



Whiting Petroleum Corp.

Weld County, CO

Sec 25-T10N-R58W

Razor #25P-2413

Hz

APD

Anticollision Report

27 May, 2015



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Reference | APD | | |
|------------------------------|---|----------------|---------------------|
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | MD Interval 100.00usft | Error Model: | ISCWSA |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum center-center distance of 1,550.00 usft | Error Surface: | Elliptical Conic |
| Warning Levels Evaluated at: | 3.00 Sigma | Casing Method: | Not applied |

| Survey Tool Program | | Date | 5/27/2015 | | |
|---------------------|--------------|-------------------|-----------------|--|--|
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 0.00 | 15,722.97 | APD (Hz) | MWD+IFR1+MS+sag | Fixed:v2:crustal dec & 3-axis correction + sag | |

| Summary | | | | | | |
|---------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|-------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| Sec 25-T10N-R58W | | | | | | |
| Razor #25P-2414 - Hz - APD | 300.00 | 300.00 | 30.01 | 28.39 | 18.582 | CC |
| Razor #25P-2414 - Hz - APD | 500.00 | 501.88 | 30.39 | 27.54 | 10.648 | ES |
| Razor #25P-2414 - Hz - APD | 15,722.97 | 15,713.21 | 338.95 | 42.53 | 1.143 | Level 2, SF |
| Razor #25P-2415 - Hz - APD | 300.00 | 300.00 | 59.99 | 58.38 | 37.149 | CC, ES |
| Razor #25P-2415 - Hz - APD | 15,722.97 | 15,628.63 | 660.33 | 357.85 | 2.183 | SF |
| Razor #25P-2416 - Hz - APD | 300.00 | 300.00 | 89.98 | 88.37 | 55.719 | CC, ES |
| Razor #25P-2416 - Hz - APD | 15,722.97 | 15,752.11 | 992.94 | 690.94 | 3.288 | SF |
| Razor #25P-2445 - Hz - APD | 1,383.27 | 1,381.17 | 34.97 | 25.87 | 3.845 | CC |
| Razor #25P-2445 - Hz - APD | 1,500.00 | 1,497.80 | 35.28 | 25.48 | 3.599 | ES |
| Razor #25P-2445 - Hz - APD | 15,722.97 | 15,902.81 | 258.19 | 48.00 | 1.228 | Level 2, SF |
| Razor #25P-2446 - Hz - APD | 300.00 | 300.00 | 58.36 | 56.74 | 36.135 | CC |
| Razor #25P-2446 - Hz - APD | 700.00 | 701.08 | 59.85 | 55.62 | 14.153 | ES |
| Razor #25P-2446 - Hz - APD | 15,722.97 | 16,034.42 | 344.27 | 166.33 | 1.935 | SF |
| Razor #25P-2447 - Hz - APD | 300.00 | 300.00 | 78.42 | 76.81 | 48.561 | CC |
| Razor #25P-2447 - Hz - APD | 400.00 | 400.51 | 78.99 | 76.75 | 35.321 | ES |
| Razor #25P-2447 - Hz - APD | 15,722.97 | 15,738.33 | 500.70 | 200.12 | 1.666 | SF |
| Razor #25P-2448 - Hz - APD | 300.00 | 300.00 | 102.93 | 101.31 | 63.735 | CC, ES |
| Razor #25P-2448 - Hz - APD | 15,722.97 | 15,971.83 | 878.38 | 590.55 | 3.052 | SF |

| Offset Design | | Sec 25-T10N-R58W - Razor #25P-2414 - Hz - APD | | | | | | | | | | Offset Site Error: | | 0.00 usft | |
|-----------------------|-----------------------|---|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|---------|-----------|--|
| Survey Program: | | 0-MWD+IFR1+MS+sag | | | | | | | | | | Offset Well Error: | | 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 88.07 | 1.01 | 29.99 | 30.01 | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.13 | 0.13 | 88.07 | 1.01 | 29.99 | 30.01 | 29.74 | 0.27 | 112.670 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.47 | 0.47 | 88.07 | 1.01 | 29.99 | 30.01 | 29.07 | 0.94 | 31.903 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.81 | 0.81 | 88.07 | 1.01 | 29.99 | 30.01 | 28.39 | 1.61 | 18.582 | CC | | |
| 400.00 | 399.98 | 400.94 | 400.92 | 1.12 | 1.12 | -161.43 | 0.15 | 28.44 | 30.10 | 27.86 | 2.24 | 13.423 | | | |
| 500.00 | 499.84 | 501.88 | 501.71 | 1.44 | 1.44 | -159.95 | -2.43 | 23.77 | 30.39 | 27.54 | 2.85 | 10.648 | ES | | |
| 600.00 | 599.45 | 602.31 | 601.79 | 1.77 | 1.77 | -158.01 | -6.48 | 16.47 | 31.33 | 27.83 | 3.49 | 8.971 | | | |
| 700.00 | 698.70 | 702.23 | 701.33 | 2.12 | 2.10 | -158.12 | -10.71 | 8.85 | 35.17 | 31.02 | 4.15 | 8.475 | | | |
| 800.00 | 797.48 | 801.97 | 800.70 | 2.49 | 2.45 | -159.90 | -14.92 | 1.25 | 42.17 | 37.35 | 4.82 | 8.755 | | | |
| 900.00 | 896.11 | 901.65 | 899.99 | 2.89 | 2.80 | -161.56 | -19.13 | -6.35 | 50.13 | 44.64 | 5.49 | 9.137 | | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 1,000.00 | 994.74 | 1,001.32 | 999.29 | 3.28 | 3.15 | -162.76 | -23.34 | -13.95 | 58.12 | 51.95 | 6.16 | 9.433 | | |
| 1,100.00 | 1,093.37 | 1,101.00 | 1,098.58 | 3.69 | 3.51 | -163.68 | -27.55 | -21.54 | 66.12 | 59.28 | 6.84 | 9.668 | | |
| 1,200.00 | 1,192.00 | 1,200.67 | 1,197.88 | 4.10 | 3.87 | -164.39 | -31.77 | -29.14 | 74.14 | 66.62 | 7.52 | 9.858 | | |
| 1,300.00 | 1,290.63 | 1,300.34 | 1,297.17 | 4.51 | 4.23 | -164.97 | -35.98 | -36.74 | 82.17 | 73.97 | 8.20 | 10.016 | | |
| 1,400.00 | 1,389.26 | 1,400.02 | 1,396.47 | 4.92 | 4.58 | -165.44 | -40.19 | -44.34 | 90.21 | 81.32 | 8.89 | 10.148 | | |
| 1,500.00 | 1,487.88 | 1,499.69 | 1,495.76 | 5.33 | 4.95 | -165.84 | -44.40 | -51.94 | 98.25 | 88.68 | 9.58 | 10.261 | | |
| 1,600.00 | 1,586.51 | 1,599.37 | 1,595.06 | 5.75 | 5.31 | -166.17 | -48.61 | -59.53 | 106.30 | 96.03 | 10.26 | 10.358 | | |
| 1,700.00 | 1,685.14 | 1,699.04 | 1,694.35 | 6.16 | 5.67 | -166.46 | -52.82 | -67.13 | 114.35 | 103.40 | 10.95 | 10.442 | | |
| 1,800.00 | 1,783.77 | 1,798.71 | 1,793.65 | 6.58 | 6.03 | -166.71 | -57.04 | -74.73 | 122.40 | 110.76 | 11.64 | 10.516 | | |
| 1,900.00 | 1,882.40 | 1,898.39 | 1,892.94 | 6.99 | 6.39 | -166.93 | -61.25 | -82.33 | 130.45 | 118.12 | 12.33 | 10.581 | | |
| 2,000.00 | 1,981.03 | 1,998.06 | 1,992.23 | 7.41 | 6.75 | -167.13 | -65.46 | -89.93 | 138.51 | 125.49 | 13.02 | 10.639 | | |
| 2,100.00 | 2,079.66 | 2,097.74 | 2,091.53 | 7.83 | 7.11 | -167.30 | -69.67 | -97.52 | 146.56 | 132.85 | 13.71 | 10.691 | | |
| 2,200.00 | 2,178.28 | 2,197.41 | 2,190.82 | 8.25 | 7.48 | -167.46 | -73.88 | -105.12 | 154.62 | 140.22 | 14.40 | 10.738 | | |
| 2,300.00 | 2,276.91 | 2,297.08 | 2,290.12 | 8.66 | 7.84 | -167.60 | -78.09 | -112.72 | 162.68 | 147.59 | 15.09 | 10.781 | | |
| 2,400.00 | 2,375.54 | 2,396.76 | 2,389.41 | 9.08 | 8.20 | -167.72 | -82.31 | -120.32 | 170.74 | 154.96 | 15.78 | 10.820 | | |
| 2,500.00 | 2,474.17 | 2,496.43 | 2,488.71 | 9.50 | 8.57 | -167.84 | -86.52 | -127.92 | 178.80 | 162.33 | 16.47 | 10.855 | | |
| 2,600.00 | 2,572.80 | 2,596.11 | 2,588.00 | 9.92 | 8.93 | -167.94 | -90.73 | -135.51 | 186.86 | 169.70 | 17.16 | 10.887 | | |
| 2,700.00 | 2,671.43 | 2,695.78 | 2,687.30 | 10.34 | 9.29 | -168.04 | -94.94 | -143.11 | 194.92 | 177.07 | 17.85 | 10.917 | | |
| 2,800.00 | 2,770.05 | 2,795.45 | 2,786.59 | 10.76 | 9.65 | -168.13 | -99.15 | -150.71 | 202.98 | 184.44 | 18.55 | 10.945 | | |
| 2,900.00 | 2,868.68 | 2,895.13 | 2,885.89 | 11.18 | 10.02 | -168.21 | -103.36 | -158.31 | 211.04 | 191.81 | 19.24 | 10.970 | | |
| 3,000.00 | 2,967.31 | 2,994.80 | 2,985.18 | 11.60 | 10.38 | -168.28 | -107.58 | -165.90 | 219.11 | 199.18 | 19.93 | 10.994 | | |
| 3,100.00 | 3,065.94 | 3,094.48 | 3,084.48 | 12.02 | 10.74 | -168.35 | -111.79 | -173.50 | 227.17 | 206.55 | 20.62 | 11.016 | | |
| 3,200.00 | 3,164.57 | 3,194.15 | 3,183.77 | 12.43 | 11.11 | -168.42 | -116.00 | -181.10 | 235.23 | 213.92 | 21.31 | 11.036 | | |
| 3,300.00 | 3,263.20 | 3,293.82 | 3,283.07 | 12.85 | 11.47 | -168.48 | -120.21 | -188.70 | 243.30 | 221.29 | 22.01 | 11.056 | | |
| 3,400.00 | 3,361.83 | 3,393.50 | 3,382.36 | 13.27 | 11.83 | -168.54 | -124.42 | -196.30 | 251.36 | 228.66 | 22.70 | 11.074 | | |
| 3,500.00 | 3,460.45 | 3,493.17 | 3,481.66 | 13.69 | 12.20 | -168.59 | -128.63 | -203.89 | 259.43 | 236.03 | 23.39 | 11.090 | | |
| 3,600.00 | 3,559.08 | 3,592.85 | 3,580.95 | 14.11 | 12.56 | -168.64 | -132.85 | -211.49 | 267.49 | 243.41 | 24.08 | 11.106 | | |
| 3,700.00 | 3,657.71 | 3,692.52 | 3,680.25 | 14.53 | 12.92 | -168.69 | -137.06 | -219.09 | 275.55 | 250.78 | 24.78 | 11.121 | | |
| 3,800.00 | 3,756.34 | 3,792.19 | 3,779.54 | 14.95 | 13.29 | -168.74 | -141.27 | -226.69 | 283.62 | 258.15 | 25.47 | 11.136 | | |
| 3,900.00 | 3,854.97 | 3,891.87 | 3,878.83 | 15.37 | 13.65 | -168.78 | -145.48 | -234.29 | 291.68 | 265.52 | 26.16 | 11.149 | | |
| 4,000.00 | 3,953.60 | 3,991.54 | 3,978.13 | 15.79 | 14.02 | -168.82 | -149.69 | -241.88 | 299.75 | 272.89 | 26.86 | 11.162 | | |
| 4,100.00 | 4,052.23 | 4,091.22 | 4,077.42 | 16.21 | 14.38 | -168.86 | -153.90 | -249.48 | 307.82 | 280.27 | 27.55 | 11.174 | | |
| 4,200.00 | 4,150.85 | 4,190.89 | 4,176.72 | 16.63 | 14.74 | -168.89 | -158.12 | -257.08 | 315.88 | 287.64 | 28.24 | 11.185 | | |
| 4,300.00 | 4,249.48 | 4,290.57 | 4,276.01 | 17.05 | 15.11 | -168.93 | -162.33 | -264.68 | 323.95 | 295.01 | 28.93 | 11.196 | | |
| 4,400.00 | 4,348.13 | 4,390.25 | 4,375.32 | 17.46 | 15.47 | -168.96 | -166.54 | -272.28 | 331.90 | 302.28 | 29.62 | 11.204 | | |
| 4,500.00 | 4,447.15 | 4,490.09 | 4,474.78 | 17.87 | 15.83 | -168.99 | -170.76 | -279.89 | 339.41 | 309.16 | 30.24 | 11.156 | | |
| 4,600.00 | 4,546.60 | 4,590.06 | 4,574.37 | 18.29 | 16.20 | -169.02 | -174.98 | -287.51 | 347.49 | 316.44 | 30.85 | 11.004 | | |
| 4,700.00 | 4,646.35 | 4,690.44 | 4,674.01 | 18.71 | 16.53 | -169.05 | -179.23 | -295.63 | 355.62 | 323.77 | 31.41 | 10.774 | | |
| 4,800.00 | 4,746.28 | 4,790.88 | 4,773.89 | 19.13 | 16.76 | -169.08 | -183.50 | -303.77 | 363.80 | 331.10 | 31.86 | 10.556 | | |
| 4,900.00 | 4,846.28 | 4,891.40 | 4,874.97 | 19.55 | 17.00 | 81.85 | -187.70 | -311.94 | 371.94 | 338.48 | 32.36 | 10.326 | | |
| 4,953.32 | 4,899.60 | 4,915.83 | 4,899.60 | 19.97 | 17.13 | 81.86 | -187.80 | -312.11 | 379.99 | 346.03 | 32.65 | 10.228 | | |
| 5,000.00 | 4,946.28 | 4,962.52 | 4,946.28 | 20.39 | 17.26 | 81.86 | -187.80 | -312.28 | 388.04 | 353.58 | 32.92 | 10.145 | | |
| 5,100.00 | 5,046.25 | 5,062.49 | 5,046.25 | 20.81 | 17.53 | 82.11 | -187.80 | -312.45 | 396.09 | 361.13 | 33.47 | 9.972 | | |
| 5,200.00 | 5,144.70 | 5,157.48 | 5,141.13 | 21.23 | 17.79 | 84.43 | -179.67 | -312.62 | 404.14 | 368.68 | 34.05 | 9.757 | | |
| 5,300.00 | 5,238.17 | 5,251.73 | 5,233.37 | 21.65 | 18.02 | 87.14 | -160.96 | -312.79 | 412.19 | 376.23 | 34.62 | 9.559 | | |
| 5,400.00 | 5,323.23 | 5,348.76 | 5,323.21 | 22.07 | 18.24 | 89.99 | -124.69 | -312.96 | 420.24 | 383.78 | 35.19 | 9.395 | | |
| 5,400.20 | 5,323.38 | 5,348.95 | 5,323.38 | 22.49 | 18.24 | 90.00 | -124.60 | -313.13 | 428.29 | 391.33 | 35.19 | 9.395 | | |
| 5,500.00 | 5,396.74 | 5,448.94 | 5,407.26 | 22.91 | 18.44 | 92.90 | -70.46 | -313.30 | 436.34 | 398.88 | 35.71 | 9.268 | | |
| 5,600.00 | 5,456.01 | 5,552.60 | 5,481.65 | 23.33 | 18.60 | 95.73 | 1.49 | -313.47 | 444.39 | 406.43 | 36.21 | 9.176 | | |
| 5,700.00 | 5,498.86 | 5,659.94 | 5,542.11 | 23.75 | 18.72 | 98.37 | 89.95 | -313.64 | 452.44 | 413.98 | 36.73 | 9.100 | | |
| 5,800.00 | 5,523.71 | 5,770.98 | 5,584.24 | 24.17 | 18.80 | 100.71 | 192.47 | -313.81 | 460.49 | 421.53 | 37.33 | 9.015 | | |
| 5,900.00 | 5,530.00 | 5,885.53 | 5,603.96 | 24.59 | 19.12 | 102.61 | 305.07 | -313.98 | 468.54 | 429.08 | 38.10 | 8.891 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 6,000.00 | 5,530.00 | 5,990.24 | 5,605.00 | 20.34 | 19.64 | 102.78 | 409.76 | -301.64 | 338.97 | 299.90 | 39.07 | 8.676 | | |
| 6,100.00 | 5,530.00 | 6,090.24 | 5,605.00 | 20.74 | 20.24 | 102.78 | 509.76 | -301.65 | 338.97 | 298.76 | 40.21 | 8.429 | | |
| 6,200.00 | 5,530.00 | 6,190.24 | 5,605.00 | 21.32 | 20.92 | 102.78 | 609.76 | -301.65 | 338.97 | 297.45 | 41.52 | 8.164 | | |
| 6,300.00 | 5,530.00 | 6,290.24 | 5,605.00 | 22.03 | 21.68 | 102.78 | 709.76 | -301.65 | 338.97 | 295.98 | 42.98 | 7.886 | | |
| 6,400.00 | 5,530.00 | 6,390.24 | 5,605.00 | 22.82 | 22.51 | 102.78 | 809.76 | -301.66 | 338.97 | 294.38 | 44.59 | 7.603 | | |
| 6,500.00 | 5,530.00 | 6,490.24 | 5,605.00 | 23.69 | 23.40 | 102.78 | 909.76 | -301.66 | 338.97 | 292.66 | 46.31 | 7.320 | | |
| 6,600.00 | 5,530.00 | 6,590.24 | 5,605.00 | 24.62 | 24.34 | 102.78 | 1,009.76 | -301.67 | 338.97 | 290.82 | 48.14 | 7.041 | | |
| 6,700.00 | 5,530.00 | 6,690.24 | 5,605.00 | 25.60 | 25.34 | 102.78 | 1,109.76 | -301.67 | 338.97 | 288.89 | 50.08 | 6.769 | | |
| 6,800.00 | 5,530.00 | 6,790.24 | 5,605.00 | 26.63 | 26.38 | 102.78 | 1,209.76 | -301.68 | 338.97 | 286.87 | 52.10 | 6.506 | | |
| 6,900.00 | 5,530.00 | 6,890.24 | 5,605.00 | 27.69 | 27.46 | 102.78 | 1,309.76 | -301.68 | 338.97 | 284.77 | 54.20 | 6.254 | | |
| 7,000.00 | 5,530.00 | 6,990.24 | 5,605.00 | 28.79 | 28.57 | 102.78 | 1,409.76 | -301.69 | 338.97 | 282.60 | 56.36 | 6.014 | | |
| 7,100.00 | 5,530.00 | 7,090.24 | 5,605.00 | 29.93 | 29.71 | 102.78 | 1,509.76 | -301.69 | 338.97 | 280.37 | 58.59 | 5.785 | | |
| 7,200.00 | 5,530.00 | 7,190.24 | 5,605.00 | 31.09 | 30.88 | 102.78 | 1,609.76 | -301.70 | 338.97 | 278.09 | 60.88 | 5.568 | | |
| 7,300.00 | 5,530.00 | 7,290.24 | 5,605.00 | 32.27 | 32.08 | 102.78 | 1,709.76 | -301.70 | 338.97 | 275.76 | 63.21 | 5.363 | | |
| 7,400.00 | 5,530.00 | 7,390.24 | 5,605.00 | 33.48 | 33.30 | 102.78 | 1,809.76 | -301.71 | 338.97 | 273.38 | 65.58 | 5.168 | | |
| 7,500.00 | 5,530.00 | 7,490.24 | 5,605.00 | 34.71 | 34.54 | 102.78 | 1,909.76 | -301.71 | 338.97 | 270.97 | 68.00 | 4.985 | | |
| 7,600.00 | 5,530.00 | 7,590.24 | 5,605.00 | 35.95 | 35.79 | 102.78 | 2,009.76 | -301.72 | 338.97 | 268.52 | 70.45 | 4.812 | | |
| 7,700.00 | 5,530.00 | 7,690.24 | 5,605.00 | 37.22 | 37.06 | 102.78 | 2,109.76 | -301.72 | 338.97 | 266.04 | 72.93 | 4.648 | | |
| 7,800.00 | 5,530.00 | 7,790.24 | 5,605.00 | 38.49 | 38.35 | 102.78 | 2,209.76 | -301.73 | 338.97 | 263.53 | 75.44 | 4.493 | | |
| 7,900.00 | 5,530.00 | 7,890.24 | 5,605.00 | 39.78 | 39.65 | 102.78 | 2,309.76 | -301.73 | 338.97 | 260.99 | 77.97 | 4.347 | | |
| 8,000.00 | 5,530.00 | 7,990.24 | 5,605.00 | 41.09 | 40.96 | 102.78 | 2,409.76 | -301.74 | 338.97 | 258.44 | 80.53 | 4.209 | | |
| 8,100.00 | 5,530.00 | 8,090.24 | 5,605.00 | 42.40 | 42.28 | 102.78 | 2,509.76 | -301.74 | 338.96 | 255.86 | 83.11 | 4.079 | | |
| 8,200.00 | 5,530.00 | 8,190.24 | 5,605.00 | 43.72 | 43.61 | 102.78 | 2,609.76 | -301.75 | 338.96 | 253.26 | 85.71 | 3.955 | | |
| 8,300.00 | 5,530.00 | 8,290.24 | 5,605.00 | 45.05 | 44.95 | 102.78 | 2,709.76 | -301.75 | 338.96 | 250.64 | 88.32 | 3.838 | | |
| 8,400.00 | 5,530.00 | 8,390.24 | 5,605.00 | 46.39 | 46.29 | 102.78 | 2,809.76 | -301.76 | 338.96 | 248.01 | 90.95 | 3.727 | | |
| 8,500.00 | 5,530.00 | 8,490.24 | 5,605.00 | 47.74 | 47.65 | 102.78 | 2,909.76 | -301.76 | 338.96 | 245.37 | 93.60 | 3.621 | | |
| 8,600.00 | 5,530.00 | 8,590.24 | 5,605.00 | 49.10 | 49.01 | 102.78 | 3,009.76 | -301.76 | 338.96 | 242.71 | 96.26 | 3.521 | | |
| 8,700.00 | 5,530.00 | 8,690.24 | 5,605.00 | 50.46 | 50.38 | 102.78 | 3,109.76 | -301.77 | 338.96 | 240.04 | 98.93 | 3.426 | | |
| 8,800.00 | 5,530.00 | 8,790.24 | 5,605.00 | 51.83 | 51.75 | 102.78 | 3,209.76 | -301.77 | 338.96 | 237.35 | 101.61 | 3.336 | | |
| 8,900.00 | 5,530.00 | 8,890.24 | 5,605.00 | 53.20 | 53.13 | 102.78 | 3,309.76 | -301.78 | 338.96 | 234.66 | 104.30 | 3.250 | | |
| 9,000.00 | 5,530.00 | 8,990.24 | 5,605.00 | 54.58 | 54.51 | 102.78 | 3,409.76 | -301.78 | 338.96 | 231.96 | 107.01 | 3.168 | | |
| 9,100.00 | 5,530.00 | 9,090.24 | 5,605.00 | 55.96 | 55.90 | 102.78 | 3,509.76 | -301.79 | 338.96 | 229.24 | 109.72 | 3.089 | | |
| 9,200.00 | 5,530.00 | 9,190.24 | 5,605.00 | 57.35 | 57.29 | 102.78 | 3,609.76 | -301.79 | 338.96 | 226.52 | 112.44 | 3.015 | | |
| 9,300.00 | 5,530.00 | 9,290.24 | 5,605.00 | 58.74 | 58.69 | 102.78 | 3,709.76 | -301.80 | 338.96 | 223.80 | 115.17 | 2.943 | | |
| 9,400.00 | 5,530.00 | 9,390.24 | 5,605.00 | 60.13 | 60.09 | 102.78 | 3,809.76 | -301.80 | 338.96 | 221.06 | 117.90 | 2.875 | | |
| 9,500.00 | 5,530.00 | 9,490.24 | 5,605.00 | 61.53 | 61.49 | 102.78 | 3,909.76 | -301.81 | 338.96 | 218.32 | 120.64 | 2.810 | | |
| 9,600.00 | 5,530.00 | 9,590.24 | 5,605.00 | 62.93 | 62.89 | 102.78 | 4,009.76 | -301.81 | 338.96 | 215.57 | 123.39 | 2.747 | | |
| 9,700.00 | 5,530.00 | 9,690.24 | 5,605.00 | 64.34 | 64.30 | 102.78 | 4,109.76 | -301.82 | 338.96 | 212.82 | 126.15 | 2.687 | | |
| 9,800.00 | 5,530.00 | 9,790.24 | 5,605.00 | 65.75 | 65.71 | 102.78 | 4,209.76 | -301.82 | 338.96 | 210.06 | 128.90 | 2.630 | | |
| 9,900.00 | 5,530.00 | 9,890.24 | 5,605.00 | 67.16 | 67.13 | 102.78 | 4,309.76 | -301.83 | 338.96 | 207.29 | 131.67 | 2.574 | | |
| 10,000.00 | 5,530.00 | 9,990.24 | 5,605.00 | 68.57 | 68.54 | 102.78 | 4,409.76 | -301.83 | 338.96 | 204.52 | 134.44 | 2.521 | | |
| 10,100.00 | 5,530.00 | 10,090.24 | 5,605.00 | 69.99 | 69.96 | 102.78 | 4,509.76 | -301.84 | 338.96 | 201.75 | 137.21 | 2.470 | | |
| 10,200.00 | 5,530.00 | 10,190.24 | 5,605.00 | 71.40 | 71.38 | 102.78 | 4,609.76 | -301.84 | 338.96 | 198.97 | 139.99 | 2.421 | | |
| 10,300.00 | 5,530.00 | 10,290.24 | 5,605.00 | 72.82 | 72.81 | 102.78 | 4,709.76 | -301.85 | 338.96 | 196.19 | 142.77 | 2.374 | | |
| 10,400.00 | 5,530.00 | 10,390.24 | 5,605.00 | 74.25 | 74.23 | 102.78 | 4,809.76 | -301.85 | 338.96 | 193.40 | 145.56 | 2.329 | | |
| 10,500.00 | 5,530.00 | 10,490.24 | 5,605.00 | 75.67 | 75.66 | 102.78 | 4,909.76 | -301.86 | 338.96 | 190.61 | 148.35 | 2.285 | | |
| 10,600.00 | 5,530.00 | 10,590.24 | 5,605.00 | 77.09 | 77.09 | 102.78 | 5,009.76 | -301.86 | 338.96 | 187.82 | 151.14 | 2.243 | | |
| 10,700.00 | 5,530.00 | 10,690.24 | 5,605.00 | 78.52 | 78.52 | 102.78 | 5,109.76 | -301.87 | 338.96 | 185.03 | 153.93 | 2.202 | | |
| 10,800.00 | 5,530.00 | 10,790.24 | 5,605.00 | 79.95 | 79.95 | 102.78 | 5,209.76 | -301.87 | 338.96 | 182.23 | 156.73 | 2.163 | | |
| 10,900.00 | 5,530.00 | 10,890.24 | 5,605.00 | 81.38 | 81.38 | 102.78 | 5,309.76 | -301.87 | 338.96 | 179.42 | 159.54 | 2.125 | | |
| 11,000.00 | 5,530.00 | 10,990.24 | 5,605.00 | 82.81 | 82.82 | 102.78 | 5,409.76 | -301.88 | 338.96 | 176.62 | 162.34 | 2.088 | | |
| 11,100.00 | 5,530.00 | 11,090.24 | 5,605.00 | 84.25 | 84.25 | 102.78 | 5,509.76 | -301.88 | 338.96 | 173.81 | 165.15 | 2.052 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 11,200.00 | 5,530.00 | 11,190.24 | 5,605.00 | 85.68 | 85.69 | 102.78 | 5,609.76 | -301.89 | 338.96 | 171.00 | 167.96 | 2.018 | | |
| 11,300.00 | 5,530.00 | 11,290.24 | 5,605.00 | 87.12 | 87.13 | 102.78 | 5,709.76 | -301.89 | 338.96 | 168.19 | 170.77 | 1.985 | | |
| 11,400.00 | 5,530.00 | 11,390.24 | 5,605.00 | 88.55 | 88.56 | 102.78 | 5,809.76 | -301.90 | 338.96 | 165.38 | 173.58 | 1.953 | | |
| 11,500.00 | 5,530.00 | 11,490.24 | 5,605.00 | 89.99 | 90.00 | 102.78 | 5,909.76 | -301.90 | 338.96 | 162.56 | 176.40 | 1.922 | | |
| 11,600.00 | 5,530.00 | 11,590.24 | 5,605.00 | 91.43 | 91.45 | 102.78 | 6,009.76 | -301.91 | 338.96 | 159.74 | 179.22 | 1.891 | | |
| 11,700.00 | 5,530.00 | 11,690.24 | 5,605.00 | 92.87 | 92.89 | 102.78 | 6,109.76 | -301.91 | 338.96 | 156.92 | 182.04 | 1.862 | | |
| 11,800.00 | 5,530.00 | 11,790.24 | 5,605.00 | 94.31 | 94.33 | 102.78 | 6,209.76 | -301.92 | 338.96 | 154.10 | 184.86 | 1.834 | | |
| 11,900.00 | 5,530.00 | 11,890.24 | 5,605.00 | 95.75 | 95.77 | 102.78 | 6,309.76 | -301.92 | 338.96 | 151.28 | 187.68 | 1.806 | | |
| 12,000.00 | 5,530.00 | 11,990.24 | 5,605.00 | 97.20 | 97.22 | 102.78 | 6,409.76 | -301.93 | 338.96 | 148.45 | 190.51 | 1.779 | | |
| 12,100.00 | 5,530.00 | 12,090.24 | 5,605.00 | 98.64 | 98.66 | 102.78 | 6,509.76 | -301.93 | 338.96 | 145.63 | 193.33 | 1.753 | | |
| 12,200.00 | 5,530.00 | 12,190.24 | 5,605.00 | 100.08 | 100.11 | 102.78 | 6,609.76 | -301.94 | 338.96 | 142.80 | 196.16 | 1.728 | | |
| 12,300.00 | 5,530.00 | 12,290.24 | 5,605.00 | 101.53 | 101.56 | 102.78 | 6,709.76 | -301.94 | 338.96 | 139.97 | 198.99 | 1.703 | | |
| 12,400.00 | 5,530.00 | 12,390.24 | 5,605.00 | 102.97 | 103.01 | 102.78 | 6,809.76 | -301.95 | 338.96 | 137.14 | 201.82 | 1.679 | | |
| 12,500.00 | 5,530.00 | 12,490.24 | 5,605.00 | 104.42 | 104.45 | 102.78 | 6,909.76 | -301.95 | 338.96 | 134.30 | 204.65 | 1.656 | | |
| 12,600.00 | 5,530.00 | 12,590.24 | 5,605.00 | 105.87 | 105.90 | 102.78 | 7,009.76 | -301.96 | 338.96 | 131.47 | 207.49 | 1.634 | | |
| 12,700.00 | 5,530.00 | 12,690.24 | 5,605.00 | 107.32 | 107.35 | 102.78 | 7,109.76 | -301.96 | 338.96 | 128.63 | 210.32 | 1.612 | | |
| 12,800.00 | 5,530.00 | 12,790.24 | 5,605.00 | 108.77 | 108.80 | 102.78 | 7,209.76 | -301.97 | 338.96 | 125.80 | 213.16 | 1.590 | | |
| 12,900.00 | 5,530.00 | 12,890.24 | 5,605.00 | 110.21 | 110.25 | 102.78 | 7,309.76 | -301.97 | 338.96 | 122.96 | 215.99 | 1.569 | | |
| 13,000.00 | 5,530.00 | 12,990.24 | 5,605.00 | 111.66 | 111.70 | 102.78 | 7,409.76 | -301.98 | 338.96 | 120.12 | 218.83 | 1.549 | | |
| 13,100.00 | 5,530.00 | 13,090.24 | 5,605.00 | 113.11 | 113.16 | 102.78 | 7,509.76 | -301.98 | 338.96 | 117.28 | 221.67 | 1.529 | | |
| 13,200.00 | 5,530.00 | 13,190.24 | 5,605.00 | 114.57 | 114.61 | 102.78 | 7,609.76 | -301.99 | 338.96 | 114.44 | 224.51 | 1.510 | | |
| 13,300.00 | 5,530.00 | 13,290.24 | 5,605.00 | 116.02 | 116.06 | 102.78 | 7,709.76 | -301.99 | 338.96 | 111.60 | 227.35 | 1.491 Level 3 | | |
| 13,400.00 | 5,530.00 | 13,390.24 | 5,605.00 | 117.47 | 117.51 | 102.78 | 7,809.76 | -301.99 | 338.96 | 108.76 | 230.20 | 1.472 Level 3 | | |
| 13,500.00 | 5,530.00 | 13,490.24 | 5,605.00 | 118.92 | 118.97 | 102.78 | 7,909.76 | -302.00 | 338.96 | 105.92 | 233.04 | 1.454 Level 3 | | |
| 13,600.00 | 5,530.00 | 13,590.24 | 5,605.00 | 120.37 | 120.42 | 102.78 | 8,009.76 | -302.00 | 338.95 | 103.07 | 235.88 | 1.437 Level 3 | | |
| 13,700.00 | 5,530.00 | 13,690.24 | 5,605.00 | 121.83 | 121.88 | 102.78 | 8,109.76 | -302.01 | 338.95 | 100.23 | 238.73 | 1.420 Level 3 | | |
| 13,800.00 | 5,530.00 | 13,790.24 | 5,605.00 | 123.28 | 123.33 | 102.78 | 8,209.76 | -302.01 | 338.95 | 97.38 | 241.57 | 1.403 Level 3 | | |
| 13,900.00 | 5,530.00 | 13,890.24 | 5,605.00 | 124.74 | 124.79 | 102.78 | 8,309.76 | -302.02 | 338.95 | 94.53 | 244.42 | 1.387 Level 3 | | |
| 14,000.00 | 5,530.00 | 13,990.24 | 5,605.00 | 126.19 | 126.24 | 102.78 | 8,409.76 | -302.02 | 338.95 | 91.69 | 247.27 | 1.371 Level 3 | | |
| 14,100.00 | 5,530.00 | 14,090.24 | 5,605.00 | 127.65 | 127.70 | 102.78 | 8,509.76 | -302.03 | 338.95 | 88.84 | 250.11 | 1.355 Level 3 | | |
| 14,200.00 | 5,530.00 | 14,190.24 | 5,605.00 | 129.10 | 129.16 | 102.78 | 8,609.76 | -302.03 | 338.95 | 85.99 | 252.96 | 1.340 Level 3 | | |
| 14,300.00 | 5,530.00 | 14,290.24 | 5,605.00 | 130.56 | 130.61 | 102.78 | 8,709.76 | -302.04 | 338.95 | 83.14 | 255.81 | 1.325 Level 3 | | |
| 14,400.00 | 5,530.00 | 14,390.24 | 5,605.00 | 132.01 | 132.07 | 102.78 | 8,809.76 | -302.04 | 338.95 | 80.29 | 258.66 | 1.310 Level 3 | | |
| 14,500.00 | 5,530.00 | 14,490.24 | 5,605.00 | 133.47 | 133.53 | 102.78 | 8,909.76 | -302.05 | 338.95 | 77.44 | 261.51 | 1.296 Level 3 | | |
| 14,600.00 | 5,530.00 | 14,590.24 | 5,605.00 | 134.93 | 134.98 | 102.78 | 9,009.76 | -302.05 | 338.95 | 74.59 | 264.36 | 1.282 Level 3 | | |
| 14,700.00 | 5,530.00 | 14,690.24 | 5,605.00 | 136.38 | 136.44 | 102.78 | 9,109.76 | -302.06 | 338.95 | 71.74 | 267.22 | 1.268 Level 3 | | |
| 14,800.00 | 5,530.00 | 14,790.24 | 5,605.00 | 137.84 | 137.90 | 102.78 | 9,209.76 | -302.06 | 338.95 | 68.88 | 270.07 | 1.255 Level 3 | | |
| 14,900.00 | 5,530.00 | 14,890.24 | 5,605.00 | 139.30 | 139.36 | 102.78 | 9,309.76 | -302.07 | 338.95 | 66.03 | 272.92 | 1.242 Level 2 | | |
| 15,000.00 | 5,530.00 | 14,990.24 | 5,605.00 | 140.76 | 140.82 | 102.78 | 9,409.76 | -302.07 | 338.95 | 63.18 | 275.77 | 1.229 Level 2 | | |
| 15,100.00 | 5,530.00 | 15,090.24 | 5,605.00 | 142.21 | 142.28 | 102.78 | 9,509.76 | -302.08 | 338.95 | 60.32 | 278.63 | 1.217 Level 2 | | |
| 15,200.00 | 5,530.00 | 15,190.24 | 5,605.00 | 143.67 | 143.74 | 102.78 | 9,609.76 | -302.08 | 338.95 | 57.47 | 281.48 | 1.204 Level 2 | | |
| 15,300.00 | 5,530.00 | 15,290.24 | 5,605.00 | 145.13 | 145.20 | 102.78 | 9,709.76 | -302.09 | 338.95 | 54.61 | 284.34 | 1.192 Level 2 | | |
| 15,400.00 | 5,530.00 | 15,390.24 | 5,605.00 | 146.59 | 146.66 | 102.78 | 9,809.76 | -302.09 | 338.95 | 51.76 | 287.19 | 1.180 Level 2 | | |
| 15,500.00 | 5,530.00 | 15,490.24 | 5,605.00 | 148.05 | 148.12 | 102.78 | 9,909.76 | -302.10 | 338.95 | 48.90 | 290.05 | 1.169 Level 2 | | |
| 15,600.00 | 5,530.00 | 15,590.24 | 5,605.00 | 149.51 | 149.58 | 102.78 | 10,009.76 | -302.10 | 338.95 | 46.05 | 292.91 | 1.157 Level 2 | | |
| 15,700.00 | 5,530.00 | 15,690.24 | 5,605.00 | 150.97 | 151.04 | 102.78 | 10,109.76 | -302.10 | 338.95 | 43.19 | 295.76 | 1.146 Level 2 | | |
| 15,722.97 | 5,530.00 | 15,713.21 | 5,605.00 | 151.30 | 151.37 | 102.78 | 10,132.73 | -302.11 | 338.95 | 42.53 | 296.42 | 1.143 Level 2, SF | | |



