
TVD Reference: 1 @ 3684.20ft  
MD Reference: 1 @ 3684.20ft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Output errors are at: 2.00 sigma  
Database: EDM r5000 US Production  
Offset TVD Reference: Offset Datum

Reference Depths are relative to 1 @ 3684.20ft  
Offset Depths are relative to Offset Datum  
Central Meridian is

Coordinates are relative to: Thistle Unit 157H  
Coordinate System is Flat Earth, No Conversions  
Grid Convergence at Surface is: 0.00°

### Separation Factor Plot



### LEGEND

Thistle Unit 152H, Wellbore #1, Plan 1 V0 Thistle Unit 153H, Wellbore #1, Plan 1 V0