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 89.03 | 1.02 | 59.98 | 59.99 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.13 | 0.13 | 89.03 | 1.02 | 59.98 | 59.99 | 59.73 | 0.27 | 225.244 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.47 | 0.47 | 89.03 | 1.02 | 59.98 | 59.99 | 59.05 | 0.94 | 63.779 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.81 | 0.81 | 89.03 | 1.02 | 59.98 | 59.99 | 58.38 | 1.61 | 37.149 CC, ES | | |
| 400.00 | 399.98 | 400.37 | 400.35 | 1.12 | 1.11 | -159.88 | -0.72 | 59.68 | 61.32 | 59.09 | 2.23 | 27.473 | | |
| 500.00 | 499.84 | 500.48 | 500.33 | 1.44 | 1.41 | -156.99 | -5.78 | 58.79 | 65.43 | 62.60 | 2.83 | 23.090 | | |
| 600.00 | 599.45 | 600.18 | 599.84 | 1.77 | 1.71 | -154.84 | -11.77 | 57.73 | 72.76 | 69.28 | 3.48 | 20.928 | | |
| 700.00 | 698.70 | 699.61 | 699.09 | 2.12 | 2.03 | -154.14 | -17.75 | 56.68 | 83.28 | 79.14 | 4.14 | 20.113 | | |
| 800.00 | 797.48 | 798.69 | 797.97 | 2.49 | 2.36 | -154.47 | -23.71 | 55.63 | 96.83 | 92.02 | 4.81 | 20.120 | | |
| 900.00 | 896.11 | 897.64 | 896.74 | 2.89 | 2.70 | -155.00 | -29.66 | 54.58 | 111.26 | 105.78 | 5.49 | 20.285 | | |
| 1,000.00 | 994.74 | 996.58 | 995.50 | 3.28 | 3.04 | -155.41 | -35.60 | 53.53 | 125.70 | 119.54 | 6.17 | 20.386 | | |
| 1,100.00 | 1,093.37 | 1,095.53 | 1,094.27 | 3.69 | 3.38 | -155.73 | -41.55 | 52.48 | 140.15 | 133.29 | 6.85 | 20.451 | | |
| 1,200.00 | 1,192.00 | 1,194.48 | 1,193.03 | 4.10 | 3.72 | -156.00 | -47.50 | 51.43 | 154.60 | 147.05 | 7.54 | 20.493 | | |
| 1,300.00 | 1,290.63 | 1,293.43 | 1,291.79 | 4.51 | 4.07 | -156.22 | -53.45 | 50.38 | 169.05 | 160.81 | 8.24 | 20.520 | | |
| 1,400.00 | 1,389.26 | 1,392.38 | 1,390.56 | 4.92 | 4.41 | -156.40 | -59.40 | 49.33 | 183.50 | 174.57 | 8.94 | 20.537 | | |
| 1,500.00 | 1,487.88 | 1,491.33 | 1,489.32 | 5.33 | 4.76 | -156.56 | -65.35 | 48.28 | 197.96 | 188.32 | 9.63 | 20.548 | | |
| 1,600.00 | 1,586.51 | 1,590.27 | 1,588.08 | 5.75 | 5.11 | -156.70 | -71.30 | 47.23 | 212.41 | 202.08 | 10.33 | 20.555 | | |
| 1,700.00 | 1,685.14 | 1,689.22 | 1,686.85 | 6.16 | 5.45 | -156.81 | -77.25 | 46.19 | 226.87 | 215.83 | 11.04 | 20.558 | | |
| 1,800.00 | 1,783.77 | 1,788.17 | 1,785.61 | 6.58 | 5.80 | -156.92 | -83.20 | 45.14 | 241.33 | 229.59 | 11.74 | 20.560 | | |
| 1,900.00 | 1,882.40 | 1,887.12 | 1,884.38 | 6.99 | 6.15 | -157.01 | -89.14 | 44.09 | 255.79 | 243.35 | 12.44 | 20.560 | | |
| 2,000.00 | 1,981.03 | 1,986.07 | 1,983.14 | 7.41 | 6.50 | -157.09 | -95.09 | 43.04 | 270.25 | 257.10 | 13.15 | 20.559 | | |
| 2,100.00 | 2,079.66 | 2,085.02 | 2,081.90 | 7.83 | 6.85 | -157.17 | -101.04 | 41.99 | 284.71 | 270.86 | 13.85 | 20.557 | | |
| 2,200.00 | 2,178.28 | 2,183.96 | 2,180.67 | 8.25 | 7.19 | -157.24 | -106.99 | 40.94 | 299.17 | 284.61 | 14.55 | 20.554 | | |
| 2,300.00 | 2,276.91 | 2,282.91 | 2,279.43 | 8.66 | 7.54 | -157.30 | -112.94 | 39.89 | 313.63 | 298.37 | 15.26 | 20.552 | | |
| 2,400.00 | 2,375.54 | 2,381.86 | 2,378.20 | 9.08 | 7.89 | -157.35 | -118.89 | 38.84 | 328.09 | 312.12 | 15.97 | 20.549 | | |
| 2,500.00 | 2,474.17 | 2,480.81 | 2,476.96 | 9.50 | 8.24 | -157.40 | -124.84 | 37.79 | 342.55 | 325.88 | 16.67 | 20.545 | | |
| 2,600.00 | 2,572.80 | 2,579.76 | 2,575.72 | 9.92 | 8.59 | -157.45 | -130.79 | 36.74 | 357.01 | 339.63 | 17.38 | 20.542 | | |
| 2,700.00 | 2,671.43 | 2,678.71 | 2,674.49 | 10.34 | 8.94 | -157.49 | -136.74 | 35.70 | 371.47 | 353.39 | 18.09 | 20.539 | | |
| 2,800.00 | 2,770.05 | 2,777.65 | 2,773.25 | 10.76 | 9.29 | -157.53 | -142.68 | 34.65 | 385.93 | 367.14 | 18.79 | 20.536 | | |
| 2,900.00 | 2,868.68 | 2,876.60 | 2,872.01 | 11.18 | 9.64 | -157.57 | -148.63 | 33.60 | 400.40 | 380.90 | 19.50 | 20.532 | | |
| 3,000.00 | 2,967.31 | 2,975.55 | 2,970.78 | 11.60 | 9.99 | -157.61 | -154.58 | 32.55 | 414.86 | 394.65 | 20.21 | 20.529 | | |
| 3,100.00 | 3,065.94 | 3,074.50 | 3,069.54 | 12.02 | 10.34 | -157.64 | -160.53 | 31.50 | 429.32 | 408.40 | 20.92 | 20.526 | | |
| 3,200.00 | 3,164.57 | 3,173.45 | 3,168.31 | 12.43 | 10.69 | -157.67 | -166.48 | 30.45 | 443.78 | 422.16 | 21.62 | 20.523 | | |
| 3,300.00 | 3,263.20 | 3,272.40 | 3,267.07 | 12.85 | 11.04 | -157.70 | -172.43 | 29.40 | 458.25 | 435.91 | 22.33 | 20.520 | | |
| 3,400.00 | 3,361.83 | 3,371.35 | 3,365.83 | 13.27 | 11.39 | -157.72 | -178.38 | 28.35 | 472.71 | 449.67 | 23.04 | 20.517 | | |
| 3,500.00 | 3,460.45 | 3,468.06 | 3,462.44 | 13.69 | 11.65 | -157.92 | -182.71 | 27.59 | 487.39 | 463.73 | 23.66 | 20.604 | | |
| 3,600.00 | 3,559.08 | 3,564.71 | 3,559.08 | 14.11 | 11.89 | -158.48 | -183.86 | 27.39 | 502.57 | 478.32 | 24.24 | 20.731 | | |
| 3,700.00 | 3,657.71 | 3,663.34 | 3,657.71 | 14.53 | 12.14 | -159.15 | -183.86 | 27.39 | 517.98 | 493.15 | 24.83 | 20.860 | | |
| 3,800.00 | 3,756.34 | 3,761.97 | 3,756.34 | 14.95 | 12.40 | -159.78 | -183.86 | 27.39 | 533.47 | 508.04 | 25.42 | 20.982 | | |
| 3,900.00 | 3,854.97 | 3,860.60 | 3,854.97 | 15.37 | 12.66 | -160.38 | -183.86 | 27.39 | 549.01 | 522.99 | 26.02 | 21.099 | | |
| 4,000.00 | 3,953.60 | 3,959.22 | 3,953.60 | 15.79 | 12.92 | -160.94 | -183.86 | 27.39 | 564.60 | 537.98 | 26.62 | 21.209 | | |
| 4,100.00 | 4,052.23 | 4,057.85 | 4,052.23 | 16.21 | 13.19 | -161.47 | -183.86 | 27.39 | 580.25 | 553.03 | 27.23 | 21.313 | | |
| 4,200.00 | 4,150.85 | 4,156.48 | 4,150.85 | 16.63 | 13.46 | -161.97 | -183.86 | 27.39 | 595.94 | 568.11 | 27.83 | 21.412 | | |
| 4,300.00 | 4,249.48 | 4,255.11 | 4,249.48 | 17.05 | 13.73 | -162.45 | -183.86 | 27.39 | 611.68 | 583.24 | 28.44 | 21.506 | | |
| 4,400.00 | 4,348.13 | 4,353.76 | 4,348.13 | 17.46 | 14.00 | -162.92 | -183.86 | 27.39 | 627.35 | 598.30 | 29.05 | 21.594 | | |
| 4,500.00 | 4,447.15 | 4,452.78 | 4,447.15 | 17.73 | 14.28 | -163.37 | -183.86 | 27.39 | 640.68 | 611.08 | 29.60 | 21.644 | | |
| 4,600.00 | 4,546.60 | 4,552.23 | 4,546.60 | 17.99 | 14.56 | -163.69 | -183.86 | 27.39 | 650.71 | 620.57 | 30.14 | 21.591 | | |
| 4,700.00 | 4,646.35 | 4,651.98 | 4,646.35 | 18.24 | 14.85 | -163.89 | -183.86 | 27.39 | 657.41 | 626.75 | 30.66 | 21.441 | | |
| 4,800.00 | 4,746.28 | 4,751.91 | 4,746.28 | 18.47 | 15.13 | -164.00 | -183.86 | 27.39 | 660.76 | 629.59 | 31.17 | 21.199 | | |
| 4,900.00 | 4,846.28 | 4,851.91 | 4,846.28 | 18.71 | 15.42 | -163.99 | -183.86 | 27.39 | 661.18 | 629.47 | 31.72 | 20.846 | | |
| 5,000.00 | 4,946.28 | 4,951.91 | 4,946.28 | 18.97 | 15.71 | -163.99 | -183.86 | 27.39 | 661.18 | 628.90 | 32.29 | 20.479 | | |
| 5,100.00 | 5,046.25 | 5,050.00 | 5,044.35 | 19.22 | 16.00 | -163.99 | -182.67 | 27.39 | 661.18 | 628.33 | 32.84 | 20.133 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 5,200.00 | 5,144.70 | 5,140.82 | 5,133.97 | 19.45 | 16.24 | 86.12 | -168.68 | 27.39 | 661.08 | 627.76 | 33.32 | 19.841 | | |
| 5,300.00 | 5,238.17 | 5,233.08 | 5,221.12 | 19.66 | 16.47 | 86.37 | -138.77 | 27.39 | 660.90 | 627.14 | 33.75 | 19.580 | | |
| 5,400.00 | 5,323.23 | 5,325.88 | 5,302.08 | 19.82 | 16.69 | 86.75 | -93.67 | 27.39 | 660.64 | 626.48 | 34.17 | 19.337 | | |
| 5,500.00 | 5,396.74 | 5,419.46 | 5,374.33 | 19.93 | 16.91 | 87.23 | -34.39 | 27.39 | 660.35 | 625.76 | 34.59 | 19.091 | | |
| 5,600.00 | 5,456.01 | 5,514.03 | 5,435.38 | 20.01 | 17.16 | 87.82 | 37.65 | 27.39 | 660.06 | 624.99 | 35.07 | 18.821 | | |
| 5,700.00 | 5,498.86 | 5,609.79 | 5,482.93 | 20.05 | 17.45 | 88.49 | 120.63 | 27.40 | 659.82 | 624.17 | 35.65 | 18.509 | | |
| 5,800.00 | 5,523.71 | 5,706.95 | 5,514.84 | 20.08 | 17.81 | 89.21 | 212.24 | 27.40 | 659.66 | 623.30 | 36.35 | 18.145 | | |
| 5,898.49 | 5,531.47 | 5,804.18 | 5,529.21 | 20.15 | 18.24 | 89.80 | 308.27 | 27.40 | 659.61 | 622.43 | 37.17 | 17.744 | | |
| 5,900.00 | 5,530.00 | 5,805.68 | 5,529.29 | 20.15 | 18.24 | 89.94 | 309.77 | 27.40 | 659.60 | 622.41 | 37.19 | 17.735 | | |
| 6,000.00 | 5,530.00 | 5,905.66 | 5,530.00 | 20.34 | 18.76 | 90.00 | 409.73 | 27.40 | 659.61 | 621.42 | 38.19 | 17.273 | | |
| 6,100.00 | 5,530.00 | 6,005.66 | 5,530.00 | 20.74 | 19.37 | 90.00 | 509.73 | 27.41 | 659.62 | 620.24 | 39.38 | 16.751 | | |
| 6,200.00 | 5,530.00 | 6,105.66 | 5,530.00 | 21.32 | 20.07 | 90.00 | 609.73 | 27.41 | 659.62 | 618.88 | 40.75 | 16.188 | | |
| 6,300.00 | 5,530.00 | 6,205.66 | 5,530.00 | 22.03 | 20.86 | 90.00 | 709.73 | 27.41 | 659.63 | 617.36 | 42.28 | 15.603 | | |
| 6,400.00 | 5,530.00 | 6,305.66 | 5,530.00 | 22.82 | 21.71 | 90.00 | 809.73 | 27.41 | 659.64 | 615.69 | 43.95 | 15.009 | | |
| 6,500.00 | 5,530.00 | 6,405.66 | 5,530.00 | 23.69 | 22.63 | 90.00 | 909.73 | 27.42 | 659.65 | 613.89 | 45.75 | 14.418 | | |
| 6,600.00 | 5,530.00 | 6,505.66 | 5,530.00 | 24.62 | 23.60 | 90.00 | 1,009.73 | 27.42 | 659.65 | 611.99 | 47.67 | 13.838 | | |
| 6,700.00 | 5,530.00 | 6,605.66 | 5,530.00 | 25.60 | 24.63 | 90.00 | 1,109.73 | 27.42 | 659.66 | 609.98 | 49.69 | 13.277 | | |
| 6,800.00 | 5,530.00 | 6,705.66 | 5,530.00 | 26.63 | 25.70 | 90.00 | 1,209.73 | 27.43 | 659.67 | 607.88 | 51.79 | 12.737 | | |
| 6,900.00 | 5,530.00 | 6,805.66 | 5,530.00 | 27.69 | 26.80 | 90.00 | 1,309.73 | 27.43 | 659.68 | 605.70 | 53.97 | 12.222 | | |
| 7,000.00 | 5,530.00 | 6,905.66 | 5,530.00 | 28.79 | 27.94 | 90.00 | 1,409.73 | 27.43 | 659.68 | 603.46 | 56.23 | 11.733 | | |
| 7,100.00 | 5,530.00 | 7,005.66 | 5,530.00 | 29.93 | 29.11 | 90.00 | 1,509.73 | 27.43 | 659.69 | 601.15 | 58.54 | 11.269 | | |
| 7,200.00 | 5,530.00 | 7,105.66 | 5,530.00 | 31.09 | 30.31 | 90.00 | 1,609.73 | 27.44 | 659.70 | 598.79 | 60.91 | 10.831 | | |
| 7,300.00 | 5,530.00 | 7,205.66 | 5,530.00 | 32.27 | 31.52 | 90.00 | 1,709.73 | 27.44 | 659.71 | 596.38 | 63.33 | 10.417 | | |
| 7,400.00 | 5,530.00 | 7,305.66 | 5,530.00 | 33.48 | 32.76 | 90.00 | 1,809.73 | 27.44 | 659.71 | 593.93 | 65.79 | 10.028 | | |
| 7,500.00 | 5,530.00 | 7,405.66 | 5,530.00 | 34.71 | 34.02 | 90.00 | 1,909.73 | 27.44 | 659.72 | 591.44 | 68.28 | 9.661 | | |
| 7,600.00 | 5,530.00 | 7,505.66 | 5,530.00 | 35.95 | 35.30 | 90.00 | 2,009.73 | 27.45 | 659.73 | 588.91 | 70.82 | 9.316 | | |
| 7,700.00 | 5,530.00 | 7,605.66 | 5,530.00 | 37.22 | 36.59 | 90.00 | 2,109.73 | 27.45 | 659.74 | 586.36 | 73.38 | 8.991 | | |
| 7,800.00 | 5,530.00 | 7,705.66 | 5,530.00 | 38.49 | 37.89 | 90.00 | 2,209.73 | 27.45 | 659.74 | 583.77 | 75.97 | 8.684 | | |
| 7,900.00 | 5,530.00 | 7,805.66 | 5,530.00 | 39.78 | 39.21 | 90.00 | 2,309.73 | 27.46 | 659.75 | 581.16 | 78.59 | 8.395 | | |
| 8,000.00 | 5,530.00 | 7,905.66 | 5,530.00 | 41.09 | 40.53 | 90.00 | 2,409.73 | 27.46 | 659.76 | 578.53 | 81.22 | 8.123 | | |
| 8,100.00 | 5,530.00 | 8,005.66 | 5,530.00 | 42.40 | 41.87 | 90.00 | 2,509.73 | 27.46 | 659.77 | 575.88 | 83.88 | 7.865 | | |
| 8,200.00 | 5,530.00 | 8,105.66 | 5,530.00 | 43.72 | 43.21 | 90.00 | 2,609.73 | 27.46 | 659.77 | 573.21 | 86.56 | 7.622 | | |
| 8,300.00 | 5,530.00 | 8,205.66 | 5,530.00 | 45.05 | 44.56 | 90.00 | 2,709.73 | 27.47 | 659.78 | 570.53 | 89.25 | 7.392 | | |
| 8,400.00 | 5,530.00 | 8,305.66 | 5,530.00 | 46.39 | 45.92 | 90.00 | 2,809.73 | 27.47 | 659.79 | 567.83 | 91.96 | 7.175 | | |
| 8,500.00 | 5,530.00 | 8,405.66 | 5,530.00 | 47.74 | 47.29 | 90.00 | 2,909.73 | 27.47 | 659.79 | 565.11 | 94.68 | 6.968 | | |
| 8,600.00 | 5,530.00 | 8,505.66 | 5,530.00 | 49.10 | 48.66 | 90.00 | 3,009.73 | 27.48 | 659.80 | 562.38 | 97.42 | 6.773 | | |
| 8,700.00 | 5,530.00 | 8,605.66 | 5,530.00 | 50.46 | 50.04 | 90.00 | 3,109.73 | 27.48 | 659.81 | 559.64 | 100.17 | 6.587 | | |
| 8,800.00 | 5,530.00 | 8,705.66 | 5,530.00 | 51.83 | 51.42 | 90.00 | 3,209.73 | 27.48 | 659.82 | 556.89 | 102.92 | 6.411 | | |
| 8,900.00 | 5,530.00 | 8,805.66 | 5,530.00 | 53.20 | 52.81 | 90.00 | 3,309.73 | 27.48 | 659.82 | 554.13 | 105.69 | 6.243 | | |
| 9,000.00 | 5,530.00 | 8,905.66 | 5,530.00 | 54.58 | 54.20 | 90.00 | 3,409.73 | 27.49 | 659.83 | 551.36 | 108.47 | 6.083 | | |
| 9,100.00 | 5,530.00 | 9,005.66 | 5,530.00 | 55.96 | 55.60 | 90.00 | 3,509.73 | 27.49 | 659.84 | 548.58 | 111.26 | 5.931 | | |
| 9,200.00 | 5,530.00 | 9,105.66 | 5,530.00 | 57.35 | 57.00 | 90.00 | 3,609.73 | 27.49 | 659.85 | 545.80 | 114.05 | 5.786 | | |
| 9,300.00 | 5,530.00 | 9,205.66 | 5,530.00 | 58.74 | 58.40 | 90.00 | 3,709.73 | 27.49 | 659.85 | 543.00 | 116.85 | 5.647 | | |
| 9,400.00 | 5,530.00 | 9,305.66 | 5,530.00 | 60.13 | 59.81 | 90.00 | 3,809.73 | 27.50 | 659.86 | 540.20 | 119.66 | 5.515 | | |
| 9,500.00 | 5,530.00 | 9,405.66 | 5,530.00 | 61.53 | 61.22 | 90.00 | 3,909.73 | 27.50 | 659.87 | 537.40 | 122.47 | 5.388 | | |
| 9,600.00 | 5,530.00 | 9,505.66 | 5,530.00 | 62.93 | 62.63 | 90.00 | 4,009.73 | 27.50 | 659.88 | 534.58 | 125.29 | 5.267 | | |
| 9,700.00 | 5,530.00 | 9,605.66 | 5,530.00 | 64.34 | 64.05 | 90.00 | 4,109.73 | 27.51 | 659.88 | 531.76 | 128.12 | 5.151 | | |
| 9,800.00 | 5,530.00 | 9,705.66 | 5,530.00 | 65.75 | 65.47 | 90.00 | 4,209.73 | 27.51 | 659.89 | 528.94 | 130.95 | 5.039 | | |
| 9,900.00 | 5,530.00 | 9,805.66 | 5,530.00 | 67.16 | 66.89 | 90.00 | 4,309.73 | 27.51 | 659.90 | 526.11 | 133.79 | 4.932 | | |
| 10,000.00 | 5,530.00 | 9,905.66 | 5,530.00 | 68.57 | 68.31 | 90.00 | 4,409.73 | 27.51 | 659.91 | 523.28 | 136.63 | 4.830 | | |
| 10,100.00 | 5,530.00 | 10,005.66 | 5,530.00 | 69.99 | 69.74 | 90.00 | 4,509.73 | 27.52 | 659.91 | 520.44 | 139.47 | 4.732 | | |
| 10,200.00 | 5,530.00 | 10,105.66 | 5,530.00 | 71.40 | 71.16 | 90.00 | 4,609.73 | 27.52 | 659.92 | 517.60 | 142.32 | 4.637 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 10,300.00 | 5,530.00 | 10,205.66 | 5,530.00 | 72.82 | 72.59 | 90.00 | 4,709.73 | 27.52 | 659.93 | 514.76 | 145.17 | 4.546 | | |
| 10,400.00 | 5,530.00 | 10,305.66 | 5,530.00 | 74.25 | 74.02 | 90.00 | 4,809.73 | 27.53 | 659.93 | 511.91 | 148.03 | 4.458 | | |
| 10,500.00 | 5,530.00 | 10,405.66 | 5,530.00 | 75.67 | 75.45 | 90.00 | 4,909.73 | 27.53 | 659.94 | 509.05 | 150.89 | 4.374 | | |
| 10,600.00 | 5,530.00 | 10,505.66 | 5,530.00 | 77.09 | 76.89 | 90.00 | 5,009.73 | 27.53 | 659.95 | 506.20 | 153.75 | 4.292 | | |
| 10,700.00 | 5,530.00 | 10,605.66 | 5,530.00 | 78.52 | 78.32 | 90.00 | 5,109.73 | 27.53 | 659.96 | 503.34 | 156.62 | 4.214 | | |
| 10,800.00 | 5,530.00 | 10,705.66 | 5,530.00 | 79.95 | 79.76 | 90.00 | 5,209.73 | 27.54 | 659.96 | 500.48 | 159.48 | 4.138 | | |
| 10,900.00 | 5,530.00 | 10,805.66 | 5,530.00 | 81.38 | 81.19 | 90.00 | 5,309.73 | 27.54 | 659.97 | 497.62 | 162.36 | 4.065 | | |
| 11,000.00 | 5,530.00 | 10,905.66 | 5,530.00 | 82.81 | 82.63 | 90.00 | 5,409.73 | 27.54 | 659.98 | 494.75 | 165.23 | 3.994 | | |
| 11,100.00 | 5,530.00 | 11,005.66 | 5,530.00 | 84.25 | 84.07 | 90.00 | 5,509.73 | 27.55 | 659.99 | 491.88 | 168.10 | 3.926 | | |
| 11,200.00 | 5,530.00 | 11,105.66 | 5,530.00 | 85.68 | 85.51 | 90.00 | 5,609.73 | 27.55 | 659.99 | 489.01 | 170.98 | 3.860 | | |
| 11,300.00 | 5,530.00 | 11,205.66 | 5,530.00 | 87.12 | 86.95 | 90.00 | 5,709.73 | 27.55 | 660.00 | 486.14 | 173.86 | 3.796 | | |
| 11,400.00 | 5,530.00 | 11,305.66 | 5,530.00 | 88.55 | 88.40 | 90.00 | 5,809.73 | 27.55 | 660.01 | 483.26 | 176.75 | 3.734 | | |
| 11,500.00 | 5,530.00 | 11,405.66 | 5,530.00 | 89.99 | 89.84 | 90.00 | 5,909.73 | 27.56 | 660.02 | 480.39 | 179.63 | 3.674 | | |
| 11,600.00 | 5,530.00 | 11,505.66 | 5,530.00 | 91.43 | 91.28 | 90.00 | 6,009.73 | 27.56 | 660.02 | 477.51 | 182.52 | 3.616 | | |
| 11,700.00 | 5,530.00 | 11,605.66 | 5,530.00 | 92.87 | 92.73 | 90.00 | 6,109.73 | 27.56 | 660.03 | 474.63 | 185.41 | 3.560 | | |
| 11,800.00 | 5,530.00 | 11,705.66 | 5,530.00 | 94.31 | 94.18 | 90.00 | 6,209.73 | 27.56 | 660.04 | 471.74 | 188.30 | 3.505 | | |
| 11,900.00 | 5,530.00 | 11,805.66 | 5,530.00 | 95.75 | 95.62 | 90.00 | 6,309.73 | 27.57 | 660.05 | 468.86 | 191.19 | 3.452 | | |
| 12,000.00 | 5,530.00 | 11,905.66 | 5,530.00 | 97.20 | 97.07 | 90.00 | 6,409.73 | 27.57 | 660.05 | 465.97 | 194.08 | 3.401 | | |
| 12,100.00 | 5,530.00 | 12,005.66 | 5,530.00 | 98.64 | 98.52 | 90.00 | 6,509.73 | 27.57 | 660.06 | 463.09 | 196.97 | 3.351 | | |
| 12,200.00 | 5,530.00 | 12,105.66 | 5,530.00 | 100.08 | 99.97 | 90.00 | 6,609.73 | 27.58 | 660.07 | 460.20 | 199.87 | 3.302 | | |
| 12,300.00 | 5,530.00 | 12,205.66 | 5,530.00 | 101.53 | 101.42 | 90.00 | 6,709.73 | 27.58 | 660.08 | 457.31 | 202.77 | 3.255 | | |
| 12,400.00 | 5,530.00 | 12,305.66 | 5,530.00 | 102.97 | 102.87 | 90.00 | 6,809.73 | 27.58 | 660.08 | 454.42 | 205.67 | 3.209 | | |
| 12,500.00 | 5,530.00 | 12,405.66 | 5,530.00 | 104.42 | 104.32 | 90.00 | 6,909.73 | 27.58 | 660.09 | 451.52 | 208.57 | 3.165 | | |
| 12,600.00 | 5,530.00 | 12,505.66 | 5,530.00 | 105.87 | 105.77 | 90.00 | 7,009.73 | 27.59 | 660.10 | 448.63 | 211.47 | 3.122 | | |
| 12,700.00 | 5,530.00 | 12,605.66 | 5,530.00 | 107.32 | 107.22 | 90.00 | 7,109.73 | 27.59 | 660.10 | 445.73 | 214.37 | 3.079 | | |
| 12,800.00 | 5,530.00 | 12,705.66 | 5,530.00 | 108.77 | 108.68 | 90.00 | 7,209.73 | 27.59 | 660.11 | 442.84 | 217.27 | 3.038 | | |
| 12,900.00 | 5,530.00 | 12,805.66 | 5,530.00 | 110.21 | 110.13 | 90.00 | 7,309.73 | 27.60 | 660.12 | 439.94 | 220.18 | 2.998 | | |
| 13,000.00 | 5,530.00 | 12,905.66 | 5,530.00 | 111.66 | 111.58 | 90.00 | 7,409.73 | 27.60 | 660.13 | 437.04 | 223.08 | 2.959 | | |
| 13,100.00 | 5,530.00 | 13,005.66 | 5,530.00 | 113.11 | 113.04 | 90.00 | 7,509.73 | 27.60 | 660.13 | 434.14 | 225.99 | 2.921 | | |
| 13,200.00 | 5,530.00 | 13,105.66 | 5,530.00 | 114.57 | 114.49 | 90.00 | 7,609.73 | 27.60 | 660.14 | 431.24 | 228.90 | 2.884 | | |
| 13,300.00 | 5,530.00 | 13,205.66 | 5,530.00 | 116.02 | 115.95 | 90.00 | 7,709.73 | 27.61 | 660.15 | 428.34 | 231.81 | 2.848 | | |
| 13,400.00 | 5,530.00 | 13,305.66 | 5,530.00 | 117.47 | 117.40 | 90.00 | 7,809.73 | 27.61 | 660.16 | 425.44 | 234.71 | 2.813 | | |
| 13,500.00 | 5,530.00 | 13,405.66 | 5,530.00 | 118.92 | 118.86 | 90.00 | 7,909.73 | 27.61 | 660.16 | 422.54 | 237.62 | 2.778 | | |
| 13,600.00 | 5,530.00 | 13,505.66 | 5,530.00 | 120.37 | 120.31 | 90.00 | 8,009.73 | 27.61 | 660.17 | 419.64 | 240.54 | 2.745 | | |
| 13,700.00 | 5,530.00 | 13,605.66 | 5,530.00 | 121.83 | 121.77 | 90.00 | 8,109.73 | 27.62 | 660.18 | 416.73 | 243.45 | 2.712 | | |
| 13,800.00 | 5,530.00 | 13,705.66 | 5,530.00 | 123.28 | 123.23 | 90.00 | 8,209.73 | 27.62 | 660.19 | 413.83 | 246.36 | 2.680 | | |
| 13,900.00 | 5,530.00 | 13,805.66 | 5,530.00 | 124.74 | 124.68 | 90.00 | 8,309.73 | 27.62 | 660.19 | 410.92 | 249.27 | 2.648 | | |
| 14,000.00 | 5,530.00 | 13,905.66 | 5,530.00 | 126.19 | 126.14 | 90.00 | 8,409.73 | 27.63 | 660.20 | 408.01 | 252.19 | 2.618 | | |
| 14,100.00 | 5,530.00 | 14,005.66 | 5,530.00 | 127.65 | 127.60 | 90.00 | 8,509.73 | 27.63 | 660.21 | 405.11 | 255.10 | 2.588 | | |
| 14,200.00 | 5,530.00 | 14,105.66 | 5,530.00 | 129.10 | 129.06 | 90.00 | 8,609.73 | 27.63 | 660.22 | 402.20 | 258.02 | 2.559 | | |
| 14,300.00 | 5,530.00 | 14,205.66 | 5,530.00 | 130.56 | 130.52 | 90.00 | 8,709.73 | 27.63 | 660.22 | 399.29 | 260.93 | 2.530 | | |
| 14,400.00 | 5,530.00 | 14,305.66 | 5,530.00 | 132.01 | 131.98 | 90.00 | 8,809.73 | 27.64 | 660.23 | 396.38 | 263.85 | 2.502 | | |
| 14,500.00 | 5,530.00 | 14,405.66 | 5,530.00 | 133.47 | 133.43 | 90.00 | 8,909.73 | 27.64 | 660.24 | 393.47 | 266.77 | 2.475 | | |
| 14,600.00 | 5,530.00 | 14,505.66 | 5,530.00 | 134.93 | 134.89 | 90.00 | 9,009.73 | 27.64 | 660.25 | 390.56 | 269.68 | 2.448 | | |
| 14,700.00 | 5,530.00 | 14,605.66 | 5,530.00 | 136.38 | 136.35 | 90.00 | 9,109.73 | 27.65 | 660.25 | 387.65 | 272.60 | 2.422 | | |
| 14,800.00 | 5,530.00 | 14,705.66 | 5,530.00 | 137.84 | 137.81 | 90.00 | 9,209.73 | 27.65 | 660.26 | 384.74 | 275.52 | 2.396 | | |
| 14,900.00 | 5,530.00 | 14,805.66 | 5,530.00 | 139.30 | 139.27 | 90.00 | 9,309.73 | 27.65 | 660.27 | 381.83 | 278.44 | 2.371 | | |
| 15,000.00 | 5,530.00 | 14,905.66 | 5,530.00 | 140.76 | 140.73 | 90.00 | 9,409.73 | 27.65 | 660.27 | 378.92 | 281.36 | 2.347 | | |
| 15,100.00 | 5,530.00 | 15,005.66 | 5,530.00 | 142.21 | 142.19 | 90.00 | 9,509.73 | 27.66 | 660.28 | 376.00 | 284.28 | 2.323 | | |
| 15,200.00 | 5,530.00 | 15,105.66 | 5,530.00 | 143.67 | 143.66 | 90.00 | 9,609.73 | 27.66 | 660.29 | 373.09 | 287.20 | 2.299 | | |
| 15,300.00 | 5,530.00 | 15,205.66 | 5,530.00 | 145.13 | 145.12 | 90.00 | 9,709.73 | 27.66 | 660.30 | 370.18 | 290.12 | 2.276 | | |
| 15,400.00 | 5,530.00 | 15,305.66 | 5,530.00 | 146.59 | 146.58 | 90.00 | 9,809.73 | 27.66 | 660.30 | 367.26 | 293.04 | 2.253 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Sec 25-T10N-R58W - Razor #25P-2415 - Hz - APD | | Offset Site Error: | | 0.00 usft | |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---|---------|--------------------|--|-----------|--|
| Survey Program: | | | | | | | | | | | | 0-MWD+IFR1+MS+sag | | Offset Well Error: | | 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | | |
| 15,500.00 | 5,530.00 | 15,405.66 | 5,530.00 | 148.05 | 148.04 | 90.00 | 9,909.73 | 27.67 | 660.31 | 364.35 | 295.96 | 2.231 | | | | | |
| 15,600.00 | 5,530.00 | 15,505.66 | 5,530.00 | 149.51 | 149.50 | 90.00 | 10,009.73 | 27.67 | 660.32 | 361.43 | 298.89 | 2.209 | | | | | |
| 15,700.00 | 5,530.00 | 15,605.66 | 5,530.00 | 150.97 | 150.96 | 90.00 | 10,109.73 | 27.67 | 660.33 | 358.52 | 301.81 | 2.188 | | | | | |
| 15,722.97 | 5,530.00 | 15,628.63 | 5,530.00 | 151.30 | 151.30 | 90.00 | 10,132.70 | 27.67 | 660.33 | 357.85 | 302.48 | 2.183 SF | | | | | |



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 89.35 | 1.02 | 89.98 | 89.98 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.13 | 0.13 | 89.35 | 1.02 | 89.98 | 89.98 | 89.72 | 0.27 | 337.839 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.47 | 0.47 | 89.35 | 1.02 | 89.98 | 89.98 | 89.04 | 0.94 | 95.661 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.81 | 0.81 | 89.35 | 1.02 | 89.98 | 89.98 | 88.37 | 1.61 | 55.719 CC, ES | | |
| 400.00 | 399.98 | 397.59 | 397.57 | 1.12 | 1.11 | -160.31 | -0.05 | 91.25 | 92.92 | 90.68 | 2.24 | 41.517 | | |
| 500.00 | 499.84 | 494.65 | 494.50 | 1.44 | 1.41 | -159.40 | -3.23 | 95.04 | 101.74 | 98.88 | 2.87 | 35.489 | | |
| 600.00 | 599.45 | 592.00 | 591.52 | 1.77 | 1.73 | -158.27 | -8.34 | 101.13 | 116.19 | 112.65 | 3.53 | 32.877 | | |
| 700.00 | 698.70 | 690.34 | 689.48 | 2.12 | 2.04 | -157.75 | -13.85 | 107.70 | 134.28 | 130.09 | 4.19 | 32.017 | | |
| 800.00 | 797.48 | 788.07 | 786.84 | 2.49 | 2.38 | -157.82 | -19.33 | 114.22 | 155.45 | 150.59 | 4.85 | 32.025 | | |
| 900.00 | 896.11 | 885.60 | 884.01 | 2.89 | 2.72 | -158.10 | -24.79 | 120.73 | 177.51 | 172.00 | 5.51 | 32.228 | | |
| 1,000.00 | 994.74 | 983.13 | 981.17 | 3.28 | 3.07 | -158.31 | -30.26 | 127.25 | 199.57 | 193.40 | 6.17 | 32.337 | | |
| 1,100.00 | 1,093.37 | 1,080.67 | 1,078.33 | 3.69 | 3.42 | -158.47 | -35.72 | 133.76 | 221.63 | 214.79 | 6.84 | 32.391 | | |
| 1,200.00 | 1,192.00 | 1,178.20 | 1,175.49 | 4.10 | 3.77 | -158.61 | -41.18 | 140.27 | 243.69 | 236.17 | 7.52 | 32.413 | | |
| 1,300.00 | 1,290.63 | 1,275.74 | 1,272.66 | 4.51 | 4.12 | -158.73 | -46.65 | 146.78 | 265.76 | 257.56 | 8.20 | 32.417 | | |
| 1,400.00 | 1,389.26 | 1,373.27 | 1,369.82 | 4.92 | 4.47 | -158.83 | -52.11 | 153.29 | 287.82 | 278.94 | 8.88 | 32.409 | | |
| 1,500.00 | 1,487.88 | 1,470.80 | 1,466.98 | 5.33 | 4.82 | -158.91 | -57.58 | 159.81 | 309.89 | 300.32 | 9.57 | 32.392 | | |
| 1,600.00 | 1,586.51 | 1,568.34 | 1,564.15 | 5.75 | 5.17 | -158.98 | -63.04 | 166.32 | 331.96 | 321.70 | 10.25 | 32.373 | | |
| 1,700.00 | 1,685.14 | 1,665.87 | 1,661.31 | 6.16 | 5.52 | -159.05 | -68.50 | 172.83 | 354.03 | 343.08 | 10.94 | 32.352 | | |
| 1,800.00 | 1,783.77 | 1,763.41 | 1,758.47 | 6.58 | 5.88 | -159.10 | -73.97 | 179.34 | 376.09 | 364.46 | 11.63 | 32.330 | | |
| 1,900.00 | 1,882.40 | 1,860.94 | 1,855.63 | 6.99 | 6.23 | -159.15 | -79.43 | 185.85 | 398.16 | 385.84 | 12.32 | 32.307 | | |
| 2,000.00 | 1,981.03 | 1,958.47 | 1,952.80 | 7.41 | 6.58 | -159.20 | -84.90 | 192.37 | 420.23 | 407.21 | 13.02 | 32.285 | | |
| 2,100.00 | 2,079.66 | 2,056.01 | 2,049.96 | 7.83 | 6.94 | -159.24 | -90.36 | 198.88 | 442.30 | 428.59 | 13.71 | 32.263 | | |
| 2,200.00 | 2,178.28 | 2,153.54 | 2,147.12 | 8.25 | 7.29 | -159.27 | -95.83 | 205.39 | 464.37 | 449.97 | 14.40 | 32.241 | | |
| 2,300.00 | 2,276.91 | 2,251.08 | 2,244.29 | 8.66 | 7.64 | -159.31 | -101.29 | 211.90 | 486.44 | 471.34 | 15.10 | 32.220 | | |
| 2,400.00 | 2,375.54 | 2,348.61 | 2,341.45 | 9.08 | 8.00 | -159.34 | -106.75 | 218.41 | 508.51 | 492.71 | 15.79 | 32.201 | | |
| 2,500.00 | 2,474.17 | 2,446.14 | 2,438.61 | 9.50 | 8.35 | -159.36 | -112.22 | 224.92 | 530.58 | 514.09 | 16.49 | 32.181 | | |
| 2,600.00 | 2,572.80 | 2,543.68 | 2,535.77 | 9.92 | 8.71 | -159.39 | -117.68 | 231.44 | 552.65 | 535.46 | 17.18 | 32.163 | | |
| 2,700.00 | 2,671.43 | 2,641.21 | 2,632.94 | 10.34 | 9.06 | -159.41 | -123.15 | 237.95 | 574.72 | 556.84 | 17.88 | 32.145 | | |
| 2,800.00 | 2,770.05 | 2,738.75 | 2,730.10 | 10.76 | 9.42 | -159.43 | -128.61 | 244.46 | 596.79 | 578.21 | 18.58 | 32.128 | | |
| 2,900.00 | 2,868.68 | 2,836.28 | 2,827.26 | 11.18 | 9.77 | -159.46 | -134.07 | 250.97 | 618.85 | 599.58 | 19.27 | 32.112 | | |
| 3,000.00 | 2,967.31 | 2,933.81 | 2,924.43 | 11.60 | 10.13 | -159.47 | -139.54 | 257.48 | 640.92 | 620.96 | 19.97 | 32.096 | | |
| 3,100.00 | 3,065.94 | 3,031.35 | 3,021.59 | 12.02 | 10.48 | -159.49 | -145.00 | 264.00 | 662.99 | 642.33 | 20.67 | 32.081 | | |
| 3,200.00 | 3,164.57 | 3,128.88 | 3,118.75 | 12.43 | 10.84 | -159.51 | -150.47 | 270.51 | 685.06 | 663.70 | 21.36 | 32.067 | | |
| 3,300.00 | 3,263.20 | 3,226.42 | 3,215.91 | 12.85 | 11.19 | -159.52 | -155.93 | 277.02 | 707.13 | 685.07 | 22.06 | 32.053 | | |
| 3,400.00 | 3,361.83 | 3,323.95 | 3,313.08 | 13.27 | 11.55 | -159.54 | -161.39 | 283.53 | 729.20 | 706.45 | 22.76 | 32.040 | | |
| 3,500.00 | 3,460.45 | 3,421.48 | 3,410.24 | 13.69 | 11.90 | -159.55 | -166.86 | 290.04 | 751.27 | 727.82 | 23.46 | 32.027 | | |
| 3,600.00 | 3,559.08 | 3,519.02 | 3,507.40 | 14.11 | 12.26 | -159.56 | -172.32 | 296.56 | 773.34 | 749.19 | 24.16 | 32.015 | | |
| 3,700.00 | 3,657.71 | 3,616.55 | 3,604.57 | 14.53 | 12.61 | -159.58 | -177.79 | 303.07 | 795.41 | 770.56 | 24.85 | 32.003 | | |
| 3,800.00 | 3,756.34 | 3,714.09 | 3,701.73 | 14.95 | 12.97 | -159.59 | -183.25 | 309.58 | 817.49 | 791.93 | 25.55 | 31.992 | | |
| 3,900.00 | 3,854.97 | 3,811.62 | 3,798.89 | 15.37 | 13.32 | -159.60 | -188.71 | 316.09 | 839.56 | 813.30 | 26.25 | 31.981 | | |
| 4,000.00 | 3,953.60 | 3,909.15 | 3,896.05 | 15.79 | 13.68 | -159.61 | -194.18 | 322.60 | 861.63 | 834.67 | 26.95 | 31.970 | | |
| 4,100.00 | 4,052.23 | 4,006.69 | 3,993.22 | 16.21 | 14.03 | -159.62 | -199.64 | 329.12 | 883.70 | 856.05 | 27.65 | 31.960 | | |
| 4,200.00 | 4,150.85 | 4,104.22 | 4,090.38 | 16.63 | 14.39 | -159.63 | -205.11 | 335.63 | 905.77 | 877.42 | 28.35 | 31.950 | | |
| 4,300.00 | 4,249.48 | 4,201.76 | 4,187.54 | 17.05 | 14.74 | -159.64 | -210.57 | 342.14 | 927.84 | 898.79 | 29.05 | 31.940 | | |
| 4,400.00 | 4,348.13 | 4,299.31 | 4,284.73 | 17.46 | 15.10 | -159.68 | -216.04 | 348.65 | 949.81 | 920.06 | 29.75 | 31.924 | | |
| 4,500.00 | 4,447.15 | 4,431.35 | 4,416.48 | 17.73 | 15.48 | -159.86 | -221.50 | 355.17 | 967.77 | 937.33 | 30.44 | 31.798 | | |
| 4,600.00 | 4,546.60 | 4,561.50 | 4,546.60 | 17.99 | 15.82 | -160.12 | -223.08 | 357.05 | 978.99 | 947.93 | 31.06 | 31.518 | | |
| 4,700.00 | 4,646.35 | 4,661.25 | 4,646.35 | 18.24 | 16.09 | -160.30 | -223.08 | 357.05 | 985.55 | 953.95 | 31.60 | 31.189 | | |
| 4,800.00 | 4,746.28 | 4,761.19 | 4,746.28 | 18.47 | 16.35 | -160.39 | -223.08 | 357.05 | 988.84 | 956.73 | 32.11 | 30.794 | | |
| 4,900.00 | 4,846.28 | 4,861.19 | 4,846.28 | 18.71 | 16.62 | 89.59 | -223.08 | 357.05 | 989.25 | 956.60 | 32.65 | 30.300 | | |
| 5,000.00 | 4,946.28 | 4,961.19 | 4,946.28 | 18.97 | 16.89 | 89.59 | -223.08 | 357.05 | 989.25 | 956.06 | 33.20 | 29.801 | | |
| 5,100.00 | 5,046.25 | 5,061.15 | 5,046.25 | 19.22 | 17.16 | 89.67 | -223.08 | 357.05 | 989.24 | 955.50 | 33.74 | 29.315 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 5,148.70 | 5,094.60 | 5,109.50 | 5,094.59 | 19.33 | 17.29 | 90.00 | -222.98 | 357.05 | 989.23 | 955.23 | 34.00 | 29.094 | | |
| 5,200.00 | 5,144.70 | 5,160.61 | 5,145.57 | 19.45 | 17.43 | 90.42 | -219.45 | 357.05 | 989.25 | 954.99 | 34.27 | 28.867 | | |
| 5,300.00 | 5,238.17 | 5,262.42 | 5,244.85 | 19.66 | 17.68 | 91.25 | -197.67 | 357.05 | 989.47 | 954.73 | 34.73 | 28.487 | | |
| 5,400.00 | 5,323.23 | 5,367.24 | 5,340.64 | 19.82 | 17.91 | 92.03 | -155.55 | 357.05 | 989.87 | 954.72 | 35.15 | 28.163 | | |
| 5,500.00 | 5,396.74 | 5,475.10 | 5,428.37 | 19.93 | 18.11 | 92.75 | -93.12 | 357.05 | 990.40 | 954.85 | 35.55 | 27.859 | | |
| 5,600.00 | 5,456.01 | 5,585.88 | 5,503.13 | 20.01 | 18.28 | 93.38 | -11.65 | 357.06 | 990.98 | 954.98 | 36.00 | 27.531 | | |
| 5,700.00 | 5,498.86 | 5,699.24 | 5,560.05 | 20.05 | 18.43 | 93.87 | 86.11 | 357.06 | 991.52 | 954.98 | 36.54 | 27.133 | | |
| 5,800.00 | 5,523.71 | 5,814.59 | 5,594.93 | 20.08 | 18.69 | 94.20 | 195.82 | 357.07 | 991.93 | 954.68 | 37.24 | 26.634 | | |
| 5,900.00 | 5,530.00 | 5,929.14 | 5,605.00 | 20.15 | 19.14 | 94.34 | 309.71 | 357.07 | 992.11 | 954.02 | 38.10 | 26.043 | | |
| 6,000.00 | 5,530.00 | 6,029.14 | 5,605.00 | 20.34 | 19.65 | 94.34 | 409.71 | 357.07 | 992.12 | 953.04 | 39.08 | 25.386 | | |
| 6,100.00 | 5,530.00 | 6,129.14 | 5,605.00 | 20.74 | 20.25 | 94.34 | 509.71 | 357.08 | 992.13 | 951.87 | 40.25 | 24.647 | | |
| 6,200.00 | 5,530.00 | 6,229.14 | 5,605.00 | 21.32 | 20.94 | 94.34 | 609.71 | 357.08 | 992.14 | 950.54 | 41.60 | 23.849 | | |
| 6,300.00 | 5,530.00 | 6,329.14 | 5,605.00 | 22.03 | 21.71 | 94.34 | 709.71 | 357.09 | 992.15 | 949.04 | 43.11 | 23.017 | | |
| 6,400.00 | 5,530.00 | 6,429.14 | 5,605.00 | 22.82 | 22.55 | 94.34 | 809.71 | 357.09 | 992.15 | 947.40 | 44.75 | 22.170 | | |
| 6,500.00 | 5,530.00 | 6,529.14 | 5,605.00 | 23.69 | 23.45 | 94.34 | 909.71 | 357.09 | 992.16 | 945.63 | 46.53 | 21.324 | | |
| 6,600.00 | 5,530.00 | 6,629.14 | 5,605.00 | 24.62 | 24.40 | 94.34 | 1,009.71 | 357.10 | 992.17 | 943.76 | 48.41 | 20.493 | | |
| 6,700.00 | 5,530.00 | 6,729.14 | 5,605.00 | 25.60 | 25.41 | 94.34 | 1,109.71 | 357.10 | 992.18 | 941.78 | 50.40 | 19.685 | | |
| 6,800.00 | 5,530.00 | 6,829.14 | 5,605.00 | 26.63 | 26.45 | 94.34 | 1,209.71 | 357.11 | 992.19 | 939.71 | 52.48 | 18.906 | | |
| 6,900.00 | 5,530.00 | 6,929.14 | 5,605.00 | 27.69 | 27.54 | 94.34 | 1,309.71 | 357.11 | 992.20 | 937.56 | 54.64 | 18.160 | | |
| 7,000.00 | 5,530.00 | 7,029.14 | 5,605.00 | 28.79 | 28.66 | 94.34 | 1,409.71 | 357.11 | 992.20 | 935.34 | 56.86 | 17.450 | | |
| 7,100.00 | 5,530.00 | 7,129.14 | 5,605.00 | 29.93 | 29.81 | 94.34 | 1,509.71 | 357.12 | 992.21 | 933.06 | 59.15 | 16.775 | | |
| 7,200.00 | 5,530.00 | 7,229.14 | 5,605.00 | 31.09 | 30.99 | 94.34 | 1,609.71 | 357.12 | 992.22 | 930.73 | 61.49 | 16.136 | | |
| 7,300.00 | 5,530.00 | 7,329.14 | 5,605.00 | 32.27 | 32.19 | 94.34 | 1,709.71 | 357.12 | 992.23 | 928.35 | 63.88 | 15.532 | | |
| 7,400.00 | 5,530.00 | 7,429.14 | 5,605.00 | 33.48 | 33.41 | 94.34 | 1,809.71 | 357.13 | 992.24 | 925.92 | 66.32 | 14.962 | | |
| 7,500.00 | 5,530.00 | 7,529.14 | 5,605.00 | 34.71 | 34.65 | 94.34 | 1,909.71 | 357.13 | 992.25 | 923.45 | 68.79 | 14.424 | | |
| 7,600.00 | 5,530.00 | 7,629.14 | 5,605.00 | 35.95 | 35.91 | 94.34 | 2,009.71 | 357.14 | 992.26 | 920.95 | 71.30 | 13.916 | | |
| 7,700.00 | 5,530.00 | 7,729.14 | 5,605.00 | 37.22 | 37.19 | 94.34 | 2,109.71 | 357.14 | 992.26 | 918.42 | 73.84 | 13.437 | | |
| 7,800.00 | 5,530.00 | 7,829.14 | 5,605.00 | 38.49 | 38.48 | 94.34 | 2,209.71 | 357.14 | 992.27 | 915.86 | 76.41 | 12.986 | | |
| 7,900.00 | 5,530.00 | 7,929.14 | 5,605.00 | 39.78 | 39.78 | 94.34 | 2,309.71 | 357.15 | 992.28 | 913.27 | 79.01 | 12.559 | | |
| 8,000.00 | 5,530.00 | 8,029.14 | 5,605.00 | 41.09 | 41.09 | 94.34 | 2,409.71 | 357.15 | 992.29 | 910.66 | 81.63 | 12.157 | | |
| 8,100.00 | 5,530.00 | 8,129.14 | 5,605.00 | 42.40 | 42.42 | 94.33 | 2,509.71 | 357.16 | 992.30 | 908.03 | 84.26 | 11.776 | | |
| 8,200.00 | 5,530.00 | 8,229.14 | 5,605.00 | 43.72 | 43.75 | 94.33 | 2,609.71 | 357.16 | 992.31 | 905.38 | 86.92 | 11.416 | | |
| 8,300.00 | 5,530.00 | 8,329.14 | 5,605.00 | 45.05 | 45.09 | 94.33 | 2,709.71 | 357.16 | 992.32 | 902.72 | 89.60 | 11.075 | | |
| 8,400.00 | 5,530.00 | 8,429.14 | 5,605.00 | 46.39 | 46.44 | 94.33 | 2,809.71 | 357.17 | 992.32 | 900.03 | 92.29 | 10.752 | | |
| 8,500.00 | 5,530.00 | 8,529.14 | 5,605.00 | 47.74 | 47.80 | 94.33 | 2,909.71 | 357.17 | 992.33 | 897.34 | 94.99 | 10.446 | | |
| 8,600.00 | 5,530.00 | 8,629.14 | 5,605.00 | 49.10 | 49.16 | 94.33 | 3,009.71 | 357.18 | 992.34 | 894.63 | 97.71 | 10.156 | | |
| 8,700.00 | 5,530.00 | 8,729.14 | 5,605.00 | 50.46 | 50.53 | 94.33 | 3,109.71 | 357.18 | 992.35 | 891.90 | 100.44 | 9.880 | | |
| 8,800.00 | 5,530.00 | 8,829.14 | 5,605.00 | 51.83 | 51.91 | 94.33 | 3,209.71 | 357.18 | 992.36 | 889.17 | 103.19 | 9.617 | | |
| 8,900.00 | 5,530.00 | 8,929.14 | 5,605.00 | 53.20 | 53.29 | 94.33 | 3,309.71 | 357.19 | 992.37 | 886.43 | 105.94 | 9.367 | | |
| 9,000.00 | 5,530.00 | 9,029.14 | 5,605.00 | 54.58 | 54.67 | 94.33 | 3,409.71 | 357.19 | 992.37 | 883.67 | 108.70 | 9.129 | | |
| 9,100.00 | 5,530.00 | 9,129.14 | 5,605.00 | 55.96 | 56.06 | 94.33 | 3,509.71 | 357.19 | 992.38 | 880.91 | 111.47 | 8.903 | | |
| 9,200.00 | 5,530.00 | 9,229.14 | 5,605.00 | 57.35 | 57.45 | 94.33 | 3,609.71 | 357.20 | 992.39 | 878.14 | 114.25 | 8.686 | | |
| 9,300.00 | 5,530.00 | 9,329.14 | 5,605.00 | 58.74 | 58.85 | 94.33 | 3,709.71 | 357.20 | 992.40 | 875.36 | 117.04 | 8.479 | | |
| 9,400.00 | 5,530.00 | 9,429.14 | 5,605.00 | 60.13 | 60.25 | 94.33 | 3,809.71 | 357.21 | 992.41 | 872.58 | 119.83 | 8.282 | | |
| 9,500.00 | 5,530.00 | 9,529.14 | 5,605.00 | 61.53 | 61.65 | 94.33 | 3,909.71 | 357.21 | 992.42 | 869.78 | 122.63 | 8.093 | | |
| 9,600.00 | 5,530.00 | 9,629.14 | 5,605.00 | 62.93 | 63.06 | 94.33 | 4,009.71 | 357.21 | 992.43 | 866.99 | 125.44 | 7.912 | | |
| 9,700.00 | 5,530.00 | 9,729.14 | 5,605.00 | 64.34 | 64.47 | 94.33 | 4,109.71 | 357.22 | 992.43 | 864.18 | 128.25 | 7.738 | | |
| 9,800.00 | 5,530.00 | 9,829.14 | 5,605.00 | 65.75 | 65.88 | 94.33 | 4,209.71 | 357.22 | 992.44 | 861.37 | 131.07 | 7.572 | | |
| 9,900.00 | 5,530.00 | 9,929.14 | 5,605.00 | 67.16 | 67.30 | 94.33 | 4,309.71 | 357.23 | 992.45 | 858.56 | 133.89 | 7.412 | | |
| 10,000.00 | 5,530.00 | 10,029.14 | 5,605.00 | 68.57 | 68.72 | 94.33 | 4,409.71 | 357.23 | 992.46 | 855.74 | 136.72 | 7.259 | | |
| 10,100.00 | 5,530.00 | 10,129.14 | 5,605.00 | 69.99 | 70.14 | 94.33 | 4,509.71 | 357.23 | 992.47 | 852.91 | 139.55 | 7.112 | | |
| 10,200.00 | 5,530.00 | 10,229.14 | 5,605.00 | 71.40 | 71.56 | 94.33 | 4,609.71 | 357.24 | 992.48 | 850.09 | 142.39 | 6.970 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Distance | | | | | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
| 10,300.00 | 5,530.00 | 10,329.14 | 5,605.00 | 72.82 | 72.98 | 94.33 | 4,709.71 | 357.24 | 992.48 | 847.25 | 145.23 | 6.834 | |
| 10,400.00 | 5,530.00 | 10,429.14 | 5,605.00 | 74.25 | 74.41 | 94.33 | 4,809.71 | 357.25 | 992.49 | 844.42 | 148.07 | 6.703 | |
| 10,500.00 | 5,530.00 | 10,529.14 | 5,605.00 | 75.67 | 75.83 | 94.33 | 4,909.71 | 357.25 | 992.50 | 841.58 | 150.92 | 6.576 | |
| 10,600.00 | 5,530.00 | 10,629.14 | 5,605.00 | 77.09 | 77.26 | 94.33 | 5,009.71 | 357.25 | 992.51 | 838.74 | 153.77 | 6.454 | |
| 10,700.00 | 5,530.00 | 10,729.14 | 5,605.00 | 78.52 | 78.69 | 94.33 | 5,109.71 | 357.26 | 992.52 | 835.89 | 156.63 | 6.337 | |
| 10,800.00 | 5,530.00 | 10,829.14 | 5,605.00 | 79.95 | 80.13 | 94.33 | 5,209.71 | 357.26 | 992.53 | 833.04 | 159.48 | 6.223 | |
| 10,900.00 | 5,530.00 | 10,929.14 | 5,605.00 | 81.38 | 81.56 | 94.33 | 5,309.71 | 357.27 | 992.54 | 830.19 | 162.34 | 6.114 | |
| 11,000.00 | 5,530.00 | 11,029.14 | 5,605.00 | 82.81 | 83.00 | 94.33 | 5,409.71 | 357.27 | 992.54 | 827.34 | 165.21 | 6.008 | |
| 11,100.00 | 5,530.00 | 11,129.14 | 5,605.00 | 84.25 | 84.43 | 94.33 | 5,509.71 | 357.27 | 992.55 | 824.48 | 168.07 | 5.906 | |
| 11,200.00 | 5,530.00 | 11,229.14 | 5,605.00 | 85.68 | 85.87 | 94.33 | 5,609.71 | 357.28 | 992.56 | 821.62 | 170.94 | 5.807 | |
| 11,300.00 | 5,530.00 | 11,329.14 | 5,605.00 | 87.12 | 87.31 | 94.33 | 5,709.71 | 357.28 | 992.57 | 818.76 | 173.81 | 5.711 | |
| 11,400.00 | 5,530.00 | 11,429.14 | 5,605.00 | 88.55 | 88.75 | 94.33 | 5,809.71 | 357.28 | 992.58 | 815.90 | 176.68 | 5.618 | |
| 11,500.00 | 5,530.00 | 11,529.14 | 5,605.00 | 89.99 | 90.19 | 94.33 | 5,909.71 | 357.29 | 992.59 | 813.03 | 179.55 | 5.528 | |
| 11,600.00 | 5,530.00 | 11,629.14 | 5,605.00 | 91.43 | 91.63 | 94.33 | 6,009.71 | 357.29 | 992.60 | 810.17 | 182.43 | 5.441 | |
| 11,700.00 | 5,530.00 | 11,729.14 | 5,605.00 | 92.87 | 93.07 | 94.33 | 6,109.71 | 357.30 | 992.60 | 807.30 | 185.31 | 5.357 | |
| 11,800.00 | 5,530.00 | 11,829.14 | 5,605.00 | 94.31 | 94.51 | 94.33 | 6,209.71 | 357.30 | 992.61 | 804.42 | 188.19 | 5.275 | |
| 11,900.00 | 5,530.00 | 11,929.14 | 5,605.00 | 95.75 | 95.96 | 94.33 | 6,309.71 | 357.30 | 992.62 | 801.55 | 191.07 | 5.195 | |
| 12,000.00 | 5,530.00 | 12,029.14 | 5,605.00 | 97.20 | 97.40 | 94.33 | 6,409.71 | 357.31 | 992.63 | 798.68 | 193.95 | 5.118 | |
| 12,100.00 | 5,530.00 | 12,129.14 | 5,605.00 | 98.64 | 98.85 | 94.33 | 6,509.71 | 357.31 | 992.64 | 795.80 | 196.84 | 5.043 | |
| 12,200.00 | 5,530.00 | 12,229.14 | 5,605.00 | 100.08 | 100.30 | 94.33 | 6,609.71 | 357.32 | 992.65 | 792.92 | 199.72 | 4.970 | |
| 12,300.00 | 5,530.00 | 12,329.14 | 5,605.00 | 101.53 | 101.74 | 94.33 | 6,709.71 | 357.32 | 992.65 | 790.05 | 202.61 | 4.899 | |
| 12,400.00 | 5,530.00 | 12,429.14 | 5,605.00 | 102.97 | 103.19 | 94.33 | 6,809.71 | 357.32 | 992.66 | 787.17 | 205.50 | 4.831 | |
| 12,500.00 | 5,530.00 | 12,529.14 | 5,605.00 | 104.42 | 104.64 | 94.33 | 6,909.71 | 357.33 | 992.67 | 784.28 | 208.39 | 4.764 | |
| 12,600.00 | 5,530.00 | 12,629.14 | 5,605.00 | 105.87 | 106.09 | 94.33 | 7,009.71 | 357.33 | 992.68 | 781.40 | 211.28 | 4.698 | |
| 12,700.00 | 5,530.00 | 12,729.14 | 5,605.00 | 107.32 | 107.54 | 94.33 | 7,109.71 | 357.34 | 992.69 | 778.52 | 214.17 | 4.635 | |
| 12,800.00 | 5,530.00 | 12,829.14 | 5,605.00 | 108.77 | 108.99 | 94.33 | 7,209.71 | 357.34 | 992.70 | 775.63 | 217.06 | 4.573 | |
| 12,900.00 | 5,530.00 | 12,929.14 | 5,605.00 | 110.21 | 110.44 | 94.33 | 7,309.71 | 357.34 | 992.71 | 772.75 | 219.96 | 4.513 | |
| 13,000.00 | 5,530.00 | 13,029.14 | 5,605.00 | 111.66 | 111.89 | 94.33 | 7,409.71 | 357.35 | 992.71 | 769.86 | 222.86 | 4.455 | |
| 13,100.00 | 5,530.00 | 13,129.14 | 5,605.00 | 113.11 | 113.35 | 94.33 | 7,509.71 | 357.35 | 992.72 | 766.97 | 225.75 | 4.397 | |
| 13,200.00 | 5,530.00 | 13,229.14 | 5,605.00 | 114.57 | 114.80 | 94.33 | 7,609.71 | 357.35 | 992.73 | 764.08 | 228.65 | 4.342 | |
| 13,300.00 | 5,530.00 | 13,329.14 | 5,605.00 | 116.02 | 116.25 | 94.33 | 7,709.71 | 357.36 | 992.74 | 761.19 | 231.55 | 4.287 | |
| 13,400.00 | 5,530.00 | 13,429.14 | 5,605.00 | 117.47 | 117.70 | 94.33 | 7,809.71 | 357.36 | 992.75 | 758.30 | 234.45 | 4.234 | |
| 13,500.00 | 5,530.00 | 13,529.14 | 5,605.00 | 118.92 | 119.16 | 94.33 | 7,909.71 | 357.37 | 992.76 | 755.41 | 237.35 | 4.183 | |
| 13,600.00 | 5,530.00 | 13,629.14 | 5,605.00 | 120.37 | 120.61 | 94.33 | 8,009.71 | 357.37 | 992.76 | 752.51 | 240.25 | 4.132 | |
| 13,700.00 | 5,530.00 | 13,729.14 | 5,605.00 | 121.83 | 122.07 | 94.33 | 8,109.71 | 357.37 | 992.77 | 749.62 | 243.15 | 4.083 | |
| 13,800.00 | 5,530.00 | 13,829.14 | 5,605.00 | 123.28 | 123.52 | 94.33 | 8,209.71 | 357.38 | 992.78 | 746.73 | 246.06 | 4.035 | |
| 13,900.00 | 5,530.00 | 13,929.14 | 5,605.00 | 124.74 | 124.98 | 94.33 | 8,309.71 | 357.38 | 992.79 | 743.83 | 248.96 | 3.988 | |
| 14,000.00 | 5,530.00 | 14,029.14 | 5,605.00 | 126.19 | 126.44 | 94.33 | 8,409.71 | 357.39 | 992.80 | 740.93 | 251.86 | 3.942 | |
| 14,100.00 | 5,530.00 | 14,129.14 | 5,605.00 | 127.65 | 127.89 | 94.33 | 8,509.71 | 357.39 | 992.81 | 738.04 | 254.77 | 3.897 | |
| 14,200.00 | 5,530.00 | 14,229.14 | 5,605.00 | 129.10 | 129.35 | 94.33 | 8,609.71 | 357.39 | 992.82 | 735.14 | 257.68 | 3.853 | |
| 14,300.00 | 5,530.00 | 14,329.14 | 5,605.00 | 130.56 | 130.81 | 94.33 | 8,709.71 | 357.40 | 992.82 | 732.24 | 260.58 | 3.810 | |
| 14,400.00 | 5,530.00 | 14,429.14 | 5,605.00 | 132.01 | 132.26 | 94.33 | 8,809.71 | 357.40 | 992.83 | 729.34 | 263.49 | 3.768 | |
| 14,500.00 | 5,530.00 | 14,529.14 | 5,605.00 | 133.47 | 133.72 | 94.33 | 8,909.71 | 357.41 | 992.84 | 726.44 | 266.40 | 3.727 | |
| 14,600.00 | 5,530.00 | 14,629.14 | 5,605.00 | 134.93 | 135.18 | 94.33 | 9,009.71 | 357.41 | 992.85 | 723.54 | 269.31 | 3.687 | |
| 14,700.00 | 5,530.00 | 14,729.14 | 5,605.00 | 136.38 | 136.64 | 94.33 | 9,109.71 | 357.41 | 992.86 | 720.64 | 272.21 | 3.647 | |
| 14,800.00 | 5,530.00 | 14,829.14 | 5,605.00 | 137.84 | 138.10 | 94.33 | 9,209.71 | 357.42 | 992.87 | 717.74 | 275.12 | 3.609 | |
| 14,900.00 | 5,530.00 | 14,929.14 | 5,605.00 | 139.30 | 139.55 | 94.33 | 9,309.71 | 357.42 | 992.88 | 714.84 | 278.03 | 3.571 | |
| 15,000.00 | 5,530.00 | 15,029.14 | 5,605.00 | 140.76 | 141.01 | 94.33 | 9,409.71 | 357.43 | 992.88 | 711.94 | 280.95 | 3.534 | |
| 15,100.00 | 5,530.00 | 15,129.14 | 5,605.00 | 142.21 | 142.47 | 94.33 | 9,509.71 | 357.43 | 992.89 | 709.04 | 283.86 | 3.498 | |
| 15,200.00 | 5,530.00 | 15,229.14 | 5,605.00 | 143.67 | 143.93 | 94.33 | 9,609.71 | 357.43 | 992.90 | 706.13 | 286.77 | 3.462 | |
| 15,300.00 | 5,530.00 | 15,329.14 | 5,605.00 | 145.13 | 145.39 | 94.33 | 9,709.71 | 357.44 | 992.91 | 703.23 | 289.68 | 3.428 | |
| 15,400.00 | 5,530.00 | 15,429.14 | 5,605.00 | 146.59 | 146.85 | 94.33 | 9,809.71 | 357.44 | 992.92 | 700.32 | 292.59 | 3.394 | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design Sec 25-T10N-R58W - Razor #25P-2416 - Hz - APD | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|--------------------------|--------------------------|--------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|-------------------------------|---------------------------------|---------------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | |
| 15,500.00 | 5,530.00 | 15,529.14 | 5,605.00 | 148.05 | 148.31 | 94.33 | 9,909.71 | 357.44 | 992.93 | 697.42 | 295.51 | 3.360 | |
| 15,600.00 | 5,530.00 | 15,629.14 | 5,605.00 | 149.51 | 149.77 | 94.33 | 10,009.71 | 357.45 | 992.93 | 694.51 | 298.42 | 3.327 | |
| 15,700.00 | 5,530.00 | 15,729.14 | 5,605.00 | 150.97 | 151.23 | 94.33 | 10,109.71 | 357.45 | 992.94 | 691.61 | 301.33 | 3.295 | |
| 15,722.97 | 5,530.00 | 15,752.11 | 5,605.00 | 151.30 | 151.57 | 94.33 | 10,132.68 | 357.45 | 992.94 | 690.94 | 302.00 | 3.288 SF | |



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 179.11 | -49.59 | 0.77 | 49.60 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.13 | 0.13 | 179.11 | -49.59 | 0.77 | 49.60 | 49.33 | 0.27 | 186.209 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.47 | 0.47 | 179.11 | -49.59 | 0.77 | 49.60 | 48.66 | 0.94 | 52.726 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.81 | 0.81 | 179.11 | -49.59 | 0.77 | 49.60 | 47.98 | 1.61 | 30.711 | | |
| 400.00 | 399.98 | 399.73 | 399.71 | 1.12 | 1.12 | -70.81 | -49.89 | -0.94 | 49.30 | 47.06 | 2.24 | 21.966 | | |
| 500.00 | 499.84 | 499.45 | 499.29 | 1.44 | 1.44 | -70.58 | -50.80 | -6.07 | 48.41 | 45.55 | 2.87 | 16.885 | | |
| 600.00 | 599.45 | 599.16 | 598.61 | 1.77 | 1.78 | -70.18 | -52.30 | -14.60 | 46.94 | 43.41 | 3.53 | 13.298 | | |
| 700.00 | 698.70 | 698.85 | 697.56 | 2.12 | 2.13 | -69.57 | -54.40 | -26.53 | 44.88 | 40.65 | 4.23 | 10.611 | | |
| 800.00 | 797.48 | 798.53 | 796.01 | 2.49 | 2.50 | -68.55 | -57.10 | -41.84 | 42.29 | 37.33 | 4.97 | 8.514 | | |
| 900.00 | 896.11 | 898.29 | 894.03 | 2.89 | 2.90 | -64.36 | -60.33 | -60.14 | 40.07 | 34.35 | 5.72 | 7.002 | | |
| 1,000.00 | 994.74 | 998.21 | 992.12 | 3.28 | 3.32 | -59.07 | -63.64 | -78.92 | 38.26 | 31.78 | 6.47 | 5.909 | | |
| 1,100.00 | 1,093.37 | 1,098.13 | 1,090.20 | 3.69 | 3.74 | -53.29 | -66.95 | -97.69 | 36.80 | 29.60 | 7.20 | 5.108 | | |
| 1,200.00 | 1,192.00 | 1,198.05 | 1,188.28 | 4.10 | 4.16 | -47.12 | -70.26 | -116.47 | 35.75 | 27.84 | 7.90 | 4.523 | | |
| 1,300.00 | 1,290.63 | 1,297.97 | 1,286.36 | 4.51 | 4.59 | -40.64 | -73.57 | -135.24 | 35.13 | 26.56 | 8.57 | 4.101 | | |
| 1,383.27 | 1,372.76 | 1,381.17 | 1,368.04 | 4.85 | 4.95 | -35.14 | -76.33 | -150.88 | 34.97 | 25.87 | 9.09 | 3.845 CC | | |
| 1,400.00 | 1,389.26 | 1,397.88 | 1,384.44 | 4.92 | 5.02 | -34.03 | -76.88 | -154.02 | 34.97 | 25.78 | 9.20 | 3.803 | | |
| 1,500.00 | 1,487.88 | 1,497.80 | 1,482.53 | 5.33 | 5.45 | -27.44 | -80.19 | -172.79 | 35.28 | 25.48 | 9.80 | 3.599 ES | | |
| 1,600.00 | 1,586.51 | 1,597.72 | 1,580.61 | 5.75 | 5.89 | -21.05 | -83.50 | -191.57 | 36.05 | 25.65 | 10.40 | 3.465 | | |
| 1,700.00 | 1,685.14 | 1,697.64 | 1,678.69 | 6.16 | 6.32 | -15.00 | -86.82 | -210.35 | 37.25 | 26.24 | 11.01 | 3.383 | | |
| 1,800.00 | 1,783.77 | 1,797.55 | 1,776.77 | 6.58 | 6.76 | -9.38 | -90.13 | -229.12 | 38.83 | 27.19 | 11.63 | 3.337 | | |
| 1,900.00 | 1,882.40 | 1,897.47 | 1,874.85 | 6.99 | 7.20 | -4.25 | -93.44 | -247.90 | 40.75 | 28.47 | 12.28 | 3.318 | | |
| 2,000.00 | 1,981.03 | 1,997.39 | 1,972.94 | 7.41 | 7.63 | 0.39 | -96.75 | -266.67 | 42.98 | 30.01 | 12.96 | 3.316 | | |
| 2,100.00 | 2,079.66 | 2,097.31 | 2,071.02 | 7.83 | 8.07 | 4.55 | -100.06 | -285.45 | 45.45 | 31.79 | 13.67 | 3.326 | | |
| 2,200.00 | 2,178.28 | 2,197.23 | 2,169.10 | 8.25 | 8.51 | 8.26 | -103.37 | -304.22 | 48.14 | 33.75 | 14.39 | 3.345 | | |
| 2,300.00 | 2,276.91 | 2,297.14 | 2,267.18 | 8.66 | 8.95 | 11.57 | -106.68 | -323.00 | 51.01 | 35.87 | 15.14 | 3.369 | | |
| 2,400.00 | 2,375.54 | 2,397.06 | 2,365.27 | 9.08 | 9.39 | 14.52 | -109.99 | -341.77 | 54.03 | 38.13 | 15.91 | 3.397 | | |
| 2,500.00 | 2,474.17 | 2,496.98 | 2,463.35 | 9.50 | 9.83 | 17.14 | -113.30 | -360.55 | 57.18 | 40.50 | 16.68 | 3.428 | | |
| 2,600.00 | 2,572.80 | 2,596.90 | 2,561.43 | 9.92 | 10.27 | 19.49 | -116.61 | -379.33 | 60.44 | 42.97 | 17.47 | 3.460 | | |
| 2,700.00 | 2,671.43 | 2,696.82 | 2,659.51 | 10.34 | 10.71 | 21.60 | -119.92 | -398.10 | 63.79 | 45.52 | 18.26 | 3.493 | | |
| 2,800.00 | 2,770.05 | 2,796.73 | 2,757.59 | 10.76 | 11.15 | 23.50 | -123.23 | -416.88 | 67.21 | 48.15 | 19.06 | 3.526 | | |
| 2,900.00 | 2,868.68 | 2,896.65 | 2,855.68 | 11.18 | 11.59 | 25.20 | -126.54 | -435.65 | 70.70 | 50.83 | 19.87 | 3.559 | | |
| 3,000.00 | 2,967.31 | 2,996.57 | 2,953.76 | 11.60 | 12.03 | 26.75 | -129.85 | -454.43 | 74.25 | 53.57 | 20.68 | 3.591 | | |
| 3,100.00 | 3,065.94 | 3,096.49 | 3,051.84 | 12.02 | 12.47 | 28.16 | -133.16 | -473.20 | 77.85 | 56.36 | 21.49 | 3.623 | | |
| 3,200.00 | 3,164.57 | 3,196.40 | 3,149.92 | 12.43 | 12.91 | 29.44 | -136.48 | -491.98 | 81.49 | 59.19 | 22.30 | 3.654 | | |
| 3,300.00 | 3,263.20 | 3,296.32 | 3,248.00 | 12.85 | 13.35 | 30.61 | -139.79 | -510.75 | 85.17 | 62.05 | 23.11 | 3.685 | | |
| 3,400.00 | 3,361.83 | 3,396.24 | 3,346.09 | 13.27 | 13.79 | 31.68 | -143.10 | -529.53 | 88.88 | 64.95 | 23.93 | 3.714 | | |
| 3,500.00 | 3,460.45 | 3,496.16 | 3,444.17 | 13.69 | 14.23 | 32.67 | -146.41 | -548.31 | 92.62 | 67.87 | 24.74 | 3.743 | | |
| 3,600.00 | 3,559.08 | 3,596.08 | 3,542.25 | 14.11 | 14.67 | 33.58 | -149.72 | -567.08 | 96.38 | 70.82 | 25.56 | 3.771 | | |
| 3,700.00 | 3,657.71 | 3,695.99 | 3,640.33 | 14.53 | 15.12 | 34.42 | -153.03 | -585.86 | 100.17 | 73.79 | 26.38 | 3.797 | | |
| 3,800.00 | 3,756.34 | 3,795.91 | 3,738.42 | 14.95 | 15.56 | 35.20 | -156.34 | -604.63 | 103.97 | 76.78 | 27.19 | 3.823 | | |
| 3,900.00 | 3,854.97 | 3,895.83 | 3,836.50 | 15.37 | 16.00 | 35.92 | -159.65 | -623.41 | 107.80 | 79.79 | 28.01 | 3.848 | | |
| 4,000.00 | 3,953.60 | 3,995.75 | 3,934.58 | 15.79 | 16.44 | 36.60 | -162.96 | -642.18 | 111.64 | 82.81 | 28.83 | 3.873 | | |
| 4,100.00 | 4,052.23 | 4,095.67 | 4,032.66 | 16.21 | 16.88 | 37.23 | -166.27 | -660.96 | 115.49 | 85.85 | 29.64 | 3.896 | | |
| 4,200.00 | 4,150.85 | 4,195.58 | 4,130.74 | 16.63 | 17.32 | 37.82 | -169.58 | -679.73 | 119.36 | 88.90 | 30.46 | 3.919 | | |
| 4,300.00 | 4,249.48 | 4,295.50 | 4,228.83 | 17.05 | 17.76 | 38.37 | -172.89 | -698.51 | 123.24 | 91.96 | 31.28 | 3.940 | | |
| 4,400.00 | 4,348.13 | 4,395.42 | 4,326.90 | 17.46 | 18.21 | 38.87 | -176.20 | -717.29 | 127.21 | 95.14 | 32.07 | 3.966 | | |
| 4,500.00 | 4,447.15 | 4,495.23 | 4,424.89 | 17.87 | 18.65 | 39.32 | -179.51 | -736.04 | 131.15 | 98.21 | 32.86 | 4.000 | | |
| 4,600.00 | 4,546.60 | 4,597.32 | 4,525.21 | 18.29 | 19.06 | 39.71 | -182.79 | -754.67 | 135.07 | 101.26 | 33.63 | 4.033 | | |
| 4,700.00 | 4,646.35 | 4,701.66 | 4,628.31 | 18.71 | 19.44 | 40.06 | -186.06 | -773.29 | 139.01 | 104.30 | 34.40 | 4.066 | | |
| 4,800.00 | 4,746.28 | 4,806.35 | 4,732.27 | 19.13 | 19.87 | 40.37 | -189.33 | -791.89 | 142.95 | 107.33 | 35.17 | 4.099 | | |
| 4,900.00 | 4,846.28 | 4,911.40 | 4,836.97 | 19.55 | 20.29 | 40.63 | -192.59 | -810.48 | 146.89 | 110.36 | 35.94 | 4.132 | | |
| 5,000.00 | 4,946.28 | 5,016.89 | 4,942.36 | 19.97 | 20.71 | 40.89 | -195.84 | -829.07 | 150.83 | 113.38 | 36.71 | 4.165 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 5,100.00 | 5,046.25 | 5,120.79 | 5,046.25 | 19.22 | 20.38 | -76.78 | -190.13 | -796.29 | 168.60 | 133.42 | 35.18 | 4.792 | | |
| 5,200.00 | 5,144.70 | 5,219.24 | 5,144.70 | 19.45 | 20.63 | -82.62 | -190.13 | -796.29 | 165.58 | 130.43 | 35.15 | 4.710 | | |
| 5,268.23 | 5,209.23 | 5,283.77 | 5,209.23 | 19.59 | 20.79 | -90.00 | -190.13 | -796.29 | 164.11 | 129.28 | 34.83 | 4.711 | | |
| 5,300.00 | 5,238.17 | 5,313.45 | 5,238.89 | 19.66 | 20.86 | -93.92 | -189.22 | -796.29 | 164.56 | 129.89 | 34.67 | 4.746 | | |
| 5,400.00 | 5,323.23 | 5,411.59 | 5,335.74 | 19.82 | 21.10 | -106.00 | -174.26 | -796.29 | 171.87 | 137.71 | 34.16 | 5.031 | | |
| 5,500.00 | 5,396.74 | 5,518.39 | 5,435.89 | 19.93 | 21.34 | -116.81 | -137.70 | -796.29 | 186.95 | 153.60 | 33.35 | 5.605 | | |
| 5,600.00 | 5,456.01 | 5,636.00 | 5,534.98 | 20.01 | 21.56 | -125.74 | -74.82 | -796.30 | 206.82 | 174.76 | 32.05 | 6.453 | | |
| 5,700.00 | 5,498.86 | 5,766.43 | 5,625.28 | 20.05 | 21.75 | -132.63 | 18.83 | -796.31 | 227.72 | 197.23 | 30.49 | 7.469 | | |
| 5,800.00 | 5,523.71 | 5,910.61 | 5,694.64 | 20.08 | 21.90 | -137.48 | 144.70 | -796.32 | 245.82 | 216.62 | 29.19 | 8.420 | | |
| 5,900.00 | 5,530.00 | 6,066.91 | 5,727.89 | 20.15 | 22.09 | -140.33 | 296.82 | -796.33 | 257.42 | 228.66 | 28.76 | 8.949 | | |
| 6,000.00 | 5,530.00 | 6,179.85 | 5,729.00 | 20.34 | 22.31 | -140.48 | 409.73 | -796.34 | 257.95 | 228.67 | 29.29 | 8.808 | | |
| 6,100.00 | 5,530.00 | 6,279.85 | 5,729.00 | 20.74 | 22.63 | -140.48 | 509.73 | -796.35 | 257.96 | 228.01 | 29.95 | 8.614 | | |
| 6,200.00 | 5,530.00 | 6,379.85 | 5,729.00 | 21.32 | 23.08 | -140.48 | 609.73 | -796.36 | 257.96 | 227.23 | 30.73 | 8.395 | | |
| 6,300.00 | 5,530.00 | 6,479.85 | 5,729.00 | 22.03 | 23.66 | -140.48 | 709.73 | -796.36 | 257.96 | 226.33 | 31.63 | 8.157 | | |
| 6,400.00 | 5,530.00 | 6,579.85 | 5,729.00 | 22.82 | 24.35 | -140.48 | 809.73 | -796.37 | 257.96 | 225.33 | 32.63 | 7.906 | | |
| 6,500.00 | 5,530.00 | 6,679.85 | 5,729.00 | 23.69 | 25.13 | -140.48 | 909.73 | -796.38 | 257.96 | 224.24 | 33.72 | 7.649 | | |
| 6,600.00 | 5,530.00 | 6,779.85 | 5,729.00 | 24.62 | 25.98 | -140.48 | 1,009.73 | -796.39 | 257.97 | 223.06 | 34.91 | 7.390 | | |
| 6,700.00 | 5,530.00 | 6,879.85 | 5,729.00 | 25.60 | 26.90 | -140.48 | 1,109.73 | -796.40 | 257.97 | 221.80 | 36.17 | 7.132 | | |
| 6,800.00 | 5,530.00 | 6,979.85 | 5,729.00 | 26.63 | 27.87 | -140.48 | 1,209.73 | -796.41 | 257.97 | 220.47 | 37.50 | 6.879 | | |
| 6,900.00 | 5,530.00 | 7,079.85 | 5,729.00 | 27.69 | 28.89 | -140.48 | 1,309.73 | -796.42 | 257.97 | 219.08 | 38.90 | 6.633 | | |
| 7,000.00 | 5,530.00 | 7,179.85 | 5,729.00 | 28.79 | 29.95 | -140.48 | 1,409.73 | -796.42 | 257.98 | 217.63 | 40.35 | 6.394 | | |
| 7,100.00 | 5,530.00 | 7,279.85 | 5,729.00 | 29.93 | 31.04 | -140.48 | 1,509.73 | -796.43 | 257.98 | 216.13 | 41.85 | 6.165 | | |
| 7,200.00 | 5,530.00 | 7,379.85 | 5,729.00 | 31.09 | 32.17 | -140.48 | 1,609.73 | -796.44 | 257.98 | 214.59 | 43.39 | 5.945 | | |
| 7,300.00 | 5,530.00 | 7,479.85 | 5,729.00 | 32.27 | 33.32 | -140.48 | 1,709.73 | -796.45 | 257.98 | 213.00 | 44.98 | 5.735 | | |
| 7,400.00 | 5,530.00 | 7,579.85 | 5,729.00 | 33.48 | 34.50 | -140.48 | 1,809.73 | -796.46 | 257.99 | 211.38 | 46.61 | 5.536 | | |
| 7,500.00 | 5,530.00 | 7,679.85 | 5,729.00 | 34.71 | 35.70 | -140.47 | 1,909.73 | -796.47 | 257.99 | 209.73 | 48.26 | 5.346 | | |
| 7,600.00 | 5,530.00 | 7,779.85 | 5,729.00 | 35.95 | 36.92 | -140.47 | 2,009.73 | -796.47 | 257.99 | 208.04 | 49.95 | 5.165 | | |
| 7,700.00 | 5,530.00 | 7,879.85 | 5,729.00 | 37.22 | 38.15 | -140.47 | 2,109.73 | -796.48 | 257.99 | 206.33 | 51.66 | 4.994 | | |
| 7,800.00 | 5,530.00 | 7,979.85 | 5,729.00 | 38.49 | 39.41 | -140.47 | 2,209.73 | -796.49 | 258.00 | 204.60 | 53.40 | 4.832 | | |
| 7,900.00 | 5,530.00 | 8,079.85 | 5,729.00 | 39.78 | 40.67 | -140.47 | 2,309.73 | -796.50 | 258.00 | 202.84 | 55.16 | 4.678 | | |
| 8,000.00 | 5,530.00 | 8,179.85 | 5,729.00 | 41.09 | 41.96 | -140.47 | 2,409.73 | -796.51 | 258.00 | 201.07 | 56.94 | 4.532 | | |
| 8,100.00 | 5,530.00 | 8,279.85 | 5,729.00 | 42.40 | 43.25 | -140.47 | 2,509.73 | -796.52 | 258.00 | 199.27 | 58.73 | 4.393 | | |
| 8,200.00 | 5,530.00 | 8,379.85 | 5,729.00 | 43.72 | 44.55 | -140.47 | 2,609.73 | -796.52 | 258.01 | 197.46 | 60.54 | 4.261 | | |
| 8,300.00 | 5,530.00 | 8,479.85 | 5,729.00 | 45.05 | 45.87 | -140.47 | 2,709.73 | -796.53 | 258.01 | 195.64 | 62.37 | 4.137 | | |
| 8,400.00 | 5,530.00 | 8,579.85 | 5,729.00 | 46.39 | 47.19 | -140.47 | 2,809.73 | -796.54 | 258.01 | 193.80 | 64.21 | 4.018 | | |
| 8,500.00 | 5,530.00 | 8,679.85 | 5,729.00 | 47.74 | 48.53 | -140.47 | 2,909.73 | -796.55 | 258.01 | 191.95 | 66.07 | 3.905 | | |
| 8,600.00 | 5,530.00 | 8,779.85 | 5,729.00 | 49.10 | 49.87 | -140.47 | 3,009.73 | -796.56 | 258.02 | 190.08 | 67.93 | 3.798 | | |
| 8,700.00 | 5,530.00 | 8,879.85 | 5,729.00 | 50.46 | 51.21 | -140.47 | 3,109.73 | -796.57 | 258.02 | 188.21 | 69.81 | 3.696 | | |
| 8,800.00 | 5,530.00 | 8,979.85 | 5,729.00 | 51.83 | 52.57 | -140.47 | 3,209.73 | -796.58 | 258.02 | 186.32 | 71.70 | 3.599 | | |
| 8,900.00 | 5,530.00 | 9,079.85 | 5,729.00 | 53.20 | 53.93 | -140.47 | 3,309.73 | -796.58 | 258.02 | 184.43 | 73.59 | 3.506 | | |
| 9,000.00 | 5,530.00 | 9,179.85 | 5,729.00 | 54.58 | 55.29 | -140.46 | 3,409.73 | -796.59 | 258.03 | 182.53 | 75.50 | 3.418 | | |
| 9,100.00 | 5,530.00 | 9,279.85 | 5,729.00 | 55.96 | 56.66 | -140.46 | 3,509.73 | -796.60 | 258.03 | 180.62 | 77.41 | 3.333 | | |
| 9,200.00 | 5,530.00 | 9,379.85 | 5,729.00 | 57.35 | 58.04 | -140.46 | 3,609.73 | -796.61 | 258.03 | 178.71 | 79.33 | 3.253 | | |
| 9,300.00 | 5,530.00 | 9,479.85 | 5,729.00 | 58.74 | 59.42 | -140.46 | 3,709.73 | -796.62 | 258.03 | 176.78 | 81.25 | 3.176 | | |
| 9,400.00 | 5,530.00 | 9,579.85 | 5,729.00 | 60.13 | 60.81 | -140.46 | 3,809.73 | -796.63 | 258.04 | 174.85 | 83.18 | 3.102 | | |
| 9,500.00 | 5,530.00 | 9,679.85 | 5,729.00 | 61.53 | 62.19 | -140.46 | 3,909.73 | -796.63 | 258.04 | 172.92 | 85.12 | 3.031 | | |
| 9,600.00 | 5,530.00 | 9,779.85 | 5,729.00 | 62.93 | 63.59 | -140.46 | 4,009.73 | -796.64 | 258.04 | 170.98 | 87.06 | 2.964 | | |
| 9,700.00 | 5,530.00 | 9,879.85 | 5,729.00 | 64.34 | 64.98 | -140.46 | 4,109.73 | -796.65 | 258.04 | 169.03 | 89.01 | 2.899 | | |
| 9,800.00 | 5,530.00 | 9,979.85 | 5,729.00 | 65.75 | 66.38 | -140.46 | 4,209.73 | -796.66 | 258.05 | 167.08 | 90.96 | 2.837 | | |
| 9,900.00 | 5,530.00 | 10,079.85 | 5,729.00 | 67.16 | 67.78 | -140.46 | 4,309.73 | -796.67 | 258.05 | 165.13 | 92.92 | 2.777 | | |
| 10,000.00 | 5,530.00 | 10,179.85 | 5,729.00 | 68.57 | 69.19 | -140.46 | 4,409.73 | -796.68 | 258.05 | 163.17 | 94.88 | 2.720 | | |
| 10,100.00 | 5,530.00 | 10,279.85 | 5,729.00 | 69.99 | 70.60 | -140.46 | 4,509.73 | -796.69 | 258.05 | 161.21 | 96.85 | 2.665 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 10,200.00 | 5,530.00 | 10,379.85 | 5,729.00 | 71.40 | 72.01 | -140.46 | 4,609.73 | -796.69 | 258.06 | 159.24 | 98.81 | 2.612 | | |
| 10,300.00 | 5,530.00 | 10,479.85 | 5,729.00 | 72.82 | 73.42 | -140.46 | 4,709.73 | -796.70 | 258.06 | 157.27 | 100.79 | 2.560 | | |
| 10,400.00 | 5,530.00 | 10,579.85 | 5,729.00 | 74.25 | 74.84 | -140.46 | 4,809.73 | -796.71 | 258.06 | 155.30 | 102.76 | 2.511 | | |
| 10,500.00 | 5,530.00 | 10,679.85 | 5,729.00 | 75.67 | 76.25 | -140.45 | 4,909.73 | -796.72 | 258.06 | 153.32 | 104.74 | 2.464 | | |
| 10,600.00 | 5,530.00 | 10,779.85 | 5,729.00 | 77.09 | 77.67 | -140.45 | 5,009.73 | -796.73 | 258.07 | 151.34 | 106.72 | 2.418 | | |
| 10,700.00 | 5,530.00 | 10,879.85 | 5,729.00 | 78.52 | 79.09 | -140.45 | 5,109.73 | -796.74 | 258.07 | 149.36 | 108.71 | 2.374 | | |
| 10,800.00 | 5,530.00 | 10,979.85 | 5,729.00 | 79.95 | 80.52 | -140.45 | 5,209.73 | -796.74 | 258.07 | 147.38 | 110.69 | 2.331 | | |
| 10,900.00 | 5,530.00 | 11,079.85 | 5,729.00 | 81.38 | 81.94 | -140.45 | 5,309.73 | -796.75 | 258.07 | 145.39 | 112.68 | 2.290 | | |
| 11,000.00 | 5,530.00 | 11,179.85 | 5,729.00 | 82.81 | 83.37 | -140.45 | 5,409.73 | -796.76 | 258.07 | 143.40 | 114.67 | 2.251 | | |
| 11,100.00 | 5,530.00 | 11,279.85 | 5,729.00 | 84.25 | 84.79 | -140.45 | 5,509.73 | -796.77 | 258.08 | 141.41 | 116.67 | 2.212 | | |
| 11,200.00 | 5,530.00 | 11,379.85 | 5,729.00 | 85.68 | 86.22 | -140.45 | 5,609.73 | -796.78 | 258.08 | 139.42 | 118.66 | 2.175 | | |
| 11,300.00 | 5,530.00 | 11,479.85 | 5,729.00 | 87.12 | 87.65 | -140.45 | 5,709.73 | -796.79 | 258.08 | 137.42 | 120.66 | 2.139 | | |
| 11,400.00 | 5,530.00 | 11,579.85 | 5,729.00 | 88.55 | 89.09 | -140.45 | 5,809.73 | -796.80 | 258.08 | 135.42 | 122.66 | 2.104 | | |
| 11,500.00 | 5,530.00 | 11,679.85 | 5,729.00 | 89.99 | 90.52 | -140.45 | 5,909.73 | -796.80 | 258.09 | 133.42 | 124.66 | 2.070 | | |
| 11,600.00 | 5,530.00 | 11,779.85 | 5,729.00 | 91.43 | 91.95 | -140.45 | 6,009.73 | -796.81 | 258.09 | 131.42 | 126.67 | 2.038 | | |
| 11,700.00 | 5,530.00 | 11,879.85 | 5,729.00 | 92.87 | 93.39 | -140.45 | 6,109.73 | -796.82 | 258.09 | 129.42 | 128.67 | 2.006 | | |
| 11,800.00 | 5,530.00 | 11,979.85 | 5,729.00 | 94.31 | 94.83 | -140.45 | 6,209.73 | -796.83 | 258.09 | 127.41 | 130.68 | 1.975 | | |
| 11,900.00 | 5,530.00 | 12,079.85 | 5,729.00 | 95.75 | 96.26 | -140.45 | 6,309.73 | -796.84 | 258.10 | 125.41 | 132.69 | 1.945 | | |
| 12,000.00 | 5,530.00 | 12,179.85 | 5,729.00 | 97.20 | 97.70 | -140.44 | 6,409.73 | -796.85 | 258.10 | 123.40 | 134.70 | 1.916 | | |
| 12,100.00 | 5,530.00 | 12,279.85 | 5,729.00 | 98.64 | 99.14 | -140.44 | 6,509.73 | -796.85 | 258.10 | 121.39 | 136.71 | 1.888 | | |
| 12,200.00 | 5,530.00 | 12,379.85 | 5,729.00 | 100.08 | 100.58 | -140.44 | 6,609.73 | -796.86 | 258.10 | 119.38 | 138.72 | 1.861 | | |
| 12,300.00 | 5,530.00 | 12,479.85 | 5,729.00 | 101.53 | 102.02 | -140.44 | 6,709.73 | -796.87 | 258.11 | 117.37 | 140.74 | 1.834 | | |
| 12,400.00 | 5,530.00 | 12,579.85 | 5,729.00 | 102.97 | 103.47 | -140.44 | 6,809.73 | -796.88 | 258.11 | 115.36 | 142.75 | 1.808 | | |
| 12,500.00 | 5,530.00 | 12,679.85 | 5,729.00 | 104.42 | 104.91 | -140.44 | 6,909.73 | -796.89 | 258.11 | 113.34 | 144.77 | 1.783 | | |
| 12,600.00 | 5,530.00 | 12,779.85 | 5,729.00 | 105.87 | 106.35 | -140.44 | 7,009.73 | -796.90 | 258.11 | 111.33 | 146.79 | 1.758 | | |
| 12,700.00 | 5,530.00 | 12,879.85 | 5,729.00 | 107.32 | 107.80 | -140.44 | 7,109.73 | -796.90 | 258.12 | 109.31 | 148.80 | 1.735 | | |
| 12,800.00 | 5,530.00 | 12,979.85 | 5,729.00 | 108.77 | 109.24 | -140.44 | 7,209.73 | -796.91 | 258.12 | 107.29 | 150.82 | 1.711 | | |
| 12,900.00 | 5,530.00 | 13,079.85 | 5,729.00 | 110.21 | 110.69 | -140.44 | 7,309.73 | -796.92 | 258.12 | 105.28 | 152.84 | 1.689 | | |
| 13,000.00 | 5,530.00 | 13,179.85 | 5,729.00 | 111.66 | 112.14 | -140.44 | 7,409.73 | -796.93 | 258.12 | 103.26 | 154.87 | 1.667 | | |
| 13,100.00 | 5,530.00 | 13,279.85 | 5,729.00 | 113.11 | 113.58 | -140.44 | 7,509.73 | -796.94 | 258.13 | 101.24 | 156.89 | 1.645 | | |
| 13,200.00 | 5,530.00 | 13,379.85 | 5,729.00 | 114.57 | 115.03 | -140.44 | 7,609.73 | -796.95 | 258.13 | 99.22 | 158.91 | 1.624 | | |
| 13,300.00 | 5,530.00 | 13,479.85 | 5,729.00 | 116.02 | 116.48 | -140.44 | 7,709.73 | -796.96 | 258.13 | 97.19 | 160.94 | 1.604 | | |
| 13,400.00 | 5,530.00 | 13,579.85 | 5,729.00 | 117.47 | 117.93 | -140.44 | 7,809.73 | -796.96 | 258.13 | 95.17 | 162.96 | 1.584 | | |
| 13,500.00 | 5,530.00 | 13,679.85 | 5,729.00 | 118.92 | 119.38 | -140.44 | 7,909.73 | -796.97 | 258.14 | 93.15 | 164.99 | 1.565 | | |
| 13,600.00 | 5,530.00 | 13,779.85 | 5,729.00 | 120.37 | 120.83 | -140.43 | 8,009.73 | -796.98 | 258.14 | 91.12 | 167.01 | 1.546 | | |
| 13,700.00 | 5,530.00 | 13,879.85 | 5,729.00 | 121.83 | 122.28 | -140.43 | 8,109.73 | -796.99 | 258.14 | 89.10 | 169.04 | 1.527 | | |
| 13,800.00 | 5,530.00 | 13,979.85 | 5,729.00 | 123.28 | 123.73 | -140.43 | 8,209.73 | -797.00 | 258.14 | 87.07 | 171.07 | 1.509 | | |
| 13,900.00 | 5,530.00 | 14,079.85 | 5,729.00 | 124.74 | 125.18 | -140.43 | 8,309.73 | -797.01 | 258.15 | 85.05 | 173.10 | 1.491 Level 3 | | |
| 14,000.00 | 5,530.00 | 14,179.85 | 5,729.00 | 126.19 | 126.63 | -140.43 | 8,409.73 | -797.01 | 258.15 | 83.02 | 175.13 | 1.474 Level 3 | | |
| 14,100.00 | 5,530.00 | 14,279.85 | 5,729.00 | 127.65 | 128.09 | -140.43 | 8,509.73 | -797.02 | 258.15 | 80.99 | 177.16 | 1.457 Level 3 | | |
| 14,200.00 | 5,530.00 | 14,379.85 | 5,729.00 | 129.10 | 129.54 | -140.43 | 8,609.73 | -797.03 | 258.15 | 78.96 | 179.19 | 1.441 Level 3 | | |
| 14,300.00 | 5,530.00 | 14,479.85 | 5,729.00 | 130.56 | 130.99 | -140.43 | 8,709.73 | -797.04 | 258.16 | 76.93 | 181.22 | 1.425 Level 3 | | |
| 14,400.00 | 5,530.00 | 14,579.85 | 5,729.00 | 132.01 | 132.45 | -140.43 | 8,809.73 | -797.05 | 258.16 | 74.90 | 183.25 | 1.409 Level 3 | | |
| 14,500.00 | 5,530.00 | 14,679.85 | 5,729.00 | 133.47 | 133.90 | -140.43 | 8,909.73 | -797.06 | 258.16 | 72.87 | 185.29 | 1.393 Level 3 | | |
| 14,600.00 | 5,530.00 | 14,779.85 | 5,729.00 | 134.93 | 135.36 | -140.43 | 9,009.73 | -797.07 | 258.16 | 70.84 | 187.32 | 1.378 Level 3 | | |
| 14,700.00 | 5,530.00 | 14,879.85 | 5,729.00 | 136.38 | 136.81 | -140.43 | 9,109.73 | -797.07 | 258.17 | 68.81 | 189.35 | 1.363 Level 3 | | |
| 14,800.00 | 5,530.00 | 14,979.85 | 5,729.00 | 137.84 | 138.27 | -140.43 | 9,209.73 | -797.08 | 258.17 | 66.78 | 191.39 | 1.349 Level 3 | | |
| 14,900.00 | 5,530.00 | 15,079.85 | 5,729.00 | 139.30 | 139.72 | -140.43 | 9,309.73 | -797.09 | 258.17 | 64.75 | 193.42 | 1.335 Level 3 | | |
| 15,000.00 | 5,530.00 | 15,179.85 | 5,729.00 | 140.76 | 141.18 | -140.43 | 9,409.73 | -797.10 | 258.17 | 62.71 | 195.46 | 1.321 Level 3 | | |
| 15,100.00 | 5,530.00 | 15,279.85 | 5,729.00 | 142.21 | 142.63 | -140.42 | 9,509.73 | -797.11 | 258.17 | 60.68 | 197.49 | 1.307 Level 3 | | |
| 15,200.00 | 5,530.00 | 15,379.85 | 5,729.00 | 143.67 | 144.09 | -140.42 | 9,609.73 | -797.12 | 258.18 | 58.65 | 199.53 | 1.294 Level 3 | | |
| 15,300.00 | 5,530.00 | 15,479.85 | 5,729.00 | 145.13 | 145.55 | -140.42 | 9,709.73 | -797.12 | 258.18 | 56.61 | 201.57 | 1.281 Level 3 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design Sec 25-T10N-R58W - Razor #25P-2445 - Hz - APD | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|-------------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | |
| 15,400.00 | 5,530.00 | 15,579.85 | 5,729.00 | 146.59 | 147.01 | -140.42 | 9,809.73 | -797.13 | 258.18 | 54.58 | 203.60 | 1.268 | Level 3 |
| 15,500.00 | 5,530.00 | 15,679.85 | 5,729.00 | 148.05 | 148.46 | -140.42 | 9,909.73 | -797.14 | 258.18 | 52.54 | 205.64 | 1.256 | Level 3 |
| 15,600.00 | 5,530.00 | 15,779.85 | 5,729.00 | 149.51 | 149.92 | -140.42 | 10,009.73 | -797.15 | 258.19 | 50.51 | 207.68 | 1.243 | Level 2 |
| 15,700.00 | 5,530.00 | 15,879.85 | 5,729.00 | 150.97 | 151.38 | -140.42 | 10,109.73 | -797.16 | 258.19 | 48.47 | 209.72 | 1.231 | Level 2 |
| 15,722.97 | 5,530.00 | 15,902.81 | 5,729.00 | 151.30 | 151.71 | -140.42 | 10,132.70 | -797.16 | 258.19 | 48.00 | 210.19 | 1.228 | Level 2, SF |



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 148.19 | -49.59 | 30.76 | 58.36 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.13 | 0.13 | 148.19 | -49.59 | 30.76 | 58.36 | 58.09 | 0.27 | 219.099 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.47 | 0.47 | 148.19 | -49.59 | 30.76 | 58.36 | 57.42 | 0.94 | 62.039 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.81 | 0.81 | 148.19 | -49.59 | 30.76 | 58.36 | 56.74 | 1.61 | 36.135 CC | | |
| 400.00 | 399.98 | 400.31 | 400.29 | 1.12 | 1.12 | -101.79 | -50.28 | 29.14 | 58.45 | 56.21 | 2.24 | 26.085 | | |
| 500.00 | 499.84 | 500.62 | 500.46 | 1.44 | 1.44 | -101.72 | -52.33 | 24.30 | 58.71 | 55.85 | 2.86 | 20.536 | | |
| 600.00 | 599.45 | 600.94 | 600.38 | 1.77 | 1.77 | -101.61 | -55.76 | 16.23 | 59.16 | 55.63 | 3.52 | 16.790 | | |
| 700.00 | 698.70 | 701.08 | 699.83 | 2.12 | 2.11 | -101.88 | -60.37 | 5.37 | 59.85 | 55.62 | 4.23 | 14.153 ES | | |
| 800.00 | 797.48 | 801.02 | 799.02 | 2.49 | 2.48 | -104.85 | -65.13 | -5.84 | 61.26 | 56.29 | 4.96 | 12.338 | | |
| 900.00 | 896.11 | 900.92 | 898.18 | 2.89 | 2.85 | -108.54 | -69.88 | -17.04 | 63.13 | 57.41 | 5.72 | 11.042 | | |
| 1,000.00 | 994.74 | 1,000.82 | 997.34 | 3.28 | 3.22 | -112.01 | -74.64 | -28.25 | 65.25 | 58.77 | 6.47 | 10.079 | | |
| 1,100.00 | 1,093.37 | 1,100.72 | 1,096.50 | 3.69 | 3.60 | -115.25 | -79.40 | -39.46 | 67.59 | 60.36 | 7.23 | 9.348 | | |
| 1,200.00 | 1,192.00 | 1,200.63 | 1,195.65 | 4.10 | 3.97 | -118.26 | -84.15 | -50.66 | 70.13 | 62.15 | 7.98 | 8.785 | | |
| 1,300.00 | 1,290.63 | 1,300.53 | 1,294.81 | 4.51 | 4.35 | -121.05 | -88.91 | -61.87 | 72.85 | 64.12 | 8.73 | 8.343 | | |
| 1,400.00 | 1,389.26 | 1,400.43 | 1,393.97 | 4.92 | 4.73 | -123.64 | -93.67 | -73.08 | 75.74 | 66.26 | 9.48 | 7.992 | | |
| 1,500.00 | 1,487.88 | 1,500.33 | 1,493.12 | 5.33 | 5.11 | -126.04 | -98.43 | -84.29 | 78.76 | 68.55 | 10.22 | 7.710 | | |
| 1,600.00 | 1,586.51 | 1,600.24 | 1,592.28 | 5.75 | 5.50 | -128.25 | -103.18 | -95.49 | 81.92 | 70.97 | 10.95 | 7.481 | | |
| 1,700.00 | 1,685.14 | 1,700.14 | 1,691.44 | 6.16 | 5.88 | -130.30 | -107.94 | -106.70 | 85.19 | 73.51 | 11.68 | 7.294 | | |
| 1,800.00 | 1,783.77 | 1,800.04 | 1,790.60 | 6.58 | 6.26 | -132.19 | -112.70 | -117.91 | 88.55 | 76.15 | 12.40 | 7.139 | | |
| 1,900.00 | 1,882.40 | 1,899.94 | 1,889.75 | 6.99 | 6.65 | -133.94 | -117.45 | -129.11 | 92.01 | 78.89 | 13.13 | 7.010 | | |
| 2,000.00 | 1,981.03 | 1,999.84 | 1,988.91 | 7.41 | 7.03 | -135.57 | -122.21 | -140.32 | 95.55 | 81.71 | 13.84 | 6.902 | | |
| 2,100.00 | 2,079.66 | 2,099.75 | 2,088.07 | 7.83 | 7.41 | -137.08 | -126.97 | -151.53 | 99.16 | 84.60 | 14.56 | 6.811 | | |
| 2,200.00 | 2,178.28 | 2,199.65 | 2,187.23 | 8.25 | 7.80 | -138.48 | -131.73 | -162.74 | 102.83 | 87.56 | 15.27 | 6.734 | | |
| 2,300.00 | 2,276.91 | 2,299.55 | 2,286.38 | 8.66 | 8.18 | -139.78 | -136.48 | -173.94 | 106.56 | 90.58 | 15.98 | 6.669 | | |
| 2,400.00 | 2,375.54 | 2,399.45 | 2,385.54 | 9.08 | 8.57 | -140.99 | -141.24 | -185.15 | 110.34 | 93.65 | 16.69 | 6.613 | | |
| 2,500.00 | 2,474.17 | 2,499.35 | 2,484.70 | 9.50 | 8.95 | -142.13 | -146.00 | -196.36 | 114.17 | 96.78 | 17.39 | 6.565 | | |
| 2,600.00 | 2,572.80 | 2,599.26 | 2,583.86 | 9.92 | 9.34 | -143.19 | -150.75 | -207.56 | 118.04 | 99.94 | 18.09 | 6.523 | | |
| 2,700.00 | 2,671.43 | 2,699.16 | 2,683.01 | 10.34 | 9.72 | -144.18 | -155.51 | -218.77 | 121.94 | 103.15 | 18.80 | 6.487 | | |
| 2,800.00 | 2,770.05 | 2,799.06 | 2,782.17 | 10.76 | 10.11 | -145.11 | -160.27 | -229.98 | 125.88 | 106.39 | 19.50 | 6.456 | | |
| 2,900.00 | 2,868.68 | 2,898.96 | 2,881.33 | 11.18 | 10.49 | -145.99 | -165.03 | -241.19 | 129.86 | 109.66 | 20.20 | 6.429 | | |
| 3,000.00 | 2,967.31 | 2,998.86 | 2,980.49 | 11.60 | 10.88 | -146.81 | -169.78 | -252.39 | 133.86 | 112.96 | 20.90 | 6.405 | | |
| 3,100.00 | 3,065.94 | 3,098.77 | 3,079.64 | 12.02 | 11.26 | -147.58 | -174.54 | -263.60 | 137.88 | 116.29 | 21.60 | 6.385 | | |
| 3,200.00 | 3,164.57 | 3,198.67 | 3,178.80 | 12.43 | 11.65 | -148.31 | -179.30 | -274.81 | 141.93 | 119.64 | 22.29 | 6.366 | | |
| 3,300.00 | 3,263.20 | 3,298.57 | 3,277.96 | 12.85 | 12.03 | -149.00 | -184.05 | -286.01 | 146.01 | 123.01 | 22.99 | 6.350 | | |
| 3,400.00 | 3,361.83 | 3,398.47 | 3,377.12 | 13.27 | 12.42 | -149.65 | -188.81 | -297.22 | 150.10 | 126.41 | 23.69 | 6.336 | | |
| 3,500.00 | 3,460.45 | 3,498.37 | 3,476.27 | 13.69 | 12.80 | -150.27 | -193.57 | -308.43 | 154.21 | 129.82 | 24.38 | 6.324 | | |
| 3,600.00 | 3,559.08 | 3,598.28 | 3,575.43 | 14.11 | 13.19 | -150.86 | -198.33 | -319.64 | 158.33 | 133.25 | 25.08 | 6.313 | | |
| 3,700.00 | 3,657.71 | 3,698.18 | 3,674.59 | 14.53 | 13.57 | -151.41 | -203.08 | -330.84 | 162.48 | 136.70 | 25.78 | 6.303 | | |
| 3,800.00 | 3,756.34 | 3,798.08 | 3,773.75 | 14.95 | 13.96 | -151.94 | -207.84 | -342.05 | 166.64 | 140.16 | 26.47 | 6.295 | | |
| 3,900.00 | 3,854.97 | 3,897.98 | 3,872.90 | 15.37 | 14.34 | -152.44 | -212.60 | -353.26 | 170.81 | 143.64 | 27.17 | 6.287 | | |
| 4,000.00 | 3,953.60 | 3,997.88 | 3,972.06 | 15.79 | 14.73 | -152.92 | -217.35 | -364.46 | 174.99 | 147.13 | 27.86 | 6.281 | | |
| 4,100.00 | 4,052.23 | 4,097.79 | 4,071.22 | 16.21 | 15.12 | -153.38 | -222.11 | -375.67 | 179.18 | 150.63 | 28.56 | 6.275 | | |
| 4,200.00 | 4,150.85 | 4,197.69 | 4,170.38 | 16.63 | 15.50 | -153.81 | -226.87 | -386.88 | 183.39 | 154.14 | 29.25 | 6.270 | | |
| 4,300.00 | 4,249.48 | 4,297.59 | 4,269.53 | 17.05 | 15.89 | -154.23 | -231.63 | -398.09 | 187.61 | 157.66 | 29.95 | 6.265 | | |
| 4,400.00 | 4,348.13 | 4,397.50 | 4,368.69 | 17.46 | 16.27 | -154.62 | -236.38 | -409.29 | 191.73 | 161.10 | 30.63 | 6.260 | | |
| 4,500.00 | 4,447.15 | 4,497.48 | 4,467.93 | 17.73 | 16.66 | -154.69 | -241.14 | -420.51 | 193.60 | 162.35 | 31.24 | 6.196 | | |
| 4,600.00 | 4,546.60 | 4,597.45 | 4,567.16 | 17.99 | 17.04 | -154.28 | -245.90 | -431.73 | 192.31 | 160.44 | 31.87 | 6.034 | | |
| 4,700.00 | 4,646.35 | 4,697.31 | 4,666.27 | 18.24 | 17.43 | -153.38 | -250.66 | -442.93 | 187.91 | 155.40 | 32.51 | 5.779 | | |
| 4,800.00 | 4,746.28 | 4,794.00 | 4,762.30 | 18.47 | 17.77 | -152.03 | -255.07 | -453.31 | 180.93 | 147.80 | 33.13 | 5.461 | | |
| 4,900.00 | 4,846.28 | 4,888.67 | 4,856.61 | 18.71 | 18.01 | 99.34 | -258.27 | -460.86 | 173.92 | 140.21 | 33.72 | 5.158 | | |
| 5,000.00 | 4,946.28 | 4,983.74 | 4,951.54 | 18.97 | 18.24 | 100.26 | -260.27 | -465.56 | 169.41 | 135.12 | 34.29 | 4.940 | | |
| 5,083.35 | 5,029.58 | 5,063.11 | 5,030.88 | 19.18 | 18.44 | 101.45 | -260.99 | -467.26 | 168.27 | 133.43 | 34.84 | 4.830 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 5,100.00 | 5,046.25 | 5,079.01 | 5,046.78 | 19.22 | 18.48 | 101.06 | -261.03 | -467.35 | 167.95 | 133.05 | 34.90 | 4.813 | | |
| 5,200.00 | 5,144.70 | 5,176.93 | 5,144.70 | 19.45 | 18.74 | 105.99 | -261.04 | -467.37 | 171.91 | 136.12 | 35.79 | 4.804 | | |
| 5,300.00 | 5,238.17 | 5,270.40 | 5,238.17 | 19.66 | 18.99 | 114.60 | -261.04 | -467.37 | 184.98 | 148.40 | 36.59 | 5.056 | | |
| 5,400.00 | 5,323.23 | 5,359.73 | 5,327.50 | 19.82 | 19.22 | 123.99 | -260.78 | -467.37 | 213.75 | 177.13 | 36.62 | 5.838 | | |
| 5,500.00 | 5,396.74 | 5,480.74 | 5,446.93 | 19.93 | 19.52 | 134.42 | -243.02 | -467.37 | 253.43 | 217.94 | 35.49 | 7.141 | | |
| 5,600.00 | 5,456.01 | 5,629.49 | 5,583.09 | 20.01 | 19.83 | 142.62 | -184.40 | -467.37 | 293.95 | 260.50 | 33.45 | 8.789 | | |
| 5,700.00 | 5,498.86 | 5,816.44 | 5,721.80 | 20.05 | 20.09 | 148.49 | -60.57 | -467.37 | 327.30 | 295.97 | 31.33 | 10.448 | | |
| 5,800.00 | 5,523.71 | 6,041.77 | 5,818.29 | 20.08 | 20.21 | 151.35 | 141.12 | -467.37 | 344.53 | 314.32 | 30.22 | 11.402 | | |
| 5,899.99 | 5,531.47 | 6,211.36 | 5,832.00 | 20.15 | 20.35 | 151.26 | 309.66 | -467.37 | 342.76 | 312.12 | 30.65 | 11.184 | | |
| 5,900.00 | 5,530.00 | 6,211.45 | 5,832.00 | 20.15 | 20.35 | 151.37 | 309.75 | -467.37 | 344.06 | 313.44 | 30.62 | 11.237 | | |
| 6,000.00 | 5,530.00 | 6,311.45 | 5,832.00 | 20.34 | 20.81 | 151.37 | 409.75 | -467.37 | 344.06 | 312.90 | 31.16 | 11.041 | | |
| 6,100.00 | 5,530.00 | 6,411.45 | 5,832.00 | 20.74 | 21.41 | 151.37 | 509.75 | -467.37 | 344.06 | 312.27 | 31.79 | 10.824 | | |
| 6,200.00 | 5,530.00 | 6,511.45 | 5,832.00 | 21.32 | 22.11 | 151.37 | 609.75 | -467.37 | 344.06 | 311.57 | 32.49 | 10.590 | | |
| 6,300.00 | 5,530.00 | 6,611.45 | 5,832.00 | 22.03 | 22.88 | 151.37 | 709.75 | -467.37 | 344.06 | 310.80 | 33.26 | 10.344 | | |
| 6,400.00 | 5,530.00 | 6,711.45 | 5,832.00 | 22.82 | 23.71 | 151.37 | 809.75 | -467.37 | 344.07 | 309.97 | 34.10 | 10.089 | | |
| 6,500.00 | 5,530.00 | 6,811.45 | 5,832.00 | 23.69 | 24.60 | 151.37 | 909.75 | -467.37 | 344.07 | 309.07 | 35.00 | 9.830 | | |
| 6,600.00 | 5,530.00 | 6,911.45 | 5,832.00 | 24.62 | 25.54 | 151.37 | 1,009.75 | -467.37 | 344.07 | 308.11 | 35.96 | 9.568 | | |
| 6,700.00 | 5,530.00 | 7,011.45 | 5,832.00 | 25.60 | 26.54 | 151.37 | 1,109.75 | -467.37 | 344.07 | 307.10 | 36.97 | 9.306 | | |
| 6,800.00 | 5,530.00 | 7,111.45 | 5,832.00 | 26.63 | 27.57 | 151.37 | 1,209.75 | -467.37 | 344.08 | 306.04 | 38.03 | 9.047 | | |
| 6,900.00 | 5,530.00 | 7,211.45 | 5,832.00 | 27.69 | 28.64 | 151.37 | 1,309.75 | -467.37 | 344.08 | 304.94 | 39.14 | 8.792 | | |
| 7,000.00 | 5,530.00 | 7,311.45 | 5,832.00 | 28.79 | 29.74 | 151.37 | 1,409.75 | -467.37 | 344.08 | 303.80 | 40.28 | 8.542 | | |
| 7,100.00 | 5,530.00 | 7,411.45 | 5,832.00 | 29.93 | 30.88 | 151.37 | 1,509.75 | -467.37 | 344.08 | 302.62 | 41.46 | 8.298 | | |
| 7,200.00 | 5,530.00 | 7,511.45 | 5,832.00 | 31.09 | 32.04 | 151.37 | 1,609.75 | -467.37 | 344.08 | 301.40 | 42.68 | 8.062 | | |
| 7,300.00 | 5,530.00 | 7,611.45 | 5,832.00 | 32.27 | 33.23 | 151.37 | 1,709.75 | -467.37 | 344.09 | 300.16 | 43.93 | 7.833 | | |
| 7,400.00 | 5,530.00 | 7,711.45 | 5,832.00 | 33.48 | 34.43 | 151.36 | 1,809.75 | -467.37 | 344.09 | 298.88 | 45.21 | 7.611 | | |
| 7,500.00 | 5,530.00 | 7,811.45 | 5,832.00 | 34.71 | 35.66 | 151.36 | 1,909.75 | -467.37 | 344.09 | 297.58 | 46.51 | 7.398 | | |
| 7,600.00 | 5,530.00 | 7,911.45 | 5,832.00 | 35.95 | 36.91 | 151.36 | 2,009.75 | -467.37 | 344.09 | 296.25 | 47.84 | 7.193 | | |
| 7,700.00 | 5,530.00 | 8,011.45 | 5,832.00 | 37.22 | 38.17 | 151.36 | 2,109.75 | -467.37 | 344.09 | 294.90 | 49.19 | 6.995 | | |
| 7,800.00 | 5,530.00 | 8,111.45 | 5,832.00 | 38.49 | 39.44 | 151.36 | 2,209.75 | -467.37 | 344.10 | 293.53 | 50.56 | 6.805 | | |
| 7,900.00 | 5,530.00 | 8,211.45 | 5,832.00 | 39.78 | 40.73 | 151.36 | 2,309.75 | -467.37 | 344.10 | 292.15 | 51.95 | 6.623 | | |
| 8,000.00 | 5,530.00 | 8,311.45 | 5,832.00 | 41.09 | 42.03 | 151.36 | 2,409.75 | -467.37 | 344.10 | 290.74 | 53.36 | 6.449 | | |
| 8,100.00 | 5,530.00 | 8,411.45 | 5,832.00 | 42.40 | 43.34 | 151.36 | 2,509.75 | -467.37 | 344.10 | 289.32 | 54.78 | 6.281 | | |
| 8,200.00 | 5,530.00 | 8,511.45 | 5,832.00 | 43.72 | 44.66 | 151.36 | 2,609.75 | -467.37 | 344.11 | 287.88 | 56.22 | 6.120 | | |
| 8,300.00 | 5,530.00 | 8,611.45 | 5,832.00 | 45.05 | 45.99 | 151.36 | 2,709.75 | -467.37 | 344.11 | 286.43 | 57.68 | 5.966 | | |
| 8,400.00 | 5,530.00 | 8,711.45 | 5,832.00 | 46.39 | 47.33 | 151.36 | 2,809.75 | -467.37 | 344.11 | 284.97 | 59.14 | 5.818 | | |
| 8,500.00 | 5,530.00 | 8,811.45 | 5,832.00 | 47.74 | 48.67 | 151.36 | 2,909.75 | -467.37 | 344.11 | 283.49 | 60.62 | 5.677 | | |
| 8,600.00 | 5,530.00 | 8,911.45 | 5,832.00 | 49.10 | 50.03 | 151.36 | 3,009.75 | -467.37 | 344.11 | 282.01 | 62.11 | 5.540 | | |
| 8,700.00 | 5,530.00 | 9,011.45 | 5,832.00 | 50.46 | 51.39 | 151.36 | 3,109.75 | -467.37 | 344.12 | 280.51 | 63.61 | 5.410 | | |
| 8,800.00 | 5,530.00 | 9,111.45 | 5,832.00 | 51.83 | 52.75 | 151.36 | 3,209.75 | -467.37 | 344.12 | 279.00 | 65.12 | 5.285 | | |
| 8,900.00 | 5,530.00 | 9,211.45 | 5,832.00 | 53.20 | 54.12 | 151.35 | 3,309.75 | -467.37 | 344.12 | 277.49 | 66.63 | 5.164 | | |
| 9,000.00 | 5,530.00 | 9,311.45 | 5,832.00 | 54.58 | 55.50 | 151.35 | 3,409.75 | -467.38 | 344.12 | 275.96 | 68.16 | 5.049 | | |
| 9,100.00 | 5,530.00 | 9,411.45 | 5,832.00 | 55.96 | 56.88 | 151.35 | 3,509.75 | -467.38 | 344.13 | 274.43 | 69.69 | 4.938 | | |
| 9,200.00 | 5,530.00 | 9,511.45 | 5,832.00 | 57.35 | 58.27 | 151.35 | 3,609.75 | -467.38 | 344.13 | 272.89 | 71.23 | 4.831 | | |
| 9,300.00 | 5,530.00 | 9,611.45 | 5,832.00 | 58.74 | 59.65 | 151.35 | 3,709.75 | -467.38 | 344.13 | 271.35 | 72.78 | 4.728 | | |
| 9,400.00 | 5,530.00 | 9,711.45 | 5,832.00 | 60.13 | 61.05 | 151.35 | 3,809.75 | -467.38 | 344.13 | 269.80 | 74.34 | 4.629 | | |
| 9,500.00 | 5,530.00 | 9,811.45 | 5,832.00 | 61.53 | 62.44 | 151.35 | 3,909.75 | -467.38 | 344.13 | 268.24 | 75.90 | 4.534 | | |
| 9,600.00 | 5,530.00 | 9,911.45 | 5,832.00 | 62.93 | 63.84 | 151.35 | 4,009.75 | -467.38 | 344.14 | 266.67 | 77.46 | 4.443 | | |
| 9,700.00 | 5,530.00 | 10,011.45 | 5,832.00 | 64.34 | 65.25 | 151.35 | 4,109.75 | -467.38 | 344.14 | 265.11 | 79.03 | 4.354 | | |
| 9,800.00 | 5,530.00 | 10,111.45 | 5,832.00 | 65.75 | 66.65 | 151.35 | 4,209.75 | -467.38 | 344.14 | 263.53 | 80.61 | 4.269 | | |
| 9,900.00 | 5,530.00 | 10,211.45 | 5,832.00 | 67.16 | 68.06 | 151.35 | 4,309.75 | -467.38 | 344.14 | 261.95 | 82.19 | 4.187 | | |
| 10,000.00 | 5,530.00 | 10,311.45 | 5,832.00 | 68.57 | 69.47 | 151.35 | 4,409.75 | -467.38 | 344.14 | 260.37 | 83.77 | 4.108 | | |
| 10,100.00 | 5,530.00 | 10,411.45 | 5,832.00 | 69.99 | 70.89 | 151.35 | 4,509.75 | -467.38 | 344.15 | 258.78 | 85.36 | 4.032 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 10,200.00 | 5,530.00 | 10,511.45 | 5,832.00 | 71.40 | 72.30 | 151.35 | 4,609.75 | -467.38 | 344.15 | 257.19 | 86.96 | 3.958 | | |
| 10,300.00 | 5,530.00 | 10,611.45 | 5,832.00 | 72.82 | 73.72 | 151.35 | 4,709.75 | -467.38 | 344.15 | 255.60 | 88.55 | 3.886 | | |
| 10,400.00 | 5,530.00 | 10,711.45 | 5,832.00 | 74.25 | 75.14 | 151.35 | 4,809.75 | -467.38 | 344.15 | 254.00 | 90.16 | 3.817 | | |
| 10,500.00 | 5,530.00 | 10,811.45 | 5,832.00 | 75.67 | 76.57 | 151.34 | 4,909.75 | -467.38 | 344.16 | 252.40 | 91.76 | 3.751 | | |
| 10,600.00 | 5,530.00 | 10,911.45 | 5,832.00 | 77.09 | 77.99 | 151.34 | 5,009.75 | -467.38 | 344.16 | 250.79 | 93.37 | 3.686 | | |
| 10,700.00 | 5,530.00 | 11,011.45 | 5,832.00 | 78.52 | 79.42 | 151.34 | 5,109.75 | -467.38 | 344.16 | 249.18 | 94.98 | 3.624 | | |
| 10,800.00 | 5,530.00 | 11,111.45 | 5,832.00 | 79.95 | 80.84 | 151.34 | 5,209.75 | -467.38 | 344.16 | 247.57 | 96.59 | 3.563 | | |
| 10,900.00 | 5,530.00 | 11,211.45 | 5,832.00 | 81.38 | 82.27 | 151.34 | 5,309.75 | -467.38 | 344.16 | 245.96 | 98.21 | 3.504 | | |
| 11,000.00 | 5,530.00 | 11,311.45 | 5,832.00 | 82.81 | 83.70 | 151.34 | 5,409.75 | -467.38 | 344.17 | 244.34 | 99.83 | 3.448 | | |
| 11,100.00 | 5,530.00 | 11,411.45 | 5,832.00 | 84.25 | 85.13 | 151.34 | 5,509.75 | -467.38 | 344.17 | 242.72 | 101.45 | 3.393 | | |
| 11,200.00 | 5,530.00 | 11,511.45 | 5,832.00 | 85.68 | 86.57 | 151.34 | 5,609.75 | -467.38 | 344.17 | 241.10 | 103.07 | 3.339 | | |
| 11,300.00 | 5,530.00 | 11,611.45 | 5,832.00 | 87.12 | 88.00 | 151.34 | 5,709.75 | -467.38 | 344.17 | 239.48 | 104.70 | 3.287 | | |
| 11,400.00 | 5,530.00 | 11,711.45 | 5,832.00 | 88.55 | 89.44 | 151.34 | 5,809.75 | -467.38 | 344.18 | 237.85 | 106.32 | 3.237 | | |
| 11,500.00 | 5,530.00 | 11,811.45 | 5,832.00 | 89.99 | 90.87 | 151.34 | 5,909.75 | -467.38 | 344.18 | 236.22 | 107.95 | 3.188 | | |
| 11,600.00 | 5,530.00 | 11,911.45 | 5,832.00 | 91.43 | 92.31 | 151.34 | 6,009.75 | -467.38 | 344.18 | 234.59 | 109.59 | 3.141 | | |
| 11,700.00 | 5,530.00 | 12,011.45 | 5,832.00 | 92.87 | 93.75 | 151.34 | 6,109.75 | -467.38 | 344.18 | 232.96 | 111.22 | 3.095 | | |
| 11,800.00 | 5,530.00 | 12,111.45 | 5,832.00 | 94.31 | 95.19 | 151.34 | 6,209.75 | -467.38 | 344.18 | 231.33 | 112.86 | 3.050 | | |
| 11,900.00 | 5,530.00 | 12,211.45 | 5,832.00 | 95.75 | 96.63 | 151.34 | 6,309.75 | -467.38 | 344.19 | 229.69 | 114.49 | 3.006 | | |
| 12,000.00 | 5,530.00 | 12,311.45 | 5,832.00 | 97.20 | 98.07 | 151.33 | 6,409.75 | -467.38 | 344.19 | 228.05 | 116.13 | 2.964 | | |
| 12,100.00 | 5,530.00 | 12,411.45 | 5,832.00 | 98.64 | 99.52 | 151.33 | 6,509.75 | -467.38 | 344.19 | 226.42 | 117.77 | 2.922 | | |
| 12,200.00 | 5,530.00 | 12,511.45 | 5,832.00 | 100.08 | 100.96 | 151.33 | 6,609.75 | -467.38 | 344.19 | 224.78 | 119.42 | 2.882 | | |
| 12,300.00 | 5,530.00 | 12,611.45 | 5,832.00 | 101.53 | 102.40 | 151.33 | 6,709.75 | -467.38 | 344.19 | 223.13 | 121.06 | 2.843 | | |
| 12,400.00 | 5,530.00 | 12,711.45 | 5,832.00 | 102.97 | 103.85 | 151.33 | 6,809.75 | -467.38 | 344.20 | 221.49 | 122.71 | 2.805 | | |
| 12,500.00 | 5,530.00 | 12,811.45 | 5,832.00 | 104.42 | 105.30 | 151.33 | 6,909.75 | -467.38 | 344.20 | 219.85 | 124.35 | 2.768 | | |
| 12,600.00 | 5,530.00 | 12,911.45 | 5,832.00 | 105.87 | 106.74 | 151.33 | 7,009.75 | -467.38 | 344.20 | 218.20 | 126.00 | 2.732 | | |
| 12,700.00 | 5,530.00 | 13,011.45 | 5,832.00 | 107.32 | 108.19 | 151.33 | 7,109.75 | -467.38 | 344.20 | 216.55 | 127.65 | 2.696 | | |
| 12,800.00 | 5,530.00 | 13,111.45 | 5,832.00 | 108.77 | 109.64 | 151.33 | 7,209.75 | -467.38 | 344.21 | 214.90 | 129.30 | 2.662 | | |
| 12,900.00 | 5,530.00 | 13,211.45 | 5,832.00 | 110.21 | 111.09 | 151.33 | 7,309.75 | -467.38 | 344.21 | 213.25 | 130.95 | 2.628 | | |
| 13,000.00 | 5,530.00 | 13,311.45 | 5,832.00 | 111.66 | 112.53 | 151.33 | 7,409.75 | -467.38 | 344.21 | 211.60 | 132.61 | 2.596 | | |
| 13,100.00 | 5,530.00 | 13,411.45 | 5,832.00 | 113.11 | 113.98 | 151.33 | 7,509.75 | -467.38 | 344.21 | 209.95 | 134.26 | 2.564 | | |
| 13,200.00 | 5,530.00 | 13,511.45 | 5,832.00 | 114.57 | 115.43 | 151.33 | 7,609.75 | -467.38 | 344.21 | 208.30 | 135.91 | 2.533 | | |
| 13,300.00 | 5,530.00 | 13,611.45 | 5,832.00 | 116.02 | 116.89 | 151.33 | 7,709.75 | -467.38 | 344.22 | 206.65 | 137.57 | 2.502 | | |
| 13,400.00 | 5,530.00 | 13,711.45 | 5,832.00 | 117.47 | 118.34 | 151.33 | 7,809.75 | -467.38 | 344.22 | 204.99 | 139.23 | 2.472 | | |
| 13,500.00 | 5,530.00 | 13,811.45 | 5,832.00 | 118.92 | 119.79 | 151.32 | 7,909.75 | -467.38 | 344.22 | 203.33 | 140.89 | 2.443 | | |
| 13,600.00 | 5,530.00 | 13,911.45 | 5,832.00 | 120.37 | 121.24 | 151.32 | 8,009.75 | -467.38 | 344.22 | 201.68 | 142.54 | 2.415 | | |
| 13,700.00 | 5,530.00 | 14,011.45 | 5,832.00 | 121.83 | 122.69 | 151.32 | 8,109.75 | -467.38 | 344.23 | 200.02 | 144.20 | 2.387 | | |
| 13,800.00 | 5,530.00 | 14,111.45 | 5,832.00 | 123.28 | 124.15 | 151.32 | 8,209.75 | -467.38 | 344.23 | 198.36 | 145.87 | 2.360 | | |
| 13,900.00 | 5,530.00 | 14,211.45 | 5,832.00 | 124.74 | 125.60 | 151.32 | 8,309.75 | -467.38 | 344.23 | 196.70 | 147.53 | 2.333 | | |
| 14,000.00 | 5,530.00 | 14,311.45 | 5,832.00 | 126.19 | 127.05 | 151.32 | 8,409.75 | -467.38 | 344.23 | 195.04 | 149.19 | 2.307 | | |
| 14,100.00 | 5,530.00 | 14,411.45 | 5,832.00 | 127.65 | 128.51 | 151.32 | 8,509.75 | -467.38 | 344.23 | 193.38 | 150.85 | 2.282 | | |
| 14,200.00 | 5,530.00 | 14,511.45 | 5,832.00 | 129.10 | 129.96 | 151.32 | 8,609.75 | -467.38 | 344.24 | 191.72 | 152.52 | 2.257 | | |
| 14,300.00 | 5,530.00 | 14,611.45 | 5,832.00 | 130.56 | 131.42 | 151.32 | 8,709.75 | -467.38 | 344.24 | 190.06 | 154.18 | 2.233 | | |
| 14,400.00 | 5,530.00 | 14,711.45 | 5,832.00 | 132.01 | 132.87 | 151.32 | 8,809.75 | -467.38 | 344.24 | 188.39 | 155.85 | 2.209 | | |
| 14,500.00 | 5,530.00 | 14,811.45 | 5,832.00 | 133.47 | 134.33 | 151.32 | 8,909.75 | -467.38 | 344.24 | 186.73 | 157.51 | 2.185 | | |
| 14,600.00 | 5,530.00 | 14,911.45 | 5,832.00 | 134.93 | 135.79 | 151.32 | 9,009.75 | -467.38 | 344.24 | 185.07 | 159.18 | 2.163 | | |
| 14,700.00 | 5,530.00 | 15,011.45 | 5,832.00 | 136.38 | 137.24 | 151.32 | 9,109.75 | -467.38 | 344.25 | 183.40 | 160.85 | 2.140 | | |
| 14,800.00 | 5,530.00 | 15,111.45 | 5,832.00 | 137.84 | 138.70 | 151.32 | 9,209.75 | -467.38 | 344.25 | 181.74 | 162.51 | 2.118 | | |
| 14,900.00 | 5,530.00 | 15,211.45 | 5,832.00 | 139.30 | 140.16 | 151.32 | 9,309.75 | -467.38 | 344.25 | 180.07 | 164.18 | 2.097 | | |
| 15,000.00 | 5,530.00 | 15,311.45 | 5,832.00 | 140.76 | 141.61 | 151.31 | 9,409.75 | -467.38 | 344.25 | 178.40 | 165.85 | 2.076 | | |
| 15,100.00 | 5,530.00 | 15,411.45 | 5,832.00 | 142.21 | 143.07 | 151.31 | 9,509.75 | -467.38 | 344.26 | 176.73 | 167.52 | 2.055 | | |
| 15,200.00 | 5,530.00 | 15,511.45 | 5,832.00 | 143.67 | 144.53 | 151.31 | 9,609.75 | -467.38 | 344.26 | 175.07 | 169.19 | 2.035 | | |
| 15,300.00 | 5,530.00 | 15,611.45 | 5,832.00 | 145.13 | 145.99 | 151.31 | 9,709.75 | -467.38 | 344.26 | 173.40 | 170.86 | 2.015 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design Sec 25-T10N-R58W - Razor #25P-2446 - Hz - APD | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|--------------------------|--------------------------|--------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|-------------------------------|---------------------------------|---------------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | |
| 15,400.00 | 5,530.00 | 15,711.45 | 5,832.00 | 146.59 | 147.45 | 151.31 | 9,809.75 | -467.38 | 344.26 | 171.73 | 172.53 | 1.995 | |
| 15,500.00 | 5,530.00 | 15,811.45 | 5,832.00 | 148.05 | 148.91 | 151.31 | 9,909.75 | -467.38 | 344.26 | 170.06 | 174.21 | 1.976 | |
| 15,600.00 | 5,530.00 | 15,911.45 | 5,832.00 | 149.51 | 150.36 | 151.31 | 10,009.75 | -467.38 | 344.27 | 168.39 | 175.88 | 1.957 | |
| 15,700.00 | 5,530.00 | 16,011.45 | 5,832.00 | 150.97 | 151.82 | 151.31 | 10,109.75 | -467.38 | 344.27 | 166.72 | 177.55 | 1.939 | |
| 15,722.97 | 5,530.00 | 16,034.42 | 5,832.00 | 151.30 | 152.16 | 151.31 | 10,132.72 | -467.38 | 344.27 | 166.33 | 177.94 | 1.935 SF | |



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 129.22 | -49.59 | 60.75 | 78.42 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.13 | 0.13 | 129.22 | -49.59 | 60.75 | 78.42 | 78.16 | 0.27 | 294.440 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.47 | 0.47 | 129.22 | -49.59 | 60.75 | 78.42 | 77.48 | 0.94 | 83.372 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.81 | 0.81 | 129.22 | -49.59 | 60.75 | 78.42 | 76.81 | 1.61 | 48.561 CC | | |
| 400.00 | 399.98 | 400.51 | 400.49 | 1.12 | 1.12 | -120.60 | -50.72 | 59.40 | 78.99 | 76.75 | 2.24 | 35.321 ES | | |
| 500.00 | 499.84 | 500.87 | 500.71 | 1.44 | 1.43 | -120.18 | -54.04 | 55.45 | 80.71 | 77.86 | 2.85 | 28.353 | | |
| 600.00 | 599.45 | 600.80 | 600.45 | 1.77 | 1.74 | -121.17 | -57.96 | 50.78 | 84.03 | 80.53 | 3.50 | 24.022 | | |
| 700.00 | 698.70 | 700.56 | 700.03 | 2.12 | 2.07 | -123.94 | -61.88 | 46.11 | 89.28 | 85.10 | 4.18 | 21.376 | | |
| 800.00 | 797.48 | 800.05 | 799.34 | 2.49 | 2.40 | -127.99 | -65.78 | 41.46 | 96.77 | 91.89 | 4.87 | 19.867 | | |
| 900.00 | 896.11 | 899.44 | 898.54 | 2.89 | 2.74 | -131.93 | -69.68 | 36.81 | 105.34 | 99.77 | 5.57 | 18.915 | | |
| 1,000.00 | 994.74 | 998.83 | 997.75 | 3.28 | 3.08 | -135.26 | -73.58 | 32.16 | 114.33 | 108.06 | 6.27 | 18.238 | | |
| 1,100.00 | 1,093.37 | 1,098.22 | 1,096.95 | 3.69 | 3.43 | -138.09 | -77.48 | 27.51 | 123.65 | 116.68 | 6.97 | 17.745 | | |
| 1,200.00 | 1,192.00 | 1,197.62 | 1,196.16 | 4.10 | 3.77 | -140.53 | -81.38 | 22.87 | 133.23 | 125.56 | 7.67 | 17.377 | | |
| 1,300.00 | 1,290.63 | 1,297.01 | 1,295.37 | 4.51 | 4.12 | -142.64 | -85.28 | 18.22 | 143.02 | 134.65 | 8.36 | 17.098 | | |
| 1,400.00 | 1,389.26 | 1,396.40 | 1,394.57 | 4.92 | 4.47 | -144.47 | -89.18 | 13.57 | 152.97 | 143.91 | 9.06 | 16.881 | | |
| 1,500.00 | 1,487.88 | 1,495.79 | 1,493.78 | 5.33 | 4.81 | -146.08 | -93.08 | 8.92 | 163.06 | 153.30 | 9.76 | 16.712 | | |
| 1,600.00 | 1,586.51 | 1,595.18 | 1,592.98 | 5.75 | 5.16 | -147.50 | -96.98 | 4.27 | 173.26 | 162.81 | 10.45 | 16.576 | | |
| 1,700.00 | 1,685.14 | 1,694.57 | 1,692.19 | 6.16 | 5.51 | -148.77 | -100.88 | -0.37 | 183.56 | 172.41 | 11.15 | 16.467 | | |
| 1,800.00 | 1,783.77 | 1,793.96 | 1,791.40 | 6.58 | 5.86 | -149.89 | -104.78 | -5.02 | 193.93 | 182.09 | 11.84 | 16.378 | | |
| 1,900.00 | 1,882.40 | 1,893.36 | 1,890.60 | 6.99 | 6.21 | -150.91 | -108.68 | -9.67 | 204.38 | 191.84 | 12.53 | 16.305 | | |
| 2,000.00 | 1,981.03 | 1,992.75 | 1,989.81 | 7.41 | 6.56 | -151.82 | -112.58 | -14.32 | 214.88 | 201.65 | 13.23 | 16.244 | | |
| 2,100.00 | 2,079.66 | 2,092.14 | 2,089.01 | 7.83 | 6.91 | -152.65 | -116.48 | -18.97 | 225.43 | 211.50 | 13.92 | 16.193 | | |
| 2,200.00 | 2,178.28 | 2,191.53 | 2,188.22 | 8.25 | 7.25 | -153.41 | -120.38 | -23.61 | 236.02 | 221.40 | 14.61 | 16.150 | | |
| 2,300.00 | 2,276.91 | 2,290.92 | 2,287.43 | 8.66 | 7.60 | -154.10 | -124.28 | -28.26 | 246.65 | 231.34 | 15.31 | 16.113 | | |
| 2,400.00 | 2,375.54 | 2,390.31 | 2,386.63 | 9.08 | 7.95 | -154.73 | -128.18 | -32.91 | 257.31 | 241.31 | 16.00 | 16.082 | | |
| 2,500.00 | 2,474.17 | 2,489.70 | 2,485.84 | 9.50 | 8.30 | -155.32 | -132.08 | -37.56 | 268.00 | 251.31 | 16.69 | 16.055 | | |
| 2,600.00 | 2,572.80 | 2,589.10 | 2,585.04 | 9.92 | 8.65 | -155.86 | -135.99 | -42.21 | 278.71 | 261.33 | 17.39 | 16.032 | | |
| 2,700.00 | 2,671.43 | 2,688.49 | 2,684.25 | 10.34 | 9.00 | -156.35 | -139.89 | -46.85 | 289.45 | 271.37 | 18.08 | 16.012 | | |
| 2,800.00 | 2,770.05 | 2,787.88 | 2,783.46 | 10.76 | 9.35 | -156.82 | -143.79 | -51.50 | 300.21 | 281.44 | 18.77 | 15.994 | | |
| 2,900.00 | 2,868.68 | 2,887.27 | 2,882.66 | 11.18 | 9.70 | -157.25 | -147.69 | -56.15 | 310.99 | 291.52 | 19.46 | 15.979 | | |
| 3,000.00 | 2,967.31 | 2,986.66 | 2,981.87 | 11.60 | 10.05 | -157.65 | -151.59 | -60.80 | 321.78 | 301.62 | 20.15 | 15.966 | | |
| 3,100.00 | 3,065.94 | 3,086.05 | 3,081.07 | 12.02 | 10.41 | -158.02 | -155.49 | -65.45 | 332.59 | 311.74 | 20.85 | 15.954 | | |
| 3,200.00 | 3,164.57 | 3,185.44 | 3,180.28 | 12.43 | 10.76 | -158.38 | -159.39 | -70.10 | 343.41 | 321.87 | 21.54 | 15.943 | | |
| 3,300.00 | 3,263.20 | 3,284.84 | 3,279.49 | 12.85 | 11.11 | -158.71 | -163.29 | -74.74 | 354.24 | 332.01 | 22.23 | 15.934 | | |
| 3,400.00 | 3,361.83 | 3,384.23 | 3,378.69 | 13.27 | 11.46 | -159.02 | -167.19 | -79.39 | 365.08 | 342.16 | 22.92 | 15.926 | | |
| 3,500.00 | 3,460.45 | 3,483.62 | 3,477.90 | 13.69 | 11.81 | -159.31 | -171.09 | -84.04 | 375.94 | 352.32 | 23.62 | 15.919 | | |
| 3,600.00 | 3,559.08 | 3,583.01 | 3,577.10 | 14.11 | 12.16 | -159.59 | -174.99 | -88.69 | 386.80 | 362.49 | 24.31 | 15.912 | | |
| 3,700.00 | 3,657.71 | 3,682.40 | 3,676.31 | 14.53 | 12.51 | -159.85 | -178.89 | -93.34 | 397.67 | 372.67 | 25.00 | 15.906 | | |
| 3,800.00 | 3,756.34 | 3,781.79 | 3,775.52 | 14.95 | 12.86 | -160.10 | -182.79 | -97.98 | 408.55 | 382.85 | 25.69 | 15.901 | | |
| 3,900.00 | 3,854.97 | 3,881.18 | 3,874.72 | 15.37 | 13.21 | -160.33 | -186.69 | -102.63 | 419.43 | 393.05 | 26.39 | 15.896 | | |
| 4,000.00 | 3,953.60 | 3,980.58 | 3,973.93 | 15.79 | 13.56 | -160.56 | -190.59 | -107.28 | 430.33 | 403.25 | 27.08 | 15.892 | | |
| 4,100.00 | 4,052.23 | 4,079.97 | 4,073.13 | 16.21 | 13.91 | -160.77 | -194.49 | -111.93 | 441.22 | 413.45 | 27.77 | 15.888 | | |
| 4,200.00 | 4,150.85 | 4,179.36 | 4,172.34 | 16.63 | 14.26 | -160.97 | -198.39 | -116.58 | 452.13 | 423.67 | 28.46 | 15.885 | | |
| 4,300.00 | 4,249.48 | 4,278.75 | 4,271.55 | 17.05 | 14.61 | -161.16 | -202.29 | -121.22 | 463.04 | 433.88 | 29.16 | 15.882 | | |
| 4,400.00 | 4,348.13 | 4,378.15 | 4,370.76 | 17.46 | 14.96 | -161.36 | -206.19 | -125.87 | 473.85 | 444.01 | 29.84 | 15.878 | | |
| 4,500.00 | 4,447.15 | 4,477.79 | 4,470.21 | 17.87 | 15.31 | -161.49 | -210.10 | -130.53 | 484.30 | 454.84 | 30.46 | 15.833 | | |
| 4,600.00 | 4,546.60 | 4,574.40 | 4,566.65 | 18.29 | 15.64 | -161.47 | -213.82 | -134.97 | 494.54 | 465.49 | 31.04 | 15.704 | | |
| 4,700.00 | 4,646.35 | 4,674.54 | 4,666.73 | 18.71 | 15.97 | -161.49 | -217.54 | -139.48 | 504.79 | 476.24 | 31.62 | 15.588 | | |
| 4,800.00 | 4,746.28 | 4,774.10 | 4,766.28 | 19.13 | 16.30 | -161.57 | -221.26 | -144.00 | 515.04 | 487.00 | 32.20 | 15.472 | | |
| 4,900.00 | 4,846.28 | 4,874.10 | 4,866.28 | 19.55 | 16.62 | 88.41 | -225.00 | -148.50 | 525.29 | 497.75 | 32.78 | 15.356 | | |
| 5,000.00 | 4,946.28 | 4,974.10 | 4,966.28 | 20.00 | 16.94 | 88.41 | -228.75 | -153.00 | 535.54 | 508.50 | 33.36 | 15.240 | | |
| 5,100.00 | 5,046.25 | 5,074.07 | 5,066.25 | 20.42 | 17.26 | 88.57 | -232.50 | -157.50 | 545.79 | 519.25 | 33.94 | 15.124 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 5,194.96 | 5,139.83 | 5,147.75 | 5,139.83 | 19.44 | 17.19 | 90.00 | -213.38 | -138.00 | 494.17 | 460.02 | 34.15 | 14.470 | | |
| 5,200.00 | 5,144.70 | 5,152.74 | 5,144.78 | 19.45 | 17.20 | 90.08 | -212.83 | -138.00 | 494.18 | 459.99 | 34.18 | 14.457 | | |
| 5,300.00 | 5,238.17 | 5,253.21 | 5,242.83 | 19.66 | 17.46 | 91.76 | -191.60 | -138.00 | 494.41 | 459.70 | 34.72 | 14.241 | | |
| 5,400.00 | 5,323.23 | 5,356.66 | 5,337.59 | 19.82 | 17.70 | 93.39 | -150.54 | -138.00 | 495.06 | 459.86 | 35.20 | 14.065 | | |
| 5,500.00 | 5,396.74 | 5,463.19 | 5,424.73 | 19.93 | 17.93 | 94.91 | -89.57 | -138.00 | 496.04 | 460.39 | 35.65 | 13.915 | | |
| 5,600.00 | 5,456.01 | 5,572.78 | 5,499.52 | 20.01 | 18.14 | 96.27 | -9.75 | -138.00 | 497.20 | 461.08 | 36.12 | 13.766 | | |
| 5,700.00 | 5,498.86 | 5,685.17 | 5,557.17 | 20.05 | 18.37 | 97.38 | 86.47 | -137.99 | 498.36 | 461.68 | 36.68 | 13.587 | | |
| 5,800.00 | 5,523.71 | 5,799.89 | 5,593.38 | 20.08 | 18.74 | 98.19 | 195.09 | -137.99 | 499.32 | 461.93 | 37.39 | 13.353 | | |
| 5,900.00 | 5,530.00 | 5,915.36 | 5,605.00 | 20.15 | 19.25 | 98.63 | 309.73 | -137.98 | 499.88 | 461.59 | 38.29 | 13.055 | | |
| 6,000.00 | 5,530.00 | 6,015.36 | 5,605.00 | 20.34 | 19.80 | 98.63 | 409.73 | -137.98 | 499.89 | 460.57 | 39.32 | 12.714 | | |
| 6,100.00 | 5,530.00 | 6,115.36 | 5,605.00 | 20.74 | 20.44 | 98.63 | 509.73 | -137.98 | 499.89 | 459.37 | 40.52 | 12.335 | | |
| 6,200.00 | 5,530.00 | 6,215.36 | 5,605.00 | 21.32 | 21.17 | 98.63 | 609.73 | -137.97 | 499.90 | 458.00 | 41.90 | 11.931 | | |
| 6,300.00 | 5,530.00 | 6,315.36 | 5,605.00 | 22.03 | 21.96 | 98.63 | 709.73 | -137.97 | 499.91 | 456.48 | 43.43 | 11.511 | | |
| 6,400.00 | 5,530.00 | 6,415.36 | 5,605.00 | 22.82 | 22.83 | 98.63 | 809.73 | -137.96 | 499.92 | 454.83 | 45.09 | 11.087 | | |
| 6,500.00 | 5,530.00 | 6,515.36 | 5,605.00 | 23.69 | 23.76 | 98.63 | 909.73 | -137.96 | 499.93 | 453.05 | 46.88 | 10.664 | | |
| 6,600.00 | 5,530.00 | 6,615.36 | 5,605.00 | 24.62 | 24.73 | 98.63 | 1,009.73 | -137.96 | 499.94 | 451.16 | 48.77 | 10.250 | | |
| 6,700.00 | 5,530.00 | 6,715.36 | 5,605.00 | 25.60 | 25.76 | 98.63 | 1,109.73 | -137.95 | 499.95 | 449.18 | 50.77 | 9.848 | | |
| 6,800.00 | 5,530.00 | 6,815.36 | 5,605.00 | 26.63 | 26.82 | 98.63 | 1,209.73 | -137.95 | 499.95 | 447.11 | 52.84 | 9.461 | | |
| 6,900.00 | 5,530.00 | 6,915.36 | 5,605.00 | 27.69 | 27.93 | 98.63 | 1,309.73 | -137.94 | 499.96 | 444.97 | 55.00 | 9.091 | | |
| 7,000.00 | 5,530.00 | 7,015.36 | 5,605.00 | 28.79 | 29.06 | 98.63 | 1,409.73 | -137.94 | 499.97 | 442.75 | 57.22 | 8.738 | | |
| 7,100.00 | 5,530.00 | 7,115.36 | 5,605.00 | 29.93 | 30.23 | 98.63 | 1,509.73 | -137.94 | 499.98 | 440.48 | 59.50 | 8.403 | | |
| 7,200.00 | 5,530.00 | 7,215.36 | 5,605.00 | 31.09 | 31.42 | 98.63 | 1,609.73 | -137.93 | 499.99 | 438.16 | 61.83 | 8.086 | | |
| 7,300.00 | 5,530.00 | 7,315.36 | 5,605.00 | 32.27 | 32.63 | 98.63 | 1,709.73 | -137.93 | 500.00 | 435.78 | 64.21 | 7.787 | | |
| 7,400.00 | 5,530.00 | 7,415.36 | 5,605.00 | 33.48 | 33.87 | 98.63 | 1,809.73 | -137.92 | 500.00 | 433.37 | 66.64 | 7.503 | | |
| 7,500.00 | 5,530.00 | 7,515.36 | 5,605.00 | 34.71 | 35.12 | 98.63 | 1,909.73 | -137.92 | 500.01 | 430.91 | 69.10 | 7.236 | | |
| 7,600.00 | 5,530.00 | 7,615.36 | 5,605.00 | 35.95 | 36.39 | 98.63 | 2,009.73 | -137.92 | 500.02 | 428.43 | 71.59 | 6.984 | | |
| 7,700.00 | 5,530.00 | 7,715.36 | 5,605.00 | 37.22 | 37.67 | 98.63 | 2,109.73 | -137.91 | 500.03 | 425.91 | 74.12 | 6.746 | | |
| 7,800.00 | 5,530.00 | 7,815.36 | 5,605.00 | 38.49 | 38.97 | 98.63 | 2,209.73 | -137.91 | 500.04 | 423.36 | 76.67 | 6.522 | | |
| 7,900.00 | 5,530.00 | 7,915.36 | 5,605.00 | 39.78 | 40.28 | 98.63 | 2,309.73 | -137.90 | 500.05 | 420.80 | 79.25 | 6.310 | | |
| 8,000.00 | 5,530.00 | 8,015.36 | 5,605.00 | 41.09 | 41.59 | 98.63 | 2,409.73 | -137.90 | 500.05 | 418.20 | 81.85 | 6.109 | | |
| 8,100.00 | 5,530.00 | 8,115.36 | 5,605.00 | 42.40 | 42.92 | 98.63 | 2,509.73 | -137.90 | 500.06 | 415.59 | 84.47 | 5.920 | | |
| 8,200.00 | 5,530.00 | 8,215.36 | 5,605.00 | 43.72 | 44.26 | 98.63 | 2,609.73 | -137.89 | 500.07 | 412.96 | 87.11 | 5.740 | | |
| 8,300.00 | 5,530.00 | 8,315.36 | 5,605.00 | 45.05 | 45.61 | 98.63 | 2,709.73 | -137.89 | 500.08 | 410.31 | 89.77 | 5.571 | | |
| 8,400.00 | 5,530.00 | 8,415.36 | 5,605.00 | 46.39 | 46.96 | 98.63 | 2,809.73 | -137.89 | 500.09 | 407.65 | 92.44 | 5.410 | | |
| 8,500.00 | 5,530.00 | 8,515.36 | 5,605.00 | 47.74 | 48.32 | 98.63 | 2,909.73 | -137.88 | 500.10 | 404.97 | 95.13 | 5.257 | | |
| 8,600.00 | 5,530.00 | 8,615.36 | 5,605.00 | 49.10 | 49.69 | 98.63 | 3,009.73 | -137.88 | 500.10 | 402.28 | 97.83 | 5.112 | | |
| 8,700.00 | 5,530.00 | 8,715.36 | 5,605.00 | 50.46 | 51.06 | 98.63 | 3,109.73 | -137.87 | 500.11 | 399.57 | 100.54 | 4.974 | | |
| 8,800.00 | 5,530.00 | 8,815.36 | 5,605.00 | 51.83 | 52.44 | 98.62 | 3,209.73 | -137.87 | 500.12 | 396.86 | 103.26 | 4.843 | | |
| 8,900.00 | 5,530.00 | 8,915.36 | 5,605.00 | 53.20 | 53.83 | 98.62 | 3,309.73 | -137.87 | 500.13 | 394.14 | 105.99 | 4.718 | | |
| 9,000.00 | 5,530.00 | 9,015.36 | 5,605.00 | 54.58 | 55.21 | 98.62 | 3,409.73 | -137.86 | 500.14 | 391.40 | 108.74 | 4.600 | | |
| 9,100.00 | 5,530.00 | 9,115.36 | 5,605.00 | 55.96 | 56.61 | 98.62 | 3,509.73 | -137.86 | 500.15 | 388.66 | 111.49 | 4.486 | | |
| 9,200.00 | 5,530.00 | 9,215.36 | 5,605.00 | 57.35 | 58.00 | 98.62 | 3,609.73 | -137.85 | 500.16 | 385.91 | 114.25 | 4.378 | | |
| 9,300.00 | 5,530.00 | 9,315.36 | 5,605.00 | 58.74 | 59.40 | 98.62 | 3,709.73 | -137.85 | 500.16 | 383.15 | 117.01 | 4.274 | | |
| 9,400.00 | 5,530.00 | 9,415.36 | 5,605.00 | 60.13 | 60.81 | 98.62 | 3,809.73 | -137.85 | 500.17 | 380.39 | 119.79 | 4.176 | | |
| 9,500.00 | 5,530.00 | 9,515.36 | 5,605.00 | 61.53 | 62.21 | 98.62 | 3,909.73 | -137.84 | 500.18 | 377.62 | 122.57 | 4.081 | | |
| 9,600.00 | 5,530.00 | 9,615.36 | 5,605.00 | 62.93 | 63.62 | 98.62 | 4,009.73 | -137.84 | 500.19 | 374.84 | 125.35 | 3.990 | | |
| 9,700.00 | 5,530.00 | 9,715.36 | 5,605.00 | 64.34 | 65.03 | 98.62 | 4,109.73 | -137.83 | 500.20 | 372.05 | 128.14 | 3.903 | | |
| 9,800.00 | 5,530.00 | 9,815.36 | 5,605.00 | 65.75 | 66.45 | 98.62 | 4,209.73 | -137.83 | 500.21 | 369.27 | 130.94 | 3.820 | | |
| 9,900.00 | 5,530.00 | 9,915.36 | 5,605.00 | 67.16 | 67.86 | 98.62 | 4,309.73 | -137.83 | 500.21 | 366.47 | 133.74 | 3.740 | | |
| 10,000.00 | 5,530.00 | 10,015.36 | 5,605.00 | 68.57 | 69.28 | 98.62 | 4,409.73 | -137.82 | 500.22 | 363.67 | 136.55 | 3.663 | | |
| 10,100.00 | 5,530.00 | 10,115.36 | 5,605.00 | 69.99 | 70.70 | 98.62 | 4,509.73 | -137.82 | 500.23 | 360.87 | 139.36 | 3.590 | | |
| 10,200.00 | 5,530.00 | 10,215.36 | 5,605.00 | 71.40 | 72.13 | 98.62 | 4,609.73 | -137.82 | 500.24 | 358.06 | 142.17 | 3.518 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 10,300.00 | 5,530.00 | 10,315.36 | 5,605.00 | 72.82 | 73.55 | 98.62 | 4,709.73 | -137.81 | 500.25 | 355.25 | 144.99 | 3.450 | | |
| 10,400.00 | 5,530.00 | 10,415.36 | 5,605.00 | 74.25 | 74.98 | 98.62 | 4,809.73 | -137.81 | 500.26 | 352.44 | 147.82 | 3.384 | | |
| 10,500.00 | 5,530.00 | 10,515.36 | 5,605.00 | 75.67 | 76.41 | 98.62 | 4,909.73 | -137.80 | 500.26 | 349.62 | 150.64 | 3.321 | | |
| 10,600.00 | 5,530.00 | 10,615.36 | 5,605.00 | 77.09 | 77.84 | 98.62 | 5,009.73 | -137.80 | 500.27 | 346.80 | 153.47 | 3.260 | | |
| 10,700.00 | 5,530.00 | 10,715.36 | 5,605.00 | 78.52 | 79.27 | 98.62 | 5,109.73 | -137.80 | 500.28 | 343.98 | 156.30 | 3.201 | | |
| 10,800.00 | 5,530.00 | 10,815.36 | 5,605.00 | 79.95 | 80.71 | 98.62 | 5,209.73 | -137.79 | 500.29 | 341.15 | 159.14 | 3.144 | | |
| 10,900.00 | 5,530.00 | 10,915.36 | 5,605.00 | 81.38 | 82.14 | 98.62 | 5,309.73 | -137.79 | 500.30 | 338.32 | 161.98 | 3.089 | | |
| 11,000.00 | 5,530.00 | 11,015.36 | 5,605.00 | 82.81 | 83.58 | 98.62 | 5,409.73 | -137.78 | 500.31 | 335.49 | 164.82 | 3.036 | | |
| 11,100.00 | 5,530.00 | 11,115.36 | 5,605.00 | 84.25 | 85.01 | 98.62 | 5,509.73 | -137.78 | 500.31 | 332.65 | 167.66 | 2.984 | | |
| 11,200.00 | 5,530.00 | 11,215.36 | 5,605.00 | 85.68 | 86.45 | 98.62 | 5,609.73 | -137.78 | 500.32 | 329.82 | 170.51 | 2.934 | | |
| 11,300.00 | 5,530.00 | 11,315.36 | 5,605.00 | 87.12 | 87.89 | 98.62 | 5,709.73 | -137.77 | 500.33 | 326.98 | 173.36 | 2.886 | | |
| 11,400.00 | 5,530.00 | 11,415.36 | 5,605.00 | 88.55 | 89.33 | 98.62 | 5,809.73 | -137.77 | 500.34 | 324.13 | 176.21 | 2.840 | | |
| 11,500.00 | 5,530.00 | 11,515.36 | 5,605.00 | 89.99 | 90.77 | 98.62 | 5,909.73 | -137.76 | 500.35 | 321.29 | 179.06 | 2.794 | | |
| 11,600.00 | 5,530.00 | 11,615.36 | 5,605.00 | 91.43 | 92.22 | 98.62 | 6,009.73 | -137.76 | 500.36 | 318.44 | 181.91 | 2.751 | | |
| 11,700.00 | 5,530.00 | 11,715.36 | 5,605.00 | 92.87 | 93.66 | 98.62 | 6,109.73 | -137.76 | 500.37 | 315.60 | 184.77 | 2.708 | | |
| 11,800.00 | 5,530.00 | 11,815.36 | 5,605.00 | 94.31 | 95.10 | 98.62 | 6,209.73 | -137.75 | 500.37 | 312.75 | 187.63 | 2.667 | | |
| 11,900.00 | 5,530.00 | 11,915.36 | 5,605.00 | 95.75 | 96.55 | 98.62 | 6,309.73 | -137.75 | 500.38 | 309.90 | 190.49 | 2.627 | | |
| 12,000.00 | 5,530.00 | 12,015.36 | 5,605.00 | 97.20 | 97.99 | 98.62 | 6,409.73 | -137.75 | 500.39 | 307.04 | 193.35 | 2.588 | | |
| 12,100.00 | 5,530.00 | 12,115.36 | 5,605.00 | 98.64 | 99.44 | 98.62 | 6,509.73 | -137.74 | 500.40 | 304.19 | 196.21 | 2.550 | | |
| 12,200.00 | 5,530.00 | 12,215.36 | 5,605.00 | 100.08 | 100.89 | 98.62 | 6,609.73 | -137.74 | 500.41 | 301.33 | 199.07 | 2.514 | | |
| 12,300.00 | 5,530.00 | 12,315.36 | 5,605.00 | 101.53 | 102.34 | 98.62 | 6,709.73 | -137.73 | 500.42 | 298.48 | 201.94 | 2.478 | | |
| 12,400.00 | 5,530.00 | 12,415.36 | 5,605.00 | 102.97 | 103.78 | 98.62 | 6,809.73 | -137.73 | 500.42 | 295.62 | 204.81 | 2.443 | | |
| 12,500.00 | 5,530.00 | 12,515.36 | 5,605.00 | 104.42 | 105.23 | 98.62 | 6,909.73 | -137.73 | 500.43 | 292.76 | 207.67 | 2.410 | | |
| 12,600.00 | 5,530.00 | 12,615.36 | 5,605.00 | 105.87 | 106.68 | 98.62 | 7,009.73 | -137.72 | 500.44 | 289.90 | 210.54 | 2.377 | | |
| 12,700.00 | 5,530.00 | 12,715.36 | 5,605.00 | 107.32 | 108.13 | 98.62 | 7,109.73 | -137.72 | 500.45 | 287.04 | 213.41 | 2.345 | | |
| 12,800.00 | 5,530.00 | 12,815.36 | 5,605.00 | 108.77 | 109.59 | 98.62 | 7,209.73 | -137.71 | 500.46 | 284.17 | 216.29 | 2.314 | | |
| 12,900.00 | 5,530.00 | 12,915.36 | 5,605.00 | 110.21 | 111.04 | 98.62 | 7,309.73 | -137.71 | 500.47 | 281.31 | 219.16 | 2.284 | | |
| 13,000.00 | 5,530.00 | 13,015.36 | 5,605.00 | 111.66 | 112.49 | 98.62 | 7,409.73 | -137.71 | 500.47 | 278.44 | 222.03 | 2.254 | | |
| 13,100.00 | 5,530.00 | 13,115.36 | 5,605.00 | 113.11 | 113.94 | 98.62 | 7,509.73 | -137.70 | 500.48 | 275.58 | 224.91 | 2.225 | | |
| 13,200.00 | 5,530.00 | 13,215.36 | 5,605.00 | 114.57 | 115.40 | 98.62 | 7,609.73 | -137.70 | 500.49 | 272.71 | 227.78 | 2.197 | | |
| 13,300.00 | 5,530.00 | 13,315.36 | 5,605.00 | 116.02 | 116.85 | 98.62 | 7,709.73 | -137.69 | 500.50 | 269.84 | 230.66 | 2.170 | | |
| 13,400.00 | 5,530.00 | 13,415.36 | 5,605.00 | 117.47 | 118.30 | 98.62 | 7,809.73 | -137.69 | 500.51 | 266.97 | 233.54 | 2.143 | | |
| 13,500.00 | 5,530.00 | 13,515.36 | 5,605.00 | 118.92 | 119.76 | 98.62 | 7,909.73 | -137.69 | 500.52 | 264.10 | 236.42 | 2.117 | | |
| 13,600.00 | 5,530.00 | 13,615.36 | 5,605.00 | 120.37 | 121.21 | 98.62 | 8,009.73 | -137.68 | 500.52 | 261.23 | 239.30 | 2.092 | | |
| 13,700.00 | 5,530.00 | 13,715.36 | 5,605.00 | 121.83 | 122.67 | 98.62 | 8,109.73 | -137.68 | 500.53 | 258.36 | 242.18 | 2.067 | | |
| 13,800.00 | 5,530.00 | 13,815.36 | 5,605.00 | 123.28 | 124.12 | 98.62 | 8,209.73 | -137.68 | 500.54 | 255.48 | 245.06 | 2.043 | | |
| 13,900.00 | 5,530.00 | 13,915.36 | 5,605.00 | 124.74 | 125.58 | 98.62 | 8,309.73 | -137.67 | 500.55 | 252.61 | 247.94 | 2.019 | | |
| 14,000.00 | 5,530.00 | 14,015.36 | 5,605.00 | 126.19 | 127.04 | 98.62 | 8,409.73 | -137.67 | 500.56 | 249.74 | 250.82 | 1.996 | | |
| 14,100.00 | 5,530.00 | 14,115.36 | 5,605.00 | 127.65 | 128.49 | 98.62 | 8,509.73 | -137.66 | 500.57 | 246.86 | 253.71 | 1.973 | | |
| 14,200.00 | 5,530.00 | 14,215.36 | 5,605.00 | 129.10 | 129.95 | 98.62 | 8,609.73 | -137.66 | 500.58 | 243.99 | 256.59 | 1.951 | | |
| 14,300.00 | 5,530.00 | 14,315.36 | 5,605.00 | 130.56 | 131.41 | 98.62 | 8,709.73 | -137.66 | 500.58 | 241.11 | 259.47 | 1.929 | | |
| 14,400.00 | 5,530.00 | 14,415.36 | 5,605.00 | 132.01 | 132.86 | 98.62 | 8,809.73 | -137.65 | 500.59 | 238.23 | 262.36 | 1.908 | | |
| 14,500.00 | 5,530.00 | 14,515.36 | 5,605.00 | 133.47 | 134.32 | 98.62 | 8,909.73 | -137.65 | 500.60 | 235.35 | 265.25 | 1.887 | | |
| 14,600.00 | 5,530.00 | 14,615.36 | 5,605.00 | 134.93 | 135.78 | 98.62 | 9,009.73 | -137.64 | 500.61 | 232.48 | 268.13 | 1.867 | | |
| 14,700.00 | 5,530.00 | 14,715.36 | 5,605.00 | 136.38 | 137.24 | 98.62 | 9,109.73 | -137.64 | 500.62 | 229.60 | 271.02 | 1.847 | | |
| 14,800.00 | 5,530.00 | 14,815.36 | 5,605.00 | 137.84 | 138.70 | 98.62 | 9,209.73 | -137.64 | 500.63 | 226.72 | 273.91 | 1.828 | | |
| 14,900.00 | 5,530.00 | 14,915.36 | 5,605.00 | 139.30 | 140.16 | 98.62 | 9,309.73 | -137.63 | 500.63 | 223.84 | 276.80 | 1.809 | | |
| 15,000.00 | 5,530.00 | 15,015.36 | 5,605.00 | 140.76 | 141.62 | 98.62 | 9,409.73 | -137.63 | 500.64 | 220.96 | 279.68 | 1.790 | | |
| 15,100.00 | 5,530.00 | 15,115.36 | 5,605.00 | 142.21 | 143.08 | 98.62 | 9,509.73 | -137.62 | 500.65 | 218.08 | 282.57 | 1.772 | | |
| 15,200.00 | 5,530.00 | 15,215.36 | 5,605.00 | 143.67 | 144.54 | 98.62 | 9,609.73 | -137.62 | 500.66 | 215.20 | 285.46 | 1.754 | | |
| 15,300.00 | 5,530.00 | 15,315.36 | 5,605.00 | 145.13 | 146.00 | 98.62 | 9,709.73 | -137.62 | 500.67 | 212.31 | 288.35 | 1.736 | | |
| 15,400.00 | 5,530.00 | 15,415.36 | 5,605.00 | 146.59 | 147.46 | 98.62 | 9,809.73 | -137.61 | 500.68 | 209.43 | 291.24 | 1.719 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design Sec 25-T10N-R58W - Razor #25P-2447 - Hz - APD | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | |
| 15,500.00 | 5,530.00 | 15,515.36 | 5,605.00 | 148.05 | 148.92 | 98.62 | 9,909.73 | -137.61 | 500.68 | 206.55 | 294.14 | 1.702 | |
| 15,600.00 | 5,530.00 | 15,615.36 | 5,605.00 | 149.51 | 150.38 | 98.62 | 10,009.73 | -137.61 | 500.69 | 203.67 | 297.03 | 1.686 | |
| 15,700.00 | 5,530.00 | 15,715.36 | 5,605.00 | 150.97 | 151.84 | 98.61 | 10,109.73 | -137.60 | 500.70 | 200.78 | 299.92 | 1.669 | |
| 15,722.97 | 5,530.00 | 15,738.33 | 5,605.00 | 151.30 | 152.17 | 98.61 | 10,132.70 | -137.60 | 500.70 | 200.12 | 300.58 | 1.666 SF | |



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Sec 25-T10N-R58W - Razor #25P-2448 - Hz - APD | | Offset Site Error: | | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|---|---------|--------------------|--|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | | 0.00 usft | | |
| Reference | | Offset | | Semi Major Axis | | Distance | | | | | | | | Warning | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 118.16 | -48.57 | 90.75 | 102.93 | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.13 | 0.13 | 118.16 | -48.57 | 90.75 | 102.93 | 102.66 | 0.27 | 386.445 | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.47 | 0.47 | 118.16 | -48.57 | 90.75 | 102.93 | 101.99 | 0.94 | 109.424 | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.81 | 0.81 | 118.16 | -48.57 | 90.75 | 102.93 | 101.31 | 1.61 | 63.735 CC, ES | | | | | |
| 400.00 | 399.98 | 396.97 | 396.95 | 1.12 | 1.10 | -132.02 | -50.00 | 91.57 | 105.53 | 103.30 | 2.23 | 47.369 | | | | | |
| 500.00 | 499.84 | 494.99 | 494.86 | 1.44 | 1.40 | -132.60 | -54.01 | 93.89 | 113.04 | 110.20 | 2.85 | 39.711 | | | | | |
| 600.00 | 599.45 | 594.39 | 594.12 | 1.77 | 1.70 | -134.12 | -58.52 | 96.49 | 123.40 | 119.91 | 3.49 | 35.389 | | | | | |
| 700.00 | 698.70 | 693.39 | 692.99 | 2.12 | 2.02 | -136.37 | -63.01 | 99.08 | 136.33 | 132.18 | 4.15 | 32.852 | | | | | |
| 800.00 | 797.48 | 791.90 | 791.36 | 2.49 | 2.35 | -139.08 | -67.47 | 101.66 | 151.98 | 147.16 | 4.82 | 31.511 | | | | | |
| 900.00 | 896.11 | 890.24 | 889.57 | 2.89 | 2.68 | -141.62 | -71.93 | 104.23 | 168.70 | 163.21 | 5.50 | 30.696 | | | | | |
| 1,000.00 | 994.74 | 988.59 | 987.78 | 3.28 | 3.01 | -143.70 | -76.39 | 106.80 | 185.68 | 179.51 | 6.17 | 30.073 | | | | | |
| 1,100.00 | 1,093.37 | 1,086.93 | 1,085.99 | 3.69 | 3.35 | -145.43 | -80.84 | 109.38 | 202.86 | 196.00 | 6.86 | 29.586 | | | | | |
| 1,200.00 | 1,192.00 | 1,185.27 | 1,184.20 | 4.10 | 3.68 | -146.89 | -85.30 | 111.95 | 220.19 | 212.65 | 7.54 | 29.197 | | | | | |
| 1,300.00 | 1,290.63 | 1,283.62 | 1,282.41 | 4.51 | 4.02 | -148.14 | -89.76 | 114.52 | 237.64 | 229.41 | 8.23 | 28.880 | | | | | |
| 1,400.00 | 1,389.26 | 1,381.96 | 1,380.61 | 4.92 | 4.36 | -149.21 | -94.21 | 117.10 | 255.19 | 246.27 | 8.92 | 28.618 | | | | | |
| 1,500.00 | 1,487.88 | 1,480.30 | 1,478.82 | 5.33 | 4.70 | -150.15 | -98.67 | 119.67 | 272.81 | 263.20 | 9.61 | 28.397 | | | | | |
| 1,600.00 | 1,586.51 | 1,578.65 | 1,577.03 | 5.75 | 5.04 | -150.97 | -103.13 | 122.24 | 290.49 | 280.19 | 10.30 | 28.211 | | | | | |
| 1,700.00 | 1,685.14 | 1,676.99 | 1,675.24 | 6.16 | 5.38 | -151.70 | -107.59 | 124.82 | 308.23 | 297.24 | 10.99 | 28.051 | | | | | |
| 1,800.00 | 1,783.77 | 1,775.33 | 1,773.45 | 6.58 | 5.73 | -152.35 | -112.04 | 127.39 | 326.00 | 314.32 | 11.68 | 27.912 | | | | | |
| 1,900.00 | 1,882.40 | 1,873.68 | 1,871.66 | 6.99 | 6.07 | -152.94 | -116.50 | 129.96 | 343.82 | 331.45 | 12.37 | 27.791 | | | | | |
| 2,000.00 | 1,981.03 | 1,972.02 | 1,969.87 | 7.41 | 6.41 | -153.46 | -120.96 | 132.54 | 361.66 | 348.60 | 13.06 | 27.684 | | | | | |
| 2,100.00 | 2,079.66 | 2,070.36 | 2,068.07 | 7.83 | 6.75 | -153.94 | -125.42 | 135.11 | 379.53 | 365.78 | 13.76 | 27.589 | | | | | |
| 2,200.00 | 2,178.28 | 2,168.71 | 2,166.28 | 8.25 | 7.09 | -154.37 | -129.87 | 137.68 | 397.43 | 382.98 | 14.45 | 27.504 | | | | | |
| 2,300.00 | 2,276.91 | 2,267.05 | 2,264.49 | 8.66 | 7.44 | -154.77 | -134.33 | 140.26 | 415.34 | 400.20 | 15.14 | 27.427 | | | | | |
| 2,400.00 | 2,375.54 | 2,365.39 | 2,362.70 | 9.08 | 7.78 | -155.13 | -138.79 | 142.83 | 433.28 | 417.44 | 15.84 | 27.359 | | | | | |
| 2,500.00 | 2,474.17 | 2,463.74 | 2,460.91 | 9.50 | 8.12 | -155.46 | -143.25 | 145.41 | 451.22 | 434.69 | 16.53 | 27.296 | | | | | |
| 2,600.00 | 2,572.80 | 2,562.08 | 2,559.12 | 9.92 | 8.46 | -155.77 | -147.70 | 147.98 | 469.19 | 451.96 | 17.22 | 27.239 | | | | | |
| 2,700.00 | 2,671.43 | 2,660.42 | 2,657.33 | 10.34 | 8.81 | -156.06 | -152.16 | 150.55 | 487.16 | 469.24 | 17.92 | 27.187 | | | | | |
| 2,800.00 | 2,770.05 | 2,758.77 | 2,755.53 | 10.76 | 9.15 | -156.32 | -156.62 | 153.13 | 505.15 | 486.53 | 18.61 | 27.139 | | | | | |
| 2,900.00 | 2,868.68 | 2,857.11 | 2,853.74 | 11.18 | 9.49 | -156.57 | -161.07 | 155.70 | 523.14 | 503.83 | 19.31 | 27.094 | | | | | |
| 3,000.00 | 2,967.31 | 2,955.45 | 2,951.95 | 11.60 | 9.84 | -156.80 | -165.53 | 158.27 | 541.14 | 521.14 | 20.00 | 27.054 | | | | | |
| 3,100.00 | 3,065.94 | 3,053.80 | 3,050.16 | 12.02 | 10.18 | -157.02 | -169.99 | 160.85 | 559.15 | 538.46 | 20.70 | 27.016 | | | | | |
| 3,200.00 | 3,164.57 | 3,152.14 | 3,148.37 | 12.43 | 10.52 | -157.22 | -174.45 | 163.42 | 577.17 | 555.78 | 21.39 | 26.980 | | | | | |
| 3,300.00 | 3,263.20 | 3,250.48 | 3,246.58 | 12.85 | 10.87 | -157.41 | -178.90 | 165.99 | 595.20 | 573.11 | 22.09 | 26.947 | | | | | |
| 3,400.00 | 3,361.83 | 3,348.83 | 3,344.79 | 13.27 | 11.21 | -157.59 | -183.36 | 168.57 | 613.23 | 590.45 | 22.78 | 26.917 | | | | | |
| 3,500.00 | 3,460.45 | 3,447.17 | 3,443.00 | 13.69 | 11.55 | -157.76 | -187.82 | 171.14 | 631.27 | 607.79 | 23.48 | 26.888 | | | | | |
| 3,600.00 | 3,559.08 | 3,545.51 | 3,541.20 | 14.11 | 11.90 | -157.92 | -192.28 | 173.71 | 649.31 | 625.14 | 24.17 | 26.861 | | | | | |
| 3,700.00 | 3,657.71 | 3,643.86 | 3,639.41 | 14.53 | 12.24 | -158.07 | -196.73 | 176.29 | 667.35 | 642.49 | 24.87 | 26.835 | | | | | |
| 3,800.00 | 3,756.34 | 3,742.20 | 3,737.62 | 14.95 | 12.58 | -158.21 | -201.19 | 178.86 | 685.41 | 659.84 | 25.56 | 26.811 | | | | | |
| 3,900.00 | 3,854.97 | 3,840.54 | 3,835.83 | 15.37 | 12.93 | -158.35 | -205.65 | 181.43 | 703.46 | 677.20 | 26.26 | 26.788 | | | | | |
| 4,000.00 | 3,953.60 | 3,938.89 | 3,934.04 | 15.79 | 13.27 | -158.48 | -210.11 | 184.01 | 721.52 | 694.56 | 26.96 | 26.767 | | | | | |
| 4,100.00 | 4,052.23 | 4,037.23 | 4,032.25 | 16.21 | 13.61 | -158.60 | -214.56 | 186.58 | 739.58 | 711.93 | 27.65 | 26.746 | | | | | |
| 4,200.00 | 4,150.85 | 4,135.58 | 4,130.46 | 16.63 | 13.96 | -158.71 | -219.02 | 189.15 | 757.64 | 729.30 | 28.35 | 26.727 | | | | | |
| 4,300.00 | 4,249.48 | 4,239.39 | 4,234.14 | 17.05 | 14.30 | -158.85 | -223.49 | 191.74 | 775.59 | 746.55 | 29.04 | 26.706 | | | | | |
| 4,400.00 | 4,348.13 | 4,353.41 | 4,348.13 | 17.46 | 14.64 | -159.24 | -225.34 | 192.80 | 791.87 | 762.15 | 29.72 | 26.644 | | | | | |
| 4,500.00 | 4,447.15 | 4,452.43 | 4,447.15 | 17.73 | 14.91 | -159.68 | -225.34 | 192.80 | 804.92 | 774.64 | 30.27 | 26.587 | | | | | |
| 4,600.00 | 4,546.60 | 4,551.87 | 4,546.60 | 17.99 | 15.16 | -160.00 | -225.34 | 192.80 | 814.74 | 783.94 | 30.80 | 26.452 | | | | | |
| 4,700.00 | 4,646.35 | 4,651.63 | 4,646.35 | 18.24 | 15.43 | -160.21 | -225.34 | 192.80 | 821.30 | 789.98 | 31.31 | 26.228 | | | | | |
| 4,800.00 | 4,746.28 | 4,751.56 | 4,746.28 | 18.47 | 15.69 | -160.32 | -225.34 | 192.80 | 824.58 | 792.77 | 31.81 | 25.922 | | | | | |
| 4,900.00 | 4,846.28 | 4,851.56 | 4,846.28 | 18.71 | 15.96 | 89.67 | -225.34 | 192.80 | 824.99 | 792.65 | 32.34 | 25.510 | | | | | |
| 5,000.00 | 4,946.28 | 4,951.56 | 4,946.28 | 18.97 | 16.23 | 89.67 | -225.34 | 192.80 | 824.99 | 792.11 | 32.89 | 25.087 | | | | | |
| 5,100.00 | 5,046.25 | 5,051.53 | 5,046.25 | 19.22 | 16.50 | 89.77 | -225.34 | 192.80 | 824.99 | 791.55 | 33.44 | 24.674 | | | | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 5,132.99 | 5,079.06 | 5,084.34 | 5,079.06 | 19.30 | 16.59 | 90.00 | -225.34 | 192.80 | 824.98 | 791.37 | 33.61 | 24.544 | | |
| 5,200.00 | 5,144.70 | 5,149.98 | 5,144.70 | 19.45 | 16.77 | 90.89 | -225.34 | 192.80 | 825.09 | 791.10 | 33.99 | 24.278 | | |
| 5,300.00 | 5,238.17 | 5,243.45 | 5,238.17 | 19.66 | 17.03 | 93.01 | -225.34 | 192.80 | 826.40 | 791.88 | 34.51 | 23.944 | | |
| 5,400.00 | 5,323.23 | 5,331.40 | 5,326.12 | 19.82 | 17.28 | 95.67 | -225.12 | 192.80 | 831.08 | 796.09 | 34.98 | 23.756 | | |
| 5,500.00 | 5,396.74 | 5,440.45 | 5,434.01 | 19.93 | 17.57 | 98.97 | -210.64 | 192.80 | 839.97 | 804.54 | 35.43 | 23.709 | | |
| 5,600.00 | 5,456.01 | 5,571.09 | 5,555.79 | 20.01 | 17.90 | 102.44 | -164.31 | 192.80 | 851.89 | 816.09 | 35.80 | 23.798 | | |
| 5,700.00 | 5,498.86 | 5,733.40 | 5,684.99 | 20.05 | 18.28 | 106.00 | -67.15 | 192.79 | 864.78 | 828.63 | 36.15 | 23.923 | | |
| 5,800.00 | 5,523.71 | 5,935.60 | 5,794.45 | 20.08 | 18.85 | 109.02 | 101.35 | 192.78 | 875.05 | 838.35 | 36.71 | 23.839 | | |
| 5,900.00 | 5,530.00 | 6,148.86 | 5,832.00 | 20.15 | 19.74 | 110.11 | 309.80 | 192.77 | 878.51 | 840.71 | 37.80 | 23.242 | | |
| 6,000.00 | 5,530.00 | 6,248.86 | 5,832.00 | 20.34 | 20.29 | 110.11 | 409.80 | 192.76 | 878.51 | 839.74 | 38.77 | 22.659 | | |
| 6,100.00 | 5,530.00 | 6,348.86 | 5,832.00 | 20.74 | 20.92 | 110.11 | 509.80 | 192.76 | 878.51 | 838.60 | 39.91 | 22.013 | | |
| 6,200.00 | 5,530.00 | 6,448.86 | 5,832.00 | 21.32 | 21.63 | 110.11 | 609.80 | 192.75 | 878.51 | 837.31 | 41.20 | 21.321 | | |
| 6,300.00 | 5,530.00 | 6,548.86 | 5,832.00 | 22.03 | 22.42 | 110.11 | 709.80 | 192.75 | 878.51 | 835.87 | 42.64 | 20.602 | | |
| 6,400.00 | 5,530.00 | 6,648.86 | 5,832.00 | 22.82 | 23.27 | 110.11 | 809.80 | 192.74 | 878.51 | 834.30 | 44.21 | 19.872 | | |
| 6,500.00 | 5,530.00 | 6,748.86 | 5,832.00 | 23.69 | 24.19 | 110.11 | 909.80 | 192.73 | 878.51 | 832.61 | 45.89 | 19.143 | | |
| 6,600.00 | 5,530.00 | 6,848.86 | 5,832.00 | 24.62 | 25.15 | 110.11 | 1,009.80 | 192.73 | 878.50 | 830.83 | 47.68 | 18.426 | | |
| 6,700.00 | 5,530.00 | 6,948.86 | 5,832.00 | 25.60 | 26.17 | 110.11 | 1,109.80 | 192.72 | 878.50 | 828.95 | 49.56 | 17.727 | | |
| 6,800.00 | 5,530.00 | 7,048.86 | 5,832.00 | 26.63 | 27.22 | 110.11 | 1,209.80 | 192.72 | 878.50 | 826.98 | 51.52 | 17.052 | | |
| 6,900.00 | 5,530.00 | 7,148.86 | 5,832.00 | 27.69 | 28.31 | 110.11 | 1,309.80 | 192.71 | 878.50 | 824.95 | 53.55 | 16.404 | | |
| 7,000.00 | 5,530.00 | 7,248.86 | 5,832.00 | 28.79 | 29.44 | 110.11 | 1,409.80 | 192.70 | 878.50 | 822.85 | 55.65 | 15.786 | | |
| 7,100.00 | 5,530.00 | 7,348.86 | 5,832.00 | 29.93 | 30.59 | 110.11 | 1,509.80 | 192.70 | 878.50 | 820.69 | 57.81 | 15.196 | | |
| 7,200.00 | 5,530.00 | 7,448.86 | 5,832.00 | 31.09 | 31.77 | 110.11 | 1,609.80 | 192.69 | 878.50 | 818.48 | 60.02 | 14.637 | | |
| 7,300.00 | 5,530.00 | 7,548.86 | 5,832.00 | 32.27 | 32.98 | 110.11 | 1,709.80 | 192.69 | 878.50 | 816.22 | 62.28 | 14.107 | | |
| 7,400.00 | 5,530.00 | 7,648.86 | 5,832.00 | 33.48 | 34.20 | 110.11 | 1,809.80 | 192.68 | 878.49 | 813.92 | 64.57 | 13.605 | | |
| 7,500.00 | 5,530.00 | 7,748.86 | 5,832.00 | 34.71 | 35.45 | 110.11 | 1,909.80 | 192.67 | 878.49 | 811.59 | 66.91 | 13.130 | | |
| 7,600.00 | 5,530.00 | 7,848.86 | 5,832.00 | 35.95 | 36.71 | 110.11 | 2,009.80 | 192.67 | 878.49 | 809.22 | 69.27 | 12.681 | | |
| 7,700.00 | 5,530.00 | 7,948.86 | 5,832.00 | 37.22 | 37.99 | 110.11 | 2,109.80 | 192.66 | 878.49 | 806.82 | 71.67 | 12.257 | | |
| 7,800.00 | 5,530.00 | 8,048.86 | 5,832.00 | 38.49 | 39.27 | 110.11 | 2,209.80 | 192.66 | 878.49 | 804.39 | 74.10 | 11.856 | | |
| 7,900.00 | 5,530.00 | 8,148.86 | 5,832.00 | 39.78 | 40.58 | 110.11 | 2,309.80 | 192.65 | 878.49 | 801.94 | 76.55 | 11.476 | | |
| 8,000.00 | 5,530.00 | 8,248.86 | 5,832.00 | 41.09 | 41.89 | 110.11 | 2,409.80 | 192.64 | 878.49 | 799.47 | 79.02 | 11.117 | | |
| 8,100.00 | 5,530.00 | 8,348.86 | 5,832.00 | 42.40 | 43.21 | 110.11 | 2,509.80 | 192.64 | 878.48 | 796.97 | 81.51 | 10.777 | | |
| 8,200.00 | 5,530.00 | 8,448.86 | 5,832.00 | 43.72 | 44.55 | 110.11 | 2,609.80 | 192.63 | 878.48 | 794.46 | 84.02 | 10.455 | | |
| 8,300.00 | 5,530.00 | 8,548.86 | 5,832.00 | 45.05 | 45.89 | 110.11 | 2,709.80 | 192.63 | 878.48 | 791.93 | 86.55 | 10.150 | | |
| 8,400.00 | 5,530.00 | 8,648.86 | 5,832.00 | 46.39 | 47.24 | 110.11 | 2,809.80 | 192.62 | 878.48 | 789.39 | 89.09 | 9.860 | | |
| 8,500.00 | 5,530.00 | 8,748.86 | 5,832.00 | 47.74 | 48.59 | 110.11 | 2,909.80 | 192.61 | 878.48 | 786.83 | 91.65 | 9.585 | | |
| 8,600.00 | 5,530.00 | 8,848.86 | 5,832.00 | 49.10 | 49.96 | 110.11 | 3,009.80 | 192.61 | 878.48 | 784.26 | 94.22 | 9.324 | | |
| 8,700.00 | 5,530.00 | 8,948.86 | 5,832.00 | 50.46 | 51.33 | 110.11 | 3,109.80 | 192.60 | 878.48 | 781.67 | 96.80 | 9.075 | | |
| 8,800.00 | 5,530.00 | 9,048.86 | 5,832.00 | 51.83 | 52.70 | 110.11 | 3,209.80 | 192.60 | 878.48 | 779.08 | 99.40 | 8.838 | | |
| 8,900.00 | 5,530.00 | 9,148.86 | 5,832.00 | 53.20 | 54.08 | 110.11 | 3,309.80 | 192.59 | 878.47 | 776.47 | 102.00 | 8.612 | | |
| 9,000.00 | 5,530.00 | 9,248.86 | 5,832.00 | 54.58 | 55.46 | 110.11 | 3,409.80 | 192.58 | 878.47 | 773.86 | 104.61 | 8.397 | | |
| 9,100.00 | 5,530.00 | 9,348.86 | 5,832.00 | 55.96 | 56.85 | 110.11 | 3,509.80 | 192.58 | 878.47 | 771.24 | 107.24 | 8.192 | | |
| 9,200.00 | 5,530.00 | 9,448.86 | 5,832.00 | 57.35 | 58.25 | 110.11 | 3,609.80 | 192.57 | 878.47 | 768.61 | 109.86 | 7.996 | | |
| 9,300.00 | 5,530.00 | 9,548.86 | 5,832.00 | 58.74 | 59.64 | 110.11 | 3,709.80 | 192.57 | 878.47 | 765.97 | 112.50 | 7.808 | | |
| 9,400.00 | 5,530.00 | 9,648.86 | 5,832.00 | 60.13 | 61.04 | 110.11 | 3,809.80 | 192.56 | 878.47 | 763.32 | 115.15 | 7.629 | | |
| 9,500.00 | 5,530.00 | 9,748.86 | 5,832.00 | 61.53 | 62.45 | 110.11 | 3,909.80 | 192.55 | 878.47 | 760.67 | 117.80 | 7.457 | | |
| 9,600.00 | 5,530.00 | 9,848.86 | 5,832.00 | 62.93 | 63.85 | 110.11 | 4,009.80 | 192.55 | 878.46 | 758.01 | 120.45 | 7.293 | | |
| 9,700.00 | 5,530.00 | 9,948.86 | 5,832.00 | 64.34 | 65.26 | 110.11 | 4,109.80 | 192.54 | 878.46 | 755.35 | 123.12 | 7.135 | | |
| 9,800.00 | 5,530.00 | 10,048.86 | 5,832.00 | 65.75 | 66.67 | 110.11 | 4,209.80 | 192.54 | 878.46 | 752.68 | 125.78 | 6.984 | | |
| 9,900.00 | 5,530.00 | 10,148.86 | 5,832.00 | 67.16 | 68.09 | 110.11 | 4,309.80 | 192.53 | 878.46 | 750.00 | 128.46 | 6.839 | | |
| 10,000.00 | 5,530.00 | 10,248.86 | 5,832.00 | 68.57 | 69.50 | 110.11 | 4,409.80 | 192.52 | 878.46 | 747.32 | 131.14 | 6.699 | | |
| 10,100.00 | 5,530.00 | 10,348.86 | 5,832.00 | 69.99 | 70.92 | 110.11 | 4,509.80 | 192.52 | 878.46 | 744.64 | 133.82 | 6.565 | | |
| 10,200.00 | 5,530.00 | 10,448.86 | 5,832.00 | 71.40 | 72.35 | 110.11 | 4,609.80 | 192.51 | 878.46 | 741.95 | 136.50 | 6.435 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 10,300.00 | 5,530.00 | 10,548.86 | 5,832.00 | 72.82 | 73.77 | 110.11 | 4,709.80 | 192.51 | 878.46 | 739.26 | 139.19 | 6.311 | | |
| 10,400.00 | 5,530.00 | 10,648.86 | 5,832.00 | 74.25 | 75.19 | 110.11 | 4,809.80 | 192.50 | 878.45 | 736.57 | 141.89 | 6.191 | | |
| 10,500.00 | 5,530.00 | 10,748.86 | 5,832.00 | 75.67 | 76.62 | 110.11 | 4,909.80 | 192.49 | 878.45 | 733.87 | 144.59 | 6.076 | | |
| 10,600.00 | 5,530.00 | 10,848.86 | 5,832.00 | 77.09 | 78.05 | 110.11 | 5,009.80 | 192.49 | 878.45 | 731.16 | 147.29 | 5.964 | | |
| 10,700.00 | 5,530.00 | 10,948.86 | 5,832.00 | 78.52 | 79.48 | 110.11 | 5,109.80 | 192.48 | 878.45 | 728.46 | 149.99 | 5.857 | | |
| 10,800.00 | 5,530.00 | 11,048.86 | 5,832.00 | 79.95 | 80.91 | 110.11 | 5,209.80 | 192.48 | 878.45 | 725.75 | 152.70 | 5.753 | | |
| 10,900.00 | 5,530.00 | 11,148.86 | 5,832.00 | 81.38 | 82.34 | 110.11 | 5,309.80 | 192.47 | 878.45 | 723.04 | 155.41 | 5.653 | | |
| 11,000.00 | 5,530.00 | 11,248.86 | 5,832.00 | 82.81 | 83.78 | 110.11 | 5,409.80 | 192.46 | 878.45 | 720.33 | 158.12 | 5.556 | | |
| 11,100.00 | 5,530.00 | 11,348.86 | 5,832.00 | 84.25 | 85.21 | 110.11 | 5,509.80 | 192.46 | 878.44 | 717.61 | 160.83 | 5.462 | | |
| 11,200.00 | 5,530.00 | 11,448.86 | 5,832.00 | 85.68 | 86.65 | 110.11 | 5,609.80 | 192.45 | 878.44 | 714.89 | 163.55 | 5.371 | | |
| 11,300.00 | 5,530.00 | 11,548.86 | 5,832.00 | 87.12 | 88.09 | 110.11 | 5,709.80 | 192.45 | 878.44 | 712.17 | 166.27 | 5.283 | | |
| 11,400.00 | 5,530.00 | 11,648.86 | 5,832.00 | 88.55 | 89.53 | 110.11 | 5,809.80 | 192.44 | 878.44 | 709.45 | 168.99 | 5.198 | | |
| 11,500.00 | 5,530.00 | 11,748.86 | 5,832.00 | 89.99 | 90.97 | 110.11 | 5,909.80 | 192.43 | 878.44 | 706.72 | 171.72 | 5.116 | | |
| 11,600.00 | 5,530.00 | 11,848.86 | 5,832.00 | 91.43 | 92.41 | 110.11 | 6,009.80 | 192.43 | 878.44 | 704.00 | 174.44 | 5.036 | | |
| 11,700.00 | 5,530.00 | 11,948.86 | 5,832.00 | 92.87 | 93.85 | 110.11 | 6,109.80 | 192.42 | 878.44 | 701.27 | 177.17 | 4.958 | | |
| 11,800.00 | 5,530.00 | 12,048.86 | 5,832.00 | 94.31 | 95.29 | 110.11 | 6,209.80 | 192.42 | 878.44 | 698.54 | 179.90 | 4.883 | | |
| 11,900.00 | 5,530.00 | 12,148.86 | 5,832.00 | 95.75 | 96.74 | 110.11 | 6,309.80 | 192.41 | 878.43 | 695.80 | 182.63 | 4.810 | | |
| 12,000.00 | 5,530.00 | 12,248.86 | 5,832.00 | 97.20 | 98.18 | 110.11 | 6,409.80 | 192.40 | 878.43 | 693.07 | 185.36 | 4.739 | | |
| 12,100.00 | 5,530.00 | 12,348.86 | 5,832.00 | 98.64 | 99.63 | 110.11 | 6,509.80 | 192.40 | 878.43 | 690.33 | 188.10 | 4.670 | | |
| 12,200.00 | 5,530.00 | 12,448.86 | 5,832.00 | 100.08 | 101.07 | 110.11 | 6,609.80 | 192.39 | 878.43 | 687.60 | 190.83 | 4.603 | | |
| 12,300.00 | 5,530.00 | 12,548.86 | 5,832.00 | 101.53 | 102.52 | 110.11 | 6,709.80 | 192.39 | 878.43 | 684.86 | 193.57 | 4.538 | | |
| 12,400.00 | 5,530.00 | 12,648.86 | 5,832.00 | 102.97 | 103.97 | 110.11 | 6,809.80 | 192.38 | 878.43 | 682.12 | 196.31 | 4.475 | | |
| 12,500.00 | 5,530.00 | 12,748.86 | 5,832.00 | 104.42 | 105.42 | 110.11 | 6,909.80 | 192.37 | 878.43 | 679.38 | 199.05 | 4.413 | | |
| 12,600.00 | 5,530.00 | 12,848.86 | 5,832.00 | 105.87 | 106.87 | 110.11 | 7,009.80 | 192.37 | 878.42 | 676.63 | 201.79 | 4.353 | | |
| 12,700.00 | 5,530.00 | 12,948.86 | 5,832.00 | 107.32 | 108.32 | 110.11 | 7,109.80 | 192.36 | 878.42 | 673.89 | 204.53 | 4.295 | | |
| 12,800.00 | 5,530.00 | 13,048.86 | 5,832.00 | 108.77 | 109.77 | 110.11 | 7,209.80 | 192.36 | 878.42 | 671.14 | 207.28 | 4.238 | | |
| 12,900.00 | 5,530.00 | 13,148.86 | 5,832.00 | 110.21 | 111.22 | 110.11 | 7,309.80 | 192.35 | 878.42 | 668.40 | 210.02 | 4.183 | | |
| 13,000.00 | 5,530.00 | 13,248.86 | 5,832.00 | 111.66 | 112.67 | 110.11 | 7,409.80 | 192.34 | 878.42 | 665.65 | 212.77 | 4.129 | | |
| 13,100.00 | 5,530.00 | 13,348.86 | 5,832.00 | 113.11 | 114.12 | 110.11 | 7,509.80 | 192.34 | 878.42 | 662.90 | 215.52 | 4.076 | | |
| 13,200.00 | 5,530.00 | 13,448.86 | 5,832.00 | 114.57 | 115.57 | 110.11 | 7,609.80 | 192.33 | 878.42 | 660.15 | 218.26 | 4.025 | | |
| 13,300.00 | 5,530.00 | 13,548.86 | 5,832.00 | 116.02 | 117.02 | 110.11 | 7,709.80 | 192.33 | 878.42 | 657.40 | 221.01 | 3.975 | | |
| 13,400.00 | 5,530.00 | 13,648.86 | 5,832.00 | 117.47 | 118.48 | 110.11 | 7,809.80 | 192.32 | 878.41 | 654.65 | 223.76 | 3.926 | | |
| 13,500.00 | 5,530.00 | 13,748.86 | 5,832.00 | 118.92 | 119.93 | 110.11 | 7,909.80 | 192.31 | 878.41 | 651.90 | 226.51 | 3.878 | | |
| 13,600.00 | 5,530.00 | 13,848.86 | 5,832.00 | 120.37 | 121.39 | 110.11 | 8,009.80 | 192.31 | 878.41 | 649.15 | 229.26 | 3.831 | | |
| 13,700.00 | 5,530.00 | 13,948.86 | 5,832.00 | 121.83 | 122.84 | 110.11 | 8,109.80 | 192.30 | 878.41 | 646.39 | 232.02 | 3.786 | | |
| 13,800.00 | 5,530.00 | 14,048.86 | 5,832.00 | 123.28 | 124.29 | 110.11 | 8,209.80 | 192.30 | 878.41 | 643.64 | 234.77 | 3.742 | | |
| 13,900.00 | 5,530.00 | 14,148.86 | 5,832.00 | 124.74 | 125.75 | 110.11 | 8,309.80 | 192.29 | 878.41 | 640.88 | 237.52 | 3.698 | | |
| 14,000.00 | 5,530.00 | 14,248.86 | 5,832.00 | 126.19 | 127.21 | 110.11 | 8,409.80 | 192.28 | 878.41 | 638.13 | 240.28 | 3.656 | | |
| 14,100.00 | 5,530.00 | 14,348.86 | 5,832.00 | 127.65 | 128.66 | 110.11 | 8,509.80 | 192.28 | 878.40 | 635.37 | 243.03 | 3.614 | | |
| 14,200.00 | 5,530.00 | 14,448.86 | 5,832.00 | 129.10 | 130.12 | 110.11 | 8,609.80 | 192.27 | 878.40 | 632.61 | 245.79 | 3.574 | | |
| 14,300.00 | 5,530.00 | 14,548.86 | 5,832.00 | 130.56 | 131.57 | 110.11 | 8,709.80 | 192.27 | 878.40 | 629.86 | 248.55 | 3.534 | | |
| 14,400.00 | 5,530.00 | 14,648.86 | 5,832.00 | 132.01 | 133.03 | 110.11 | 8,809.80 | 192.26 | 878.40 | 627.10 | 251.30 | 3.495 | | |
| 14,500.00 | 5,530.00 | 14,748.86 | 5,832.00 | 133.47 | 134.49 | 110.11 | 8,909.80 | 192.25 | 878.40 | 624.34 | 254.06 | 3.457 | | |
| 14,600.00 | 5,530.00 | 14,848.86 | 5,832.00 | 134.93 | 135.95 | 110.11 | 9,009.80 | 192.25 | 878.40 | 621.58 | 256.82 | 3.420 | | |
| 14,700.00 | 5,530.00 | 14,948.86 | 5,832.00 | 136.38 | 137.41 | 110.11 | 9,109.80 | 192.24 | 878.40 | 618.82 | 259.58 | 3.384 | | |
| 14,800.00 | 5,530.00 | 15,048.86 | 5,832.00 | 137.84 | 138.86 | 110.11 | 9,209.80 | 192.24 | 878.40 | 616.06 | 262.34 | 3.348 | | |
| 14,900.00 | 5,530.00 | 15,148.86 | 5,832.00 | 139.30 | 140.32 | 110.11 | 9,309.80 | 192.23 | 878.39 | 613.29 | 265.10 | 3.313 | | |
| 15,000.00 | 5,530.00 | 15,248.86 | 5,832.00 | 140.76 | 141.78 | 110.11 | 9,409.80 | 192.22 | 878.39 | 610.53 | 267.86 | 3.279 | | |
| 15,100.00 | 5,530.00 | 15,348.86 | 5,832.00 | 142.21 | 143.24 | 110.11 | 9,509.80 | 192.22 | 878.39 | 607.77 | 270.62 | 3.246 | | |
| 15,200.00 | 5,530.00 | 15,448.86 | 5,832.00 | 143.67 | 144.70 | 110.11 | 9,609.80 | 192.21 | 878.39 | 605.01 | 273.38 | 3.213 | | |
| 15,300.00 | 5,530.00 | 15,548.86 | 5,832.00 | 145.13 | 146.16 | 110.11 | 9,709.80 | 192.20 | 878.39 | 602.24 | 276.15 | 3.181 | | |
| 15,400.00 | 5,530.00 | 15,648.86 | 5,832.00 | 146.59 | 147.62 | 110.11 | 9,809.80 | 192.20 | 878.39 | 599.48 | 278.91 | 3.149 | | |

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



WOG

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | Hz | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

| Offset Design Sec 25-T10N-R58W - Razor #25P-2448 - Hz - APD | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|-----------|
| Survey Program: 0-MWD+IFR1+MS+sag | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | |
| 15,500.00 | 5,530.00 | 15,748.86 | 5,832.00 | 148.05 | 149.08 | 110.11 | 9,909.80 | 192.19 | 878.39 | 596.71 | 281.67 | 3.118 | |
| 15,600.00 | 5,530.00 | 15,848.86 | 5,832.00 | 149.51 | 150.54 | 110.11 | 10,009.80 | 192.19 | 878.39 | 593.95 | 284.44 | 3.088 | |
| 15,700.00 | 5,530.00 | 15,948.86 | 5,832.00 | 150.97 | 152.00 | 110.11 | 10,109.80 | 192.18 | 878.38 | 591.18 | 287.20 | 3.058 | |
| 15,722.97 | 5,530.00 | 15,971.83 | 5,832.00 | 151.30 | 152.33 | 110.11 | 10,132.77 | 192.18 | 878.38 | 590.55 | 287.84 | 3.052 SF | |



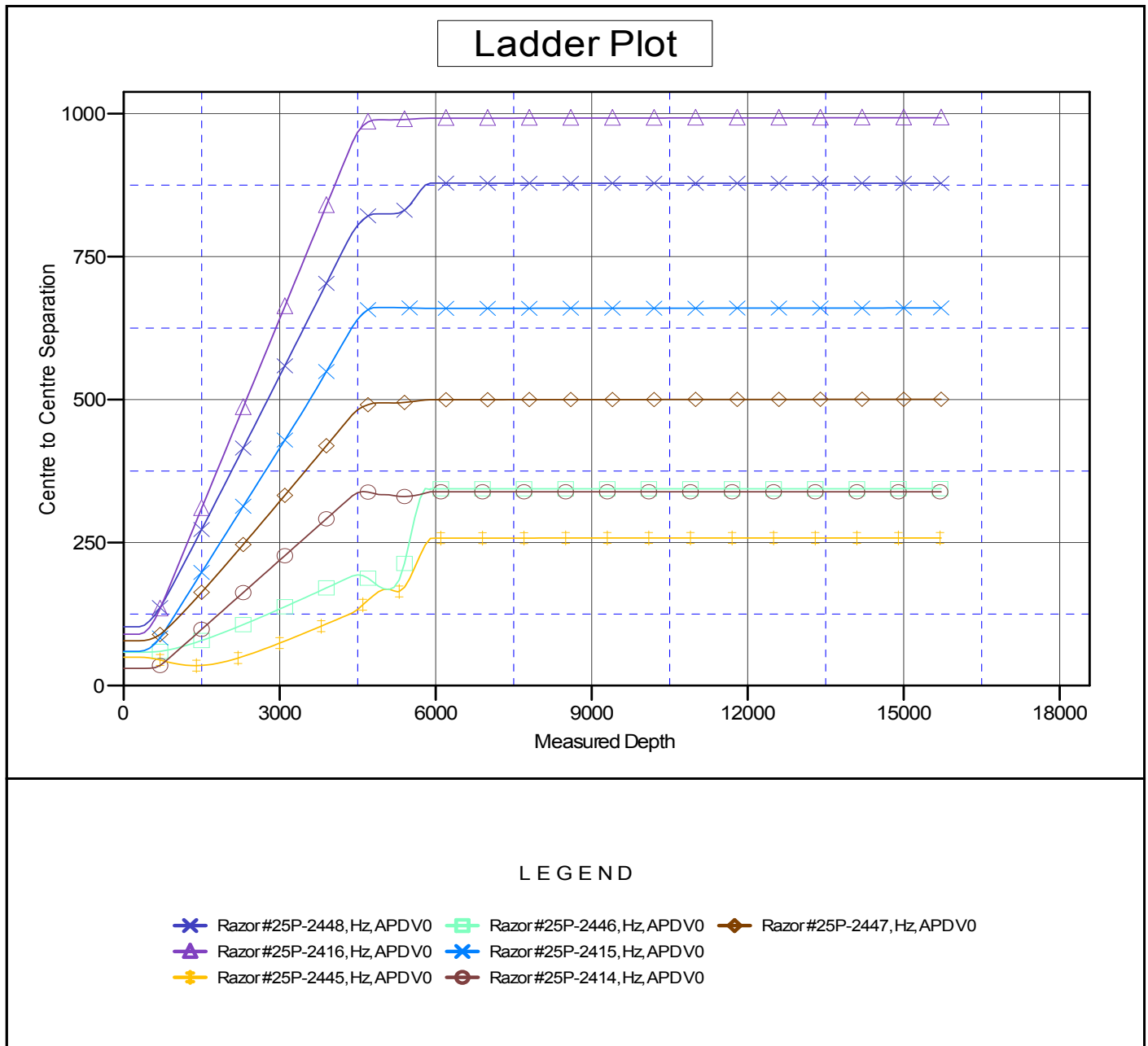
WOG

Anticollision Report

| | | | |
|--------------------|-------------------------|------------------------------|----------------------|
| Company: | Whiting Petroleum Corp. | Local Co-ordinate Reference: | Well Razor #25P-2413 |
| Project: | Weld County, CO | TVD Reference: | KBE @ 4762.00usft |
| Reference Site: | Sec 25-T10N-R58W | MD Reference: | KBE @ 4762.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | Razor #25P-2413 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 3.00 sigma |
| Reference Wellbore | HZ | Database: | LandmarkEDM |
| Reference Design: | APD | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to KBE @ 4762.00usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Razor #25P-2413
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 1.09°





WOG

Anticollision Report

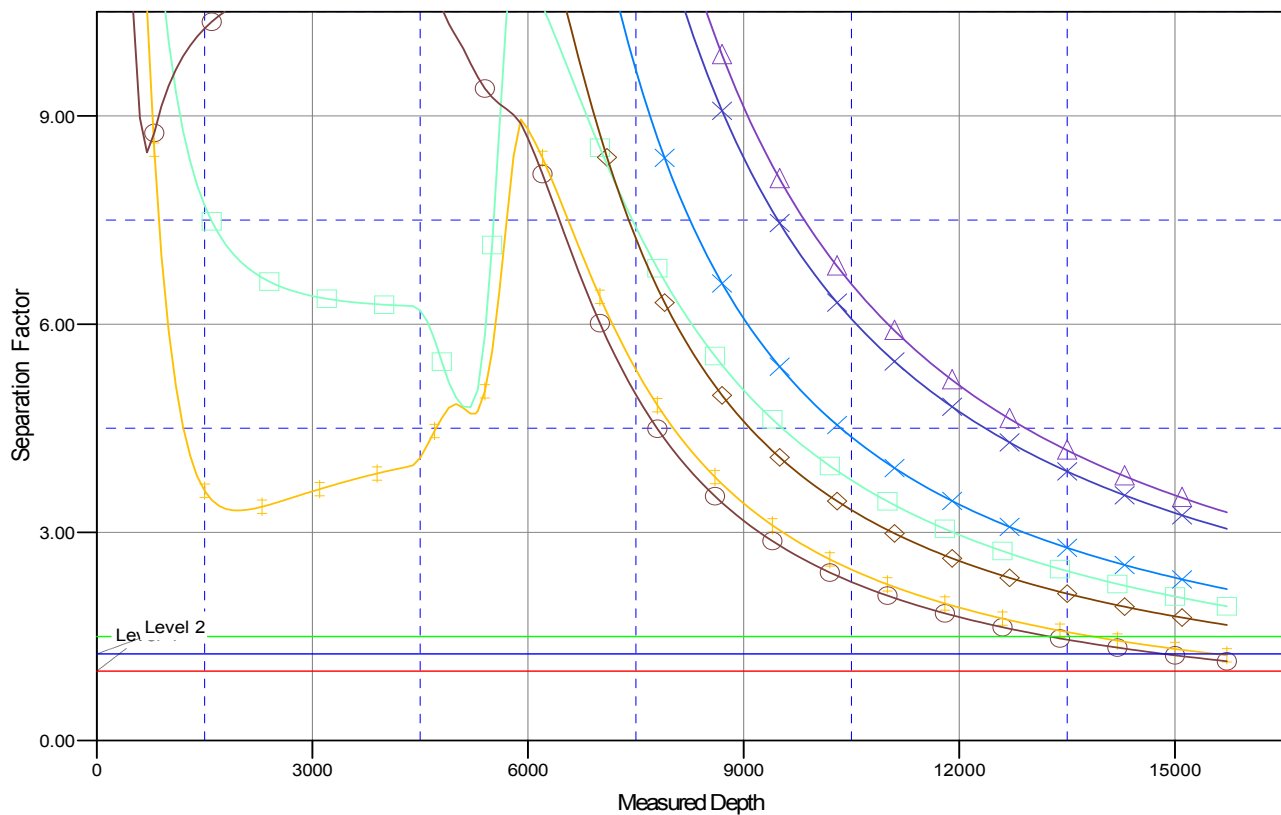
Company: Whiting Petroleum Corp.
Project: Weld County, CO
Reference Site: Sec 25-T10N-R58W
Site Error: 0.00 usft
Reference Well: Razor #25P-2413
Well Error: 0.00 usft
Reference Wellbore: Hz
Reference Design: APD

Local Co-ordinate Reference: Well Razor #25P-2413
TVD Reference: KBE @ 4762.00usft
MD Reference: KBE @ 4762.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 3.00 sigma
Database: LandmarkEDM
Offset TVD Reference: Offset Datum

Reference Depths are relative to KBE @ 4762.00usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Razor #25P-2413
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 1.09°

Separation Factor Plot



LEGEND

- Razor#25P-2448,HZ,APDV0
- Razor#25P-2446,HZ,APDV0
- Razor#25P-2447,HZ,APDV0
- Razor#25P-2416,HZ,APDV0
- Razor#25P-2415,HZ,APDV0
- Razor#25P-2445,HZ,APDV0
- Razor#25P-2414,HZ,APDV0